



Designer User's Guide

Designer⁵

Designer⁵

Scala

User Guide
DESIGNER 5

Software Version - Release 4

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|||| 1 Preface & Software Installation

Welcome

Whether you are a beginner or an expert, Scala[®] Designer can turn you into a multimedia producer. With Designer you can create polished, professional on-screen productions that combine text, sound, graphics and animation for maximum impact. And only Designer, when used with its powerful companion application Content Manager⁵, lets you easily publish and distribute your productions to networks of Scala Players over the Internet, to deliver true worldwide multimedia.

Designer's many publication and playback options make the environment a powerful distribution medium. And when combined with Scala's high-performance Player software in a Network, Designer brings broadcast multimedia to the world.

Designer is easy

Most multimedia programs give you hurdles to jump. Designer has a better idea: stay out of your way! It offers a refreshingly intuitive way for you to lay out a production, experiment with effects and transitions, and preview the results.

Designer panels and menus are carefully designed to guide you through the process of creating a production. Options and functions are clear, specific and straightforward.

Designer's extraordinary "hands-on" feel makes it easy to explore the depths of its potential, and fine-tune your production quickly and confidently.

Designer means performance

If you are often frustrated because your PC could once provide only crude, jerky approximations of the animated effects you had in mind, Designer will change your mind about multimedia authoring. It's fast and smooth.

Scala's software engineers have been working with high-performance real-time graphics and sound on personal computers longer than anyone. Designer and the Scala's highly tuned playback technology are the result of this accumulated expertise. With its own multimedia-optimized operating system, Scala software has been crafted to bring out the maximum performance from any hardware. The speed and crisp response of Scala software benefit both author and audience.

Designer can work for you

Designer offers you a variety of presentation formats so you can use whatever fits your purpose. For example, use Designer:

- to design and publish content for digital signage networks
- to enliven community bulletin board channels for local cable TV systems—make advertising more compelling, increase sales and grow your business
- to inform a hotel's guests of the many services it makes available
- to distribute news and publicize products and events on your corporate information channel

Because Designer productions can be transmitted and updated through the Internet, up-to-the-minute information can reach all your sites almost instantly. The time and expense of sending people or bulky media to each site when the displays need to change is a thing of the past. And your

training and production costs for creating productions and managing an Designer installation are low, thanks to Scala's easy-to-use graphical user interface.

Whatever the type of production, you can use computer monitors, plasma panels, televisions or video projectors to show your finished product.

1.1 Designer resources on the web

Scala's Web site, <http://www.scala.com>, is an important resource for Designer customers, dealers, and partners. For answers to questions you can't find in the User's Guides, as well as downloads and additional information relevant to Designer users, the Scala Web site should be your first stop.

Pages you will find at the Scala Web site provide:

1. General product information, press releases, contact data
2. Technical support:
 - Troubleshooting FAQs
 - Discussion groups
 - Recommended hardware configuration

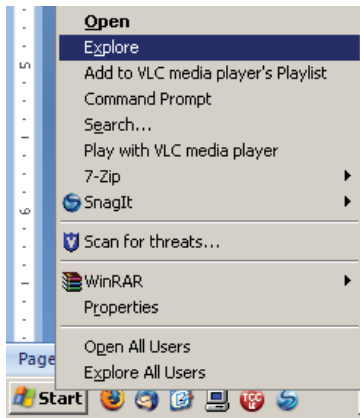
3. Downloads:
 - Software updates and demos
 - Bonus art packs
 - Sample scripts
 - Additional documentation
4. Partner resources:
 - Sales and marketing information
 - Software Updates
 - Technical support and training
5. Customer case studies
6. Third-party support links

1.2 Installing Designer

Installing Scala Designer is a relatively simple process when followed closely. The install wizard will allow the user to quickly install the product.

Insert the Designer DVD into your computer. The installer should run automatically.

If the installer does not automatically begin, another option is to right click on Start button and select Explore.



Identify the drive that contains the DVD and select it.

The list of items on the DVD includes everything you need to install Designer.

Name	Size	Type
Files Currently on the CD		
3rdParty		File Folder
AutoPlay		File Folder
Clipart		File Folder
AUTORUN.INF	1 KB	Setup Information
copyright.txt	5 KB	Text Document
InfoChannelDesigner5QuickSt...	155 KB	Adobe Acrobat Doc
InfoChannelDesigner5UsersG...	45,687 KB	Adobe Acrobat Doc
setup.exe	39,251 KB	Application

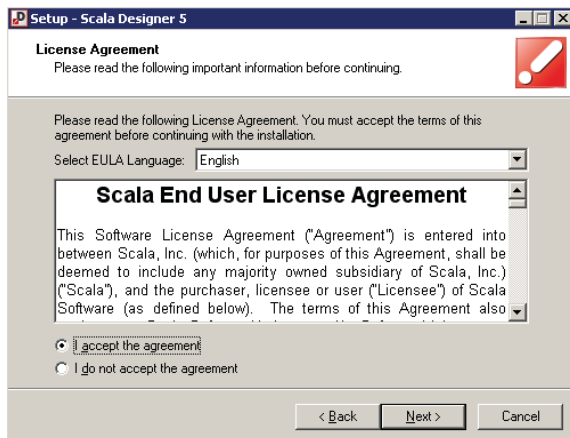
Select the setup.exe by double clicking on the icon.

The dialog box will appear allowing you to begin the installation from the DVD.



The Welcome dialog box offers the option of opening the Designer Quick Start Guide. Click on the Quick Start Guide button and the guide will open in .pdf format.

Once you are ready to install Scala Player, click Next to continue.

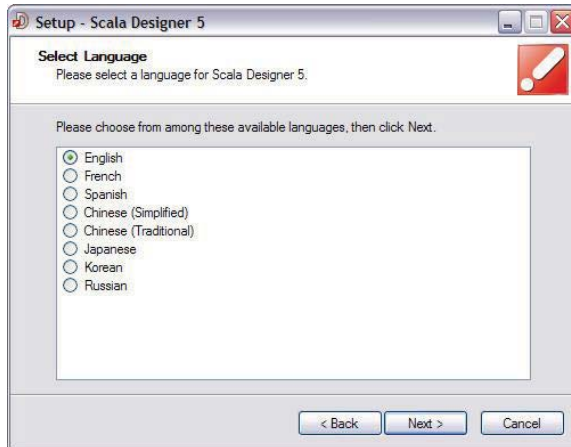


You must select the "I accept the agreement" button in the Scala End User License Agreement box. The full EULA can be read here or is also available at the end of this document.

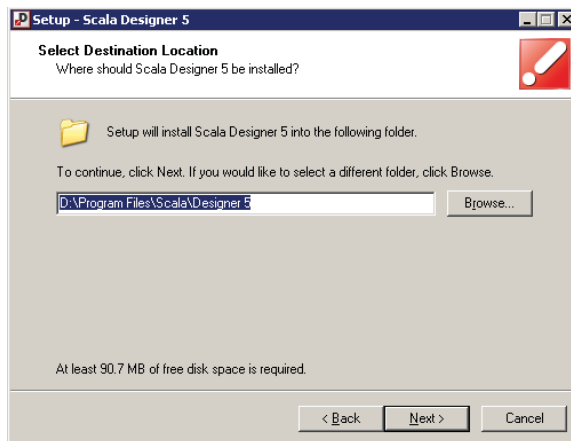
Designer⁵

Select Next to continue.

Choose the appropriate language.

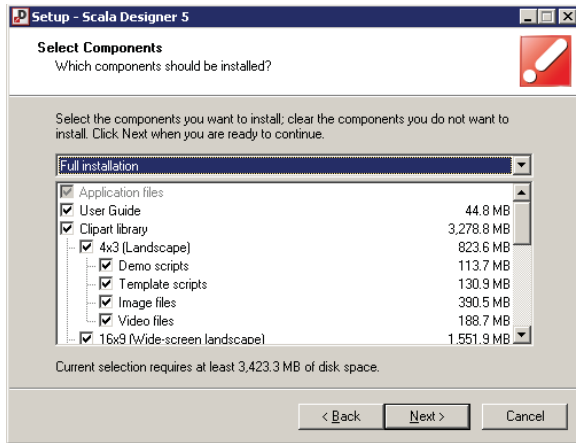


Select Next to continue.



The Designer system will default to install under the Program Files folder. If you want to change that location select the Browse button and select another location.

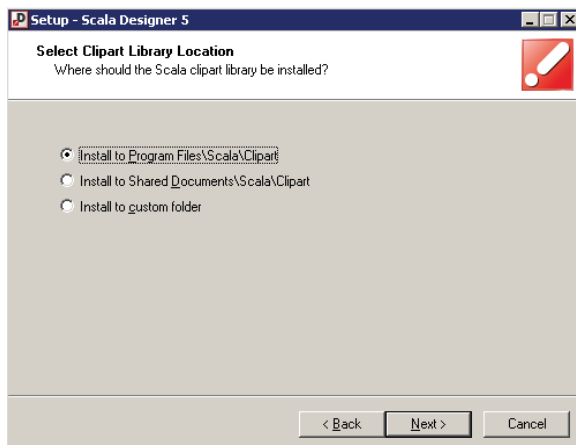
Select Next to continue.



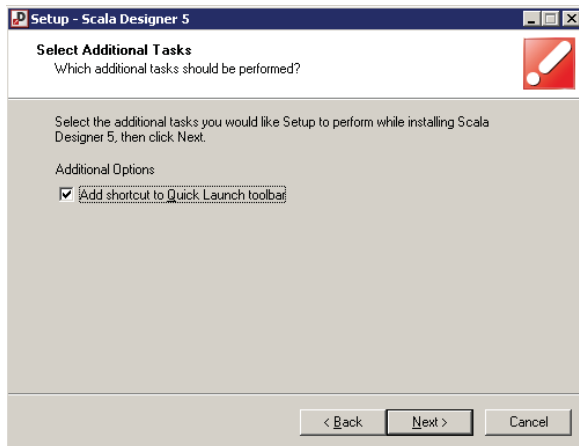
The “Select Components” dialog box allows you to select the specific components of Designer that you want to install.

This list includes the User Guide, Clipart library, and additional typefaces.

Click Next to continue.



The system default is to install the Clipart to Program Files. Choose the appropriate location and select Next to continue.

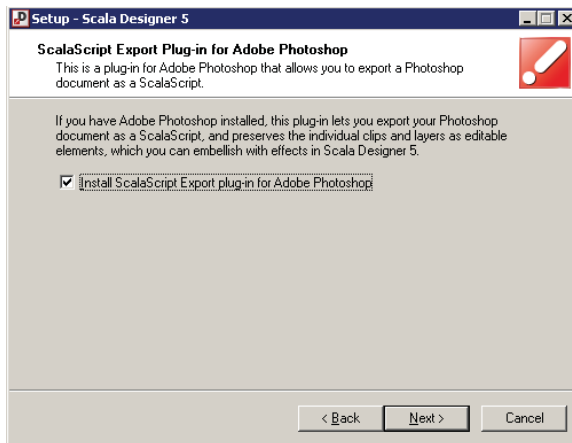


In “additional tasks”, you can choose to “Add shortcut to Quick Launch toolbar”. Select Next to continue.

A few other options are available for installation.

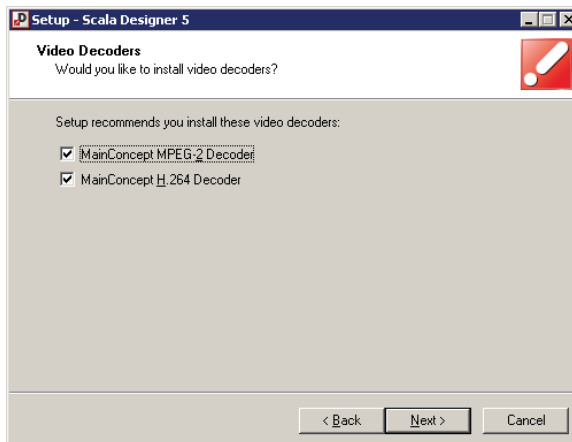
The installer can install the ScalaScript Export Plug-in available for Adobe Photoshop.

Scala Designer now comes bundled with the ScalaScript Export plug-in for Adobe Photoshop. If you have Adobe Photoshop installed, this plug-in lets you export your Photoshop document as a ScalaScript, and preserves the individual clips and layers as editable elements, which you can embellish with effects in Scala Designer.



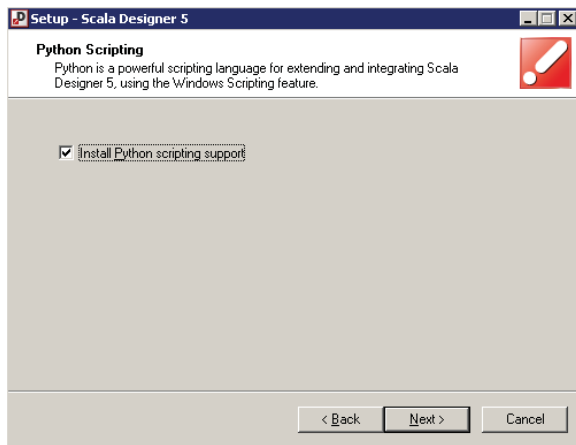
To install this, select Next to continue.

Video decoders are also needed for Designer. Setup recommends installing MainConcept's MPEG-2 and H.264 decoders.



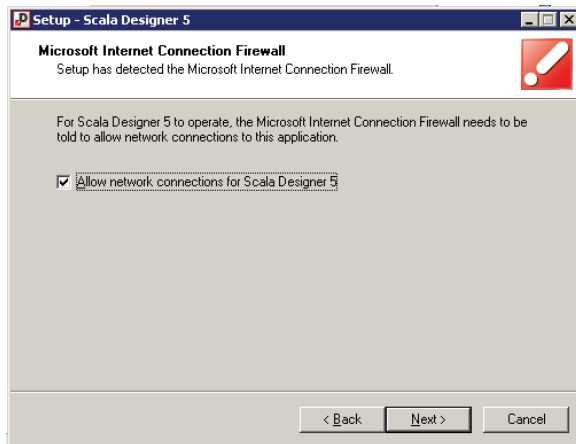
Select Next to continue.

Designer provides installation of Python scripting support.



Select Next to continue.

The Microsoft Internet Connection Firewall must allow Designer to access network connections.



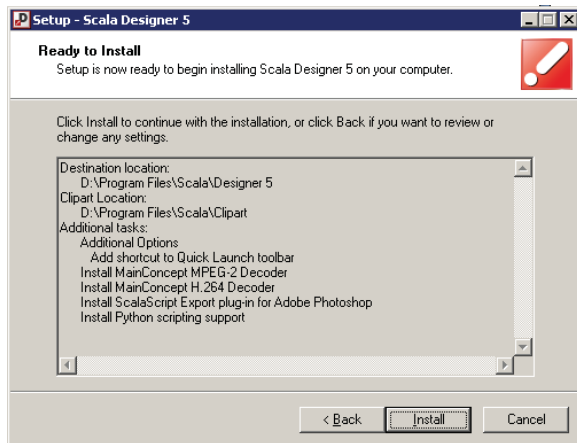
Select Next to continue.

Note: *Scala Player installation also requires Windows Media Player 9 or newer to be installed. You may already*

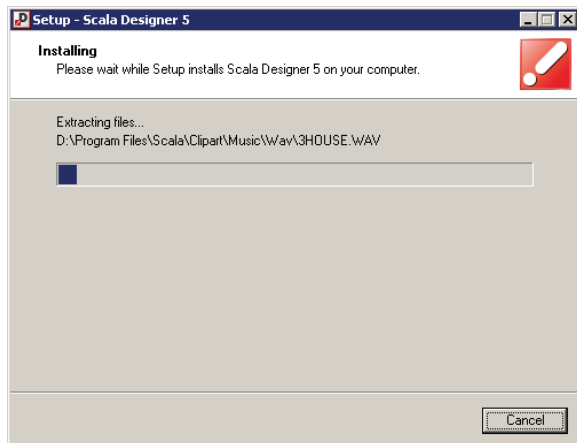
have a version installed or you can go to the following site to download Windows Media Player 11.

<http://www.microsoft.com/windows/windowsmedia/player/download/download.aspx>

You are now ready to install Designer.

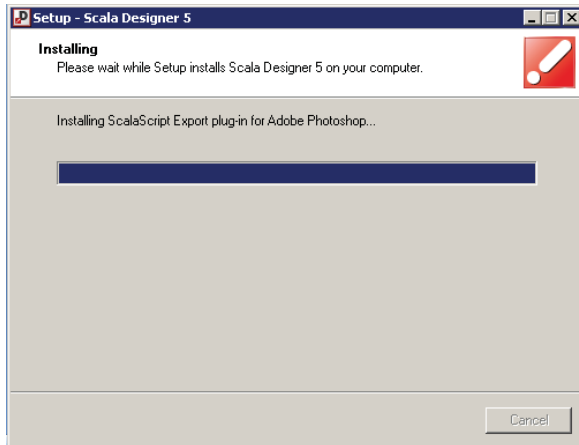


Select Install to continue.



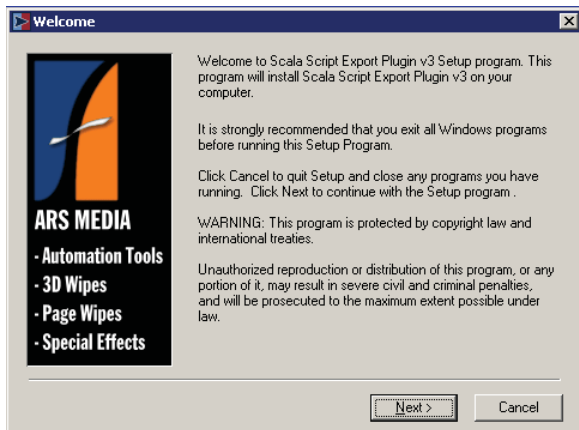
Designer⁵

Designer will now be installed on your system. The file extraction process can be monitored with the progress bar. This may take several minutes.



Once the install is complete, the progress bar will be at the 100% line and the Cancel option will no longer be available.

The ScalaScript Export Plug-in v3 setup will then start automatically.



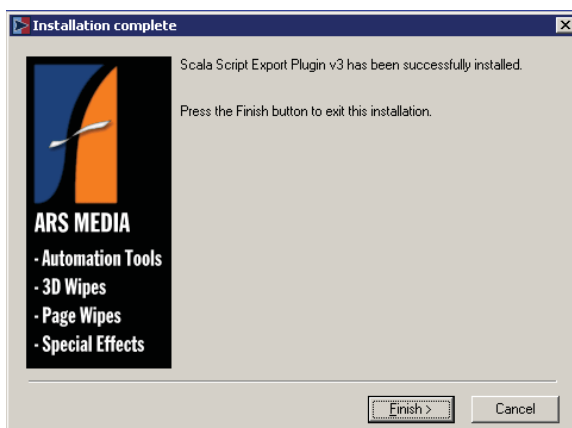
Select Next to start the installation.

The EULA is available here to review.



Choose Agree to continue.

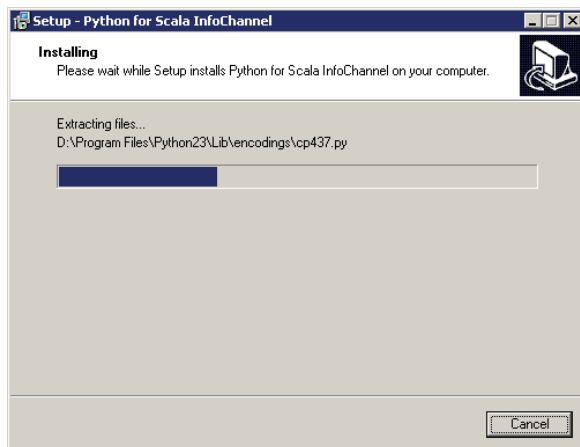
If Adobe Photoshop is on the local computer, the ScalaScript Exporter Photoshop Plug-in will install in the correct folder. If you want to select a different location, choose Browse, select the location and select Next to continue.



Select Finish to continue.

The Python scripting support setup will then start automatically.

The Python scripting support will default to install under the Program Files folder. If you want to change that location select the Browse button and select another location. Click Next to continue.



When the installer has finished, it will automatically close.

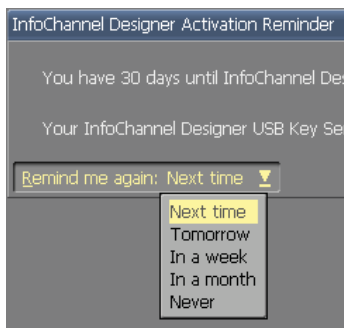


Once the file extraction is complete, you will have the option of viewing the release notes and starting Designer.

Your Designer software comes with a USB key that you must insert into a USB slot on your computer in order to use Scala Designer⁵. Do this first **BEFORE** clicking Finish.



You must activate Designer with a license file. You can install the license file now or choose to defer installing the file for up to 30 days.



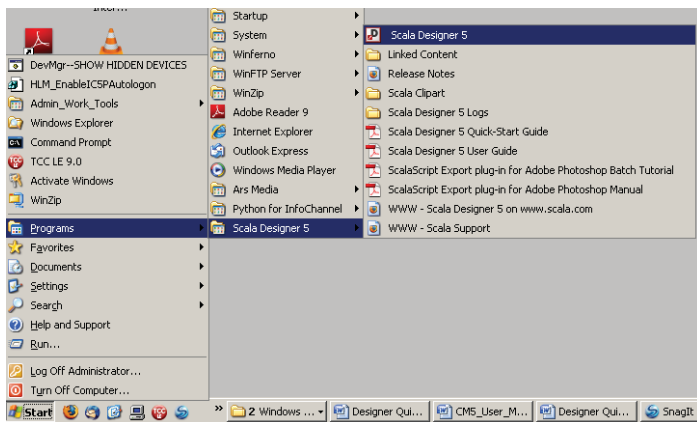
If you select “Get New License File Online” – you will have the option to save a copy of your License File in the My Document folder.



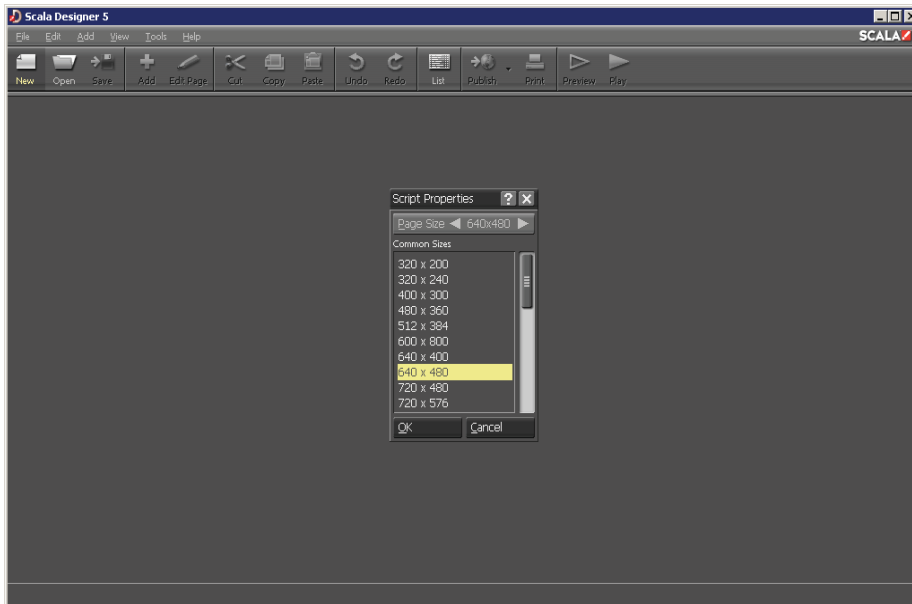
You can also select the “I have It” if you have a copy of your license file or defer by selecting “Get it Later”.

1.3 Logging On To Designer

To access Designer, find the Scala Designer 5 program in the list of Programs and select Scala Designer 5.



This will bring the user to the primary screen in Designer.



With Designer you can create polished, professional on-screen productions that combine text, sound, graphics and animation for maximum impact. Designer lets you easily publish and distribute your productions to networks of Players over the Internet, to deliver true worldwide multimedia.

You can view the Quick Start Guide by clicking the button on the dialog box that opens.

|||| 2 Designer⁵ Overview

Chapter Overview

Scala Designer⁵ is a truly unique and diverse application which allows you to create stunning and imaginative multimedia productions - utilizing motion, color, graphics, text animation, sound design and special effects - while creatively highlighting the message you want to emphasize.

Although it can be used with still images, the real purpose of Designer is to create a rich environment of sounds and images that flow like a professional video effectively responding to outside input.

Designer facilitates virtually any type of production, regardless of your background or level of experience. Whether you are an independent, one-person multimedia producer and need these facilities only occasionally, or have a department of media professionals with a daily roster of projects, you can use Designer's capabilities to make your work more lively and informative.

For tasks that range from designing product advertisements for digital signage that run continuously in storefronts, to creating engaging business presentations for corporate communications; from creating informational programming for hotels, universities, airports, or offices, to running a community information channel for a cable television supplier, Designer's creative palette of designer tools is ideal!

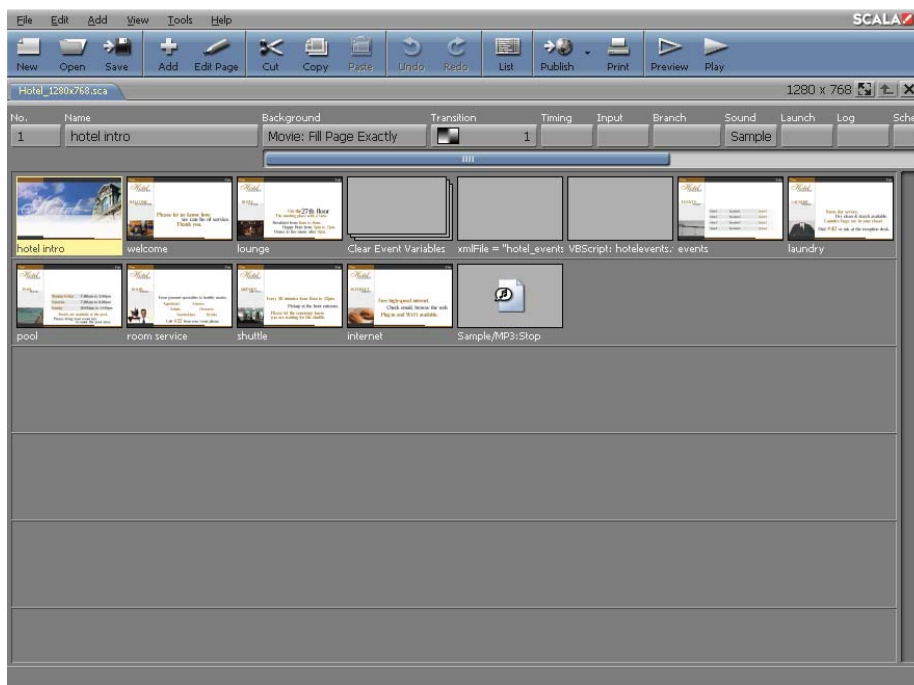
2.1 Getting Started

This chapter will introduce you to the Scala Designer User Interface (UI), views, menus, panels, buttons and a variety of basic terms, features and functions you will need to begin your exciting journey with this program!

The section that appears later in this chapter, "Content ready to use with

Designer⁵

Designer⁵, will explain how to start the demonstration productions designed by Scala so you can immediately see and hear some examples of the powerful potential of this innovative application. These demonstrations can be utilized as a resource to stimulate your imagination and offer potential ideas as you creatively plan your original productions.



Online information and quick-reference help is always available in Designer through the Toolbar. To access this feature, simply click Help > Help or press F1. You will immediately notice the pointer changes to the Help pointer, allowing you to click on any item to receive additional information. Please refer to Appendix B for further details about Designer's online help.

2.2 Glossary of Terms Introduced in this Chapter

- Script – The page-by-page definition of a presentation or project created in Scala Designer. The script specifies the actions and

properties of the image files, text, sound, video and other elements on a page. It also identifies the settings which control how the page is displayed.

- **View** – In Designer, a partial or full-screen panel containing buttons, scroll bars, text boxes and other controls that set options and perform operations to create a script.
- **Page** – The basic unit of a script. A page may be a screen page with one or more elements, such as a background, text, clip, sound, transition, etc.; it may also represent a group of pages or another script.

NOTE: In the beginning of each chapter of this manual, there is a Chapter Overview with introductory glossary of new terms. There is also be an Advanced Features section at the end of each chapter, with tips, tricks and alternative configurations, settings and procedures described in that chapter.

2.3 Starting Designer⁵

Once Designer has been properly installed on your PC running the supported Microsoft[®] Windows[®] operating system, you can start the program.

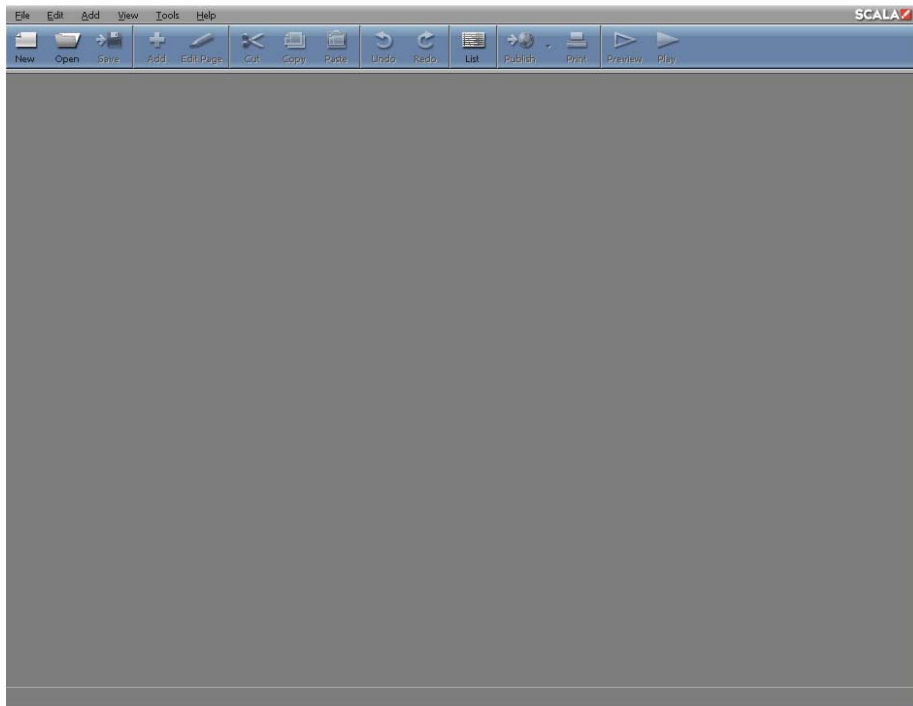
From the Windows Start menu, choose **Programs > Scala Designer 5 > Designer 5**.

While you are in the Start menu, you will notice that in addition to the program, there is a shortcut to the Linked Content folder, a shortcut to the Logs folder, and several links to Scala's Web site, for your convenience.

Designer⁵

As Designer loads, a title window will appear.

When the program opens, and before you begin to create a new production or work with one that already exists, you will see the Designer Main view. The Main view looks like this:



2.3.1 Scripts and the Main View

In Designer, your production is defined by a script. A script in Designer is a file that specifies a series of events and their timing. The events in a script are the individual image files, sound files, text lines, and other items that appear in the final production. The events in a script contain all the settings and options that describe how and when things happen in the final production.

However, you don't have to work with a Designer script the way a programmer works - through a series of text commands. You may write and edit the script entirely through the Scala graphical user interface, HumanTouch.

HumanTouch shows you the script as one or more pages of information, each of which can be created or designed graphically and arranged in any order you choose.

As you work with a production and compose the script, each page is listed separately in the Main view. A page number is assigned based on its position in the production sequence including a short title for easy identification. Thus, the Designer Main view shows you an outline of your script and an overview of its structure.

From the Main view you can navigate to other Designer views which may be necessary to create the script.

There are also many tasks you can perform directly from this view to manipulate and refine the script. These tasks, and further instructions regarding work flow, are discussed in detail in **Chapter 3: Working in the Main View**.

2.3.2 The Designer Interface

The options and commands available in any Designer panel depend on the purpose of the panel, but most Main view elements are common features in Designer.

For example, unlike other PC applications, some choices in the panel are buttons rather than text items in a list. Some buttons lead to other panels and dialog boxes. Buttons that lead to a dialog or another panel with additional choices have three dots (...) following the button name.

Other common elements (shown in the Main view on the previous page) are briefly defined below:

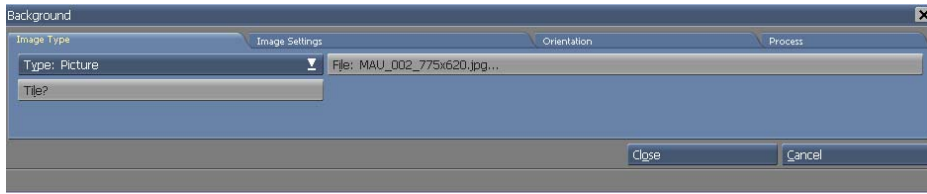
Title Bar- shows the name of the panel, script, or dialog box in which you are working. Occasionally, additional information is provided.



Toolbar – like popular Web browsers, toolbars in Designer contain icon buttons for common functions in that panel or dialog. Toolbar items can toggle special options, present drop-down lists, or navigate to another panel.



Tabbed Panels – allow you to access different sets of related controls, to prevent panels from becoming too large or crowded. Ctrl+Tab moves to the next tab. Shift+Ctrl+Tab moves to the previous tab. Click the tab header to display the panel of options for that type of operation.



Close Button – closes the active panel or script the button is associated with. In the Main view, the Close button is located in the upper right corner of the application window; choosing it quits the application. The other (smaller) Close button is associated with the script you are working with; choosing it closes the script.



Up Button – moves up one level out of an open page group.



Value Control – lets you cycle through a series of values, or change a value directly. Click the arrows to go to the previous or next value, or click in the text box between the arrows, type a value and press Enter. Some value controls have more than one value, or more than one text box between the arrows. Before using the arrows, click in the text box you want to change.



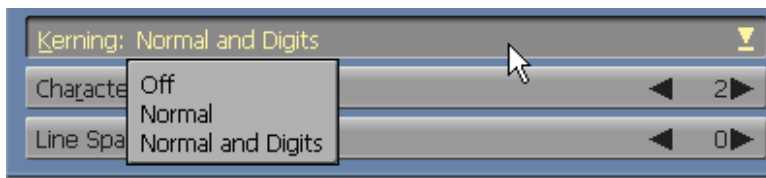
Multistyle Button – similar to a value control, this button lets you choose from a variety of several options. Simply by clicking the arrows you can navigate to the previous or following choice. You can then adjust the setting for the current option in the button to the left of the arrows.



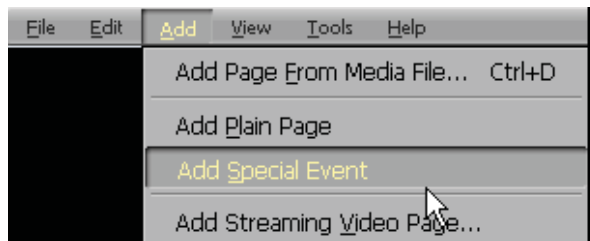


Scroll Bar – scrolls vertically through a list or horizontally across columns revealing items which cannot fit into the available screen space. The Scroll Bar will also proportionately change size to indicate the total number of visible items.

Pop-up Button (Selector) – opens a pop-up list allowing a choice from a series of option values. Additionally, the Selector Button will facilitate access to other functions and panels. If the pop-up list shows option values, the current selection is highlighted when you open the list.



To choose a value or function, click on the Selector button, then click on your desired choice. Or, simply click and hold the mouse button while moving the pointer through the list, then release the mouse button when the desired choice is highlighted.



Pull-down Menu

-opens a pull-down list of options or functions from a top menu item, allowing your choice of a particular function or navigation to another panel.

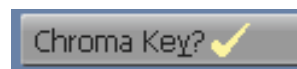


Combination Icon – lets you either choose a default action or select from a list of actions. A single click on the main part of the icon will choose the default. By clicking on the down arrow (d) part of the icon, a drop-down list of related actions will be displayed.



List Icon – lets you choose how you want to view pages in a script. Normally you would see thumbnails: miniature pictures of graphic items. When the icon is depressed, the List mode is opened, with pages listed by name.

On/Off Button – when clicked, this button will turn an option on or off. If the label for this type of button ends in a question mark (?), then a check mark appears after the label when the option is on. Some buttons of this type can be pressed in to turn their option on and released with another click to turn it off.



Close and OK Buttons – All panels and dialogs have a Close button. When the button is pressed, any changes made to the settings are saved rather than undone. The OK button, will accept any changes you make in the dialog, then the dialog will close. In a dialog, the close button is located in the upper right corner of the screen. It is essentially the same as the Cancel button.

Nudge with Arrow Keys – Ctrl+Arrow Key allows you to move/nudge elements by one pixel in whatever direction the arrow key is depressed. Shift+Ctrl+Arrow Key allows you to jump 10 pixels at a time.

2.4 Working in Designer – Some Helpful Hints

Unlike many applications on your PC, Designer has its own on-screen working environment. Although working with this program is similar to working with other PC applications, Designer's design environment makes it unique.

The following is a quick summary of some important similarities and differences to common PC terms and techniques used in Designer.

2.4.1 Mouse and keyboard

Although this guide assumes you are using a mouse, almost all Designer operations can be accomplished with the keyboard. Occasionally, using a keyboard shortcut is simply more convenient and at times may be your only option. **See Chapter 23: Keyboard and Mouse Shortcuts**, for a complete list of keyboard alternatives.

2.4.2 Mouse buttons

Designer supports any type of mouse or other pointing device that has at least two buttons. Pointing devices can include traditional mice, trackballs,

drawing tablets, joysticks, to name a few.

The main (left) mouse button is the button you will use most frequently, so an instruction such as “Click on OK” always means to use your main (left) mouse button. If you have a programmable or left-handed mouse, then you will need to know how that mouse is configured to deliver the main button command.

Designer also has certain functions, such as a Context Menu, that uses the secondary (right) mouse button.

Additional mouse buttons will be ignored. If necessary, refer to the documentation that came with your mouse and/or PC to ensure that your mouse behaves as it should when using Designer.

2.4.3 Full screen and windowed operation

Designer is designed to be used both in a windowed operation while authoring, and as a full screen previewer during playback.

In the windowed operation, you can resize the Designer window as desired, using familiar drag-and-drop techniques to add graphics and other files to a script. The flexible user interface design adapts itself to different window sizes and shapes providing maximum versatility. It is possible to size the application window so small that some controls are obscured or too small to use, but the application functions correctly regardless, and keyboard shortcuts can still be used for all controls.

When playing back in full screen mode, Designer allows you to specify screen resolution, color depth, and refresh rate for optimal multimedia performance and adaptability.

2.5 Advanced Features

New Designer Features:

Following is a list of new and features and exciting changes we've included in Designer.

Usability Improvements

- New look and feel, with selectable skins — Use *Tools > Options* then choose *Authoring* tab and the *Skin* selector pop-up button to change the look and feel of the Designer application by selecting a different skin preset.
- Pull-down menus in Main and Design screens. Pull-down menus allow easy and familiar access to Designer functions, as well as improved function organization.
- Right-click context menus on objects — This adds the ability to quickly access certain features that before would take more time to navigate to.
- Windows file dialog — A standard Windows system file dialog is used throughout Designer 5. This replaces the old file dialog box in InfoChannel Designer 3.
- "Tabbed document view" for multiple scripts — Many standard Windows applications use a tabbed document interface. Designer 5 now has this capability.
- Save from within Page view — It's no longer required that the user exit back to the main view to save their changes. Changes can now be saved directly from the Page view.
- Snap to guides — In InfoChannel Designer 3 it was possible to create guides, but there was not a way to "snap" an element to a guide. This is now possible in Designer 5.
- Semi-transparent selection marquee — The selection marquee has now been made semi-transparent in order to

- improve the visibility of other elements.
- Selection boxes hidden during move/resize — The selection rectangles are now hidden when resizing an element or moving an element.
- Simpler Export function — The ability to export anything from Designer 5 has been greatly simplified. From the Page view, choose *File > Export*.
- Enhanced *View > Hide* element controls — Various view/hide elements have now been joined in a new “view” pull-down menu.
- *Collect Files* feature to simplify gathering up a script and its media and placing it together in one location. This replaces InfoChannel Designer 3’s *Save Advanced* and *Publish to File* functions.
- *Publish to Content Manager* — Support for publishing directly to the new Content Manager 5.
- Publish via HTTP/HTTPS — It’s now possible to publish over HTTP/HTTPS, in addition to FTP and UNC. In InfoChannel Designer 3, FTP and UNC were the only options.
- Publishing Targets — When publishing to Network, a script now remembers where it was published, for simplified re-publishing.

2.6 Functional Improvements

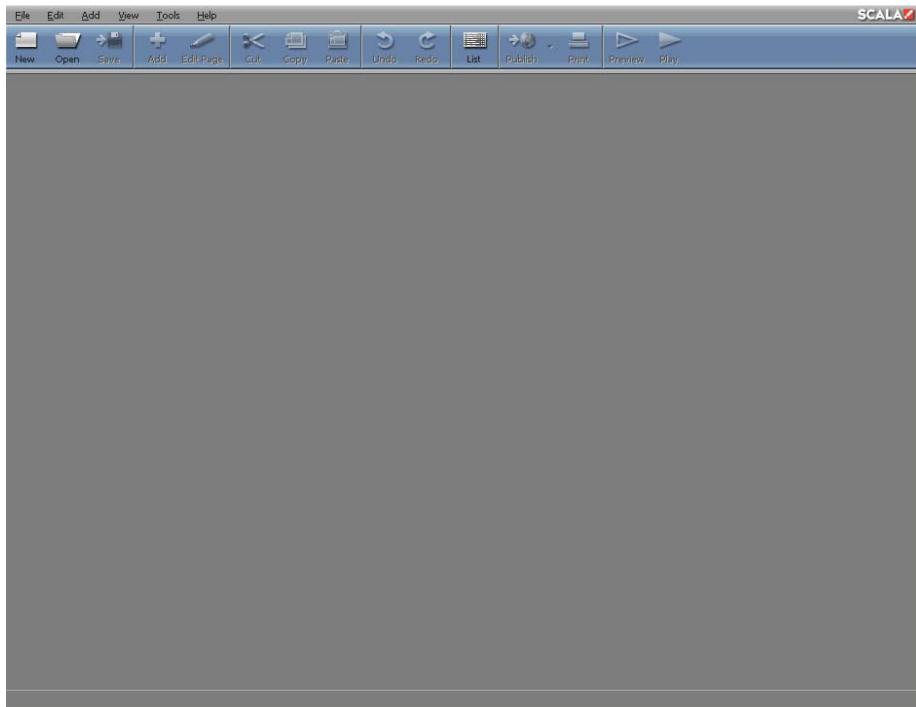
- *Timeslot* schedule type — New schedule type used to specify a range of time when content is only supposed to play.
- Much smoother effects (due to higher performance, sub-pixel positioning).
- Higher video playback performance (e.g. three 720x480

- MPEG2s with opacity on a mid-class system).
- Very smooth scaling effects (no "pixilation").
- Any element can be global (even with opacity). Use the Global? button on the Misc tab.
- Elements can now play over background movies.
- Unlimited mixing of transitions, video & layers.
- Elements keep playing while the next page is transitioning in.
- Wait=off on page transitions so elements can play as the page enters
- Export of clips or text preserves alpha-channel.
- Template Creation (Bind the contents of a text element to a data field or bind a filename of a clip, movie, background to a data field. Play and Preview in Designer use the placeholder values. When publishing to Content Manager, it automatically recognizes the script as a template.)
- Rotation available — It is now possible to create a script in portrait mode but playback in rotated-landscape mode.
- Rescaling — It is now possible to dynamically rescale a script during playback (e.g. 800x600 script at 1024x768, or vice-versa).
- Anamorphic scaling - Anamorphic scaling is now possible.
- Script timing is much more consistent.

||||| 3 Working in the Main View

Chapter Overview

The Main view allows access to views and functions within Scala Designer, opening the Main view when the application is first started.



When you open Designer, the Main view is blank, as shown above. To begin work, you need to either create a script (using the New icon) or load an existing script (using the Open icon).

Once there are page or event thumbnails showing in the Main view, more items on the screen will become available and you can click on them to perform various functions. Additionally, the Thumbnail mode in the Main view, is the List mode, where items are listed in columns instead of thumbnails.

3.1 Glossary of Terms in this Chapter

Group – A collection of pages, sub-scripts or special events represented by a single thumbnail in the Main view.

Sub-script – A completed script file that is imported into another script and is represented by a thumbnail with the Scala logo in the Main view.

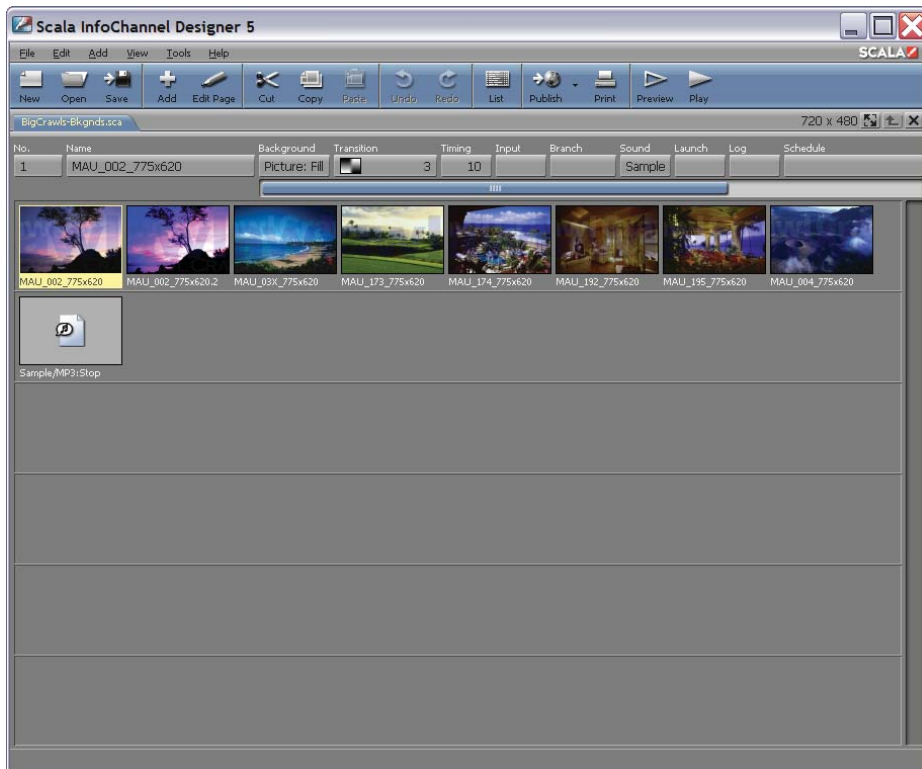
Transition – A timed graphic blending effect for making transitions from one page to another, or for moving elements on and off the screen.

Thumbnail mode – The view of small graphic images in the Main view which represent pages, groups, sub-scripts and special events.

List mode – The Main view mode which presents all of the items of a script and their properties in columns; such as sequential order, name, background, transition, etc.

3.2 A Look at the Main View

The Main view gives you an overview of everything your script will display or execute. The view below shows the Main view thumbnails in a typical script.



A thumbnail in the Main view may represent one of several things:

- a page, containing elements such as text, clips and sounds.
- a group – a collection of pages that you can treat as a unit.
- a sub-script – another script that is run from within the current script.
- a special-event – an event, such as a timing event, sound, or
- a command to control an external device.

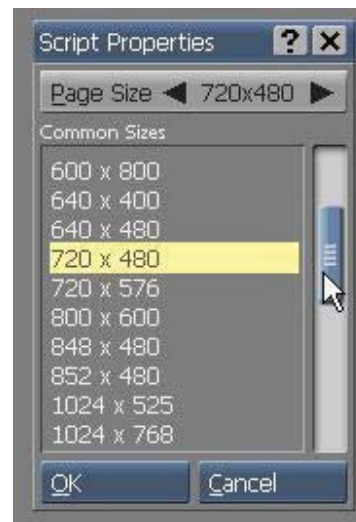
Most thumbnails are pages: a background upon which you may place elements such as text, graphics, and video. These pages may also include non-graphic elements, such as sounds and timing events. Designer's Page view is used to create and manipulate a page. (The Page view, described in

Chapter 10: Working in the Page View List panel, gives you an overview of the contents of individual pages.)

3.3 Creating a New Script

To create a new script, click the New icon. Opening the Script Settings dialog, as shown.

This dialog allows you to specify the size of a script's pages. The Page Size setting typically matches the screen resolution (pixel dimensions) which is used when you play back the script. It also determines the pixel dimensions of any page background. If the background image doesn't match the Page Size, the background may be resized accordingly.



The Common Sizes list gives the most common choices. Clicking one of these selects it. If you require a specific size which is not listed, you can enter it directly by using the Page Size value control. To begin adding pages to create a new script, simply click OK.

Whatever size you set in the dialog will also appear in the script title bar and immediately apply to the entire script. The Script Settings button, to the right of the size in the title bar, can be used to change the page size at any time.

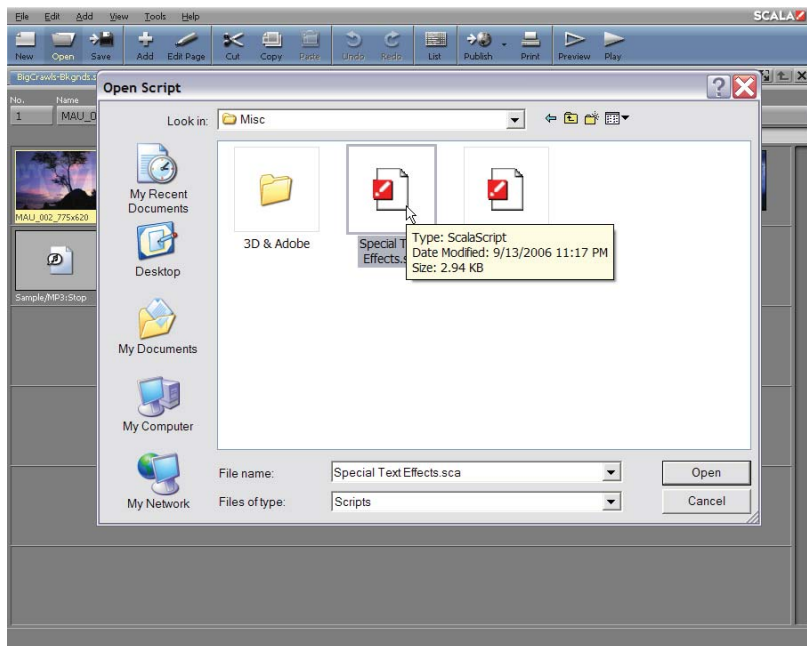
3.3.1 Opening an Existing Script

You can easily open an existing or saved script file while in the Main view.

1. In the Main view, click Open. This opens the Windows File dialog.
2. Navigate to the folder on your hard drive containing your desired script.
3. Scroll through the files in the list box, then double-click on that name. You may also select the script and click OK. Thumbnails of the script you just opened will appear in the Main view.

3.3.2 Multiple scripts

It is possible to have more than one script open at a time. If you already have one script open in the Main view, and you want to begin another, simply click the New icon. You may also load another script by clicking Open.



Tabs in the Main view title bar indicate the scripts which are currently open. Different scripts can be selected by clicking on the associated tab, which will bring that script to the foreground.

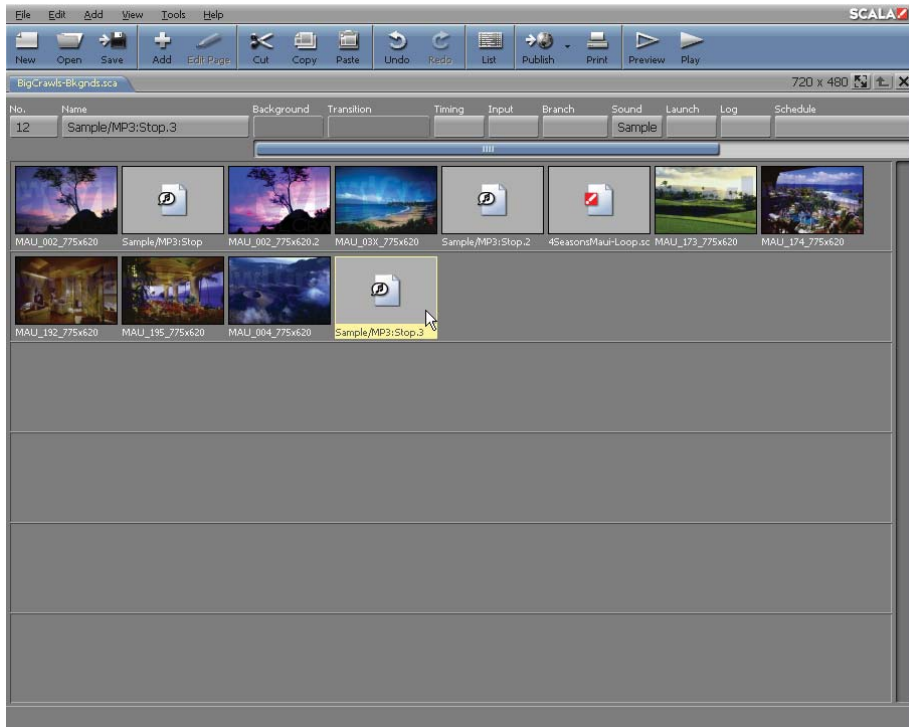
You can cut or copy a page, sound, or event from one script and paste it into another open script. Simply select the thumbnail(s) of the item(s) you wish to copy and select Copy from the Edit pull-down menu or the Copy icon in the toolbar (discussed in the next section) to copy the information to the clipboard. Then select the thumbnail of the script you wish to place within the clipboard and select Paste from either the Edit pull-down menu or the Paste button in the toolbar.

3.3.3 Thumbnails in the Main view

When you select the thumbnail of a page, the column buttons for that page are shown above the rows of thumbnails.

Pages have the page name shown underneath them to help distinguish the

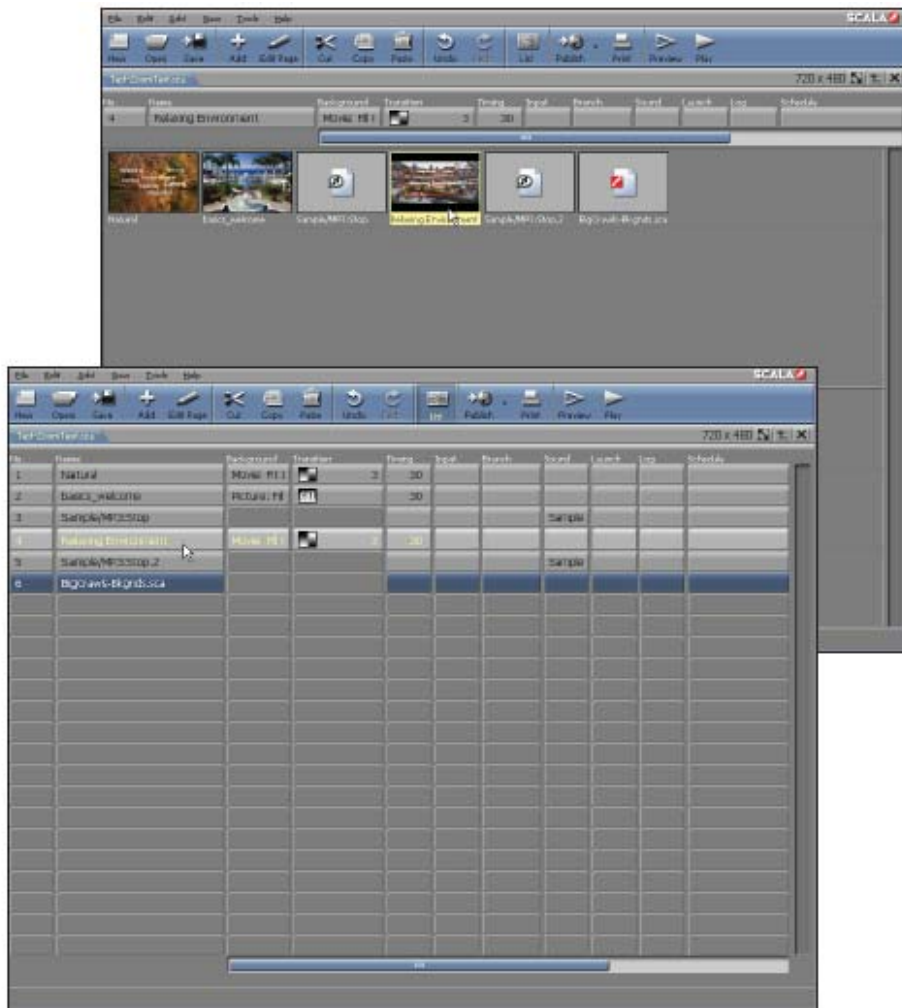
different types of thumbnails in the Main view. A page, group of pages, sub-script, or a special event, reveal different thumbnails, as shown in this illustration.



3.3.4 The Thumbnail and List Modes

The *List* icon in the Main view toolbar enables you to choose how the pages of the script appear. In *Thumbnail mode*, you will see thumbnails of each page, group, sub-script or special event in the script. In *List mode*, the script in the Main view is presented as a list of page names. The details and columns are the same in the List mode, however, the column buttons of all the visible pages are readily available for each page. The following examples show the two views of a sample script.

Designer⁵



When you open a page in Page view, the mode in which you are working will stay the same when you return to the Main view. The same is true when you create a new script or close and reopen Designer.

3.3.5 Adjusting the size of the thumbnails

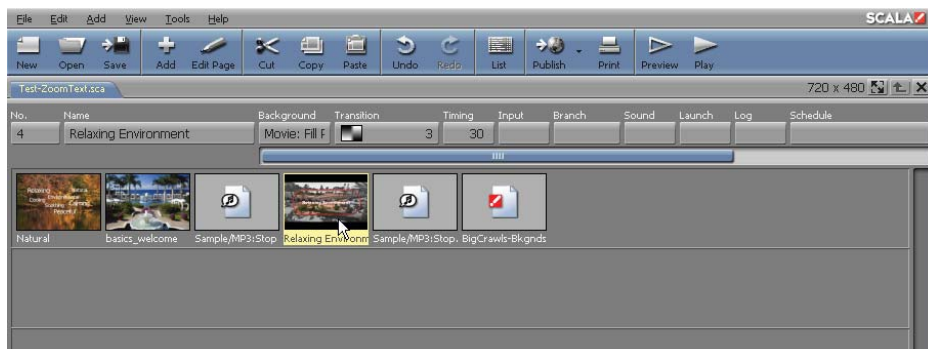
Designer enables you to adjust the size of the thumbnails in the Main view. In the Thumbnail mode, shown above, there are seven thumbnails per row.

Although the thumbnails in the preceding example are larger and more readable, you will notice there are fewer rows. In a script containing more than six pages, it will be necessary to use the vertical scroll bar.

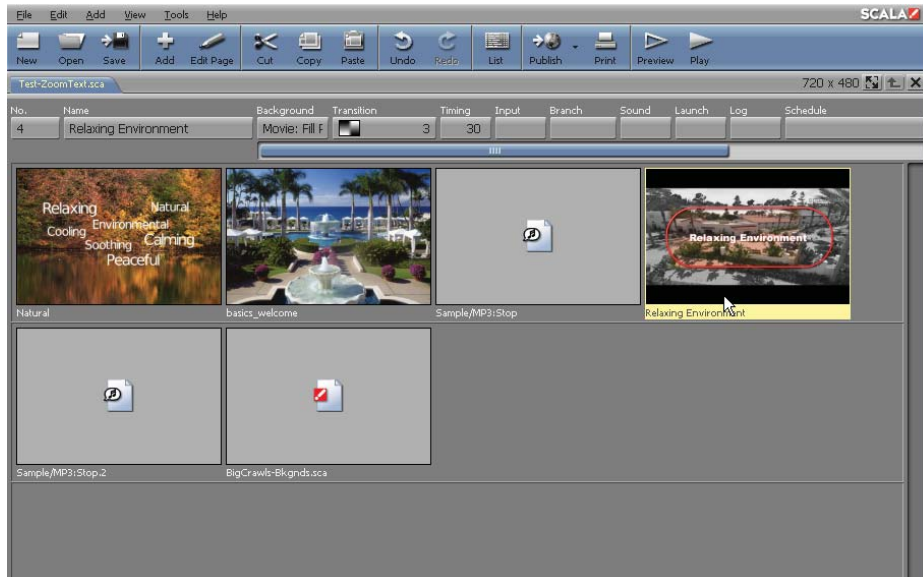
In the Thumbnail mode, by default, thumbnails are 100 pixels wide. The number of columns and rows available in the Thumbnail mode varies according to the thumbnail size and the current size of the Main view. You can change the width of the thumbnails by selecting Options from the Tools pull-down menu (Tools > Options) and clicking on the Authoring tab in the dialog box. At the bottom of the list you will see the option for Thumbnail Width (in pixels). You can increase or decrease the width by clicking on the arrows as show below:



When the width of the thumbnails is decreased, the Thumbnail mode of the same script looks like this:



In this case, the thumbnails are smaller but there is more available space in each row, as well as additional rows. In a large script the details may be difficult to read, however, you will have the opportunity to view many pages at once. Following is an example of the same script with larger thumbnails:



In this case the thumbnails are large enough to read the text on the pages without having to open the pages themselves.

3.3.6 The Pull Down Menu

At the very top of the Main view window, the Pull-down Menu has similar functionality and options common to most Windows applications. The familiarity of these pull-down menus will accommodate new users, as well as power users who wish to incorporate keyboard shortcuts for commonly used functions like Save, Copy & Paste. It also contains several of the same tools that are located on the Toolbar, such as the Add and List mode. The Pull-down Menu also offers more precise options, such as individual selection of the page or event you'd like to add to your script. This offers greater flexibility for users of all levels.

3.3.7 The Toolbar

Toward the top of the Main view, just under the pull-down menu, is a

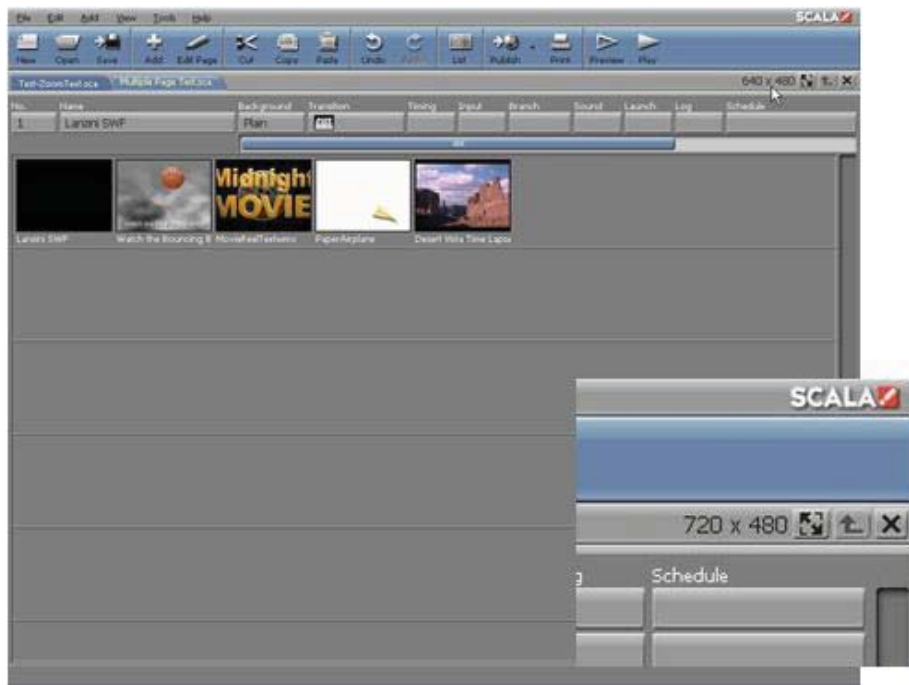
toolbar similar to what you would see in popular Web browsers. The icon buttons on the toolbar allow quick visual access to major functions of Designer.

Upon opening the application, some of the icons are visibly disabled. Once you have opened or created a new script with at least one page, most icons are enabled. There are two kinds of toolbar icons:

- The New, Open, Save, Add, Edit Page, Cut, Copy, Paste, Undo, Redo, Publish, and Print icons work instantaneously and will either open the associated dialog or immediately perform the desired action.
- The List icon acts like a toggle, remaining in either the pressed-in, highlighted state or the raised, un-highlighted state after it is clicked.
- The Preview and Play icons launch the playback in a window or full-screen mode.

3.4 Script Tabs and the Title Bar

Just below the toolbar, is the title bar where the Document tabs with the names of each open script are located. These tabs allow you to quickly access any open script in Designer while displaying the names of the open scripts or groups. If a group is entered, the tab will show the group hierarchy in the format “<scriptname>/<groupname>/<groupname>...”



On the far right side of the Title bar, you will see the info display of the currently selected script. The pixel dimensions of the script are displayed, as well as a Script Properties button, a Script Up button and the close box, which closes only the currently selected script.

The Script Up button moves you up the path out of the last group shown in the script tab title. If there are no groups currently open then this button is disabled.

3.4.1 Thumbnail Rows and Columns

In the Main view, every item listed, regardless of type— page, group, sub-script, or special event—is represented by a row, consisting of a separate columns.

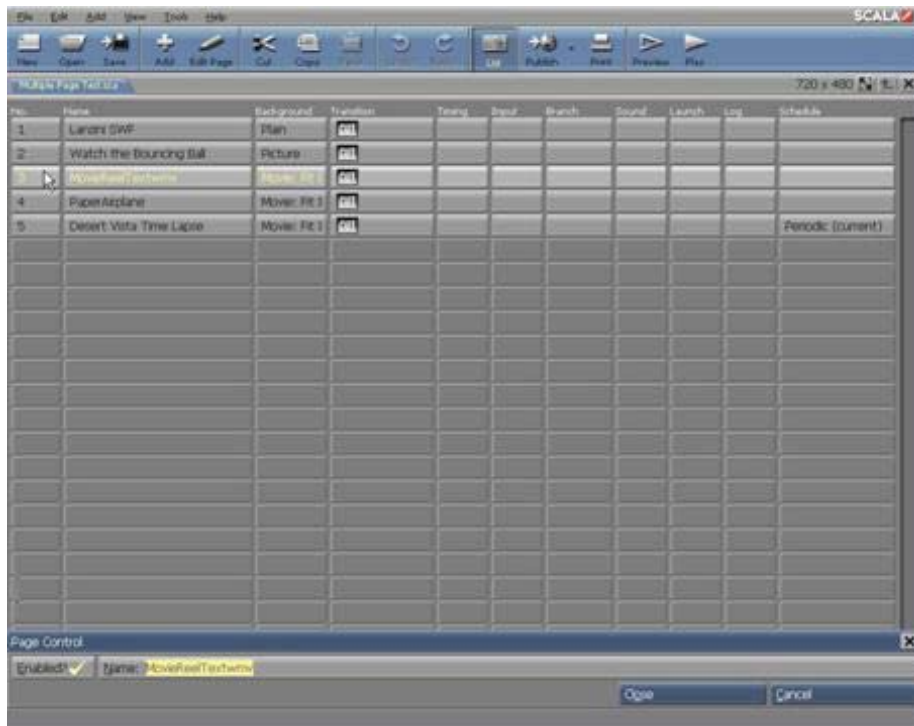
NOTE: Rows are the same for either List mode or Thumbnail mode.

Columns represent previously selected thumbnails. To view the column information of more than one selected item in the Main view, switch to the List mode.

The first two columns in the row are identified by number and name. The remaining columns to the right are Module columns. The column buttons open different panels at the bottom of the Main view, allowing you to make settings which are associated with the entire script. Settings made in the Module panels are reflected in text or graphic form on the column buttons. This will allow a quick overview of the various settings, such as transitions and sound effects. You can also examine the settings in greater detail and make changes to refine the script by clicking the column button to open the associated panel.

3.4.2 No. (Number)

A number on a button in the No. (number) column indicates the position of the page in the sequence of the script. It also indicates that the page is “on” and is enabled as part of the script. In contrast, when Off is visible on the button, it means that the page is not shown when the script is run. You use this when you need to prevent the execution of a page, but you don’t want to lose or change the contents of the page, so that it is easily available in the future. To change the setting so that a page is included or excluded accordingly, click on the page’s No. button, opening the Page Control panel as shown below:



The Enabled? button is marked with a checkmark when the page is included in the script; otherwise it is excluded and “off ”. Click on the button to either include or exclude the page. Unless you specifically choose to exclude the page, it is numbered in the Main view according to its position in the script. You can set the status of other pages without closing the panel by clicking in the No. or Name columns of the pages. To close the panel, click on the Close button or the “X” box in the upper-right corner of the panel to confirm the setting or Cancel to leave it unchanged. Simply clicking outside the panel after making a change will confirm the action, therefore, if you choose to make changes to other pages, it is not necessary to close the panel.

3.4.3 Name

The buttons in the Name column display a unique name for each page. If

the name is referring to a page, then the original name of the page will be displayed. Initially, the page is given a default name based upon the file name of the background, or the first element which was placed on the page.

Designer handles each page as a distinct entity separate from the file or files therein. The name used to identify a page is not dependent upon a specific file name. Page names can be as long as the space in a button permits. It may also contain spaces and dots (.). The only restriction is that the name must be unique within the script.

3.4.4 Changing a Page Name

You can change a page's name at any time when you are in the Main view.

To change the name of a page, click on the page's No. (number) button and, in the Page Control panel, edit the name as desired.

Remember, the name should be short but descriptive enough so that at a glance, it conveys the contents or purpose of the page.

The specific name of a page and script will not affect any other pages or page names, nor will it affect any file name. This means that although the name Designer provides may be based upon the name of a file, you can change the name to something more descriptive in the Main view without affecting the name of the original file.

3.4.5 Transition

The icon on the button in the Transition column represents the page transition which is currently being applied to each page; that is, the way the page moves onto the screen and replaces the previous page in the

script. In most cases, there is also a number on the button which represents the duration of the transition.

By default, Designer applies the Cut transition (the next page simply appears all at once).

You may edit the page transition by clicking on the Transition button, opening the Page Transition panel, which looks like this:



When you select a transition, the Transition button will immediately reflect the icon, transition duration or speed, and direction (if any). You may also change the transition for additional pages in the script before clicking on Close, to close the panel. When adjusting each page, simply click on the page to select it, then choose a transition and/or set a duration or speed.

Buttons in the Transition column are blank and disabled for pages in the Main view which represent a group, a special event or a sub-script. Transitions cannot be applied to those items.

Working in the Page Transition panel is discussed in detail in **Chapter 12: Using Transitions**.

3.5 Timing

The Timing button indicates how pages automatically advance. Pages can have a fixed time duration, a wait for the elements in the page (however

long that may take), or wait forever (interrupted by mouse click, or by scheduling or programming).

The Duration setting is defined in hours, minutes, seconds and hundredths of a second. Depending on the current width of the column, however, the value can be displayed as either seconds only (up to 999), or in hh:mm:ss.hh format.

You can change the width of the Timing column if you can't see the entire setting (see the "Customizing Columns" topic in the Advanced Features section of this chapter). You can also adjust the position of the mouse pointer over the column to reveal a Tool Tip showing the entire timing setting. Designer uses the default setting *Wait For Elements* for a new page.

However, it also assumes that a new page should have the same timing setting as the previously selected page. You should always look at the Timing button to verify the setting. To change the timing setting, click on the Timing button for the desired page, opening the Timing panel:



When a thumbnail in the Main view represents a group of pages, a script, or a special event, Designer automatically uses *Wait For Elements* as the timing setting, indicating no delay between the current page and the following page. If the thumbnail represents a group, the timing setting for the last page in the group determines when the next page in the script is displayed.

Regardless of the timing setting, the viewer of the script can always override the timing of a page by pressing the secondary mouse button to

see the previous page, or by simply pressing the main mouse button to see the following page.

For details about using the Timing panel and to make adjustments in the timing of your script, please review **Chapter 11: Timing**.

3.6 Input

Clicking a button in the Input column opens the Input panel. This panel contains options related to how the mouse and keyboard input are handled on any given page.

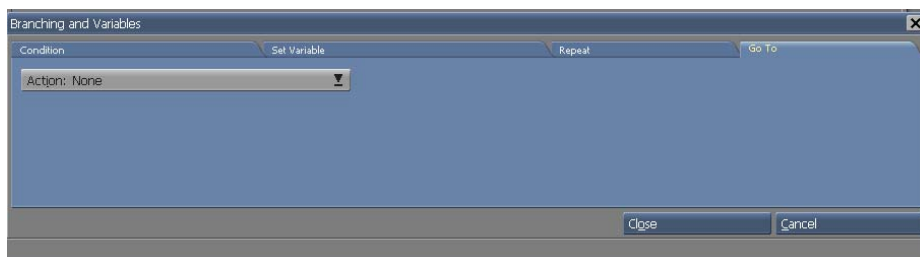


Designer's default settings are generally appropriate for most situations.

3.7 Branch

The Branch column button allows access to the panel which defines variables and controls the flow of a script.

Clicking a button in the Branch column opens the Branch panel.



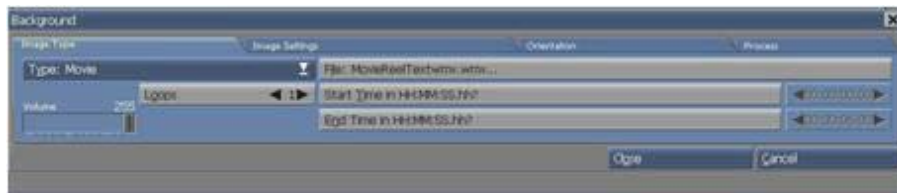
The Branch panel lets you control the sequence of the script when pages

are not necessarily shown in the order they appear in the script. You can also define and name variables in this panel.

The Branch panel makes it possible for you to produce sophisticated, flexible scripts which can respond to a variety of input. For more information about the Branch panel, see **Chapter 15: Branching, Variables and Scheduling**.

3.8 Sound

Clicking a button in the Sound column opens the Sound panel.



When a sound is added to a page, the corresponding button in the Sound column is labeled with text which describes the sound event; for example Play or Stop. If there is no sound event on the page, the button will be blank.

A sound event for a page might be music, a sound effect, or a voice.

As with the Page Transition and Timing panels, you can change the sound setting for other pages in the script without closing the Sound panel. Simply click on the following page.

When the thumbnail or row in the Main view represents a group of pages or a script, the Sound button is blank, even when sound is an element of one or more individual pages. You may however, click on the button to define sound elements that affect the entire group or script. For example, if

you want music to begin with the first page in the series and end with the last page; that is, before the next page in the script in the Main view is presented, this option would be very useful.

For more information about the Sound panel and its controls, see **Chapter 14: Using Animation, Digital Video & Sound**.

3.9 Background

Clicking a button in the Background column opens the Background panel.



The Background panel allows sizing and other adjustments to background images from the Main view. It is essentially identical to the Design Background panel, described in **Chapter 4: Working with Backgrounds**, however, it also offers the advantage of being able to work with more than one page at a time.

3.10 Other Module Columns

In addition to these “basic” columns in the Main view, you will see additional columns for more specialized uses. Designer contains additional Modules:

Integrated	Optional
Schedule Module	Serial Module
Launch Module	
Log Module	
TextFile Module	
Windows Scripting Module	
Playback Audit Module	

The integrated Modules are always available. Optional Modules may be enabled in the Options dialog. Each Module extends your script's capabilities Other Modules may be purchased separately.

3.10.1 Enlarging the Designer Window on the Desktop

When Designer is run on the desktop in its own window, the window can easily be resized. Resizing the window causes the application to readjust the panels to fit within the resized window.

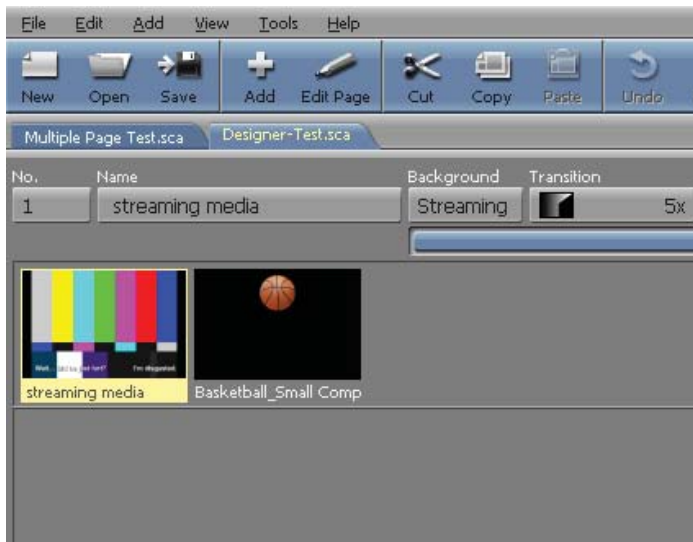
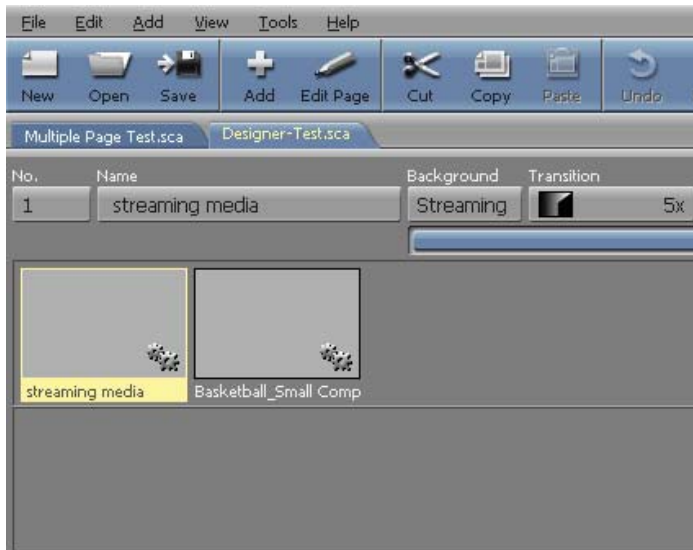
If the window is enlarged, the script title bar and thumbnail layout expand to fill the new space. The thumbnail images stay the same size, but the number of columns and rows adjust according to the size of the window. If you make the window smaller, the contents are compressed accordingly.

Note: If you make the window too small, some items may be obscured.

If your thumbnail settings are changed in the Options dialog, it will take a certain amount of time for the Thumbnail mode to generate its images, or to regenerate them to a new size. The Thumbnail mode will display a small icon of meshing gears in the lower right-hand corner until it has finished generating the Thumbnail images.

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The icon will disappear when an image has been completely generated.



3.11 Context Menus

A new feature to Designer 5 is the inclusion of right-click Context Menus, which effectively increases the ability to quickly access certain features.

For example, right-clicking on a thumbnail or list item in the Main view, will reveal a context menu allowing you to Cut, Copy, Paste, Delete, Group, Ungroup, Disable and Preview in one motion. Combined with keyboard shortcuts, this will greatly increase your productivity. . More information on context menus and keyboard shortcuts can be found in **Appendix A: Keyboard and Mouse Shortcuts**.



3.12 Working with Pages

In addition to using the Main view to define page elements such as transitions, pauses and sounds, there are many other ways in which you can work with pages in the Main view to refine the script. Generally, the basic techniques for handling pages are the same whether you are working in the List or Thumbnail mode.

3.12.1 Adding Pages

To add a new page of any type (script, animation, etc.), use the Add icon in the Main view toolbar, or drag and drop. If the Main view is empty, as it is when you create a new script, you will be adding the first page. Otherwise, the page you add will be inserted in the script after the page that is

currently selected.

If you use the Add button in the toolbar, you can only add a new page from a media file or script. This is the same as using the Add pull-down menu and selecting Add Page From Media File. To add a new blank page, special event, or a streaming video page, use the Add pull-down menu.

3.12.2 Adding a page that is based on a file

When you click the main part of the Add icon, or choose Add Page From Media File from the Add pull-down menu, opening the standard Windows File dialog. The File dialog enables access to all existing files—scripts, backgrounds, animations, and sound effects, etc.

1. In the File dialog, click on the folder which contains the type of file you want to add; or navigate through your file structure until you see the file name in the list box.
2. Double-click on the file name in the list box or select the file and click Open.

If the file is a picture background, Designer assumes you want to start composing the page, therefore, the Page view will appear with your chosen background. Usually you will see the Design Text panel, however, when adding an animation or movie, you will see the Design Background panel.

3. When your page is completed, and you click the Main icon in the Page view, you will see the page thumbnail listed in the Main view.
4. If the file is not a picture background, you will see the Main view. The new page is automatically selected and Designer will assign a name which you can change at any time. You will also see the

panel for the type of page element represented by the file you have selected. For example, if you selected a sound file, the Sound panel is already open, allowing immediate refining of the sound settings.

Designer also has the ability to select several files from the same folder and add them to the script at the same time. You can select a range of consecutive files, (Shift-click) or randomly select files, (Ctrl-click). The new pages are automatically selected in the Main view.

When you add a page to a script, the contents of the file, chosen from the File dialog, become the contents of the page. If the file is a script, all of its pages, sub-scripts, sound effects, etc. will be included in the definition of the page.

3.12.3 Adding a Plain background page

The Add Plain Page choice enables you to quickly create a page that has a single color background. As with other backgrounds, Designer assumes you want to begin designing the page immediately, therefore, when you choose **Add>Add Plain Page**, you will see the Design Text panel in addition to a plain background. You also have the option of changing the color of the background. For more information please review **Chapter 4: Working with Backgrounds**.

3.12.4 Adding a Special Event page

A Special Event page allows you to add elements to a script which may not be associated with a file. A special event may be used to reset a variable value. For example, in a script which accompanies a speech, a special event could be used to control the volume of a microphone, or music playing in the background, without affecting the currently displayed page. From the Add drop-down, choose **Add Special Event**. The Special Event page

is automatically assigned a generic name. You can then click the Timing, Input, Branch, Sound, or other Module columns to specify the action of the special event. As with any page, you can click on the No. button and edit the name in the Page Control panel. When you double-click on a Special Event page in the Main view, opening the File dialog.

The Special Event page is unique because it enables you to insert an event which controls a device or an action and work with it just as you would any other page although it may not be associated with a file.

3.12.5 Adding a Streaming Video page

You can only add a streaming video page from the Add pull-down menu, by selecting Add>Add Streaming Video Page and entering the URL of the active media. The page may also be edited in Page view with additional elements and text after which the media will stream to the page as a background movie.

3.12.6 Adding pages with drag and drop

You can also add pages to the script using ordinary drag and drop methods. Drag a file icon for a background image, sound, sub-script, or other file from its window into the Designer window showing the Main view. The file is subsequently added as a new page. The new page will follow whichever page you originally selected. There are certain types of pages that cannot be created using drag and drop. Plain pages, for example, and Special Event pages which are not file-based (such as a branch event) must be created as described in the Adding a Special Event section.

3.13 Selecting Pages

To select a page, click on its thumbnail; in List mode you will click on the corresponding Name button. The page may also be selected by clicking on one of its other buttons. Additionally, the corresponding panel of each button's function will appear.

3.13.1 Selecting multiple pages

In either List mode or Thumbnail mode, Designer allows the selection of more than one page at a time. You may select pages which are listed consecutively in the panel, or randomly positioned in the list. Following are several opportunities for selecting multiple pages:

- to copy and paste them into another script
- to move them to another location in the script
- to group them
- to delete them
- to collectively apply settings, such as a transition or pause

The order in which you select the pages is maintained when they are copied, moved, or grouped.

To select a series of consecutive pages, simply click on the first page, then Shift-click on the last page. Every page between and including the first and last page, will automatically be selected. To select every page in the script, choose Select All from the Edit drop down menu, or press Ctrl+A. To select a series of pages that are not consecutive, click on the first page, then Ctrl-click on each additional page.

To deselect a page simply Ctrl-click on that page. The page or pages you have selected, will remain selected and will also be affected by any subsequent actions, until you click on another page in the Main view.

3.13.2 Making settings for several pages at once

You can save time and effort by creating settings for several pages.

To make settings for multiple pages, select the desired pages, then click the corresponding column for the selected pages. This will open the appropriate panel for those pages. Any settings you create in this panel will be automatically applied to your selected pages.

The settings you see initially in the panel are those for the page in whose column you clicked to open the panel. If the selected pages have settings in that panel that differ from one another, only those settings that you explicitly change are affected by your actions.

For example, if you select five pages, each of which have a different assigned transition, then open the Page Transition panel and edit just the transition speed. Each page will subsequently receive the new transition speed value, but they will also retain their five individual transitions.

3.13.4 Leaving Module panels open

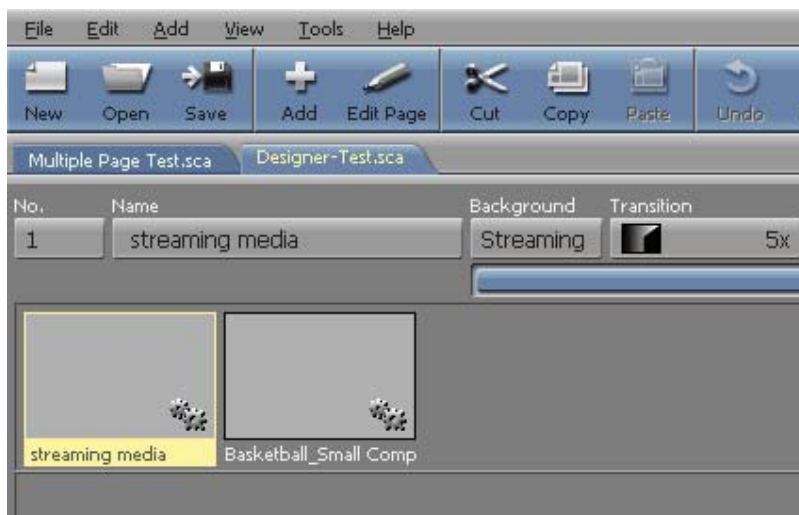
Once you have created settings for a given selection of pages, you are not required to close an Module panel. With the Module panel still open, you can click in the Main view and select additional pages. You may also make changes to their settings.

Additionally, you don't have to close one Module panel before opening another. Simply click in a different column to open another Module panel. The settings you create in any panel will immediately be applied and subsequently will not be discarded unless you explicitly click Cancel or Undo.

3.14 Modifying a page

The quickest way to begin modifying the contents or design of a page listed in the Main view is to double-click on the corresponding thumbnail, or its Name button.

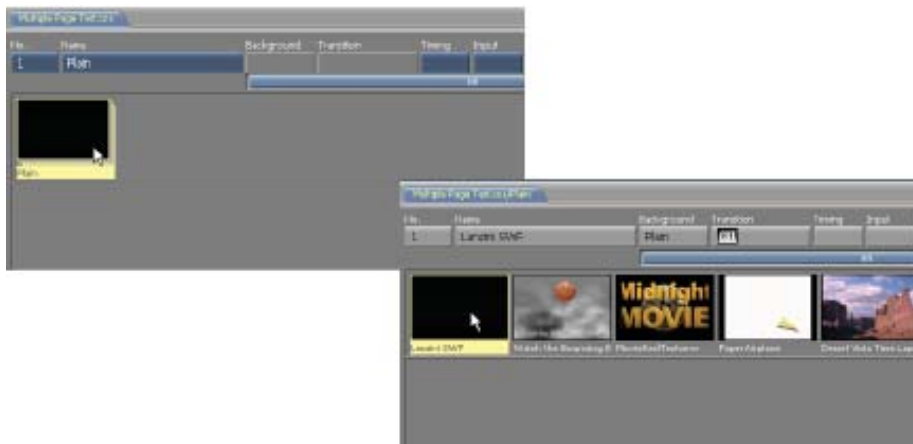
If this represents a page in the script, you will see the page—its background, text, clips, etc.—and a Page view. The revealed Page view is dependent upon two things. For most backgrounds, it is controlled by the type of element which initially appears on the page. If there are no existing elements on the page when you first open it, you will see the Design Background panel. If you click anywhere in the page canvas (the visible design area of the page), you will see the Design Text panel:



If the first element on the page is a clip, you will see the Design Clip panel. If the first element is a drawn object, you will see the Design Oval, Design Box, or Design Line panel. The other factor associated with Page view is the type of background. If the page background is an animation or movie, you will see the Design Background panel regardless of what is on the page.

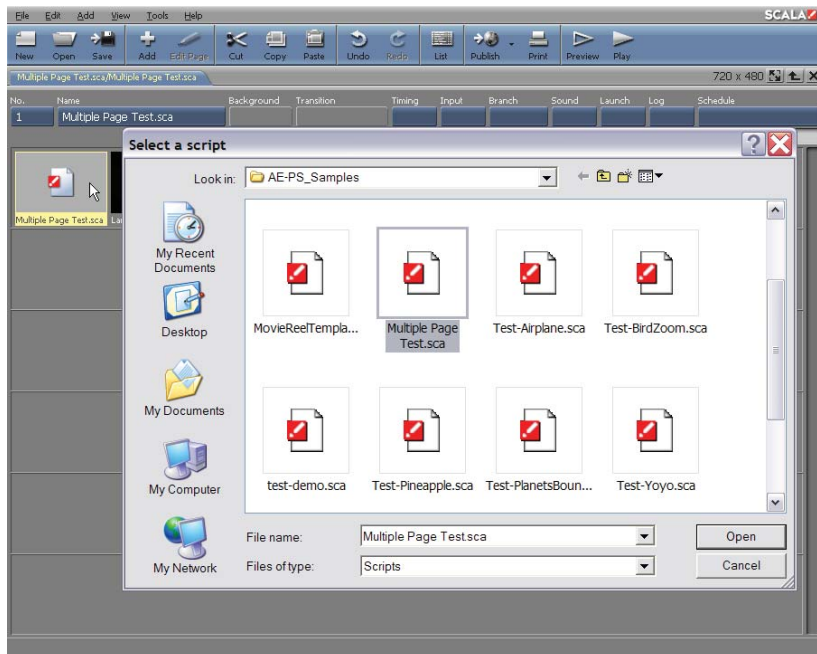
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If the page represents a group of pages, after double-clicking you see the contents of the group which may, in turn, be pages, groups or sub-scripts. Depending on the structure of the group, you may need to continue to double-click on the appropriate thumbnail or the Name button until the page in the list represents the page in which you want to work.



In any case, when the page in the Main view represents a page, you can double-click on the Name button to obtain the appropriate Page view as mentioned above, or you can select the page in the panel and use the Design drop-down to choose the specific Page view you want to use. Please refer to **Chapter 5: Using Design Panels in Page View** for more information regarding Page views.

If the page represents a script, you will see the Windows File dialog when you double-click on the Name button.



3.15 Moving pages

You can quickly revise a production by changing the order of the script's pages, whether or not a page in the Main view represents a page, a group of pages, or a script.

To move a page, point to its thumbnail and drag it to a different position. With the exception of the page number (in the No. column), all of the information defined for the page will also be moved. All other pages will be moved accordingly, and their corresponding page numbers will be adjusted.

In List view, you may move a page by dragging the Name button.

Designer also allows several pages to be moved simultaneously. Whether or not your selected pages are in a consecutive series, they will be handled collectively, and inserted together in their new position.

1. Select the pages you want to move.



2. Point to the thumbnail for one of the selected pages and select it with the Main (Left) mouse button.
3. Click-drag this page, representing the entire series, to the position where you want the first page in the series to be placed.
4. Release the mouse button. You will see the pages inserted together in the script according to the order in which they were selected.

In the List mode, you can drag several Name buttons using the identical thumbnail process noted above.

NOTE: In Designer, dragging can always be interrupted to cancel the movie in-progress by pressing the secondary (Right) mouse button while the main (Left) mouse button is still pressed.

3.15.1 Previewing pages

Using the tools of the Main view, you can click on Preview at any time to test and review your adjustments.

Preview is different from Play in that Preview allows specific access to a selected part of the script. Additionally, Preview is available in the majority of Designer panels. Play is available only in the Main view, and always starts the script from the beginning and plays it to the end (or until you stop it).

You can preview one page (click on it, then click on Preview) or a range of pages (Shift-click or Ctrl-click to select the pages you want to preview). Although you can preview a series of pages that are not consecutive, it is recommended to preview pages in sequence.

If you are previewing several pages, you must press the main mouse button to see the next page, if a specific duration is not defined. You can also press the secondary mouse button to see the previous page in the series. After previewing the last page, you will automatically return to the Main view. You can exit the preview at any time by pressing Esc.

3.16 Copying pages

You can create a new page in Designer by copying an existing page and pasting it elsewhere in the current script, or in another script of your choice. You may also copy one page or a series of selected pages, regardless if they are consecutive.

1. Select the page or pages you want to copy.
2. In the Main view, click on Edit and choose Copy (Ctrl+C). A copy of each selected page will be placed on the clipboard.

3. If necessary, use the tabs to navigate to the script where you want to place the duplicate(s) or, if the script is not available, click on Open and select it from the File dialog.
4. In the script, select the page where you want to place the duplicate(s).
5. Click on Edit and choose Paste (Ctrl+V). Each copied page will be listed in the panel in the order in which it was originally selected.
6. Designer applies the same name as the original to the copy. Additionally, a number which uniquely identifies the duplicate, will be added. For example, if the original name of a page is “Info”, the name of the first copy is “Info1”. If the page is copied again, the second copy will be titled “Info2”, and so forth.

A copy of the original selection(s) will remain on the clipboard and may be pasted as many times as necessary until the next time you choose Cut or Copy from the list of Edit options.

3.17 Cutting and deleting pages

To remove one or more pages from a script, begin by selecting a page, then click on Edit and choose Delete or Cut (Ctrl+X). If you choose Cut, the pages will be placed on the clipboard. If you choose Delete, the pages will not be placed on the clipboard. The only way a deleted page can be recovered is by using undo.

You can replace what you cut, move it to another position in the same script, or move it to a different script with the following sequence. Select the page in the script that is to precede the cut page(s) then click on Edit and choose Paste. If you selected and cut several pages, they will be

inserted in the order in which they were selected.

NOTE: Information which is cut or copied to the clipboard, will remain there until you choose Cut or Copy again. When you quit Designer, the clipboard is automatically cleared – however, any text that exists will remain.

You can repeat the pasting process as often as necessary. You may also use the pasting process in multiple scripts. However, you must paste the cut information before additional cutting or copying can be performed, otherwise, the page or pages will be permanently deleted. Deleting one or more pages from a script affects only the current script. Files are not deleted. For example, if a deleted page represented a script, that script file will not be deleted and be available for other uses.

3.17.1 The clipboard and programs outside Designer

Designer uses the Windows clipboard to facilitate the transfer of information to and from your projects, using simple cut and paste techniques. You can use the clipboard to transfer images such as backgrounds and clips, sound files, animations, and text.

However, there are limitations regarding copying information from one application to another. For example, pages which are cut or copied from the Main view cannot be pasted into other applications. Similarly, information placed on the clipboard by any other application cannot be pasted on the Main view, for the simple reason that only Designer can create pages. However, Clip files and text which are placed on the clipboard, may be pasted onto a page when you are in one of the Page views.

3.18 Grouping pages

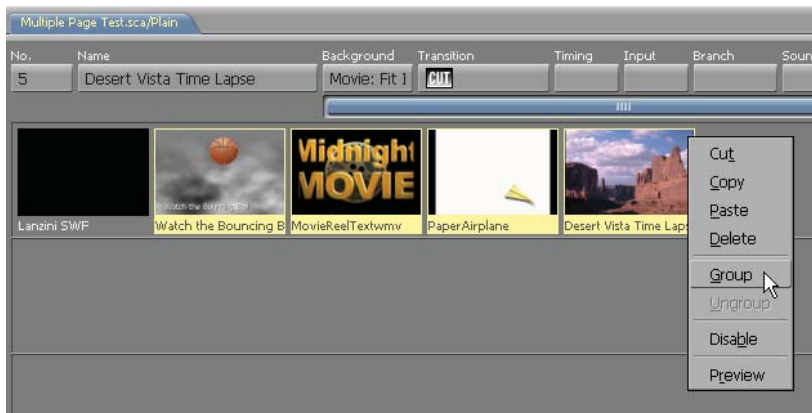
To help you structure and organize a script, Designer makes it possible to organize pages into groups. This can be especially useful in large scripts, where grouping pages which may be related by topic or purpose, will be easier to manage; allowing a quick overview of their contents.

A group may include any number or combination of pages, scripts or other groups of pages. Whether the selected pages are or are not listed consecutively in the Main view, the group's position in the script will be that of the first page you select. Similarly, within the group, pages are sequenced according to the order in which they were selected.

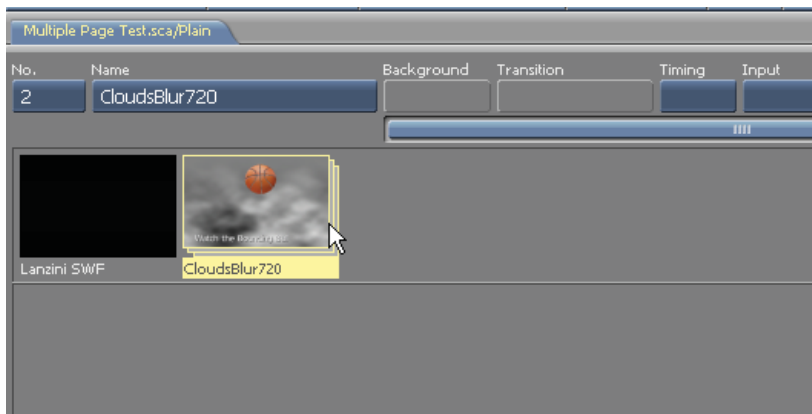
1. Select the pages you want to include in the group in the Main view.
2. Right-click on one of the selected thumbnails or listed page names, and select Group from the context menu (or click on the Edit pull-down menu and choose Group).

A thumbnail/Name button representing the group appears in the position of the first page you selected. That page and the other pages you selected are now in the group. Designer assigns a generic name to the group, which will also appear on the group's Name button.

Buttons for a group are generally darker in color than buttons for a page. The thumbnail for a group looks like a stack of pages with the first page in the group located on top.



1. Click on the group's No. (page number) button, opening the Page Control panel.



In the Name text box, type a short descriptive name for the group and click on Close. You will return to the Main view and, on the group's Name button, you will see the name you have assigned.

3.18.1 Editing in a group

When you double-click on a group's Name button, you will see the Main view with the individual pages, scripts or groups of pages that are included in the group. The page number for each represents the sequence of pages

within the group based upon their selected order.

The path in the script title bar reflects the position of the group in the structure of the script. You can refine the elements of the group and work in the panel as usual. When you are done, click on the Script Up button in the script title bar, as necessary, until you see the top level of the script structure.

3.18.2 Ungrouping

To dissolve the group and leave its contents as individual items in the script, select the page representing the group, then click on the Edit pull-down menu in the Main view and choose Ungroup. The items in the group are listed individually and consecutively, beginning at the position in the script previously occupied by the group.

3.19 Using Undo/Redo

The ability to take back actions is provided by the Undo feature. Its complement is Redo, which takes back an Undo. Undo and Redo are options which are available on the Edit pull-down menu and the toolbar panel in the Main view and the Page views. You can also use the keyboard shortcut, Ctrl+Z for the Undo function, and Ctrl+Y for Redo.

Designer features multi-leveled undo capability. The traditional simple undo is limited to taking back only your last action. Multi-leveled undo allows you to take back as many preceding actions as necessary. The Redo function is also unlimited. You can freely move forward through the series of actions which you have just undone, to arrive at exactly the desired point in your editing history.

3.19.1 What can be undone

Any change you make in Designer that makes a visible difference in a script's structure, appearance, or behavior is an action that can be undone.

Following are examples of actions that are affected by Undo/Redo:

1. turning a style option on or off
2. adjusting a style value control
3. typing and editing text
4. cutting, pasting, and deleting
5. moving pages or elements
6. grouping and ungrouping

3.19.2 What can't be undone

Changes to settings that affect only the application's working environment and not the script itself, are not tracked by the undo system.

Examples of changes that cannot be undone include:

1. changes made in the Options dialog
2. opening or closing a panel or dialog (apart from changes made within it)
3. actions that cause some form of output, such as ScalaPrint printing or publishing
4. changing the Designer window size or position

3.19.3 What is an undoable action?

Designer tries to make sensible judgments about what you would consider to be a single action. This will give you an indication of what to expect when using Undo/Redo.

For example, as suggested by the preceding lists of what can and cannot

be undone, if you open a panel, change a single setting, and then close the panel, that is considered a single action, not three. If you had adjusted two settings while in the panel, it would be interpreted as two actions. If you had changed only one of those settings several times while in the panel, that would still be considered two actions. Therefore, in some cases, several clicks or drags on a particular control are consolidated into a single action.

3.20 Undo/Redo feedback

Designer always attempts to show you the results of Undo and Redo via the status bar, so that you can see whether they had their intended effect.

3.20.1 Panel and page changes

The contents of panels and the appearance of pages are updated by Undo/Redo to reflect their current state. If a change was to adjust a control in a panel that you subsequently closed, and the change would not otherwise be visible, the panel is opened to show the control at its previous setting.

3.20.2 Status bar messages

Messages in the Status Bar at the bottom of the Designer screen, describe any action(s) which have just been undone or redone. For example, if you delete a page, then choose Undo, the message “Undid Delete” appears. The message is “Undid changes” if what is referred to can’t be easily described with a single action label. Using Redo produces “Redid...” messages.

3.21 Running a script

The Preview icon helps you test and preview one or more pages of the script. However, what you see and hear is not necessarily everything that

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will appear on the selected pages; while using preview, events continuing from earlier pages will not be included in the playback.

To see how everything flows and functions together, it is necessary to use Play. Play always shows the entire script, regardless of the selected pages.



3.21.1 Options during playback

You can stop script playback at any time by pressing Esc. Pressing Ctrl+P pauses script playback. Press Ctrl+P again to resume playback.

3.21.2 Advancing

You can override any timing settings by pressing the main mouse button to reveal the next page in the sequence, or by using the secondary mouse button to return to the previous page. If you use the mouse buttons during the presentation of a page which represents another script, you will advance (or move back) through each page of the sub-script.

Using the mouse to advance when the script has reached the last event, by default, it will loop back to the beginning of the script.

3.21.3 Jumping to a particular page

As the script is playing, you can jump directly to any page by entering its page number (as shown on the Main view) and pressing Enter on the numeric keypad.

3.22 Saving a Script

As you compose and manipulate the pages in a script, you should periodically save the script so that your work is not accidentally lost. You can save a script at any time from any level of the script structure in which you are working.

In the Main view, click on the File pull-down menu and click Save As... opening the File dialog.

The File pull-down menu now has a list of Recent Scripts. Select a recent script to open it.

Ensure that the File dialog shows that you are on the drive and in the folder where you want to save the script. (You can create a folder with the New Folder icon.)

If you have not opened a folder during the current working session, you will see the My Documents folder.

If necessary, navigate to the folder where you want to save the script.

File name:, where there may or may not be an existing name. You can either edit the existing name of the script, or type any name you choose.

If the script is new, the File name: text box is empty; otherwise File name: indicates the name you gave the script the last time it was saved.

File names in Designer (unlike page names) must follow Windows standards: the File name can have up to 256 alphanumeric characters which can be upper or lowercase, it must start with a letter or a number, and it cannot contain any backslashes (\), colons (:), semicolons (;), asterisks (*) or question marks (?). Designer adds the proper file-type extension (.SCA for scripts) unless you choose to include it in the name.

3.23 Closing a script

Click on the close button in the script title bar to close your script.

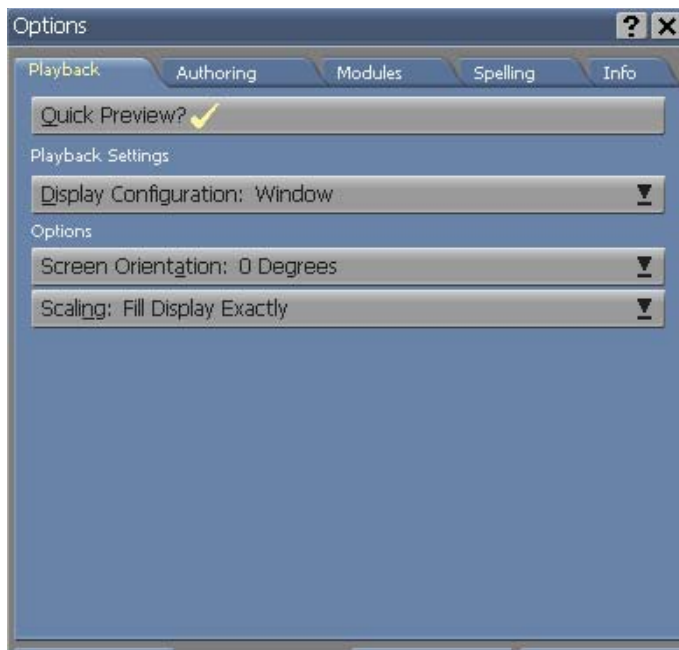
When you attempt to close a script that has been edited since your last save, you will see a dialog box asking if you want to save changes to the script. Click Yes in the dialog to save the script before closing it. If you want to close the script, discarding any changes to the script you made since you last saved, click No. To leave the script open, click Cancel.

3.24 Designer Tools

The Tools drop-down on the Main view gives you access to additional Designer utilities.

3.25 Options

Click Options from the Tools pull-down menu to open the Options dialog. From this dialog you can effectively change and save options which control the look of Designer panels, including toolbar, fonts and Main view column layout.



This dialog will also allow:

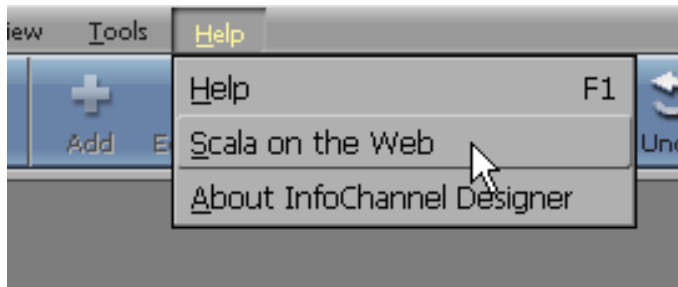
- enable, disable, and configure Designer Modules
- control the spell checker
- view module versions and other information about the system
- change selectable skins — you may change the look and feel of Designer by selecting a different skin.
- thumbnails in the Main view

The Options dialog is discussed in **Chapter 17: Customizing**

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3.26 Scala on the Web

You can open your default web browser to Scala's web site, by choosing this option: <http://www.scala.com>. You may also click on the Scala logo at the end of any toolbar in Designer.



3.27 Spelling

Designer includes a full-featured spell checker for your script text. Spell checker is initiated by choosing Spelling from the Tools pull down menu. The spell checker is further discussed in **Chapter 6: Working with Text**.

3.28 Multi-tile Editor

Click **Tools > Multi-tile Editor** to open the tool of the same name. This program allows you to create and edit multi-tiles, which are graphic objects similar to clips, but may also be resized without distorting their contents. This makes multi-tiles ideal for use as text backdrops, which must change size to fit their contents. The Multi-tile Editor is discussed in **Chapter 17: Customizing Designer 5**.

3.29 About Designer

Choosing About Designer brings up a dialog box which reveals various copyright, trademark, and license information. You can run a script that lists the names of Scala's development team by clicking on the credits button.



3.30 Publishing a Designer script

Use the Publish icon button on the toolbar to publish your script. This publishes the script to a location that Content Manager can distribute for playback on Player systems. The Publish button launches a dialog which asks for your target location; once you have your network set up it becomes a nearly instantaneous process to update your scripts. The Publish Script process is discussed in **Chapter 16: Publishing, Exporting and Printing**.

3.31 Printing from Designer

Although Designer is oriented toward dynamic presentations, it may be advantageous to create a printed version of a script. To do so, simply click the Print icon to open the dialog revealing the settings from which to print. Print functions are discussed in further detail in **Chapter 16: Publishing,**

Exporting and Printing.

3.32 Quitting Designer

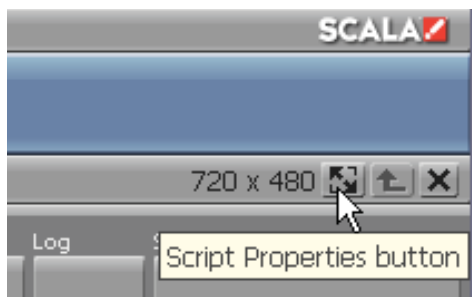
To stop working in Designer and quit your current session, simply click on the close button in the title bar. You may also double-click the Designer icon on the left-hand side of the title bar.

If you attempt to close Designer when an open script has been edited since your last save, you will see a dialog box asking if you want to save the changes you made to your script. If you want to save the script before closing the application, click Yes in the dialog. If you want to close the application, discarding any changes to the script you have made since you last saved, click No. If you do not want to close Designer, click Cancel. You will see this dialog for each open script that has been edited since the last time it was saved.

3.33 Advanced Features

3.33.1 Changing page size for a script

The Script Properties button is a special button in the script title bar used for specifying page size.



The current size is displayed to the left of the button.

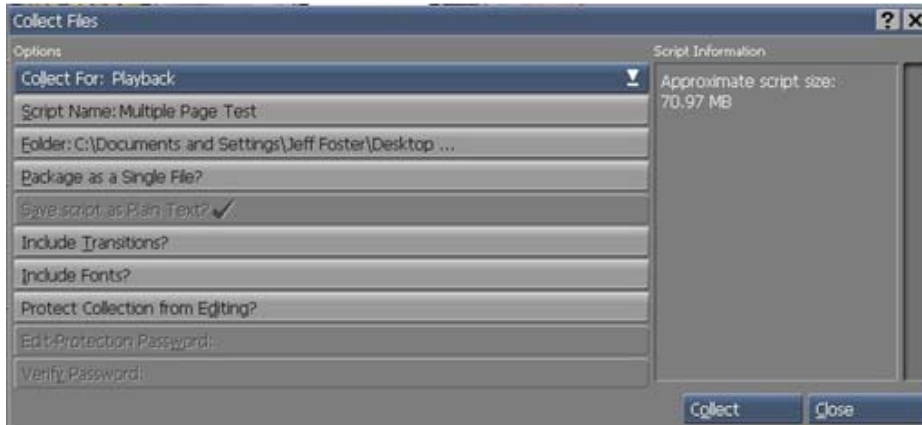
Clicking this button opens a dialog specifying the size (in pixels) of a script's pages. The size you set in this dialog will apply to the entire script. Designer has the ability to adapt page back-grounds of different sizes to the specifications of your script page size.

The playback display mode can be controlled in several ways, and might have a resolution that differs from the size setting for a given script. Regardless of the resolution of the display mode, the size of the pages shown within any display mode will always correspond to the settings in the Script Settings dialog. See **Chapter 17: Customizing Designer 5** for setting display modes for playback.

3.33.2 Collect Files

Selecting the Collect Files option from the File pull-down menu allows you to gather all of your media, fonts, sub-scripts and transitions and save them into one location. You can either choose Collect For: Playback, or Authoring. This is a convenient way to share your projects with other departments, or for general archiving purposes.

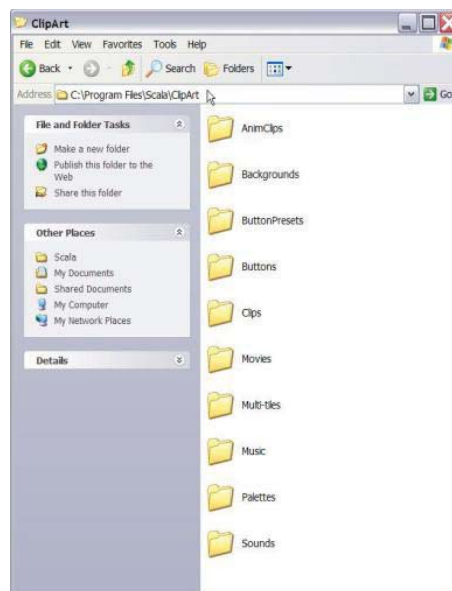
Some of your other options are to include transitions or fonts, package as a single file, or edit the project collect manually. You can also choose to password protect your collected project. For more information, please review **Chapter 16: Publishing, Exporting and Printing**.



3.33.3 Scala Artwork Folder

Typically located in the Scala program directory on your hard drive, is a Clip Art folder where a diverse and exciting assortment of media may be easily accessed for use in your projects.

From the My Computer icon, go to Local Disk (C:) > Program Files > Scala > ClipArt. In this location, there is a vast array of folders containing backgrounds, clips, sounds, mutli-tiles and more!



3.34 Customizing Columns

Designer enables you to adjust the width of the columns in the Main view and change the sequence of the columns that represent page elements, (Transition, Timing, etc.).

3.34.1 Adjusting column width

Changing the width of a column affects the number of columns which can be seen at one time in the Main view. For example, if you make the Name column narrower, you can see additional Module columns without using the scroll bar.

Adjusting the width will also determine the amount of visible information on one or more buttons. For example, if the Timing column is wide enough, a full time value such as 00:03:45.50 can be shown.

1. Point to the vertical space between the column you want to adjust, and the column to its right.
2. Press and hold the main (left) mouse button. The space between the columns will be highlighted.
3. Drag the right edge of the column to your desired width, then release the mouse button.



3.34.2 Adjusting column order

Although you cannot adjust the position of the No. and Name columns, you can rearrange the order of any of the other columns. For example, if you need to work more frequently than usual within a column adjusting the column order would be desirable.

To rearrange the columns of page elements, point to the column heading and drag the name to the left or right until it is in the new position. Do this as necessary until the columns are in the desired order.

You can also choose not to display the columns of optional Modules. This may be accomplished in the Options dialog. For additional details, please review **Chapter 17: Customizing Designer**.

Designer⁵

|||| 4 Working with Backgrounds

Chapter Overview

Once a new page is added, the background becomes a backdrop for elements such as text, clip art, special photographs, pre-designed graphics, and video clips, enhancing the creative design of your page.

Designer includes a wide variety of backgrounds with different themes, colors and styles. Additionally, virtually any picture or animation that is available as a bitmap file may also be used as a background. Designer supports many bitmap and movie file-formats, including BMP, JPG, TIF, GIF, PNG, SWF, WMF, AVI, and MPG as background images.

4.1 Glossary of Terms Introduced in this Chapter

Multi-Tile – A special type of bitmap image in Designer which can be resized without distorting the image. Using the Multi-Tile Editor, you can divide the source image into several “slices”, which are seamlessly tiled together to produce a final image of a pre-determined size.

Animation – a sequence of frames that, when played in order at sufficient speed, present a smoothly moving image effect similar to film or video. Sources of animations can be from digitized video sequences, Flash animations or animated GIF files.

4.2 Terminology

In this application, still images are referred to as “Picture” backgrounds; AnimGIF animations and SWF files are “Animation” backgrounds. Digital video (AVI, WMV and MPG) are referred to as “Movie” backgrounds. There are also “Multi-tile” backgrounds, which are similar to picture backgrounds, and “Plain” backgrounds, which consist simply of a solid color.

Any type of background, other than a Plain background, is referred to as an “image” background. “Animation” and “Movie” backgrounds are generally referred to as animations.

4.3 Types of Backgrounds

There are many sources which are commonly used to obtain or create bitmap graphic and movie files:

- Scanners and digital cameras which save digitized images, (also referred to as TWAIN devices). With the exception of RAW files, images can be used in their captured form, from digital cameras. RAW files must be reformatted to JPG, TIF or PNG files. Images must also be in RGB format - CMYK color space is not supported.
- Rasterized vector files that were originally created in a vector (lines, fills and blends) drawing program, that can save and/or export rasterized bitmap files.
- Video editing and effects software that can export to a compatible video format. Video processing & encoding programs are also supported.
- SWF Flash movies. When used as a background, these will automatically be resized to the longest dimension of the page size.
- Image processing programs that can manipulate or enhance existing graphic images.
- Modeling and rendering programs, which create three-dimensional objects and apply color and shading to their surfaces, giving them a realistic look. Such software can often generate animations, which also can be saved as digital video files.
- Designer’s Multi-tile Editor, which gives you the ability to create and edit multi-tiles. These graphic images will resize without distortion. Multi-tiles are frequently used for blocks of text, but they can also be useful as page backgrounds, especially when it is

important to conserve the storage space used by a script's media files.

- Clip-art libraries (such as the media included with Designer), which may contain images from any of the aforementioned sources. These are ordinarily categorized according to subject or function, and in many cases, they are specially adapted for tiling in Web authoring.
- Virtually any image that is available as a bitmap file can be used as a background for a page.

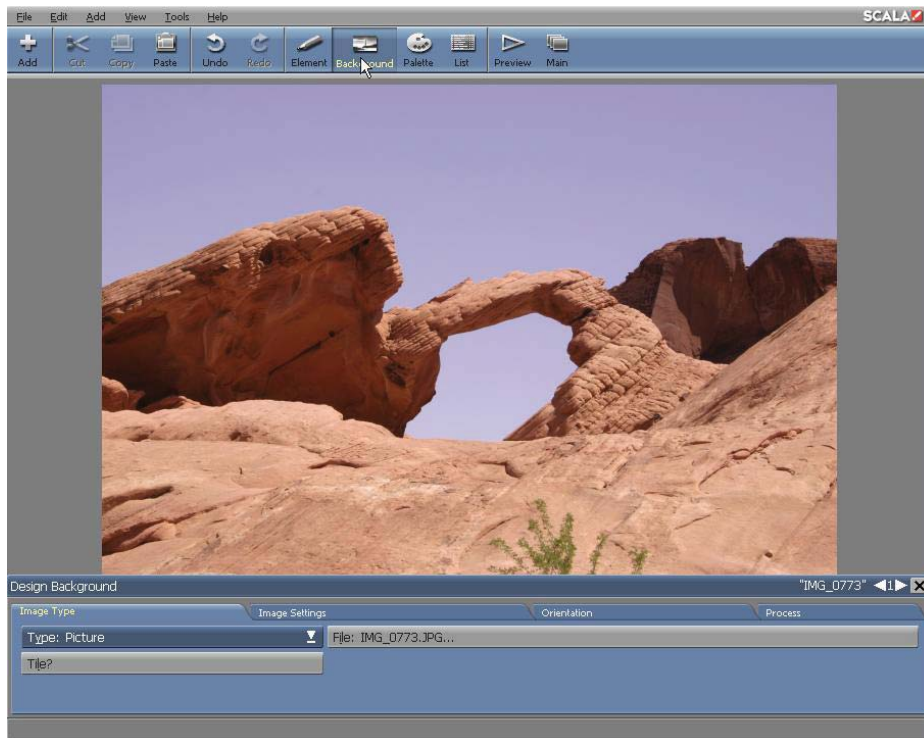
4.4 The Design Background panel

Designer has the ability to make special adjustments to the background of a page, where you can:

- adjust the size.
- change the color.
- crop or trim away graphic areas you do not want to include.
- make a full page background from a smaller image by tiling.
- adjust the background size to ensure that it matches the page size.

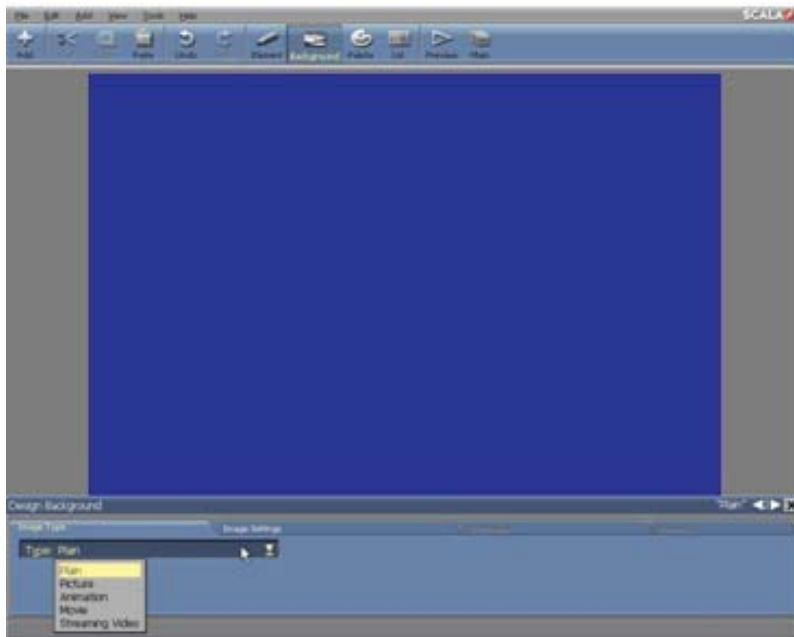
You can tailor a background to meet specific needs of the script, or the display medium. If you are working in the Main view, select the page you want to change and click on the Background column. If you are working in the Page view, click the Background icon.

You will now see the page with the current background with the Design Background panel at the bottom of the screen.



The panel has several tabs to facilitate a variety of background operations. The buttons and options available on the Image Type tab, depend upon the background type. For example, the Background panel shown above, looks as it does, when the background is a picture. The Type: selector in the upper left corner indicates the type of background— Picture, Animation, Movie, or Plain. The name of an associated graphic file is shown on the File: button.

If you choose a Plain background, the panel will look like this:



In the example shown above, since there isn't a file associated with the page, a File: button is not necessary. Located on the Image Settings tab, you will find a color bar along with the Background button with a color chip which will allow you to change the Background color. For additional information, please review **Chapter 13: Adjusting Colors**.



Other tabs are disabled, because their options are not applicable to Plain backgrounds.

When the page represents an AnimGIF animation, you will see the first frame of the animation. The Image Type tab will look like this:



If the file is a digital video animation (an AVI, WMV, or MPG file), there will be different options available. Animation-specific controls which are visible in this panel, are not present with other backgrounds. See **Chapter 14: Using Animation, Digital Video and Sound** for information on using the options in this panel.

4.5 Choosing a background: Video, Image or Animation

Before you compose a page with elements such as text or clips or drawings, you must first create the page by selecting a background.

4.5.1 Picking an image background

1. In the Main view, click on Add to open the Windows File dialog.
2. In the File dialog click on the drop-down selector for Files of

Type: to limit your selection to only the Backgrounds, Movies, Animations etc., or navigate as necessary to the location containing the background(s) you want to use.

3. When you are ready, select the background file(s). You may select one file to create only one page, or several files to create several pages.

To create only one page:

Double-click on the file name or select the file and click OK. You will see a page with your selected background, along with the available Design Text panel. However, if you chose an animation file, you will see the Design Background panel. For information on the animation-specific options in this panel, see **Chapter 13: Adjusting Colors**.

To create several pages:

Select your background, then Shift-click on another file to select it and all files between them, or Ctrl-click to select files that are randomly positioned in the list.

You may also use Select All to select all available backgrounds. If you do not want to use all of the backgrounds in the folder, Ctrl-click on those backgrounds to deselect them.

With each additional background, you will see the Main view as a new page in the script. Designer gives each new page the same name as its background file, however, you can change the name at any time by clicking on the No. (number) button. There are two ways to begin designing a page:

- double-click on the Name button or the page thumbnail to see your selected background, along with the Design Text panel

- select the page, then click the edit pull-down menu and choose Edit Page

4.5.2 Replacing a background

Replacing a background in Designer can be easily accomplished without disturbing other elements located on the page, or in the animation frame.

To replace an image background (a picture, multi-tile or an animation) with another image background:

1. In the Image Type tab of the Design Background panel, click the File: button.
2. You will see the Windows File dialog showing the contents of the folder in which the current background is located.
3. Navigate as necessary to the folder containing the new background you want to use.
4. Double-click on the file name of the new image file. Depending on your selection, you will see the page with the new picture, or the first frame of the animation. You will also see the Design Background panel with the settings of the new background

To replace a background with a background of another type (for example, changing an image background into a Plain background, or vice versa):

1. In the Image Type tab of the Design Background panel, click the Type: pop-up.
2. Choose the type of your new background

- If you choose Plain, you will immediately see the Plain page.
- If you choose anything other than Plain, or the current type, you will see the File dialog, after which you can pick a file described above. You don't necessarily have to pick the same file. —For example, if you choose Animation, you could still navigate to the Movies folder and load one of those as your new background.

After your file has loaded and exited the File dialog, you will see the page with the new background.

4.5.3 Using a plain background

To create a page with a plain background:

Choose Add Plain Page from the drop-down list.

This will open up the Design Text panel, with a solid color background.

4.6 Changing the Color of a Plain Background

Designer enables you to manipulate the colors of backgrounds.

4.6.1 Changing the Background color

Every page has a Background color, specified by the color chip on the Background button on the Page Settings tab of the Background panel.

For a plain background, the Background color is the background of the page. For other types of background, the Background color is seen surrounding the background image only if the image is smaller than the

page in at least one dimension. In many cases, the Background color is not visible. The color bar is used to set the Background color:

1. In the Page Settings tab of the Design Background tab, find a color you want to use in the color bar. You can edit the colors, or create new colors, in the Design Palette tab. Use the Color Set Switcher to move through the color sets.
2. Drag the color to the Background button. The Background color will immediately change without affecting any other elements on the page.

Designer uses a medium blue as the default Background color. The Background color is saved as the default when you choose Save as Defaults in the Misc tab of a Design panel. For more information see **Chapter 6: Working with Text**.

4.7 Adjusting Background Size

The size of a background (that is, its dimensions rather than the number of bytes of data it contains) is measured in pixels, the smallest unit of a screen picture. Size is expressed in terms of the number of pixels which are used, both horizontally and vertically, for display on a computer monitor or other display medium. A common size for Designer backgrounds, for example, is 640 pixels (screen width) by 480 pixels (screen height), or simply 640 × 480.

The size of a background image is determined when it is created. In most cases, you do not have a choice in the size of a given graphic image, such as using clip-art from a pre-produced CD-ROM.

Designer has the ability to change the size of picture, multi-tile and anim backgrounds. (Plain backgrounds are always the same size as the page.)

Picture and anim background size may be changed by scaling, cropping, or both.

4.7.1 Reducing and enlarging backgrounds

If you typically work in different resolutions, you may want to enlarge or reduce a background. If it is too small, the number of pixels in the width and height will be less than the number of pixels in the page size (as set in the Script Size dialog on the Main view). As a result, you will see a border of the Background color surrounding the image.

If the background is too large (the number of pixels in the width and height are greater than the page size), parts of the background will extend beyond the page size limits. Although you may want the background to fit the page, there may also be occasions when you intentionally want it to be smaller or larger than the available space.

Designer offers several ways to adjust the background, thereby meeting your individual page and resolution requirements. You can easily change the size of the background, the size of the pages in the script, or both settings.

You can also repeat or “tile” a smaller image across the entire background. This is especially useful when you want to reduce the media storage requirement of your production. For example, if the script is intended for distribution, you would only need to store or transmit a small image file in which to cover the entire background. Several options are also available to control individual repetition of the image across the page.

4.7.2 Scaling the background image

The Image Settings tab of the Design Background panel contains options related to the dimensions of the background. The Custom Image Size? button, although normally disabled, reveals the size of an image

background. Additionally, the Image Size: selector provides several automatic scaling options. By default, Scaling: is set to Original, allowing the image to cover the entire page without being distorted. If the image is smaller than the defined page size, it will automatically be scaled upward until it covers the dimensions of the page. If the image is larger than the page, it will be scaled down. Regardless, if the proportions of the image and the page do not match, some of the image will “run-off” the edge of the page.

- The Scaling: options provide several ways of adapting an image to the page, such as: Original – no change to the image size. If you are using a higher-resolution image than your target script/screen size, then this choice won’t work well - unless your desired effect is to zoom in on the center of your background image
- Fit Inside Page (Preserve Aspect Ratio) – makes the image as large as possible while leaving all of it visible.



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- Fill and Trim to Page (Preserver Aspect Ratio) – makes the image large enough to completely cover the page; however, the sides or top and bottom of the image may “run-off” the edges.



- Fill Page Exactly – stretches the image to the exact dimensions of the page. Note: this can distort the selected image proportions.

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Custom – enables Custom Image Size control to let you specify any arbitrary size for the image.



If the aspect ratio (height × width proportion) of the background image matches the aspect ratio of the page, you will not see any difference in the effect of the second, third, and fourth options. The proportions of most images intended for use as full-size computer backgrounds will match the proportions of common page sizes.

To specify a particular size for the background, choose Image Size: Custom to enable Custom Image Size. Use the value control to set your desired dimensions, (width and height in pixels)

Shortcut: To quickly cycle to a setting, point to the [<] or [>] arrow then press and hold the main (Left) mouse button until you reach the number of pixels you want. To accelerate the process, press both mouse buttons simultaneously.

Changes are reflected on the screen, providing immediate feedback for further testing and refinement to the image.

Changing the size will stretch or squeeze the entire image so it will fit within your newly defined dimensions. Remember, these new dimensions apply only to the background on the current page. To save the background, so that it is available from the Backgrounds folder in the File dialog, simply click on Edit then choose Export.

After you export, you usually want to use the saved background instead of the original for the current page. Otherwise, Designer must resize the original background each time it encounters the page; that takes additional time, which can interrupt the flow of the script. A possible exception is if you made the background larger. In that case, loading a larger background file might take more time than scaling the original to the new size.

4.8 Cropping a Background Image

Designer enables you to crop or trim away outer parts of picture backgrounds. The cropped portions of the picture will disappear from view, but not from the background itself, allowing them to be easily recovered. Normally, this will make the background smaller, but Designer can automatically scale a picture background so it will always remain the same size.

The Crop? button controls cropping. Normally, the button is blank. Turning the Crop? button on and off enables or disables the crop position and crop size fields within the button. When Crop? is on, the crop position and crop size fields typically look like this for an un-cropped image.

The crop settings you will see before cropping originate with the image file. The crop position setting 0,0 represents the upper left-hand corner of the image. The crop size setting indicates the dimensions (in pixels) of the original image, which should match the current size of the background specified on the Custom Image Size? button. When you have finished cropping the background, the crop size settings will reflect the amount of the original image still visible.



When using the Crop? button:

- Click on Crop? to enable or disable the crop position and crop size value controls.
- Click on a value to activate the cursor in one of the four text boxes.
- Use the value control arrows to increase or decrease a value.
- Use Tab and Shift+Tab to move to the next or previous setting.
- The screen is updated as you click the arrows, or when you move to another setting after typing in a value.
- Turning off Crop? resets the crop position and crop size to their original values.
- Multi-tiles cannot be cropped, so the Crop? button is disabled for multi-tile backgrounds.

4.8.1 Setting a crop position

The first two crop position settings represent the number of pixels which

will be cropped from the left edge of the original background. This will determine the left edge of the newly cropped image.

NOTE: When you load a new background, the setting will be zero because the original image has not been cropped.

In Figure 1, the left setting is changed to 400, allowing the left edge of the background to be cropped accordingly.



Figure 1. Cropping the left side

The second position setting represents the number of pixels to be cropped from the top of the original background. This will determine the top edge of the newly, cropped background. Initially, this setting will read zero (0)

because the original image has not been cropped.

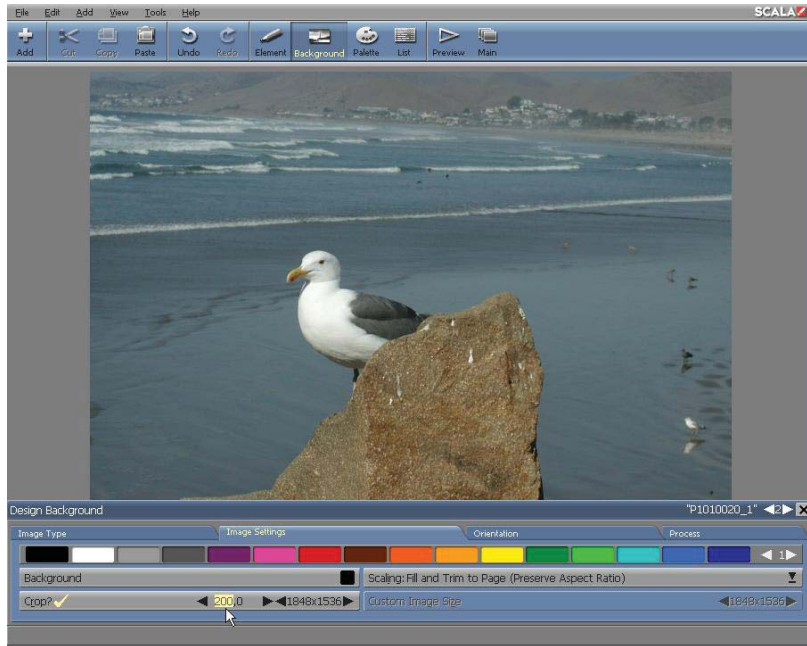


Figure 2. Cropping the top

When the top setting is changed to 140, the top of the background will be cropped accordingly, as shown in Fig. 2.

4.8.2 Cropping and resizing

When the Custom Image Size? button is disabled, cropping will reduce the size of the background image, and you will see a border of the Background color around the cropped image. This indicates the difference between the size of the cropped image and the size of the page. Designer can automatically eliminate designated areas of the background, without

changing the size of the image.

Setting Scaling: to Custom will allow you to manually resize the background. At this point, Designer will resize the cropped image accordingly, scaling it up to the dimensions shown on the Custom Image Size? control. (Note: Proportions of the original image may be distorted to some degree. Please be careful to adjust the crop values proportionately.) If you set Image Size: to something other than Custom after cropping, that option will be applied using the aforementioned cropped size of the image.

Keep in mind that the settings on the Crop? button are expressed in pixels of the original image. Once the image has been cropped and resized, these pixels will not correspond exactly to the physical screen pixels.

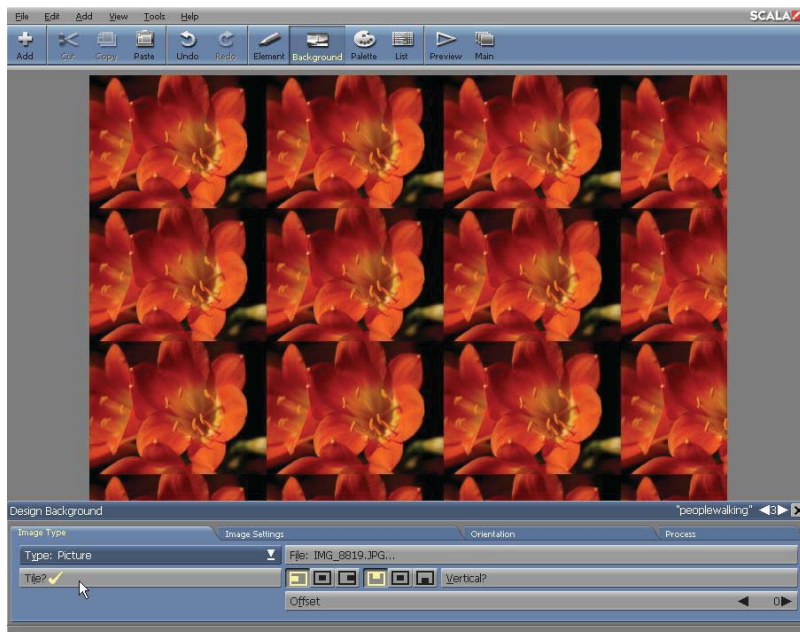


Figure 3. After cropping with Custom Image Size? On

To discard any changes and recover your original image, turn off Crop?, or load the background file again.

4.9 Creating a Tiled Image Background

Turning on the Tile option in the Background panel will display additional controls in the Image Type tab for creating a background by “tiling” or duplicating an image over the entire page.



With the tiling feature, you can achieve greater storage savings for your backgrounds, by using smaller images.

The Tile? button turns tiling on and off. When Tile? is turned off, a small image will appear, centered on the page. The area remaining around the image, is the Background color. When you turn Tile? on, the page will be filled with multiple copies of the image, covering the entire background area.

4.9.1 Aligning tiles with the page edge

When Tile? is turned on, three horizontal alignment buttons and three vertical alignment buttons will appear. These buttons will determine how the edges of the tiled images will be clipped at the edge of the page. (If the width and/or height of the image divides evenly into the total width/height of the page, these controls have no effect.)

4.9.2 Changing image offset

The Offset value control allows you to change the alignment of duplicate images, relative to each other. Duplicate images are normally laid out in a perfect grid, horizontally and vertically aligned. So, adjusting this strict grid arrangement, may add visual interest to the page. Changing Offset from zero moves each successive row or column of images over by the number of pixels specified on the control. This will create a diagonal repetition of the images.

By default, Offset affects the horizontal alignment of each row, as shown in the preceding illustration. Turning on the Vertical button will switch the offset to affect the vertical alignment of the columns.

4.10 Changing the Background Orientation

The options on the Orientation tab allow you to easily change the overall orientation of a background picture.



4.10.1 Flipping the background

The two Flip options will switch the direction the background faces; either from side to side or top to bottom.

When Flip Horizontal is applied, the button will be marked with a checkmark and the image will be flipped around an imaginary vertical axis.

When Flip Vertical is applied, the button will be marked with a checkmark and the image will be flipped around an imaginary horizontal axis.

When both Flip options are applied at the same time, the image will be

shown upside down and backwards.

After applying one or both Flip options, you can save your image by clicking on Edit and choose Export.

4.10.2 Rotating the background

Using the Rotate value control, a background may be rotated in 90° increments around its center. This capability will make authoring portrait-style displays much more practical, especially when used with matching rotation of text and clips.

This option rotates the image, not the page, and does not change its proportions from the way it appears at 0°. Therefore, rotations of 90° or 270° may cut off the ends of the image and leave visible bars of the Background color on opposite sides of the page.

There is no difference between rotating a background 180° and applying both Flip Horizontal and Flip Vertical.

4.11 Processing Background Image Color

Any image background—can be altered in subtle or dramatic ways using the image processing controls on the Process tab of the Design Background tab. Because image processing also applies to clips as well as backgrounds, the Process tab is described in further detail in **Chapter 13: Adjusting Colors**.

4.11.1 Exporting a Background or an Entire Page

Use the Export option in the File pull-down menu to save the background with any new settings or changes you have made. For example, when the

background is adjusted to meet special size or resolution requirements, using this option would make it easily available for use in another script.

When you click on Export, you will see this Export Options dialog:



4.11.2 Exporting the Background (w/out Elements)

What to Export: defaults to Background in the Background panel.

Exporting either Background or Entire Page will result in an image file the size of the page. Background saves the background image with all of its styles and options (including tiling), however, without elements. Entire Page saves any page elements, such as text or clips, as part of the background.

For example, you may want to use Entire Page to ensure a company logo appears on every page which uses the background design. When such “foreground” elements are saved as part of the background, they become part of the background design. When the saved background is opened, it cannot be edited or independently manipulated on the page.

After choosing an Export Type, click Save... to open the File dialog. Find a location and enter a name for the exported file. Designer automatically adds the file extension.PNG and saves the file in 24-bit PNG format regardless of the original format of the background image file.



When you click OK in the File dialog, you are asked if you want to keep the original background, or replace the original background (and its elements, if you specified Entire Page) with the exported background. Choose the exported background only if you don't need to work with the elements on the page as separate elements.. (This allows the page to appear faster.) Choose the original if you want to save the page as a file for future use, but still need to move and adjust the items on the page.

In any case, when you are finished in the File dialog you will see the page and the Background panel as they were when you chose Export.

4.12 Advanced Features

4.12.1 Using the Background panel in the Main view

One of the columns in the Main view is Background. The panel that this brings up is the Background panel, which looks just like the Design Background tab. It opens on top of the Main view, not on top of a single-page display.

Although this is seemingly redundant, it will allow you to select multiple pages at the same time. It also allows background-related settings to easily be applied in one operation. Since background size and similar factors typically affect many, if not every page in a script, using the Background panel together with the Main view; rather than using the Design Background panel, allows these changes to be made much more quickly and effectively.

To make a common background change, select any number of pages, then click in the Background column. You will see the Background panel at the bottom of the Main view. At this point, you can make your desired changes to the page settings. Once your edits are confirmed, you can exit the panel by clicking Close. If there are other pages which need editing, you can select them and make their changes without closing and reopening the panel. Different page types have different possible options. For example, if you select different types of pages at the same time—picture and animation pages—the options you will see in the panel will be the same options that were last selected. Additionally, these options will only be applied to selected pages of the same type.

4.12.2 Background and Design Background panel

The Background panel duplicates the Design Background panel. The

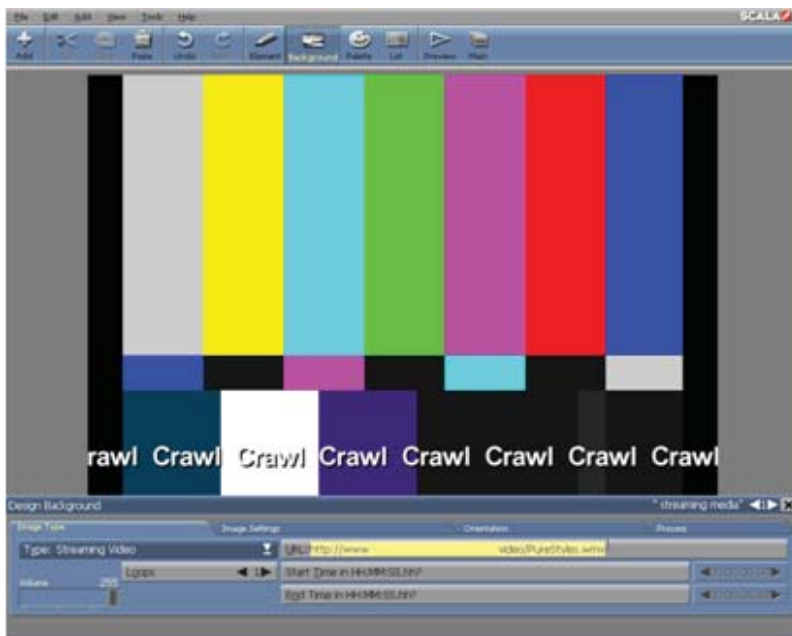
options are identical to those described in this chapter.

4.12.3 Streaming Video in the Background

Streaming Video can be used as a background page as well as any other video file. You just need to be sure that the Player computer has access to the URL where the movie file resides.

This is very effective for live feeds and refreshed media streams. Layers of content - such as text, images and video clips, may also be created and placed on top of the streaming video.

To create a Page with a streaming video background in the Main view, select the Add pull-down menu and choose “Add Streaming Video Page”. Then enter the URL for the media file and click OK. The streaming video page will show the Page view for further editing.



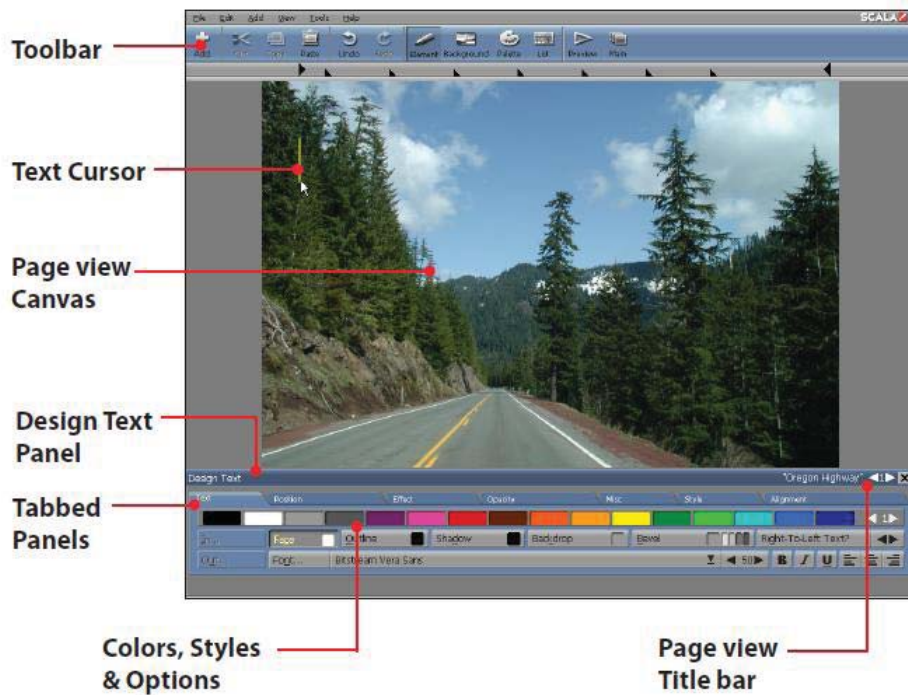
Designer⁵

|||| 5 Using Design Panels in Page View

Chapter Overview

Design panels are the tabbed panels at the bottom of your Designer window when you are editing a page.

These panels house the functions and settings you will need to compose individual pages in your script. There is a specific Design panel associated with every major type of design task. The name of a panel reflects its purpose or the type of element with which it is associated. You can easily switch from one to another. In the Page view, simply click on the View pull-down menu.



Although each Design panel contains options which are specific to a particular type of task, there are some features which are common to all Design panels.

5.1 Glossary of Terms Introduced in this Chapter

Design Panel – The lower section of the Designer 5 window which contains the Tabs with settings, options and controls for timing, events, media, text and design items.

Tabs – The individual tabbed panels which reside inside the Design Panel and contain buttons, sliders, controls, settings and selectors.

Hide/Unhide – The ability to select the visibility of elements in the Page view.

Context Menu – The pop-up menu which appears when the secondary (Right) mouse button is applied in the Main view or Page view windows.

5.2 The Page view Title bar

The Page view title bar includes the name of the Design panel and the name of the page.

The Design panel title bar also includes the Page Switcher. The Page Switcher enables you to move to another page in the script without closing the current Design panel or returning to the Main view. You can click on (previous) to move to the previous page or (next) to move to the following page. If you know the page number, you may enter it between the arrows.



5.3 The Page view Toolbar

The Page view Toolbar has a few buttons which are similar to the Main view Toolbar. Certain icons—Add, Cut, Copy, Paste, Undo & Redo and Preview—are also present on both Toolbars. However, the Page view toolbar, has other icons, that let you quickly access different aspects of the page in which to compose.

- You can easily move from one Design panel to another by clicking its icon in the toolbar, or by pressing its F-key shortcut.
- In order to see the Design panel for a particular element, first, select that element. Depending on the type of element selected, the appropriate Design panel will automatically appear. The Element icon in the toolbar will also be highlighted. There is a corresponding Design panel for every type of created screen element—Design Text, Design Clip, Design Animclip, Design Movieclip, to name a few.
- To edit other aspects of the page such as Background, Palette or List, click on the desired icon.
- After using a Design panel, simply click the Element icon to continue working with an element's styles. If an element is not selected when you click the Element icon, or you've selected multiple elements of different types, you will see a Design Multiple Elements tab in which most options have been disabled.

NOTE: Look in the View pull-down menu to see the associated F-keys for the different Design panels. Some keyboards may be set up with alternate global

commands for F-key functions. These commands may potentially be disabled or overridden while working in Designer.

5.4 Adding Elements to a Page

Most types of elements are added to the page through the Add icon in the toolbar. Select the File type at in the bottom panel and navigate to the location on your hard drive or server to the file you wish to add. Similar to Windows file dialogs, you can select more than one file at a time by either holding down the Shift key or using the Alt key and selecting one file at a time. To add elements such as Special Events, Text Crawl and Streaming Videos, use the Add pull-down menu. Using the Add icon in the Toolbar, the following elements may be utilized:

- Custom: Allows you to select any type of file which is supported
- Images: Narrows the choice of selectable items in the dialog to only image files
- Animations: Shows only available animation files
- Video: Shows only available video files
- Sounds: Shows only available sound files
- All Files: Allows you to select any type of file, whether or not it is supported

Using the Add pull-down menu offers the following choices:

- Add File(s): Opens the dialog which allows you to select any type of importable file
- Add Special Event: Opens the Design List panel and adds a line to select Timing, Branch, Sound, Launch, Log, Schedule or WinScript
- Add Text: Adds an empty text element to your page, which can be very useful when you can't select an open spot on the canvas area, especially if you have full-screen elements on your page. Note: The text cursor will also appear.

- Add Text Crawl: Adds a Text Crawl element which can be positioned and edited
- Add Box: Opens the Design List panel and creates a Box element that can be drawn-out with the mouse
- Add Oval: Opens the Design List panel and creates an Oval inside a boundary box that can be drawn-out with the mouse
- Add Line: Opens the Design List panel and creates a diagonal Line inside a boundary box that can be drawn-out with the mouse
- Add Streaming Video clip: Opens a dialog that requests input of the Streaming Video URL

5.5 Using Edit options

Edit contains options for managing the contents of the page. The available options depend on the tab which may differ slightly from one tab to another. They can be accessed primarily through the Edit pull-down menu. A few options are also available in the Page view Toolbar; such as Cut, Copy, Paste, Undo and Redo.

5.5.1 Undo options

You can Undo and Redo your actions as necessary. The Undo/Redo support in the Design panels is the same as described for the Main view in **Chapter 3: Working in the Main View**. The Undo command undoes the last action you performed. Redo, restores that action. Undo and Redo are multi-leveled, meaning you can repeatedly step backward through the sequence of your changes by continually choosing Undo. You may also step forward in your sequence by choosing Redo.

Undo Page is basically a "whole-page" undo. Choosing this option will revert the current page to the state it was in when you last entered it from the Main view, or from another page, in any Design panel. For example, if you've just made several changes to a page and realize that it has all

gone wrong, Undo Page lets you start over more easily than using Undo repeatedly.

5.5.2 Cut

Cut deletes information from a page. The information is then placed on the clipboard which can be pasted into any script. Any information located on the clipboard is available until the next time you choose Cut or Copy.

5.5.3 Copy

Copy copies information to the clipboard which can then be pasted into any script. Any information located on the clipboard is available until the next time you choose Cut or Copy.

5.5.4 Paste

Paste inserts information from the clipboard which has been cut or copied. The position of the information after it has been pasted, depends on the current status of the page:

- if you click on the screen and see the text cursor, the information will be inserted at the cursor position.
- if one or more elements are selected, the information will be placed down and slightly to the right of the currently selected items' upper left corner.
- if nothing is selected and there is no cursor visible, Designer will remember the last position the text cursor occupied, and will insert the information into that position.

You may continue working with any pasted information.

5.5.5 Paste Special

Paste Special is for special options when pasting material placed on the clipboard from an external program. It is available only when there is material on the clipboard other than plain text which Designer will interpret as graphics.

When you choose Paste Special, you will see a dialog offering two options: Paste as Clip and Store as a Separate File.

Use Paste Special when the type of data you want to paste would not be useful in its “natural” form. Let's use for example, copying columns out of a spreadsheet program to be included in a page. If pasted normally, the spreadsheet data would appear on the page as a single text element, and the data would most likely not be arranged in columns. Using the Paste Special option, you can paste an image of the copied columns into the spreadsheet. For this option to work properly, the application from which you cut or copy must be able to create the bitmap image when it places the data on the clipboard. Not all applications can perform this action.

Use Paste as Clip to embed the pasted image into your script.

Use Store as a Separate File when you don't want the pasted object to be embedded into the Designer script file. Instead, it will remain a separately referenced file. This will keep the script file from becoming too large, especially when you are using several copies of the same item. When you choose this option, you will see the File dialog. Enter a location and filename. Designer will create a file containing the clipboard object with the name and location you assigned, and will display the object on the page. The script will reference the file exactly as Adding a file.

5.5.6 Delete

Delete deletes any selected elements. Any deleted elements may be recovered by choosing Undo.

5.5.7 Select All

Select All automatically selects every element on the page. For example, if you wanted to apply the same pause setting to every element, you would use this option. In some situations it is faster to select all elements on the page and then Ctrl-click on the elements you want to exclude, rather than individually clicking on every element.

5.5.8 Appear Later, Earlier

Appear Later causes the selected element to appear on the page later than other elements. This will effectively move the element to the bottom of the Page view List mode. Appear Earlier causes the selected element to appear on the page earlier than other elements. This will effectively move the element to the top of the Page view List mode.

Appear Later and Appear Earlier options also have the effect of causing the selected element to move in front of, or behind overlapping elements. Using Element Layering will control how elements cover each other, independent of their temporal order.

5.5.9 Snap to Grid?

Snap to Grid? turns on and off constraint of movement to the grid positions. Turning it on makes it easier to consistently align and space objects on the page. For additional details, please review the section, Using the Grid.

5.5.10 Spelling

Choosing Spelling will check the spelling of any selected text. For additional information please see **Chapter 6: Working with Text**.

5.5.11 Zoom

When editing a page, zoom is now supported. The current zoom factor is shown at the right edge of the Design panel's title bar. The View pull-down menu contains the following new options:

- Zoom In: Zooms into the page by increasing the zoom factor by one step. The hotkey is Ctrl+Plus.
- Zoom Out: Zooms out of the page by decreasing the zoom factor by one step. The hotkey is Ctrl+Minus.
- Actual Pixels: Zooms to show the actual pixels of the page, by setting the zoom factor to 100%. The hotkey is Ctrl+Alt+0.
- Fit on Screen?: When on, the zoom factor is always adjusted so that the entire page fits on the screen. The hotkey is Ctrl+0.

5.5.12 Mouse-wheel / middle-mouse-button support

Wheel: Scrolls the page vertically as you turn the wheel (like before).

- Shift+Wheel: Scrolls the page vertically by screenfuls, as you turn the wheel.
- Ctrl+Wheel: Scrolls the page horizontally as you turn the wheel.
- Shift+Ctrl+Wheel: Scrolls the page horizontally by screenfuls, as you turn the wheel.
- Alt+Wheel: Zooms the page in or out, as you turn the wheel.
- Middle Mouse Button: Scrolls the page as you drag with the middle mouse button (wheel-button) pressed.

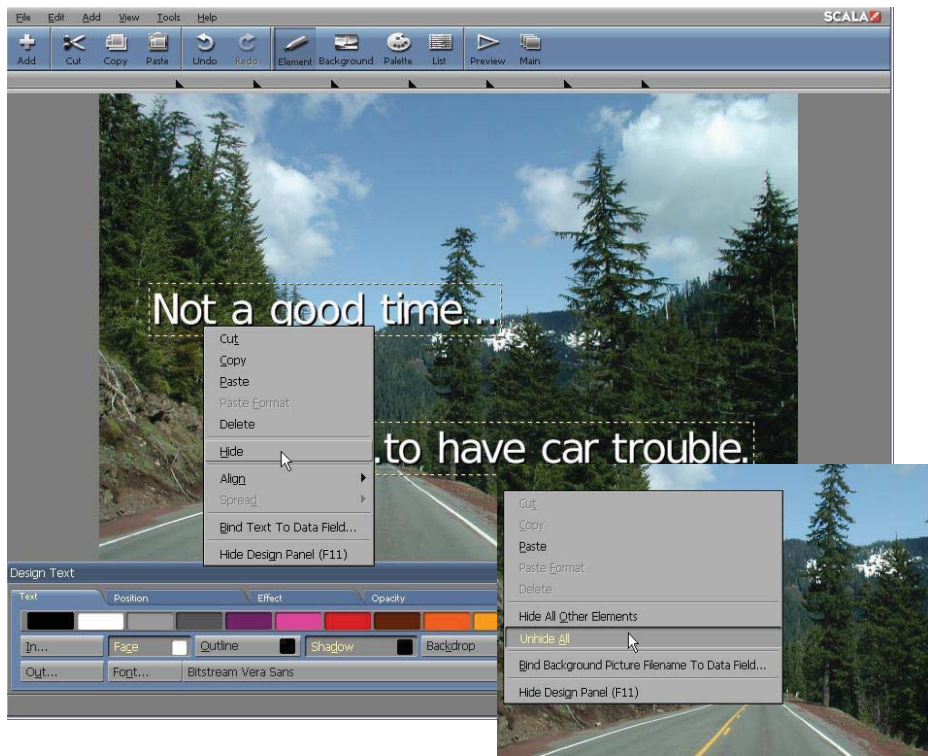
5.6 Using Hide/Unhide All

This feature hides an element on a page as follows:

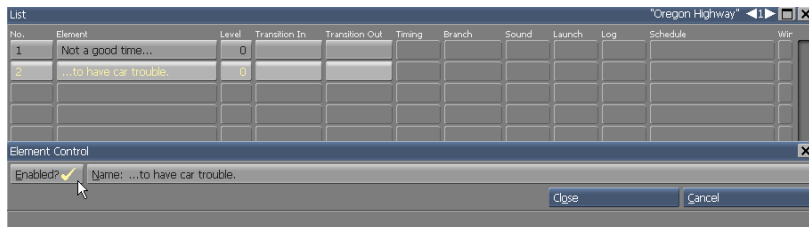
- When designing several elements which are arranged one on top of another
- Temporarily disabling it from appearing in the script

First select the element either by clicking it in the design canvas or from the List panel, then choose Hide Selected Elements from the View pull-down menu. You can also choose Hide All Other Elements to isolate only the selected element on the screen. To Unhide All hidden elements, simply select Unhide All Elements from the View pull-down menu. This will make all hidden elements visible regardless if they were selected. You can also access the Hide/Unhide All features from the context menu, using the secondary (Right) mouse button on a selected element.

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Elements will remain hidden until you complete editing and exit from the page. To permanently hide elements from playback, use the Enable/Disable feature from the Element Control panel.



5.7 Previewing a page

Preview runs the current page, allowing you to see and hear any element in the page, including their transitions.

However, in a Design panel Preview will not show you how the page transitions in, or let you hear a sound which started on an earlier page. For a complete overview of the interaction of the page and the rest of the script, you must run the script from the Main view.

5.8 Returning to the Main view

The Main icon closes the Page view and returns to the Main view.



The page will be listed in the Main view. When you save the script, the page will also be permanently saved.

Choosing Undo from the Edit drop-down immediately after exiting to the Main view, will return you to the Page view. This will also undo the last change you made to the page. It does not revert the page to its previous state, prior to any editing in Page view. To globally revert to an earlier version of your script, you must close it without saving changes, then reopen it.

5.9 The Color bar

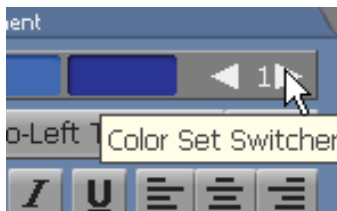
Several Design panels include a Color bar which you can use to assign colors to the elements and styles on the page. You can change the color assigned to an element or style by dragging



the color from the color bar to the small colored block or “color chip” on a tab button.

The palette is divided into color sets, each containing 16 colors. You can navigate from one set to another by using the Color Set Switcher arrows at the right-end of the color bar.

Each set in the palette is also assigned a number which you can enter in the Switcher.



The colors in a palette belong to the User palette, and are initially determined by Designer, however, you can change the palette and mix colors as desired. Details about working with palettes are discussed in **Chapter 13: Adjusting Colors**.

5.10 Tab panels

All Design panels in Designer, are comprised of several tabbed sub-panels called Tabs. The tab-shaped graphic near the top of each Tab panel reveals the names of their function. The Tabs are organized so that the Design panel is not cluttered with too many options. Thereby making it easier to see which options are related. In certain contexts, a panel’s options will

not apply to the current situation; in such a case the Tab will be disabled.

Click a Tab to display its contents. You can also cycle through the Tabs with the Ctrl+Tab (left to right) and Shift+Ctrl+Tab (right to left) shortcuts.

All Element Design panels share the Position, Effect, Opacity, and Misc Tabs. Additionally, most of the options and styles which they contain can be applied to every type of element. Depending on the element type, certain Tab options which are present for other element types (on common panels) are not available.

5.11 Adding Elements using Drag and Drop

When working in Page view, Designer can add elements to a page by using the drag and drop feature of Windows.

Dragging the icon for a graphics file into the Page view canvas will add that file as a clip, animclip, or movieclip. You can also add sound and text files in the same way. They are added to the page as sound events or text elements after any existing elements (they will appear at the bottom of the Page view List panel).



If you drag an icon for a type of file which is unrecognized or cannot be added to an Designer page into the Page view canvas, you will see a message reading: it cannot be added.

5.12 Using Page view Viewing Options

Designer has features which allow you to adjust what is visible when you are working in the Page view.

5.12.1 Using the scroll bars

A Design panel can cover the lower portion of a Page view canvas. If any portion of the canvas is covered by a Design panel, or if the window is not large enough to display the entire page, you will see vertical and/or horizontal scroll bars in the Page view window. The scroll bars will disappear when they are not needed.

Designer can automatically scroll through the page display. For example, if you drag an element below the top of a Design panel, Designer will scroll the page to reveal the entire element.

5.12.2 Hiding the Design panels

To see the covered portion of a page obscured by a panel without scrolling, press the secondary (Right) mouse button and select Hide Design Panel. When the tab is hidden, press the secondary (Right) mouse button to make it visible.

If your keyboard is not globally programmed with another feature, or you have reprogrammed it for accessibility in Designer, you can also use the F11 key to Hide/Show the Design panel.

If you are running in a window, and your desktop is large enough, you can

simply enlarge the window so that the Design panels don't obscure the Page view canvas.

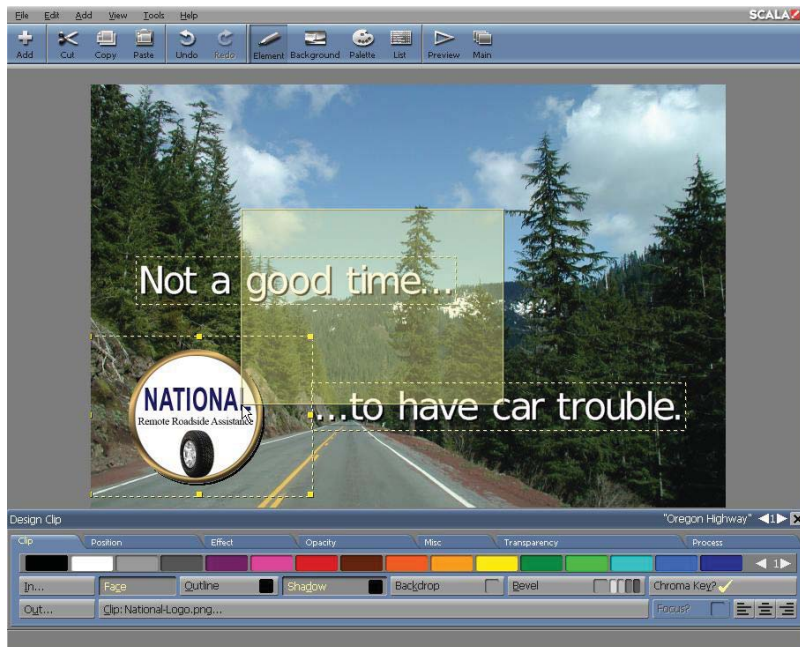
5.13 Selecting Elements

When an element is selected, it will be highlighted with a dotted rectangular frame. Selected elements which can be resized, such as a clip, also contain graphic handles on their corners and edges. In the Page view List panel, selected element rows are also highlighted. There are several ways of selecting elements in the Design panels:

- Click on the element
- Drag the pointer across the background so that the dashed frame encloses, or partially encloses the element
- Use the up and down arrow keys (arrows) to select the following or previous element (in the Page view List panel)

Selecting more than one element at once is also possible:

- Ctrl-click on the elements
- Drag-select so that the dashed frame encloses, or partially encloses all the desired elements
- Shift-click on an element to select a series of elements
- Choose Select All from the Edit pull-down menu or press Ctrl+A to select all of the elements on the page



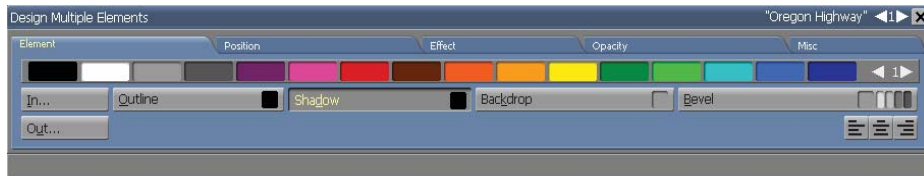
5.13.1 Working with several selected elements

You can work with the selected elements as a unit. For example, you can point to one of the elements and drag it to a new position. All of the selected elements will move together maintaining their original positions, relative to one another.

You can also collectively edit styles when several elements are selected. Changing an attribute of a style (for example, changing the color of the Shadow style) will change the attribute for the selected elements to which that style has already been applied. Turning a style on applies it to all of the selected elements; turning a style off will remove it. The prior style settings of the elements will be preserved, unless they are explicitly changed.

When you select more than one element at a time, and they are different

types (for example, a text element and a clip), the Design panel that appears will be the Design Multiple Element stab.



The available Tabs include only the settings and options which can be applied to all of the selected element types, globally. The controls in the tab can display only one setting at a time. When more than one element is selected, the displayed settings for the options in the tab will be those of the previously selected element. Changes will still be applied to all the selected elements.

For example, suppose both text and clips are included in the selection, and the text elements have Outline on while the clips do not. Changing the outline color would affect only the text elements. Outline is not turned on for the clips.

Every element will remain selected, even if you change from one tab to another. To cancel the selection, click anywhere on the page which is outside the area of the selected elements.

5.14 Context Menus

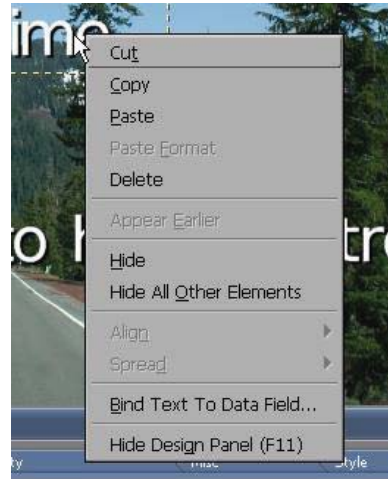
The Context menu will appear at the cursor when the secondary (Right) mouse button is pressed. Depending where you place the cursor on the Page view window, the Context menu options will be different.

For example, if you Right-click anywhere outside the Page view canvas (including all of the toolbars, Design panels and the grey area), you will see the option to Hide Design Panel (F11).

If you Right-click over an element, you will see the Cut, Copy, Paste, Delete commands, as well as the Hide/Unhide All Other Elements, Bind [Element] to Data Field and the Hide Design Panels options. If more than one element is selected, you will also reveal the Align and Spread options.



If you Right-click over the Background on the Page view canvas, you will see the Paste (if something is copied to the clipboard), Hide All Other Elements, Bind Background to Data Field and Hide Design Panel options.



5.14.1 Using the grid

The Snap to Grid? option allows you to easily position elements to consistently line up on the page. Choose Snap to > Grid? from the View pull-down menu to turn it on and off. The default setting is off.

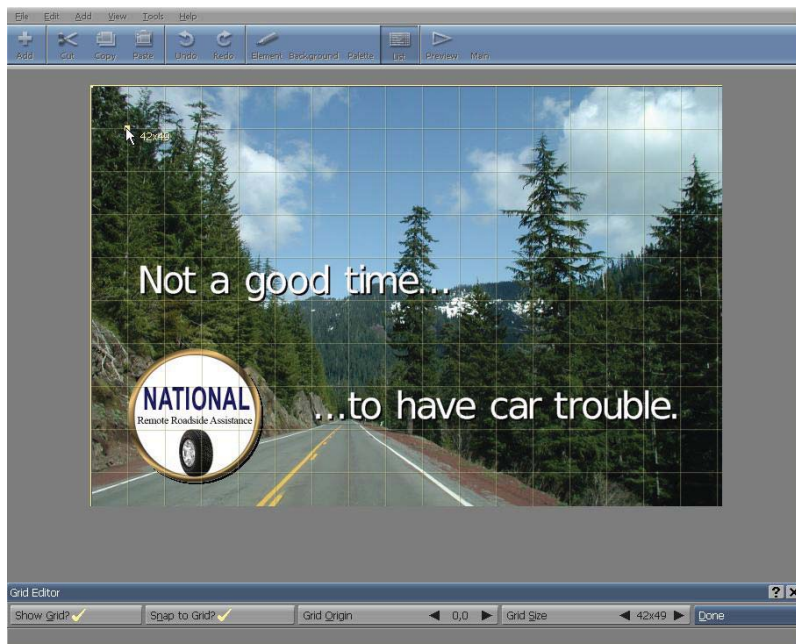
When turned on, this option will allow elements to be specifically positioned at grid points. When you drag with the grid on, the horizontal and vertical leading edges of the elements will show a visible yellow line where they can “snap” into the possible positions defined by the horizontal and vertical grid size values. However, if you quit dragging in-between two grid points, the element will not automatically “jump” to the snap position. The grid will also constrain elements resizing. Turning on the grid will not cause elements to move or change size.

Turning on the Show Grid? option in the View pull-down menu, will reveal a

grid of points, representing the current grid settings.

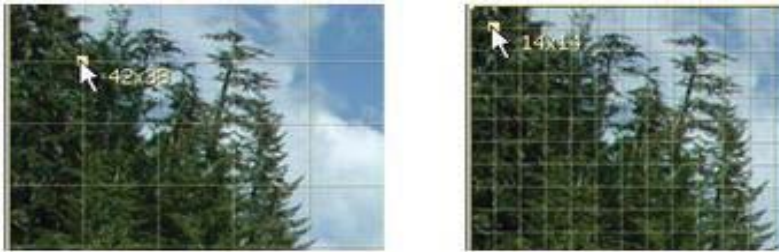
5.15 Grid options

You can adjust the size and origin of the grid in the Grid Editor panel. Click Edit Grid from the Tools pull-down menu to open the Grid Editor panel. The Show Grid? option is automatically turned on. Within this dialog, you can adjust the grid, either graphically or numerically.



5.15.1 Resizing the grid

The smaller the grid size values, the more freedom you have to position and resize elements. Both the width and height contain a range from a minimum of 4 to any desired maximum size.



To graphically edit the size of the grid, simply drag the solid graphic handle, which is located below and to the right of the origin (initially the upper left corner of the page). To numerically edit the size of the grid, simply highlight the value in the Grid Size control which you want to change, (width or height), and use the value control to increase or decrease the number. As the values are edited, you will see the grid change. With coarser settings, the grid lines become farther apart and the “boxes” in the grid will become larger.

5.15.2 Moving the grid on the page

You can reposition the entire grid relative to the page, so that even with coarse grid settings you will still have considerable freedom in positioning items. The grid origin is represented by a hollow graphic handle crossed by two solid lines. By default, it is set to 0,0, which is located in the upper left corner of the page. You can drag this handle, or you can adjust the values in the Grid Origin control. Any pixel position (regardless of the grid size) can also be set as the origin.

When you are finished in the Grid Settings dialog, simply click Done. The grid settings apply to every page in every open script, however, they will only have an effect while you are editing a page.

Grid settings can be retained for future use by clicking Save Element and Page Defaults from the Tools pull-down menu. They are not saved with scripts.

5.16 Using the Guides

Another feature provided in the Page view makes it easier to align objects, is the Guide Lines. Guides are horizontal and vertical lines which extend across the entire canvas. They are visible only in the Page view, but not in the Main view, and not when you preview or play a script. They can be created or positioned, wherever you like. The guide lines provide convenient references when several elements are positioned on the page.

Layout guides are not defined by default. You can create and move Layout guides by selecting Edit Guide Lines from the Tools pull-down menu and opening the Guide Lines Editor panel. Guide lines will automatically be turned on when you open the panel. You can create and move lines by clicking and dragging directly on the page, or by using controls in the dialog to make more precise adjustments. You can turn guide line viewing on and off using the Show Guide Lines? button.

5.16.1 Creating guide lines

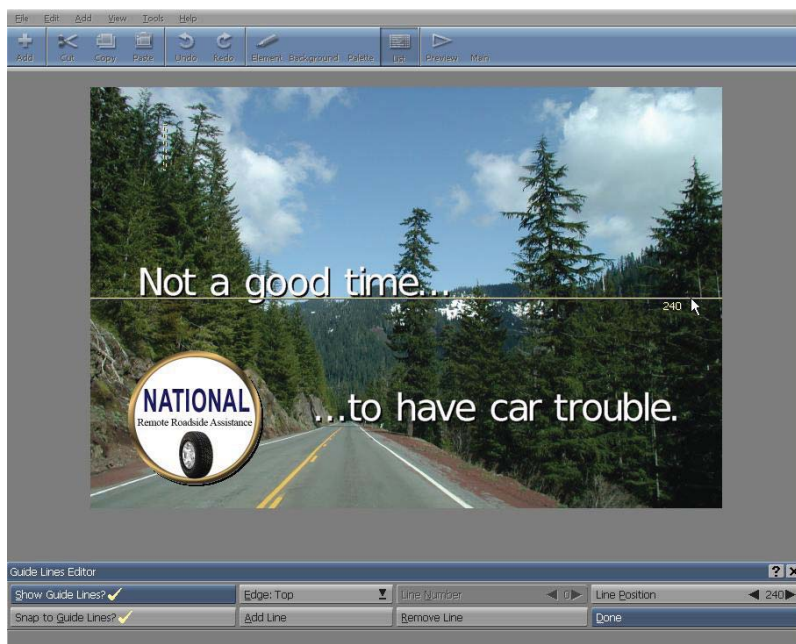
There are two ways to create a guide line:

- To make a line, click anywhere on the canvas while in the Guide Lines Editor. The new guide line will be vertical or horizontal depending on whether you clicked closer to the sides of the canvas area or the top/bottom.
- Click Add Line. The new guide line will be positioned relative to the side of the page specified by the Edge: pop-up. The line is vertical if Edge: is set to Left or Right, horizontal if it is set to Top or Bottom.

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The new line will appear solid, indicating that it is the current selected line. Any other guide lines will be dashed. A small arrowhead in the middle of the current line will point to the left side, right side, the top or the bottom, depending upon which edge represents “0” for that line’s position value.

You can create any number of guide lines.



5.16.2 Selecting guide lines

Guide lines are individually numbered. Each Edge: setting (Left, Right, Top or Bottom) can have a series of lines associated with it, regarding its numbering and position. The numbering starts with 0, and represents the order of the lines in terms of how far they are from the page edge: line 0 is closest to its edge, line 1 is the next closest, and so on.

The number of the current line is shown in the Line Number value control arrows. You can use this value control to select a line, or alternatively, click

on the line. The selected line will become solid, and its Edge, Line Number, and Line Position settings will be displayed in those controls.

5.16.3 Positioning guide lines

If you used Add Line, the new line will be positioned relative to the last guide line which you created for the current edge. Newer lines are positioned farther from the edge. The Line Position value control will show the distance of the current guide line from its edge, in pixels. You can adjust the line's position using this control.

Once created, you can move guide lines by dragging them, however, you must click directly on the line to avoid creating a new line. In repositioning guide lines, it can be easier to use the Line Number control to select the lines, rather than making precise adjustments with the Line Position control.

If you click and drag to move a guide line, the line will follow the mouse pointer, and a number will appear near the pointer, indicating its line position.

5.16.4 Removing guide lines

To remove a guide line, select it (by either clicking on it or using the Line Number control), then click Remove Line, or simply use the Delete key on your keyboard.

Clicking the Remove Line button repeatedly will remove successively lower-numbered lines.

5.16.5 Snap to Guides?

Using the Snap-to Guides? Option works similarly to Snap-to Grid?. With

the element(s) selected, choose the Snap to > Guides? from the View pull-down menu. When you move your elements on the canvas, the edges will highlight the guide lines when you get near them. Once the guide line is highlighted, let go of the mouse and it will snap to that guide line.

5.16.6 Using the guide lines you have created

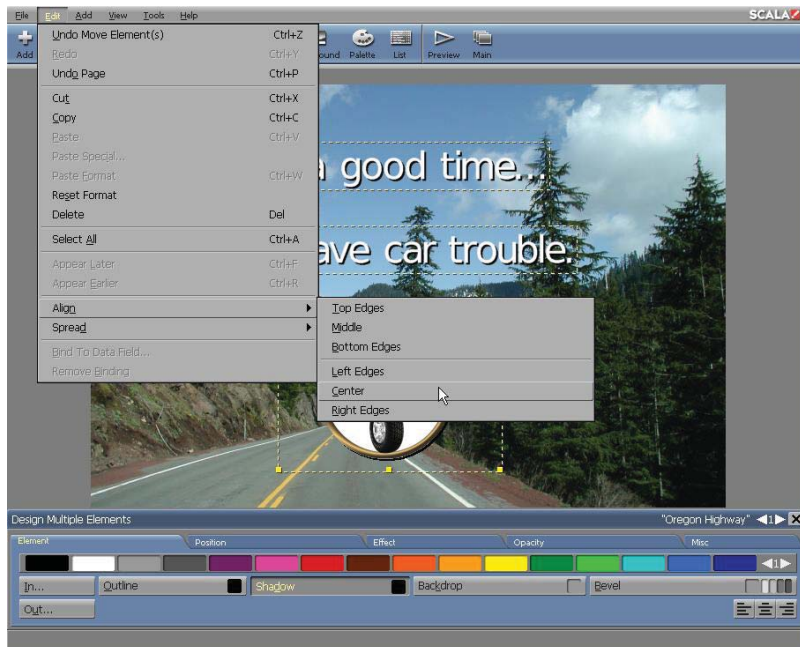
When you have finished creating guide lines, click Done to close the Guide Lines Editor. The guide lines you defined will appear in the Page view canvas as solid yellow lines, whenever the Show Extras option in the View pull-down menu is on. The lines do not appear in playback.

Guide line settings can be retained for future use by clicking Save Element and Page Defaults in the Tools pull-down menu.

5.17 Using Align and Spread Tools

You can apply the Align and Spread options from the Edit pull-down menu to multiple-selected elements on a page. Select two or more elements on a page and choose Edit > Align or Spread and apply the alignment or distribution points of the selected elements from the options. The selected elements will jump into alignment, or the spread distribution you've applied. The choices for the Align option are:

- Top Edges
- Middle
- Bottom Edges
- Left Edges
- Center
- Right Edges



The choices for the Spread option are:

- Equal Vertical Gaps
- by Top Edges
- by Middle
- by Bottom Edges
- Equal Horizontal Gaps
- by Left Edges
- by Center
- by Right Edges

5.18 Advanced Features:

5.18.1 Saving settings for new pages

If you want any style and text layout settings which have been created in

the Text tab, to be applied by default to every new page; simply go to the Tools pull-down menu while you are still in the Page view, and click on Save Element and Page Defaults. The values of the saved settings will be applied to any new pages you create.

If you want to restore the original Designer default settings, simply click on Restore Defaults in the Tools pull-down menu. This will not have an immediate effect—existing pages will not change. The default settings will be applied to any new pages you create.

5.18.2 Export Functions

You can use Export to save various items from Designer. An exported item will be saved as a separate file.

When you choose File > Export, you will see the following options, depending on the element(s) you have currently selected:

- Selection as Clip/Selection as Text Background
- Entire Page
- Palette

If the page does not contain elements other than a background, then only Background, Entire Page and Palette will be selectable. Any type of selected elements can be saved as 24-bit PNG image files; text can be exported either as an image, or as a text file. All styles and visible options which have been applied to the selected elements will become part of the image file.

When you export several elements at a time, they will be saved as a single image file, retaining their relative positions. The space between elements, and any transparent areas within exported elements, will be saved as black, which can easily be made transparent by turning on the Chroma

Key? option and loading them back into Designer. Exporting text elements as Text saves a standard ASCII .TXT file.

5.18.3 Exporting a background or an entire page

Exporting either Background or Entire Page will result in an image file the size of the page. Background will save the background image with its styles and options (including tiling), however, without elements. Entire Page will save the background and all of the visible elements. For more detailed information on backgrounds, please see **Chapter 4: Working with Backgrounds**.

5.18.4 Exporting a color palette

Exporting User Palette will save the current Designer User color palette, into a collection of user-defined 8-bit colors. It will be saved as a Designer- specific .PAL file. For more detailed information on the User palette, please see **Chapter 13: Adjusting Colors**.

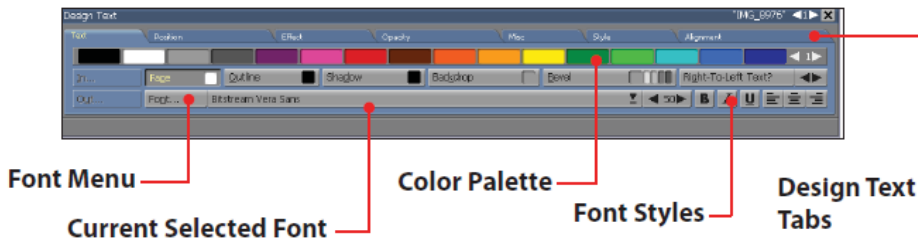
|||| 6 Working with Text

Chapter Overview

To make text editing as simple as possible, Scala Designer 5 allows you to work with text similar to most word processing programs. At the same time, Designer gives you easy access to sophisticated design tools which enable you to control virtually every aspect of the text.

For example, you can manipulate the position, color, and weight of characters, even the thickness of an underline. You can also use transitions to move text on and off the page, in any order or speed.

A comprehensive spell-check is also provided as part of the effective suite of tools available for text editing. As you compose and edit text in Designer you will work directly on the canvas area of a page, against your reselected background. To begin working with text, you will use the tabs in the Design Text panel.



When you have created a new page thumbnail by adding a background image from the Main view, simply navigate to the Design Text panel. Following are several methods which are available for viewing with the Design Text panel:

- in the Main view Thumbnail mode, double-click on the page's thumbnail.

- in the Main view List mode, double-click on the page name.
- select the page thumbnail in the Main view and click on the Edit Page toolbar icon.
- select the page in the Main view and press F2. In each of these examples, the Page view will open, allowing immediate viewing of any elements—text, clip art and/or drawings—which are already part of the page.

This chapter will begin by reviewing some features and functions in the Design Text panel which are common to every Page view, and will continue with a review of the basic techniques for typing and editing text.

The chapter will also introduce you to certain functions of the style panels, which will be used to fine-tune the appearance of text (this is discussed in further detail in the following chapter).

6.1 Glossary of Terms Introduced in this Chapter

Text Crawl – An element which allows you to move a segment of text continuously from one side of the page to the other.

Variable – A named “container” for a quantity which can change within a script in response to user input, or the script’s execution.

6.2 Typing Text

Whenever you work in the Page view a text cursor is available on the page. If the page is empty, or if text is the first element on the page, the cursor will immediately appear when you open the page.

If you don’t see a cursor, simply click where you want to begin working on the background. You do this when you are working with most other

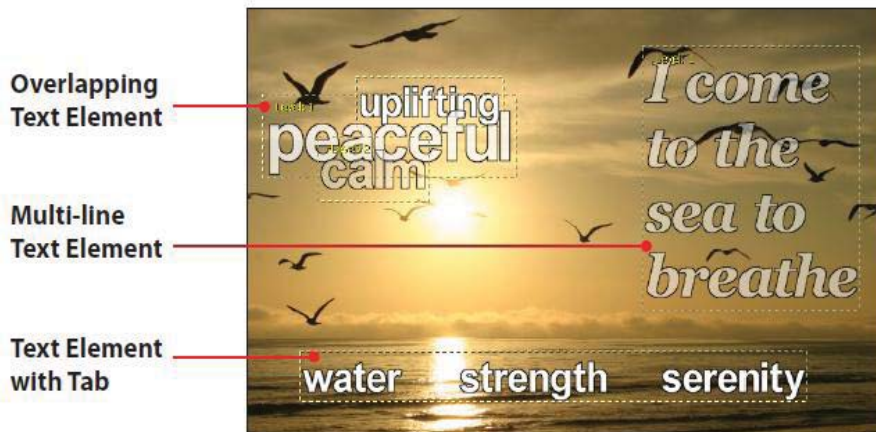
types of elements, for example an image in the Design Clip panel, the panel will automatically change to the Design Text panel. If you have an element, such as a movie or image which covers the background - a cursor will not appear by clicking in the canvas area. Choose Add Text from the Add pull-down menu instead.

When the text cursor appears you can immediately begin typing, or you can point and click anywhere to move the cursor to a different position. As you type, the cursor will move forward. When it is positioned within a word or line of text, any new character or text will be inserted, and any existing text will be pushed further to the right. You have complete access to every standard alphanumeric keyboard character. Additionally, when you are working on a page, Designer will allow you create a bullet (•) symbol at the cursor position by pressing Ctrl + . (period). A bullet is useful at the beginning of a line to emphasize items in a list.

6.3 Text Elements

A text element is simply created by typing text on a page. A text element can be a single word, a line, or several lines. Each text element is independent of one another and can exhibit entirely different settings which govern its appearance, position, and movement on the page.

The following illustration represents a page with several selected text elements. Four are single-word elements, one has two words spaced by a tab, and one is a multi-line element in which the four words have “wrapped” onto four lines. As you can see, text elements can be positioned anywhere on the page. They may also overlap one other, and even run off the edge of the background.



Designer allows tremendous freedom to individually move, manipulate and design each element. For example, you can move any text element simply by dragging it to a new position. You can also start a new element or break the current text element into two when the cursor is visible, by pressing Enter.

6.4 Selection and Editing

Depending on whether an entire text element is selected, part of it is being edited, or the element is unselected, your options will be different. Therefore, it is important to be able to tell which is the current state. The following illustrations will demonstrate the difference.

If a dashed rectangular selection frame appears around the text when it is selected, it indicates that the entire text element has been selected, not just one line of a larger element. The top element as shown, does not contain a frame, therefore, it is not selected. The tabs will not directly affect an unselected element.

**Selection
Frame**



The bottom element contains a frame, which indicates it has been selected. The frame encloses the entire element. If the selected element is a multi-line element a single frame will surround all the lines.

Any chosen option will affect the selected element entirely. Any number of text elements (or other elements) may also be selected at the same time.

Cursor



Selected Segment



The two examples shown above demonstrate a text element which is being edited. The first has a cursor in it, the second has a segment of its text highlighted to show which characters have been selected. In the first example, any changes you made to a style would not be seen until you

started to type. The characters would then appear in the changed style. In the second example, the highlighted characters would change as soon as you changed the style.

When a segment of text is selected, any text you type will replace the selected text. When a full text element is selected, the element will switch to editing mode and the new text will replace the existing text.

6.4.1 Selected Elements vs. Selected Segments

Any option which you can apply to a selected segment of a text element may also be applied to the full element. However, there are options which apply only to full elements, and cannot be applied to parts of an element. The following can be applied to text elements and segments of text elements:

- Color: Front, Shadow, Outline, Underline
- Text effects: Italic, Bold, Underline, Shadow, Outline
- Character Spacing, Kerning
- Font: typeface and size
- Cut, Copy, Paste, Delete

The following can only be applied to text elements:

- Transitions
- Position
- Backdrop, Bevel, Border, Focus, Smooth
- Opacity
- Line Spacing
- Alignment: Left/Center/Right, Horizontal, Vertical
- Word Wrap
- Page Margins
- Tab settings

- Update
- Locked
- Snap to Grid
- Appear Earlier/Appear Later
- Layer
- Timing settings
- Branch option

6.5 Selecting Text

You can select text using the keyboard, the mouse, or a combination of both. The method you use will depend upon the amount of text you want to select, and if you want to move the text. For example, using the mouse is the quickest way to select and group several text elements so they can be moved as a unit.

Depending on the selection method chosen, the text will either be highlighted in a different color, or enclosed in a dashed frame, as in the preceding illustrations.

In either case, the selected text is now available to edit. You can change the color, apply a style, delete it, and so on. The selection frame also indicates the availability of options which are only available to text elements, such as apply a transition, specify a pause setting, change the alignment or drag the text to move it.

The text will remain selected until you click outside the selected area, move off it using the arrow keys, press Esc, or move the cursor.

6.5.1 To select an unselected text element

- Click on any non-transparent part of the element. You must click directly on or near a character in the text to avoid

creating another text element which would overlap your selected text. The element will be selected and enclosed in a frame.

Or

- Use the keyboard up and down arrows while the List panel is open.

Or

- Drag select it with a dashed box, as described in the subsection “To select several elements” later in this chapter.

6.5.2 Getting a cursor

In order to work with parts of a line, you must first have a text cursor.

To get a text cursor in a selected text element:

- Click where you want the cursor.

Or

- Press the Home or End keys, and then use the left/right arrows to move the cursor wherever you want.

To get a text cursor in unselected text:

- Double-click where you want the cursor.

Once you have a cursor, you can easily select the entire element by:

- Double-clicking on the element.

Or

- Clicking away, then clicking back on the element.

Or

- Pressing Esc.

To deselect an element in which there is a cursor, simply click away from the element.

6.5.3 To select part of an element

Place the cursor wherever you want, then:

- Drag over the characters you want to include in the selection.

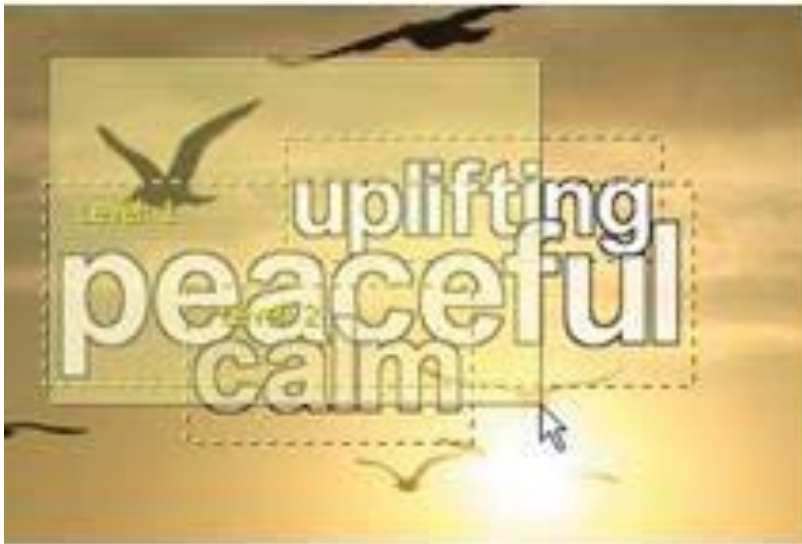
Or

- Use Shift + (rightarrow) or Shift + (leftarrow) to select the text. If the element has more than one line, you can use Shift + (uparrow) and Shift + (downarrow).

6.5.4 To select several elements as a unit

- Point to a spot on the page which is close, but not directly on the first text element you want to include in the group. Then, simply drag the pointer diagonally. A dashed box will appear which will adjust as you move the pointer. Continue dragging until the box encloses part or all of each element you want to include in the selection, then release the mouse button.

A frame will appear around each element which the box touches, showing your selection:



Or

- Ctrl-click on a non-transparent part of each element which you want to include in the selection. Each is enclosed in a frame.

Once you have created a text element, you can add text by:

- Selecting the element and then typing.

Or

- Double-clicking in the element to bring the cursor to that position, then typing.
-

6.5.5 Multi-line text elements

Designer will allow you to create multi-line text elements—elements with their text on more than one line on the page. Multi-line text elements in Designer are similar to text columns in a word processor, or desktop publishing program. You can easily adjust the column's width. When the text element length exceeds the column width, Designer will “wrap” the text to a new line underneath the first.

Designer normally breaks between words. Which means it only breaks a word when the column's width is shorter than that word. Unlike a word processor, Designer does not hyphenate broken words. However, you can position a multi-line text element as freely as any other element. You can also have any number of them on a page.

By adjusting the margins for an element, and by setting certain options on the Alignment panel, you can control when and where Designer will wrap text. You can adjust the distance between lines in a multi-line text element using the Line Spacing attribute.

For more detailed information about these controls, please see **Chapter 7: Managing Text**.

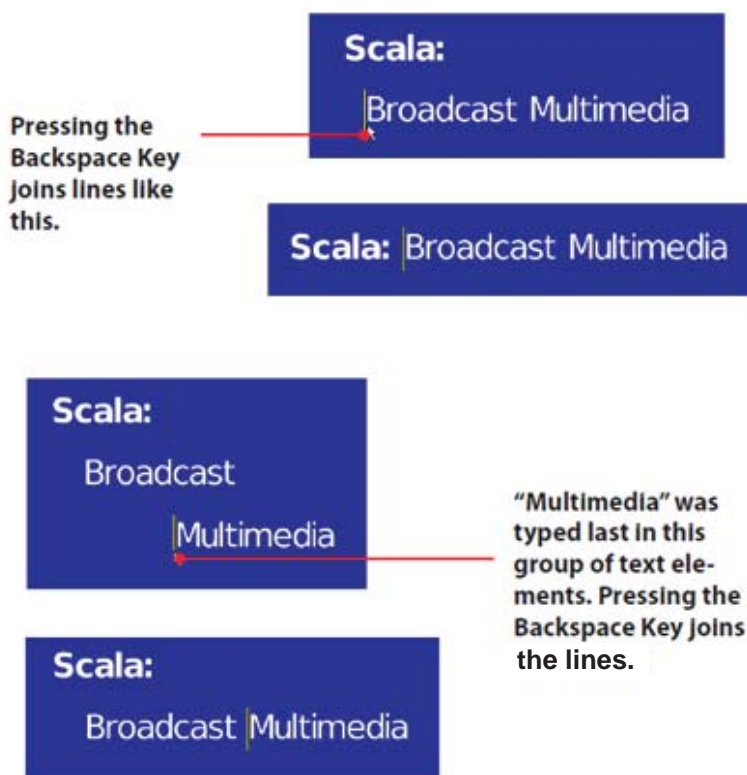
6.6 Correcting mistakes

If you make a mistake while typing, you can correct it by using the Backspace and Delete keys. Backspace deletes the character to the left of the cursor. The Delete key deletes the character to the right of the cursor.

If you need to correct more than a few characters, you can use one of the methods described earlier in the section, “Selecting text” and edit the text using one of the text editing options.

6.6.1 Joining and breaking lines

If you press Backspace when the cursor is at the beginning of an element, the text of the element will be joined with the text of the previous element; that is, the element which was previously typed. Since text elements can be freely moved to new positions on the page, this may or may not be the text which is positioned immediately above it on the page.



Another way to join text elements is to press Delete when the cursor reaches the end of the selected text. This joins it with the text element which was typed immediately after it (as it is listed later in the List panel).

Pressing the Delete Key
joins the two lines.



Scala:

Broadcast Multimedia



Scala: Broadcast Multimedia

Pressing Enter will create a new text element underneath the current one, containing the same style settings as the original element. Any text to the right of the cursor will become part of the new element.

The new line will be positioned directly under the previous line. Unless a specific alignment option is applied (left, center or right alignment), the first character of the original line will determine the left margin and position of the first character in the new line. For more detailed information, please see **Chapter 7: Managing Text**.

The cursor will move down in line-space increments as determined by the fonts currently in the element and the Line Spacing attribute. If different fonts are applied to the line, the spacing may vary.

Pressing Enter several times in succession will move the cursor down, however, it will not create any blank or empty lines in the process. Pressing the Backspace key, will move the cursor (and any text which accompanies it) back to its starting position.

6.6.2 Breaking up text elements

Sometimes you want to use styles which can be applied only to whole elements with individual words or letters.

Designer has a special keyboard shortcut which makes this easy to do, without tedious hand positioning. The Ctrl+Enter combination breaks a text element into two at the cursor point, without moving either element. Selection frames for both will flash when this is applied. For example, to have each letter in a word transition in separately, first type the word as a single element, and then place it wherever you want. Then position the cursor between each pair of letters in the word and press Ctrl+Enter. Finally, select the letters (which are now individual elements) and apply your transitions.



6.6.3 Moving within text

You can always use the mouse to position the cursor within your text. Nevertheless, as you are typing text, it is often more convenient to use the keyboard and navigate using special keys or key combinations.

Most of the familiar keys you use in word processing applications are

similar in Designer. However, there are some key combinations which are unique to Designer. A complete list of these keyboard shortcuts may be found in **Chapter 25: Keyboard and Mouse Shortcuts**.

6.7 Moving Selected Text

Once you have a text element on a page, you can move it around by simply dragging it to your desired location. This can be accomplished in one click drag motion, regardless if the element is unselected or fully selected.

If the element is being edited (has the cursor or a highlighted segment in it):

- click on the text element to select the entire line

Or

- press Esc, then point to a non-transparent part of the text element, and drag

To move one or more selected text elements, point to a place on or near a text character and drag. The selected element(s) will move to the newly selected position. Although every element in the selection will move together, they will maintain their original positions relative to one another. The elements will remain selected so you can refine their position as necessary. You can also click outside the group to deselect and “disconnect” them, then drag each element individually. You can constrain the motion of elements you are dragging so they move in a horizontal or vertical direction, only by holding down the Shift key as you drag.

Following are examples of precisely positioning elements:

- use the Element Position control on the Position panel to define where the upper left corner of the element should be, in XY pixel

coordinates

- hold down Ctrl and press the arrow keys (arrow keys) to move the selected element(s) one pixel at a time, in the direction indicated by the arrow

Note when the Snap to Grid and alignment options are on, they may restrict your freedom in positioning text elements.

6.8 Editing Selected Text

Text is affected by every action until it is deselected by clicking outside the selected area, moving the cursor, or pressing Esc. You can edit the text simply by beginning to type, or by pressing Backspace or Delete.

- If a segment of a text element is selected, typing will delete the part which is selected and replace it with whatever you type.
- If the full element is selected when you start typing, Designer will switch to editing mode, place the cursor at the end of the selected element, and insert your typing.

There are a variety of editing options available to your selected text. For example, you can change the color and style. When one or more complete lines of text have been selected, you can change the position of the text on the page, the alignment, and the transition(s) applied to create movement. Changing the color, style, alignment and transitions are discussed further in **Chapter 7: Managing Text**

6.8.1 Pasting styled text

You can cut copy and paste text elements or selected segments of text elements.

If you paste when the cursor is in a text element, the pasted text will be inserted into the text element at the cursor position. Text elements cannot be inserted as part of another element.

If you paste when an element is selected (that is, when one or more elements have the selection frame around them) the text will be added to the end of an element, or it will become an additional element, depending on whether the text on the clipboard was a segment, or an entire element.

The characteristics of the pasted text (color, font, styles, etc.) will be preserved as much as possible. For example, if you cut or copy a segment of a text element, the pasted element will retain the characteristics of the original copied text, regardless of whether you paste it into another existing text element, or create a new element.

However, a pasted segment does not retain the options, such as a transition, which are only available to full elements. The pasted segment “inherits” the transition, position, and other such settings, from the element to which it is pasted. It will also inherit the current or most recent settings, if it is not pasted into another element.

6.9 Context Menus

When you use the secondary (Right) mouse button on a text element, you will bring up the Context menu, which will provide several options. In addition to the typical Context menu options discussed in **Chapter 5: Design Panels in Page View**, (Cut, Copy, Paste, Appear, Hide, etc.) an additional option is available: Bind Text to Data Field. Please see “Advanced Features” section at the end of this chapter for further information regarding this option.

6.10 Importing and Exporting Text

When working in the Page view, you can either import an unformatted plain text file through the Add pull-down menu or, with the Add icon on the toolbar. Choose Export Selection as Text from the File pull-down menu to export text elements.

6.10.1 Importing text

To import text, click the Add pull-down menu and select Add Files and navigate in the File dialog as necessary to locate a plain ASCII or ANSI text file. Designer imports approximately 1000 characters from the beginning of the file into a single text element. The current font and styles will be applied to the text. The resulting text element can be fully edited and manipulated. You can also click on the Add icon in the toolbar to select your text file from the open dialog.

6.10.2 Exporting text

Text can be exported either as text or as a clip which contains an image of the text.

To export, begin by selecting the text you want to save. If you select several elements to save as text, Designer will save them in the order selected. You can also save a selected segment of a text element. Click the File pull-down menu and choose Export Selection as Text. If you want to save the selected text element as a graphic clip, then select Save Selected as Clip from the File pull-down menu.

Any selected elements other than text, will be ignored if you have chosen to export as Text. The result is either a plain ASCII text file containing your selected text with carriage return/linefeeds at the ends of text elements,

or a PNG image file.

6.11 Using Text Crawls

A Text Crawl is a special kind of text element; similar to an element with a built-in transition. It will allow you to move text across the page continuously in the “crawl” and “credit scroll” styles, familiar from television and the movies. In addition to having the attention-grabbing element of motion, a Text Crawl is more powerful than a simple text element. It will allow you to specify different types of source for the text, process the text for display, and define a “window” where the text can freely move.

You can design Text Crawl elements to become “global”, thereby allowing them to run over every page, independent of page transitions.

6.11.1 Creating a Text Crawl

You cannot convert a regular text element into a Text Crawl, the crawl element must be specifically created:

Choose Add Text Crawl from the Add pull-down menu in the Page view.

A text element consisting of the word “Crawl” will appear. The element will inherit the current set of text styles. However, unlike a normal text element, the Text Crawl element contains graphic handles on its dotted frame, indicating it can be resized.



The Design Text Crawl panel is identical to the Design Text panel except it has an extra tab, Crawl. The controls on this panel will direct the crawl element how to display your text.

NOTE: Text crawls support tabs, which can be useful for vertical scrolling.

Text() and TextCrawl() elements support a new option, UseCharHeight(). When on, the font size is interpreted as the character height, rather than the cell height. The resulting fonts are a little bigger, but more closely match font sizes in certain other applications.

6.11.2 Defining the Text Source

The word “Crawl” is only a Page view placeholder for the text which will appear during playback. It exhibits the text styles which are applied to an element. The actual playback text can be specified in one of several ways, from the Crawl tab’s Text Source: selector:

- **File** – the crawl text is contained in a text file
- **Expression** – the crawl text is contained in an expression (which can be entered into the Text Expression field below the Text Source: selector)
- **Cued Expression**– the crawl text is contained in an expression which can be updated via a cue signal

6.11.3 Adjusting Crawl Speed/Duration

The crawl movement can be adjusted by either Duration (time code) or a preset series of steps called Speed, defined in terms of how many screen pixels the crawl will move, in how many frames (complete screen refreshes). You can vary the duration of the crawl by entering the crawl time in the Duration time code. You can also adjust the speed at which the

text will move using the value control Pixels per Step.

Increasing Pixels per Step will make the crawl move faster.

6.11.4 Loops

File and Expression text sources have the option of moving repeatedly through the crawl window. The number of times a given text is seen can be controlled with the Loops value control.

Loops specifies the number of times the text is shown before the next event in the script will be displayed. You can specify a number between one (1) and nine thousand nine hundred and ninety-nine (9999) or an “infinite repeat” setting (infinity). The infinite repeat setting is useful when you want the crawl to continue indefinitely.

Use the Loops value control to define the specific number of plays you desire. When the setting is (infinity), turning Wait? on will prevent the script from continuing to the next page, until there is interactive input (such as a mouse click), or the duration of the page time has expired.

6.11.5 Gap

When a crawl element loops, is cued, or contains carriage returns, there will be a space between the crawl texts. You can adjust the size of this space using the Gap value control. It specifies the number of pixels—from 1 to 9999—between each crawl text repetition or update.

To allow visual adjustments, the space you set will be reflected in the distance between the repetitions of the “Crawl” place-holder text which is displayed in the Page view.

In the case of Cued Expression text crawls, in which the space between

successive crawl texts varies depending on when the texts are cued, the Gap setting will specify a minimum distance.

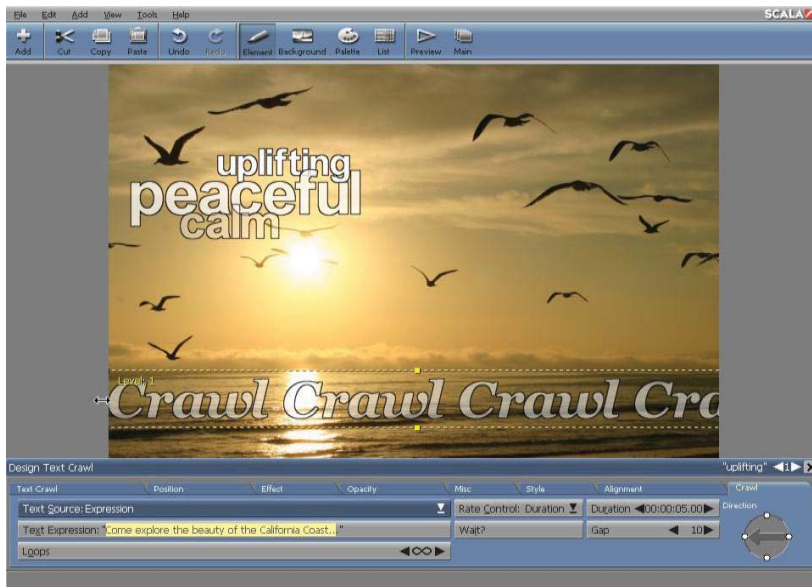
6.11.6 Direction

The content of a Text Crawl can move in any of four directions:

- East to West (Left to Right - the default, traditional for horizontal text crawls)
- West to East
- South to North (Bottom to Top - traditional for credit scrolls)
- North to South

Set the direction with the Direction compass at the right-hand side of the Crawl panel. Click on or near the white dots so the arrow will point in the direction you want the text to move. Depending on whether the crawl direction you choose is horizontal or vertical, the “Crawl Crawl” placeholder text will change to indicate how the text repetitions will appear within the window.

This illustrates how you might set up a typical text crawl:



How it would look in playback:



6.11.7 Line breaks

In vertical crawls, a carriage return in the source text will create a new line

underneath the current one. In horizontal crawls, carriage returns within the source text will break the text into separate crawl texts. The intervening space between crawl texts, horizontally or vertically, can be varied with the Gap control option.

6.11.8 Sizing the crawl window

Text Crawl elements can be sized so you can define the window where the text will appear. This will allow you to confine your moving text to your selected area on the page.

Initially, the crawl window is blank. Text moves into the crawl window from one edge and will exit from the opposite edge. The crawl is considered complete when all the text (for all repetitions if Loops is greater than 1) has completely moved through the crawl window so which it is once again blank.

To resize the crawl window, use the eight graphic handles on the corners and sides of the frame around the selected crawl element. You can see the effect the change will have by viewing the “Crawl Crawl” placeholder text.

6.11.9 Word wrapping in vertical crawls

For vertical text crawls, word wrapping is automatically on. The width of the crawl window is defined as the wrap width.

6.11.10 Alignment within the crawl window

Text can also be aligned within the crawl window. Alignment options can be enabled on the Alignment tab of the Design Text Crawl panel, depending on the type of crawl direction: horizontal crawls enable the Vertical Text Alignment: option, and vertical crawls enable the Horizontal Text Alignment: option.

Vertical text alignment will use the top and bottom of the crawl window as its references for Top, Middle, or Bottom alignments of the crawl text. Horizontal text alignment will use the sides of the crawl window for defining its Left, Center, and Right alignments.

6.11.11 Changing styles in the crawltext

Styles are assigned to the placeholder “Crawl Crawl” text element rather than the actual text which is crawled.

However, it is possible to change various aspects of the text style within the text of a Text Crawl or Global Text Crawl by using special control codes. Inserting the appropriate control codes at the beginning of the crawltext will change the style in the segment of text which follows.

The control codes are plain text enclosed in angle brackets. They consist of a keyword identifying the style to change, followed by an equals sign, and a value for the style. The value is within double quotes, which can exhibit different forms, depending on the style type.

6.12 Spell-checking a Script

Designer includes a full-featured multilingual spell-checking tool. This spell checker can quickly and automatically examine every text element in a script, and allows you to correct misspellings manually, or by choosing from a list of suggested alternatives.

6.12.1 Configuring the Spell checker

The Designer Options dialog has a panel dedicated to the spell checker. Click Tools and choose Options to open the Designer Options dialog, then click the Spelling tab to see the spell checker options panel.

The options on this panel are described in **Chapter 17: Customizing Designer**.

6.12.2 Starting the spell checker

You can access the spell checker from the Main view or the Page view. Starting the spell checker from the Page view will only apply to the current page until you advance to the next page, whereas from the Main view you can initiate spell check on any page.

When you initiate the spell checker, it will search the full text in a script, and sequentially highlight any words which appear to be misspelled. Unrecognized words, such as proper names, can be added to a user dictionary so spell checker will not stop on them in the future.

6.12.3 Spell-checking from the Main view

To start spell-checking from the Main view, click the Tools icon and choose Spelling from the drop-down list. The spell checker will begin checking the spelling starting with the page which was highlighted when you chose Spelling.

You can begin the spell check on any particular page by selecting it in the Main view before running the spell checker.

6.12.4 Spell-checking from the Page views

To start spell-checking from any Page view, click the Tools pull-down menu and choose Spelling. The spell checker will begin checking the spelling starting with the page currently in the Page view.

6.12.5 When there are no misspellings

When you run the spell checker on a script without misspelled words, you will not see the Spelling panel. Instead, a dialog will appear which reads, “The spell check of this script is complete”.

6.12.6 Using the Spelling panel

What you will see when the spell checker runs and finds a word which is not in either the main or the user dictionaries for that language, is a panel that resembles a regular Design panel. The page currently being checked is displayed, with the Spelling panel at the bottom of the screen.

The unrecognized word will be highlighted in the text element on the page. If you do not see a highlighted word, the word is hidden beneath the Spelling panel. (As with a Design panel, you can temporarily hide the dialog to see the word in context by clicking the secondary (Right) mouse button and select Hide Design Panel or press F11.)

The highlighted word will also appear in the Not in Dictionary: text box. If the word is similar to a word in one of the dictionaries, the spell checker will offer a suggested replacement in the Change To: text box. Additional possibilities for the intended word may be offered in the Suggestions: scrolling list.

You have several options:

- Accept the suggested correction:
 1. for this occurrence.
 2. for all occurrences.
- Make a different correction:

1. using one of the suggested alternatives.
 2. typing the correct spelling yourself.
- Tell the spell checker to ignore the word:
 1. for this occurrence only.
 2. for all occurrences in the current session.
 3. always, by adding the word to the user dictionary.
 - Delete the word from the page.
 - Go to the Design Text panel to edit the page.
 - Preview the page.
 - Go on to check the following page.
 - Close the spell checker.

6.12.7 Changing the highlighted word

Clicking Change will replace the highlighted word on the page with the word in the Change To: text box. The corrected word will retain the same text styles as the original word. The spell checker will resume searching for any other unrecognized words on the page.

If the suggested correction in the text box is not the intended word, but the intended word is in the Suggestions: list, simply select the word in the list to make it appear in the Change To: box. Then click Change.

If the highlighted word or any suggestions are not correct, select the word in the Change To: box and type the intended word. Then click Change to make the correction.

6.12.8 Ignoring a word

To ignore the highlighted word, and allow the spell checker to continue checking the page, click Ignore.

To ignore the word and continue ignoring it for the remainder of your authoring session, click Ignore All. The word will be added to a temporary list in memory of words to ignore. Until you shut down and restart Designer, or use the Reset Ignore All option in the Options dialog from the Tools pull-down menu, the spell checker will not stop on that particular word.

6.12.9 Adding a word to the user dictionary

The dictionary which Designer checks spellings is extensive, but it cannot possibly contain every word which might be used in a script. Proper names, trademarks, technical terms, foreign words, and less common forms of existing words are likely to be unrecognized by the spell checker.

To prevent the need to continually use Add for such words, the spell checker allows you to add them to a special user dictionary. This is similar to the Ignore All list, but because the user dictionary is a file stored on your hard drive, once entered, a saved word is ignored in future Designer sessions as well as the current session.

To add the highlighted word to the user dictionary, click Add in the Spelling panel. The word is then considered to be spelled correctly in this and any other script. Any variant forms of the word, such as plurals or those with different verb endings, will have to be added separately.

You can see the contents of the user dictionary, and delete any words on the Spelling panel of the Designer Options dialog.

6.12.10 Multiple language dictionaries

The custom user dictionary is language-specific. There can be several user dictionaries, each of which may contain only the words which were added when a particular spell check language was selected in Designer Options.

6.12.11 Editing the page during spell checking

At times spelling corrections may change the lengths of words, thereby disrupting the layout of text on the page. If this happens, simply navigate to the Page views to adjust the layout, (while in the middle of a spell checking session), then resume spell checking from where you left off.

To switch to the Design panel while spell-checking, click the Design button at the bottom of the Spelling panel. The Design Text panel will appear, and the misspelled word will be highlighted. You can revise the positioning of text elements so everything will properly fit, and/or go to other Page views to rearrange other elements.

When you have finished, click the Tools pull-down menu and choose Continue Spelling. (This choice will appear in place of Spelling in the Tools pull-down menu while spell checking is in progress.) The Spelling panel will appear again, and spell checking will restart at the point where you left the dialog.

6.12.12 Previewing the page during spell checking

You can click the Preview button to see how the current page will look during playback.

6.12.13 Continuing the spell check

As you continue to click Change, Ignore, or Ignore All, the spell checker will

move on to other text on the page. When all the text has been checked, the Next Page button will be enabled. Requiring you to explicitly move to the next page will give you the opportunity to review the page, and if necessary, adjust the layout.

When you are satisfied with the page, click Next Page, allowing the spell checker to check the text of the following page in the script. Spell check will continue to check each subsequent page until it finds another misspelled word.

When the spell checker reaches the end of the script which you did not start checking on the first page, it goes back to the beginning and continues checking. Once the text in the script has been checked, the following message will appear, “The spell check of this script is complete”.

6.12.14 Finishing a spell check

Click the Close button on the Spelling panel at any time to complete a spell checking session.

6.13 Advanced Features

6.13.1 Displaying variables

One of Designer’s special features allows you to display the value of variables in ordinary text. You do this by embedding the variable in the text, which simply requires typing the name of the variable with an exclamation point (!) placed in front. The following example uses the Designer system variable to demonstrate this when Designer runs a script, it will automatically substitute the value of an embedded variable for the variable name in the text, giving the value the same font and styles as the variable name exhibited in the Page view. The variable name may contain a variety of styles, but you must be sure the entire variable name has exactly the

same styles.

If there are any differences in style within the variable name (including the “!”), Designer will not recognize the variable, and its value will not be displayed. There must not be a space between the “!” and the variable name. The Update option, allows you to adjust how long Designer will continue to update the value of a variable displayed in playback.



Working with variables in Designer is covered in-depth in **Chapter 14: Branching, Variable and Scheduling**.

6.13.2 Using a Text File Source in a Crawl

When you choose Text Source: File, the Text File: selector you can open a File dialog to choose the file. The file can be of any length, however, it must be a standard ASCII/ANSI text file. All of the text in the file is crawled before looping will continue. If the contents of this file change after the text crawl begins, it will not be reflected until the next time the text crawl element is displayed. Updating the text file during the crawl will not cause the currently moving crawl text to change.

Using the File source is effective when there is a large amount of text to be displayed. It is also appropriate when any text to be crawled is updated on a regular basis, provided the updates do not need to become visible until the next time the Text Crawl element as a whole appears in the script.

6.13.3 An expression source

When you choose Text Source: Expression, a Text Expression: text box will appear. You can enter an expression which will determine the crawl text. The expression may contain any variables, operators and text functions which ultimately evaluate to a text string.

You can simply type the crawl text between the double quotes which are provided by default in the Text Expression: box. By including system or user variables in the expression, you can use text information which may have been generated elsewhere in the script. If necessary, this can process the variable contents, as well. The following are examples of valid text expressions you might use:

“Weather Alert - Severe thunderstorms expected!”

“SALE TODAY: !saleitem @ ONLY !itemprice”

“Happy New Year !(systemtime(year))!!!!”

The contents of variables can be updated while the crawl progresses, and if the crawl is set to loop, each repetition will reflect the current variable value at the moment which iteration begins. However, the displayed variable value cannot change “live” while crawling. The expression will be evaluated at the beginning of the event, and at the beginning of each repeat.

6.13.4 A cued expression source

When you choose Text Source: Cued Expression, you will use the Text Expression: box to specify the crawl text, just as you would with the Expression source.

The advantage of the cued source type is it will respond to an external

“cue” signal which indicates when to start crawling a text segment. Typically this is used when the Text Expression: box includes a variable which is updated periodically with new text. The crawl element is cued to display a new text segment only when the variable in the expression has been updated. Therefore, you can have a continuous text crawl which can be updated at arbitrary intervals, with a series of text messages.

NOTE: The expression for a cued update does not have to contain a variable, if the expression is a constant, the cue signal simply triggers another instance of the fixed text to start crawling.

The actual text supplied to the text expression and the timing of the signal to display it can come from an external source, (such as the Windows Scripting Module).

6.13.5 Using a cued source

A cued Text Crawl element operates in tandem with another process—usually a series of events in the Designer script, or a program in another scripting language accessed through the Designer Windows Scripting module.

Two shared variables are involved: a cue variable, and a string (text) variable which is part of the text expression. The cued text crawl element and the other process, signal each other in a back-and-forth manner through the value of the cue variable.

The other process signals (with a value of 0) when there is something in the text variable with which to start a crawl, and the text crawl element signals (with a value of 1) when it is ready to start crawling a segment of text.

The sequence of events for a cued text crawl in playback is as follows:

- The Text Crawl element appears.
- The Text Crawl element sets the cue variable to 1, and begins monitoring for a change in the value of the cue variable.
- The other process updates the contents of the text variable, then zeroes the cue variable.
- When the value of the cue variable changes to 0, the text crawl element “sees” this as indicating there is fresh information to display.
- The text crawl element evaluates the expression with the new variable value, and starts crawling the resulting text.
- When this text has been crawled fully into view, the sequence returns to step 2.

Some things to remember:

- The cue variable is automatically initialized to 1 by the Text Crawl element. It should not be explicitly initialized by the source process.
- The Text Crawl element responds to a 0 in the cue variable only when it is ready. It is ready only when the element first appears, and in the time after it has finished generating each cued crawltext (including the Gap length). A cue signal which arrives while a crawltext has begun but hasn't fully moved into view, will not interrupt the crawltext.
- The Text Crawl element does not “remember” a cue signal which arrives when it is not ready.

When text is not available from the source, the source process should set the cue variable to -1 (or any value other than 0 or 1). Any crawltext which is already moving in the crawl window, will continue until the crawl window is empty. The Text Crawl is complete.

6.13.6 Cue Variable

The Cue Variable: pop-up exhibits the name of the cue variable assigned to the Text Crawl.

When you choose Cued Expression under Text Source;, Designer will look for user-defined integer variables. It will select the first one it finds as the default cue variable. However, you can choose a different variable from the pop-up list, which exhibits the names of every user-defined integer variable.

You can also create your own cue variables (if, for example, your script has multiple independent cued text crawls). Simply choose the <Add New> option from the pop-up list. Only integer variables are available in the Cue Variable: pop-up. If there are no user-defined integer variables, a dialog prompting you to create one will appear.

6.13.7 Wait

As with other element types which can take time to complete, the Text Crawl element has the Wait? option. Turning this option on will prevent the script from continuing to the next event (after the crawl), until the crawl has completed or the duration of the page has expired.

6.13.8 Endless

The Endless? option allows you to indicate when the Cued text source is of a continuous “stream” type which does not have a defined end (such as a stock price feed). This is the equivalent of a Loops=0 (infinitely looping) setting for the text source types which have that particular option.

Endless? should be turned on for sources which are continuous. It should be left off for sources which have an end, such as a string or file. Its effect is to modify the Wait? option in view of the fact which the crawl might have a defined endpoint.

Essentially, it controls what will happen to the page if the crawl element continues after every other element has completed. The four possible combinations of these two options and their effects are as follows.

Endless on, Wait off	page ends normally after page pause and other element pauses, if any; crawl is interrupted
Endless on, Wait on	page holds as crawl continues, does not proceed without user input, unless the page duration has expired.
Endless off, Wait off	page ends normally after page pause and other element pauses, if any; crawl finishes
Endless off, Wait on	page holds until crawl finishes or the duration of the page expires.

6.14 Specifying Control Codes

Control codes are available for all the basic text styles, to turn them on and off and set their related attributes:

```
<typeface = "typefacename">  
<typesize = "pointsize">  
<facecolor = "#rrggbb">  
<frontcolor = "#rrggbb">  
<outlinecolor = "#rrggbb">      same as "frontcolor"  
<shadowcolor = "#rrggbb">      same as "facecolor"  
<underlinecolor = "#rrggbb">  
<face = "On or Off">           same as "front"  
<front = "On or Off">         same as "face"  
<outline = "On or Off">  
<outlinethickness = "numpixels">  
<opacity = "number">  
<shadow = "On or Off">  
<shadowoffset = "numpixels_horizontal, numpixels_vertical">  
<under = "On or Off">  
<underposition = "numpixels">  
<underthickness = "numpixels">  
<underair = "numpixels">  
<bold = "On or Off">  
<bolddelta = "num">  
<italic = "On or Off">  
<italicdelta = "num">  
<extragap = "numpixels">
```

The portion shown in quotes should be replaced with the style value. Most values are simply a number, typically specifying the same value seen in the tab. Color definitions take the form of three hexadecimal numbers, representing the 8-bit R, G, and B values which specify a 24-bit color.

For typefacename, specify the name of the typeface as seen in saved ScalaScript code, for example:

```
<typeface = "Segoe Regular (Western [<Segoe>])">
```

The <extragap> option specifies the number of extra pixels of Gap to be added between textcrawl segments. This option is useful for varying spacing when using scrolls (vertical crawls).

As long as the control codes are properly formatted, they will not appear in the crawled text. They will, however, cause the specified change in the text which follows them in the crawl. Styles are not reset to their original values at the beginning of each crawl loop.

This feature is for advanced script authors. For color changes, you must determine the correct values for the desired colors, and individually convert them to a hexadecimal format.

6.14.1 Text Crawl control code example

The following example demonstrates the content of a text file used as a Text Source for a looping crawl:

This text is the original size and color only for loop 1.

```
<frontcolor="#ff0000">
```

This text is red

```
<frontcolor="#0000ff">
```

This is blue

```
<typesize = "18"><italic = "On">
```

This is blue, with size 18 and italic.

```
<italic = "Off">
```

No italics.

6.14.2 Activating a Text Crawl in ScalaScript

An important option available to advanced Designer authors is the ability to change the opacity for the global text crawl using the opacity control code:

```
<opacity="number">
```

This control code controls whether the crawl is visible or invisible. Setting the control code to 100 causes the crawl to appear. Setting the control code to 0 causes the crawl to disappear.

6.15 Templates – Binding Text to a Data Field

Right-click on a text element to select the Bind Text to Data Field selection – to change this text element to a data field, enter a variable name and click OK. Binding a text element to a data field will allow them to be selected or replaced by different text through the Content Manger. This will also allow you to create messages from templates with placeholder text in Content Manager. Effectively the text you enter in Content Manager will replace the placeholder value and use the font, attributes, scale, transitions and effect.

||||| 7 Managing Text

Chapter Overview

All text has a style. The style may be nothing more than the design of the typeface or it may be a special effect which is applied to add emphasis, attract attention or create a mood. In Designer terms, a “text style” is any option which can be applied to a textual character, a word, or a phrase which affects the way it looks on the screen.

In addition to standard options such as underlining, bold, and italic, Designer offers a variety of special text options, ranging from simple outline styles, to precise control of character and line spacing. There are a wide variety of styles available, many of which may be applied to clips, draw objects, even animations, as well as text. This chapter will cover styles which are exclusively used for text.

7.1 Glossary of Terms Introduced in this Chapter

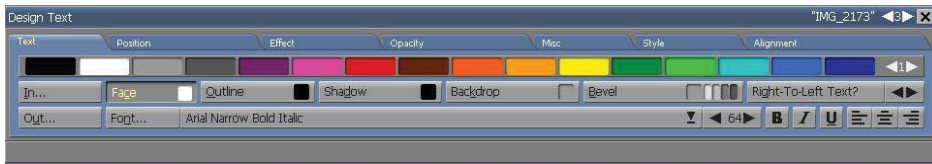
Kerning – or Character spacing, is an adjustment of space between characters and words to create a more pleasing look and improve readability.


Leading – (Rhymes with “wedding”) or Line spacing, is the amount of vertical space between lines of text.

7.2 Using the Design Text panel

In the Design Text panel, the Text tab includes the most commonly applied styles. Each style has its own button. When you switch one of these styles on, the button on the screen will appear to be pressed and the style name on the button will change color.

Designer⁵



Several styles which are very useful, but generally applied or adjusted less frequently—Smooth, Underline, Focus, Backdrop, and Bevel—are located on the multistyle button. When a style on this button is applied, it is marked with a  .

Style buttons, such as Bold or left alignment, can only be switched on or off. However, many style buttons allow additional attributes, such as color:



When you apply a style as shown in the previous image, Designer uses the color which is displayed on the button. You can also change the color without applying a style. Applied styles will stay on until you switch them off.

The majority of styles can be applied to one or more characters, words or lines of text. However, Transitions can only be applied to entire text elements. You may also apply more than one style at a time, including styles located on the multistyle button. For example, you can make the text italic, then underline it, and then apply a special underline color and a backdrop:



You can also change text styles either before or after creating your text:

- Select the text for the new style settings, and then apply the adjustments in the Design panel. When a setting is changed, you will immediately see the effect in the selected text. The text will remain selected until you move the cursor, or click outside the selected area. (For a review of methods to select text, please review the section “Selecting text” in **Chapter 6: Working with Text** .)

Or

- Position the cursor, then adjust the styles in the Design panel and simply begin typing. The text will reflect the new styles. The styles will remain in effect until they are changed or different styles are applied.

When you click on a line of existing text, or move the cursor through the line, the settings in the Design Text panel will change to reflect the styles which are applied to the character preceding the cursor. If the cursor is at the beginning of a text line, the Text tab will reflect the styles of the first character in the line.

7.3 Using the Styles Tab Panels

Designer includes styles and options which can fit on a single tab panel. Additionally, many styles have characteristics or attributes which can be customized. For example, you can change the slant or direction of a shadow in italic text. The Design Text panel contains numerous tab panels, each of which allows individual control for a particular type of style.



Any changes made in the styles tab panels are immediately reflected in the text. Simply click the tab to reveal the panel for the desired type of style, and then use a value control or selector in the panel to make your adjustment.

Several of the styles tab panels in the Design Text panel, are also found in other Design panels, and may contain similar functions. (See **Chapter 5: Using Design Panels in Page View.**) However, there are some styles and

attributes which are applicable only to text. The remainder of this chapter will cover text-specific styles. Other styles which can be applied to text and other types of elements, such as clips and graphic objects, will be covered in **Chapter 9: Applying Object Styles**.

7.3.1 Font

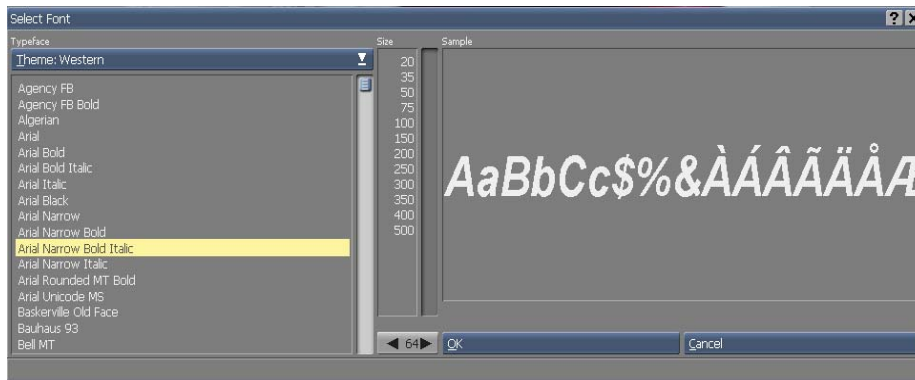
All text has a specific typeface, size and style. Together, these characteristics define the font.

A typeface is a set of characters, which include the letters of the alphabet, as well as other symbols, which contain the same basic design. The form of the curves in the characters is one difference which will immediately distinguish it from characters in other typefaces.

“Size” refers to the height of the characters in a typeface, including the amount of space separating each line of text. In printing, this size is measured in points, the smallest unit of measure in typography. In Designer, size is measured in pixels, the smallest unit of a screen picture.

The Font button indicates the name and size of the typeface. To change the font:

1. In the Design Text panel, click on Font: You will see the Select Font panel:



The current typeface and size are selected in the scrolling lists. The Typeface list reveals the names of TrueType scalable font.

You can filter the list to display the available typefaces according to “theme”, or language family. For example, themes may include Western (for western European languages), Hebrew, Greek, Cyrillic, Turkish, to name a few. The Theme: selector is located above the font list. If you choose Theme: All, the dialog will display every available typeface. It will also list the theme in parentheses. The default Theme is Western.

3. Scroll through the list of typefaces and click on one. Type a letter to select the first name in the list beginning with that letter. In the font sample box you will see text displayed in the typeface you selected. It is displayed in the first size available in the font size list box. If you want to see particular characters, simply click on the sample text and type in your desired text.
4. Choose a size. There are two ways to choose a size: the Size scrolling list and a value control. For TrueType fonts, the sizes

in the list represent a selection of corresponding sizes. You can choose one, or use the value control to specify a size which is not in the list.

The characters in the sample box reflect the typeface and size which has been selected.

5. After choosing your desired font, click on OK to apply the typeface and size settings. This will close the Select Font panel and return you to the Design Text panel.

If you applied the changes to selected text, you will immediately see the effects and the Font button will reflect the new typeface and size. Otherwise, the typeface and size will be displayed on the Font button, affecting any additional text. In either case, the text will retain the styles it had before you clicked on the Font button. You may also change styles independently, according to the procedures described in the following sections.

7.3.2 Restrictions on embedding TrueType fonts

Some TrueType fonts are restricted by their creators from being embedded in a document. Although you can use a font in a script, if you want to publish or distribute the script, the font cannot be included. In order for such a script to play correctly on another machine, that machine must also have that particular font installed.

The Select Font dialog provides an alert whenever you select a TrueType font with embedding restrictions. The Not Embeddable button will appear in the space beneath the Sample box when a restricted font is selected in the Typeface list. You can click this button for a dialog containing an explanation of the font's licensing status.

7.3.3 Character Spacing & Kerning

Each character in a font has its own natural width. For example, the character “w” uses more space than the character “i”. In addition to its natural width, extra space is added to the right of a character to ensure it is visually separated from the following character. The width of a character includes its natural width and the space between each character; it is part of the design and definition of the font to which it belongs, (the typeface, size and style of the text). This is known as character spacing.



Designer provides a Character Spacing attribute, allows an increase or decrease in the overall amount of space between each character to expand or contract a word or phrase. This will not affect the automatic kerning features of Designer.

7.3.4 Automatic Kerning

Because of their shapes, some pairs of characters may appear to have too much space between them.



In addition to the AWA combination in this example, there are many other character combinations with similar visual problems, including P, To, Tr, Wa, We, we, Wo, Ya, Yo, and yo.

Designer will automatically apply kerning or will adjust the space between character combinations which require special spacing. In essence, kerning overrides the normal character width in problem character pairs. With kerning applied, the example above will look like this:



Designer has three kerning options: Normal, Normal and Digits, and Off. With Normal kerning, kerned relationships between special character pairs will be maintained even when overall character spacing is adjusted.

Normal kerning will not kern digits. For example, the number one (1) and the number zero (0) will take up the same amount of space on your page (assuming they are the same font). Having un-kerned digits is useful when creating tables, which allows columns of numbers to properly align.

When you apply Normal and Digits, kerning is applied to numbers as well as letters. You would use this setting with any text which contains numbers, but does not have columns of figures.

If, for any reason, kerning produces an undesirable effect, you can turn kerning Off.

To change the automatic kern setting, or to manually adjust the overall character spacing, click the Alignment tab in the Design Text panel to reveal Character Spacing and Kerning settings, as shown in the figure on the previous page.

You can also change one or both settings at any time. However, if you change both settings, it is preferable to change the kerning setting first. This will reveal your spacing adjustments, allowing you to adjust the character spacing accordingly.

To change the kerning setting, select your text, then choose Kerning: Normal, Kerning: Normal and Digits or Kerning: Off. Normal and Digits is the default setting.

To change the overall space between characters, select your text then choose Character Spacing. Initially, the setting is zero (0) because extra space is not added or subtracted from the normal character width.

Use the value control to increase or decrease space. Note: If the value is set too low, the characters may run together and cannot be read. If the value is set too high, the characters may be pushed off the edge of the page.

7.3.5 Line Spacing (Leading)

Pressing Enter to create a new line, or divide an existing text element will move your cursor or text down one line on the page. Typing more text in a text element that will fit within the word wrap width or pressing Shift-Enter, will also cause the cursor to move down but the lines will be kept together in the same element. Designer will set the spacing between new lines based on the size of the font. You can use the Line Spacing option in the Alignment tab of the Design Text panel to adjust spacing. Designer will add or subtract pixels between the lines accordingly.

The default line spacing is zero (0). Use the value control to increase or decrease space. Negative values will bring the lines closer together, positive values will move them further apart. Large negative values can make new lines appear above the original line, rather than below.

The Line Spacing attribute directly affects line spacing in multi-line text elements. It has no immediate effect on single lines. If, however, you adjust Line Spacing for a single line and then press Enter the position of the new line will reflect the spacing setting.

7.3.6 Color

Many style buttons in the Design Text panel allow you to specify color. You can control the color of everything from text, to the color of the underline, or a shadow which is cast by a character.

The default User palette includes a selection of colors which will stand out

against the background, allowing text to be easily read. These colors are usually displayed in the first color set and include white, black, a range of gray scales, and some bright, contrasting colors.

A default color is automatically used when you apply a style, unless you first choose a different color. For example, the text Front (or text face) is white; an underline has the same color as the text; and a shadow is black.

To change the color of a style:

- Use the Color Set Switcher to move through the color sets and examine the available colors in the palette.
- Drag the color from the color bar to the style button (a color square will follow the pointer).



When a style is applied, the button will appear to be pressed and its label will be highlighted—the color will affect either the selected text, or the next text you type. Otherwise, the color will be used the next time you click on the style button.

You can also drag a color directly from one style color chip to another. This is helpful if you need to match colors of different styles. Designer can customize colors for styles. You can modify the default colors in the color bar, as well as add additional colors. To adjust the colors, use the Design Palette panel, which is discussed in further detail in **Chapter 13: Adjusting Colors**

7.3.7 Bold

Making text bold will add weight to the characters: bold **text**. In addition to applying the basic style, you can control the amount of weight which is added.



When you apply the B (Bold) style, Designer will increase the weight of the characters. To change the bold weight, simply click the Style tab. Use the Bold Weight value control to decrease or increase the bold weight.

The minimum setting is one (1), which means the text is only one step heavier than normal. The text becomes heavier as you increase the setting.

7.3.8 Italic

When an italic style is applied to text, the characters will slant away from their normal upright position: italic text. Designer can control the slanting of italic characters. In fact, you can actually change the direction of the slant and cause characters to lean toward the left rather than the right.

I (Italic) style will slant the selected characters. To change the angle of the slant, simply click the Style tab. Use the Italic Slant value control to increase or decrease the angle of a character.



Text will not visibly slant the characters when the minimum positive setting, one (1) is applied. Settings of two (2) or higher are usually necessary before the slant is revealed. Text will slant more to the right as the setting increases. Note: Characters can be difficult to read at higher settings. If you use a negative setting, the text will slant toward the left.

7.3.9 Underline

Text with an Underline style, will appear with a line underneath the text: underlined text.

Initially, an underline has the same color as the highlighted text. Although the thickness and position of the text have default values, Designer allows individual control over these characteristics. You can also control the amount of space or “air” between the underline and text. You can turn on underlining with either the multistyle button in the Design Text panel or the U button. To change the color of the underline, simply use the multistyle button. When the Underline? option is visible, drag the color you want to apply from the color bar to the multistyle button.



Other attributes of an underline can be adjusted under the Style tab. The Underline Position option enables you to raise or lower the underline in relationship to the text. When the setting is zero (0) the line is flush with the baseline of the text. As you increase the underline position setting, the line will move down in pixels. As you decrease the setting, the line will move up. Negative settings can make the underline run behind the body of the characters. For many fonts, the lowest setting may place the underline completely above the text.



The default underline position is a few pixels below the baseline of the text.

The option Underline Thickness in the Style panel adjusts the thickness of the underline, in pixels, with a minimum setting of one (1). Generally, an underline will become too thick to be useful long before you reach the largest setting.

The option Underline Air in the Style panel adds space around text characters where the underline crosses, so that the characters remain distinct.

For example, when the setting is zero (0), the lower part of the characters will touch the underline. Increasing the setting will make the text more readable. This may be preferable if the underline is thick and close to the baseline, or if you want to create a different colored underline as a base graphic accent.



The amount of air is measured in pixels. The default air setting is one (1). Regardless of the font, the maximum setting is three (3).

7.3.10 Laying out text on the page

In order to give you the greatest possible freedom to compose and arrange elements on a screen page, an element—a line of text or a clip—can be placed anywhere. You can point and click anywhere on the screen page and establish the position for the cursor and the left margin of a new line of text. Additionally, you can quickly and easily move an existing text element by dragging it to a different position. The position of the first character in this line, will determine the left margin of any lines which may be created when you press Enter, or any lines of a multi-line text element.

Although this flexibility is one of Designer's most useful features, there may be occasions when you need to impose more structure. When this is necessary, you can align the text in various ways, specify per-element margin settings to create multi-line text "columns", and define tab stops.

7.3.11 Tab stops

Tab stops arrange text (and other elements) in columns and, when necessary, ensure the same amount of space is consistently used between them.

Tab stops in Designer function similar to a typewriter or word processor. Rather than creating a series of blank spaces by repeatedly pressing the spacebar, you can set tab stops to automatically line up your text. Tab stops will be applied to the entire page, unlike word wrap settings, which can be different for each element. In Designer, pressing Tab will insert an invisible tab character, which will move the cursor and any text to its right, to the next tab stop. You can set the positions of tab stops in the tab/margin bar in the Text tab.



Designer predefines and positions a series of tab stops (represented by white triangles) at intervals along the tab/margin bar. With each press of the cursor (and any text to its right) will move to the right, to the nearest tab stop, then to the next, and so forth.

When text elements containing tab characters are repositioned, the spaces in the element created by the tabs will change as the element's relation to the fixed stops changes. After moving you may need to modify the tab stops, or the number of tab characters in the text, to keep it aligned.

You can press at any time to insert a tab character in the element.

7.3.12 Adjusting tab stops



To adjust tab settings, drag the tab stop to a new position on the tab/margin bar in the Text tab.



After adjusting the tab stops, select the text that you want to apply the changes to and they will automatically update. You cannot add or remove tab stops. If necessary, you can move any unneeded stops to the left or

right end of the bar. By doing so, it will ensure they will not have an effect when you move text (or another element) which includes a tab character.

7.3.13 Margins and word wrap settings

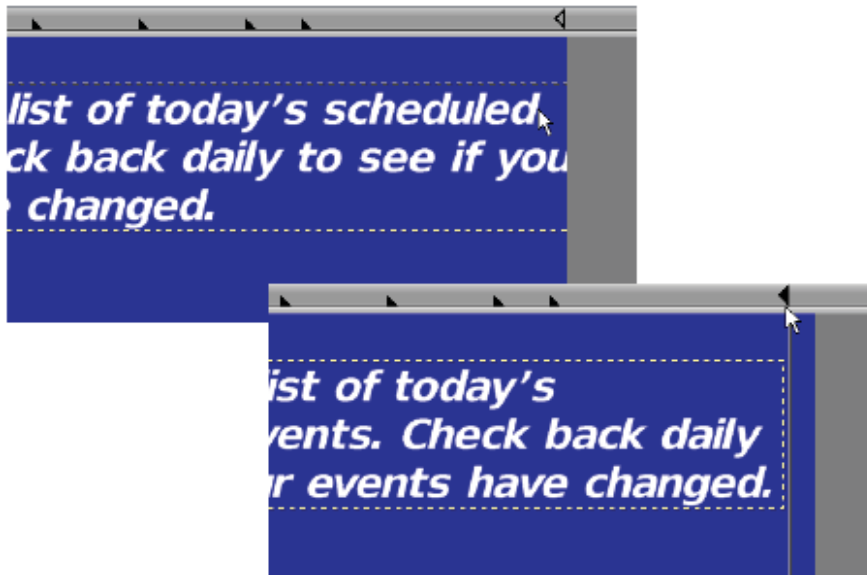
Every text element in Designer contains independent left and right margins. The margin positions are shown by the two black triangle markers on the tab/margin bar in the Text tab. As you click on text elements in different parts of the page, the positions of these markers will change.

The left margin of a text element is determined by the position of the first character of the element. The right margin assumes a default setting near the right edge of the page; it determines the point at which the text wraps to the next line. The difference between the two settings is the word wrap width. The margin settings will follow the text element as it is moved around the page, maintaining the same word wrap width.

To adjust a margin, point to the margin marker and drag it to your desired position. As you move the arrow, you will see a vertical line on the screen page. The line will follow the movement to help you visualize the position of the margin on the page. When you release the mouse button, the line will disappear. You will see the text in the element wrap to additional lines if necessary to fit within the margins.

NOTE: If you move a text element so a margin appears off the screen, the margin markers will change from the solid to hollow and will be placed at the edge of the tab/margin bar. Click on the hollow marker to set the margin to the page edge.

By dragging elements and adjusting the margin positions, you can create text columns of any width anywhere on the page. To precisely control the column width, you can use the Word Wrap Width attribute on the Alignment panel of the Text tab.



7.3.14 Word Wrap

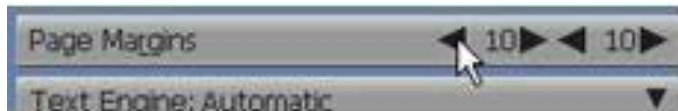
Word wrapping is controlled by the Word Wrap? option on the Alignment panel of the Text tab.

If you do not want an element to wrap, regardless of its width, simply turn Word Wrap? off. This will allow a long text element to extend off the screen, as one long line. This is required with the “Crawl” transition, to create a scrolling banner across the screen, similar to a TV news bulletin. It also may be necessary if a wrapped line would disrupt the page layout, for example, if the line contained an embedded variable whose value was unexpectedly long. With word wrap off, you can still wrap lines manually by inserting linefeeds with Shift-Enter.

Generally, you can leave Word Wrap? on. Doing so will ensure the line will wrap whenever it becomes longer than the word wrap margin. A specific example would be if the displayed value of an embedded variable (for example, “Scala: Multimedia the easy way.”) turns out to be much longer

than the embedded variable reference itself (for example, !slogan). See **Chapter 15: Branching, Variables and Scheduling** for more information on embedded variables.

7.3.15 Page Margins



Designer predefines left and right page margins which are slightly indented from the edges of the screen with the Page Margins attribute, located on the Misc panel of the Design Text panel. Its settings are used to determine the position of the text when an alignment option is applied. However, they also provide the default position of the left and right margins for new elements. This will be discussed further in the following section.

7.3.16 Horizontal Text Alignment

The Design Text panel includes four alignment options: Left, Center and Right.



Left Aligns elements along the left margin	Center Centers elements between the left and right margins	Right Aligns elements along the right margin
------------------------------------------------------------	-------------------------------------------------------------------------------	--------------------------------------------------------------

To apply one of an alignment option, simply click on the corresponding button. (The button will appear pushed in and highlighted when the option is applied.) Click again to undo. You can apply only one alignment option at a time to an element. All three options are normally left off allowing complete positioning freedom.

If the cursor is positioned in a text element, or if several elements are selected, the text is immediately aligned. Otherwise, the cursor will move horizontally to the appropriate position on the page and any new text will automatically be aligned when you begin typing. The position of the text is determined by the Page Margins settings specified in the Misc panel of the Text tab. (Alignment can also be applied to a clip—see **Chapter 8: Working with Clips and Draw Objects.**)

When you try to move text which is affected by an alignment setting, the movement will be restricted to only vertical movement. For example, if center alignment is applied, you can move the text up or down in the middle of the page, but you cannot move it toward the left or right edge.

NOTE: If you create a new element and it is locked in one of the alignment settings, this is because new elements inherit the settings of the previously selected element. You can turn off the alignment setting after creating it, or select a different element with more preferable settings before adding a new one.



You can also use the Horizontal Text Alignment selector in the Alignment tab of the Design Text panel applied to the selected text element.

7.3.17 Multi-line Text Settings

Multi-line text elements can have their text aligned independently from the alignment applied to other text elements on the page. For example, a multi-line text element can have text which is right-aligned, while the text element is aligned along the left page margin.

Settings for multi-line text alignment are made in the Alignment panel of the Text tab with the Horizontal Text Alignment selector. Simply use the selector to choose from the following four options: Auto, Left, Center, and Right. The default setting is Auto.

To affect multi-line text, use the settings on the Horizontal Text Alignment selector in the Alignment panel, together with the alignment options in the Text panel, as follows:

Auto: The alignment of a multi-line text element within its frame will match the left, center or right alignment of the element within the page margins, as selected in the Design Text panel. For example, if the element is centered between the margins, the text within the element will also be centered within its frame. If you do not select any of the three alignment options in the Text tab, the text in a multi-line text element will be left-aligned.

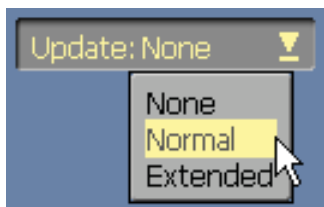
Left: Multi-line text is left-aligned within its frame, independent of the alignment buttons in the Text tab.

Center: Multi-line text is centered within its frame, independent of the alignment buttons in the Text tab.

Right: Multi-line text is right-aligned within its frame, independent of the alignment buttons in the Text tab.

7.4 Update Text

The Update selector in the Misc panel of the Design panel allows individual control of embedded variables displayed on the screen. As described in the “Displaying variables” section at the end of **Chapter 6: Working with Text**, Designer can embed variables in text elements. The variable display will update automatically as variable values change. However, updating can be affected by subsequent events. The Update option allows you to choose your desired update behavior.



When Update is set to None for an embedded variable, the value will not update. When Update is set to Normal, the variable will update as its value changes, however, updating will only continue to the end of the current page. This applies whether or not the next page is a special event. Note: This will prevent a variable from prematurely updating before the next page appears. For example, if a page containing an embedded variable is followed by a special event page which plays a sound, the variable updating will stop when the sound page begins.

To make it possible for variable updating to continue through the extent of

a complete screen page, regardless of intervening special event pages such as a music selection, Update provides the Extended setting. When an element with an embedded variable is set to Extended, it will continue to update its value until the beginning of the next page.

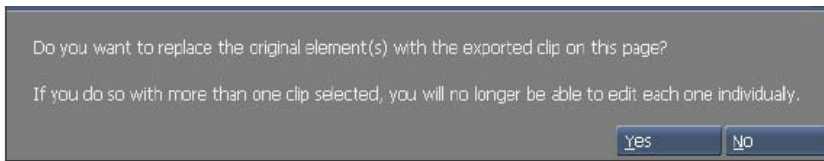
7.5 Advanced Features

7.5.1 Export Text to Clip Image

You can export text created in Designer as a rasterized image or Clip. The image file will be saved as a PNG file which will retain any text Styles which were applied in your Page view design session. The PNG file type will also retain any transparency information around the text.



Select the text in your page and from the File pull-down menu, choose Edit > Selection as Clip. This will bring up the save dialog, select the location from the Save as type: selector. Determine a name and location, and click Save. A dialog will pop-up and you will be prompted to replace the existing selected text in your page with the saved Clip file. This will ensure any fonts which cannot be embedded into your script, will be saved as a graphic image.



7.5.2 Copy and Paste Format

To apply a format and style of a line of text to another text element, simply use the Copy and the Paste Format option.

Select the text with the style format which you wish to copy and select Copy from the Edit pull-down menu or from the Page view toolbar. Next, select the text element from which you want to apply the copied style formatting, and choose Paste Format from the Edit pull-down menu. This will apply only the style formatting to the selected text. It will not overwrite the text itself. You can also use this option on subsequent pages in your script.

7.5.3 Text Engine

Lets you choose which engine will be used to draw text. The Standard text engine supports a full range of text effects and styles. The Complex Writing Systems engine supports Arabic, Thai , Hebrew, Hindi, and other complex writing systems, but does not support certain text styles.

Automatic - Uses the Standard text engine when possible, but uses the Complex Writing Systems engine when the text element requires its features.

Complex Writing Systems - Always uses the Complex Writing Systems text engine.

|||| 8 Working with Clips and Draw Objects

Chapter Overview

Graphics can add style and meaning to multimedia production, and Scala Designer includes a diverse collection of high-quality clip-art graphics which will serve as a catalyst for your next production. These images can be used to illustrate a point, enhance a page and augment your creativity as you design your scripts.

Designer can import and separately position virtually any image which is available as a graphic file, even animations. In Designer, any graphic image which is placed on a page is referred to as a clip—or, in the case of animations, an animclip, movieclip or Flashclip. A clip is an independent element which can be moved, resized, and styled on top of the current page background.

In addition to the hundreds of clips which come with Designer, any file created using the techniques described in **Chapter 5: Working with Backgrounds**, can be used as a graphic element on a page. For example: image files from a scanner, paint or drawing programs, and animations in supported formats such as AVI, MPEG, AnimGif, and the SWF (Adobe[®] Flash[™]) multimedia format. Even streaming media such as Flash or Video animations and movies can be used as backgrounds, as long as the Player has online access to the hosted media.

8.1 Glossary of Terms in this Chapter

Clip – A predefined graphic image, such as a picture, drawing, symbol, etc., which can be imported and positioned on an Designer Page.

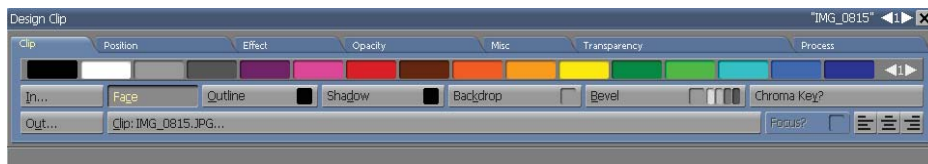
Animclip – An animated clip in the GIF or SWF formats which have

been loaded as a clip in a Designer page. Similar to other clips, Animclips can be moved, scaled, as well as have their speed and other parameters modified.

Movieclip – A digital video imported into a Designer Page, in MPG, AVI and WMV formats. Similar to Animclips, Movieclips can be modified in scale and placement. They may also include audio channels.

8.2 Adding a Clip

Use the Design Clip panel when working with clips in the Page view.



The Design Clip panel features style tabs which contain numerous options when working with clips. This chapter will address basic options, and only those applying to clips. Additional options which can be applied to Movieclips, text, and drawings will be discussed in **Chapter 9: Applying Object Styles**.

There are several ways you can access the panel:

- In the toolbar, click on the Add icon, which reveals the File dialog. When you select a graphic from any folder, the clip will be imported and the Design Clip panel at the bottom of the Page view window will appear.
- Use the Add pull-down menu and select the Add File(s) option to select a clip.

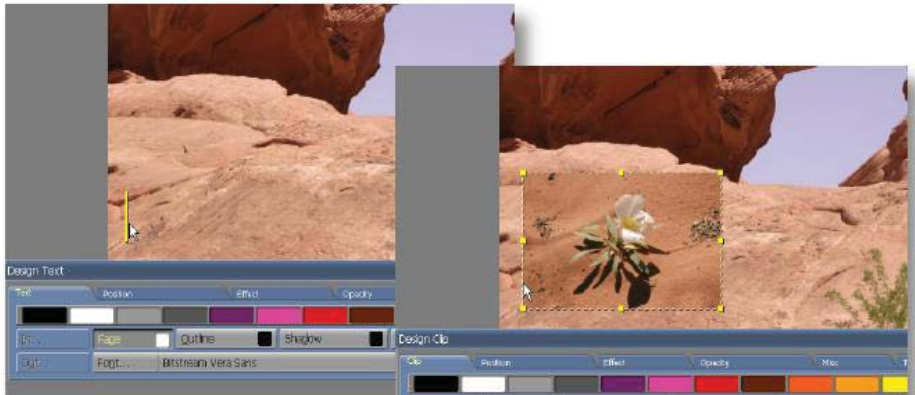
- In the Page view, select a clip on the page.

If the panel appears as a result of selecting a clip, then it will change to reflect the type of clip (static or animation), and the Clip: button will indicate the name of the file. (Note: This is not necessarily the name assigned by you or by Designer in the Design List panel.) The Clip: button displays the name of the clip, animclip, movieclip, or Flashclip file. If a clip was added by pasting, the Clip: the button will read <embedded>, indicating there is no underlying file.

Regardless of the status of the Clip: button or the number of clips on a page, when you click on Clip: you will see the File dialog. You can navigate in the dialog and choose a graphic file to add as a clip. The clip will be added to the page as a new element. If a clip was already selected and you entered the File dialog from the Clip: button, the new clip will replace the previous clip.

Designer handles a new clip the same way it handles an element which has been pasted from the clipboard:

- If you click on the page to position the text cursor in an unoccupied area before you add a clip, the clip will be positioned at the cursor.



- If you do not make a selection, and the text cursor is not visible, Designer will remember the previous location of the cursor, and will position the clip accordingly.
- If part or all of one or more elements is selected, or if the text cursor is in a line of text, the clip will be positioned downward and slightly to the right of the top left corner of the element(s).

When the clip is displayed on the page, you will see a dashed frame with eight graphic handles positioned around the edge. The handles are an indication that a clip has been selected. You can continue to work with the clip, or click anywhere on the page outside of the clip image to deselect it. If the clip is too large (for example, if you have imported a background as a clip), you can use the single-key hotkey H to make the clip half its normal width and height. The reverse of this operation is the D hotkey, which will double the size.

NOTE: Several single-key hotkeys which are specific to clips are also available. You can quickly perform common operations on a clip from most Design panels and pull-down menus. Refer to Appendix A: Keyboard and Mouse Shortcuts for specific hotkeys.

Designer may hide the Design Clip panel at first to ensure that the lower portion of the clip is visible. If the panel is hidden, click the secondary (right) mouse button and select the Show Design Panel context menu to see it again.

You can work with a clip by clicking on it. If the clip has transparent areas, you will need to click on a non-transparent part in order to select the clip. Following are a few options in regard to selected clips:

- To move the clip, point to a non-transparent part anywhere inside the dashed frame and drag the clip to the new position. To constrain the clip to horizontal or vertical movement, simply hold down Shift while dragging.
- To change the size, point to a graphic handle on the side or corner of the clip and drag the handle to a new position.

Dragging a handle at a corner will allow you to simultaneously adjust the width and the height. Dragging a handle on a side will allow you to adjust only that side. To maintain the original proportions of the image, Shift-drag a corner handle.

NOTE: You can cancel a dragging operation by pressing the secondary (Right) mouse button while holding down the main (Left) mouse button.

- To crop away parts of the clip, point to a graphic handle on the side or corner of the clip, then Alt- drag the handle until the edge or edges enclose only the portion of the clip you want to keep.

Alt-dragging a corner will allow you to simultaneously crop the width and height of a clip. Alt-dragging a handle on a side will only crop that side.

8.2.1 Selecting clips and other elements

When you click on a clip, you will see graphic handles placed around its edges.

Remember you have to click on a non-transparent part of a clip which has the Chroma Key? option on in order to select it. If several clips overlap, you can click through the transparent part of one to select another underneath.

You can also select several clips at one time, or a combination of clips and text elements by Ctrl-clicking on them.

You can also drag-select clips. When the dotted frame encloses all or part of each element, release the mouse button. Each element will be selected: each text element will be enclosed in its own frame, and each clip will have graphic handles. Unlike text, you cannot select part of a clip.

Regardless of your selection method, the Design panel will appear for the last type of element you have selected. If it is a clip, you will see the Clip panel; if it is text, you will see the Design Text panel, if it is an oval, you will see the Design Ovalpanel, and so on.

8.2.2 Working with several selected elements

You can work with the selected elements as a unit. For example, you can point to one of the elements and drag it to a new position. All of the elements in the group will move together, maintaining their original positions relative to one another. You can also apply styles collectively. Whatever styles you apply or edit will affect all of the selected elements. If you have selected different types of elements at the same time—for example, both text and clips—you the Design Multiple Elements panel will appear. This panel will reveal only those options, such as Shadow and Bevel,

which can be applied to every selected element type. Elements will remain selected even if you change from one Design panel to another. To cancel the selection, simply click anywhere on the page which is outside the area of the selected elements.

8.2.3 Adjusting Settings for Animclips and Movieclips

Animclips and movieclips are not fundamentally different from full-screen animations which you might use as page backgrounds aside from the way you would change their size. In **Chapter 15: Using Animation, Digital Video & Sound**, you will find additional general information about animations and animation options.

Almost all options which can be applied to a plain clip may also be applied to an animclip or movieclip: they can also be sized, rotated, cropped, have a beveled edge, shadow, or outline, etc. The Focus? option does not affect animclips or movieclips.



When an animclip (an animation loaded as a clip) or a movieclip (a digital video segment loaded as a clip) is selected, the panel changes to a Design Animclip or Design Movieclip. Each will add a Video tab, which contains settings which are animation specific.

Settings which apply only to animations are described below.

8.2.4 Options common to animclips and movieclips

The following options apply to both animclips and movieclips.

Wait?

You can initiate other events while an animation plays, or you can suspend other events until an animation has completed. When the Wait? option is off, subsequent script events can begin while the animation is playing. With Wait? on, the animclip or movieclip must finish playing (including the set number of loops, if any) before the next event in the script can begin. You can see the duration of the clip in the End Time button.

Loops

Loops specify the number of times an animation repeats before the next event in the script is displayed, or the animation stops.

You can specify a number between one (1) and nine thousand nine hundred and ninety-nine (9999), or “infinite repeat” setting. This last setting will repeat indefinitely, which is useful when you don’t know when the animation should stop. The default for animclips is infinite repeat, as these animations are frequently designed to loop. Movieclips, however, default to a Loops value of 1, because they are usually made to be played just once. For more detail on this option, please see the Repeating the animation section in **Chapter 11: Timing**.

NOTE: When Loops are infinite, the Wait option is applied as follows: if Wait? is on, the animation will continue until the page advances. If Wait? is off, the page will advance when all remaining elements on the page have completed, or the duration of the page is set to a defined time.

8.2.5 Options for animclips only

Because an animation takes time to play, certain special options are required.

Speed

The Speed value control governs the speed of the animclip in frames per second. For more information on animation speed, please see the section on the Frames per Second option in the Background panel in **Chapter 11: Timing**.

Stop on First?

The Stop on First? option allows you to control whether the frame which is revealed when an animclip has completed, will be the first frame, or the last. In some cases, one of the clips will simply look better than the other. Turn this option on to leave the first frame visible. For more detail on this option, please see the **Chapter 10: Timing** for more information.

8.2.6 Options for movieclips only

Most movieclip options will match animclips, however, some are unique.

Playing a specific part of a movieclip

The Start Time in HH:MM:SS.hh? and End Time in HH:MM:SS.hh? controls allow you to play a subsection of a complete movieclip.

The default will play the entire movieclip. To exclude some part of the beginning and/or end of the movieclip, turn on the Start Time and/or End Time buttons in the Video tab. This will activate their associated value controls, which allow you to specify an offset time from the beginning or end of the movieclip.

To have the movieclip start playing at some point after the beginning, use the Start Time control to set the delay time (in hours, minutes, seconds, and hundredths). To have the movieclip stop playing at some point before the

end, use the End Time control to set the length of time from the beginning to the desired stop point.

Movieclips also have the Wait? and Loops options, which function the same as described in the preceding section. However, the frame rate and stopping frame in a movieclip are fixed, so the Speed and Stop on First? options are not available.

Volume

Because a movieclip can have sound, Designer will allow you to control the sound level. When a movieclip is selected, use the Video tab's Volume slider to preset the volume.

8.2.7 Options for Flashclips only

Quality: controls the visual quality setting of the Flash display engine. (The default value is High, which is better than in earlier releases.)

Interactive: Select to allow this Flash to receive keyboard/mouse input.

Mode: Controls the "Window Mode" property of the Flash clip. Opaque mode hides everything underneath the Flash clip. Transparent mode allows elements underneath to show through any transparent portions of the Flash clip, including any alpha-channel transparency. This may slow animation performance.

Flash Variables: Lets you specify text that will be passed to the Flash file through the FlashVars method. Useful for certain advanced Flash files that can take parameters.

8.3 Cropping a Clip

You can use the aforementioned graphic handles to crop a clip, or simply by turning on the Crop? button, you can use the Crop Position and Crop Size buttons in the Misc tab.



Before you crop or trim a clip, please note that the Width and Height settings on the Crop Size button will reflect the dimensions of the original clip. If you adjust the size of the clip the crop settings will not change. You will notice that they can become quite different from the current size of the clip specified on the Element Size control.



When you use the graphic handles to crop a clip (press and hold Alt as you drag a handle) the settings on the Crop buttons will change accordingly, as demonstrated in the following illustration:

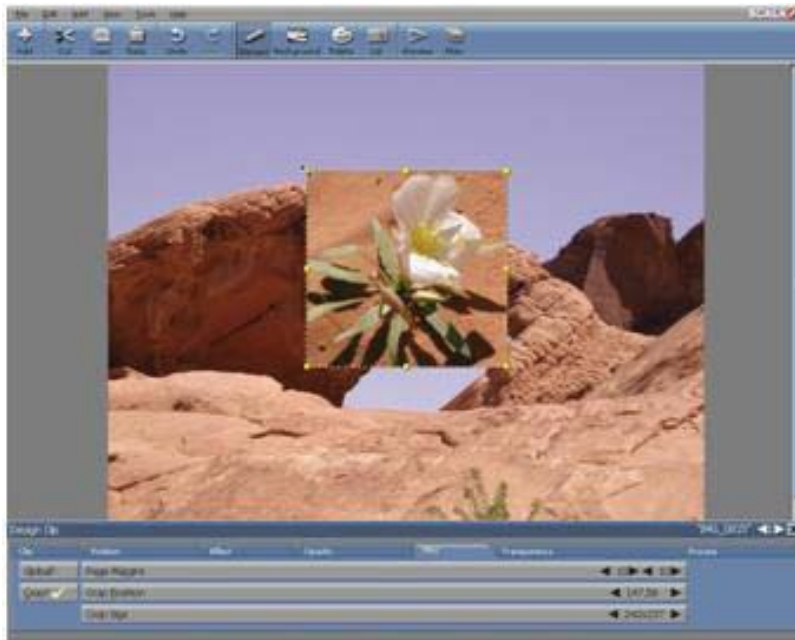
Left – Represents the number of pixels you can trim from the left edge of the original image.

Top – Represents the number of pixels you can trim from the top edge of the original image.

Width – Represents the number of pixels in the width of a newly cropped image. Width is measured from the left edge of the clip as determined by the Left setting.

Height – Represents the number of pixels in the height of the cropped image. It is measured from the top edge of the clip as determined by the Top setting.

Using the graphic handles to crop a clip will also change the size of the clip. The Element Size dimensions will also be updated. When you have finished cropping an image (and released the Alt key) you can use the handles to adjust the size or change the settings on the Element Size control.



8.3.1 Cropping without changing the size

If you want to trim the image, but do not want to change its size, make sure the Size? button is on; you may then change the settings on the Crop buttons instead of using the handles. The Element Size dimensions will not be affected. Designer will automatically enlarge or reduce the cropped image so the width and height will be the same as specified by the Element Size dimensions.



To change a Crop setting, use the corresponding value control. The screen will immediately update allowing you to see the results of one adjustment before you make another. You can change the Crop settings in any combination.

Cropping an image by changing the settings on the Crop buttons is very accurate, however, using the graphic handles is generally faster. You may also apply a combination of the two techniques, which is often useful.

8.3.2 Cropping, sizing, and the original image

Cropping and sizing, does not affect the original image file unless you export the edited clip using the original file name. To recover the original image, load the clip or turn off the Crop? and Size? buttons. The maximum crop width and height settings will be the original dimensions; when an image is not cropped, the Crop Position settings will be 0.

For additional examples of cropping and a more detailed description of the settings on the Crop buttons, please see **Chapter 4: Working with backgrounds**. The crop function is essentially the same for both clips and backgrounds, with the exception that backgrounds cannot be cropped using a graphic handle.

8.4 Clip Transparency & Keying

A style which is available only for clips, Chroma Key[?], is located on the multistyle button in the Clip panel. When Chroma Key[?] is on, certain areas of the clip will not be visible, allowing the page background or other elements to show through. When Chroma Key[?] is off, you will see all of the colors in the clip. Regardless of the design of its image, a clip is always rectangular. When selected, it will be bounded by a rectangular frame with graphic handles. However, in many clips, such as the one shown below, the background area between the frame and the image can be made transparent. Additionally, areas surrounded by opaque colors can also be transparent.

Transparency will allow clips to fit cleanly into any background, appearing as any shape. Transparent areas will also allow you to click through them in order to select any underlying clips. This is very effective when there are several clips which overlap. Some clips have a pre-set alpha channel, such as PNG or GIF images. For clip formats that do not support alpha channel, the transparent area can be associated with a selected color.



Any particular color in the clip's palette which has been defined as transparent, will determine which areas of the clip will disappear when Chroma Key? is turned on. You can see this color by turning the Chroma Key? option off. You can also specify which color in a clip is transparent using the Transparency tab in the Clip panel.

8.4.1 Selecting a transparent color

You may want to make a clip background transparent so the content will integrate into a page without a rectangular background. You may also want to make other areas of a clip transparent, for special effects. Regardless of your reason, you may need to change a transparent area.

Designer will allow you to turn transparency on and off with the multistyle button on the Clip panel, and, for most clips, pick the transparent color(s)

on the panel's Transparency tab.

The Transparency tab features a set of sliders and associated value displays which reveal the chosen transparency or “chroma key” color. The color block will display the clip color which you have chosen to be transparent. The Transparency Range control will allow you to specify a color “tolerance”, so similar colors may also become transparent. The Chroma Key Feathering control allows you to adjust smoothness of the transition between transparent and non-transparent areas.

To designate a color to become transparent, simply click Pick, then with the Pick pointer click on your desired color in the clip. The large color block will display your chosen color. If the Chroma Key? button in the Clip panel is on, your chosen color will become transparent in the clip.

If your color selection was incorrect, you can choose Pick again. Or, for greater precision, you can refine your color selection by using the three color sliders. The slider values are reflected by the color in the color block and are numerically displayed in the RGB/HSV display box. If the Chroma Key? option is on, you can immediately see how your changes will affect the clip as you adjust their values. Similar to the **Design Palette** panel, you can switch between the RGB and HSV color models by clicking in the RGB/HSV display box. (See **Chapter 13: Adjusting Colors** for more information on using RGB and HSV sliders to specify a color.)

To make similar colors transparent—for example the blues in a sky—pick a conventional color, then move the Chroma Key Range slider to the right until the desired amount of the clip is transparent.

NOTE: For clips with a preset alpha channel – such as some PNG images, including clips distributed with Designer – the Transparency tab will be disabled.

You may need to experiment with the range value and the exact color to achieve your desired effect. When the range slider is all the way to the left, only the exact color on the color block will be affected.



Chroma Key? is on by default if, as the illustrations demonstrate, the clip was designed with transparent parts. Generally, in more detailed images or digitized photographs, every color should be displayed. If an image is not acceptable with transparency on, switch it off. The Chroma Key? setting for each clip will be saved with the script.

8.4.2 Adjusting the degree of transparency

The Chroma Key Feathering control will give you the option of adjusting the gradation of transparency between the transparent colors and non-transparent colors. This is valuable when softening the sharp edge between transparent and non-transparent areas of a clip, in addition to special effects.

By default, the Chroma Key Feathering slider is set to 0. This will make the transparent colors(s) entirely transparent, and the remaining colors entirely

opaque. As you move the slider to the right, the transition between transparent and opaque color(s) will be increasingly graduated, until it reaches the maximum value of 128. Much of the previously opaque area of the image will have some degree of transparency.

The Chroma Key Feathering control will interact with the Chroma Key Range control to produce this effect. When the range control is 0, a single color will be defined as transparent, and varying feathering settings will adjust the opacity of this color.



When the range value is increased, additional colors will be defined as transparent, however, with feathering, those which are less similar to the chosen transparency color, will be less transparent. This allows transparent and non-transparent areas to smoothly merge into one another. When Range is non-zero, you can use the Feathering setting to control the smoothness of the transition between transparent and non-transparent areas of the clip. This can be especially helpful when high range values affect areas of the clip which were not intended to be transparent. The correct feathering setting will make those areas opaque.

8.4.3 Using transparency with other styles

Using the Chroma Key? option, will change how other styles appear when applied to a clip. Without a transparency, the Outline and Shadow styles will follow the rectangular shape of the clip. However, when transparency is on, both Outline and Shadow will follow the edges of the image, where transparent and non-transparent areas intersect. This is a very effective method to make monochrome clips stand out.



8.5 Image Processing

8.5.1 Clip attributes

Many attributes, such as Position and Outline Thickness, will affect clips the same as text elements. However, there are also several attributes which do not apply to text:

- Size?
- Chroma Key Color, Range, Feathering

- Crop?, Crop Position, Crop Size

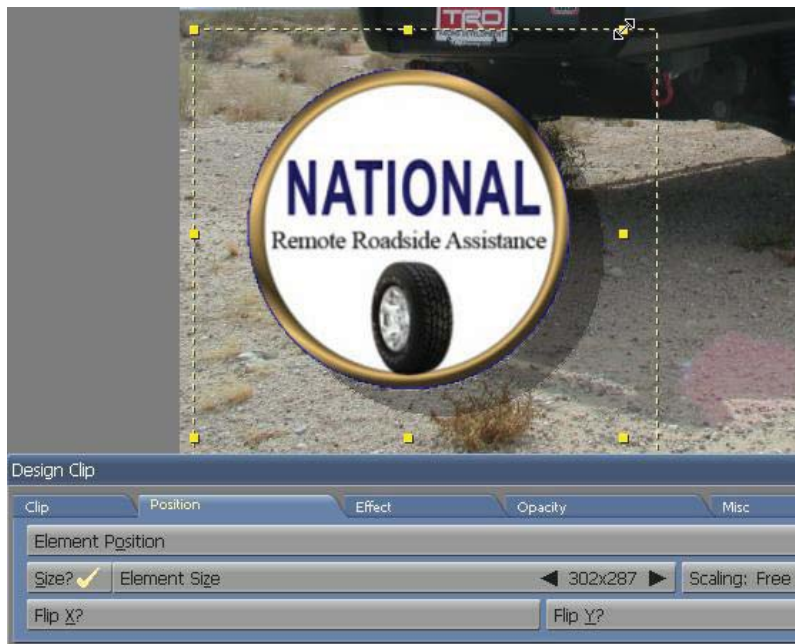
These attributes are available when one clip is selected or included in the selection of several elements. The attributes which are common to both text and clips will work the same with clips as they do with text, as described in **Chapter 7: Managing Text**.

8.5.2 Changing clip size

The Element Size setting in the Position tab indicates the width and height of a clip in pixels. Initially, the size will be determined when the clip is created. However, you can change the clip size. Turn the Size? button on to enable the Element Size value control to the right. Turning Size? off will cause the clip to revert to its original dimensions.

The settings on this button will be immediately updated when the graphic handles are used to adjust the size of a clip. Similarly, if you change the dimensions on the Element Size control, the selected clip will change size accordingly.





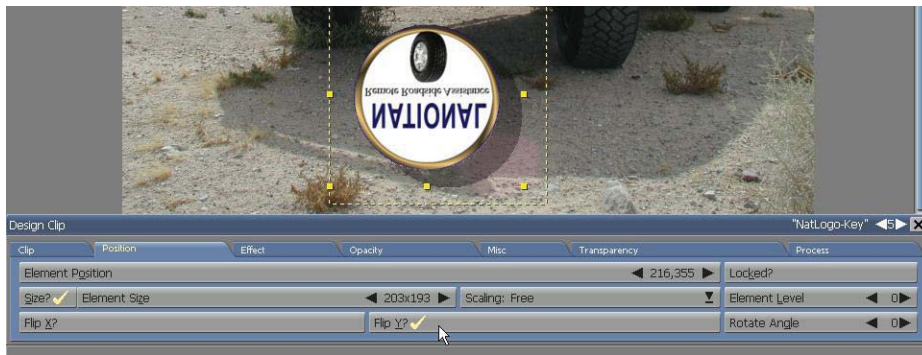
To change the width or height of a clip, drag its handles, or use the corresponding Element Size value control until you reach your desired size. Shift-drag a corner handle to resize while retaining the clip's original proportions.

There are two single-key hotkeys for clip size: H halves the size of the selected clip, and D doubles the size. Repeating either key will continue to reduce or double the current size of the clip.

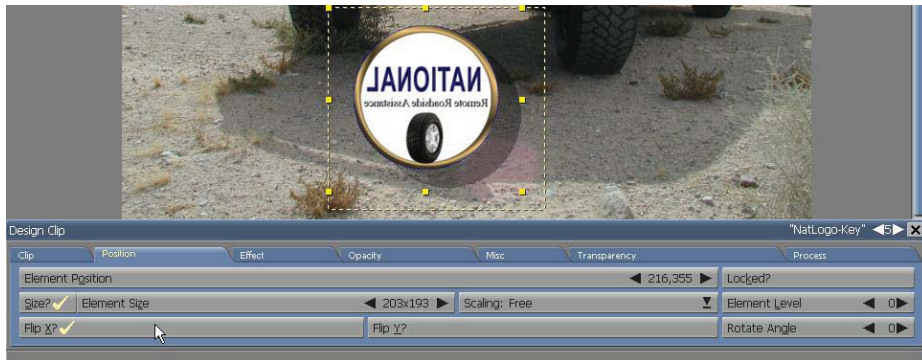
8.5.3 Flipping a clip horizontally or vertically

The two Flip options in the Position tab allow four different options to control the direction of the clip.

When Flip X? (Horizontal) is applied, the button will be marked with a check and the image will face in the opposite direction, horizontally.



When Flip Y? (Vertical) is applied, the button will be marked with a check and the image will face in the opposite direction, vertically.



When both Flip options are applied, the image will appear upside down and backwards.

The single-key hotkey for Flip Horizontal? is X. The single-key hotkey for Flip Vertical? is Y.

You can click on Edit and choose Export to save the customized clip as a file, after applying one or both Flip options to generate an image you want to save.

8.6 Changing the Colors in a Clip

There are two possible ways of adjusting clip colors in Designer: you can adjust individual colors in the clip's palette, or you can alter the color values in a clip as a whole. Adjusting individual colors in a clip palette only possible with 256-color clips. Processing the entire palette can be accomplished for any clip.

8.6.1 Changing colors in a 256-color clip

For 256-color clips such as GIF images, Designer allows you to make changes in the image palette while mixing the colors using the Design Palette panel. High Color and True Color clips contain fixed palettes in which colors cannot be individually adjusted.

The Palette tab allows you to individually adjust colors in a 256-color clip. The Clip palette in the Palette tab contains every color used to create a clip. As the colors in the palette are modified, the changes will be reflected in the clip. Ultimately this will give you the ability to change the entire tone or impression of the image; for example, from bright and bold to subtle and subdued.

Changing individual colors in a clip which is a digitized image, may lead to unnatural-looking effects. The large number of subtly varying colors in digitized images will make it very difficult to make large adjustments in the Palette tab without interfering with the natural color balance. Simpler, non-digitized images with relatively few colors, as shown above, can be easily changed.

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8.6.2 Processing a clip palette

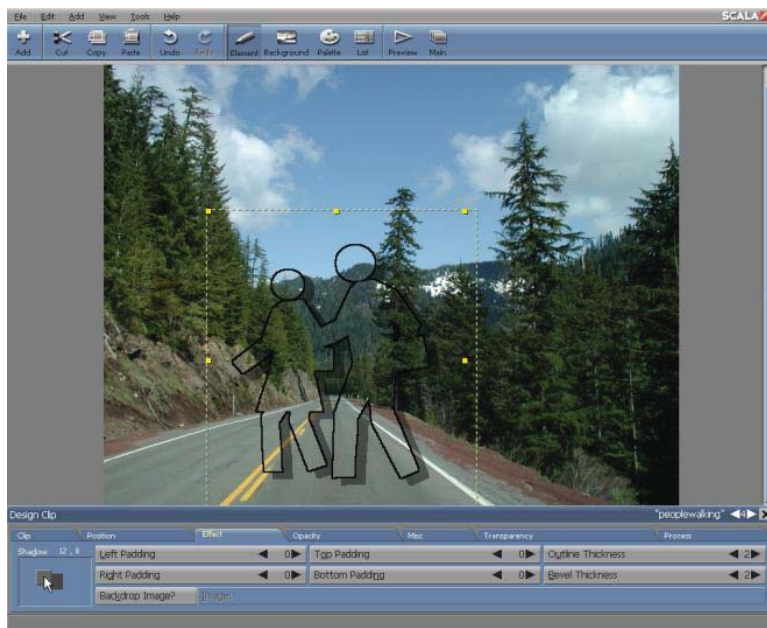
Designer allows you to make changes in the overall color balance and tonal qualities of a clip. Use the image processing capabilities available in the Process tab of the Clip panel.

Because image processing also applies in a similar way to backgrounds, the Process tab is discussed in detail in **Chapter 13: Adjusting Colors**.

8.6.3 Styling a monochrome clip

If a clip is monochrome (only one color), you can change its foreground color with the Front button.

You can also turn the Front color off, making the colored areas of the clip transparent.



This is very effective with the Outline and Shadow styles. As noted in the preceding section on the Chroma Key? option, when a clip has Chroma Key? on, using Outline or Shadow will outline or shadow only the non-transparent parts of the clip, rather than its rectangular border. It is not possible to turn off Front, Shadow, and Outline simultaneously to prevent a clip from becoming invisible. If this is attempted, the last of these three options will not be turned off.

8.7 Adding Draw Objects

When designing a page alongside constantly changing text, certain graphic elements have to change as well. Since it can be cumbersome to externally create elements, and move back and forth between Designer and an external drawing program; Designer contains built-in drawing capabilities to make many such external modifications unnecessary. You can add simple, structured graphic elements or draw objects to your pages, and edit them freely, without the need for outside programs. You can also add lines, arrows, boxes, circles, and ovals, and as with clips, easily adjust their size, position, color and other attributes.

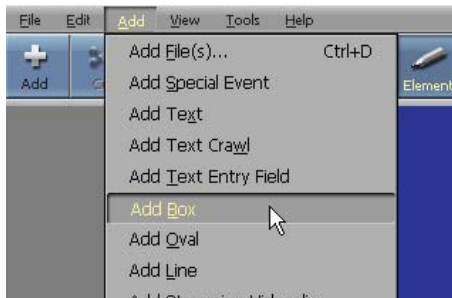
To create a draw object, open the Add drop-down and choose either Add Box, Add Oval, or Add Line, which will open the appropriate Design panel.

8.8 Drawing an Object

When you add one of the three draw object types, the mouse pointer will become a cross +. Click with the cross pointer to place the corners or endpoints for the object. You can also click other buttons on the panel, such as the Fill button.

8.8.1 Drawing boxes

With Add Box you can create rectangles or perfect squares—referred to as “boxes”. To draw a filled box, either make sure the Fill button is on before you draw, or turn it on after drawing. Place the cross cursor where you want one corner of the box, then press the main

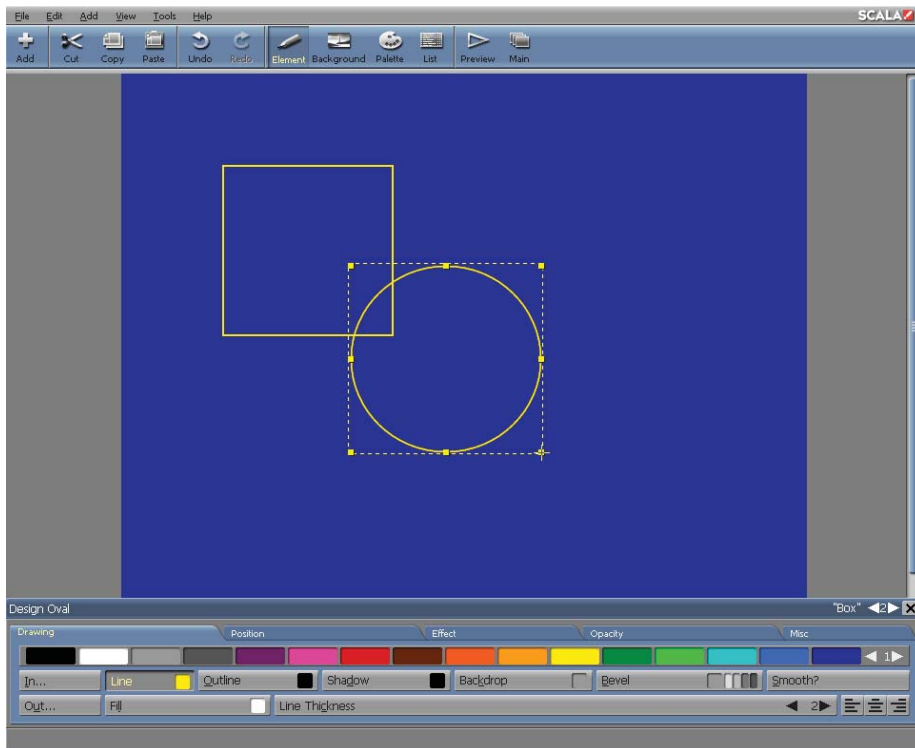


mouse button, then move the pointer to the position of the diagonally opposite corner. Release the mouse button to complete the drawing.

While drawing, you can hold down the Shift key to draw a perfect square, or the Ctrl key to draw from the center of the box. Graphic handles will appear around the resulting box, indicating it is selected, allowing you to change its shape.

8.8.2 Drawing ovals

With Add Oval you can create ellipses or perfect circles—referred to as “ovals”.

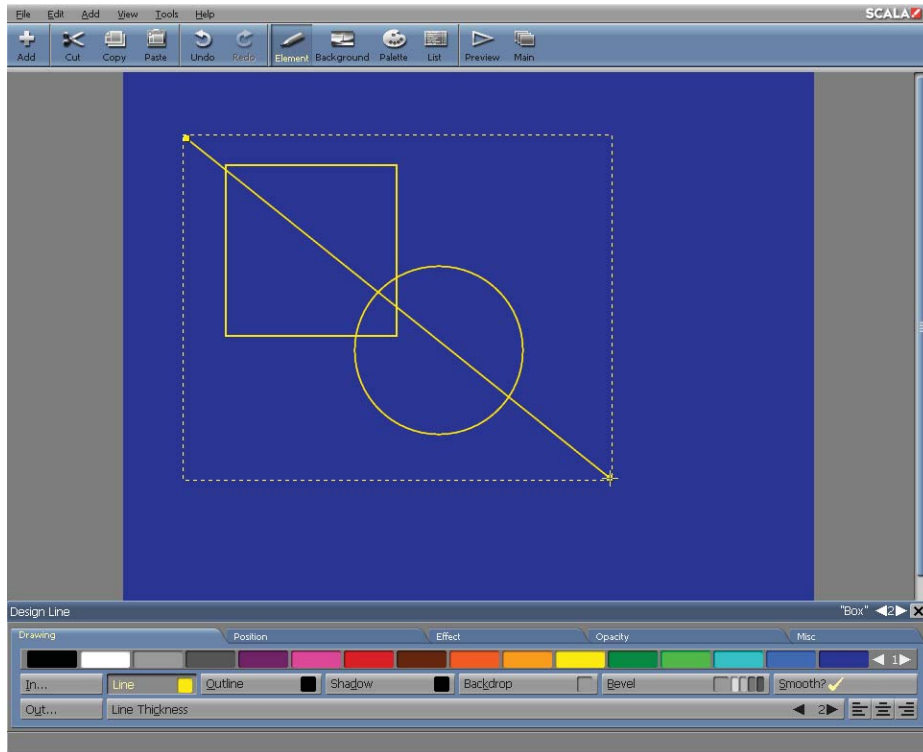


For a filled oval, either make sure the Fill button is on before you draw, or turn it on after drawing. Place the cross cursor where you want one corner of an imaginary box which in essence would surround the oval, press the main mouse button, then move the pointer to the position of the diagonally opposite corner. Release the mouse button to complete the drawing. While drawing, you can hold down the Shift key to draw a perfect circle, or the Ctrl key to draw from the center of the oval outward. Hold down both keys to draw a circle from the center.

Graphic handles will appear around the resulting oval, indicating it is selected, allowing you to change its shape.

8.8.3 Lines and arrows

With Add Line you can create lines or arrows.



Place the cross cursor where you want to start the line, and press the main mouse button, then move the pointer to the end position. Release the mouse button and the line is drawn.

If you want an arrow, after drawing a line, go to the Misc tab and turn on the Arrowhead at Start? or Arrowhead at End? options. The arrowhead size will automatically adjust according to the line weight set by Line Thickness.

While drawing, you can hold down the Shift key to constrain the angle of the finished line to fifteen degree increments (15°, 30°, 45°, and so on). This

facilitates drawing perfectly horizontal, vertical, or diagonal lines.

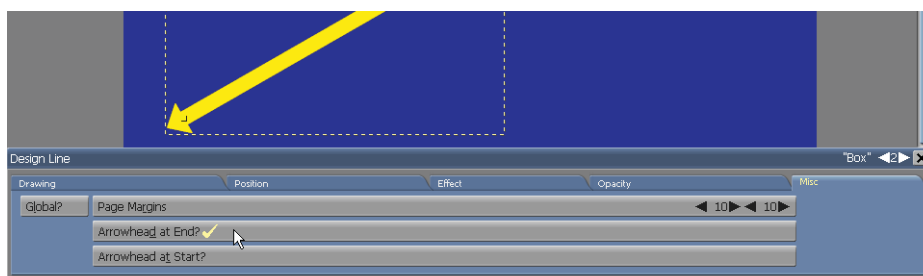
Graphic handles will appear at the two ends of the resulting line, indicating it is selected, allowing you to reposition the ends.

8.8.4 Using different line ends

The only difference between line and arrow objects is the way the lines end. Normal ends produce an ordinary line, and arrowhead ends produce an arrow.

You can change the ends of lines and arrows before or after drawing using attributes in the Misc tab. The Arrowhead at Start? and Arrowhead at End? options allow you to change one or both ends of a line to arrowheads. When these options are off, the ends are normal.

These options are only enabled when a line object or the Line button is selected. Whichever settings are made for the start and end of a line will remain active until you explicitly change the settings.



8.8.5 Drawing options

Most options which apply to clips also apply to draw objects: you can add In and Out transitions, and turn on Shadow, Outline, Smooth?, Backdrop?, or

Bevel?. The Left, Center, and Right alignment buttons can be used to constrain the position of the object on the page.

The Fill, Line, and Line Thickness options are unique to draw objects.

Filled objects and object color

There are two color chips which control most draw objects, one on the Fill button and one on the Line button. You can assign colors with these color chips by dragging colors from the color bar.

The Fill color chip specifies the color used in the body of filled boxes and ovals.

When a box or oval is selected, you can click the Fill button to turn the fill color off and on. You can also turn Fill on or off whenever the Box or Oval buttons are selected, in order to control whether the object you are about to draw is filled or not.

When Fill is off, the area which would be occupied by the fill color will be transparent. In other words, the object is basically an unfilled object. You cannot turn Fill off unless the selected object has Line turned on—this will prevent creating an invisible object.

Fill is not available for lines and arrows, therefore, this button is not available when they are selected. However, if you want the effect of a line or arrow with a colored edge, you can use the Outline option.

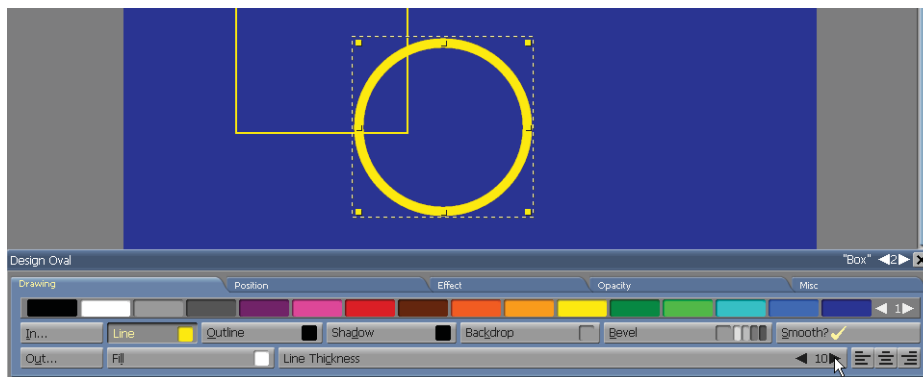
The Line color chip will specify the color of the edges of boxes and ovals, and the color of lines and arrows. The width of this colored area is controlled by Line Thickness.

You cannot turn Line off unless the selected object has Fill turned on—this

will prevent creating an invisible object. When you turn Line off, the color of the Line Thickness area will change to match the Fill color. The object will retain the additional size created by the specified thickness.

Line Thickness

The Line Thickness value control specifies the thickness of the line used to draw edges of boxes and ovals, as well as the thickness of lines and arrows. For boxes and ovals, it is similar to a second, independent Outline option. You can control its thickness without using the Effect tab.



8.8.6 Manipulating objects

To alter an object's appearance, position, or orientation, you can use the Fill, Line, and Line Thickness controls, as well as any available options on the style panels of the Draw panel. The available options are similar to those which are available for clips. The only clip options which are not available are Focus? and Chroma Key?.

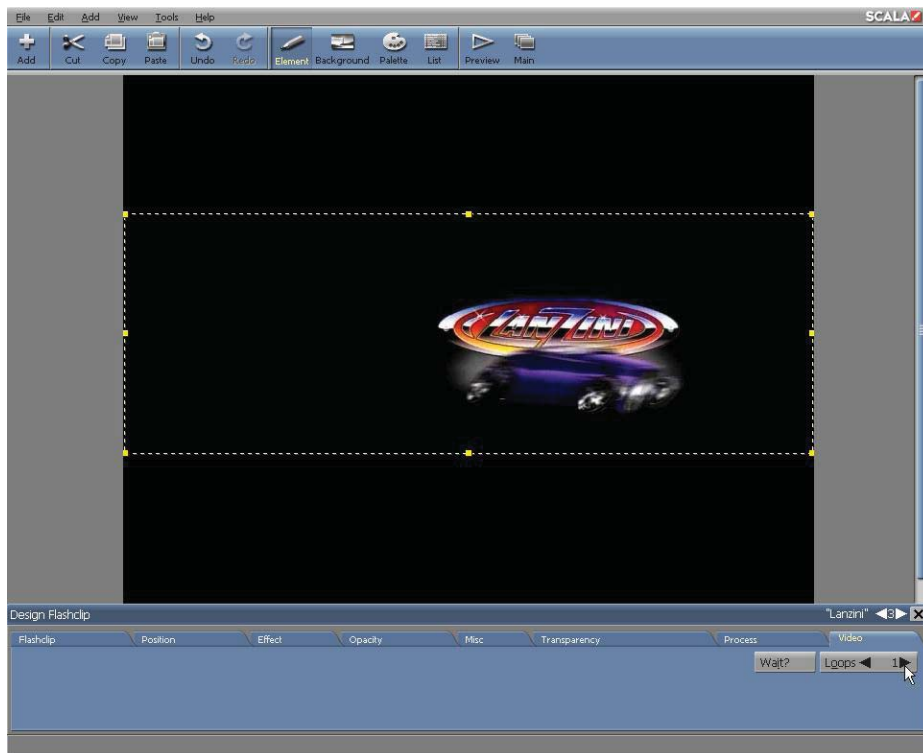
As you size, rotate, and change the shape of objects, their edges will not become excessively rough because they are structured objects, rather than images. In essence, they are always rendered at the same resolution as the page, thereby minimizing pixilation. Therefore, if objects must be

manipulated, especially within rotation or enlargement, using draw objects is preferred to using clips. Draw objects are easily edited and will not add excessive size to the script. The Smooth? option, is on by default. This will further enhance the look and feel of draw objects.

8.9 Advanced Features

8.9.1 Options available for Flashclips

The options available for Flashclips match those for movieclips, with the exception of certain features.



The following options which are available in the Design Movieclip panel are

not available on the Design Flashclip panel:

- Cropping
- Rotation, Flip controls on the Position tab
- Most other options on the Video tab

All other options work in a similar manner with Flashclips and Movieclips.

8.9.2 Exporting Clips

You can save clips with your size, crop and style changes simply by choosing Export from the Edit drop-down.

In the File dialog, choose a location and enter a name for the processed clip. If several clips are selected, they will be exported as one, with any additional transparent areas saved as black.

Note: The black fill can be made transparent when the exported file is loaded back into Designer, by turning on Chroma Key.

Subsequently, you will be prompted whether you want to use this new clip file in place of the original file. If you answer Yes, every style which was applied when you exported the file, will become a part of the image, and no longer editable. For example, you cannot change the shadow depth of a clip which was exported with the Shadow option turned on.

For a detailed description of styles and how to apply them, please see **Chapter 9: Applying Object Styles.**

8.9.3 Applying Clip Styles

The Design Clip panel has the same basic features as other Design panels. You can easily move between the panel and the page as you experiment

with different styles.

As with text, use the settings in the tabs of a Design panel to fine-tune any styles containing attributes. From the multistyle button choose Backdrop or Bevel, then, simply adjust the related attributes on the Effect tab. For more detailed information, please see **Chapter 9: Applying Object Styles**.

8.9.4 Templates – Binding Clip Filename to a Data Field

Right-click on a clip to select the Bind Clip Filename to Data Field element as a template. Binding a clip to a data field allows clips to be selected or replaced by other elements through Content Manger. This allows you to create templates with placeholder clips that can be replaced with other clips in your Content Manager media folder, that will adapt to the attributes, scale, transitions and effects that are applied to the template clip.

NOTE: You cannot use a still image clip as a template placeholder and select a video clip or anim clip to replace it in Content Manager. You must keep the same type of clip used in your template as you will use from your media folder items.

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|||| 9 Applying Object Styles

Chapter Overview

Of the three basic types of graphical elements in Designer — text, clips, and draw objects— each contain specific, definable styles. For example, italic style, is only relevant to text. However, there are many styles in Designer which apply to more than one type of element. This chapter will discuss styles which apply to more than one type of element; primarily for clips or draw objects. Text styles are covered in more detail in **Chapter 7: Text Styles and Formatting**.

9.1 Glossary of Terms in this Chapter

Effect – The way an element’s style or appearance, such as borders, outline thickness and shadow amount and position, can be modified.

Style– A special feature which can be applied to an element in order to enhance its appearance; for example, shadow, underline, outline, color, bold, italic, etc.

9.2 Front (face)

Front is available for text elements and clips.

When Front is applied, you will see the text in the color indicated by the color chip.

When Front is off, the text will be transparent, unless no other style such as Outline or Shadow is applied. If the Outline or Shadow styles are applied, the Front may be turned off, leaving just the border around the text – or just the shadows applied to the text and the rest transparent.



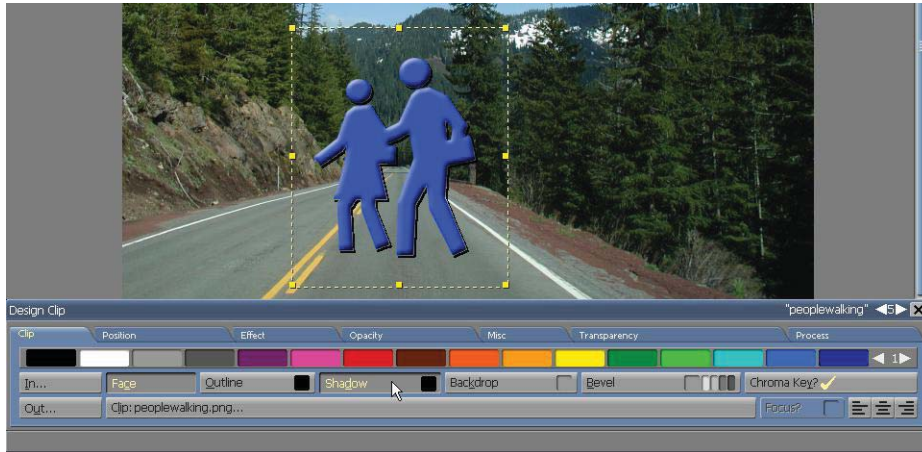
To switch Front on or off, simply click on the button (it can only be turned off if Shadow or Outline is turned on). By default, the text color is white, however, you can drag a different color to the Front button and save it as the standard text color by clicking on Save as Defaults in the Misc tab of the Design Text menu.

The Front button will differ slightly depending on the type of clip that is used. Monochrome clips are treated the same as text elements: the color in the color chip will determine the image color. Front can be turned off if the Outline or Shadow style is on. With multicolor clips, the color chip on the Front button is not available. Turning the button off will make the fill color in the clip, or the image, become transparent, leaving only the outline or shadow. The outline and shadow opacity can be adjusted for a variety of design effects.

You can also adjust text opacity which will leave the shadow more opaque, and some of the text fill color visible. Different levels may be adjusted from the Opacity tab. For more information regarding text effects please see **Chapter 7: Managing Text**.

9.2.1 Shadow

When you apply the Shadow style, a selected text, clip, or draw object will cast a shadow—a duplicate image of the element will appear underneath.

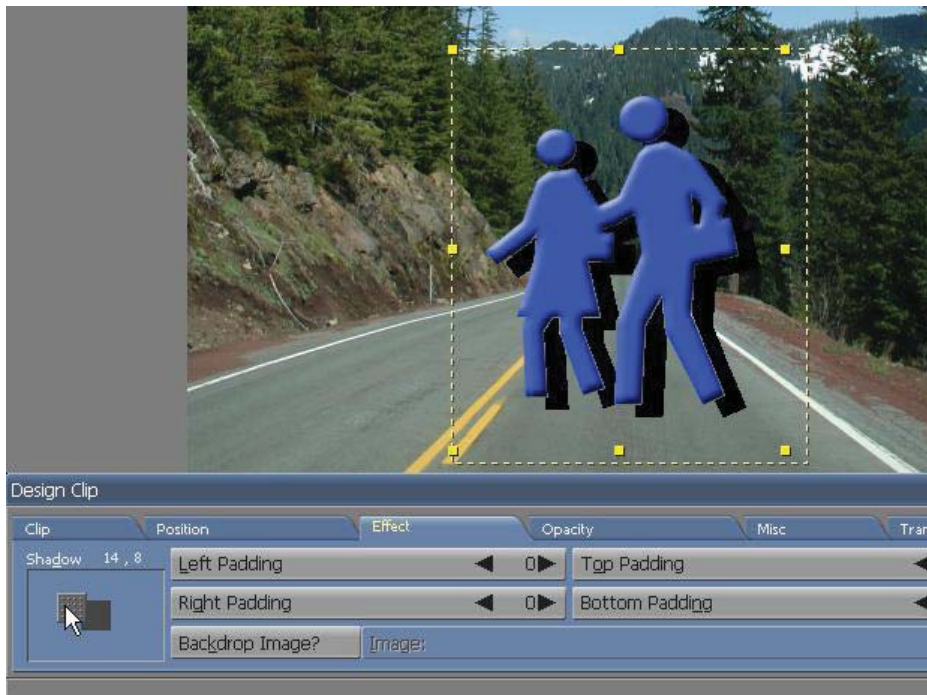


The default shadow color is black. To change the color, simply drag your desired color from the color bar to the Shadow button.

Designer will allow you to adjust the length and position of a shadow relative to the light source. The default is a shadow which falls slightly downward and to the right. To change these attributes, simply use the Effect tab in the Design menu.

In the Effect tab, point to the control in the Shadow box and drag the control to a new position. As the control is dragged, you are actually changing the position of an imaginary light source, thereby changing the direction and length of the shadow.

For more precise adjustment, you can select the numerical values above the Shadow box and type in horizontal and vertical shadow offsets.



When a shadow does not exist, the light source will be directly in front of the element and the control will be in the center of the Shadow box. Move the control to indicate the direction in which you want the shadow to fall. As you move the control, the values will be shown above the Shadow box, and change accordingly.

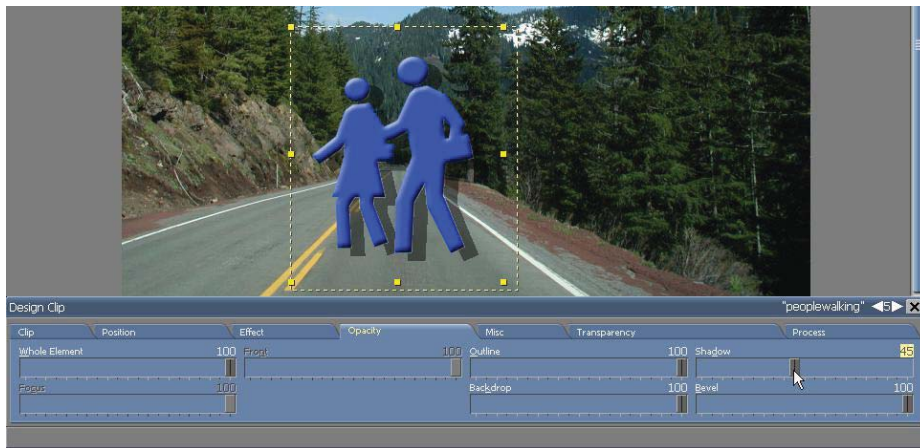
The first number represents horizontal shadow movement; as the shadow moves to the right of the object, you will see positive values, as it moves to the left you will see negative values. The second number represents vertical shadow movement; positive values result in a shadow which is lower than the object, negative values produce a shadow which is higher than the object.

Regardless of where you envision the light source, the direction of the shadow should be the same for every elements on the same page which contain shadows. You can also change the length of a shadow.

9.2.3 Adjusting the Shadow Opacity

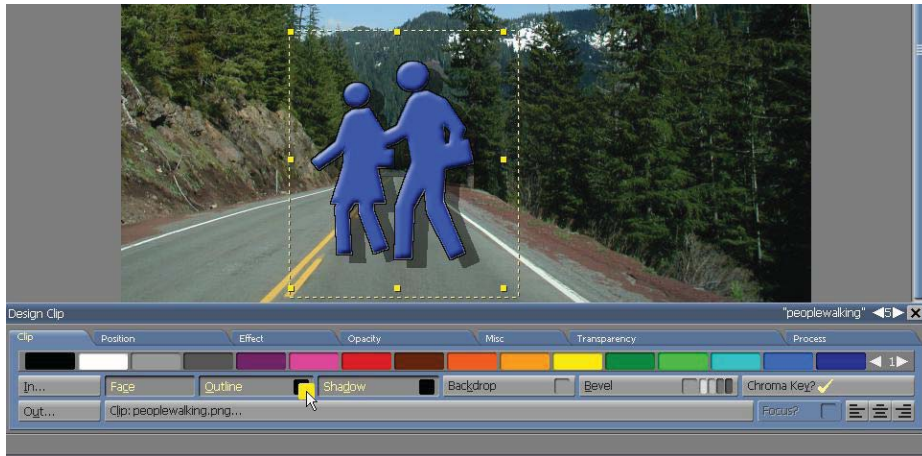
Another control related to element shadows is the Shadow slider on the Opacity tab. This control will allow you to adjust the degree of transparency from fully opaque to fully transparent. Partially opaque shadows will provide a more natural shadow effect resulting in subtle page designs. By default, shadows are fully opaque, represented by a setting of 100. A setting of 0 will make the shadow invisible. At intermediate settings, the background, or other elements beneath the shadow, will show through the shadow, thereby softening the effect.

The maximum shadow opacity is affected by the setting of the Whole Element control for the entire element. Reducing the Whole Element opacity to 0 will make the element's shadow invisible, even if the Shadow opacity is set to 100.



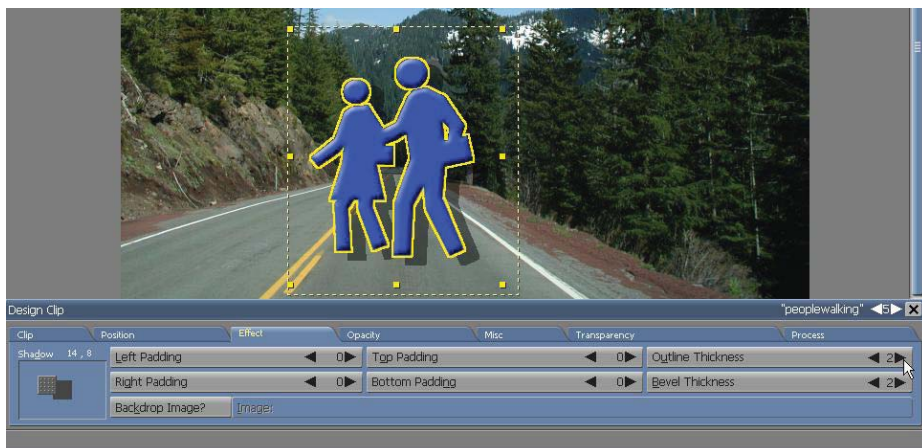
9.2.4 Outline

The Outline option will produce an outline of a different color along the inner and outer edges of selected text, clips, or draw objects.



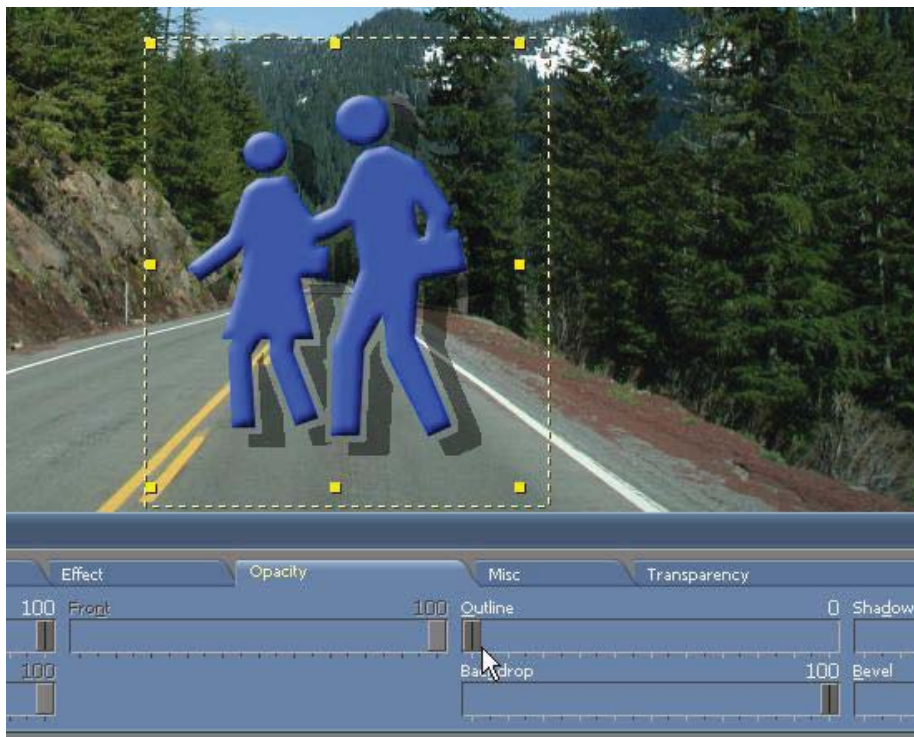
An outline may be especially useful to help light text stand out against a light or busy background. Designer will apply a thin black outline by default. In addition to letting you change the color of the outline, Designer will let you adjust the thickness of the outline. To experiment with different outline colors, simply drag colors from the color bar to the Outline button.

To experiment with bolder outlines, use the Outline Thickness value control in the Effect tab of the Design menu.



Use the control to increase the outline on selected elements from a minimum of 1 pixel to a maximum of 19.

Adjusting the opacity of the outline will give the clip a smoother effect. It may also cut-out the overlapping area of the shadow applied beneath if the opacity is set to 0.



9.2.5 Backdrop

This option will fill the area behind the selected text, clips, or draw objects with your selected color. The area will expand as you type more text or otherwise change the size of the element; or as you apply other styles which take up space, such as Shadow. The Backdrop? option is especially useful to ensure text is always readable against a busy or constantly changing background, such as live video. It is also an effective way to

make text and other clip objects stand out from background graphics and video.

To access the option and switch it on or off, simply click the arrows on the multistyle button in the Design menu until you see Backdrop?. The button is marked with a when the style is applied.

The backdrop box may extend slightly above and below the top and bottom of the characters of a text element. When the Backdrop? option is off, you will see the background color, or an image surrounding the characters.



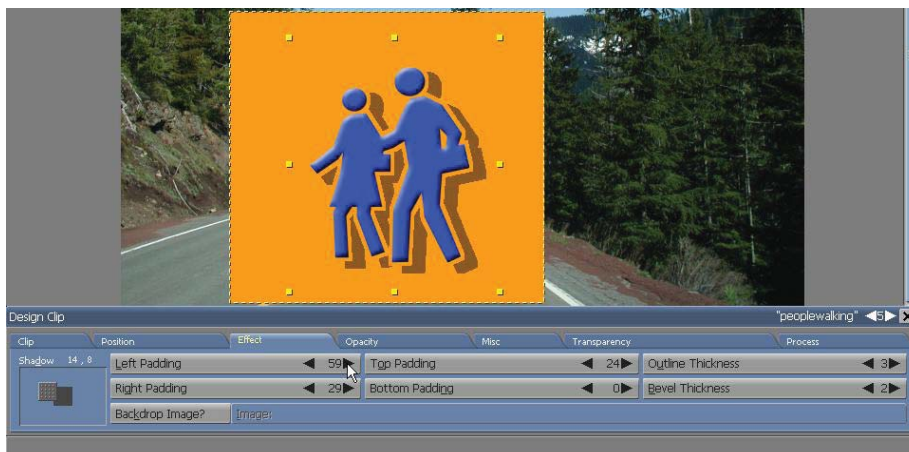
When Backdrop? is used with clips or draw objects, the backdrop is only visible when the elements have transparent areas, and/or when the Border attributes (described next) cause the backdrop area to become larger than the size of the element itself.

The default color is a medium gray. To change the color, simply drag your desired from the color bar to the Backdrop? button. Note the backdrop color is related to the bevel color. You can increase the dimensions of the backdrop box by using the four Border attributes. Opacity and other Effects can be applied for various effects and scaling.

9.2.6 Border

The Left Border, Right Border, Top Border, and Bottom Border options in the Effect tab of the Design menu allow you to increase the width and height of the backdrop area by adding additional pixels to the edges. Moving the edges of the backdrop area away from text elements will make the text more readable and aesthetically balanced.

The additional pixels will be the same color as the backdrop area. If Backdrop? is not on, the border of additional pixels will be transparent and the difference in size will not be apparent, unless the Bevel? style is also applied.



The default settings will not produce an additional border. The four controls allow you to adjust the border, independently on all four sides.

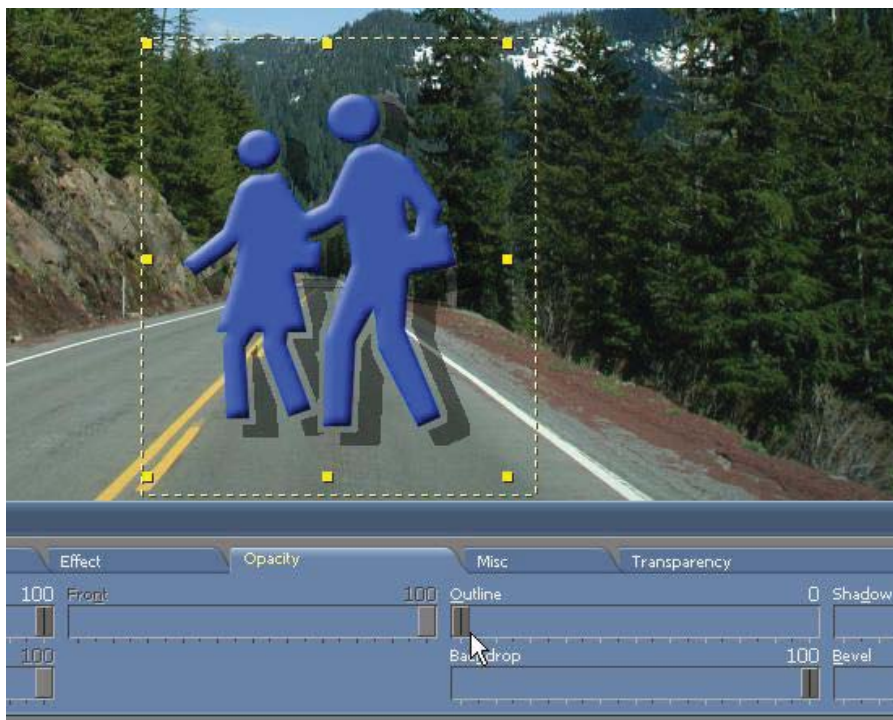
9.2.7 Bevel

Every button used in the Designer menus are beveled. Each edge is also highlighted and shadowed, adding increased depth to a two-dimensional rectangle. Clicking on a button will reverse the highlighting effect,

producing an indented appearance.

You can easily produce the same effect with the Bevel? style. As you can see in the following illustration, the beveled edges have been added around the backdrop area surrounding text elements, draw objects and clips. To switch the option on or off, simply click the arrows on the multistyle button in the Design menu until you see Bevel?.

The button will be marked with a check when the style is applied. You can also apply a beveled edge to your text regardless of the current combination of styles, such as a backdrop or border.



9.2.8 Bevel colors

Designer uses at least two colors to create the beveled effect and may use up to four, one for each edge; if the current color palette includes the necessary shades. As a result, each edge has a corresponding color chip on the Bevel? button.



The main color is used as the basis for the selection of edge colors. It is not used for edges. A backdrop is primarily used with a bevel, with the backdrop color matching the main bevel color.



You can change any of these colors by dragging a color from the color bar to the appropriate color chip on the Bevel? button. If you change the main color, Designer will automatically suggest colors from the palette which are compatible with your chosen color, yet provide additional contrast. Designer will always attempt to suggest four colors. Note: The suggested color options may be limited by the available colors on the palette. You may need to change the palette by adding new colors. Please see **Chapter 13: Adjusting Colors** for further details regarding adding new colors.

When a complete range of colors is available for use as edge colors, Designer will use the lightest one for the top edge, the darkest for the bottom edge, and in-between tones for the left and right sides. It will essentially position an imaginary light source above and slightly to the left of the text box. This will produce a three-dimensional effect, making it appear as though the top edge of the box is fully illuminated, while the bottom is shadowed. Reversing the normal order of these color assignments in the Bevel? button color chips will create the inverse effect, causing the box to appear indented.

9.2.9 Backdrop and the Bevel colors

The default for the main bevel color is the same medium gray as the default backdrop color. The main bevel color and the four bevel edge colors may be independently adjusted. However, under certain circumstances, the backdrop and main bevel colors are linked. When:

- the backdrop and main bevel colors already match
- Backdrop? is on

Changing the backdrop color will also change the bevel colors, allowing bevel and backdrop to retain their matching color scheme. (Changing the main bevel color will not affect the backdrop color, however, you can

directly adjust the bevel colors. This is effective if you want increased contrast with the backdrop.)

9.2.10 Bevel styles

Beveled edges are two pixels wide by default. You can adjust the width in the Effect tab of the Design menu. Look for the Bevel Thickness attribute. Use the value control to adjust the width of the beveled edges. The width can vary from 1 to 19 pixels.

If the text appears to be too close to the beveled edges, you can use the Border attributes to increase the distance between text and bevel.



9.2.11 Focus

The Focus? style, on the multistyle button, will allow you to use a special color to temporarily highlight a new element. It will automatically change the color to its Front color when the next element is displayed. This is mainly used for text. Focus? is available for monochrome clips and draw objects, however, it will not affect multicolor clips.

Using a Focus color is especially useful when you are gradually building a list or making a series of connected points. The most recent element will receive the emphasis until another element is brought into view.

You can apply Focus? to elements which have an In transition and a defined duration setting. The transition specifies how an element moves onto a page. The duration setting ensures it is displayed long enough for the highlight color to be visible. Unless a duration setting is defined, the next element will be displayed as soon as the current element has transitioned in (or out). The duration setting may be applied as a mouse click, or a predefined length of time.

To apply the style, simply select a text element, draw object or monochrome clip and turn on Focus?. Drag a color from the color bar to the Focus? button. Ideally, the color should be brighter than the element's normal color. The Focus opacity can also be changed in the Opacity tab.

The last element on a page containing a Focus style will determine the focus color, until the page transitions out. To revert an element to its normal color, before the end of the page, an invisible final element must be created and given an In transition.

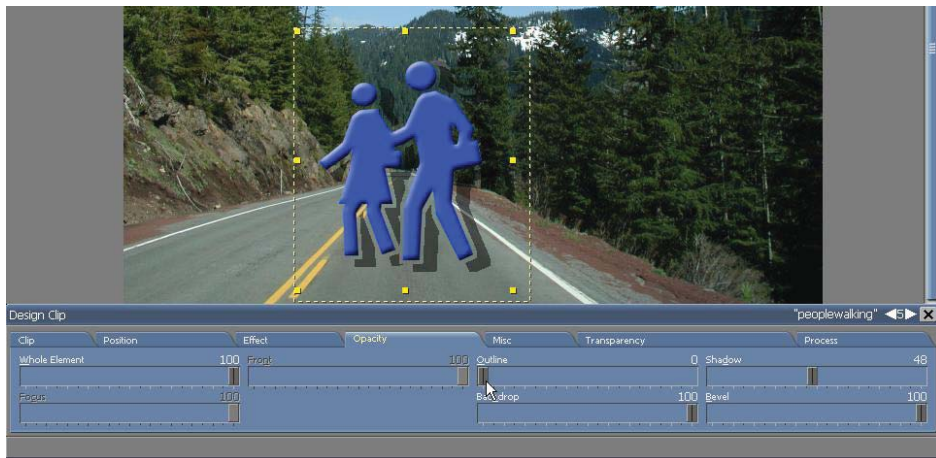
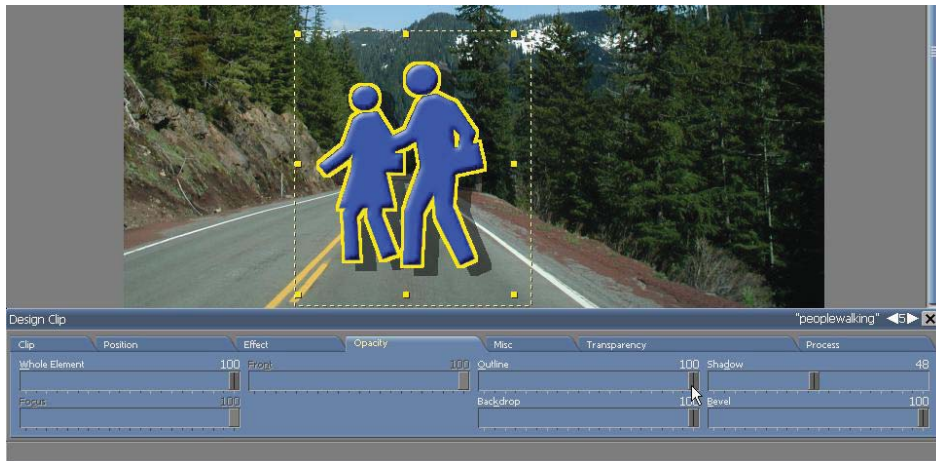
9.2.12 Opacity

Graphic elements and styles are normally opaque. They do not have transparency. They do, however, completely cover the background, along with any other element located underneath. Using the controls in the Opacity tab of the Design menus, Designer makes it possible to give elements and styles a variable level of transparency.

Opacity is not turned on and off. It is governed by sliders which vary the level of opacity in percent. Sliders can be adjusted from 100 (the default, completely opaque) to 0 (completely transparent). At intermediate values,

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the colors of whatever is beneath a partially opaque element will be effectively blended with the element, allowing both to be seen. This can give the illusion that an element is translucent or make an Outline disappear.



The ten sliders on the Opacity tab allows control over a variety of graphic styles. The sliders in this tab correspond to the styles with the same name:

- **Whole Element**
- *Front* (disabled for draw and clip elements)
- *Outline*
- *Shadow*
- *Backdrop*
- *Bevel*
- *Focus* (disabled for clip elements)
- *Underline* (disabled for draw and clip elements)
- *Fill* (enabled only for box or oval elements)
- *Line* (enabled only for draw elements)

Sliders are disabled for styles which are not applicable to the selected element.

The Whole Element control is primarily a master control for the opacity of every aspect of a selected element. Although each opacity control can be independently adjusted, Whole Element actually controls the overall degree of transparency. Reducing Whole Element to 0 will cause everything in a heavily styled element to be invisible, regardless of the slider settings for Shadow, Outline, Backdrop etc.

9.2.13 Element Position

The position of any element on a page is defined by the distance from the left and top edges of the page to the element. The distance is measured in pixels and specifies the coordinates of the upper left corner of the element. The Element Position attribute in the Position tab of the Design menu will reflect these distances as the element is moved. In most situations, it will be faster, easier and accurate enough to drag an object to a new location on the page. However, if exact placement is required, the Element Position attribute allows you to place an element with single-pixel accuracy.



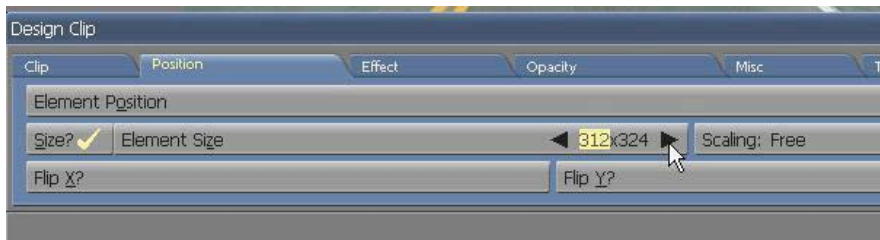
To change the position of a selected element with the Element Position attribute, go to the Position tab.

Use the first value to set the distance from the left edge, and the second to set the distance from the top edge. Negative values indicate the upper left corner of the element is off the page, above, or to the left.

TIP: Holding down the Shift key while dragging an element will constrain the movement to either horizontal or vertical directions. Pressing an Arrow key while holding down the Ctrl key will move the selected element(s) one pixel in the direction of the arrow used.

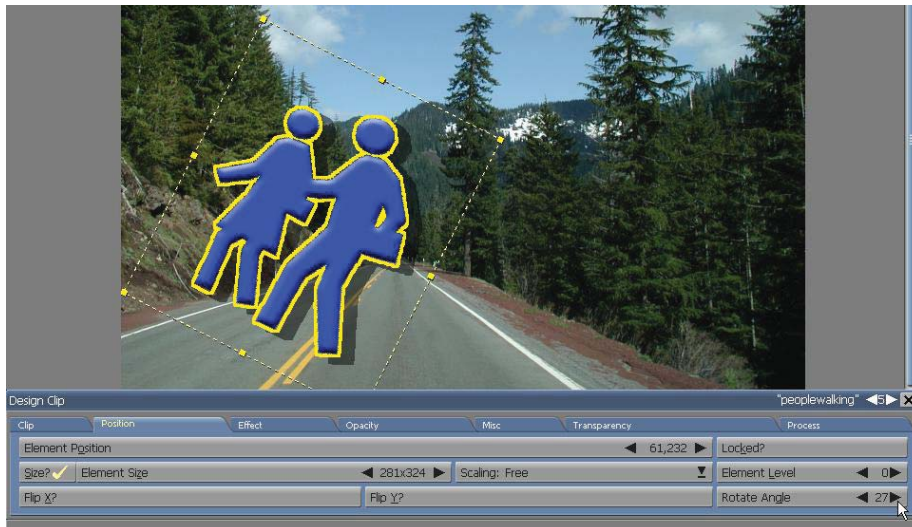
9.2.14 Element Size

You can click and drag the handles of a clip's bounding box and quickly adjust the size. However, to numerically change the dimensions of a clip, click on the Size? button and enter the dimensions in the Element Size location. You can also click the arrows to adjust the size incrementally.



9.2.15 Rotate Angle

Designer also allows you to rotate an element using the Rotate Angle option in the Position tab. You can rotate clips from 0 to 359 degrees in one-degree increments, and text elements in 90-degree increments.



Use the value control to adjust the angle. Rotate Angle will rotate elements clockwise. Note: You cannot enter negative values. To obtain rotations which appear to be counter-clockwise, use values from 180 to 359.

Using a matching rotation for all text and clipson a page with a rotated background can make authoring portrait-style displays more practical. (Please see **Chapter 4: Working with Backgrounds** for additional information on background rotation.)

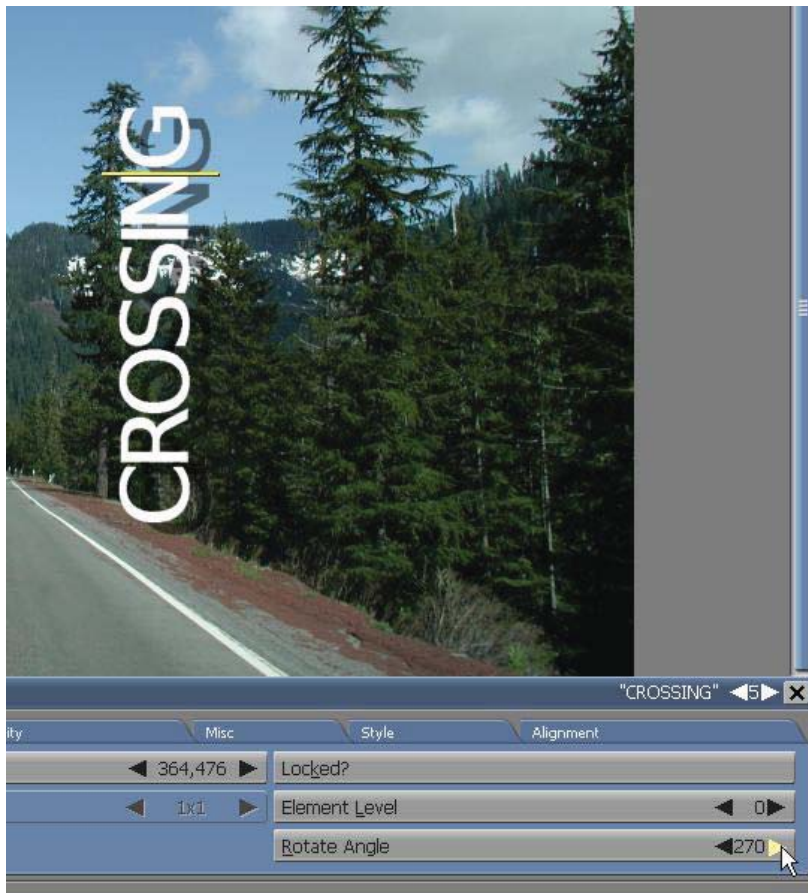
9.2.16 Clip rotation

Clips rotate around the center of the clip. When a clip's rotation is something other than 0, 90, 180, or 270, only the four corner handles are available for sizing and cropping.

The single-key hotkey R will rotate the selected clip 15 degrees clockwise. Shift+R rotates 15 degrees counter-clockwise.

9.2.17 Text rotation

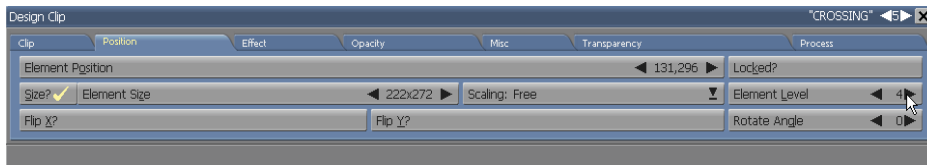
Text elements rotate clockwise around their upper left corner. The possible values are 0, 90, 180, and 270 degrees.



When you rotate a text element, the text cursor's orientation will also change: the cursor will become horizontal when the text is vertical (a rotation angle of 90 or 270 degrees). However, you will still use the same keyboard keys to move the cursor within the element—the right arrow key (r-arrow) will always move the cursor toward the end of the element.

9.3 Element Levels

To change the Element Level of the clip without switching to the List panel, select the Position tab and adjust the Element Level with the arrows.



Higher numbers will bring the clip forward. Lower numbers will push it backwards.

Levels allow elements to be layered differently than their order in time, as controlled by dragging elements in the List panel. For example, you can have an element that transitions in after other elements, but moves behind them on the screen.

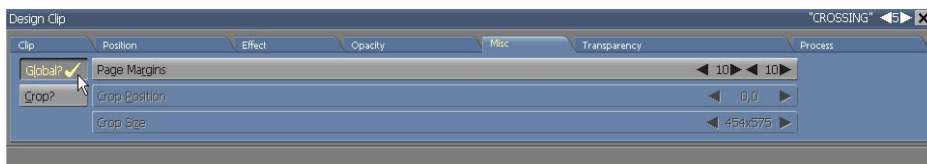
9.3.1 Global

You will find the Global? button under the Misc tab in the Design Clip panel.

When this option is turned on, it will allow an element to become visible on every page of the script, without being affected by any page transitions. When Global is turned off, the element will appear only on the selected page.

A Global element cannot have an In or Out transition. Additionally, it cannot be aligned relative to the page.

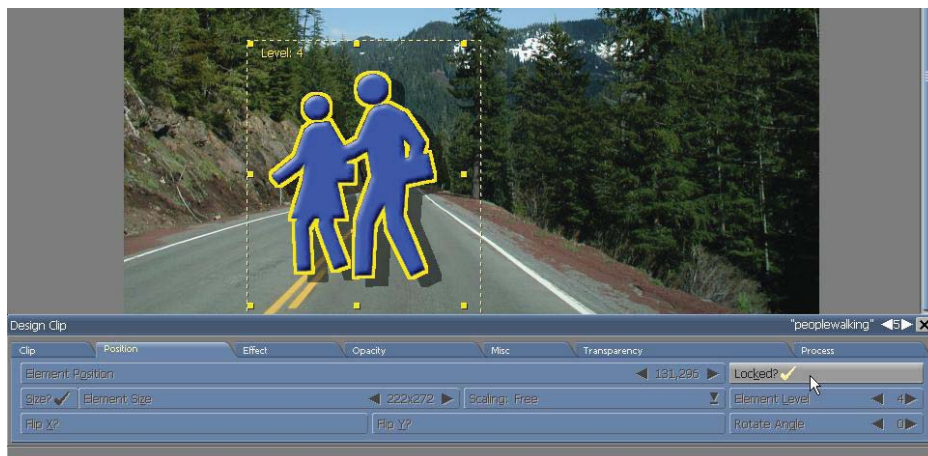
If transitions are used for the element, they will be removed when Global is turned on.



9.4 Advanced Features:

9.4.1 Locked?

Designer will allow you to prevent any editing changes to a given element. For example, if you need to keep a particular clip in the exact size and position on a number of pages, the Locked? option in the Position tab of the Design menu will make this possible for any element. To lock an element, simply select one or more elements, then turn this option on. A locked element cannot be moved, sized, or otherwise edited. When a locked element is selected, small lock icons will appear near the corners of its selection frame, indicating its status.



Turn off the Locked? option while an element is selected to unlock it.

9.4.2 Features for non-Western languages

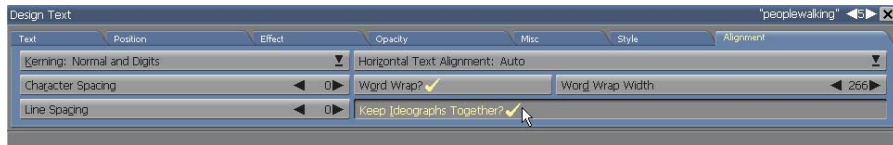
Designer offers a few options to consider when working with non-Western language text. Particularly Asian language fonts, such as Kanji, require special alignment and character wrapping tools.

Asian Vertical Text? – located on the Design Text panel, in the Text tab, select the multistyle button with the selector arrows. This also is available in the Text Crawl panel.



CAUTION: Only works with Asian character fonts!

Keep Ideographs Together? – when this option is turned on (checkmark), word wrapping will try to keep ideographic phrases together. When it is off, text is allowed to wrap in the middle of an ideographic phrase.



|||| 10 Working in the Page View List Panel

Chapter Overview

The Page view List panel will give you an overview of the relationships between elements and events which take place on a page. This is similar to the way the Main view presents an overview of how every page fits into the complete architecture of your script.

The List panel arranges the events on a page in their specific order, allowing you to change their sequence without affecting the position of the elements on the page. It primarily allows you to apply and remove transitions, as well as individually control the timing of events.

From the List panel you can access the Sound panel to create a sound event which is specifically associated with an element. You can also access the Timing panel which will allow you to define the pause setting of an element. The Element Transition panel determines how elements enter and leave the page.

10.1 Glossary of Terms in this Chapter

Element – Any type of text, draw object, crawl, clip or movieclip which can appear on a page.

Level–Refers to the order in which the elements are placed on the page – either in front of, or behind clips or objects, as shown in the List panel.

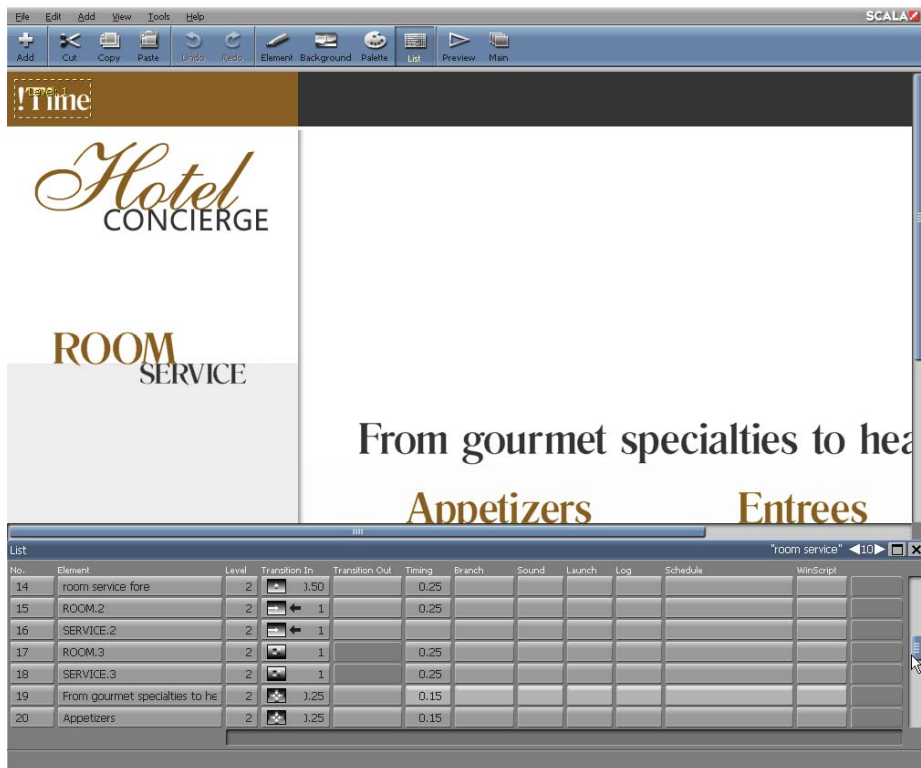
10.2 Using the List Panel

The List panel can adjust the order of existing events on a Page. It can also create a special event which may not be associated with a visual element. If

Designer⁵

you are currently working in a Design panel, click on the List icon on the toolbar. If you are in the Main view, select the page you want to edit before you choose List from the toolbar.

You will see the Page view List panel, complete with text and clip elements.



If the page has more than a few elements, you can use the scroll bars to access different parts of the list, or you can click on the Normal/Full Size button in the panel title bar to enlarge the panel to full screen size.

This allows you to see multiple events in the list thereby realizing their relationships to one another.

Clicking the Normal/Full Size button a second time will reduce the List

panel to its standard size. You will also be able to view both the Page view canvas and the panel simultaneously. When the panel is normal size, you can press the secondary mouse button to temporarily hide the List panel. If the panel is hidden, simply press the button again and it will appear.

No.	Element	Level	Transition In	Transition Out	Timing	Branch	Sound	Launch	Log	Schedule	WinScript
5	dots on curves	1									
6	ITime	1									
7	Date	1									
8	hotel logo	2									
9	ROOM	2									
10	SERVICE	2									
11	room service bkgnd	0									
12	Box	1									
13	Out: Box				1						
14	room service fore	2	1.50		0.25						
15	ROOM.2	2	1		0.25						
16	SERVICE.2	2	1								
17	ROOM.3	2	1		0.25						
18	SERVICE.3	2	1		0.25						
19	From gourmet specialties to he	2	1.25		0.15						
20	Appetizers	2	1.25		0.15						
21	Entrees	2	1.25		0.15						
22	Salads	2	1.25		0.15						
23	Desserts	2	1.25		0.15						
24	Sandwiches	2	1.25		0.15						
25	Drinks	2	1.25		1						
26	Call #22 from your room phone	2	1.25								
27	short pause.7					2					
28	Out: From gourmet specialties			8x	0.05						
29	Out: Appetizers			8x	0.05						
30	Out: Entrees			8x	0.05						
31	Out: Salads			8x	0.05						
32	Out: Desserts			8x	0.05						
33	Out: Sandwiches			8x	0.05						
34	Out: Drinks			8x	0.05						
35	Out: Call #22 from your room }			8x							

You can easily move between the List panel and the current page while you are working. Any selections or changes which are applied in one area, will immediately be reflected in the other.

Unlike settings defined in most Design panels, you will not be able to see or hear the results until you preview the page or run the script. Any changes made in the List panel are timing-related, therefore, they are not apparent on a static page.

You can move from one page to another using the Page Switcher arrows in the panel title bar. You can also access a different Design panel by using the toolbar icons, or a shortcut key.

10.3 The List Panel and the Main View List Mode

The List panel offers the same facilities as the Main view when accessing a variety of other panels. It will also define attributes for one or more elements from a central place. For details on how to use the List panel functions which correspond to those in the Main view, please see **Chapter 3: Working in the Main View**.

10.3.1 Similarities

The List and Main views share several basic similarities:

- An event in the List panel is analogous to a page in the Main view: it can be a single line of text, a clip, or it may be a special event which defines a sound event, a pause, or a variable. Essentially, an event is anything which can be introduced on a page and controlled from the List panel. Events representing something which is seen on a page, such as text and clips, are more frequently referred to as elements, however, they may also be known as events.
- The No. (number) column indicates the position of an event in the sequence of events as they occur on the page.

The No. button also indicates whether or not the event is “on”, or enabled on the page. To change the status of an element, click on the No. button and use the Element Control panel, which is the same as the Page Control panel on the Main view. When an event is disabled, the No. button will read Off. Additionally, its row in the

List panel will change color. If the event is an element, the element will disappear from the screen.

- In the Element column, the name of an element is based on the element itself. For example, if the element is a line of text, the name will be the same as the contents of the line; that is, the actual text. A clip is identified by its file name.

If the same text or the same type of element is used more than once on a page, Designer automatically adjusts the name by adding a numerical suffix such as “.1”.

You can change the name which identifies an element without affecting the element itself. To edit the on-screen text in a text element, you must work directly in the Page view. Do not edit the text by editing the name of the element in the List panel.

- You can change the order in which events take place by dragging the Element button to a different position.
- You can adjust the width of the columns, as well as change their order.
- To work with several elements simultaneously, you can select the elements on the page by using the Shift-click and Ctrl-click commands.
- All the standard functions of the Edit pull-down menu and the context menu (Cut, Copy, Delete, etc.) are available.

10.3.2 Differences

There are a number of ways in which the Page view List panel differs from

the Main view List mode:

- You can choose between full-screen and partial-screen views of the panel by using the Normal/Full Size button in Page view.



- Since the page and elements in the List panel are visible, there is no Thumbnail view available.
- There are two transition columns in the List panel, Transition In and Transition Out. Unlike a page, an element can either enter or exit the screen.
- The List panel contains a Level column, which opens another panel allowing independent control of element depth arrangement.
- The List panel is the only way you can apply and control events, such as sound effects, pauses, and branches within a page. Defining these events is discussed further in **Chapter 15: Branching, Variables and Scheduling**.

The freedom of movement within the list depends on the type of element you are moving, either passive or independent.

10.3.3 Adding Elements on the List Panel

Designer allows you to add elements to the current page directly from the List panel. Similar to the Design Text panel, simply click on the page and type to add text. You can add an element which exists as a file in your system, such as a clip, or script, or you can add a special event which will insert a blank element into the List panel. For example, you can define a

pause setting to ensure there is a brief delay before the first element transitions onto the page.

To add an element to the page from the Page view List panel, click on Add. The File dialog will appear. Similar to clicking Add in the Main view, you have access to the same folders and files. To add a special event choose Add Special Event from the Add icon pull-down menu list. An event named “<untitled>” will appear in the List panel.

When you double-click on a file name, click OK, or choose Add Special Event, you will see the List panel again. The new event will be inserted below the previously selected event in the list or at the end of the list if a selection was not made. Added elements are automatically selected on the page (if the element is visible) and in the List panel. Note: If the new element overlaps any existing elements on the Page view canvas, you may need to adjust its position.

10.4 Working with Elements

In the Page view List panel, page elements and events are listed in order according to time. Later events are further down in the list. Depending on how you arrange them, this sequence can be quite different from the top-to-bottom arrangement of the elements as they are positioned on the page itself.

10.4.1 Passive elements

When the script is running,

No.	Element	Level	Transition In	Transition Out
1	main white box	1		
2	left boxes	2		
3	top boxes	1		
4	rounded boxes	1		
5	dots on curves	1		
6	!Time	1		
7	!Date	1		
8	hotel logo	2		
9	ROOM	2		
10	SERVICE	2		
11	room service bkgrnd	0		
12	Box	1		
13	Out: Box			1
14	room service fore	2	0.50	
15	ROOM.2	2	← 1	
16	SERVICE.2	2	← 1	
17	ROOM.3	2	← 1	
18	SERVICE.3	2	← 1	
19	From gourmet specialties to he	2	0.25	
20	Appetizers	2	0.25	
21	Entrees	2	0.25	
22	Salads	2	0.25	
23	Desserts	2	0.25	
24	Sandwiches	2	0.25	
25	Drinks	2	0.25	

elements which do not contain an In transition will simultaneously come into view with the background. They are also collectively affected by any settings which apply to the entire page. If they are global elements, they will be displayed over every background.

These are called passive elements; meaning they are not separate events in time. Additionally, they cannot have special module column events, such as a sound or pause. They are always listed first in the List panel. When you assign an In transition to an element, it is no longer passive—it becomes an independent element.

10.4.2 Independent elements

Elements with transitions and events created as special events will produce effects which occur independently of the page transition. These are known as independent elements. They will appear in the List panel following the passive elements. In playback, they will either appear during, or after the page transition, depending upon the status of the Wait option of the page transition.

Independent elements and events are listed in the order in which they take place. Initially, this is the order in which they were created, or placed on the page. To make an independent element passive, remove the In transition.

10.4.3 Changing the order of events

You can change the position of an element in the List panel by pointing to its Element button and dragging the row to a new position.

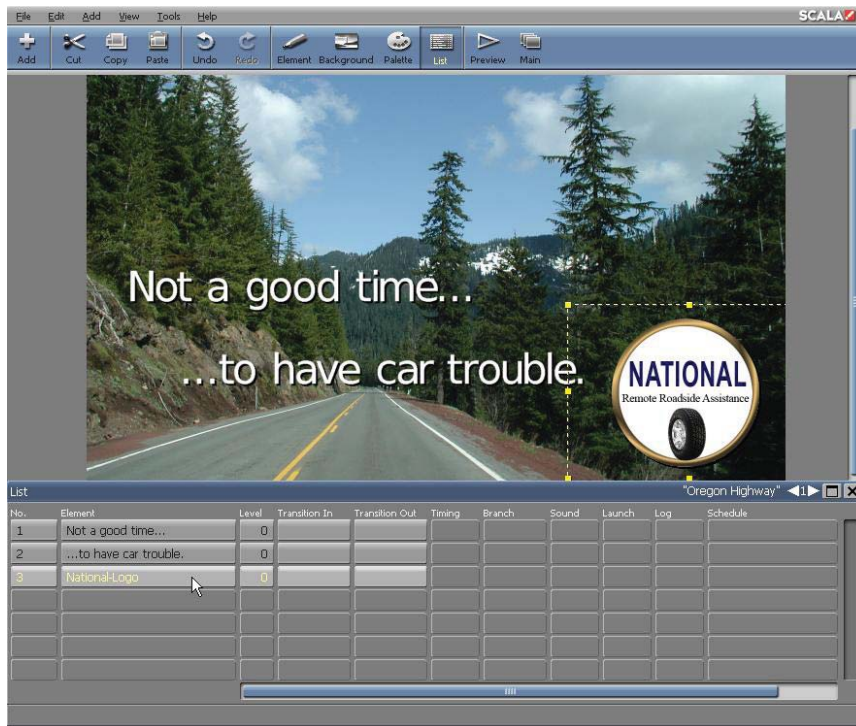
NOTE: Changing the position of an element in the List panel does not affect the position of the element on the page.

You cannot move a passive element into the section of the panel which lists the independent elements. Similarly, you cannot move an independent element into the area of passive elements.

Changing the order of passive elements will not affect the order in which they are displayed. However, you may want to change their order in the List panel, especially if they overlap. You may also change their order to place a particular element on top, or simply to make the panel more closely resemble the Page view.

Changing the order of independent elements will also affect the sequence of events. Additionally, it will determine which element will be displayed first, next or last.

If in the following example, the National Logo clip is not moved from its place at the bottom of the list of events, it will be the last element displayed. If it is dragged to the top of the list such as “Not a Good Time..” text clip in the example, it will end up as event 1, the first independent element.



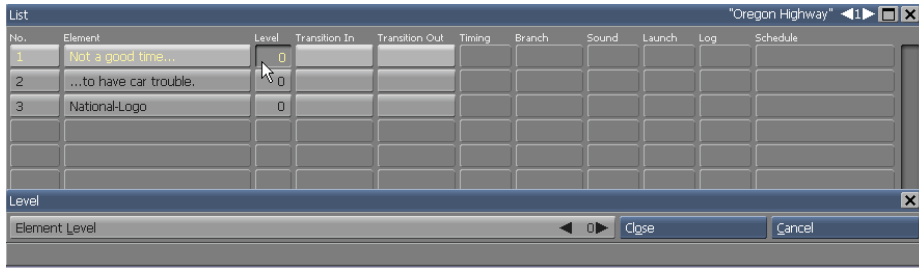
10.4.4 Listing order and stacking order

Most Design panels have options such as, Appear Earlier and Appear Later in the Edit pull-down menu. These exist primarily to arrange the sequence in which an event will appear on the page, as reflected in the List panel. However, within a given level the ordering options also directly affect the stacking or visual depth arrangement of screen elements.

Appear Later will move the selected event downward in the List panel; Appear Earlier will move the selected event upward. If the event is an independent element, it therefore happens earlier or later than it did previously. Within a given level, later elements will appear to be on top of earlier elements.

10.5 Element Levels

The List panel contains the Level column. The column button contains the current level number of each element. Clicking in the Level column will open the **Level** panel, which contains the Element Level control.



Use the Level panel to create visual levels of elements which are independent of their time ordering. Click Preview to reveal element transitions in playback.

Depth arrangement is not effected by changing the listing order with Appear Earlier or Appear Later or dragging events up and down in the List panel.

10.5.1 Applying transitions from the List panel

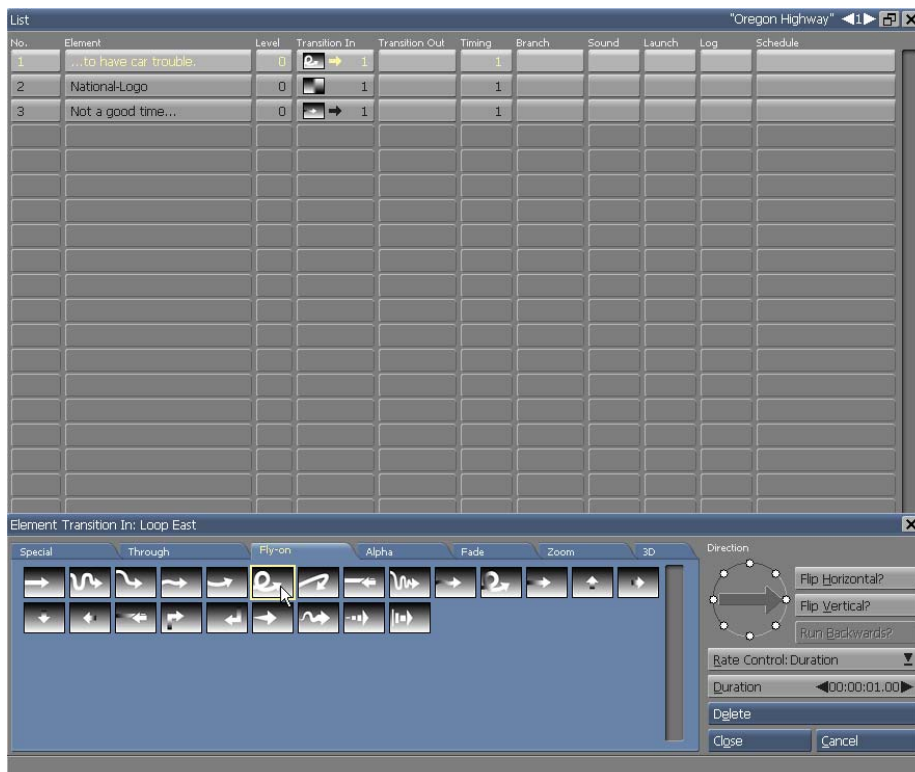
In and Out transitions may be applied to any element which is not a subscript or non-graphic special event (such as a sound or a pause). When a page element is added, it does not contain an In or Out transition.

If you click on a transition button the Element Transition panel will appear. Additionally, depending upon the size of the List panel, either the Page view canvas and the Transition panel, or the full-screen List panel and the Transition panel will appear.

Applying transitions using the List panel allows an effective overview of the sequence of page elements, as well as events. It also reveals transition settings. As a result, it is often more practical to work with the full-screen List panel and the Transition panel. Note: Click Preview to test the on-screen effects of your adjustments.

You can select a transition, adjust its duration and preview the results. You can also work in the panel and apply In and Out transitions to multiple elements in the List panel before closing the Transition panel.

NOTE: On the Transitions panel, you can control the acceleration at the start and end of the effect. You can choose between Slower, Slow, Normal, Fast, and Faster choices, for various ease-in / ease-out type effects.



10.5.2 Transitions and passive elements

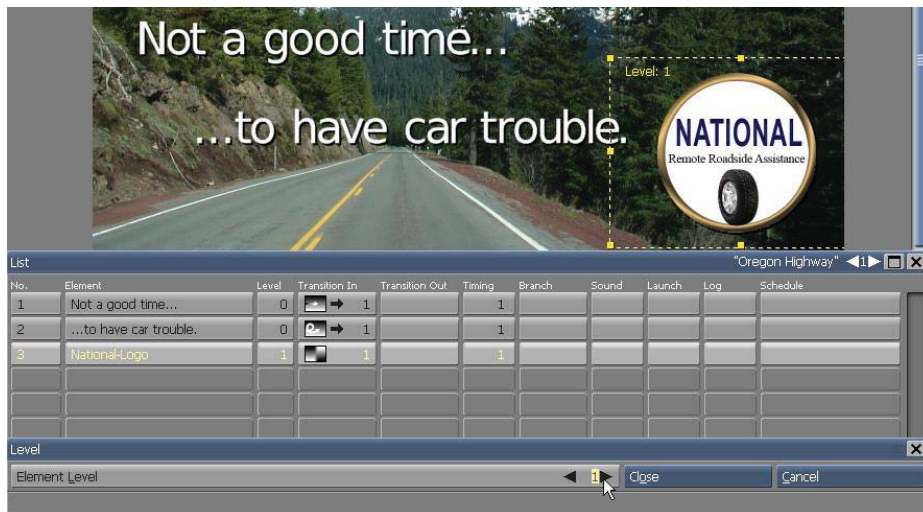
If you apply an In transition to a passive element, Designer will automatically move the element to the bottom of the list in the List panel. Similarly, if you remove an In transition from an independent element—the element will automatically be repositioned and listed last in the series of passive elements. (Elements which are special events are interpreted by Designer as independent elements.) If there is a long list of elements, Designer will scroll to the element in its new position, selecting it so you can continue working.

Passive elements may contain an Out transition. When an Out transition is applied, Designer will create a new event in the list of independent elements. The name will be the same as the original element, however, it will include the prefix “Out:”. This will allow you to easily distinguish between every type of transition, and related event. If you change the name of one of the related events, Designer will automatically update the other. If you do not apply an Out transition to an element, it will remain on the page until the next page transitions in.

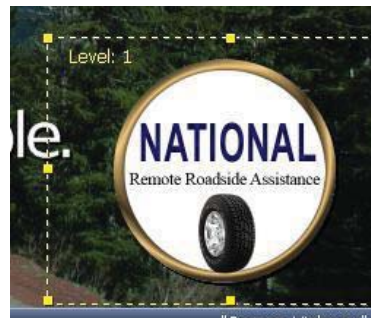
10.5.3 Using levels

Designer will allow you to specify a “stacking” of elements which are independent of timing with the element levels feature. For example, if you wanted your clip “Bird.bmp” to wipe onto the page behind the “Trees.bmp” clip. In Designer, you can specify elements as if they existed on independent levels, allowing them to be freely depth-arranged in relation to one another. Depth-arranging elements will not affect their time ordering in the List mode. There is no limit to the number of element levels, or number of elements which can be at a given level. Levels are adjusted by changing a selected element’s level number. This can be done in either of two ways:

- Changing the value in the Element Level control on the Position panel of the Element Design panels.
- Changing the level number in the List panel's Level column.



By default, elements are created in Level 0. Changing an element's level number from 0 to a higher number will ensure it will appear on top of any elements with a lower level number. Levels are only a designation of the depth relationship of overlapping elements. Levels do not exist as entities which you work with directly.



You can directly select and manipulate any element on any level. For any elements with level numbers other than 0, a legend will appear in the upper left corner of their selection frame, indicating the element's level number.

You can change an element's level at any time. First, select it. Then, in the

Element Level control on the Position panel, use the arrows to adjust the level number.

Or, in the List mode, click in the element's Level column to open the Level tab, where you will notice the Element Level control. Watch the page to see how the element moves in front of or behind other elements, and make your choice accordingly.

As with other element attributes, newly created elements will take on whatever value is specified in the Element Level. New elements are created in the level with the last level specified, or the level of the last element which was selected, or until you change the level number.

10.5.4 Adjusting the sequence of In and Out Transitions

When you apply both an In and an Out transitions to an element, Designer will schedule the element to transition out immediately after it transitions in. In the list of independent elements, the Out transition event is placed directly below the event with the related In transition.

You can change the timing by moving one or both of the elements in the list, or by changing the Timing setting for the element with the In transition.

Since an element cannot transition out of view before it is displayed, you cannot move an Out transition event to a position which precedes its related "In" event.

10.5.5 Adding pauses

The setting on the Timing button of an element indicates how long Designer waits before it proceeds to the next event in the sequence. Initially, this setting is one(1) second after which the next event will occur immediately.

This aforementioned duration is independent of the transition duration. If it is less than the duration of the transition then the next event will start before the current transition has been completed. If it is longer, playback will appear to wait for the difference between the two durations.

To vary the timing, simply click on the Timing button of an element which will open the Timing panel. This panel will also appear when you click on a Timing button in the Main view. The timing options for elements are the same as for pages.

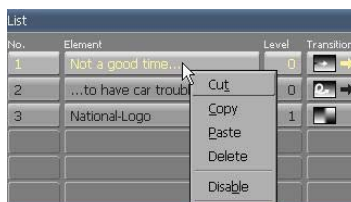
10.5.6 Special event pauses

It is often useful to create a special event which is used to define a pause. For example, to create a brief delay between the information presented by the passive elements which come into view with the page, and the appearance of the first independent event, which may be additional text. You cannot apply a pause directly to a passive element. These and other uses of the Timing panel are discussed in detail in **Chapter 10: Timing**

10.6 Context Menus

The Context menus are available when you Right-click the mouse over an element or area in the Page view window. There are several similarities of Page view context menus and menus located in the Main view (see **Chapter 3: Working in the Main View**). You will also find more detailed information about context menus in **Chapter 4: Using Design Panels in Page View**.

Most of the context menu items parallel the Edit pull-down menu. If you Right-click over a clip object in the Page view



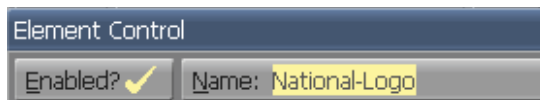
canvas, then the standard selections will be available.; such as Cut, Copy, Paste, Delete and Hide/Hide All Other Elements. You can also select Hide Design Panel from anywhere inside the Designer window.

The other selections which are available to a variety of clips and text objects are; Appear Later/Appear Earlier and Bind Text to Data Field... (or Bind Clip Filename..., Bind Movie Clip Filename..., etc.). If more than one element on a page is selected, then the option to Align or Spread will also be available.

10.7 Enabling/Disabling and Renaming Elements

In addition to “Hiding” an element, you can disable it entirely in the Page view List panel. By clicking on the element’s number in the No. column of the List panel, the Element Control panel will appear at the bottom. You can select or deselect the Enabled? Button. This is very effective if you are building a page with several element levels and don’t want to disturb completed portions of the project. It also allows you to distinguish which elements look best in preview.

You can also rename any element or clip in the Element Control panel Name bar.



10.8 Advanced Features

10.8.1 Working with Sound and Other Events

Using the List panel is the only way you can apply a timing setting to specific

events within a page. Similarly, it is the only way you can access:

- the Sound panel in order to:
 - apply sound to an existing element (click on its Sound button).
 - create an element which is itself a sound (click on Add and from the Sounds folder choose a sound file).
- the Branch panel to set variables or comparisons, then control the sequence of events on the page based on variables or expressions (click on an element's Branch button).
- other panels specific to Scala Modules which can be installed as special Designer utilities. These Modules are also represented by columns in the Main view. (Click on a button in the Modules column to open its panel.)

The Sound panel is further discussed in **Chapter 14: Using Animation, Digital Video & Sound**. The Branch panel is further discussed in **Chapter 15: Branching, Variables and Scheduling**.

10.8.2 Module Events

Depending upon the Scala Modules you have installed and activated, you will have access to a variety of panels in the List panel. For additional information about working in these panels, please see **Chapter 17: Customizing Designer**.

Module options are available and special settings may be applied to most independent elements in the List panel. If you are working with a series of selected elements, some of which are passive, your results are applied to

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only independent elements which have the options available. A new, independent element or event will not inherit any of the settings of the previous element in the list.

|||| 11 Timing

Chapter Overview

The timing options available in Scala Designer are designed with your audience in mind. You can synchronize pages with music, narration, or live events so that your script will run smoothly and effectively.

This chapter will focus on using the Timing panel to control how your script advances. You will primarily use the Timing panel to adjust the timing of elements on the page, however it can also be used to adjust the timing of the page itself.

11.1 Glossary of Terms Introduced in this Chapter

Event – An action in a script; virtually everything which happens in a script is an event, including pages, text, sounds, transitions, animations, etc..

Duration – The amount of time which is individually specified, using standard time code settings at the frame rate of 30fps (frames per second).

Speed – A predetermined amount of time which will move elements at an equal rate of speed, regardless of their distance of motion on the page.

Wait for Element(s) – The page or element will not advance until the page or element is complete.

11.2 Advancing from Event to Event

A script in Designer can be regarded as a chain of events, a linear series. A script will proceed by advancing from event to event—from page to page,

on the Main view level, and from element to element within an individual page.

NOTE: Advancing is essentially the same for both pages and elements. This manual will use the term Events for both.

11.3 Automatic Script Advance

An automatic script advance designates predetermined time values for the durations of events, or for the intervals between each event. When the time value, or timeout, is reached, the following event will be triggered. As a result, the pages and elements in your production will advance at a pre-set pace.

In Designer, automatic timing of events relative,, meaning as you lengthen one event, the following events are pushed back further in overall time. Fig. 1 illustrates this process.

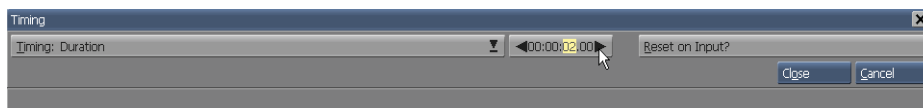


Figure 1. Illustration of relative timing of events.

An exception to this is the relationship between the timing of a page and the elements inside it. In this case the page's duration can be set to a fixed value that will override the total time of the elements.

11.3.1 Working in the Timing panel

To open the Timing panel, simply click on the Timing button for a page in the Main view, or an event in the List panel column.



This panel will allow you to specify how the script will advance to the next event— that is, to the next page or element on a page.

11.3.2 Types of Advance

The Timing: selector in this panel will determine the type of advance. There are four possibilities from the pop-up menu:

- Timing: Wait for Elements
- Timing: Duration
- Timing: Wait Forever
- Timing: Record Time With Mouse

Wait for Elements and Duration specify different types of automatic advance. Wait Forever, will disable automatic advance, and should be used primarily when the advance is strictly interactive, with a mouse click. Record Time With Mouse, allows you to choose the timing with the click of the mouse, during preview playback from the Main view.

11.3.3 Setting the advance for several events

You can set timing for several events without closing the Timing panel after each event. Clicking on a new event will confirm any previous changes you have made to an event. If you want to set identical timing for every page in your production, simply click Edit and choose Select All. Then, open the Timing panel and enter a setting. Timing for the selected pages will automatically be duplicated. You can also select more than one item at a time by Shift-clicking or Ctrl-clicking on the desired pages.

11.3.4 Settings in the Timing panel

Use the Timing: selector to choose one of the following timing settings.

Wait For Elements

The Wait For Elements setting will automatically advance after elements inside a page have finished playing. The page will not advance as long as there are elements in motion through transitions, and timed events, or if there are animations or movies playing. This is the default setting for all new pages and subscripts.

Duration

Once you have chosen Duration, use the value control to change the time value. The new value will be reflected in the Timing column. If the Timing column is narrow, it will be abbreviated. The next event will begin after your newly set time value has completed, regardless of the length of the event. New elements in the Page view will default to a Duration of one (1) second.

Designer records your chosen timings, which will display as HH:MM:SS.hh values in the Timing column. These are specified as hours:minutes:seconds:frames.

Establishing a Useful Duration time

If the time of an event is already established, simply set that time as the Duration value. You may need to adjust the event, (transition speed or the music clip's tempo) so its length does not exceed the Duration time.

Duration always overrides event completion time. For example, if you set 8 seconds as your Duration, and a page takes 11 seconds to run, the page events will be cut off. They will not be accelerated.

When using a Duration setting, the selected time should exceed the time it takes to actually run the event, otherwise, some elements will not appear on the page. By using a Wait for elements setting, the script will not advance until the elements have completed.

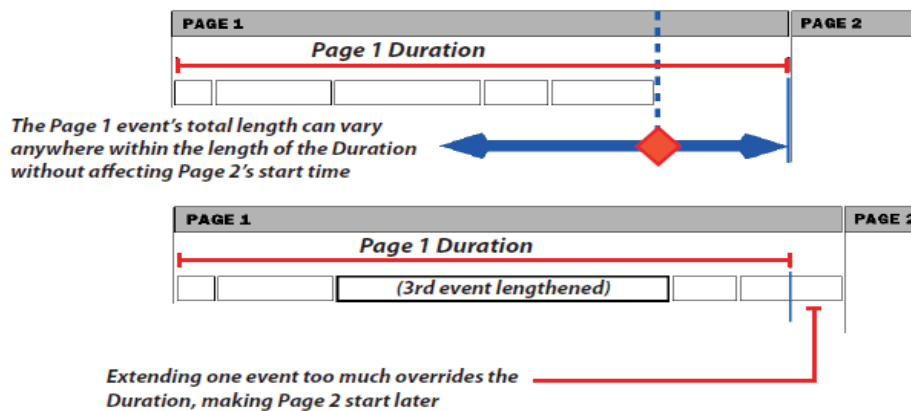
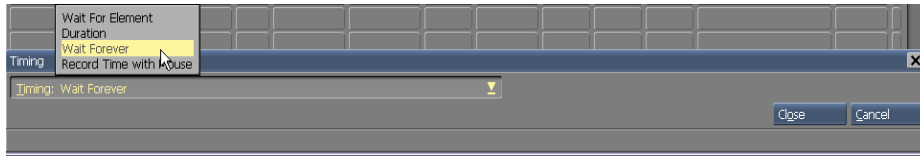


Figure 2. Page Duration

Wait Forever

The Wait Forever setting is indicated by a dash in the Timing column. Upon applying this setting, the script will not automatically proceed to the next event.



The viewer can manually control the advance of the script, The viewer can manually control the advance of the script, simply by:

- Clicking a mouse button
- Pressing a key on the keyboard
- Other external trigger device

Setting up an advance usually depends upon additional settings in the Input panel. However, the default Input panel settings in Designer will allow an advance to the previous or following event based on a mouse button click. See **Chapter 15: Branching, Variables and Scheduling** for detailed information on this panel.

Controlling advance interactively

Wait Forever is very effective with slideshows. For example, if you wanted a page to Wait in order to discuss it with your audience, simply set Wait Forever to interactively control the pace of your production.

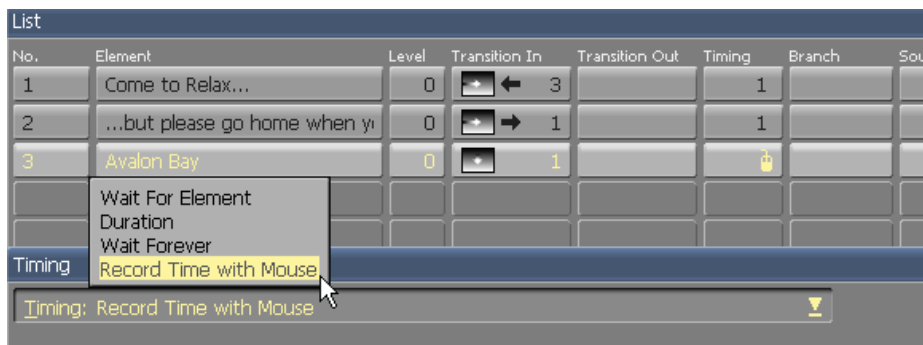
Wait Forever is different from other advance settings because it allows “live” timing: Timing is determined as the production is being displayed, not before. Using the mouse to advance events, you can conveniently interrupt a page at any time—even during a transition—to begin the next event.

11.3.5 Record Time with Mouse

The Record Time with Mouse option is an interactive way to make a series

of Duration settings. By clicking the mouse, you can indicate when to advance. Designer records the click-timings and will apply them as Durations to their appropriate events.

Select your desired series of events, before clicking in the Timing column. On the Timing panel pop-up, choose Record Time with Mouse. The Timing column will display a mouse icon for every selected event.



Now preview the script.

Click the main (left) mouse button whenever you want to advance from one of your selected events.

After recording, the mouse icons will be replaced by the time values which Designer measured from the beginning of each event, to the moment you clicked.

If you are not satisfied with the timing, you can easily replace it by selecting the event and applying Record Time with Mouse again. Simply follow the identical procedure as previously outlined. You can also change the Duration setting using the Timing panel value control. This is especially effective when fine adjustments in a recorded timing are required.

Record Time with Mouse is particularly useful when synchronizing your

script with music. You can quickly and precisely set a large number of advance timeouts, without having to manually specify a series of HH:MM:SS.hh settings.

11.3.6 Overriding timeout settings

Because flexibility is vital to a successful production, Designer allows you to override automatic timeouts.

Overriding automatic timeout settings

By default, any automatic timeout setting can be overridden by clicking the main mouse button, or by pressing the Page Down key. Doing so will interrupt a Wait, a Duration, or even a transition, before proceeding to the next event. Clicking the secondary mouse button, or pressing the Page Up key, will move to the previous event. This is very effective during script creation, when you may need to check the sequence of events. It is also convenient if you want to quickly view another portion of the script.

Timing settings can be overridden by the mouse or keyboard, when you switch on the Reset on Input? option. This will cause the Duration to be longer, rather than shorter. The Input panel's Slideshow Controls options will allow you to disable the mouse and/or the keyboard so preset timings will not be interrupted. This will ensure automatic timing settings cannot be overridden.

11.3.7 Timing with Long Events

Adjusting the timing for simple events is basically the same regardless of its type, however, an additional factor special to timeouts for events which take time to complete: the Wait option.

The Wait option

Some events are essentially instantaneous: Cut transitions, setting variables, branches, etc.. Other events, such as sound, animation, and elements with transitions, (other than Cut), take additional time to complete. Events which take time, are provided with the Wait button on their panels.

When this option is on, the event being defined—including its Wait, if any—must complete before the next event begins (Fig. 3 uses a sound event as an example).

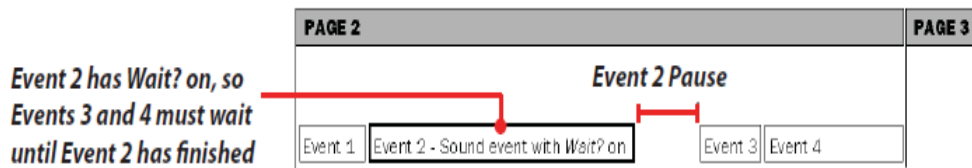


Figure 3. The effect of leaving the Wait option on.

If Wait is off, any events which follow in the script, can begin to run, after the current event has initiated. Essentially, more than one event can run simultaneously (shown in Fig. 4).

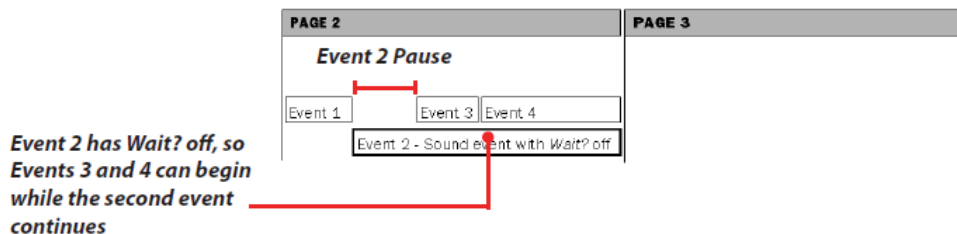


Figure 4. The effect of turning the Wait option off.

11.4 Advanced Features

11.4.1 Choosing the Right Setting

In order to choose the timing options which work most effectively for your Designer production, it may be helpful to identify the goals of your production. Is precise timing critical—as in synchronizing music to images—or is it more important that your audience spend as much time as necessary on an individual page, before the following page begins. Your production may require both situations. In order to choose the most efficient way to time your script, Designer provides a creative collection of settings, specifically designed to enhance your original production.

Following are a few suggestions:

11.4.2 Slideshows

A “slideshow” is a simple production which consists of full-page images being shown in sequence, without individual elements wiping on or off. Slideshows can be interactive, automatically timed, or a mixture of both, depending upon the specific requirements of your production. If a slideshow accompanies a spoken presentation, use the Wait Forever option. This will allow individual control over each page.

Simply by clicking, you can navigate through your production. Explicit timing settings are not required.

11.4.3 Music video

Duration settings will effectively allow precise synchronization, to any type of “music video” style production, in which there is a music track

accompanied by related images or text. Begin by starting the music track with the Wait option turned off. Then, add a special event page for an initial delay, and additional pages for any events you want to synchronize. Apply a Record Time with Mouse timing, and run the script, clicking when you want a new event to appear. Each event will receive a Duration sufficient to reach the following synchronized event in the music track. If the recorded timing was not exact, simply edit the Duration times directly, or re-do the Record Time with Mouse procedure.

11.5 Factors Which Affect Timing

Some events in Designer, such as transitions and fades, are dependent upon a number of internal and external factors, such as:

- In transitions and Out transitions

When you set In and Out transitions, you may also choose a Duration or Speed setting for each transition, (except the Cut transition, which is instantaneous). Using duration rate control, you can set a specific length of time for individual transitions. The speed rate control directs the speed of the transition, however, it does not specify a length of time.

A Speed setting is designed to produce a transition time which is proportional to other settings. The same transition setting can vary considerably, in actual speed of execution, on different machines. Timing in Designer is relative, the overall time of a page or script is primarily the sum of the time utilized by various transitions and media element run times.

- Passive vs. independent element

A passive element does not contain an In transition. It is present

when the page transitions in. An independent element, contains an In transition, however, it doesn't appear on the page until the page's In transition (if any) has completed. If you apply an In transition to a passive element, the element will be moved to the beginning of the list of independent elements. This will in effect add the transition's time to the total time of the page. It will also change the order in which events appear on the page.

External factors, such as computer speed, length of sound/music tracks, and length of video clips can also affect timing.

- The refresh rate of the graphics mode used for playback, acts as an overall speed control for transitions and animations.

Additionally, the speed of the display adapter can critically affect the smoothness of your transitions, as well as other graphic effects in your script. With a fast display adapter, you can run transitions— especially fly-ons—more smoothly. For example, a slow hard disk, will take longer to load an image or sound files. Processor speed will also affect how quickly operations such as scaling and 3D effects, may be completed.

- Some animations will allow you to set the number of frames shown per second. This will directly affect how long it takes an animation to complete. The higher the number of frames per second, the faster the animation. Sound events also have timing-related settings. Additionally, both sound and animation events contain loop settings, which control how frequently an animation or sound repeats. You may need to use settings on the Timing panel, as well as other panels, to achieve your desired effect.
- Looping sounds which have been set on "infinite repeat" can be interrupted by timing events. For example, a sound can be set to

repeat indefinitely or until you click the mouse to initiate the next event.

11.5.1 Differences between Duration and Wait For Elements

As described in the preceding sections, there is a difference between these methods of automatic advance:

- A Wait For Elements will advance when the event is finished
- A Duration will start to measure its timeout when the event begins and finishes at a set time

Using Wait For Elements

Wait For Elements will allow you to quickly set up a script, without the need to determine the length of the event. You can add or adjust a timing setting without having to consider other timing-related factors.

Wait For Elements does not necessarily produce consistent results after editing other aspects of the script. If you adjust the speed of a single transition, the script's overall timing will change.

Using Duration

The main advantage of using Duration instead of Wait For Element is that it will allow you to achieve consistent, accurate automatic advance intervals within your script, regardless of varying conditions. Duration will also maintain timing when transition speeds and other editing operations are adjusted on elements.

Duration settings are effectively applied to continuous, non-editable events, such as video or music tracks, which are highly dependent upon

synchronized script events.

For example, if you want to display text on the screen with corresponding lyrics in a music track, so people can sing along, the text and music must be consistent. Using Duration settings will allow you to maintain consistency, that is a 13.5- second Duration will always take 13.5 seconds. This will allow words and music to stay in synchronization.

The disadvantage of using Duration for an event is you will need to determine how long an event requires to playback. If an event takes more time to complete than the set Duration time, some elements will be cut off. This occurs because the script will immediately to proceed to the next event.

NOTE: Even when using Duration timing, the length of time it takes for an event to run – especially transitions – can vary from machine to machine.

Remember these factors to consider when establishing a Duration time:

- Hardware speed (Can affect transition speeds. It can also animations)
- Speed settings (transitions)
- Wait settings (transitions, sounds, animations)
- Loops settings (sounds, animations)
- Frames per second settings (animation)

|||| 12 Using Transitions

Chapter Overview

One of the most dynamic features offered in Designer, is an extensive library of built-in graphic transitions. Being able to move foreground elements such as text and graphics, as well as backgrounds, means you can easily use the animated transition effects not only between pages, but within them as well. Additionally, since these transitions are created inside Designer, you don't have to rely entirely on external animation programs to add movement to your scripts. Transitions are used to pace your production, creatively capturing the viewers' attention. This chapter will address both the process of applying transitions, and how to effectively use them in your scripts to achieve the exact timing and visual interest required, for an imaginative professional production.

12.1 Glossary of Terms in this Chapter

Transition – A graphic effect for moving from one page to the next, or when animating page elements on and off the screen.

Fade – A gradual change in a setting of opacity from a background color, or previous page element, to the present – facilitated by a Fade transition.

Fly-on – A type of transition in which an image, clip or text moves onto or off the screen from a position outside its borders.

Wait? – Allows you to specify whether elements on a page should wait for the page transition to complete, before beginning their element transitions.

12.2 Categories

Both the Page Transition and Element Transition panels have an assortment of buttons with icons which represent transitions. Related transitions are grouped together into categories such as Fades, Alphas and Zooms. The set of transition buttons or icons which will appear in the panel, depends upon which category tab panel you select. You may need to use the scroll bars to see every transition in a category.

Not all transitions are available in both the Page and Element Transition panels. For example, Fly-ons apply only to text or graphic elements and therefore are not available in the Page Transition panel.

12.2.1 Page Transitions

A page transition is used to animate a page. Page transitions create moving transitions from one page background to the next. The Page Transition panel is accessed from the Main view. Page transitions include spin, zoom, push and reveal transitions,



not to mention a wide variety of special effects. Page transitions control how a page first appears in a script. If you don't apply a transition to a page, it will immediately appear as soon as any preceding pages or events have completed. You cannot apply a transition to a special event page, group, or sub-script. Only single In transitions are applied to pages, so you can't select both an In and Out transition. The transition applied to a page will automatically animate from the preceding page during the transition.

12.2.2 Element Transitions

Element transitions are available for any text, clips or draw objects which have been created or imported. Element transitions control how an element moves onto and off the page. The Element Transition panel is

accessed from the Design List panel, or any of the Element Design panels.

Each of the Design panels contains In and Out buttons. These buttons provide individual control over the element transitions – or the appearance and disappearance of an element on a page.



12.2.3 Applying Page Transitions

Until you specifically select a transition, a page's transition button will display the Cut icon. The Cut icon represents a “non-transition”: the page will simply appear, without a transition. Click on the Transition column button in the Main view to access the page you want to transition. If you want to apply the same transition to additional pages, simply select them by choosing Select All from the Edit drop-down and/or using Ctrl-click and Shift-click, then click a Transition column button. This will open the Page Transition panel.

To select a transition, begin by clicking one of the tabs to choose a category, then scroll through the individual transition icons and select one. By moving the pointer over a transition icon, the transition's name will appear in a Tool Tip.

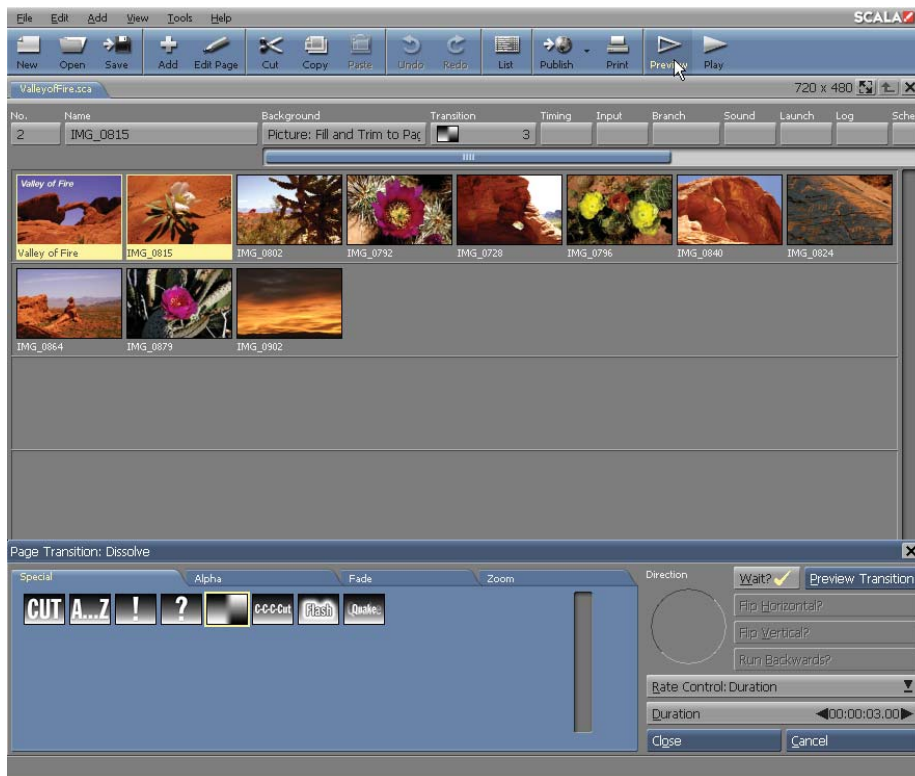


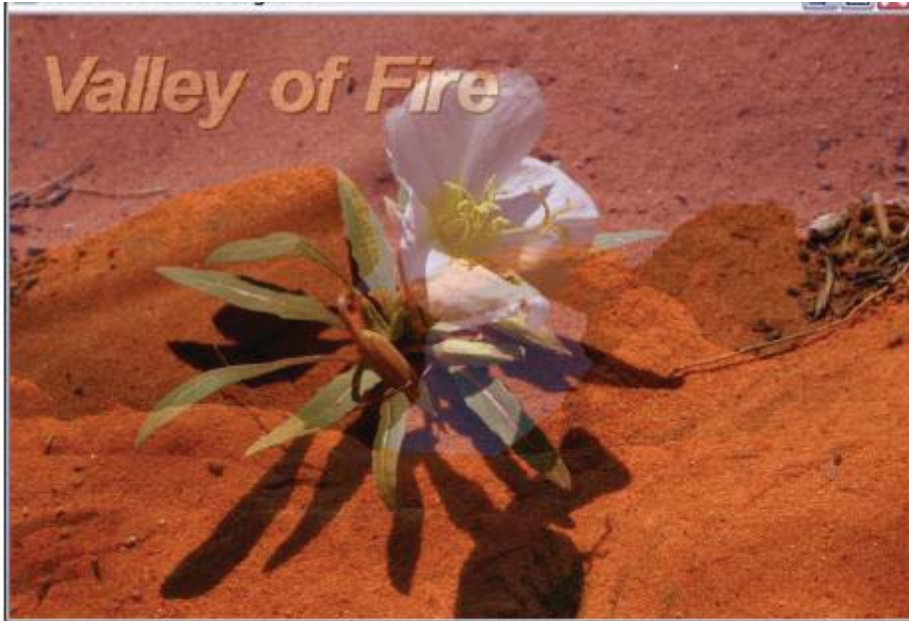
Additionally, when you click on the transition icon, the name of the transition will be displayed in the Transition panel title bar. The icon will appear on the page's button in the Transition column. To see the transition's effect, click on Preview. The preview starts with the page just prior to your chosen page in the script—or from black if this is the first page in the script—and shows the transition to the new page using the selected transition. When the transition finishes, you will return to the Transition panel.

The rate of transition motion can be adjusted by using either the Speed or the Duration value controls.

Designer⁵

You can also edit page transitions on other pages in the script, without leaving the Page Transition panel. Simply click on a Transition or Name button in the Main view to select a new page. The Transition panel will change to reflect the transition choices which were previously selected for the new page.





When you are satisfied with your page transition effect(s), click on Close to accept the current transition, or Cancel to discard your choice. In either case, the Page Transition panel will close, and the Main view will appear.

12.2.4 Applying Element Transitions

Open a page from the Main view, then choose the Element button on the toolbar. Working with transitions for more than one element from the List panel allows you to see every element listed on the screen, including Out transitions and non-graphic elements.

If you want to apply the same transition to several elements, select them by using Ctrl-click, drag selection, or choosing Select All from the Edit drop-down. Clicking the In or Out button in the Element Design panels, will open the Element Transition panel. If a transition has been applied to the

element, the panel containing that transition will already be open.



The title bar of the panel will indicate None, until a transition is selected. With no In transition specified, the element will be in a fixed position on the page as the page transitions in. An element with no Out transition remains on the screen as long as the page is displayed. To apply a transition to an element, simply click one of the tabs to choose a transition category in the Element Transition panel, then click on a transition icon. If the element already has a transition applied, you can edit the speed or other parameters, or click on a different icon to select a new transition. To view the transition's effect, click Preview, then press Esc to continue working in the Transition panel.

Out transitions

The same transitions which are available to move elements onto the page

are also available to move them off. The pattern or motion is the same as the In transition.

When you click on the Out button and select a transition, you will create a new event in the list of independent elements in the List panel. The name will be the same as the original element, however, it will include the prefix Out This will allow you to easily distinguish between each type of transition. If you change the name of one related event, it automatically update the name of the other.

The Out: event initially appears immediately after the related In event in the List panel. The element will begin to transition out, as soon as it completes wiping in. You can also add a delay to the In-transition event by changing the Duration in the Timing EX panel. Or you can drag the Out: event to a later location in the event list, or insert other events between the In: and Out: events.

Overlapping Transitions

Designer will allow you to start an element transition before a preceding transition has finished, by changing the preceding element's Duration to shorter than the duration of the element's transition. If you set the Duration to zero, this will cause the following event's In transition to begin immediately after the first transition. In essence, several element transitions can occur simultaneously.

12.2.5 Transition Direction

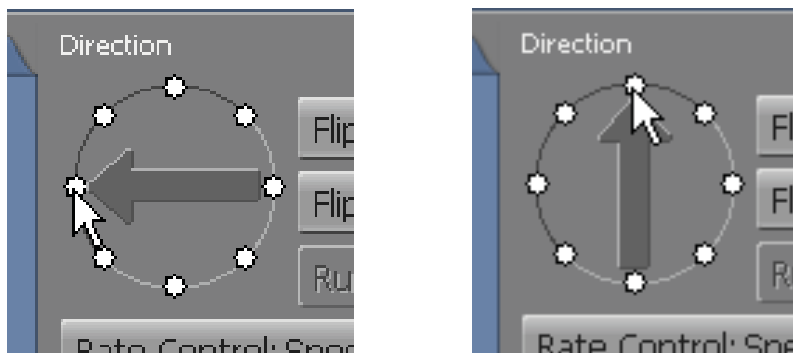
Each transition button has an individual icon representing the transition's pattern of movement. Some transitions, or types of transitions, are symmetrical, that is, they do not have motion or predominant direction, such as fades and Alpha transitions. Transitions which have a direction, may have corresponding arrows on the icon, indicating their movement.

Transitions which have a predominant direction of movement commonly allow you to specify their direction. Ideally, this is accomplished graphically, with the transition direction compass, or simply by using the keyboard.

Using the Transition Compass

The Transition Direction compass is located to the right of the transition icons. If the selected transition does not allow a direction adjustment, the compass will be empty. Otherwise, it will contain a pointer which will indicate the motion direction for the transition.

Directions for the transition are indicated by white dots around the edge of the compass. Most adjustable transitions have either four or eight directions. A four-direction transition will offer either North, South, East, and West, or Northeast, Southeast, Northwest, and Southwest.



To set a transition to a specific direction, simply click on or around any of the aforementioned dots. You may also drag the compass pointer to your desired direction.

Using Transition Direction Hotkeys

Holding down Alt allows the arrow keys to change the direction of the

transition to south, west, east, and north. Certain transitions can also move diagonally. They can be selected using Alt with the End, Page Down, Home, and Page Up keys.

The title bar will display the transition direction after the name of the transition, as “North”, “Southwest” and so on. The direction will change as you use the hotkeys or the compass. In some cases, the transition icon will also change to indicate the selected direction.

12.2.6 Setting Transition Orientation

Many transitions also allow you to choose a transition orientation. The Flip Horizontal? and Flip Vertical? options operate similar to their counterparts in the Orientation panels of various Design panels: they can flip the overall pattern of the transition around an imaginary vertical or horizontal axis.

Frequently the transition Flip options will produce an effect similar or identical to the effect of a particular change in the Direction setting.

12.2.7 Reversing Transition Motion

Some transitions will allow you to select their pattern of motion as it progresses from the end to the beginning, rather than the beginning to the end. For example, an Alpha transition which reveals a new image from the center outward, can be directed to reveal the same image from the outer edges to the center. Turning on the Run Backwards? button directs the selected transitions to reverse their pattern of motion.

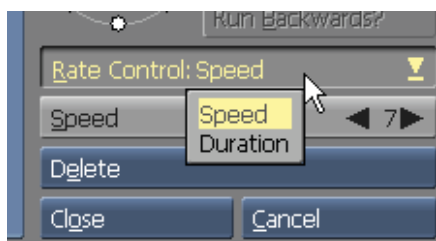
12.3 Transition Timing

Each transition also contains a speed setting which allows you to control its rate of progress. The Speed value control not only displays the setting, it will also allow it to be modified. Most transitions have a Speed range from

1 (slow) to 10 (fast), however, higher maximum speeds are available.

The default for each transition is a medium speed. The total length of a transition's action depends on a variety of factors. The transition speed is primarily affected by the number of pixels being moved or processed at a given time—the size of the element. With smaller elements, you may need to reduce the Speed setting.

You can view the current speed of a transition using the Preview button. Once the preview is complete, the Transition panel will appear.



To change from Speed to Duration, select Duration from the Rate Control selector and enter the exact amount of time you want your selected element to move. For additional information about timing, please see **Chapter 11: Timing**.

12.4 Accepting Your Transition Choices

You can select, edit, and preview transitions for every elements on the page, without leaving the Element Transition panel. Once you have applied your transitions, click on Close to close the Transition panel. If you entered the Transition panel from the Design List panel, you will remain in the List panel. Otherwise, the Element Design panel (for the last element with which you worked) will appear. The In or Out buttons in the Design panel will display the applied transitions.

12.5 Applying Special Transitions

The transitions in the Special category do not readily fit into other categories. Actually, some of these transitions function more as utilities, designed to help you apply other transitions. The Direction and Flip options are not available to most Special transitions.



Cut

The Cut transition is a “non-transition” which simply causes the next page or element to display. Cut is the default transition for pages. Because Cut is by definition, the fastest possible transition, the Speed value control is disabled. Applying Cut as an Out transition will make an element disappear.



Next

Every time the script encounters this transition, a new transition will be chosen. Basically, it will step through the transitions, in each category. This can be useful, for example, if you want to ensure that a different transition is applied to each line in a series of text lines. The speed you set will be used for every transition.



Random Once

Choosing RandomOnce will direct Designer to randomly select a transition. When you leave the Transition panel, the icon for the selected transition, will be displayed in the transition button. The script will use this transition until it is changed. Clicking the transition icon allows you to edit the speed, Flip options, and direction for the particular selected transition.



Random Always

Designer will randomly select a different transition each time the page or element to which you have applied this transition, is displayed. The speed you set will also be used for every transition. The Flip options are not available. The selected transition direction will always be used as the default setting.



Dissolve

The Dissolve transition will utilize Designer's variable transparency capabilities to smoothly cause a page or element to appear. This is a particularly compelling, cinematic effect.



C-C-C-Cut

Similar to a Flash transition, the C-C-C-Cut transition blinks the element while giving a zooming effect as if is coming at you, then flying away in a perspective tunnel. By slowing down the transition using speed or duration, you can effectively enhance the zooming effect.



Flash

Flashes the element on and off repeatedly until the transition is complete. This can also be controlled by speed or duration.



Quake

The element will jump out at you in a shaking motion, which will radically zoom, as if popping off from a flat surface.



Rub

The Rub transition applies a smooth "bounce" in from whichever direction was chosen on the direction compass. This transition is more

effective at higher speeds, or a duration of 1 second or less.

12.5.1 Timing considerations

Adding a transition is more than just a style; it is an event which takes a certain amount of time. A transition, (including its speed or duration) shapes the pace and feeling of an element's appearance. Adding different Wait events, using the Timing panel, will allow you to define the time between the transitions.

See **Chapter 15: Branching, Variables and Scheduling** for complete details on this aspect of script timing.

12.5.2 Passive Elements

Usually applying a transition does not necessarily change the order of elements as shown on the List panel. Each element is approached individually, and will remain in the sequence in which it was placed. An exception to this rule occurs if you apply an In transition to a passive element.

A passive element is one which has no transition applied and immediately appears on the page as the page transitions in. The passive elements on a page are always listed first in the List panel. An independent element, on the other hand, has an In transition. If you apply an In transition to a passive element, it moves the element to the top of the list of the independent elements.

12.5.3 Deleting a Transition

If you delete an In transition from an element it will become passive and will automatically be placed last in the series of passive elements. You can delete an Out transition simply by deleting the Out: event using the Delete

button in the Element Transition panel. Removing a transition may have an effect on other events, such as Sound or Timing column events, or other elements. If you make an element passive by deleting the transition, any associated sound, timing and/or EX events which were previously defined, will disappear. Similarly, if you remove an Out transition event, any associated events will disappear.

Applying Out Transitions to Passive Elements

You can apply an Out transition to a passive element. It is no different from an independent element, The Out: event will appear in the list of elements.

12.5.4 Pacing

Pacing your production will have a tremendous effect on your audience.

The concept of pacing your production is simple: if your production moves too slowly, people may be bored, impatient, or lose interest. If your production moves too quickly, people may not be able to read or absorb your information. Since it is often difficult for the script author to judge the pacing of the script from “inside”, you should frequently run the script, paying particular attention to the length of each segment. Note: It is important to enlist feedback from your peers regarding script pacing. For example, if you are a fast reader, you might misjudge how much time your audience will need to read your text. A good rule of thumb is to allow enough time for you to read the page’s message to yourself twice in a row.

12.5.5 Duration and Speed

The pacing in a script is synergistically derived from combinations of the Duration and Speed settings. These settings are significant to the effectiveness of the script. They govern how much time the audience has to look at the most recent image or text before the next one appears. For a

more detailed discussion of these settings and the ordering of elements in the List panel, please see **Chapter 11: Timing**.

Transition Speed is open to variation. Although fast transition speeds would be appropriate for a fast-paced high-energy script, fast transition speeds can also work well with a script that is relatively slow, or is paced interactively. Again, remember that the audience doesn't really care how beautiful the transition is. They just want the next piece of information. So don't be afraid to let the transition go by quickly.

12.5.6 Making the best use of transitions

This section will cover some general factors to enhance your productions.

NOTE: The performance of the system running the script, not the system on which the script is created which governs the transition playback performance.

12.5.7 Choosing a Transition

A transition should add a dash of visual interest, but is primarily a tool for helping the audience grasp the information more easily.

More often than not, the best choice for a transition is to keep it simple and familiar. This will ensure your audience's attention will be drawn to the content in your production, not the transition.

12.5.8 Transition style

Transitions serve a similar purpose as punctuation in written communication. In the long history of film and video production, many standard transitions have been developed. Some transitions may suggest a continuity, or the simple passage of time, to whatever comes before or

after an image, text or event. Others have a separating function, or effect, and are best utilized to begin or end a sequence. Some are suited to a fast-paced production, while others are best reserved for situations requiring a graceful shift. Using the wrong transition for a given context can be as confusing to the viewer as using a comma at the end of a sentence.

If you are having trouble choosing transitions, try getting a “rough cut” of the script’s timing, by using only Cut transitions. Run it a few times. You’ll probably notice that some transitions work well as straight cuts. Try imagining your production is complete, and you are watching it on television—what would it look like? From years of familiarity with this form of “classic multimedia,” your mind’s eye should suggest some transitions, especially where you may need something more than a straight cut.

Next try using Dissolve transitions to add dramatic pauses to titles or key messages. Dissolve is a dramatic yet elegant effect, and because it doesn’t have motion or zooming, text can still be readable during the transition.

As a general rule, you should minimize the use of different kinds of transitions in a given script, especially if they make the page too busy. Don’t hesitate to use a simple transition more than once. In fact, this will help bring a continuity to your production.

12.5.9 Transition families

- **Special** - The Special transitions listed earlier in this chapter, are Cut, Random Once, Random Always, Dissolve, C-C-C-Cut, Flash, Quake and Rub.
- **Through** - Through transitions are a special kind of element transition which will move an element onto and off the page in a smooth motion. It is essentially a fly-on In transition, seamlessly coupled with an

immediate fly- on Out transition. Through transitions are available only to elements, and only from the In transition button.

- **Fly-on** - Fly-ons move an object onto the page or into view along a particular path of motion. This is ideal when you want to focus attention on an object. You can also use fly-ons and fly-offs with clips, or to add simple kinds of animation to a script without creating an actual animation. Most Fly-on transitions will allow you to set their direction of motion. Fly-ons are available only to elements.
- **Alpha** - A unique and especially stunning type of reveal is Designer's set of Alpha transitions, which contain reveal patterns based on the grayscale image files depicted on their transition buttons. Many Alpha transitions resemble dissolves. They demonstrate a unique, organic appearance which is completely different from the usual geometric transition forms.
- **Fade** - Fades are graceful transitions which smoothly blend from the page image to a solid color. They are commonly used at the end of a production, and tend to suggest the continuation of whatever was previously viewed on the screen. A fade-out followed by a fade-in usually suggests the passage of time.
- **Zoom** - Zoom transitions simulate zooming in or out of an image in a variety of ways, demonstrating a very dramatic effect.
- **3D** - An eye-catching option for element transitions is to use 3D transitions. These are special fly-on transitions which can spin, flip, and warp any element, while moving it onto the page. These transitions use real three-dimensional geometry for very convincing cinematic effects. Designer also features many exotic transitions which are unique to the program, and don't fit easily into any category

or family. These can be just right for productions which require something “spectacular”.

12.6 Advanced Features

12.6.1 Applying the “Wait” button to a Page Transition

When you’re applying a transition to a Page in the Main view, you can choose whether independent elements will transition in during or after the page’s transition. The default is Wait on, which makes the elements with In transitions wait for the page transition to finish. If you click Wait? off, the elements will start to animate as soon as the page transition begins.

12.6.2 Some Transition Applications

Following are some helpful ideas for imaginatively using transitions.

Building a page

One of the most basic transition strategies is to build your page, point by point. First, open with a background, next, transition in a headline. Place a pattern or shaded block over part of the image, and ultimately, begin transitioning bullet points onto the shaded block.

This will give your audience time to absorb your content. It will also keep your production moving. Although finding just the right transitions and pause settings to design an effective page takes time, it is definitely worthwhile. You can view many examples of this technique in the demo scripts provided with Designer.

Relevant transitions

When trying to decide on element transitions for your production, try to imagine how different transitions might relate to your subject matter. A simple effect in a certain direction can often work well. For example, a plain bar-graph or chart presentation can be put into motion by revealing rising sales figures from left to right, or from bottom to top. An information display on transportation arrangements could be animated by airplane clips which fly in from one side and fly off from the other. A photography tutorial could easily be enhanced utilizing zoom transitions, or the Nuclear fade transition.

Sound

Many transitions clearly suggest sound effects, such as swishing, creaking, or slamming noises. Additionally, transitions which progress as a series of events, such as those which break the screen into smaller blocks, could be synchronized into bits of music. Since sound will draw particular attention to an event, the aforementioned technique should only be used if the transition relates to the subject matter.

Combining transitions

With some preparation, you can create complex effects which are not available as simple transitions in Designer. For example, suppose you want to display an image, then tint it dark blue before wiping some text over it. You can alter the image using the options in the Process panel of the Design Background, or Design Clip panel, in order to tint it.

Next, follow the normal image with the tinted one. To prevent the impression that you have two separate images, and are simply putting the plain image on top of the processed image, simply use a reveal transition. Your resulting effect will be a Blue Tint transition—which doesn't exist in

Designer⁵

the library!

Another effect would be to start with one photo, then transition to an image of a door or curtain, then transition to another photo. The result looks like the photos were swapped “behind” the door or curtain.

|||| 13 Adjusting Colors

Chapter Overview

Designer has many automatic functions which help to make your images look their best on any graphics display hardware, but it also has several controls that let you create, manipulate, and manually control colors.

To collectively work with the colors in a background or clip image, Designer provides the Process tab in the Design Background, Design Clip, Design Movieclip and Design Animclip panels. These panels contain image-processing functions which allow you to change colors to an image in subtle and dramatic ways.

Several Design panels will also allow you to assign colors to elements from the color bar. These colors are controlled from the Design Palette panel, where you can individually apply color options to images and edit individual colors.

13.1 Glossary of Terms in this Chapter

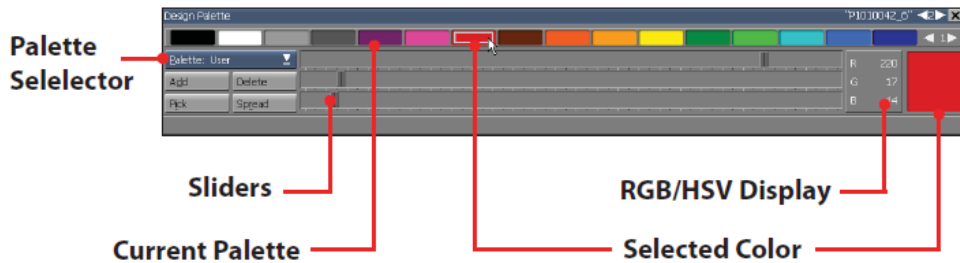
Palette – A set of colors which can be selected and applied to elements on a page. Also refers to the selection of colors which make up an image or animation.

RGB – The Red, Green and Blue channels which are combined in the color light spectrum to produce the color block. Pure white light is a full combination of RGB at 100%, whereas black, is the absence of all RGB or 0%.

HSV – The Hue (basic color), Saturation (intensity of the hue) and Value (overall brightness) of an image, or digitized video clip.

13.2 The Design Palette Panel

Designer actually uses three kinds of palettes: the Background palette, the Clip palette, and the User palette. Most of your time working with individual colors in Designer will involve the User palette.



The User palette contains a selection of default colors, which are fully customizable. The Background palette contains the colors in the background image if the image is 256-color format such as GIF, and the Clip palette contains the colors for the currently selected clip, also only if it is a 256-color format.

- The Palette icon button on the toolbar, will allow you to access the User, Background, and Clip palettes.
- A Background palette option will not be available if the background is Plain, a High Color or True Color image, or a movie.
- The Clip palette option will not be available if a clip has not been selected, or if the clip is a High Color, or True Color image, or a movieclip.
- the clip is a High Color, or True Color image, or a movieclip.

- no clip is currently selected

The contents of the current palette are displayed in the color bar at the top of the panel, in color sets of 16 colors at a time.

Use the Color Set Switcher at the end of the color bar to cycle through the color sets in the palette.

The color bar for the User palette contains the system default of 19 colors. One of these colors is always selected, as indicated by a box within one of the colors on the color bar. The selected color will also be displayed in a larger color block to the right of the sliders.

13.2.1 The User palette

When you open the Palette panel, the User palette is revealed. This palette is also shown in other Design panels which have a color bar.

The User palette is similar in many respects to a traditional artist's paint palette. It will allow you to select mix and apply a variety of colors to text, boxes and other elements in the other Design panels.

You can edit, delete or add colors to the User palette, as well as copy colors from Background or Clip palettes. The size of the User palette is unlimited.

13.2.2 Adding colors to the User palette

You can transfer some of the clip, or background colors to the User palette to color text blocks, allowing them to match the background. You do this by:

- Switching to the Background or Clip palette by using the Palette: pop-up.

- Selecting the color on the Background or Clip palette color bar.
- Clicking the Add to User Palette button. (When you switch from the User palette to the Background or Clip palettes, button will replace the Add and Delete buttons.)

Every time you click on the Add to User Palette button, the selected color will be copied to the User palette. The color will immediately be selected in the User palette display.

13.2.3 Deleting colors

Deleting unneeded User colors will facilitate locating the colors you want to use in your production. To do so, select the color in the User palette and simply click the Delete button. You cannot delete colors from the Background or Clip palettes. If you delete a color which is already in use, (applied to some element), the element's color will be remapped to the closest matching color in the User palette.

13.3 Creating and Editing Colors in the Design Palette Panel

13.3.1 Creating a color

You can create and add any color you choose to the User palette. Click the Add button beneath the Palette: pop-up (not the Add icon) to create a new chip. The newly created chip is located to the left of the currently selected color chip. Subsequently, it will be the selected color. (Colors which are located to the right on the color bar, and those which are located in higher numbered color sets, will be moved over one space.)

Initially, the new chip is the same color as the previously selected color chip, however, it can be edited to reflect your choice of colors.

13.3.2 Editing a color

You can adjust the color of the selected chip to any desired shade, simply by using the three color sliders. The sliders are available for two color modes, RGB or HSV. For both modes, the large color block in the middle of the panel will display the color, and the corresponding numerical display. You can also click the value and enter a number. Clicking on the RGB/HSV display will switch between modes.

Using RGB sliders

The RGB color mode is simple. The sliders control the Red, Green and Blue amounts which combine to form a color. The R, G, and B values range from 0 to 255.

13.3.3 Using HSV sliders

The HSV color mode is slightly more complicated, however, once you understand it, you can frequently make color adjustments more easily than with RGB. The three sliders in HSV control are Hue, Saturation, and Value. Hue is the basic color, accessible on the slider in a spectral order: red-orange–yellow–green–blue–violet–red. Because of this circular order, the value ranges from 0 to 359. Saturation is the intensity or purity of the hue. Value is the overall brightness. Both can have values from 0 to 255.

You can switch back and forth between RGB and HSV at any time to compare settings.

You can also edit the colors in the Background or Clip palettes which is the same as editing a User color. Select the color on the color bar, then

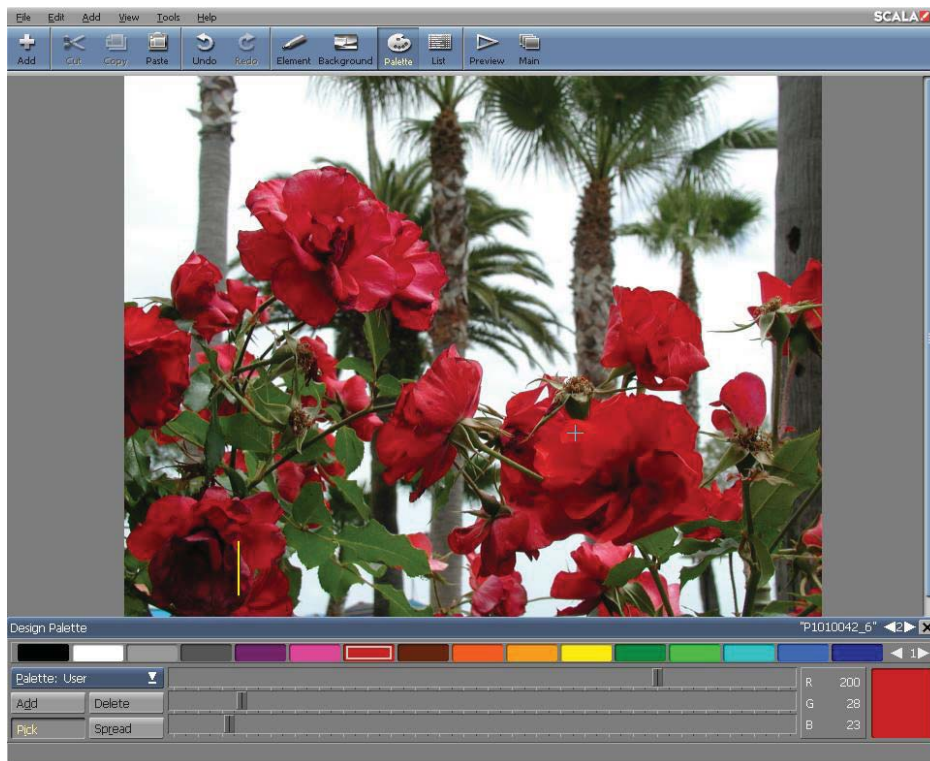
simply adjust the corresponding color controls.

NOTE: If the V slider is at 0 before starting, the color will remain black. To achieve gray tones, set S to 0 and adjust V. H will not have an effect. For bright, pure colors, set S and V to their maximum setting, and adjust H.

13.3.4 Picking a color from the screen

The Palette panel allows you to individually choose a color from an image. To create a new color chip, simply select a color in the User palette which is not required, or click the Add button. Click the Pick button. The pointer will change to the Pick pointer.

Place the Pick pointer so it encloses your desired color, and click. In the User palette, the predominant color will immediately be transferred to the selected color chip, which can then be edited.



Clip works the same way as using Pick, when you have selected either Palette: Background or Palette. The color on the selected color chip will change to the color you pick, and all pixels in the clip or background which contained the color that was on the color chip, will be re-colored with the new color.

13.4 Exporting and Importing the Design Palette

13.4.1 Loading and Saving a Palette

User palettes can be saved as files. You can also load and save a palette at any time. Assigning colors to different production projects is more convenient with several User palettes. To save the current palette, click on File and choose Export>Palette... This will open the Windows File

dialog. A file type extension of .PAL will automatically be added to the name. Finally, simply name the palette and save it. To load a palette which has previously been saved, simply click the Add toolbar icon to open the File dialog, then choose a .PAL file to load.

13.4.2 Changing the Default User Palette

You can save a set of colors as the default palette. Designer will save the current User palette as the default when you choose Save as Defaults in the Misc panel of the Element Design panels.

13.5 The Design Background Palette

Every time you initiate a new screen page and load a new 8-bit (256 color) background image, (picture or animation) its constituent colors will be placed into the Background palette. Following are some guidelines when using this palette with different backgrounds.

8-bit (256 color) background: The palette is editable within Designer.

Plain background: Only one color is used with this background and it originates from the User palette. The Background palette is not accessible on the Palette toolbar icon.

High Color and True Color backgrounds: Individual colors in the image are not editable within Designer, therefore, there is not a Background palette accessible on the Palette toolbar icon. However, you can work on the colors of the background as a whole. By using the controls in the Process panel of the Design Background panel, you can edit the colors of the entire background. The Process panel will be discussed later in this chapter.

13.5.1 Working with an 8-bit background palette

A Background palette has a given number of color slots, or locations for colors. Each separate color in the background uses one slot. An 8-bit background has 256 color slots. If there are fewer colors in the image than the number of slots, there will be empty slots at the end of the palette.

The backgrounds supplied with Designer generally don't use every color slot, therefore, there are still color slots available for clip and user colors.

NOTE: Colors are positioned in the Background and Clip palettes according to their frequency of use in the image. The more pixels in the image which use a particular color, the earlier in the palette it will appear. The leftmost color chips in color set 1 are the colors used by the most pixels in the selected image.

The Background palette typically changes for each page, because Every image background requires a different assortment of colors, subsequently, the Background palette will adjust for each page.

In general, although you can edit colors directly on the Background palette, Image backgrounds usually look better with their original colors.

Use the color parameters in the Process panel of the Background panel to make overall adjustments in the background. For the ultimate in color control and flexibility, you can manipulate the image in an external image-processing program. Within Designer's Palette panel, however, minor fine-tuning and special color effects are easily accomplished.

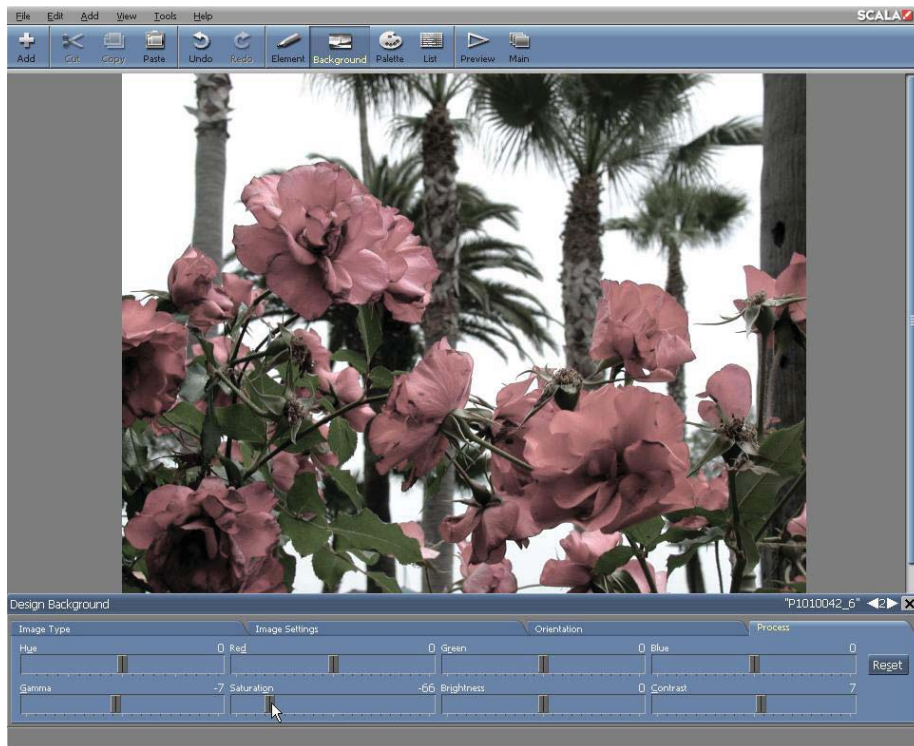
13.5.2 The Clip palette

The Clip palette is accessible on the Palette: pop-up only when a clip is loaded and selected. Additionally, the clip cannot be a High or True Color.

The color bar in the Clip palette displays the colors in the selected clip. There are as many Clip palettes as there are clips; each one is independent of one another. Although you cannot control individual colors in the palettes of High Color or True Color clips, as with backgrounds, you can adjust the colors in the clip itself, on the Process panel of the Design Clip panel.

13.5.3 Using the Process panel

When using images in Designer, especially photographic images, it is not uncommon that an image may need some “touching up”. Some examples may include tinting an image a particular color for an artistic effect, or reducing its contrast to make it work better by allow it to blend more effectively into a background. You can address any of these examples, and more, within Designer, using the Process style panel located in the Design Clip, Design Animclip, Design Movieclip, and Design Background panels.



The controls in the Process panel allow you to make fine or drastic adjustments to the color, brightness, and other visual qualities of an image. You can adjust any still image in Designer: individual clips, or entire backgrounds.

Adjustments made in the Process panel will not alter the source image. You can always return to the original, unprocessed image with a single click.

13.5.4 Types of image processing

The image processing tasks which you can accomplish in the Process panel can be distinguished within two general types: color processing and luminance processing.

Color processing deals with adjusting hues which make up an image. Using

color processing, you can apply minor alterations in the strength of a particular color component in order to correct a picture's color balance. You can also make a radical adjustment which will completely alter the natural colors in the image. Luminance processing affects the relative and overall brightness levels of the pixels in the image, apart from their color.

However, as you will see when you begin to work in this panel, the effects of the controls are not independent. There are many ways to achieve similar effects. Not only will every control affect the entire image, they will also interact with one another.

13.5.5 Choosing what to process

To process backgrounds, go to the Design Background panel and select the Process panel. To process a clip or animclip, you will use the Design Clip panel's Process panel. In the Design Clip panel, only one image can be processed at a time; if you select more than one clip, the clip which was selected last, will be processed first.

13.5.6 Process controls

The Process panel includes the following controls:

- Hue – shifts the hue of all colors by a constant amount, retaining color relationships
- Saturation – adjusts the intensity or purity of the colors in the image
- Red – controls the amount of red in the image
- Green – controls the amount of green in the image
- Blue – controls the amount of blue in the image

Luminance controls include the following:

- Brightness – adjusts the brightness of the image
- Contrast – adjusts the relationship of light and dark areas, increasing or decreasing contrast
- Gamma Correction – similar to Brightness, adjusts the overall luminance of the image, but does not alter the lightest and darkest tones from their original values
- Reset – returns the image to its original, unprocessed state, resetting all controls to zero

Most controls are sliders, which can vary one parameter, continuously. The value represented by the slider's position is revealed above the upper right corner of the slider. You can also select this value and directly enter a number. The initial value for all sliders is 0. When every slider is at 0, the result is an original, unaltered image. Every slider contains either positive or negative values, either by increasing or decreasing their associated parameter. Most will contain a range of -100 to +100. Because of the different function of the Hue parameter, its value will range from -179 to 180.

13.5.7 Using the color controls

The color controls will often interact unpredictably. Keep in mind that by increasing one or more parameters, you may have to decrease others in order to retain an overall brightness or color balance in the image.

Hue

Hue is the basic color of a object, such as green, yellow, or red. Using the Hue slider will shift the colors in your selected image, producing an effect of re-coloring the image. Since hues are typically thought of as existing on a "color wheel", the Hue slider's value is in the form of 360 degrees of rotation, -179 to 180.

You can achieve somewhat similar tinting effects by manipulating the individual Red, Green, and Blue sliders. Doing so, however, will require coordinating the three color values. It may also involve adjusting Saturation or Brightness to compensate for the changes. Using Hue will automatically maintain the identical color saturation and brightness as in the original image.

Saturation

The Saturation control adjusts the intensity of the colors in the image. At the minimum value, all color is removed and the result will be a grayscale image. At the maximum value, the colors are greatly exaggerated, for a bright, cartoon-like effect. By increasing Saturation you cannot add color to an image which was originally grayscale. Additionally, it will not affect colors which were already fully saturated in the source image.

Red

The Red control allows you to increase or decrease any red in the image. Adding red makes the image “warmer”, and at high values it will tint the image red. Subtracting red will make the image “cooler”, generally resulting in a blue-green tint. Adjusting this slider will not have effect on any areas of an image which initially did not contain red.

Green

The Green control will allow you to increase or decrease any green in the image. Higher values will tint the image green, and lower values will give it a purple cast. Adjusting this slider will not have an effect on any areas of an image which initially did not contain green.

Blue

The Blue control will allow you to increase or decrease any blue in the image. Adding blue will make the image “cooler”, and at high values it will tint the image blue. Subtracting blue will make the image “warmer”, generally resulting in a yellow tint. Adjusting this slider will not have effect on any areas of an image which initially did not contain blue.

13.5.8 Using the luminance controls

The luminance controls do not alter the color balance of the image, however, they will affect the overall brightness of pixels in the image. This will allow you to improve the appearance of an image which is too light or too dark.

Brightness

The overall brightness of the image is adjusted by using the Brightness control. At the minimum setting, an image can turn completely black. At the maximum setting, every area of the image will be extremely light. Small to medium adjustments of the Brightness control can correct overexposure or underexposure of your photographic images. Often, adjusting the Contrast control is effective after modifying an image’s brightness.

Contrast

“Contrast” describes the sharply defined differences between the lightest and darkest areas of an image. If the dark areas in an image are black or almost black, and the light areas are white or almost white, the image would be defined as a high contrast image. In a low contrast image, the tones throughout the image would exist within a relatively narrow range of brightness. The features in the image would blend into one another for a “washed out” look.

Increasing Contrast for photographic images, will frequently increase sharpness and definition to the image. Reducing Contrast on a photograph, or another type of image which may be used as a background, can tone down the details and keep the background from being visually distracting to any elements. Varying the contrast of an image can have a corresponding effect on the saturation and brightness of the image. You may need to adjust one or both of those parameters to compensate.

Gamma

The effect of the Gamma control is similar to Brightness. Gamma correction operates on the midtones of the image, and does not affect the very light and very dark areas in the image. Using Gamma Correction allows you to adjust the image brightness, without disrupting the image definition. This way, you can frequently avoid having to make compensatory adjustments in Contrast, after modifying the brightness.

13.5.9 Tips on using the image processing functions

There are three primary reasons to alter an image using the Process panel:

- to correct a flawed image
- to adapt an image for a particular use
- to create special artistic effects

13.5.10 Correcting flawed images

The correction of flawed images is almost exclusively regulated to photographic images. Professional photographs, such as those found in the clip art and photographic image collection CD-ROMs, seldom need any additional retouching. However, amateur photographs are frequently

taken without regard to proper lighting, exposure, film stock and so on, and therefore are likely to benefit from additional processing.

Exposure

To correct moderate over or under-exposure (a picture which is too light or too dark), try applying the Gamma control. This will lighten or darken most of the image, but it will also leave the highlights and shadows unaffected. You can also try adjusting the Brightness control. However, be sure to watch the light and dark areas of the picture, to see if you are beginning to lose detail as the control moves farther from zero.

After making a picture lighter or darker, frequently, adjusting the Contrast control will improve the picture's definition.

Contrast

If the image seems to be flat or lifeless, with a slight haze surrounding the subject, the contrast is most likely low. Increase the Contrast control gradually until the image becomes more well-defined. As with adjusting exposure, look at the lightest and darkest areas of the image, and slightly pull back the control when you notice details becoming lost. You may also need to make a slight adjustment to the Gamma or Brightness controls after adjusting Contrast, in order to restore the image's overall level of exposure.

Color

Sometimes a photograph's color balance is poor, so much so that it may take on a slight overall tint of one hue or another. Careful adjustment of the color controls in the Process panel can all but eliminate this imbalance, restoring the appearance of a natural color.

Using the Hue control will not be useful to address color balance problems, because its effect is fairly radical and difficult to precisely control. Instead, use the Red, Green, and Blue controls. Make small adjustments, and carefully watch the effects on the image. If the problem is an excess of one of these three colors, you can simply raise or lower its slider. To fix a yellow cast, lower the Red and Green sliders an equal amount, or raise the Blue.

Remember since you are in effect adjusting the brightness of the colors, you may need to compensate for your adjustments with the Saturation and/or Brightness controls, in order to maintain the original image's tonal values.

13.5.11 **Adapting an image**

In many multimedia situations, a source image—whether photographic or drawn—may be technically perfect, but still unsuited for use in your production.

Lowering background contrast

Lowering the contrast in a background image will allow you to read small to medium sized text more easily. If you are presented with a normal, full-contrast image, you can alter it appropriately in the Process panel. Bring the Contrast control down to 50 or more. This will considerably de-emphasize the features of the background. Depending on whether your overlying text is light or dark, you may also want to raise or lower the Brightness for the background. In the final result, any overlying text or clips will stand out more effectively against the processed background.

Changing brightness for emphasis

Changing brightness is another type of adaptation which is frequently useful to make clips lighter and darker. For example, in a script which

refers in sequence to several different clips on a page. You could have each clip highlight at the appropriate time by transitioning in the highlighted version. To do this, create a highlighted clip version by adjusting its brightness and contrast as necessary. Then, choose File > Export to save the processed clip. Finally, position the processed clip directly over its unprocessed counterpart on the page. You can have the processed clip appear at the right time by using a Cut, Reveal, or Alpha transition.

Adjusting palettes for video use

Bright colors, especially when shown on NTSC displays, tend to bleed, or blend into one another, producing a blurred image. This can be avoided by slightly reducing the saturation of the colors in the display.

13.6 Advanced Features:

13.6.1 Creating Special Effects

In many situations, your original source images will not be aesthetically pleasing or complementary to your page design. The Process panel allows you to easily apply fairly radical processing to images, thereby achieving eye-catching special effects.

Color effects

Making bold manipulations of the colors in an image is the most obvious way to create visual interest with the Process panel. It will also allow your chosen image to fit very well in an existing color scheme. Adjusting the Hue control will bring a dramatic change to the colors in your images. Using the Red, Green, and Blue controls can also produce dramatic color changes, however, they will also allow you to make subtle and precise adjustments as well.

Some tips on techniques and color relationships:

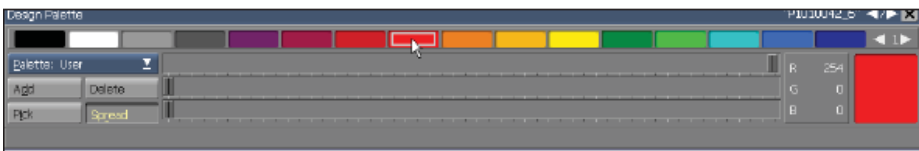
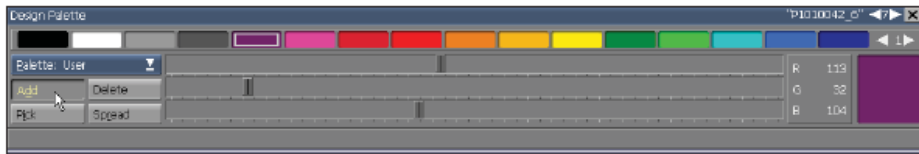
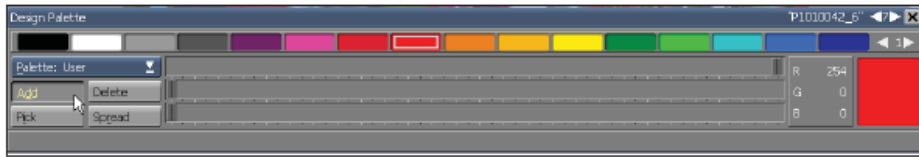
- To produce a grayscale image from a color original, reduce Saturation to -100
- To produce sepia-tone or other subtly tinted, near-monochrome images from color originals, reduce Saturation to -85, then adjust Hue for the basic tint, and fine-tune the tint with Red, Green and Blue
- To add a tint to monochrome originals, use Red, Green, and Blue; you can then apply Hue and Saturation to further alter the color scheme
- When working with the Red, Green, and Blue controls, remember which hues are complementary, thereby causing an effect similar to increasing one slider by decreasing the other two
- The effect of increasing or decreasing the Red, Green, and Blue controls simultaneously and equally is to raise or lower the overall brightness of the image
- Adjusting Contrast in a color image will affect the color intensity. You may also want to adjust Saturation to compensate
- If the maximum range of adjustment of a control is not sufficient for your purposes, you can export the processed image, then reload it for further processing
- Yellow is an equal combination of red and green

13.6.2 Creating a Color Spread

One special feature of the Palette panel is automatic color spreads. This will allow you to easily create a series of any number of colors which will smoothly shade between two given colors. To create a spread in the User palette:

1. Select a color chip on the User palette color bar.
2. Click the Add button as many times as the number of steps you want in the spread.
3. Use the color controls to adjust the last color which was added, or Pick a color from the page. This color will be represent end of the spread.
4. Select the first color which was added, and simply adjust it (or Pick a color) which will represent the other end of the spread.
5. Click on Spread.
6. Click on the last color in the spread.

The color chips between the first and last colors which were created will smoothly shade between the two colors.



One use for a spread is to create four colors which can be used with the Bevel style. Longer spreads will allow you to create interesting graphic effects with a series of elements.

You can also create spreads in the Background and Clip palettes by selecting the two end colors in their respective color bars, however, the effect will be unpredictable. It is primarily used for special effects.

|||| 14 Using Animation, Digital Video & Sound

Chapter Overview

The element transitions and page transitions available in Designer add an amazing array of creative movement and activity to a script. In essence, it allows you to intuitively design smoothly flowing professional, made-for-TV-style productions. Designer also includes an amazing library of intriguing animation files, or if you prefer, you can design your own, using separate, animation-specific software.

Designer was designed to utilize nearly any type of animation, including AnimGIF, AVI, WMV and MPEG-1/MPEG-2. You can also use Adobe Flash animations as “Flashclips”. There are a few limitations, in which you cannot control or make changes to the contents of an animation from within Designer, however, you can easily adjust settings such as the speed and number of repetitions or loops.

14.1 Glossary of Terms in this Chapter

Animclip – An animated sequence of individual frames, like an animated GIF.

Flashclip – Created in Adobe® Flash, either SWF or FLA movies.

Video Clip – Any digital video movie that can be imported into Designer.

Sound Event – An event in the Main view that controls an independent sound or the sound in the previous page.

14.2 Types of Animation

Traditionally, the characters and objects in an animation were hand-drawn, frame-by-frame. Today, computer drawing and animation tools have revolutionized the way animations are created. The methods used depend upon a combination of hardware, software, artistic skill and imagination. There are three basic types of computer-generated animation:

- Two-dimensional animation which is drawn, composed and manipulated by using a paint or animation program, or Flash. Animation of this type generally resembles familiar cartoon-style films:



- Three-dimensional rendered animation. This type of animation is created using applications which mathematically define the shape, movement and appearance of objects and titling. This involves constructing a computer model of the image and then “rendering”

the model. The rendering process adds color, detailed reflections and texture, highlights and shadows to closely simulate objects in the real world:



This type of animation is used for everything from automobile and architectural design, to television titling and special effects in feature films.

- Digital video, in which a video or film sequence has been changed into a digital format and saved as a file. The digitized file can be controlled and played from a PC, eliminating the need for a VCR or laserdisc:



14.2.1 Types of Animation in Designer

Designer recognizes two basic types of animation, based on file format: animations, which are in AnimGIF formats, and movies, which are in the AVI and MPG digital video formats plus SWF (Flash). Animations are limited to 256 colors, and are silent. Movies are inherently High Color or True Color, and may contain sound. Generically, both types will be referred to as “animations” in this manual. Typically, animation formats are used for cartoon-style animations, and movie formats are used for 3D rendered and digital video.

14.3 Adding an Animation to a Script

Any type of animation supported in Designer can be added as a clip—an animclip, a movieclip, or a Flashclip—in the Design panels.

14.3.1 Animations as Page Backgrounds

When you add an animation as a background for the screen page, you can work with it from the Main view, just as you would any other page, applying sound effects or transitions and defining timing settings. Or you can use the Design panels to add text, clips, and other elements using the animation as a background.

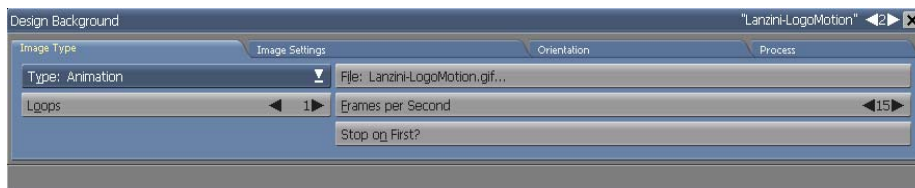
To include an animation in a script as a page:

- Click on Add in the Main view. The File dialog will appear.
- Navigate to the folder you want.
- Look through the folder until you find your desired animation.
- Double-click on the animation file or select it and click OK.

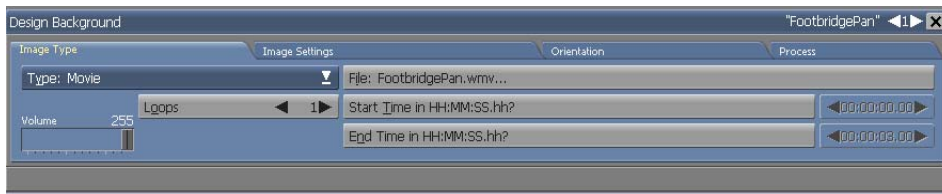
The Design Background panel will appear.

14.3.2 Animations in the Background panel

You can access the Design Background panel from the Main view, when you double-click the page. When an animation is the selected page, the Image Type panel of the Design Background panel will look like this:



When a movie is the selected page, the Image Type tab of the Design Background panel will look like this:



14.3.3 Replacing an animation

Click the File: button to replace an animation background with another image background. You the File dialog will appear. At this point, you can choose another animation, or navigate to another folder and choose a different type of image background. The File dialog will also appear if you change the image type using the Type: selector. To replace an animation background with a Plain background, use the Type: selector and choose Plain.

14.3.4 Changing animation speed

The Frames per Second setting controls the speed of an animation. To create the illusion of continuous movement, this speed must be fast enough to fool the viewer's eye. The practical minimum is approximately 12 frames per second (fps), however, essentially all animations run at higher speeds to ensure their movement looks smooth. The higher or lower the fps setting, the faster or slower objects in the animation will appear to move. For example, film animations run at 24 fps, while video displays are 25 fps for PAL and SECAM systems, and 30 fps for NTSC systems.

Although these are good guidelines to keep in mind as you consider the rate at which you want the animation to be displayed, there are several other factors which should be considered:

- An animation is generally created to run at a certain speed. For movement to look natural, so events do not appear to happen too

quickly, or too slowly; a certain frame rate may be required.

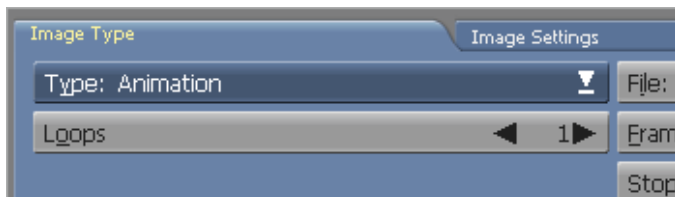
- If you vary the animation's speed, and the time it takes to complete changes, the timing of other script events might need to be adjusted as well.
- The animation may have been optimized to run successfully at slower speeds. For example, they may have been done to save storage space and computer resources.
- The PC controlling the animation may not be powerful enough to handle higher speeds. Past a certain speed, for instance, the animation may appear to be jerky or there may not be a noticeable difference between one setting or another. Designer is fast and works with the animation as efficiently as possible, but there are limitations which are not within Designer's control.

At any time as you work in the Background panel, you can click on the Preview button to see the animation at the currently set speed. Even if you are familiar with the animation, you may want to experiment with different speed settings to test the visual effect at different rates. To change and test the animation speed setting:

1. Use the Frames per Second value control to change the setting. The range of speed depends upon the animation. The lowest setting, one (1) fps, is slow enough so you can see each frame of the animation as a separate image. The upper limit is 50 fps.
2. Click on Preview to see the animation and, when it is finished, press Esc or either mouse button to return to the Design Background panel.

14.3.5 Repeating an animation

Loops allows you to specify the number of times an animation or movie plays before the next page of the script is displayed, or the animation stops. You can specify a number between one (1) and ninety-nine (99), or an “infinite repeat” setting. This last setting will repeat infinitely. This is very useful when you don’t know exactly when the animation should stop.



In addition to the setting defined for Loops, the animation is also influenced by the duration setting defined in the Timing panel for the animation as a page in the script.

When Loops is infinite, a Duration setting will stop the repetition. If you need an animation to loop for an indefinite length of time, you need to provide a means to allow the script to advance, such as directing the viewer to click the mouse. Otherwise, the animation will continue to run.

When Loops is set between 1 and 99, the animation may not play the specified number of times, because the duration time will override the loop setting. For example, if three repetitions of the animation take more than the 10 seconds as defined in the Duration setting, the animation will be cut short after 10 seconds has elapsed and the script will proceed to the next page.

Regardless of the setting defined for Loops, the animation will stop when a mouse button is pressed. Pressing the main mouse button will reveal the next page in the script, while pressing the secondary mouse

button will display the previous page.

14.3.6 Stopping on the first frame

Some looping animations are designed so the final frame shown when the animation ends, is either the first or the last frame of the animation. Because the final frame is often used as a freeze-frame background for subsequent material, this can be very important.

The Stop on First? button will allow you to specify which frame of an animation should remain visible after the animation ends. This option is off by default. When an animation completes its given number of loops, the screen will show the last frame of the animation. When Stop on First? is on the animation will advance one more frame to the beginning of the loop, so the first frame of the animation will remain on the screen.

14.3.7 Playing a specific part of a movie

The Start Time in HH:MM:SS.hh? and End Time in HH:MM:SS.hh? controls allow you to play a subsection of a complete movie. The default is to play the entire movie. To exclude some part of the beginning and/or end of the movie, turn on the Start Time and/or End Time buttons as necessary. Turning these buttons on will activate their associated value controls. These will allow you to specify an offset time from the beginning or end of the movie.

To have the movie start playing at some point later than the actual beginning, use the Start Time control to set the delay time (in hours, minutes, seconds, and hundredths). To have the movie finish playing at some point before the actual end, use the End Time control to set the length of time from the actual beginning, to the desired stop point.

Movies also contain the Loops option, which function the same as

described in the preceding section. However, the frame rate and stopping frame in a movie are fixed, so the Frames Per Second and Stop on First? options are not available.

14.3.8 Adjusting the volume of a movie

If the animation is an AVI, MPEG or other supported digital video segment, it may also contain sound. You can adjust the volume of the sound with the Volume slider in the Image Type tab on the Design Background panel; which will appear only when there is a movie background.

14.3.9 Putting elements on top of a movie

Any kind of element can be placed on top of a page background containing a movie or animation. This wasn't true for previous versions of Designer.

14.3.10 Transitions with Animations and Movies as Backgrounds

You can give an animation a transition in the Main view, just like any other page. When the page plays, Designer keeps the animation or movie background running as the transition changes from one page to another. For example, if you have a 20 second movie as a background, and a 5 second fade or dissolve transition applied to the page, then the preceding page will fade out as the movie in the background in the following page will start at the same time as the transition, and continue to play the movie until the transition to the next page begins.

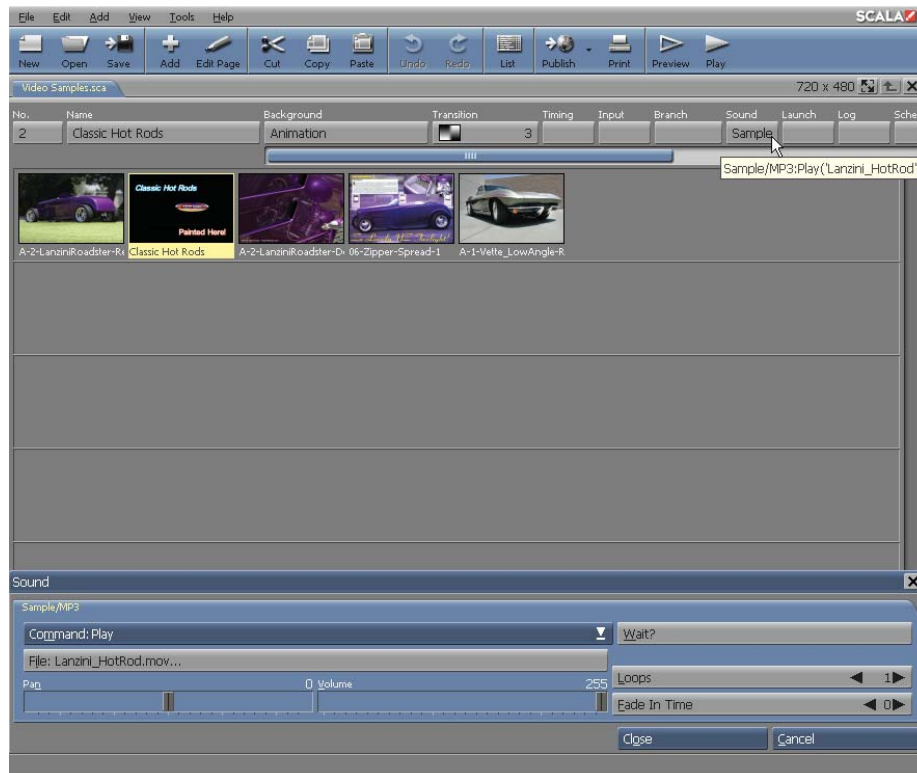
14.3.11 Using Sound

Any type of sound – music, voice-overs, sound effects – can be used to enhance an Designer script.

The right sound applied at the right time, will not only attract attention, but

it will also create a more vibrant viewing experience. When synchronized with on-screen activity such as text or page transitions, sound will add life to your message. A simple voice-over recording can often replace pages of less dynamic text. Adding sound will also attract and maintain the interest of your audience. Sound is yet another element which will enable you to create and present your production with broadcast television quality.

When the Sound button in the List panel or Main view is blank, it indicates sound is not being applied to the element or page. When you click on a blank Sound button for the first time during an Designer working session, the Sound panel shown in the preceding illustration will appear. Otherwise, the panel for the type of sound you worked with most recently for that specific event will be shown.



When the Sound button is not blank, it means a sound event is already being applied to the element in the List panel, or page in the Main view. The text on the button specifies each sound event which is currently being applied; that is, the type of sound and the command defined.

For example, in the page row shown above, the Sound button indicates that when the script reaches page 2, a sound sample is scheduled to play.

When you click on a Sound button containing text, the Sound panel and the panel for that particular type of sound event will appear.

14.3.12 Supported Sound File Types

The only sound files which work directly with Designer are MP3, WMA and WAV.

14.4 The Sound panel

The **Sound** panel will appear when you click on a button in the Sound column corresponding to an element in the List panel, or a page in the Main view.



In the Sound panel, there are a few options from which to choose.

- The Command: selector in the upper left corner of each panel,

determines which options will be seen. Clicking on the Command: selector will show you the list of possible commands associated with that particular type of sound. When you choose a command, the selector will reveal the name of the command. Additionally, the set of applicable controls for that command, if any, will appear in the panel.

- The File: selector brings up a File dialog when clicked, allowing you to select the file you wish to use – or change to another file/file type. The selectable file types are MP3, WAV and WMA files.
- The Wait? button will instruct the selected sound file to wait for the page or event to complete, before proceeding.
- The Loops selector will allow you to select how many times you want your sound to repeat from 1 to infinity.
- The Fade In Time selector will allow you to fade in the selected sound over a period of time, using the numerical Speed settings.
- The Volume slider adjusts the sound file's playback volume.
- The Pan slider allows you to adjust the left to right panning of the sound file playback.

14.4.1 Sample Play command

This command enables you to select a sample file and access the command panel for sampled sounds. The default command, Play is selected and the following options are listed on the panel.

Loops defines the number of times the sample is played before the next

page in the script is displayed, or the sample is stopped. You can specify a number between one (1) and ninety-nine (99) or an “infinite repeat” setting .

The infinite repeat setting is useful when you don’t know when the event should stop. For example, you may want music to continue playing in the background when your script is playing.

Use the Loops value control to define the number of plays you want. If the setting is infinity, the sample doesn’t stop until the next time a sound sample Stop command is encountered in the script or it is otherwise interrupted. The default setting is 1. Volume controls the loudness of the sound. Adjust the volume by dragging the slider to the position you want on the volume control. The sound gets progressively louder as the slider moves from left to right.

The intensity and quality of the sound which is heard at the minimum and maximum settings, is determined by the sound card. Normally, there is not audible sound at the lowest setting; however, from some cards you may hear low-level noise when the sound is amplified by your audio system or computer speakers.

To ensure the highest sound quality from the card, it is common to first set the volume in the Play panel to the maximum level and adjust the volume of the external amplifier as necessary to produce the loudest sound required. Then go back to the Play panels of the individual sounds and set the Volume sliders to the desired levels.

The volume setting is at the maximum level by default.

Fade In Time allows you to gradually increase the volume of the sound from zero to the level set on the Volume control.

The setting ranges from zero (0) to ninety-nine (99) seconds. When the setting is zero, the sound sample starts to immediately play at the loudness level defined by the Volume control.

Use the Fade In Time value control to make the adjustment. The default time is zero and there is no fade-in period.

If you have a stereophonic (stereo) sound card and amplification system, the Pan control changes the balance of the sound going to the left and right channels, moving the position the sound appears to be coming from. When the slider is in the center position, the same amount of sound is produced by each speaker. If the speakers are positioned equally to the left and right of the listening audience, the sound is heard as though it is coming from a position in the middle.

Dragging the Pan slider to the left or right of the center will increase the amount of sound coming from one speaker, as it decreases the amount coming from the other. For example, when the slider is at the far left of the control, no sound will emanate from the right speaker.

Changing the Pan setting of the sound can be very effective when the sound is coordinated with the position of an element on the screen.

Unless you specifically change the setting, Designer assumes the sound should be balanced and the Pan slider is in the center position. If you have a monophonic (mono) card or system, adjusting the Pan control will not have an effect.

Wait? instructs Designer to wait until the sound event is finished before proceeding to the next event in the script. When Wait? is on, nothing new will happen in the script until the sound event is complete.

Duration overrides any wait setting. For example, if the sound sample you

are using is 15 seconds long, and a duration setting applied to the element or page is 10 seconds, the sample will be stopped before the script continues to the next page.

If Wait? is off, after the sound starts, other script events will occur according to schedule. The sound can continue in the background as the script progresses, until it stops naturally, stops because it has completed the number of repetitions you defined in the Loops setting, or stops because you define a sample Stop command later in the script.

NOTE: When Loops is infinite, the Wait option works like this: if Wait? is on, the sound continues until the page advances from interactive input. If Wait? is off the page advances when all remaining elements on the page have completed.

14.4.2 Sample Wait command

Like the Wait? button, the sample Wait command causes script execution to stop and wait for the completion of a sound sample event. The difference is the Wait? button is an additional option for the current sound sample event (which may be to play a sample, or fade it out, etc.). The sample Wait command stands on its own, and will cause the script to wait for a preceding sound sample to finish playing. It will ensure the current element or page continues to be displayed until any sound samples are done.

In other words, you use the Wait? button only when you want the script to pause and wait for the sound event. Use the Wait command when on an earlier sound event you needed the script to continue— you left its Wait? button off—and now at a later point you need the script to wait for the sound event to finish. For example, you may need to ensure narration which accompanies the on-screen activity for several pages has completed before the script proceeds to the next explanation, or series of events.

The Wait command does not have parameters, therefore, its command panel is blank.

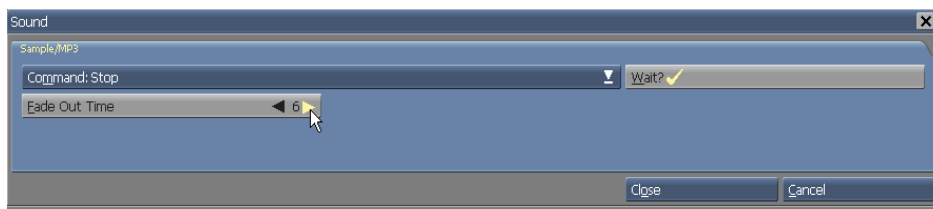
14.4.3 Coordinating several sound events

Designer will allow you to play as many sound files at a time as you want. If there are several continuing sound samples in the script, the sample Wait command will wait for every sample to complete, before continuing the script.

When you need to ensure that several events continuing over several pages must be finished before the script continues, a useful option is to group pages in the Main view. When you apply the Play sound event to the group, you must also ensure the Wait? button in the command panel is on.

14.4.4 Sample Stop command

This sound event stops all sound samples currently playing. The Sample panel for the command looks like this:

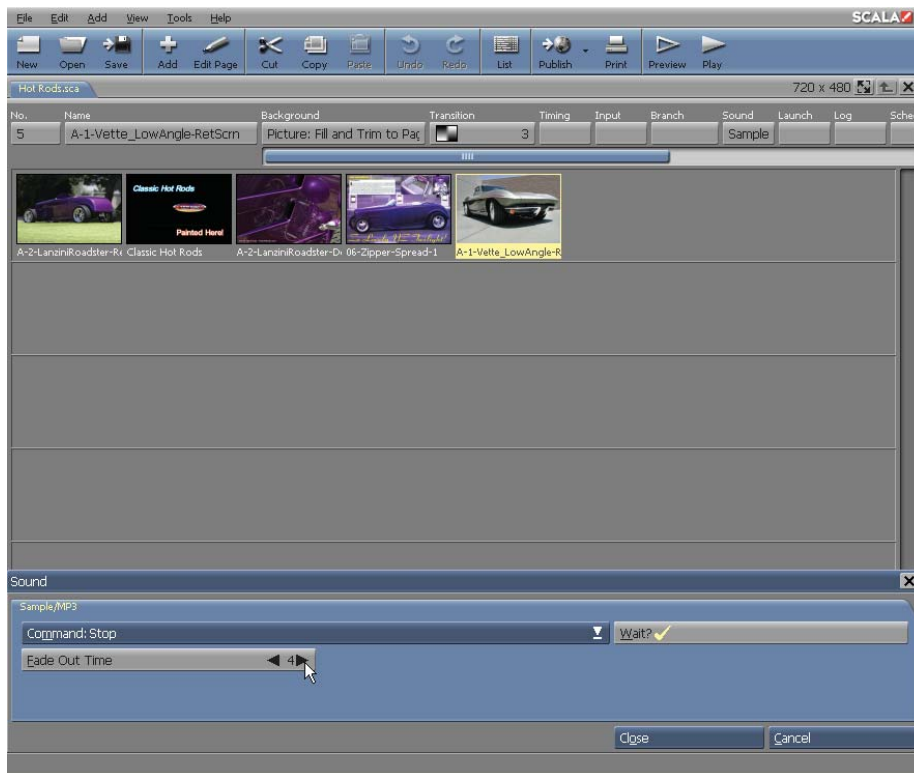


The function of the Fade Out Time control and The function of the Fade Out Time control and the time range available is the same as the Fade In Time control in the Play command panel. In this case, however, the time specifies the number of seconds which Designer should use to reduce (rather than increase) the volume of all the samples currently in effect.

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The volume levels of the sound samples may vary when a sample Stop event begins, but they are all reduced to zero during the time allowed. For example, when the Fade Out Time is 3, all sound samples will diminish in loudness until, after the three second period defined, all sounds will be off.

The default fade-out time is 0— sampled sound will immediately stop.



Wait? is available only when a non-zero fade-out time is specified.

The Wait? setting does not have priority over duration. For example, if the Fade Out Time is 10 seconds and the duration applied to the element or page is 5 seconds, only 5-seconds of the fade completes before the script continues.

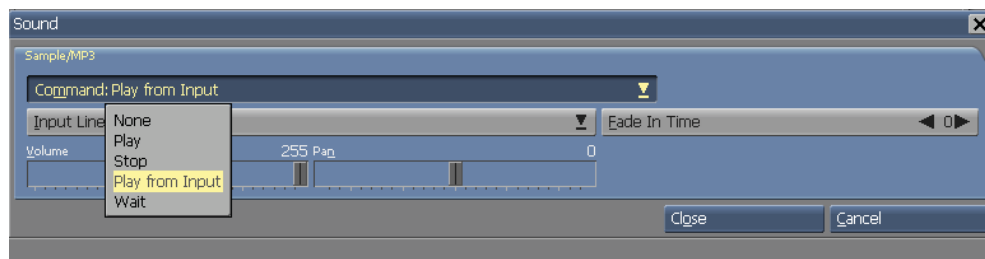
14.4.5 Staying aware of your sound events

As you work in the Sound panel, the text on the button in the Sound column is constantly updated to reflect the sound event you are currently defining, along with any others which have already been applied to the element or page.

It is not possible, however, to look at the Sound button to determine if any sounds are playing at that point in the script. Even if the Sound button for one page or element is blank, a sound event which was started earlier with the Wait? button off, may still be playing. This means you must be aware of the sounds you are using in the script and their playing lengths. In most cases, it will be obvious when the effect of a sound is not what you intended.

14.4.6 Play from Input Command

The Play from Input Command lets you specify which type of audio capture input to listen to.



When you select Play from Input from the Command list, you see a list of commonly supported audio capture line types:

- Line in
- Auxiliary

- Microphone
- CD

This list is not intended to represent the actual audio capture lines available on this computer's audio card, and not all audio cards will support all of these types.

14.4.7 Adding sound to several pages or events in a row

When you have defined the sound events you want to apply to one element or page, you may click on another Sound button in the List panel or Main view and continue working in the Sound panel. As with the Wipe and Timing panels, this will confirm the settings you have just defined, without requiring you to close the Sound panel each time. Clicking on Cancel in the Sound panel will reset or cancel only the last sound event you worked with.

When you have defined the sound events you want, click on Close to close the Sound panel. Click on Preview in the Page or Main views to test the effect of the sound events you have defined in the total scheme of the page or script. You can open the Sound panel and work in it at any time to refine your settings as necessary.

14.5 Advanced Features

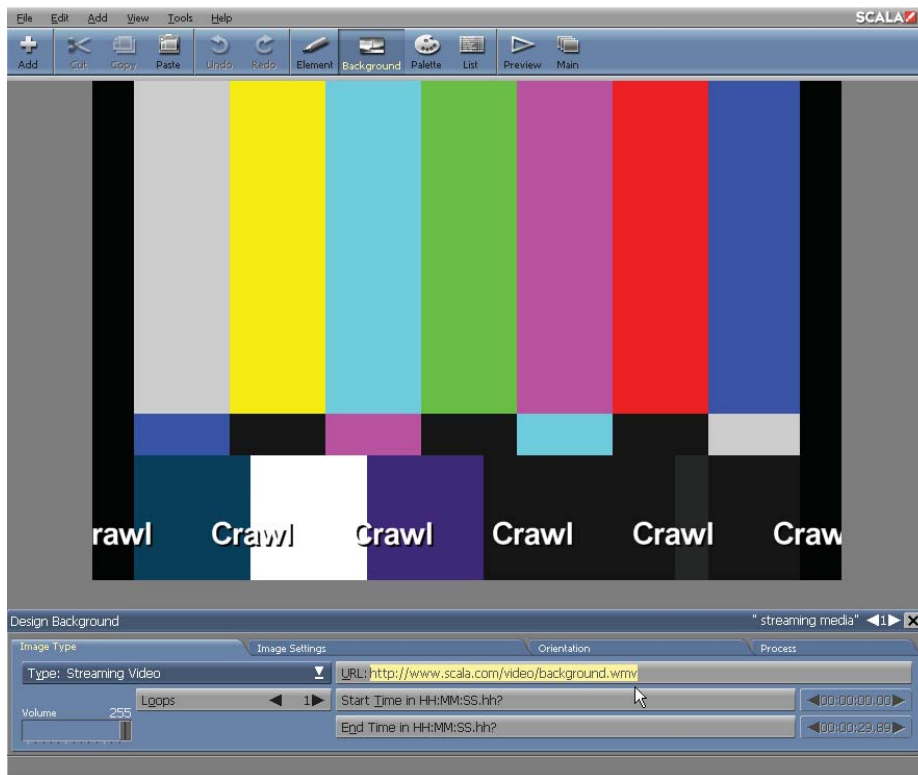
14.5.1 Streaming Video

A video file which is streamed on the Internet can also be used in your script, as long as the player has access to an uninterrupted Internet connection on the network.

You can use a streaming windows media file as a background for a page,

similar to the above method - but instead of selecting a file from the File dialog, you will type in the URL of the movie file location and click the **Open** Button. This will place the file on the background of your page.

To add a streaming windows media file to a page as an element, select the Streaming Video Clip option from the Add pull-down menu and type in the URL of the movie clip location.



To add a streaming windows media file to a page as an element.

You will see a dialog box. To specify the video source, type the URL to a Windows Media stream:

- The `http://`URL to a Windows Media redirector file (which is

typically a .wmv or .asx file)

- The mms://URL to a Windows Media video stream (which is typically a .wmv or .asf file)
- The http://URL to a Windows Media video stream (which is typically a .wmv or .asf file)

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|||| 15 Branching, Variables & Scheduling

Chapter Overview

Many of the scripts we have used as examples have been relatively simple. They proceed from the first page to the last, playing every page and event in the order in which they appear in the script.

However, there are also situations in Designer 5 which call for a script to execute in a non-linear fashion—that is, for pages and events to run in an order other than which they appear in the Main and Page views.

This chapter will cover the Branch panel, and various usage of sub-scripts.

15.1 Glossary of Terms in this Chapter

Branch – Allows you to create variables and set their values, create expressions, use system functions and redirect script flow to create loops and other non-linear execution flows.

Variable – A named “container” for a quantity which can change within a script in response to user input or a condition in the script’s execution; in addition to simple numbers and strings, a variable may also contain expressions.

Expression – An expression is a statement which uses variables with arithmetic operations, such as addition and multiplication, as well as logical tests and comparisons.

15.2 The Branch Panel

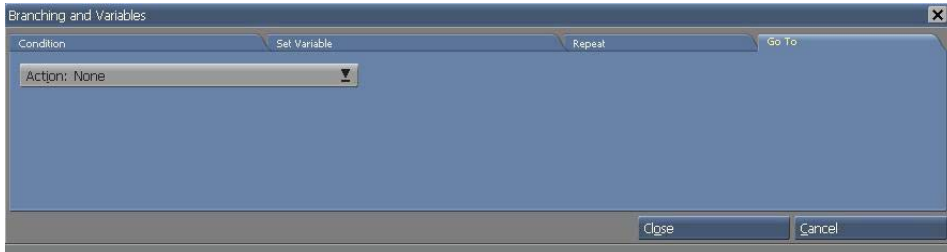
The Branch panel is primarily used when you want to branch from a script's usual top-to-bottom (first-to-last) flow, or create new variables and change their values.

A script's flow is basically the sequence it follows when executing the corresponding pages and events. The Branch panel is available on the Main view and the Page view, allowing you too easily branch within pages, and from page to page. However, you cannot branch directly from a page to an element. Branching is necessary to ensure certain events happen (or do not happen) within specific situations.

A branch can jump to a different location in the script, control whether a page or event will appear, or repeat a group of pages within preset parameters. Since branching often depends on the value of variables, the Branch Panel will also allow you to set and change their individual values. You can even combine options, like changing a value only if a condition is true.

15.2.1 Exploring the Branch Panel

To open the Branch panel, click the button in the Branch column for an existing page, element, group, sub-script or special event. The Branch panel has four Tabs from which to choose, including: Condition, Set Variable, Repeat and Go To. All branch events require additional information which define when and where the script should branch. The Condition and Repeat Branch panels are very similar, based on the Set Variable panel, and list system variables, functions and operators you can use in determining how to branch.



The Go To panel has no controls other than the Action: selector, except when the Go to Event or Show WWW page is chosen.

Click one of the tabs to display the panel for one of the three types of branch events:

- Condition
- Repeat
- Go To

15.2.2 Condition branches

This branch decides whether to execute an event depending on certain conditions. Said conditions are specified in the Show If Expression: text box. When the event for which you specify this type of branch is a group, you can conditionally execute or skip an entire series of events.

The condition is usually an expression involving one or more variables. For example, the condition might be the expression “number > 95”. An event having this condition would execute if the value in the variable SCORE was greater than 95.

15.2.3 Repeat branches

The Repeat While and Repeat Until branches effectively repeat a group of pages. Additionally, they have slightly different methods of checking when

a loop is finished. Both branches may also be used to repeat an event, or group of events. Similar to the Show If branch, Repeats require a condition such as attempts = 4 in the text box. When the condition is true, the event with the Repeat While branch will be executed. When the condition becomes false, the script will continue to the next event.

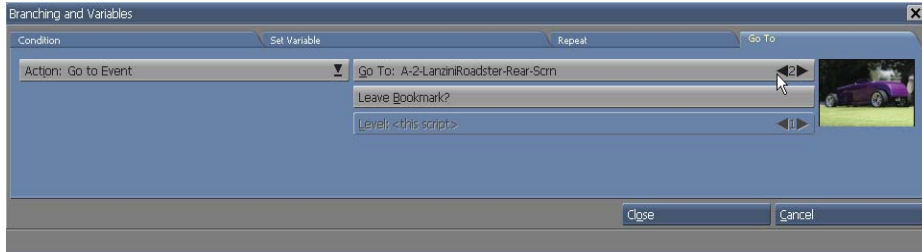
15.2.4 Go To branches

As the name implies, a Go To branch tells the script to go to another point. It does not require a condition; it will always branch when it is reached by script execution. A Go To can be made conditional, by combining it with a Show If branch. In the Level: selector, specify the level of the script which contains the destination location, (the path to its group, if any). Then, using the Go To: selector locate the name of a page or event to provide a target for a Go To event. The Leave Bookmark? option makes it possible to return from a Go To branch. The bookmark is set immediately after the Go To. Once the script has finished in the target location, it will return and resume running from that point.

15.2.5 A simple Go To Branch

Using a Go To does not require variables or conditions. Following is a simple example: In the Branch column, click the button for the event after which you want the Go To to happen. The Branch panel with the Go To panel will appear.

1. From the Action: selector, choose Go to Event.
2. Click the arrows on the Go To selector to choose the name of the destination page or element. The selector will step through the potential destinations. In the display box, a miniature image of the destination page will appear.



3. Click OK to accept the modified event and close the panel.

The script will navigate to the new location after it completes the event where the GoTo was placed, skipping any interim events.



15.3 Using Variables and Expressions

The Designer Branch panel is used to create and modify variables and expressions. These expressions are used as the basis to branch to another part of the script.

15.3.1 Variables

A variable is a “container” for a quantity which can change within a script. Because you can name variables, you can refer to what they hold by their names, regardless of the actual value. For example, you can create a variable which keeps track of how many times a page has been played with a name, such as “iterations”. You can also increase it for each time the page has played, and display its current value on a page at any time by referring to its name.

There are four variable types in Designer: text, logical, integer, and real. Designer also contains various system variables. New EX Modules can make additional system variables available. Please refer to appendix A for a list of available system variables.

15.3.2 Expressions

An expression is a statement which uses variables with arithmetic operations such as addition and multiplication, logical tests and comparisons such as \geq (greater than or equal to) and OR, and functions such as LEFT() which can manipulate variables. Designer will evaluate an expression as a numerical value, a text value, or a logical value (TRUE/FALSE, ON/OFF) depending upon the type of expression.

NOTE: To make the text easier to follow, variable names will be shown in small caps and functions and logical operators in ALL CAPS. However, you do not need to use capitalization when you use variables, functions or operators. You may also use mixed-case or lower-case.

Some examples of expressions which assign values to variables are:

- SEVEN=4+3

- `ITERATIONS=ITERATIONS+1`
- `TOTALCOST=(UNITS*UNITCOST)+SHIPPING`
- `CITY="Philadelphia"`
- `NAMELETTERS=LENGTH(NAME)`
- `CONFIRM=TRUE`

Some examples of logical expressions are:

- `ITERATIONS < 10`
- `ITERATIONS >= 10 AND BONUS=TRUE`
- `(NUMBER > 7) OR (ANSWER <> "iguana")`

The result of the expression evaluation can either be placed in a variable, or its logical value (true or false) can be used as the basis for a decision by one of the branching instructions.

15.3.3 Operators

Operators are the symbols and keywords which are used with variables to construct expressions (see the preceding examples). Familiar operators include the arithmetic operators + (plus), - (minus), * (multiply), and / (divide). Other operators, such as ** (exponential), <= (less than or equal to), and NOT, perform logical, relational, or advanced arithmetic functions. Please refer to appendix A for a list of operators available in Designer, along with some additional examples.

15.3.4 Functions

A function is an automatic procedure. It can take text or numeric input

(constant values, variables, or expressions) and as a result, will return a value. You can use a function in an expression, as in the nameletters example above: LENGTH(str) takes a string as input, and returns a number which is the text length in characters. A function such as ABS() will take a number as input and will return a number. A function can also be used as a complete expression.

Function syntax, for the most part, is fairly simple. A function always has one or more parameters after the function name, enclosed in parenthesis. If there is more than one parameter, they will be separated by commas. An example of a multiple-parameter function statement is:

```
RANDOM(1,LENGTH (name))
```

This exhibits how one of the parameters of a function can be a function, in this case, one which provides a variable as its parameter. Please refer to appendix A for a list of functions which are available in Designer, as well as some additional examples.

15.4 Creating Variables and Expressions

When a variable is set to an initial value in the Set Variable: text box, a dialog will appear which will allow you to create a new variable by the same name. Simply choose the proper type: Text, Logical, Integer or Real. The first set of bulleted points under the previous heading, “Expressions”, will show examples of what you could enter in the Set Variable: text box to establish or change a variable value.

- The variable creation dialog also offers the choice to make variables “external”, or common to any scripts where the current script is a sub-script. This will allow the scripts and sub-scripts to communicate through the shared values of the external variables.

- In order to facilitate entering expressions, the Branch panel reveals scrolling lists of the currently available system variables, functions, and expression operators. Variables which you can create in your script, are also shown at the top of this list. Simply click the items in the lists to add them to the expression in the text box.
- Variable names can be up to 32 characters long, and can contain letters, numbers, and dots (.), and must begin with a letter or underscore (_). Names must be unique within a script.
- A string is indicated by enclosing text between double quote marks (""") as in the fourth of the preceding bulleted examples. Text variables in Designer can accept strings of any length, which may also contain any ASCII character.
- Numeric variables can be either Integer (whole numbers, like 8949, 0, and -23) or Real (decimal numbers, like 3.14159, 0.00007, and 1088.6). It is possible to format integers for display as fixed-point figures such as monetary values.
- Logical variables and expressions can have one of two values, either TRUE or FALSE, which can also be given as the equivalent ON and OFF.
- Although Designer is designed to ignore spaces, when creating or referring to variables, expressions, and functions, you can use any number of spaces between names and operators to help make

them more readable.

- Designer ignores capitalization in variable, function, and operator names; you can use any combination of uppercase and lowercase. For example, Count, count, and COUNT would all refer to the same variable. Capitalization is not significant within strings: the string “Japan” is considered the same as “japan”.
- Parenthesis are used to indicate the order in which operations should be performed. As in ordinary arithmetic, portions of an expression within parenthesis are evaluated before portions outside the parenthesis, and the innermost portions are evaluated first. The number of left and right parenthesis in an expression must match.

15.4.1 To Create a Variable:

1. Click on a button in the Branch column for an existing event. (Or choose Add Special Event from the Add drop-down, and then click the event’s Branch button.) The Branch panel will appear.
2. If the Set Variable panel does not appear, click its tab.
3. In the Set Variable: text box, type a name for the variable. It should be brief but descriptive, so you will recognize its function when you see it in different parts of the script.
4. After the name, enter an equals sign (=) and an initial value for the variable. This can be an explicit value, or a variable, expression, or function, whose ultimate value is used.

- For an integer variable, the value can be any whole number between -2,147,483,648 and 2,147,483,647, or any expression which evaluates to a number within that range.
 - For a real variable, the value can be any number between approximately -3.402^{38} and 3.402^{38} , or any expression which evaluates to a number within that range.
 - For a text variable, the value can be text of any length. Any “literal” text must be enclosed in double quotes: “Oscar”. Designer will preserve any capitalization, or spaces.
 - For a logical variable, the value can be ON or OFF. You also can use TRUE or FALSE, which are synonyms for ON and OFF respectively.
 - If you do not know what the initial value will be, you can enter a 0 for a numeric variable, two double quote marks for a text variable or FALSE for a logical variable.
5. Press Enter.
 6. A dialog appears asking if you want to create this variable, and asking for a variable type. Choose Text, Logical, Integer, or Real.
 7. You can also choose to make the variable an external variable. If the script in which you are working is a sub-script, and you want the variable’s value to be available to the script(s) above it in the script structure, turn on the External? option. If the current script

is not a sub-script, making its variables external will not have an effect.

8. Click Close to close the panel.

Once a variable has been created, it can be referred to anywhere in the script without bringing up the corresponding prompting dialog. However, if you refer to a variable before the script has executed an event which explicitly assigns it a value, the variable will defer to a default value. For numeric variables, the default value is 0, for text variables, it is an empty string (""), and for logical variables, it is OFF (FALSE).

Once you have created a variable, it will remain the same type as when it was created (numeric, text, or logical). If you attempt to assign a different type of value, an error dialog will appear.

15.4.2 Using variables

Some of the most common situations in which you use variables include:

- When you need to make a calculation or decision based on an input which can change.
- When using a Repeat function on the Branch panel, to count the number of repetitions in a loop.
- When you need to display information which has previously been entered, or was generated within a script.

Defining constant values

At times it is effective to define a variable for a value which is “constant”—not meant to change within the script. You can use the variable

name wherever you need the constant in your script. If at some future time the constant value must be changed, you won't have to globally change it in your script. The constant value only needs to change in the location where you assigned it its constant value.

Displaying variable values

To display a variable value in a script, type the variable name preceded by an exclamation point (!) in any screen text, string, or text variable. When the script runs, Designer will automatically substitute the variable value for this variable reference.

Displaying variable values not only works for your created variables, but also for system variables, such as time. It also works for expressions. For example, `!(3+2)` would display as "5". When you embed a variable or expression in text, the displayed value will take on the same font and styles as the variable reference. Make sure your page layout allows for the longest possible value of the variable, otherwise the text could run off the screen, or the line could wrap to another line. When you embed functions or expressions, always put them in parenthesis, as in the example above.

NOTE: For variable display to work there must not be any space between the exclamation point (!) and the variable name; and there must not be a style difference. When displaying the value of expressions, the entire expression must be enclosed in parenthesis.

Auto-updating

One special feature of the variables in Designer is auto-update: even after you have displayed a variable on the screen, if the value of the variable changes, the display will automatically update to reflect the new value. This is easy to see with variables such as TIME. Try running a script with the text line, "The time is: !TIME."—you have created a simple on-screen clock! How

long a variable will continue to update is directly affected by the Update option on the Misc panel of the Element Design panels.

Formatting numbers to display decimal values

Although Designer can use decimal (floating point) numbers, you may want to use it to calculate and display fixed-point values, as in decimal monetary systems. You do this by starting with values which are 100 times their actual values, and then using Designer's `FORMAT(fmt, num)` function, or embedded formatting codes, to display final values with two decimal places to compensate. For example, in a dollar-based system, this means you would convert all dollar amounts to cents. Therefore, if you wanted to add \$24.95 and \$17.02, you would actually add 2,495 and 1,702, which equals 4,197. The `FORMAT()` function will allow this to be displayed with two decimal places: 41.97. The formatting characters used by the `FORMAT()` function may also be used in embedded variables: "The cost was `!(4197, '####')`."

15.5 Controlling Script Flow with Branches

This section explains how and when to use the branching events in a script.

Some important facts to keep in mind:

- The events with branches can be groups, therefore, the branches can apply to more than one page. Grouping pages so you can adjust the flow of more than one page at a time is in fact one of the main uses of the Group option. Collecting related pages into a series makes it simpler to use branches to repeat - or avoid executing - the related pages.

When using both Go To branches and grouping in the same script, you must plan carefully. You cannot branch into a group, only to a

group as a whole. Because of this, grouping pages that are the destination of Go To branches from outside the group is not possible without modifying those branches. If you attempt to group a Go To destination event without including the Go To itself in the group, a dialog explaining that this cannot be done will appear.

- More than one branch can be combined on a single event; for example, you can use Show If with Go To or one of the Repeat branches.

15.5.1 Using Show If

Show If Expression literally translates into words and action: “If this condition is true, then show this event.” If the condition is not true, the event will be skipped, and the script will continue with the following event.

The condition can be any logical expression which is legal in Designer. Because expressions in Designer can use logical operators, you can also use the condition to make more complex comparisons. Show If may also be combined with Go To and the Repeat branches, to make those operations conditional.

15.5.2 Using Repeat While and Repeat Until

The Repeat options provide an important “labor-saving” capability. You use Repeat While and Repeat Until when an action must be repeated several times. You can use these events to repeat a single event several times, or repeat a series of events. This is easily visualized: script execution runs through the series of events, then at the end of the series, jumps or “loops” back to the top of the series to repeat the loop.

Which loop?

The difference between the two types of loops is the point in the loop where they evaluate whether the “while” or “until” condition is true. Repeat While evaluates the condition before executing the contents of the loop; Repeat Until evaluates the condition after each time through the loop. Repeat Until will always execute the events in the loop at least once. Repeat While, however, will look at the condition before starting the loop. If the condition isn’t true when the script first reaches the loop, the loop will be skipped.

Another way to think of the difference is that Repeat While loops will continue while the condition is TRUE, but Repeat Until loops will continue while the condition is FALSE (until it becomes TRUE).

You can use either type of repeat, by varying how and when you initialize the condition expression. Either type of repeat may require a special event to set the condition expression. This expression, which is evaluated to determine whether the loop should repeat, could have its initial value set within the loop, or before the loop.

Generally, if the value of the variable used in the condition is set somewhere earlier in the script, it is easier to use Repeat Until. If the loop is self-contained—that is, its condition variable is created and set within the loop—Repeat While may be easier to use. The two types are mutually exclusive; a loop cannot be both a While and an Until loop.

Following are some examples to illustrate when and how you would use loops.

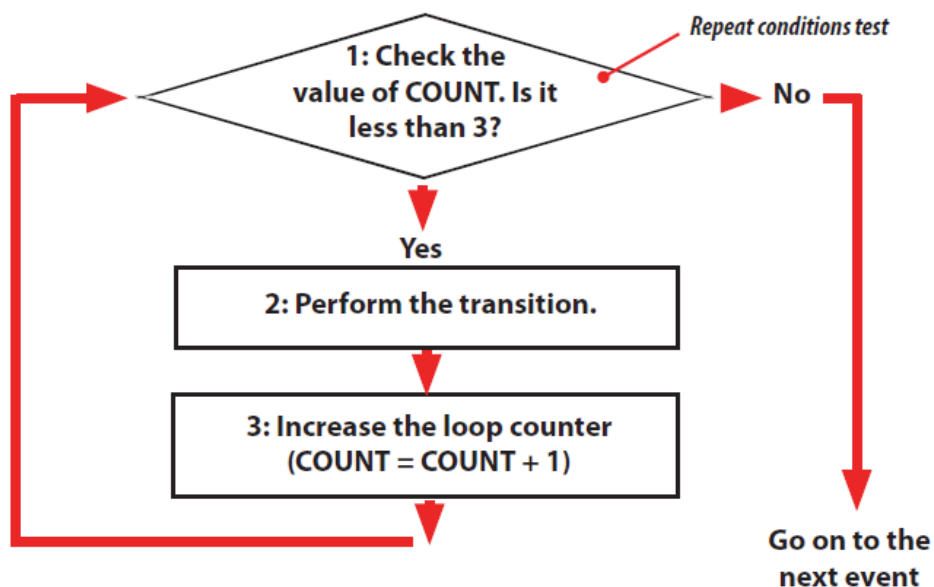
Defining a loop

In the Branch panel click the Repeat tab and then use the selector to choose Repeat While or Repeat Until for the event. To define a loop,

group the page or series of pages which you want to repeat, then apply the Repeat branch to the group.

Example 1: A simple loop

This is the smallest and simplest loop. This example performs a page transition three times using Repeat While and a counter variable which keeps track of how many times the loop has been repeated. Here is a flow chart showing what it does:



Step 1 is where Repeat While does its work: it decides whether to continue to the page event—the transition—based on the value of the count variable. Once count equals 4, the script exits the loop and goes on to the next page.

To Create this Loop:

1. Create three pages with different backgrounds. On the first, put the text, “Going to loop...”, on the second, “Looping”, on the third, “Done. I Looped !count.”. (Be sure the exclamation point does not have a space after it.). Give the “looping” page a pause of 1 second.
2. Click the Branch button for the first page to open the Branch panel.
3. In the Set Variable panel’s text box, enter `count =0`.

The Variable Definition dialog will appear. Choose the Integer variable type and click OK to create and set the count variable.

4. Click the Branch button for the second page, and enter `count=count+1` in the Set Variable: text box.
5. Click the second page’s Transition button. In the Page Transition panel, give the page the ScrollDivide transition, and click Close.
6. In the Main view, click Edit and choose Group to group the second page.
7. Click the Branch button for the resulting group.
8. Click Repeat, and make sure the selector reads Repeat While.
9. In the Expression: text box, enter `count <4`. Click OK to exit the panel.

In the Main view, the Branch button for the first page will read “Set”, and for the group it will read “Repeat”, reflecting your settings. Run the

script. After you click on the first page, you should see the “Looping” page transition onto the screen four times, followed by the “Done!” page.

When Designer runs this script, it will notice there is a Branch event. Since it is a Repeat While instead of a Repeat Until, Designer will look at the variable count first. The first time it is tested, count has not reached 4, therefore, Designer will move to the page event—the page transition. Then the loop counter (count) is increased, and Designer goes back to the top of the loop. For a While loop, the condition test is at the top. After the fourth time however, the count equals four, therefore, Designer will display the third page. In this case, setting count equal to 0 is not necessary, because Designer sets numeric variables to zero when it starts a script. However, it is good to get into the habit of giving your loop counters a starting value, because a script will not always restart before its loops are run again; additionally, you may need to start a loop with a value other than zero.

An infinite loop is one which will run “forever”. Eliminate steps 2 through 4 above, and for the loop condition, enter TRUE. Since the condition is true by definition, the loop will always pass the condition test, and never exit. If necessary, an infinite loop like this can be jumped out of with a Go To.

Example 2: A multiple-event While loop

To create a While loop with additional events is basically the same as in Example 1. Simply group the events in the loop, and apply branching events to the group.

To create a loop containing several pages:

1. Create the pages you wish to loop. In the Main view, arrange them in whichever order you wish them to appear.

2. Select the pages you want in the loop (use Shift-click or Ctrl-click).
3. From the Edit drop-down in the Main view, choose Group. A new group page in the Main view will appear. (You may want to change its name to indicate it is a loop.)
4. Enter the Branch panel and as described in steps 2–4 of Example 1, set up the Repeat While and counter variable as necessary to repeat the loop the proper number of times.

You may also rename the counter variable, choose any number of repetitions, and otherwise customize the loop to your individual specifications.

For this loop it is just as easy to use either type of Repeat, by reversing the comparison. To accomplish the same thing using Repeat Until, you set up the loop the same way, except choose Repeat Until, and for its condition, enter count ≥ 4 .

Example 3: A multiple-event Until loop, indefinite length

A loop does not need to have a predefined number of repetitions. You can have a loop which repeats until some expression becomes true.

You would set up this loop as the preceding examples, except you do not have to set up a counter variable. (You may set up a counter for a reason other than controlling the number of repeats. Your condition expression would be something such as name="Apollo".

Example 4: A loop with more complex variable usage

Once you understand how to make simple loops with counter variables, you

can start using more complex expressions. You could make the loop condition dependent on two or more variables, and use operators such as AND, OR, and NOT to make more comprehensive decisions. You can also create special events as necessary, to set variables at predetermined places in a loop.

Example 5: Conditional loops

You can specify both Repeat While/Repeat Until and Show If for a group, to create a conditional loop. The Show If is evaluated first, and the loop will be skipped if the condition is not true. To do this, simply set up the loop, then, after specifying the loop condition in the Branch panel, click the Condition button and enter the expression which must be true for the loop to be executed.

Example 6: Jumping out of a loop

In the loop condition, it may not be possible to cover every possible situation under which you might want to exit a loop. In such cases, a conditional Go To can jump out of a loop based on another factor, even though the Repeat expression is still true.

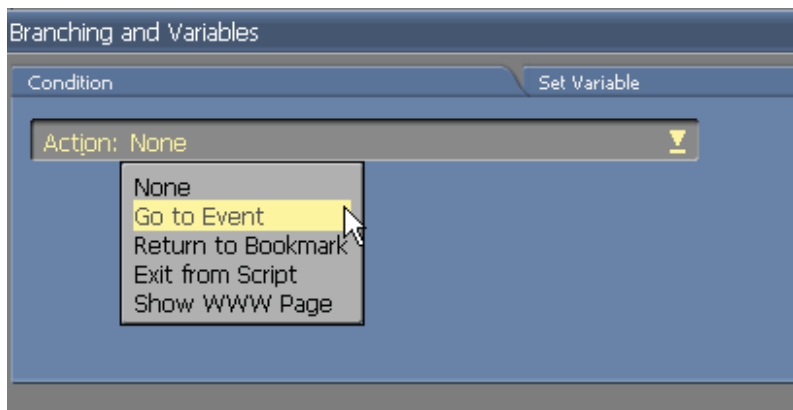
15.6 Using Go To Actions

Go To actions are the most powerful of the branching instructions, because they can remove all linear, sequential limitations to the order in which events are executed. This will allow much more flexibility in your script. Designer also has the powerful capability to set a bookmark when you use a Go To action, allowing you to return at a later time, and continue running the script from the point after the action. Go To branches should be used sparingly. Overuse of such actions, especially Go to event, can make a script difficult to understand and edit. Before you use a Go To branch, see if there might be another way to accomplish your objective by rearranging

events to make the branch unnecessary.

To use a Go To Branch:

1. Click on the button in the *Branch* column for the event after which you want the *Go To* to happen. The Branch panel will appear.
2. The *Go To* tab will appear. Click the *Action:* selector to see the possible types of Go To.



Choose a Go To action.

If you choose Go to Event, the Go To: and Level: selectors, and the Leave Bookmark? Button will appear. The default Go To setting will continue with the next event after the Go To without branching.

The Level: selector allows you to specify where the script structure the branch target is. Its settings vary depending on whether the current event is within a group, and whether you entered the Branch panel from the Main view or the Page view.

You can branch to any place earlier or later in the current script. However, you cannot branch into a separate script, or to a group which is below the current level in the script structure.

From the Main view, if the branch event is not within a group, the level selector will be disabled and reads <this script>. Within a group, the options will include the current group, any group(s) above it in the structure, and the top level of the script (<this script>).

From the Page view, the level selector will work the same, except it is never disabled and the choice <this page> is also present.

3. Choose a level using this selector if necessary.
4. In the Go To: selector, choose the destination page or element. The selector will step through every possible destination on the script level. In the display box on the right, a thumbnail of the destination page or the name of the destination element/event will appear.
5. If you do not need to return to the point immediately after this Go To, after executing events at the destination location, turn off the Leave Bookmark? option.
6. Click Close to close the panel.

There are several situations in which you would typically need to use a Go To:

- (with Leave Bookmark?) to execute a different section of the script and then return to the original location—often this usage is from a button

- to exit a loop
- to branch around one or more events which you do not want to execute
- (with Show If) to branch to another location if a certain condition is true
- (using Action: Exit from Script) to exit from a sub-script at someplace other than the end of the script

15.6.1 Exiting a loop

Using Go To as an additional way to exit a loop was discussed in the preceding section.

15.6.2 Branching around events

Before using Go To to branch around some events, consider whether you could structure the script so it is unnecessary. If the Go To is unconditional, it is likely there is a location for the events, (which you want to branch around) which would eliminate the need for the Go To.

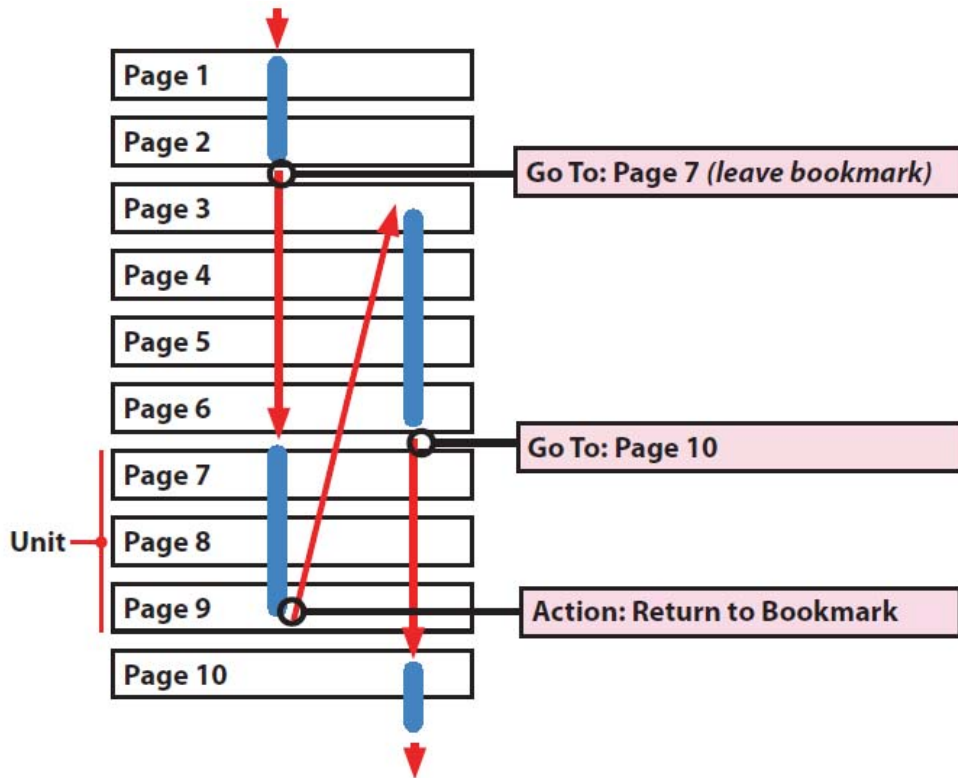
15.6.3 Using Go To with a bookmark

The real power of Go To comes when you also use the bookmark feature allowing you to return from a Go To. If you place an Action: Return to Bookmark at the end of a section of events, execution will return to the place where you last left a bookmark.

This, in effect, will allow you to define sections of a script as independent units which you can navigate to and return from at any point in the script.

This is particularly valuable if you have a sequence of events which may need to run several times in the course of a script, but from different places, (rather than several times in a row like a loop).

Following is an example of the Go To-with-bookmark structure:



In the above script, the pages would run in the order: 1, 2, 7, 8, 9, 3, 4, 5, 6, 10....

A more important reason for skipping over a script unit this way is to keep a Return to Bookmark from being executed again. Executing a Return to Bookmark, (when that was not your intent) will disrupt the proper order of events. If Designer encounters a Return to Bookmark for which it cannot find a bookmark, it will continue without branching, and subsequently display a message dialog when you exit the script. Using Go To with

bookmarks and Return to Bookmark requires very clear planning in which events and script units will be executed. Typically, if you use more than one unit in a script, you should place them all at the end of the script, and execute them only through Go To branches with bookmarks. The event just before the first of these units can be the Go To which keeps script execution from “falling through” to execute the unit. Another option is to use sub-scripts.

15.6.4 Using a conditional Go To

A conditional Go To, created by defining a special event which contains both a Show If and a Go To, is often useful. When the script reaches this event, it will evaluate the Show If condition, and if it is true, it will move execution to the point specified by the Go To. However, if your intent is to conditionally branch around some events you do not want to execute, a better solution would be to group those events, and apply the Show If to the group.

15.7 Using Sub-Scripts

The ability to use sub-scripts—scripts which are run from within other scripts—adds flexibility to Designer. Although there is nothing you can do in Designer which requires a sub-script, there are various situations in which subdividing a script can be worthwhile.

Breaking a large script into sub-scripts is similar to breaking any large task or object into smaller sections. Working with smaller pieces makes each piece more manageable, and will allow you to work on one area of the script without affecting others.

In particular:

- Parts of the script are loaded only when needed, reducing initial

start-up time.

- Testing and development time is reduced because the complete script does not have to be edited and run each time it is tested.
- It is easier and safer to distribute work on a large script project among different people as separate pieces.
- Sub-scripts reduce the need for Go To/Return to Bookmark structures in the main script, which can be difficult to track as projects grow larger.

15.7.1 Variables in sub-scripts

By default, variables which are created in Designer are “local”—specific to the scripts within which they are used. For example, the value of a count variable in a parent script is normally independent of a count variable in any sub-script it may contain. This makes it possible to use standard variable names such as count or loops for indexing and other utility purposes in various scripts, without worrying about their values interfering with one another. However, it is often quite useful to communicate variable values between scripts and sub-scripts. This defines the purpose of the External? option which is available when you create a variable. The value of an external variable is “global”—available not just within the script in which it was created, but in any parent script (one above it in the script structure) as well.

For example, a sub-script which calculates a score could then pass the score value to a parent script which displayed the score, using a score variable declared as external. Using variables in the aforementioned manner requires planning. You must keep track of which variables are external, and which variables are not.

When multi-leveled scripts, (which use variables extensively) do not work as expected, the reason may be related to variable values not being passed, (because a variable was not made external), or variables unexpectedly affecting one another (because a variable used in several places was made external). You can eliminate potential problems by initializing your variables with a starting or default value.

15.7.2 Exiting a sub-script

If you use sub-scripts, the physical end of the script is not likely to be where the script finishes. Therefore, you should define a point other than the last event in the script as the end. You can do this by inserting a Go To with the action Exit from Script. When the script reaches a Action: Exit from Script, the sub-script will end.

NOTE: You can now right-click on a sub-script event and select Open Sub-script in New Tab.

15.8 Scheduling in Designer

Designer's scheduling abilities distinguish it from most other multimedia products. Scheduling will allow you to communicate timely information, freeing you to leave Players unattended, even when displayed information must change from day to day.

Most of your scheduling tasks and calendar events will be managed through Content Manager, however, you can still use the creative scheduling features built into Designer.

You can schedule events to be run according to various criteria:

- at regular intervals—hourly, daily, or weekly
- continuously between two given times or dates

- once, at a specific date and time

For example, you may need an event to be repeated between two and four o'clock in the afternoon, only on Fridays, during January. This kind of scheduling is useful when promoting special events and will prevent outdated information from being displayed. Scheduling a page in your script to appear only once at a specific time can be used.

15.8.1 What can be scheduled?

The Schedule panel can be used for all of the following (although some have limited scheduling options, as explained in the next section, “Types of scheduling”):

- a page, consisting of a background and all its elements
- individual elements on a page such as text, clips and sounds
- a group, a collection of pages which you can treat as a unit
- a sub-script, another script which is run from within the current script

Scheduling works essentially the same with pages, special events, elements, sub-scripts, and groups. We use the term events to apply to all types of things or events you can schedule. However, some types of scheduling will not apply to elements. Wherever a distinction is important, we will use the term page similar to how it is used in the Main view— to apply to any page, be it a page, special event page, group or sub-script.

15.8.2 Types of scheduling

There are three types of scheduling in Designer: periodic, interrupt and timeslot. Each contains its particular uses, depending on your production needs. Periodic scheduling can be applied to any script event. Interrupt scheduling can be applied to any kind of page (including special event

pages, groups and sub-scripts), but not to elements on a page, and not to pages within groups. Timeslot scheduling is similar to interrupt scheduling, however, timeslots are more structured than exact interrupts, since playback respects them when determining what to play. This is true even if the exact start time was missed due to a down-time, if the segment is temporarily interrupted by other content.

15.8.3 Periodic scheduling

Periodic scheduling creates “windows” of time, which are defined as valid time periods. It uses four successively more specific levels which you may use to define a valid time period:

- Valid Range – the overall schedule time period
- Valid Weeks – whole weeks by week number
- Valid Days – days of the week
- Valid Time of Day – the single-day level

15.8.4 Enabling or disabling an event for the period

Given a time period which you have defined as valid, you can specify one of two possible results for a periodic schedule entry: you can either enable or disable the event for that particular period.

In other words, the valid period can operate “positively”, to specify when the event can run, or “negatively”, to specify when it cannot run. Although it is ultimately possible to accomplish the same result with positive scheduling alone, in certain kinds of scheduling situations it is much easier to use the negative approach.

Most descriptions of periodic scheduling in this manual assume you are using the positive, periodic/enabled approach. As Designer runs a script and reaches an event which has a periodic schedule setting, it will check

to see whether the current date and time is within the valid period defined by the schedule. If it is, then:

- a periodic/enabled event will run (it cannot run outside the valid period)
- a periodic/disabled event will be skipped (it can run at any time outside the valid period)

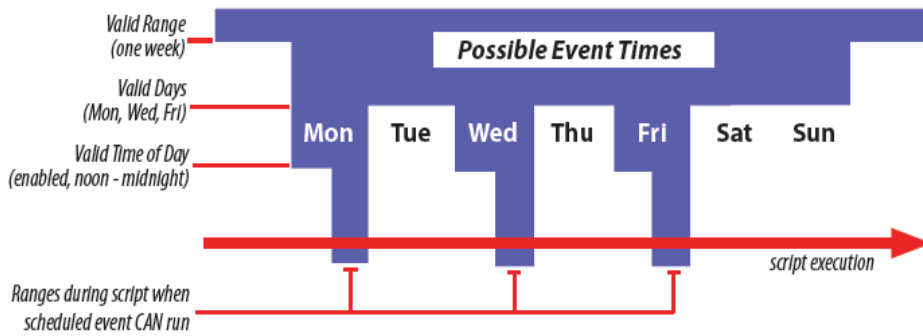
In short, the periodic/disabled type of schedule will invert the sense of the valid period.

15.8.5 Periodic Scheduling

It is important to emphasize which periodic scheduling will not cause events to run at a certain time, or guarantee which event will run during any given scheduled period. It simply allows the event to run if, in the normal pace and sequence of the script's execution, the event is reached during a period for which it is enabled.

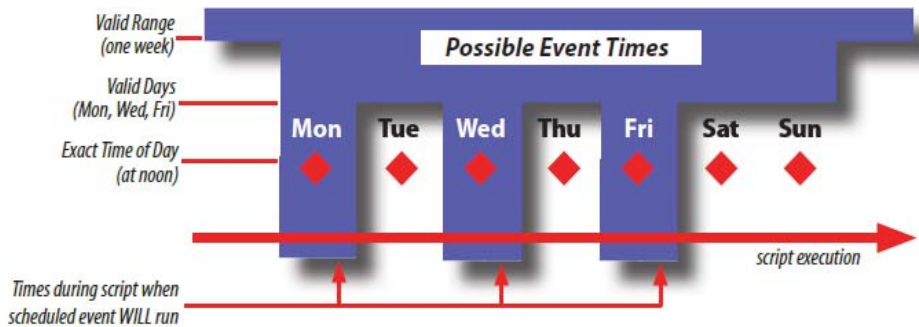
In short, periodic scheduling specifies when something can happen, not necessarily when (or even if) it will happen. Interrupt scheduling can ultimately be defined as a definitive execution time for an predetermined event. The following diagram graphically illustrates how three levels of periodic scheduling (for simplicity, omitting consideration of the Valid Weeks level) work together to “filter” the possible execution times of a script event.

The example schedule has an overall Valid Range setting of one week, with Monday, Wednesday, and Friday selected in Valid Days, and periodic/enabled daily in and out times of noon and Midnight.



15.9 Interrupt Scheduling

The Valid Range, Valid Weeks, and Valid Days levels of scheduling are active and work for interrupt scheduling just as they do for periodic scheduling. However, in contrast to periodic scheduling, at the daily level, interrupt scheduling is definite. When the scheduled time arrives, Designer will interrupt whatever is happening in order to run the page which is interrupt-scheduled for that particular time.



During normal running of a script, Designer will skip over interrupt-scheduled pages. After running an interrupt-scheduled page, Designer will continue by running the next page in the script after the interrupt-scheduled page. It will not automatically return to the interrupted page—however, there is an option to set a bookmark to allow resuming playback

from the point of interrupt.

For periodic-scheduled events, the location of the event in the script will dictate when the event may run. For interrupt-scheduled pages, the location of the page in the script is irrelevant to when the event will run. It does, however, dictate which page will run after the interrupt-scheduled page, especially if the bookmarking feature is not used.

15.10 Timeslot Scheduling

Timeslot Scheduling is a new feature in Designer. Timeslots are more structured than exact interrupts. Playback respects them when determining what to play, even if the exact start time was missed due to a down-time, if the segment is temporarily interrupted by other content. This means a script with a Timeslot schedule applied, will interrupt the current running schedule at the beginning of the Timeslot period, and will continue until the end of that period.

15.11 Factors Affecting Scheduling

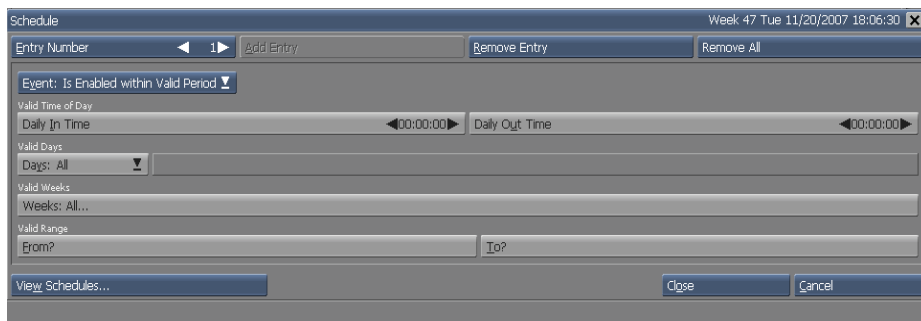
Many of the important issues in scheduling are related to issues in timing. For further information, please refer to **Chapter 11: Timing**. Timing of events is relative. Neither type of scheduling will adjust duration lengths, transition speeds, or other factors which control a production's pacing.

To make the best use of scheduling in a complex production, you may need to utilize grouping and/or sub-scripts. Please review **Chapter 3: Working in the Main View**, where these topics were first introduced. The use of groups and/or sub-scripts have special considerations (for more details, please review the section "Scheduling with groups and sub-scripts", later in this chapter).

When using interrupt scheduling, you may want to take advantage of branching, which was explained earlier in this chapter.

15.11.1 Working in the Schedule panel

Events are scheduled in the Designer Schedule panel. Click a page's Schedule button in the Schedule column in the Main view to schedule a page, or click an element's Schedule column button in the Page view List panel to schedule an element. In either case, the Schedule panel will appear:



As with other panels in Designer, you can select several events at once before clicking in the column, allowing you to edit them at the same time. Editing as previously described can be unpredictable due to the numerous schedule parameters, and the fact that each event's schedule can consist of multiple entries (please see the following section).

The Schedule panel specifies entries in the schedule for an event. Each entry consists of a collection of time-related information which determines when the scheduled event can or will play.

The entry information controls are grouped into four sections, corresponding to successively more specific levels of scheduling:

- Valid Range – the controls in this section establish the overall date/time range within which an event can play, and outside of which it cannot play
- Valid Weeks – the controls in this section make it possible to schedule events through the year on the basis of week numbers
- Valid Days – the controls in this section operate on the level of individual days, and allow you to permit the event to play on certain days of the week
- Valid Time of Day/Exact Time of Day – the controls in this section operate on the level of the individual days which are valid as defined by other controls, and establish whether the schedule entry is of the periodic or interrupt type. Other buttons in the Schedule panel let you add, view, and remove entries.

15.12 Schedule Entries

The schedule for a script event can contain more than one entry. For example, you may want the same page to run only during an hour in the morning and another hour in the afternoon.

Each hour would then be one entry in the schedule for that corresponding page. When you open the Schedule panel, you'll start at entry 1. Once it has been edited you can add additional entries for the event as necessary.

- To add another entry for the event, click the Add Entry button.
- To edit or review other entries in the schedule for a page once you have more than one entry, use the Entry Number value control to move to the different entries.

- To delete a single schedule entry, click the Remove Entry button.
- To delete all the entries in the schedule for an event, click the Remove All button.

With either Remove button, a confirmation dialog will appear. You can edit the schedule for a single event at a time. To edit the schedule for another event, simply select the event you wish to edit.

CAUTION! Nothing will prevent you from creating pointless multiple-entry schedules which can cause an event to always or never run – or which can make interrupt-scheduled events interrupt each other. You must keep track of the cumulative effect of the entries. It is easier to create your schedules within the Schedule interface in Content Manager.

You can multi-select several events, and set a collective schedule at the same time. Doing so is hazardous if you are editing existing schedule settings and not all the events have identical schedules. Editing an entry while multiple events are selected gives the entry number the same settings in all those events, regardless of what the individual events original settings might have been.

To accept the changes you have made to the displayed schedule entry and exit the Schedule panel, click Close. To discard changes and exit the panel, click Cancel.

15.12.1 Combining entries

Use multiple entries to create complex schedules for an event. You can combine entries which use different types of scheduling—periodic/enabled, periodic/disabled, interrupt—freely, and timeslot.

When the periodic/enabled and periodic/disabled types are combined, the

valid period(s) created by the cumulative effect of all enabled entries will be determined first, then the disabled entries are will be used to “cut holes” in the valid period.

15.12.2 Schedule information in the column button

A good way to help you keep track of whether your work in the Schedule panel is having the desired effect is to look in the Schedule column for the event. Information about the entry will be displayed in the column button.



Branch	Sound	Launch	Log	Schedule	Text
	Sample				
Goto	Sample			Interrupt (current)	

Of particular note is the information in parenthesis, which is interpreted as follows:

- (current) – the schedule includes the current moment; the event could play immediately
- (next: <date> <time>) – the date and time determining when the event will be able to play
- (expired) – the scheduled period has passed; the existing schedule will not allow continued playback

If you are scheduling something for future playback and you see “(expired)”, it is an immediate indication that something wrong. If you see “(next: ...)”, compare the date and time shown with what you believe the

next scheduled playback should be to help you determine if your scheduling is accurate. Make the Schedule column wide enough so you can see the indicators appear as you change the settings in the Schedule panel. When the column button is blank, the event is not scheduled and can play at any time.

15.12.3 Setting the overall schedule range

The first step in creating a schedule is to define the overall range for the event, using the controls in the Valid Range section of the Schedule panel.

When you turn on the From? and To? buttons, start date, start time, end date and end time value controls will become available. You can adjust the date, or use the time value controls to specify the beginning and ending points of the range.

Defaults

In the Schedule panel, times are displayed in the 24-hour time format, and default start and end times are 00:00:00 and 23:59:59, respectively. Therefore, the default start time or In time is the beginning of the day (at midnight) and the default end time or Out time is the end of the day (one second before midnight). Dates default to the current date. Creating a To setting without a From setting implies a start date of now; setting a From date without a To date implies the schedule will continue indefinitely. Setting neither a From date nor a To date means the schedule will not be restricted within a date range.

15.12.4 Scheduling by week number

For applications which require scheduling on a week-to-week basis, Designer offers the Valid Weeks option, which allows you to use week numbers. The Weeks: button has a default setting of All, so week numbers

will not be considered in establishing the valid period. To create weekly scheduling, simply click the button. When you click the Weeks: button a dialog, which allows you to choose the desired weeks graphically, will appear.



In the dialog are a series of buttons, one for each week of the year. (The week numbering obeys the ISO standard, which uses whole weeks, Week 1 being defined as the week which includes January 4.)

- Click a button so it is indented to select that particular week number.
- You can also select the weeks in which the event should not run. After your selection, click Invert to navigate to your desired weeks.
- Click All to select all weeks, or None to clear any selection you have made and start again.

When you have finished selecting the week numbers in the valid period, click Done to return to the Schedule panel.

The Weeks: button lists the selected weeks numerically, with ranges of continuous weeks shown as, for example, 17-32, and discontinuous ranges and individual week numbers separated by commas.

Keep in mind the Valid Weeks setting is beneath the Valid Range setting, in the scheduling hierarchy. This means that although you can choose any weeks of the year, weeks or parts of weeks which are outside the Valid Range setting, are not in the schedule.

15.12.5 Setting valid days of the week

In the Valid Days section of the Schedule panel are buttons which may be used to limit the days of the week which an event runs.

The Days: selector contains two possible settings: All and Selected Only. The default is All, therefore, the individual day buttons are disabled. To enable them, choose Days: Selected Only.



If you select a weekday button, you allow the event to run on which day of the week within the overall valid range. You can select any combination of days during the week.

15.12.6 Periodic scheduling: setting a daily range

Use the controls in the Valid Time of Day section to specify a limited time range within each valid day which an event may play back.

Set the Event: selector to Is Enabled within Valid Period. With periodic scheduling selected, the Daily In Time and Daily Out Time value controls in

the Valid Time of Day section of the Schedule panel will appear.

Adjust the Daily In Time and Daily Out Time values to specify the times of day to begin and end, allowing the event to play back. These daily times will apply to every day permitted by the Valid Range, Valid Weeks, and Valid Days settings. If the Out time occurs after the event has already started, the event will complete; it is not cut off.

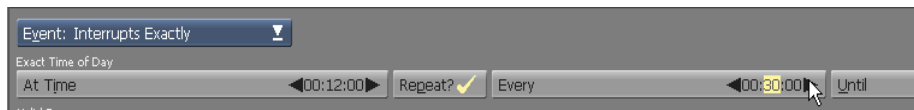
Keep in mind if your script is long and the period defined by the In/Out times is short, your event may be skipped altogether—the running script may not reach the event during the specified time. With a short script, your event may also run many times within the period. With periodic scheduling, you cannot specify how many times an event will run within the time “window” specified by the schedule.

15.12.7 Interrupt scheduling: setting an exact playback time

When using interrupt scheduling, the Valid Range, Valid Weeks, and Valid Days controls function similar to periodic scheduling. Switching to interrupt scheduling will only change the controls available on the daily level.

Interrupt scheduling is only available for pages.

To interrupt-schedule a page, change the Event: selector to Interrupts Exactly. The Valid Time of Day section becomes Exact Time of Day. The At Time value control in this section will indicate the first (or only) time you want the page to run.



You will see three new controls, Repeat?, Every, and Until, for interrupt

scheduling. The Every and Until controls will be disabled unless Repeat? is on .

Repeating an interrupt-scheduled event

Without using any other controls, an interrupt-scheduled page will run once per day at the time specified by At Time. If you want to repeat the page—once every hour, for example, turn on Repeat? This will enable the Every and Until value controls, so you can adjust the frequency and extent of the repetition.

Specify the repeat time interval with the Every value control, in hours, minutes, and seconds. The interval will be measured from the time the page last began. (Leaving the default setting of 00:00:00 results in no repeats taking place, even if Repeat? is on.)

Use the Until value control to set a time to stop repeating the page. Leaving the default time of 23:59:59 will allow the page to repeat for the rest of the day. As long as the repeated page begins before this time, it will run to completion—if the Until time occurs while the page is running, it is not cut short. Remember, when an interrupt-scheduled page's At time initiates, it will interrupt whatever the script is doing at that moment. It will not wait for any event which may be running to finish—it will also interrupt an element transition, just as readily as a page pause.

Leaving a bookmark

An interrupt-scheduled page will disrupt the normal script flow, effectively acting as a branch to that page. Script execution will continue with any pages which follow the scheduled page in the script.

If you want to resume the script from the point of interruption, so the interrupt-scheduled page works as a temporary “detour” rather than a

branch, simply use the Leave Bookmark? option. This option appears, and is enabled by default, when Event: Interrupts Exactly is chosen.

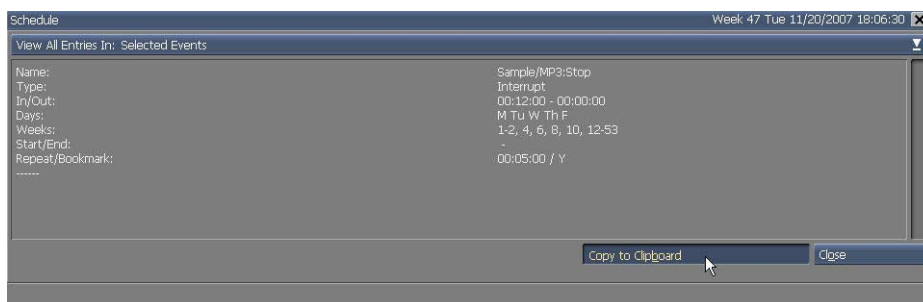
When Leave Bookmark? is on , a bookmark will be left at the point of interruption. A Goto: Return to Bookmark branch, will be applied to the interrupt-scheduled page, causing script execution to return to the interrupted page and begin playing from the beginning. This is illustrated in the following example.

15.12.8 Viewing a summary of schedules

The Schedule panel offers a way to look at the schedule entries in a summary view. Click View Schedules to see a listing of schedule entries, identified by page/element name. The View All Entries In: selector will allow you to choose whether to see the entries for just the selected event(s), or for all events in the script.

If your script uses scheduling extensively, this will allow you to quickly review and compare entries, verify them, and help spot possible conflicts.

Click the Copy to Clipboard button to copy the entire listing to the



Windows clipboard in plain text format. By pasting into a text editor, database, or other application, event scheduling can be conveniently reviewed outside Designer.

When you have finished reviewing the schedule entries, click Close to return to the Schedule panel.

15.13 Advanced Features

15.13.1 Scheduling with more Complex Scripts

If your scripts use groups or sub-scripts, you should be aware of the possible effects on the execution of scheduled events.

15.13.2 Interrupt scheduling with groups and sub-scripts

Interrupt-scheduled pages cannot be grouped or moved inside a group.

Additionally, they will execute at their scheduled time, only if the sub-script is running. While the main script is running, Designer will not “see” the scheduled events in its sub-scripts. If the start time of an interrupt-scheduled page in the main script occurs while a sub-script or grouped page is running, Designer will return to the top level of the main script in order to run the interrupt-scheduled page. After an interrupt-scheduled page runs, the script will continue with the following page in the main script. Using a Return to Bookmark branch in a sub-script will always bring you back to the beginning of the sub-script, not to a specific page.

15.13.3 Timeslot scheduling with groups and sub-scripts

Timeslot-scheduled pages cannot be grouped or moved inside a group.

Additionally, they will execute at their scheduled time, only if the sub-script is running. While the main script is running, Designer will not “see” the scheduled events in its sub-scripts.

If the start time of an timeslot-scheduled page in the main script occurs while a sub-script or grouped page is running, Designer will return to the top level of the main script to run the timeslot-scheduled page. After a timeslot-scheduled page runs, the script will continue with the following page in the main script. Using a Return to Bookmark branch in a sub-script always bring you back to the beginning of the subscript, not to a specific page.

15.13.4 Periodic scheduling with groups and sub-scripts

Periodic-scheduled events may not execute according to schedule when groups or sub-scripts are involved. As a script steps through each event, including those in groups and sub-scripts, it will run a periodic-scheduled event within a “window” of time specified by the event’s schedule. However, if a sub-script or group uses branching to create a loop, avoiding the main script, periodic-scheduled events in the main script will not run.

15.13.5 How not to schedule

Scheduling features in Designer are very powerful, requiring careful attention for optimum results.

Here is a summary of scheduling pitfalls to avoid:

- Too-short valid periods with a long script

If your script is long, and the scheduled valid periods are few and/or short, a scheduled event will not be regularly played.

- Periodic-scheduled events which are never reached:

Periodic scheduling does not cause events to run, it allows them to run, only if they are reached. Therefore, running a scheduled

event depends entirely on the execution of the script regularly reaching it. A periodic-scheduled event, which is never reached—for example, because of its location in the script relative to a branch, looping group, or non-exiting sub-script—will not run.

- Conflicts at different levels of scheduling:

Careless scheduling may cause scheduled events that appear to remain, unscheduled. For example, scheduling a page to run only on Monday, Wednesday, and Friday, and scheduling certain clips on the same page to run only on Tuesday and Thursday, will result in those clips never being seen. This will also occur if you schedule a group, and then individually schedule pages within the same group. Scheduling events on lower levels must occur within the “window” provided by the levels above them, otherwise, they will not run.

- Interrupt-scheduling everything:

In Designer, you cannot reasonably set a schedule to determine exactly what is going to be displayed at each minute of the day. As a general rule, interrupt scheduling should be used for any page which must run at a particular time.

- Interrupt-scheduled pages too close together

Interrupt-scheduled pages—and their Repeat intervals—should be far enough apart (in terms of script execution time) to avoid them interrupting one another.

- Leaving out a Return to Bookmark “go to” branch

Even if the Leave Bookmark? option is on for an interrupt-

scheduled page, a Return to Bookmark branch is also required on the same page, or a succeeding page, to resume at the interrupted page.

|||| 16 Publishing, Exporting & Printing

Chapter Overview

Once you have created an Designer production, you will want to publish the script to a location so it can be transmitted to your network of players, using Content Manager. A Scala 5 Network consists of a system of remote PCs running Scala Player software, controlled through the Scala Content Manager application. Both of these applications are sold separately. A completed Designer script cannot be seen by a player until it has been published to a determined location and scheduled to play in a channel using Content Manager.

The publishing process involves collecting every file which composes the production (including the script, art, graphics, video, and sound) and putting them together in a conveniently portable form. You can publish either to a local folder, or publish to the Network. Whichever publishing medium you choose, the procedure is substantially the same. Different available options will depend on the final destination of your published script.

16.1 Glossary of Terms in this Chapter

Publish – To prepare an Designer script for distribution to any of the publish media locations which Designer supports.

Publish Location – A local or network folder, defined in Content Manager, where scripts and media are published for scheduled broadcast to the Scala player(s).

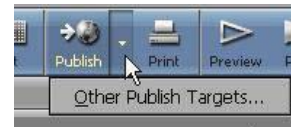
16.2 Publishing Features

Designer will allow you to make choices about what you want to include in

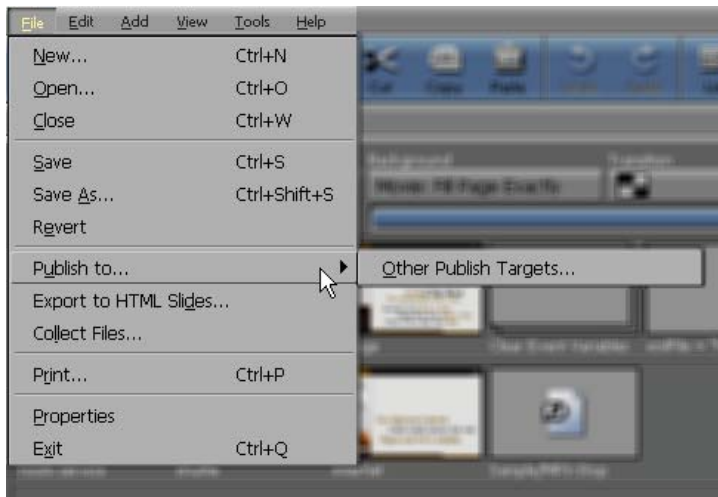
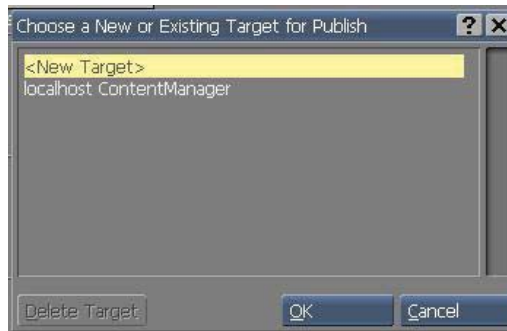
Designer⁵

your published production. Options are set in the Publish Script dialog. This dialog makes it easy for you to make various global settings regarding the script's final published form and destination. It also addresses possible licensing and software setup issues. (Scala gives you the right to reproduce and distribute the clip art which it contains, however, your script may use content which requires other licenses.)

When you click the Publish icon from the Main view toolbar, a dialog with the previously selected network options will appear. If you click on the small down



arrow to the right of the icon in the toolbar, a pop-up list will appear, allowing you to publish to the selected target location. You can also access the target location through the File pull-down menu, File > Publish to... > [current location selection] or Other Publish Targets...



Network – Publish to Network is for customers who have an installation which also includes Content Manager; Scala’s facility for transmitting and updating scripts on systems of remote PCs running Player software. Publishing to the network is the first step in the transmission process. Choosing this opens the Publish Script dialog.

16.2.1 Options column

The Options column on the left hand side of the dialog contains the publishing options.

16.2.2 Connection Type:

Selecting this option will direct you to the type of connection you will publish to: Content Manager Direct, Web or FTP Folder, or Local or Shared Folder. The options which appear in the dialog, will depend on which method you select. These will be explained in more detail throughout this chapter.

16.2.3 Script Information box

The Script Information box provides information about the script which you have chosen to publish, such as the approximate size in megabytes.

Designer will automatically scan your script and display its information in the Script Information box. It will also display information regarding data which is currently being processed.

16.2.4 Publish!

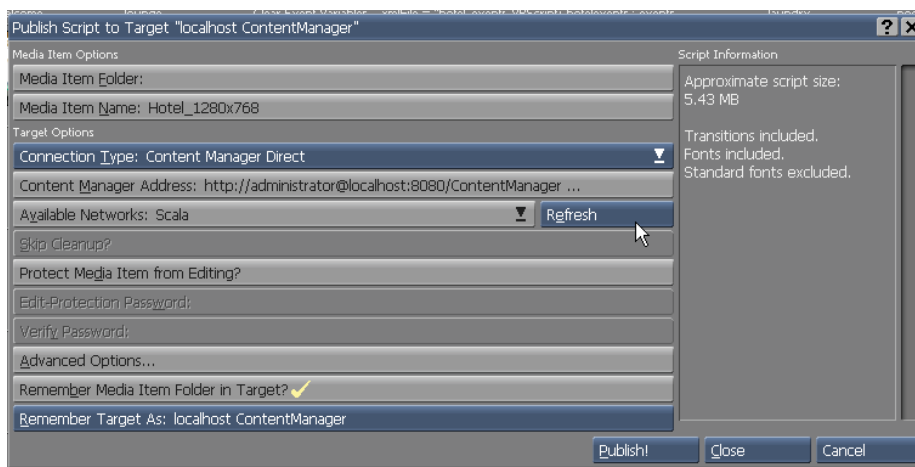
After you have chosen your publishing options and clicked the Publish! button, you will see a status of the process. When the status reaches 100%, the published production has been saved. Designer will allow you

to assign a password to your scripts, which will protect them from being inspected or edited by anyone who does not have access to your password. A password is not required to simply to run the production. Whichever script is currently showing in the Main view is the one which will be published. The original script's files are not affected by publishing.

More details about the Publish process and password protection will be covered later in this chapter.

16.3 Publishing to Content Manager

The Publish to Content Manager dialog is where you prepare a script for distribution to a network of remote Player machines on an Scala 5 Network. The publishing process will collect all of the script's constituent files and arrange them in a structure which is appropriate for efficient and reliable transmission.



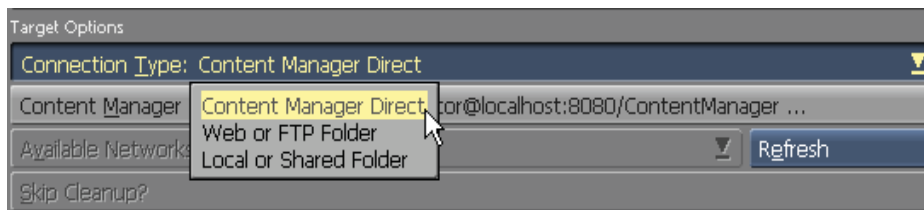
The published script will be deposited in either the Content Manager or a Publish Location (a folder defined in and accessible to Content Manager). Content Manager is Scala's companion software for administration of Networks.

16.3.1 Media Item Options

If an existing Media Item Folder: is in the selected network, it will appear in this location – or you may select this option and type in the name of the folder you wish to use. The name of the script you are publishing will appear in the Media Item Name: location.

16.3.2 Connection Type: Content Manager Direct

The Content Manager network address will appear under this setting. When it is selected, a dialog will appear which will allow you to select the connection protocol, URL and/or directory of your connection destination, User Name and Password.



When publishing to Content Manager, the URL is case sensitive. Depending on how Content Manager was configured, you may need to specify a port in the URL.

IE: <http://localhost:8080/ContentManager> (note the port number in this case is 8080)

When publishing to Content Manager, if the server supports https, you can select that option.

When you click on Refresh, it will search for any Available Networks to which you can publish.

16.3.3 Protect Media Item From Editing

This option will lock down the editable components of the script you are publishing. This is a security measure, therefore, it cannot be reopened and altered from anyone else which may have access to the publish location.

By selecting this option, you will be asked to provide a password to protect the published media.

16.4 Advanced Options

Clicking on Advanced Options will open a dialog which allowing you to specify whether to include transition files and font files with the published script. When these options are on, reminder messages will appear in the Script Information box.

16.4.1 Include Fonts

Turn on the option to Include Fonts? when your production uses fonts which may not be installed on the Player machine. Turning Include Fonts? on ensures they will be included with the script files. TrueType fonts, if their distribution is permitted, are provided as embedded binary data. If a TrueType font is internally defined as non re-distributable, it will not be included. You must acquire and install that particular font independently, before the production can be played.

Important: You must be sure to check the licensing requirements for any fonts you use . The TrueType fonts included with Scala Designer are freely re-distributable for any production you create, but only for non-commercial purposes. TrueType fonts which you acquire from other sources may have licensing restrictions which vary from manufacturer to manufacturer. It is your responsibility to comply with their requirements.

16.4.2 Include Transitions

Include Transitions? should be turned on when your production includes Designer transitions which you have to perform on the Player. For example, Alpha transitions use special image files to generate their reveal patterns. When this option is on, the transition files in your production will be included with the other script files. If this option is not included, transitions will become simple Cut transitions on a Player which does not contain the necessary transition files.

16.4.3 Remember Media Item Folder in Target

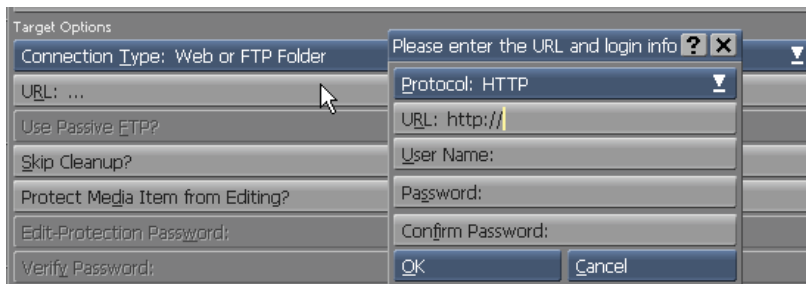
When this is selected, as indicated by a check, the media item folder name will automatically be added to the target. This is helpful when subsequent publishing attempts are made.

16.4.4 Remember Target As

This is the current location selected. You may change the name of this location by typing it in the space provided.

16.5 Connection Type: Publish to Web or FTP Folder

The URL: button appears below the pop-up when Connection Type: Web or FTP folder is chosen. Click to open a dialog in which you can enter or change your URL and login information. Protocol: select the correct protocol for the URL which you will be using. The options are http, https, or ftp



URL: – enter the URL to which the script files should be sent. For example:

<http://192.168.0.10/Aserver/NetMgr/PubContent>

Or

<https://ICNMserver.com/Publish>

Or

<ftp://192.160.0.15/Publish>

Be sure to include the path from the root to the directory on the server into which the published files should be deposited.

Use forward slashes to separate directory levels in the path.

User Name: –To gain access to the server to upload the published script, a logon may be required. Enter the name in the User Name: text box.

Password: – A password may also be required to complete the logon to the server. Enter it in the Password: text box. The characters you type will appear as asterisks (*), for security reasons.

Confirm Password: – Type the password again in this box. Whatever you enter must exactly match the Password: entry.

Click OK when you have entered the login information.

In the URL: button, you see the URL with the username you embedded, like this:

<http://Designer@ICNMserver.com/Publish>

Use Passive FTP? – If you have selected FTP as your publishing protocol, you can enable the passive FTP option. This is may be required for certain FTP servers.

16.5.1 Connection Type: Local or Shared Folder

If you choose Connection Type: Local or Shared Folder, the Folder: button will appear below the pop-up. Click this button to open the File dialog, where you can specify the folder into which the script-related files should be published.

Designer uses a Default Publish Location folder as the destination. This folder is normally located at:

```
<systemroot>:\Documents and Settings\All Users\Documents\  
Scala\Network Transmission\Publish Locations\Default
```


where <systemroot> is the letter of the drive where Designer is installed— which is set up automatically for you during installation.

If you need to choose your own destination folder, it does not already have to exist. Navigate to the folder where you would like to create the publish folder, click the New Folder icon, rename it, then open the new folder. If you have previously published this script to the folder, any previously

published versions will be deleted before publishing of a new script is performed.

16.5.2 Completing publication of a script

When you have chosen your publishing options, there is one more question to consider before publishing your script, namely whether to protect it with a password.



Protect Media Item from Editing? ✓

Edit-Protection Password: *****

Verify Password: *****

Advanced Options...

Password protection for published scripts

Protection and confidentiality are important for many multimedia publishers, which is why Designer will allow you to encrypt or “lock” scripts. Encryption facilitates protecting your work from unauthorized editing. It will also allow you to keep any scripting “secrets” from being revealed. When you lock a script, it is automatically encrypted. This means the script is encoded and must then be decoded before it can be inspected. The only way to decode the script is to enter the correct password—which you, the producer of the script, will personally create.

A locked script can still be run just like an unlocked script. However, it cannot be edited or its events viewed. An “open” script will allow viewers who already have Designer and the necessary fonts installed, to edit or review the techniques of your production. If you do not choose a password for a script, it will remain an open script: a password will not be required when it is opened by the viewer. Every event will be listed in the views, and easily edited.

Opening a locked script

Anyone can open a locked Designer production by running Designer and choosing the script (named <project name>.SCB) in the Open Script File dialog. A password will be requested.

- Entering the correct password will allow the script to open like a normal script. The viewer can then review the techniques of the production and if necessary, make changes.
- Entering the incorrect password, or no password, will allow the viewer to run the script to see the production, however, the viewer will not be able to review the techniques of the production or make any changes.

16.5.3 Publishing

Clicking the Publish! button will perform the publication of the script to your chosen medium. Messages concerning the progress of the publication, will appear in a separate dialog.

To Complete Publishing:

1. Click the Publish! icon in the toolbar.
2. If there is another script of the same name in the publish folder, an Designer Message dialog will appear asking whether you want to delete the contents and continue publishing.
3. Click OK. The dialog box will reveal whether or not your publishing was successful.

If successful, Designer has published your production into your specified

location.

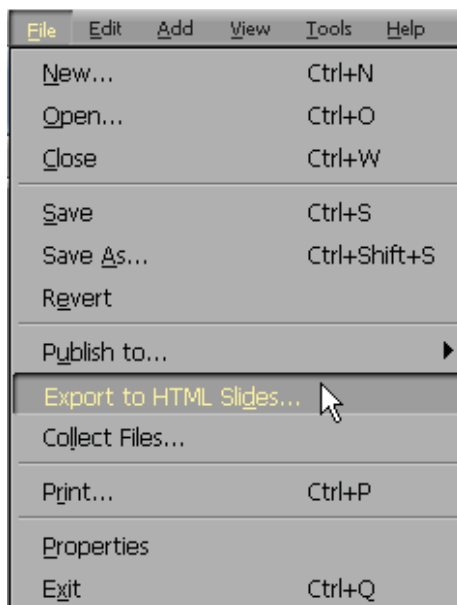
16.5.4 Cancel/Close

Choose Cancel to cancel publishing and return to the Main View.

If you have already successfully completed publishing, this button will change to Close and exit the Publish dialog.

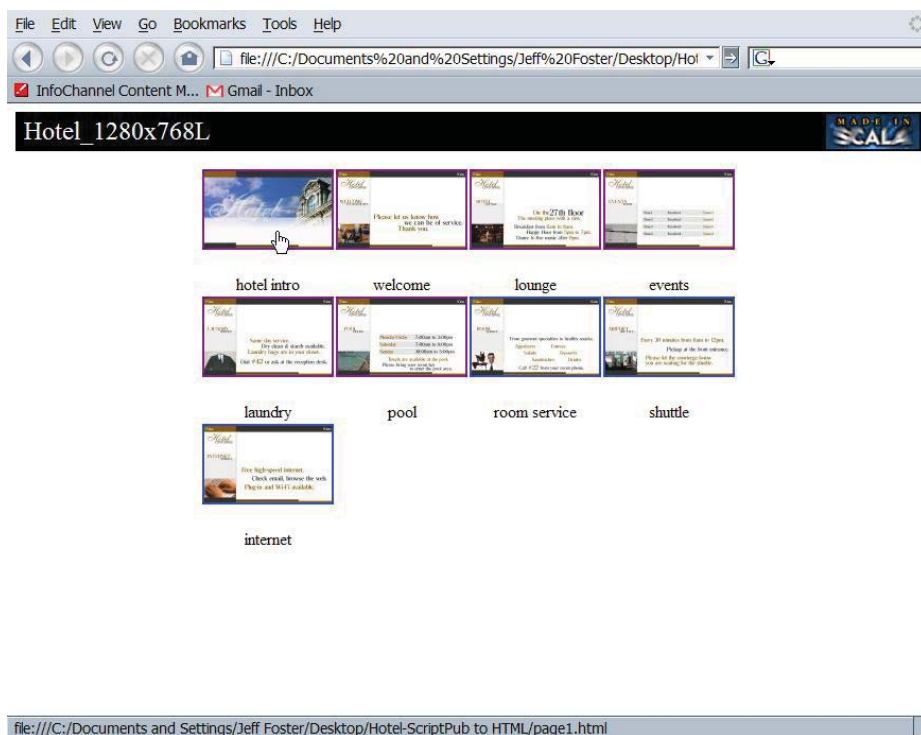
16.6 Export to HTML Slides

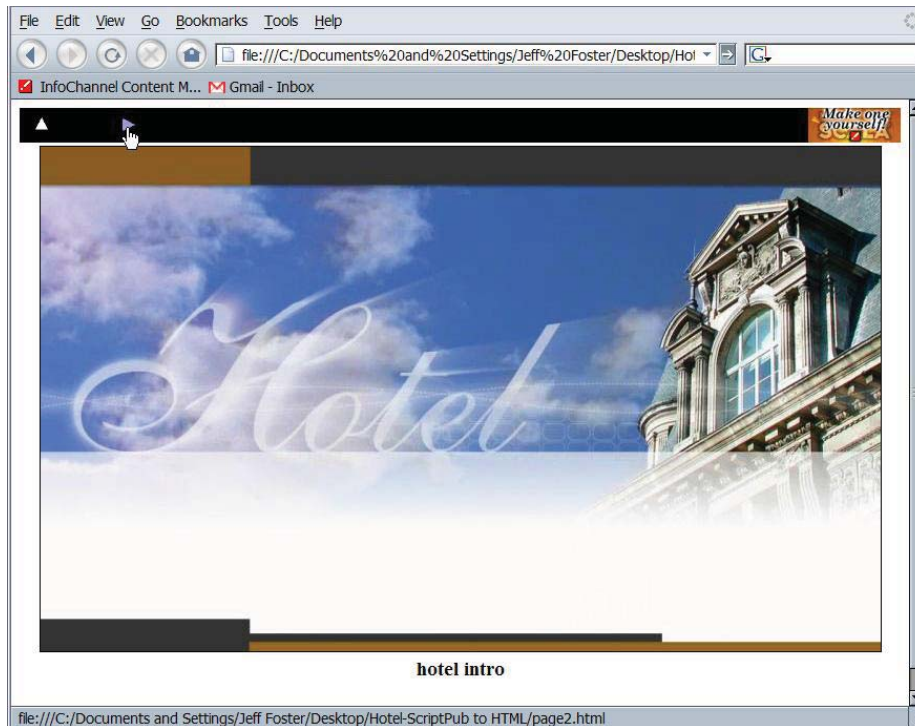
Choose Export to HTML Slides from the File drop-down to reveal the Export to HTML Slides dialog. Designer includes the Export to HTML Slides feature to make it easier to share Designer script ideas over the Web. This type of publishing will not make a script play in a Web browser. Instead, Export to HTML slides will create a set of HTML files. These files define a Web page which provides an overview of a Designer script.



The Web page created by this type of publishing simply consist of a grid of thumbnail images of the screen pages in the script, much like the Thumbnail view of the Main view. When a thumbnail image in this index page is clicked, a full-sized image or “slide” of the screen page will be displayed in the browser window.

The title bar of the full size pages contains navigation buttons allowing you to move forward and back through the slides, or return to the index page. In a browser, it would look something like the samples on the following page.





The displayed slides reveal every text, clips, and draw objects on the page. However, only the initial frame of an animation background, movieclip or animclip will be shown. Page and element transitions, sound, and other dynamic aspects which may be included in the script, are not represented.

Putting up a Web page of a script exported to HTML slides is a way to achieve extremely wide, fast and efficient distribution of a script for review and commentary. It does not require viewers to have a special plug-in—a standard browser is sufficient. This also means it is platform-independent, allowing you to share your script concept with users of Macintosh[®], UNIX[®], and other operating systems. Although it omits certain significant components of a finished script, its storyboard-like format will allow you to easily publicize and receive feedback on the graphic design aspects of a script. This can be very important in a time-critical authoring

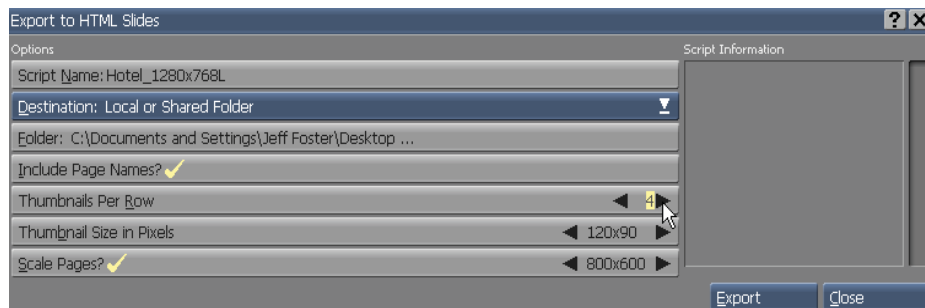
environment.

16.6.1 Destination: Local or Shared Folder

Select a local folder or network location in which to save your HTML slides folder.

16.6.2 Destination: URL

If you select this option, you have to provide a URL to save the folder of HTML slides content. You must also be on an active network or connected to the Internet to choose this option successfully.



16.6.3 Include Page Names

When the Include Page Names? option is turned on, the names of the screen pages as seen in the Main view will be displayed under the page thumbnails in the generated Web page.

16.6.4 Thumbnails Per Row

Similar to the Thumbnail view, you can also specify how many page images should appear in a row. Use the Thumbnails Per Row value control to

increase or decrease the number of thumbnail images which appear in a horizontal row. The default is 5.

16.6.5 Thumbnail Size in Pixels

You can specify how large each thumbnail should be using the Thumbnail Size in Pixels value control. Enter a horizontal and a vertical size. If these settings are not proportional to the aspect ratios of the pages themselves, the resulting thumbnails will be as large as possible to fit within a box of your specified size. Every page will be converted to JPEG images for Web publication, regardless of the original format of their component images.

The Scale Pages? option allows you to decide whether the full-size images should be scaled to a particular size, when the thumbnail images are clicked. Typically, this would be used to make the full-size pages somewhat smaller to fit more conveniently into the browser window. This could be less than a full-size screen.

By default, the full-size image has the same pixel dimensions as the original background. Turning this option on turns the option button into a value control which will allow you to specify horizontal and vertical pixel dimension values for the full-size images. If these settings are not proportional to the aspect ratios of the pages themselves, the resulting images will be as large as possible to fit within a box of your specified size.

16.7 Printing scripts with ScalaPrint

Scala Designer gives you the ability to print your scripts. Using ScalaPrint, you can produce color or black and white hard copies on paper or transparencies to enhance or accompany your Designer production, or simply to aid in your design process. You may want to summarize your script, print certain pages of your script, or print a permanent record of the

entire script. You may also find a need for a cue card-type list of notes for a presenter to follow during the presentation of your script.

Using ScalaPrint, you can choose how much of your script to print, whether it be the entire script or only selected pages. You can also lay out your pages in different formats. Whatever you choose, ScalaPrint provides you the ability to customize your script printouts in order to accommodate your particular needs. ScalaPrint produces printed output in a graphical format similar to the way the Thumbnail view in the Main view displays your scripts. You can print all script pages on one sheet of paper, or each on its own page—as well as every option in between. The ScalaPrint view will allow you to arrange the size, numbering, and arrangement of all the script's pages on the printed page, and direct that output to a specific printer device.

16.7.1 Slides

Using Designer, you will create scripts consisting of pages and groups of pages. Within ScalaPrint, however, the individual script pages as they appear when printed are titled slides in order to distinguish them from the physical pages which are printed out. Each script page you select from the Main view to print will be condensed into a slide, much like a photographic slide. It will then be placed on the page according to your layout selections. Subsequently, you may select options to size, order, label, number, and frame the slides to suit your needs.

16.7.2 Print job

Your intended output from the printer device is referred to as a print job. A print job consists of the slides for the selected script pages which you intend to print, their size and layout on the page, and how they are ordered, labeled and framed. You may select to print every script page, or just some of them. Depending on how you arrange the slides on the printed

pages, you may end up with a multiple-page print job, or a print job consisting of every slide on just one page.

16.7.3 Matrix

The script pages you select from the Main view to print will be formed into slides, and the slides will then be arranged on pages, depending upon the matrix, or column and row arrangement of the slides.

You can choose to place each slide on its own page, or possibly 6 slides on a page, arranged in 2 columns of 3 rows. The matrix, in this example, would be 2×3 . Should you decide you'd like to have each slide print on its own page, the matrix you use is 1×1 . You cannot select different matrixes for different pages in the same print job. In order to have different slide arrangements on different pages, you must configure a separate print job for each intended layout. (See "Different layouts for different pages" at the end of this chapter.)

16.7.4 The ScalaPrint view

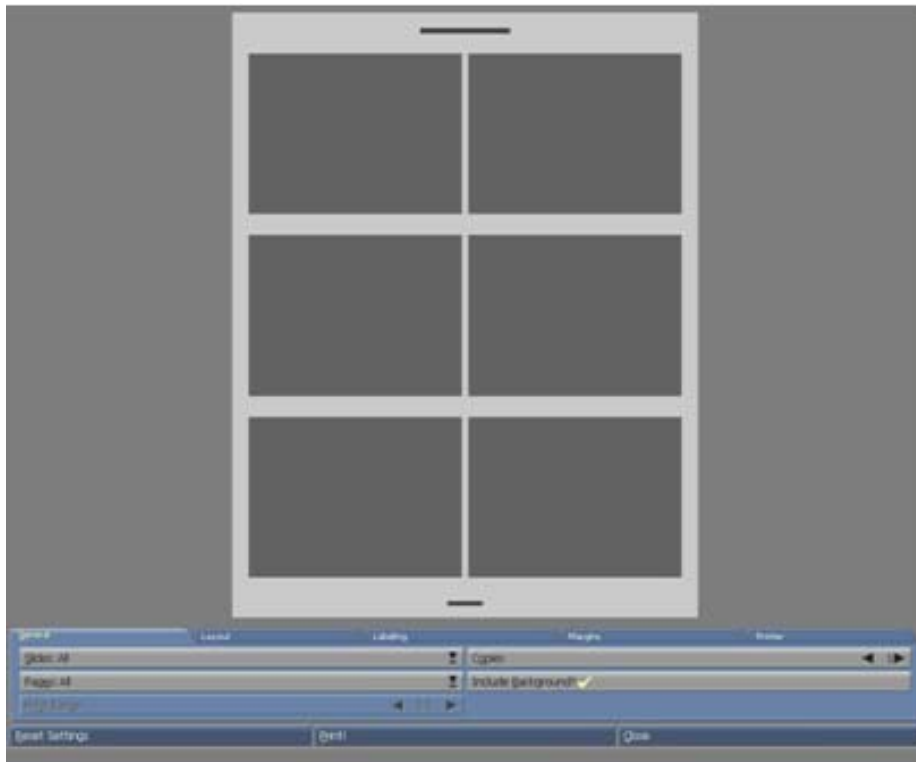
To open ScalaPrint, click the Print icon on the Main view toolbar or select the File drop down menu and click Print.

The **ScalaPrint** view will appear on the screen, divided into two main areas: the page preview section and the ScalaPrint tabbed options.

The page preview section, located across the top of the screen, will provide a graphical representation of how your script's slides will be positioned on a sample printed page. You will not see your actual script pages images or content on the screen; just boxes which represent the size and position of each slide. The tabbed options panels will allow you to select the options which control the layout of your slides on each page, as well as choose the destination printer to generate the hard copy. As you

Designer⁵

change most layout options, the page preview update will automatically reflect your changes.



Remember, the slides are only a representation of the physical position of your script pages; they are not a preview of what will actually print.

16.8 ScalaPrint Tabbed Panel Options

Click one of the five tabs to see the available options on each panel: General, Layout, Labeling, Margins, and Printer.

The General panel

The General panel options deal with the overall arrangement of the script

pages you want to print.

Slides

The Slides: selector allows you to choose whether to print slides for all script pages, or only the slides corresponding to the script pages which you have selected in the Main view. Use the selector to switch between All and Selected. If you have more than one script page selected in the Main view before you start ScalaPrint, the Slides: selector will default to Selected.

Pages

The Pages: selector allows you to print every page in the current print job, or select a range of pages from the print job. Use the selector to switch between All and Range. Choosing Range will enable the Print Range control below.

Note that this control refers to pages of the print job, not script pages. For example, if your script has twelve pages and your slide layout places six slides on each printed page, the print job has three physical pages, controlled by this option. Choosing Pages: All does not print all script pages unless the Slides: All option has been selected.

Print Range

When you select Range from the Pages: selector, the Print Range value control becomes active, allowing you to specify the beginning and ending pages of a range you wish to print from the current print job. Select the page number range using the value control. You can use the arrows or enter the page range numbers manually.

Possible values for this control are from 1 to 999. The Print Range value control is not limited to the actual number of pages in the current print job,

therefore, it is possible to set page numbers which are higher than the maximum number of pages. If the starting page number is too high, pages will not be printed. Entering an ending page number greater than the maximum number of pages will have the same effect as entering the maximum number.

Copies

Use the Copies value control to set the number of copies of the current print job you wish to print.

Include Background?

You have the option to exclude the background images from your slides so they will not be printed as part of the slide. Turning off Include Background? excludes background images from all slides in the current print job. For example, if your slides contain text overlying busy background graphic images, and you are using ScalaPrint to generate transparencies. You want to emphasize only the text, so you might choose to exclude the background images from the slides. The Include Background? option is on by default.

The Layout panel

The Layout panel contains options which tailor how slides are laid out on the pages of your print job.

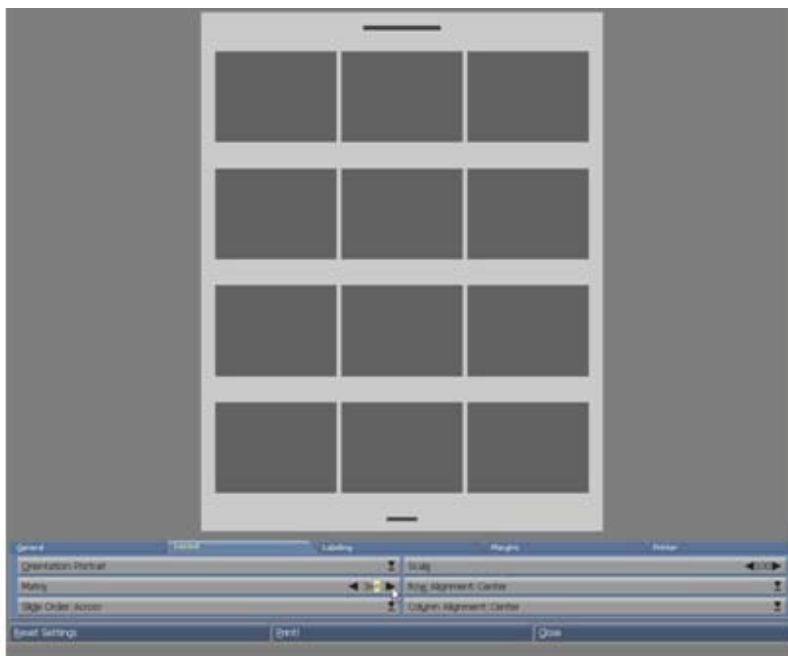


Orientation

Choose the direction in which the slide's contents are positioned on the page with the Orientation: selector. You can select either Portrait, in which the page height is longer than its width, and columns are positioned across the narrower dimension of the page; or Landscape, in which the page width is longer than its height, and columns are positioned across the widest dimension of the page.

Matrix

You can specify the number of slides which will appear on a page as well as how they are arranged in columns and rows by using the Matrix value control. The first value represents the number of columns of slides, and the second value represents the number of rows of slides.



You can have as few as 1 slide per page (a matrix value of 1×1) to as many as 100 slides per page (a matrix value of 10×10). Obviously, as matrix values increase, the number of slides on a page will increase. Subsequently there will be less room to display each slide. ScalaPrint will reduce the size of every slide equally, maintaining their original aspect ratios. As you adjust the matrix values, the page preview slides will change correspondingly.

To change the Matrix value, use the value control. You can use the arrows or enter the numbers manually.

Slide Order

Placing multiple rows and/or columns of slides on a page requires you decide their order. Using the Slide Order: selector, you can specify whether the slides' order is Across, filling each row to progress to the bottom of the page, or Down, filling each column to progress to the right side of the page. The default order is Across.

Scale

Sometimes when printing a script you may need more white space around your slides, whether it be for notes, framing, titles or labels, or just for aesthetic reasons. Using the Scale option, you can scale down or reduce slides to a percentage of their maximum size. Keep in mind the maximum slide image sizes are initially determined by the number of slides you choose to place upon each page with the Matrix control. Scaling does not increase the number of slides on a page; it merely reduces each slide's image size. You cannot scale up, or enlarge a slide to greater than 100% of its maximum size.

Row Alignment

Just like you justify or align text, you can align slides. However, with ScalaPrint, you are actually aligning the slides within the boundaries of their individual matrix areas. Row Alignment: will allow you to align the rows of slides vertically on the page. Choose from among Center, Top, and Bottom alignments. Selecting Center will align the slide row(s) at the centers of the matrix areas. Selecting Top will align the slide row(s) along the top edges of their matrix areas. Selecting Bottom will align the slide row(s) along the bottom of their matrix areas.

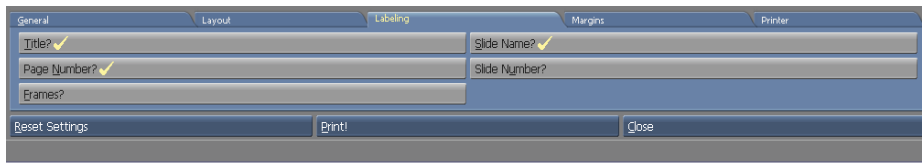
Aligning slides will create a visual effect only if the slides have room to move vertically within their matrix areas. If your slides do not move when you change their alignment, use the Scale option to reduce their size.

Column Alignment

Column Alignment: will allow you to align the column(s) of slides horizontally on the page. Choose from among Center, Left, and Right alignments. Selecting Center will align the slide row(s) along the centers of the matrix areas. Selecting Left will align the slide row(s) along the left edges of their matrix areas. Selecting Right will align the slide row(s) along the right sides of their matrix areas. Further adjustments may need to be applied to the page's margins using the Margins option tab. This will be discussed later in this chapter. Aligning slides will create a visual effect only if the slides have room to move horizontally within their matrix areas. If your slides do not move when they have been justified, use the Scale option to reduce their size.

16.8.1 The Labeling panel

ScalaPrint's Labeling panel offers a variety of options to control the labeling of your slides on the printed pages.



Title?

The Title? option, which is on by default, will place the name of your script, without its file extension, at the top of each page of your print job. With the Title? option turned on, you will see a greeked representation of the title displayed at the top of the page preview. With the Title? option turned off, the printed pages will not contain a heading.

Page Number?

The Page Number? option enables or disables printing the print job's page number at the bottom of each page. The page number represents the order of the pages as they are generated by the printer for the current print job, and does not necessarily correspond to the numbering of pages in the script. With the Page Number? option on, you will see a greeked representation of the page number displayed at the bottom of the page pre-view.

For example, suppose you select pages 1, 3, and 5 from the Main view, and set the matrix to 1×1 in ScalaPrint, so each slide prints on one page. You have defined a print job of 3 pages. These pages, if you turn on Page Number?, will be pages 1, 2, and 3 of the print job. The print job's page numbers do not correspond to the script's page numbers.

Frames?

You can choose to have a beveled frame, similar to a picture frame, placed around your slides. If you turn the Frames? option on, a

predefined frame is placed around each slide; if left off, which is the default, the slide will be displayed and printed without a border. With the Frames? option on, thin lines representing the frames outlining each slide, will appear in the page preview. ScalaPrint frames are the same thickness regardless of slide size.

Slide Name?

Turn Slide Name? on to enable the name of a slide to print directly underneath the slide image. The slide's name corresponds to the script's assigned page name, including the extension if a file name is used. With the Slide Name? option on, you will see a greeked representation of the slide name displayed underneath and to the left of each slide in the page preview. This option is off by default.

Slide Number?

Slide Number? enables or disables printing the slide's script page number directly underneath the slide image. This number is the same as the script's page number. If a slide is part of a group of pages in the Main view, the slide number will be printed as the Group number, followed by a dash (-), and then the page number within the group. With the Slide Number? option on, you will see a greeked representation of the slide number displayed underneath and to the right of each slide in the page preview.

16.8.2 The Margins panel

You can adjust the margins of the printed page by using the Top, Left, Bottom, and Right value controls on the Margins panel.



The units of measure indicated on the value controls are controlled by the Margin Units: selector. Adjusting the margins is especially useful when you need to leave room for binding your printout.

Printer devices have different minimum margin settings, and you may find a minimal margin which you have selected, is not supported by your printer. If your images, text, or labels seem to be cut off near the page edge, consult the printer manual to determine the printer's minimum supported margin.

Margin Units

Margins can be specified as either 16ths of an inch (English units) or millimeters (metric units). Use the Margin Units: selector to switch between English and metric. When you change between millimeters and 16ths of an inch, the individual margin values will accurately convert from metric to English and vice versa.

16.8.3 The Printer panel

The Printer options panel will allow you to adjust physical printing options, including allowing you to choose the print device itself.

Printer

Use the Printer: selector to choose from the list of available printers which your computer is set up to use. You can select only from those printers configured in the Windows Printers folder. If the desired printer name is not available from the selector, check your system's printer settings. The

default printer displayed in ScalaPrint will match your default Windows printer.

Paper

Use the Paper: selector to choose a paper size for your print job. The sizes listed are those which the currently selected printer accommodates.

Printer Properties

Clicking the Printer Properties button will open the Windows Printer Properties dialog. You can then select from among the other features which is offered by the selected printer driver.

Other than to select printer device, paper size, number of copies and paper orientation, you must use the external Windows Printer Properties dialog to change the current printer's features.

For these printer settings which you can also make directly in ScalaPrint, the corresponding settings in the Printer Properties sheet will reflect whatever choices have already been made. Similarly, changes which are made in Printer Properties are immediately reflected in ScalaPrint, when you click OK and return.

Reset Settings

Clicking Reset Settings changes all of ScalaPrint's settings back to their defaults. Any selections which have been made, will be discarded.

Print!

When you have made your choices for your print job's content, layout, and destination, you are ready to print. Click the Print! button to send the

currently configured print job to the printer you have selected.

Close

Selecting Close exits ScalaPrint and will return you to the Main view. All General, Layout, Labeling, Margins, and Printer settings will automatically be saved when you close the ScalaPrint view.

16.9 Advanced Features

16.9.1 Different Layouts for Different Pages

ScalaPrint supports only one matrix or layout for the entire print job. If you want to select more than one matrix arrangement for different pages, you must configure separate print jobs for each intended layout.

For example, if you want pages 1, 6, and 11 to print by themselves, each being the only slide on the page; however, you also want pages 2-5 together on a page, and pages 7-10 together on a page; you could accomplish this by setting up two separate print jobs. First select pages 1, 6, and 11 from the Main view, set the Matrix selector to 1×1, and then send the print job to the printer. Then select pages 2, 3, 4, 5, 7, 8, 9, and 10 from the Main view, and set the Matrix selector to something which would allow 4 slides to print on a page, such as 2×2, or 1×4, or 4×1. Then simply send the second print job to the printer.

16.9.2 Finding Missing Files in a Script

When you're publishing, exporting or printing a script in Designer, you may encounter a missing media file warning. If this occurs, processing will not continue, until the problem has been corrected. Return to the Main view Thumbnail mode. The page with the missing media will reveal a missing file

warning icon in the thumbnail.

To find the missing file(s), use the Collect Files option under the File pull-down menu. Whichever files are missing will be displayed, with their original path. You can then replace or reload the files, thereby correcting the problem.

|||| 17 Customizing Designer

Chapter Overview

Scala Designer allows you to customize your working environment to suit your hardware setup and personal preferences. You can adjust the appearance of the application's window "skins", set options to improve performance, or choose the time and date format for your national region. The majority of customizable options are conveniently located in the Options dialog, which you can access from the Tools pull-down menu in the Main view.

17.1 Glossary of Terms in this Chapter

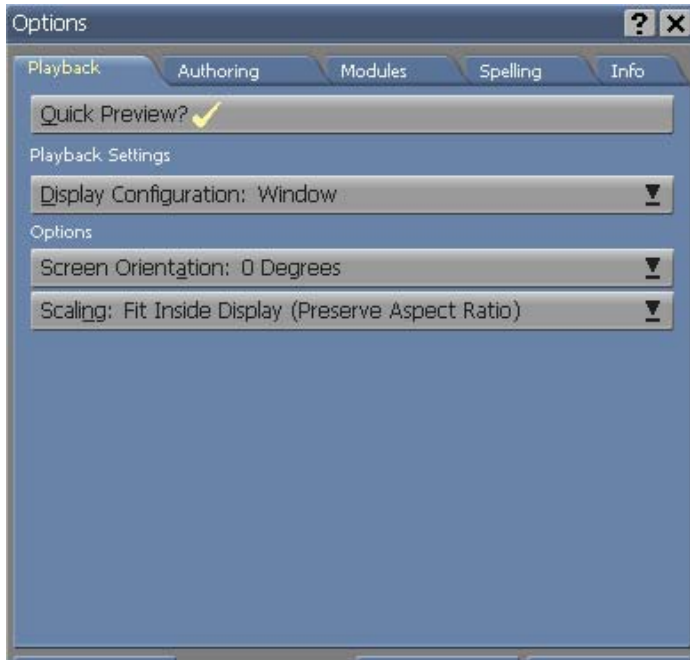
Skin – This is defined as the graphical appearance of the User Interface (UI) in the Designer 5 window. By changing a Skin in the Options pop-up, you will change the color scheme and overall look of the buttons, tabs and other window elements.

EX Module – A Scala EX Module is an extension which allows the user additional control over a variety of options such as Timing, Sound, Database, Schedule and more.

Multi-tile– Multi-tiles are edited bitmap images which are divided into 4 parts in the Scala Multi-tile Editor, and stretched in the middle sections to accommodate scaling without distortion or resolution degradation.

17.2 The Options Dialog

In the Main view, choose Options from the Tools pull-down menu to open the Options dialog.



The Options dialog contains the following tabs: Playback, Authoring, Thumbnails, Modules, Spelling, and Info.

Most of the settings discussed in the first half of this chapter will pertain to this dialog.

17.3 Setting How Scripts Play Back

The Playback tab panel allows you to customize how scripts will be played back on your system. Before you begin, you should decide whether your scripts will play back in a window, or fill the entire screen. Additionally, you will have to decide upon which display mode will be used for playback.

You can choose one of two ways to make these decisions on the Display Configuration: selector, by picking either Window or One Screen or Cloned on Two Screens. The options on this panel will change depending on which

mode you choose.

Note: When you choose Cloned on Two screens you are given the option to span the screens horizontally or vertically. You must then ensure that you set the screen options for both screens.



17.3.1 Ensuring full screen playback

The default for playback is full screen.

To make scripts fill the screen when you click Play:

1. Set Display Configuration: to One Screen.

2. To keep the display mode from changing from the current Windows setting, turn on the Same As Desktop? option.
3. If you want to ensure the script fills the screen, make sure the Content Scaling: selector is set to Fit Inside Display (Preserve Aspect Ratio).

There are several Channel Options you can choose to ensure the correct dimensions and resolutions of your display settings will be available during playback.

17.3.2 Custom Full Screen Playback

Designer will allow any script to be played back with a specified resolution, color depth, or refresh rate. An example for using this customizable feature would be if you were using a laptop computer which offered only one display mode.

To ensure full screen playback in a particular display mode:

1. Set Display Configuration: to One Screen.
2. Click the Same As Desktop?: button (unchecked or Off) to activate the selectors.
3. Choose the active Screen: as well as the size and color depth you prefer, from the Screen Settings: selector.
4. Select the desired Screen Orientation: (in 90 degree increments)
5. Choose from the Content Scaling: selector, your desired method of filling the screen: Fit Inside Display (Preserves Aspect Ratio), Fill and Trim to Display (Preserves Aspect Ratio) or Fill Display Exactly

(which stretches the script to the edges of the display boundaries).

17.3.3 Controlling Mode Switches While Previewing

When a computer switches display modes to accommodate a different size or color depth setting for a script, there is usually a brief pause while the monitor clears to adjust to the new mode. Designer offers a special option, Quick Preview?, to control mode switching during preview playback. It is available in the Playback panel in both Standard and Custom playback modes.

Normally, this option is on, which means that during preview playback, the display mode switches are suppressed, regardless of other settings. This is primarily used when you author in a window and play back in full screen mode. With Quick Preview? on, preview playback will be revealed in a window, therefore, a mode switch will not take place. To have previews work similar to normal playback, simply turn Quick Preview? off.

17.4 Customizing Your Authoring Environment

The Authoring panel in the Options dialog offers various settings which allow you to adapt the appearance and operation of Designer's authoring environment to your individual preferences.



17.4.1 Choosing a toolbar style

The toolbar in most Designer views is fully configurable. It can show an icon for each function and/or text, describing the function underneath. Using the Toolbar: selector from the Authoring tab, you can choose from the options Text and icons, Text only, and Icons only.

17.4.2 Turning off the Status Bar

The Status Bar is located at the bottom of the Designer screen. The Status Bar displays brief messages about Undo/Redo usage, along with other program operations. You can remove the Status Bar to give your Designer screen more vertical room simply by clicking the Status Bar? button off.

17.4.3 Changing the Application's Color Scheme (Skin)

Scala provides several preset color schemes, or "Skins" for the Designer authoring environment window. Click the Skin: selector and choose a preset color scheme. Each skin contains a variety of characteristics,

however, if you're used to working in the classic InfoChannel Designer 3 environment, and wish to continue with a familiar color scheme, the classic skins are still available.

17.4.4 Changing Application Fonts

There are two fonts used in Designer's views, a large font, which is used on most controls, and in the Information window, and a small font, which is used for column headings, toolbar labels, and panel tabs. You can change these fonts at any time, according to your sense of style, or to match the user interface to the size of the screen or window. To change the font:

1. Click the Large Font: selector or the Small Font: selector, and the Font panel will open across the bottom of the window.
2. Click your desired typeface design, in the Typeface column. An example of the selected typeface will appear in the Sample box.
3. Choose a size for the font in the Size Column.
4. You may also turn on the Bold? or Italic? styles for the font.

The Main view and Page view will change to correspond with your selected font when you click OK. The name, size and style of your font will be displayed on the Font button. If you pick a larger font for better legibility on high-resolution screens, make sure to check the toolbar, and a few representative menus, to ensure the icons, buttons, and control labels remain visible.

17.4.5 Save New Scripts as Plain Text

When this option is on, any new scripts which are created, by default, will be saved in a form which is completely editable with a standard text editor.

In some cases, this will result in an extra .DAT file, which contains some of the script contents. This option applies only to new scripts. Existing scripts will be saved in the same form in which they were opened. You can change this setting on a per script basis in the Save Script File dialog, under Advanced Options.

17.4.6 Smart Quotes

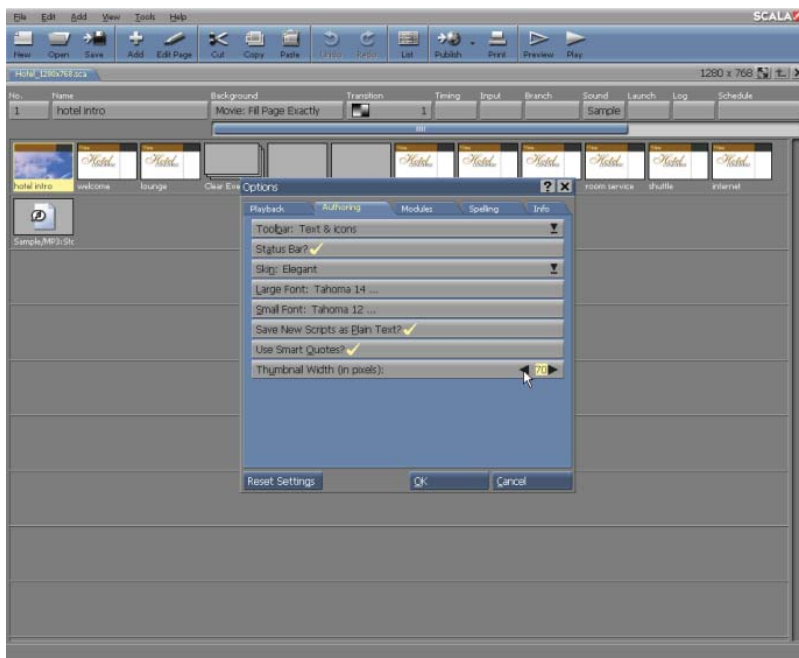
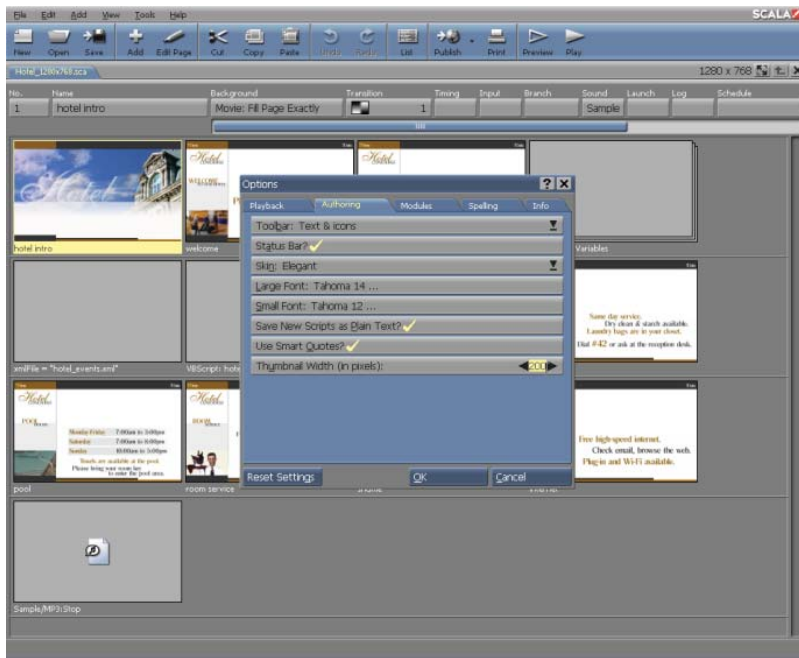
When this feature is on, straight quotes (') and (") will be replaced with Smart Quotes, (as you type).

17.5 Configuring the Thumbnail views

You can specify the size of the thumbnail images for the Main view.

The Thumbnail view can also be adjusted in the Authoring tab, using the left/right arrows in the selector for Thumbnail Width (in pixels). If you prefer, you may select the number between the arrows and type in the pixel width numerically. Decrease the value if you want to see more images, increase the value if you want to see larger, more detailed images. Click the OK button to accept the new changes and close the dialog.

Designer⁵



17.5.1 The Scala Module system

Designer enables various functions and “talks” to hardware devices through special software modules called Modules. A module works like a printer driver. It seemingly “knows” about the kind of signals and the data format needed by a particular device. It also knows how to talk to Designer, so in effect it translates commands which come from a script—for example, an event which runs a videotape—into the form required by the device.

However, a module is more than a simple driver. Modules actually add new capabilities to Designer. Modules which enable you to use a new device, frequently have their own menus, and add a column of buttons to the Main view. Others might operate entirely in the software, such as a Module which would allow Designer to exchange data with another software application.

Modules can be supplied by Scala or by third-party developers. You can enable new Modules on your Designer system at any time – however some Modules will not function without being licensed. The Modules panel displays Modules in two scrolling lists. Modules which are integral to the Designer software, and have no optional settings, will not be displayed. Only Modules which have configurable settings and/or are optional will be listed.

17.5.2 Module menus and settings

When you click a button in a Main view column, a menu for the corresponding Module will appear. You can then adjust the settings just as you would for similar columns in the Main view. Some Modules contain configuration settings. Modules such as Timing and Launch in the default Designer installation—are shown in the Options dialog Module Settings list. The settings which are available with these dialogs are global settings.

Any event or script which uses the corresponding Module will be affected. In contrast, the Module menus which you see on the Main and Design List views control settings which are specific to a particular script event.

Configuring the Timing Module

The Timing Options dialog primarily controls how the Designer system variables, Time, Date and WeekDay display their information. With several options available, you can use the formats best suited for your geographic region (or the region in which your scripts will run). Day, date, and time are displayed in scripts by embedding those variables in the normal text. To choose time and date formats, simply click the Timing Module button in the Module Settings column. The Time, Date, and Weekday variables dialog will appear with Time format:, Date format:, and Weekday format: options. The options will be indicated by on three pop-ups.

Time format: has nine options, with different combinations of 12-hour and 24-hour, leading zero, and seconds:

- | | |
|---------------------------------|----------------------|
| 1) Use Windows Regional Options | 6) 07:30:58 am (12h) |
| 2) 07:30:58 (24h) | 7) 07:30 am (12h) |
| 3) 07:30 (24h) | 8) 7:30:58 am (12h) |
| 4) 7:30:58 (24h) | 9) 7:30 am (12h) |
| 5) 7:30 (24h) | |

Date format: has fifteen options, using different combinations of separators, leading zero, and day/month/year order:

- | | |
|---------------------------------|----------------|
| 1) Use Windows Regional Options | 9) 5-Oct-99 |
| 2) 5 October 1999 | 10) 991005 |
| 3) 5. October 1999 | 11) 99/10/05 |
| 4) October 5, 1999 | 12) 05.10.99 |
| 5) 10/5/99 | 13) 5.10.99 |
| 6) 10/05/99 | 14) 5.10.1999 |
| 7) 05/10/99 | 15) 1999-10-05 |
| 8) 05-Oct-99 | |

There are three options for Weekday format:, Use Windows Regional Options, Use Installed Language, and Use English.

If you prefer your text which appears in the timing variables (am/pm, October, Thursday) to be all in upper-case (AM/PM, OCTOBER, THURSDAY), simply turn on the Upper-case only? option.

To save these settings as your defaults, and exit the Timing dialog, click OK. Click Cancel or the dialog close button, to discard any unwanted changes.

Configuring the Launch Module

The Launch Module allows an Designer script to launch external applications and commands under script control. The Launch Module has one option, which is accessible from the Launch Module Options dialog.

The Security: pop-up will allow you to set a security level when opening scripts which contain Launch events. It will determine whether Designer displays a warning dialog before running a script which contains Launch events. The dialog will also advise if an application launched from a script could potentially have undesired effects, such as overwriting or deleting files without notice. An option to abort opening the script, will be offered.

The default choice is Warn when opening, which will cause a cautionary dialog to be displayed whenever you open a script containing Launch events. Use this choice if you are opening scripts from un-trusted sources. Disallow opening prevents the opening or authoring of scripts which contain Launch events. If the scripts which you will be creating or using do not contain Launch events, select this choice.

No warning when opening will disable Launch event warnings. This can be

convenient for those who often work with scripts which contain Launch events and prefer to avoid the dialogs. The Launch Module's power makes the playback machine vulnerable to software which may be damaging. Because of this risk, it is recommended you do not set the Launch Module security level to No warning, especially if you are opening scripts from unknown sources.

To save the setting as the default and exit the Launch dialog, simply click OK. Click Cancel or the dialog close button to discard any unwanted changes.

Configuring the Schedule Module

The two choices for this option are for the First Day of the Week: select Sunday or Monday.

17.5.3 Enabling and disabling Modules

The Module buttons in the Optional Modules list will allow you to turn an optional Modules on and off. Modules which are "on" have a on the button; those which are "off" do not. When you turn an Module off, its column, if any, will no longer appear in the Main view.

You always have an option to turn off a Module for any reason. If a Module adds new script production capabilities to Designer, a column will appear in the Main view when the Module is on. The column for a new Module will appear to the right of the Main view columns. You may need to use the horizontal scroll bar on the Main view to see additional columns of new Modules.

17.6 Spelling Options

There are several options associated with the spell checker, which are found in the Spelling tab on the Options dialog.

17.6.1 Choosing a language

The spell checker can check spellings of words in many different languages, however, it can only check one language at a time. The default is US English. The Language: pop-up lists the languages available for spell checking. For a language to appear, a dictionary file for that corresponding language must exist.

17.6.2 Resetting the Ignored Words List

The spell checker builds a list in memory of words which you have specified for the checker to temporarily ignore. Any words which are on this list will not be checked by the spell checker for the rest of that corresponding Designer session.

You may clear the ignored words list at any time to enable spell check to reset. For example, you could have a script which deliberately uses a misspelled word, such as a trademarked name. To prevent the spell checker from continually stopping at this word, simply click Ignore All when spell check initially stops at the word. (Do not add this word to the user dictionary. By doing so, the misspelling would always be ignored, and never caught in normal usage outside this particular script.) To clear the ignored words list, so text will be re-checked, click Reset Ignore All. Once the list has been reset, the text it contained, cannot be refreshed.

17.6.3 Editing the User Dictionary

The spell checker will allow you to build a custom user dictionary of words which will never be flagged as misspelled. Having misspelled words in the user dictionary prevents those misspellings from being noticed and corrected; the inclusion of correctly-spelled common words is redundant, because those words are already in the main dictionary. An excessively large user dictionary can also slow down the spell checking process. For this reason, it is possible to view the user dictionary's contents, and delete words from it, as necessary. The Custom Dictionary scrolling list in the lower part of the Spelling panel displays the words in the user dictionary. To delete a word, simply select it and then click the Delete button at the bottom of the panel.

There is an independent user dictionary for each language. If you spell-check in multiple languages, you will need to choose the correct language before you can edit its corresponding user dictionary.

17.6.4 Information Options

The Info panel displays product identification information. It reveals the name, release date and language of the Designer installation as a whole, and version numbers of various system software modules, including EX modules. You can click in the list to highlight an entry, making it easier to read.

If you have problems with Designer or with Modules, it may help to record the version numbers, so you can report your system setup accurately to technical support personnel.

17.6.5 Using and Resetting Options Settings

When you have made changes to settings in the Options dialog and want to

return to working with scripts using the same a settings, you have a few possible choices.

OK will confirm any changes made since you entered the Options dialog, Cancel will discard them. In either case, the dialog will close. If you confirmed the changes, your settings will remain in effect for the rest of your editing session. Additionally, they will be saved for future sessions.

17.6.6 Resetting all options

Click Reset Settings to return to Designer's default settings.

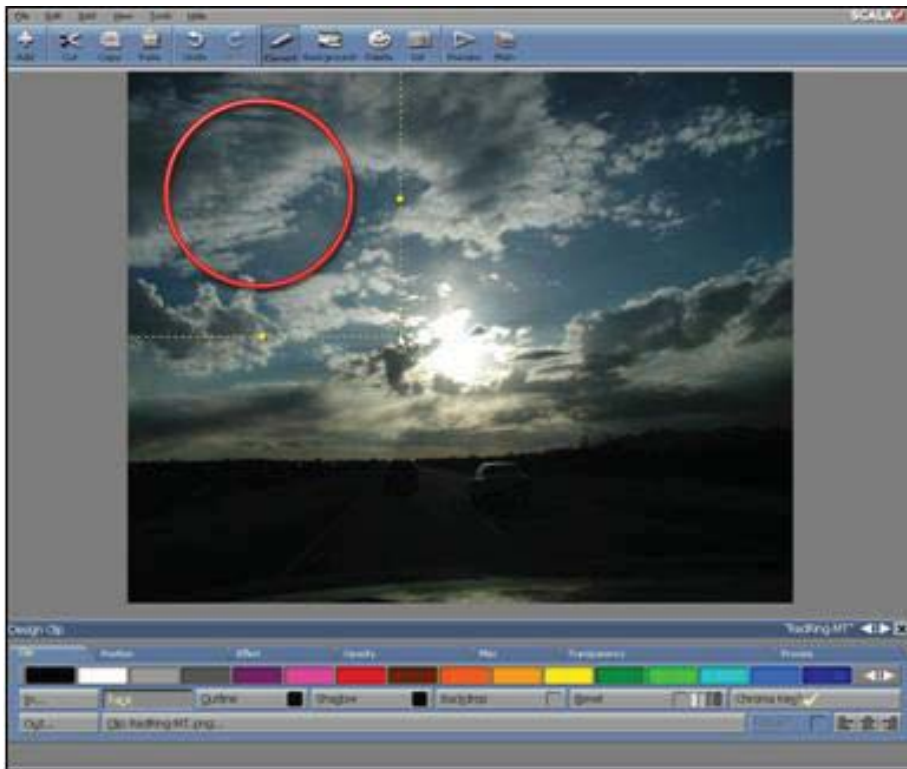
17.7 Multi-tile Editor

The Multi-tile Editor is similar to a built-in graphics editor, which splits bitmapped elements into sections that can be stretched and scaled; while keeping their 4-corner integrity in shape and resolution. This tool will work with any imported JPG, BMP or PNG image file. This is a highly effective tool to quickly and seamlessly create scalable screen graphic elements, lower-thirds, title bars, etc...

17.7.1 How multi-tiles work

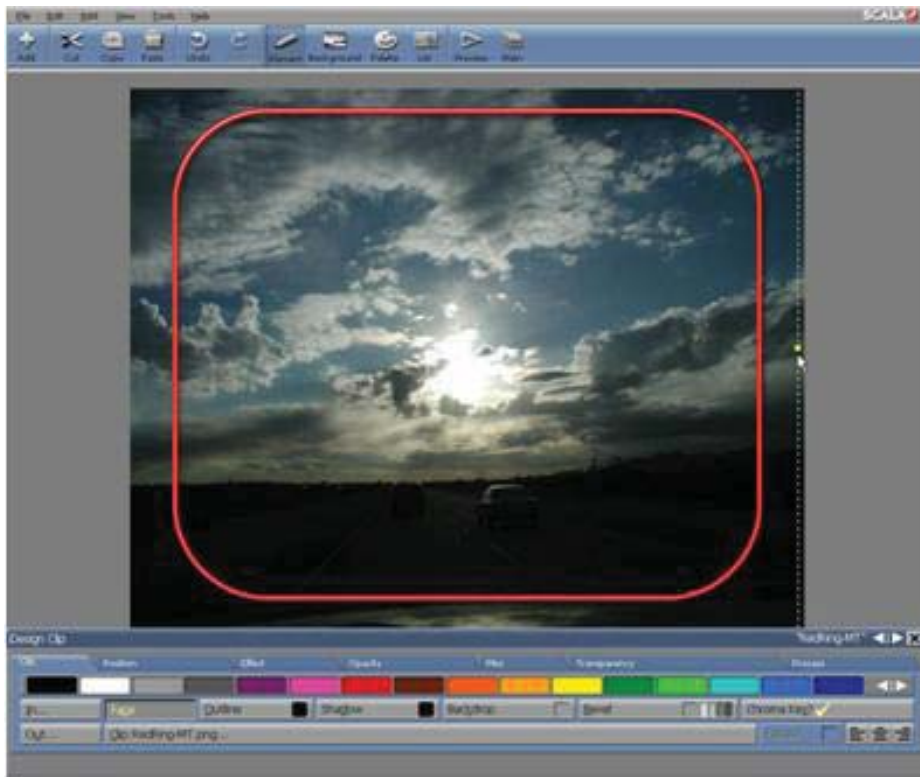
A multi-tile is a bitmap image file which begins as an ordinary clip. The file format used for multi-tiles, however, is extensible in such a way which the image can behave differently when resized than a regular clip does.

Multi-tiles make it possible to resize clip-art imagery without distortions which may be seen when stretching an ordinary bitmap. When you resize a bitmap, such as a clip, the pixels in the image are elongated equally, resulting in an overall stretched appearance to the clip image.



For example, if you start with a clip of a painting in a picture frame, after resizing it to twice its original width, the left and right sides of the frame will appear to be twice the thickness of the top and bottom of the frame. If the clip were made into a multi-tile, the frame would retain its original proportions on all sides. The “framing” portions of an image—the top, bottom, left and right sides—will retain their original proportions regardless of resizing.

Making a multi-tile from an ordinary image is accomplished by using the Designer Multi-tile Editor to slice the source image into nine tiling regions. There are three slices in each direction. The four corner regions will not change size, and will not be duplicated when the multi-tile is sized.

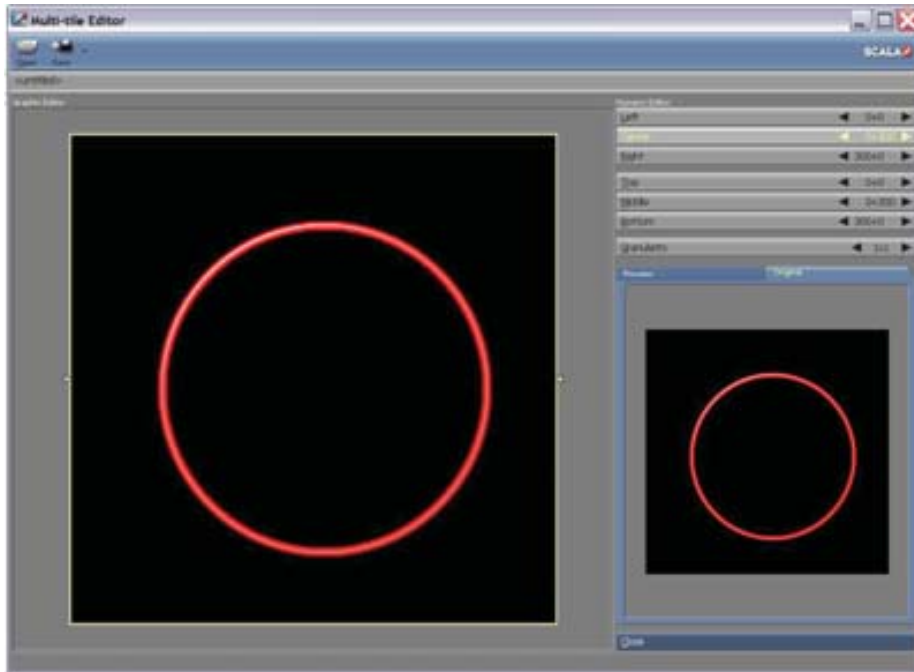


The middle regions of the four outer slices are duplicated in the appropriate direction when the multi-tile is sized: the Top and Bottom middle regions are duplicated horizontally, and the Left and Right middle regions are duplicated vertically. This will ensure that the sides of the image, where you would typically have features such as beveled edges, shadows, etc., will continue to fit with the corner regions. The “center-middle” region is tiled, or duplicated both horizontally and vertically as necessary, to fill the internal area of the multi-tile for the desired size.

The process of creating a useful multi-tile is primarily a matter of defining the slices, therefore, the multi-tile will be proportionately correct at any size. This involves determining where the edges of each slice must be so which the internal pattern, if any, is tiled without any ugly discontinuities. Properly adjusted, the edges will line up with the image’s internal areas

for a smooth and consistent look, regardless of resizing.

17.7.2 Accessing the Multi-tile Editor



Access the Designer Multi-tile Editor through the Tools pull-down menu from the Main view (Tools>Multi-tile Editor). This will open the Multi-tile Editor screen.

You can create a multi-tile image in the Multi-tile Editor by modifying a source image file. The source image can be any BMP, JPG or PNG graphics file, although for the purpose of creating a multi-tile, the image should ideally be fairly small, and contain some type of pattern, suitable for tiling.

Defining the multi-tile involves specifying the dimensions of the six slices of the image file, as well as a sizing increment, called granularity.

17.7.3 Open

Click the Open icon in the Multi-tile Editor toolbar to open the File dialog. Choose a source image in any format, or an existing multi-tile (PNG format). When you have chosen an image, click OK. The Multi-tile Editor containing your chosen image will appear, ready for editing. The name of the image will appear in the bar below the toolbar.

17.7.4 Save

To save a multi-tile which you have created or edited, simply click the Save icon in the Multi-tile Editor toolbar to open the File dialog. You can also save the multi-tile to any location. Regardless of the format of the source image, multi-tiles will be saved as PNG files.

17.7.5 Close

Click Close to exit the Multi-tile Editor and return to the Main view. You will be prompted to save any unsaved changes.

17.7.6 Image areas

The Multi-tile Editor screen has two display areas. The large area to the left is the Graphic Editor, which shows an enlarged version of the source image. This is where you actually define the slices. The name of the currently open file will be shown in the bar above this area. In the lower right of the editor is a tabbed display section which contains the Preview tab, which shows a stretched version of the source image, using the settings you have defined for it, and the Original tab, which shows the image at its natural, un-expanded dimensions.

17.7.7 Slice Controls

Above the Preview/Original tabs are the buttons of the Numeric Editor, which control the vertical and horizontal slices. Each of the six slice buttons displays two pixel values: the first is an offset (the number of pixels from the top edge or left edge of the source image) and the second is width.

When you select one of the buttons, the corresponding slice will be highlighted on the Graphic Editor's enlarged image. Changing the Numeric Editor values will change the dimensions of the slice in the editor. Similarly, clicking in the enlarged image will select a slice. By dragging the graphic handles on the sides of the slice, the pixel values on the corresponding button will automatically update. You can use either or both methods to define your slices.

17.7.8 Granularity

In Designer, you can resize a clip arbitrarily to any pixel size. However, multi-tiles are resized in discrete increments which may be larger than a single pixel. The Granularity value control specifies the increments by the size which the multi-tile can be changed. A large granularity limits the number of possible sizes you can make; a small granularity allows you to resize more freely.

The control will allow you to adjust the horizontal and vertical granularity independently, in pixels. Click the Granularity control to activate it. This will also highlight the granularity setting graphically on the enlarged image. You can adjust the setting using the handles, similar to working with slices. Generally, granularity should be small, such as 3×3 . This will allow greater precision in sizing the multi-tile. The limiting factor in specifying the granularity is the source image, and the desired look when it is adjusted to its final size. With some source images, the exact granularity setting is not critical. However, others may call for a particular granularity value.

Following are two main reasons for specifying a particular granularity value:

- to prevent discontinuities between the center-middle slices and the Bottom and Right slices.

If the granularity is smaller than the size of the center-middle slice, segments of the Center and Middle slices (in granularity-sized increments) are used to complete any odd-sized area on the right and bottom of the fill area. These segments might not match with portions of the central pattern that could be present in the Bottom/Right slices.

- to ensure the pattern contained in the center-middle region will always reproduced in its entirety, not cut off from the bottom or right sides.

When the granularity is made equal to the size of the tile defined by the Center and Middle slices, only whole center-middle tiles will be displayed, and the pattern will not be cut off.

If the source image contains a repeating pattern, the granularity should match the size of the smallest unique portion of the pattern, therefore, when duplicated, the slices will fit together seamlessly. You might also want to do this to prevent the repeated part from appearing cut off on the bottom and right side of the multi-tile. The granularity values can range from 1×1 to a maximum equal to the size of the center-middle region of the image.

17.7.9 Relationship between granularity and center-middle region

The granularity of a multi-tile is not necessarily the same as the size of the center-middle region. Aside from the fact that granularity cannot be larger than the size of the center-middle region, the settings of Granularity,

Center, and Middle are independent.

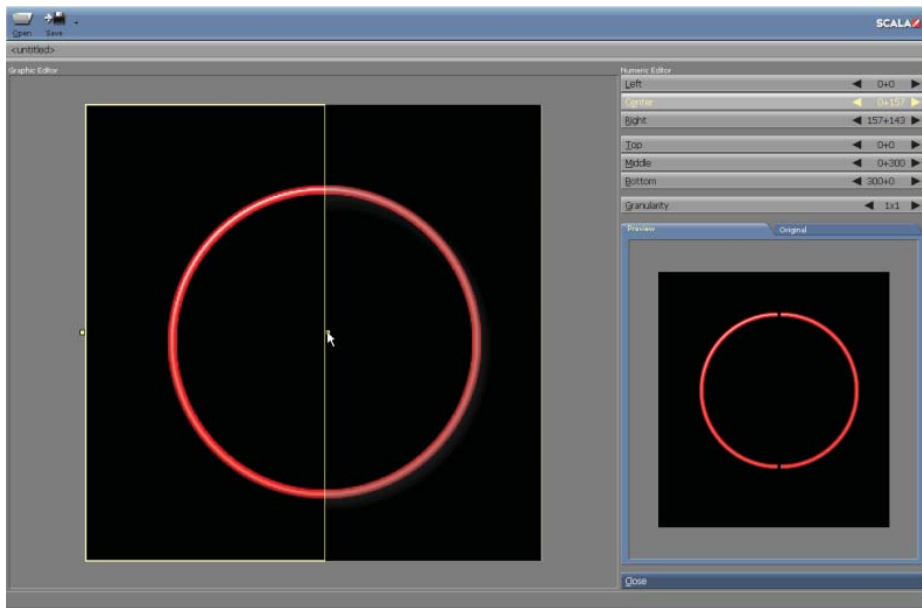
This will allow you to optimize both the precision with which you can resize the multi-tile and the quality of the resulting image. The center-middle region is used as the basic tile unit to fill the multi-tile; Designer will always reproduce the full tile, or as much of a full tile as possible within the space available. When the final size of the multi-tile cannot be filled by complete tiles, partial tiles will be used. The size of the partial tiles can vary in granularity-sized increments. Some multi-tile images have a large-scale pattern or shape, therefore, they will simply look better with a large center-middle tile. However, the nature of some large-scale patterns may allow a small granularity.

Some examples help to illustrate these different possibilities. If the pattern filling the source image is a checkerboard, alternating pixels of two different colors, the ideal dimensions of the center-middle region would be 2 pixels wide and 2 pixels high. Other even numbers would also be effective. A setting which included an odd number, however, would disrupt the even checkerboard pattern, producing an unattractive discontinuity within the boundaries of each slice. Any granularity setting would work equally well.

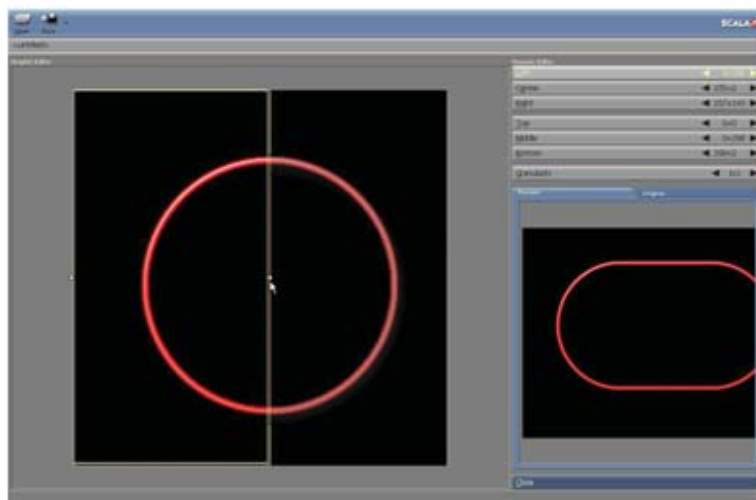
Create a blank page and use Add from the Page view and select RedRing-MT.png. Initially the source image will appear, the simple Red Ring.

To enlarge the multi-tile, the center and middle slices are duplicated. Additionally, since the slices are from the center of the sphere, (where the colors are solid and smooth), the resulting multi-tile surface will be solid and the edges will be smooth.

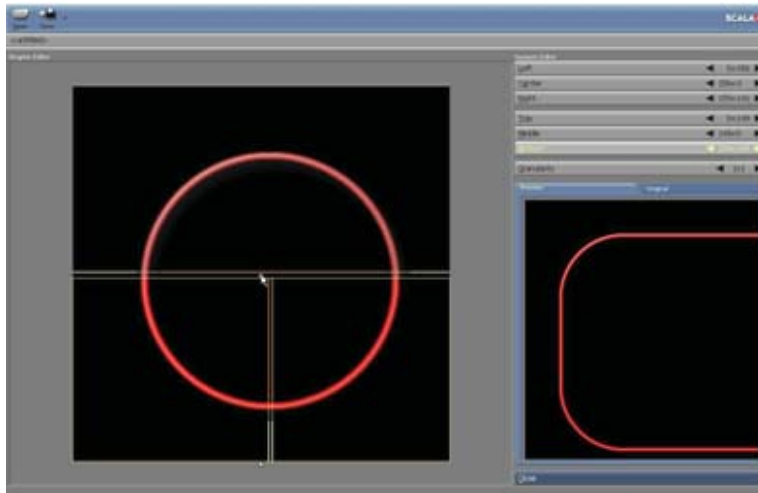
Select the side handles and drag them toward the center until you see you're half-way in the preview window in the right.



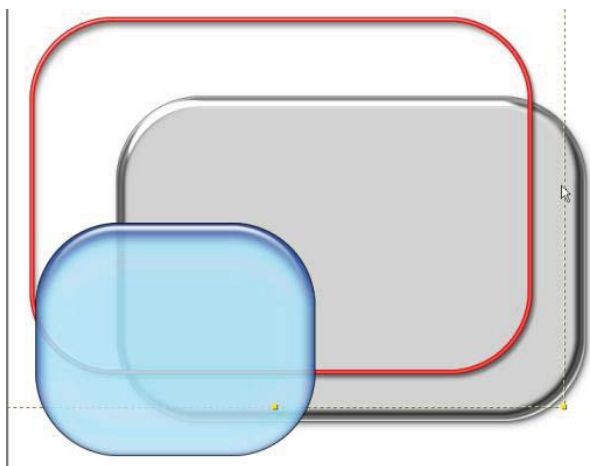
Repeat with the opposite side handle and move to the top handle and pull it half-way down.



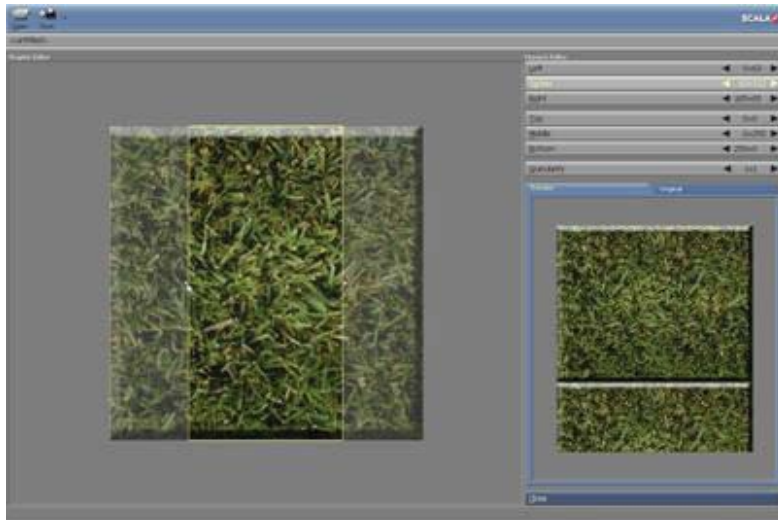
Pull up the bottom handle to the center and make any adjustments with the numeric selectors in the upper-right.



You'll notice the rectangular shape that's being generated in the preview window. Save your multi-tile so it can be imported into your Designer projects. Several multi-tiles can be used on a page, maintaining their transparency. Use them to create interesting graphic blocks and text boxes.

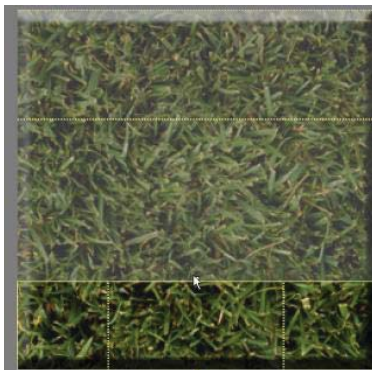


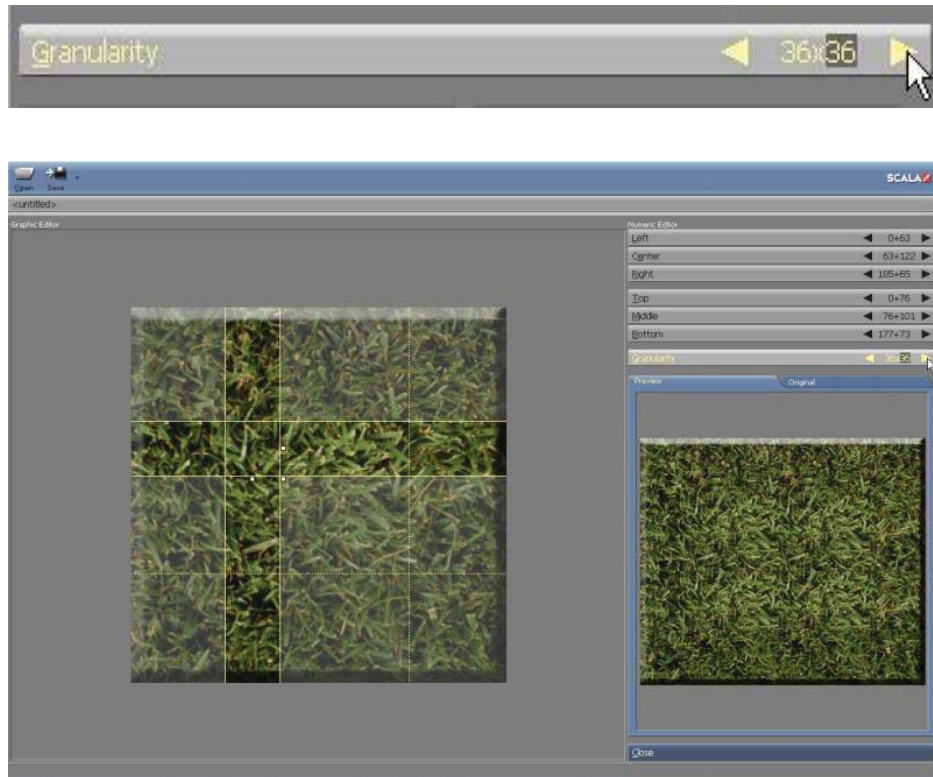
Another type of multi-tile that has texture requires the granularity setting to be adjusted to make a smoother center of the tile. For example, this grass image has beveled edges and an intricate patterned center.



Select the side handles and drag them toward the center, but only about a third of the way. Repeat with the top and bottom handles.

Adjust the Granularity at least 30 pixels in each direction to create a smooth blending of the tiling edges.





17.7.10 Working in the Multi-tile Editor

The basic strategy to make a multi-tile is to make the framing slices (Left, Right, Top, and Bottom) just wide enough to contain the parts of the source image which form the borders of the image. The Center and Middle slices contain the areas of the image which can be duplicated.

The trick is to adjust the slice edges so they will precisely match the edges of the pattern which is to be repeated. The Center slice should be exactly as wide as the pattern, while the Middle slice should be exactly as tall. These slices may also be multiples of the width/height of the pattern. If the framing slices contain any of the central pattern, their edges should be at the edges of the patterns when you try it for yourself. Although you can

use any image to make a multi-tile, to achieve optimal results, you should use a source image which was specifically created for this use. Typically this will be a rectangular graphic which contains shading or other special treatment of its edges and corners; along with a central pattern which is designed to fit seamlessly together when tiled. By using the aforementioned image, the tiling won't be apparent: the multi-tile interior will look like a single, unbroken surface and the edges will be continuous. Clip-art libraries, particularly those intended for Web authoring, often contain graphics which have been specifically designed with this purpose in mind. You can also use an external paint program to create effective images.

17.7.11 Working With the Source Image

When you first open a plain image (one which is not already a multi-tile) into the Multi-tile Editor, the Center and Middle slices are set to occupy the entire image. If your image is a uniform pattern, the other slices will be superfluous allowing you to simply adjust the granularity and immediately save the image.

NOTE: If you open a new image which is the same size as the current image, the slice definitions for the current image will be retained.

Assuming your source image contains edge features which should be preserved, you will have to reduce the dimensions of the Center and Middle slices, thereby increasing the dimensions of the Left, Right, Top, and Bottom slices enclosing the borders of the image.

17.7.12 Selecting slices

A given area of the image is usually a part of two slices, a horizontal slice and a vertical slice. The bottom left corner of the image is part of both the Bottom and Left slices. By clicking the corresponding button in the

Numeric Editor, you can select whatever slice you desire.

As a shortcut, you can also click on the image in the Graphic Editor. By clicking within the selected slice, you can switch between a given area's vertical and horizontal slice. Whenever you click within a slice which is already selected, the enlarged image will change from displaying horizontal to vertical slices, or vice versa. The place in the selected slice where you click to change modes determines which of the three possible slices in the other direction will be selected.

For example, if the Left slice is selected, and you click in the lower part, the Bottom slice will also be selected. If the Center slice is selected, and you click in the middle, the Middle slice will also be selected. Use the dashed lines, which indicate the boundaries of other slices, as your guide.

Clicking in an un-highlighted area of the image, or in an area outside the image, will select another slice without changing the horizontal/vertical display mode. If you click somewhere within some other slice, that slice is then selected. If you click somewhere which is not part of any slice, the nearest slice is selected. For example, when the Bottom slice is highlighted, clicking anywhere in the Top slice or above the image will select the Top slice.

Slice selection in the Graphic Editor will become clear with a little practice.

17.7.13 **Adjusting slices**

First, click on the enlarged image. A newly-opened image will be highlighted, and the entire image will be enclosed in a box with graphic handles on the left and right. The Center button will also highlight, indicating you have selected the Center slice. When a slice is highlighted, dashed lines will indicate the boundaries of other surrounding slices, for

reference. At this point, a dashed box around the entire image will appear. Drag both of the graphic handles toward the center of the image. The offset and width values in the Center button will change accordingly. The boundaries of the adjacent slices will also adjust so their edges coincide. Think of the edges of the adjacent slices as being attached, so as you adjust the slices, gaps and overlaps will be prevented. Only the area of the current slice, within the solid box, will remain highlighted. If you click again within the highlighted area, the Middle slice will be selected. The Middle slice is still the full height of the image, therefore, it will be highlighted accordingly. The handles will appear on the top and bottom of its bounding box. Drag the handles toward the middle of the image.

17.7.14 **Separating the edges of the slices**

By default, the edges of neighboring slices are “stuck together”: For example, when you move the right edge of the Middle slice, the left edge of the Right slice will move in tandem. This will ensure that the source image’s pattern will match from slice to slice. The edges of the slices may also be adjusted independently.

To independently control the edge of a slice, hold down Ctrl while dragging its handle. As you position the selected slice edge, the edge of the neighboring slice will not move. Once separated, the two edges will remain independent of one another, until they are moved, once again. The capability to separate slices may occasionally be useful, for example if there is one part of the source image which you want to constitute the repeated multi-tile pattern.

17.7.15 **Using the Preview Image**

As you drag the handles, the Preview image will change in real time to reflect your settings. The example will then expand to fill the preview box, given the current settings. (If the source image is too large, it may not be

possible to fit a stretched image in the Preview panel. With a very large source image, the sample may extend beyond the edges of the box. If this occurs, simply drag the sample around in the Preview panel so you can easily see the outer areas.

Because the size of the box is limited, changing settings may occasionally cause the size of the sample to jump. It is important to inspect the sample multi-tile carefully to see how your slice adjustments will affect the stretched image.

|||| 18 Making Scripts Interactive

Chapter Overview

A script that is interactive can accept input from the user. Buttons and fields are the key to the world of interactivity. A button is an element in your script that provides interactivity. These elements give the viewer control over the direction of the production. By using the mouse (or another type of input device, like a touch screen) to select buttons, the viewer can make choices about how the script should proceed.

A button can trigger almost any kind of event: jumping to a new page, playing a sound, wiping in an element, even making calculations with variables. This makes it possible for you to create flexible, powerful scripts that can adapt themselves to respond to a wide variety of audiences. Your interactive button, then, could be anything from a cat illustration that “meows” when clicked, to a catalog of product photos and text that a potential customer can browse for information.

Buttons are created and edited in the Design Buttons menu, where you work with unique button features:

- Go to other locations in the script
- Link sounds to butt
- Specify hotkeys for buttons
- Set variables based on button activity
- Use custom mouse pointers
- Independently set options for various button states

Although buttons have special features, they are elements that can be manipulated just like other elements - using wipes, cut and paste, and the other Designer menus. You have all the Element Design options open to you to make the element look the way you want.

Designer gives you great freedom to design your own buttons, but you don't have to do so. The Buttons menu also gives you the option of choosing from a selection of predefined buttons and button backdrops supplied by Scala, which have matched images for the various states.

This chapter introduces you to the Buttons menu, and walks you through the process of creating these interactive elements. It also discusses the Input menu, where you can set various options related to mouse input, keyboard input, and pointer images.

18.1 Glossary of Terms in this Chapter

Push Button - Push buttons are the most common and versatile type of button. They are typically used for branching to another page of the script, or accepting some kind of response from the viewer. A Push button can have one, two, or three visual state.

Toggle Button - A Toggle button is used to switch a logical variable between its two possible values, on and off. This makes it easy for a script to accept and respond to Yes/No kinds of input from the viewer. The button itself can have either two or four visual states. Unlike a Push button, a Toggle button remains in its selected state after being clicked so that its value is obvious.

Radio Button - A Radio button is similar to a toggle button, but it works with any kind of variable, so it can assign any type of value (text, numeric, or logical). Like a Toggle button, it has either two or four visual states, and remains in its selected state after being clicked.

18.2 Getting started: Creating push buttons

To use a button, you generally need a script consisting of at least a few

pages. Once you have some pages in your script, you can begin making it interactive.

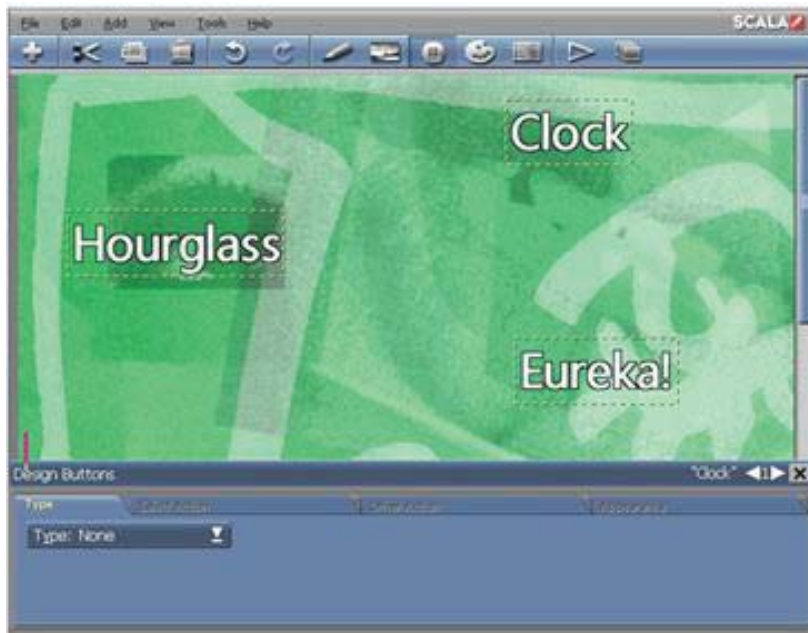
The following examples, *Creating a text button* and *Creating a predefined button* show you how to create simple buttons and illustrate how the use of buttons can change the normal script sequence.

The examples are intended to show you the basics, but there is much more that you can do when creating buttons. You are encouraged to experiment with Designer's interactive capabilities and use your imagination to create productions that get your audience involved in the multimedia experience.

18.2.1 Creating a text button

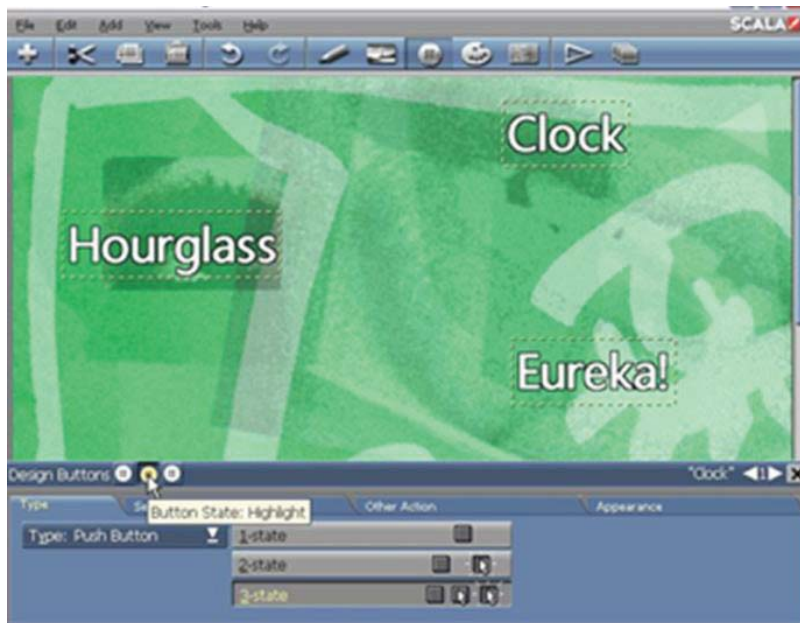
A button can be almost any element, so text can also be a button, even when there is no separate button image associated with it. The following example shows you how to make text into buttons.

1. Create four new pages by loading the four backgrounds provided in the `ScalaArt:\ClipArt\GuideExamples` folder. For the sake of this example, choose "look" for page 1; "clock" for page 2; "hourglass" for page 3; and "idea" for page 4.
2. Go to the Design Text menu for the first page, choose a large font, then type Clock, Hourglass, and Eureka!, each on its own line.
3. Click the Buttons icon. You see the Design Buttons menu, which looks like this to start with:



You make an element a button by choosing a kind of button from the Type: pop-up while the element is selected.

4. Select all three elements, then choose Push Button for the Type: pop-up. You will see a dialog asking if you want to change the timing of the page to Wait Forever. Click Yes in this dialog.
5. Select the 3-state button. This makes each text element into a three-state push button.
6. Press F12 or click the middle indicator in the title bar to change the buttons visual state from Normal to Highlight.



7. Go to the Design Text menu and click Shadow. This gives each word a shadow when highlighted.
8. Press F12 again, to change to the Select state.
9. Turn on Shadow , and also change the Front color. The buttons will have a shadow and a new color when selected.
10. Return to the Buttons menu and go to the Select Action tab. Select Clock by itself.
11. Choose Action: Go to Next Page.

The Select state is where a button actually does its work. Usually, this means jumping to another location in the script. You choose the destination for a button with the Action: pop-up on the Select Action tab. The Go to Event, Go to Next Page, and Go to Previous Page options let you specify that

execution flow should branch to another page when the button is selected. The Action: pop-up is described in more detail on See Using Go to actions in this chapter.

The Level: selector is also visible on the Select Action tab when Go to Event is chosen displays the level of the script where the destination is. If your script doesn't have any groups, as in this example, your only choices are <this script> and <this page>.

The Go To: selector indicates which page or event you want the script to advance to.

1. Select Hourglass and choose Action: Go to Event . Set the Go to: selector to page 3, and finally select Eureka! and set Go To: to page 4.
2. Select Preview to see the buttons in the three button states; move the mouse pointer over the buttons and click on them to see the highlight and select states. (Preview cannot, show the effects of Go To: settings. To see how buttons change script execution, you must play the script.)
3. Click the Main icon to exit to the Main menu

Now play the script and click on the interactive text buttons you have created to see how they affect the flow of the script. See if you can figure out what needs to be done to return to page 1 after your buttons branch to the other pages.

You have now created three simple interactive text buttons. You can follow the same basic procedure to create buttons that start with clips instead of text. There are a number of ways to do this, but one of the simplest is to use Designer's predefined buttons, as in the following example.

18.2.2 Using a predefined button

1. Create four different pages by loading four different backgrounds from the Guide Examples folder. Choose “Paper” for page 1; “BlueBG” for page 2; “YellowBG” for page 3; and “RedBG” for page 4.
2. Go to the Text menu on the first page, and type: blue yellow and red, each on its own line.
3. Goto the Buttons menu by choosing the Buttons icon
4. Click the Add icon, which opens the File dialog, where you can choose button (.btn) files from the Guide Examples folder.
5. Choose the Blue1 button. After you choose the button, you return to the Buttons menu, and you see a round button. The button is automatically created as a three-state Push button.
6. Place it next to the blue text, which will serve as a label.
7. Follow the same procedure to add the Yellow1 and Red1.

You see three round buttons, each having a label of blue, yellow, or red. The buttons appear in their Normal states.

Predefined buttons, like the one in this example, have matched images for these various buttons states, so you don't have to load, create or position separate imagery for each state.

1. Choose one of the three buttons you just created then press F12 to see how the button looks in its highlighted state.
2. Press F12 again to see how the button looks in the selected state.
3. Select the blue button and click the Select Action Tab.
4. Choose Action: Go to Event and set the Go To: selector to page 2. (You could also use Action: Go to Next Page for this button.)
5. Select the yellow button, choose Action: Go to Event, and set the Go To: selector to page 3.
6. Select the red button, choose Action: go to Event, and set the Go To: selector to page 4
7. You can click Preview to see how the buttons appear in the different states.
8. Run the script and try out the buttons

18.2.3 Working in the Design Buttons menu

The Design Buttons menu can be accessed by clicking the Buttons toolbar icon from the Design page menu. When you enter the Buttons menu, you see the Type tab, which gives you several options for button type.

18.2.4 Button types

The button Type: pop-up controls whether an element is a button, and if so what type of button it is. The possibilities are:

Push Button - Push buttons are the most common and versatile type of button. They are typically used for branching to another page of the script, or accepting some kind of response from the viewer. A Push button can have one, two, or three visual states.

Toggle Button - A Toggle button is used to switch a logical variable between its two possible values, on and off. This makes it easy for a script to accept and respond to Yes/No kinds of input from the viewer. The button itself can have either two or four visual states. Unlike a Push button, a Toggle button remains in its selected state after being clicked so that its value is obvious.

Radio Button - A Radio button is similar to a toggle button, but it works with any kind of variable, so it can assign any type of value (text, numeric, or logical). Like a Toggle button, it has either two or four visual states, and remains in its selected state after being clicked.

18.2.5 Changing a button's type

It is possible to change a button from one type to another. Just select the button and then choose the new type from the Type: pop-up. When you do this, you see a confirmation dialog telling you that button attributes unique to that button type will be lost in the conversion.

Turning a button back into a normal element

For any element selected while in the Buttons menu that is not a button, the Type: pop-up shows None. If you need to turn a button back into a normal element, select it and then choose Type: None. A warning dialog indicates that you will lose any button attributes you may have already defined if you do this.

Button basics

In Designer, there are many ways to create a button. You can start with ordinary text, or a clip or graphic object, and turn them into buttons. You can start with predefined button files supplied by Scala, and add text or imagery as labels. You can build buttons using your own text along with predefined files from Scala in various combinations, or by modifying buttons that you have previously created and exported.

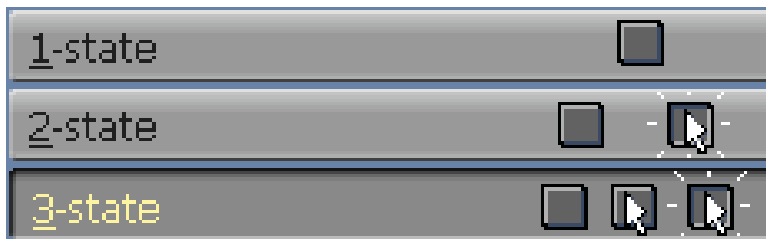
Face and backdrop

Buttons you make in Designer have two possible components for each state: backdrop and face. The face (text, for example) is generally used to identify the button. The backdrop is an area underneath the face that helps make the face visible against background imagery and emphasizes it or makes it look more presentable.

Buttons with a backdrop image and no visible face, or with a face and no visible backdrop, are possible and may be useful. Keep in mind, however, that the face must be a single element only. You are always free to label your buttons with additional plain text or clips that are next to or on top of a button. If you do so, however, you will then have to move and adjust those items separately whenever you edit the button, as they will not change when the button changes state.

18.2.6 Button states and state events

Different types of buttons have different state options. Push buttons can have one, two, or three visual states. Toggle and Radio buttons can have either two or four visual states.



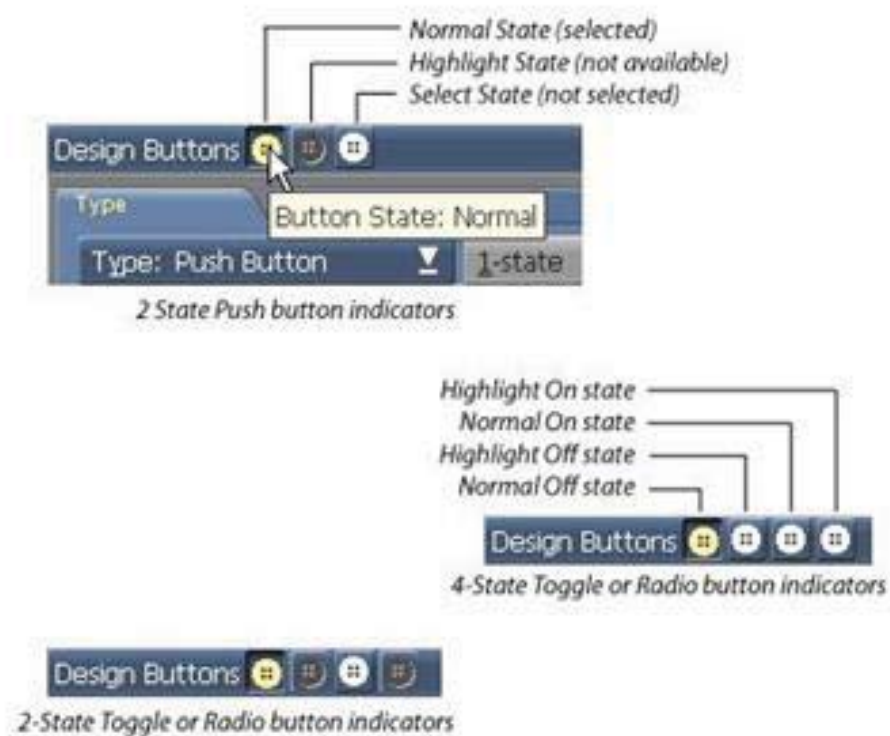
When you have selected a type of button that has multiple visual states, a series of buttons appears on the menu showing the choice of number of states for that button. Click one of the choices to establish the number of states for the button you are creating.

18.2.7 Choosing and keeping track of button states

When you create a multi-state button, or select an existing multi-state button, a row of three or four identical buttons appears in the title bar of the Design menus, just to the right of the menu name. Each button has a “button” icon on it, and represents a particular state of the currently selected button. You see these indicators in the title bar of any Design menu whenever a Push, Toggle, or Radio button is selected.

At least one of these button icons is always selected, indicating the current state of the selected button. If you have defined a Push button with fewer than three states, or a Toggle or Radio button with fewer than four states, the title bar icon(s) for the unused state(s) are disabled.

More than one state of the selected button(s) may be current at a given time, so that you can apply the same styles and attributes to several states at once. Select multiple button states to affect them all with the same attributes by Ctrl-clicking as many title bar state indicators as desired.



To cycle through the states of the currently selected button, use the F12 shortcut. Or you can click the button icons to switch directly to a particular state. Hold the mouse pointer over button icons to get tool tip information about which state each icon represents. Both F12 and the button icons are available in any Design menu.

Most of the options in the Appearance and Action tabs can be applied independently to each of a button's states.

18.2.8 Push button states

A Push button with one state has a single appearance. It can respond to being selected, but the button itself cannot give any visible response to the

mouse passing over it or clicking on it the way a button with multiple states can.

A two-state Push button can have a different appearance for its Normal (idle) state and its Select state (when it is clicked by the mouse).

A Push button with three states can have separate appearances for Normal, Highlight (mouse pointer touching it but not clicked, or highlighted by using arrow keys) and Select (clicked-on) states.

If you do not make changes to the button for its Highlight state, the button keeps its normal imagery when the mouse pointer is over it. Using the Highlight state is valuable in most interactive productions as a way of letting viewers know where buttons are, so they know when they can click or press Enter to choose a button.

During playback, a button displays the Select state when it is chosen by clicking on the mouse, when the viewer presses Enter while the button is highlighted, or when the viewer touches the button if using a touch screen device. Using different imagery for the Select state helps confirm for the viewer that his or her choice has been noticed and accepted.

You can also create hotkeys to select buttons. See the section, Creating hotkeys later in this chapter for more information.

18.2.9 Toggle and Radio button states

The states possible for Toggle and Radio buttons are somewhat different from those of Push buttons. These button types are always in either an Off or On state. Additionally, for a four-state button, both the Off and On states can have a Highlight state as well as a Normal state.

A two-state Toggle or Radio button can be either Off (typically appearing

like a Push button in the Normal state) or On (typically appearing like a Push button in the Select state). It does not respond to the mouse pointer until clicked on.

A four-state Toggle or Radio button works the same way, but both the Off and the On positions also have a Highlight state to indicate when the pointer is over the button.

When a Toggle or Radio button is clicked on, the button changes state, but unlike a Push button, it remains in the changed state after the mouse button has been released. A Toggle button switches from its current state to the opposite state whenever it is clicked. Clicking a Radio button, can only switch it from its Off to On state. However, clicking a Radio button in its On state does not switch it back to Off. For this reason, several Radio buttons are typically used together to let the user make choices.

See the section Working with Toggle and Radio buttons for information.

18.2.10 **Select Action options**

There are two tabs in the Buttons menu for controlling the actions that can happen when using the action-oriented button types (Push, Toggle, and Radio buttons): the Select Action tab and the Other Action tab.

18.2.11 **Actions on button selection**

The Select Action tab is for specifying the primary purpose for an action-oriented button. In particular, it lets you choose what happens when the button is put into the Select or On state. (This occurs when the button is clicked on, or the viewer presses Enter or a defined hotkey while the button is highlighted.) Most often, the action is a branching type of operation (moving to another event or page within the script). However, other action types are possible.

The Action: pop-up on the Select Action tab has the following options:

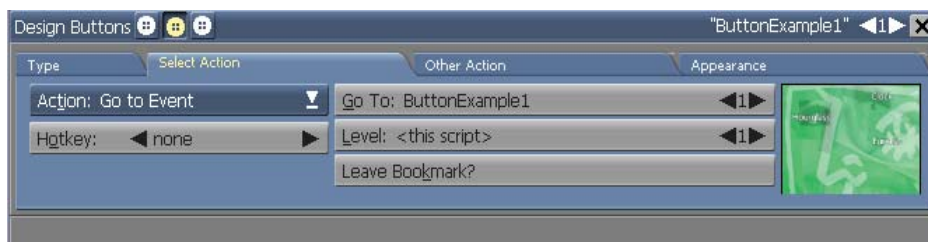
- None
- Go to Event
- Go to Next Page
- Go to Previous Page
- Return to Bookmark
- Exit from Script
- Show WWW Page

18.2.12 Using Go to actions

The three “Go to” actions allow you to make script execution move to some other location in the script, from which execution continues. The new location can be another page or another event on a page. This lets the response to a button be almost any series of scriptable events. You can return to the original button location after a button Go to by setting a bookmark.

18.2.13 The Go to Event action

Go to Event is the most flexible button branching action. Consequently it requires you to specify both the destination itself and the level of the script where the destination exists. You see the controls for these on the tab when you choose Action: Go to Event.



Use Level: to choose the level of the script where the destination is. Use the selector to cycle through the levels. If the destination is in the same group you are in, you can leave the selector as is. If your script has no groups, the only choices are: <this script> and <this page>. Only levels at or above the current level are accessible.

Use the Go To: selector to choose the page or event that you want the script to advance to when a button is selected. In most cases, the Go To will be set to a page. Use the selector to choose a page number. A thumbnail of the destination page is shown in the box to the right of the button. Note that if you just want to advance to the immediately following or preceding page in the script, it is simpler to use the Go to Next Page or Go to Previous Page actions.

Setting a Go To an event on the current page is also possible: set the Level: selector to <this page>, then use the Go To: selector to cycle through events on the page.

Leave Bookmark? allows you to return from a series of events after branching with a Go to Event . Click on Leave Bookmark? to turn it on. Then, at the end of the button's series of Go to events, insert a special event. On this special event, open the Branch menu and select the Go To tab. Choose Action: Return to Bookmark. When executed, this returns the script to the bookmark location, which is immediately after the original Go to Event.

Using Go to Event with a bookmark lets you define sections of a script as independent units that you can go to and return from whenever a button is clicked.

18.2.14 **Going to the next or previous page**

A very common type of button-activated branch is advancing to the next page in the presentation, or returning to the preceding page.

The Go to Next Page and Go to Previous Page actions do just what their names imply, advancing to the page that immediately follows or precedes the current page on the Main menu.

18.2.15 Returning to a bookmark

When using a Go to Event branch on a button or in the Branch menu, you can choose to use the Leave Bookmark? option. This allows you to set a marker to which a later event can return. In this way, you can define sections of a script as independent units that you can go to and return from at any point in the script.

As with bookmarks and GoTo's on the Branch menu, bookmarks left with a button Go to Event action are used in conjunction with an action that restores the current execution location in the script to the bookmark location. This is Action: Return to Bookmark. The typical usage of this action would be as the Select Action of a "Return" or "Back" interactive button that you would place on a page that was the last in a series of pages branched to by a Go to Event button.

18.2.16 Exiting from a script

Although most productions are designed to run continuously, some need to allow the viewer to exit from the script. Creating a button to do this is very simple. Just give a button the Exit from Script action as a Select Action. This ends the script, returning the viewer either to Windows, or to the Main menu if the script was run from within Designer.

18.2.17 Viewing a Web page from a script

The last Action: Show WWW Page , actually allows the viewer to jump out of the playback environment. You see the URL: text box when Show WWW Page is selected. Enter the address of the desired Web page there (for example, enter `http://www.scala.com` to jump to Scala's Web page).

When someone clicks a button that has this as its Select Action, Designer attempts to launch or activate the preferred Web browser. If successful, it then tries to connect to the Web page specified.

If playback is setup to run full-screen, playback is minimized so that the Web browser window is visible on the desktop.

18.2.18 Creating hotkeys

You can specify a hotkey for any Select action. When a hotkey is defined for a button, instead of using the mouse or Enter to choose the button, the user can employ the hotkey. Set a hotkey by using the Hotkey: selector in the Select Action tab to cycle through the most common possible hotkeys, or type the hotkey you want into the space between the arrows.

With the selector, you can choose any key from A to Z, 0 to 9, F1 to F12, standard symbols and Space as hotkeys. To specify other keys than these, such as accented characters that might be unavailable on the keyboard, you can enter a keycode value in the format `0nxxx`, where `xxx` is replaced by the keycode. For example, enter `0n214` to make `Ö` a hotkey.

Shift, Alt, and Ctrl can be used as qualifier keys, singularly or in combination. Use those key names, and link the qualifier(s) and the main key with a hyphen. For example:

To make this action select the button:	Enter this in the Hotkey selector:
holding Shift while pressing F	shift-f
holding Alt while pressing C	alt-c
holding Control while pressing X	ctrl-x
holding Control and Alt while pressing P	ctrl-alt-p

Capitalization is ignored in the Hotkey: selector, so ctrl-C, CTRL-C, and ctrl-c all define the same hotkey. So to define an uppercase letter as a hotkey, you must enter shift with the letter. Entering the capital letter will not work, so use shift-k to make the uppercase K a hotkey.

You can also use some special key names:

To use this in a button hotkey:	Enter this in the Hotkey selector:
up arrow	up
down arrow	down
left arrow	left
right arrow	right
Enter key	enter
Tab key	tab
Backspace key	backspace
Esc (Escape) key	escape
left mouse button	mouseleft
middle mouse button	mousemiddle

To use this in a button hotkey:	Enter this in the Hotkey selector:
right mouse button	mouseright

Other Action options

The Other Action tab of the Buttons menu provides options for secondary responses to button events.



Secondary responses available are:

- adding sound
- setting a variable
- changing the mouse pointer

Secondary actions are available for button selection status transitions. In other words, these actions take place when a button changes selection status. Selection status is closely related to a button's visual state, with the important distinction that any the selection status transitions can occur regardless of how many visual states you have defined for a button. For example, a 1-state Push button can have secondary actions defined for a transition to the Highlight state, regardless of the fact that the button itself does not have a visual Highlight state.

The possibilities available from the Transition: pop-up are:

- Mouse off button - the action takes place moves off a button or otherwise becomes idle, typically changing to the Normal state from the Select/On or
- Mouse over button - the action takes place when a button is passed over by the mouse pointer or otherwise is highlighted, typically changing to the Highlight state from the Normal state
- Button selected - the action takes place when a butt selected, typically changing to the Select/On state from the Normal or Highlight states.

From the Transition: pop-up, choose the state transition to which the secondary action should apply. Then choose one or more of the three actions. The actions happen when the state transition displayed on the pop-up takes place.

18.2.19 **Adding sound**

To add sound to your buttons, click on the Sound: button on the Other Action tab. This opens the Sound menu, where you can choose and adjust sounds.

Each button state can have a different sound. You may, for example, give your button a click sound when it is highlighted, and, if you are working with a button showing a bus, for example, the sound of a horn honking when the button is selected.

When the state transition for which you have set a sound on the button occurs, the sound event plays. It plays to completion, even if the button does not remain in the state that triggered the sound.

18.2.20 Setting variables

Designer lets you set a variable value when a button changes state. Clicking on the Variable: button in the Other Action tab opens the Variables menu, where you can set variables. The Variables menu for buttons is the same as the Set Variables tab of the Branch menu.

For example, you may want explanatory text to appear at the bottom of the screen each time a particular button is highlighted. To do this, with the pop-up set to Mouse over button:

1. Click *Variable:* to open the Variables menu.
2. In the *Set Variable:* text box, type: `help="Jump to first page"`
3. Click *OK*.
4. On your button page, type: `!help` at the bottom of the screen.

Now each time that button is highlighted, explanatory text appears at the bottom of the screen.

18.2.21 Using alternate mouse pointers

You can change how you want the mouse pointer to appear depending on button state. The Pointer: button in the Other Action tab lets you change the mouse pointer shape when the interactive button changes states. Click Pointer: to open the File dialog, where you can select and load a clip to use as a mouse pointer.

The pointer is ordinarily the default arrow, or the pointer image specified by the most recent Input menu event. When you move the pointer over a Push, Toggle, or Radio button, its appearance changes by default to a hand with the finger extended.

Changing the mouse pointer by using the Pointer: button does not change the default pointer for your script. If you want a different pointer image that affects the entire script, you must use the Input menu. (See Changing mouse pointer designs in the Advanced features section in this chapter.)

Changing the pointer image is particularly useful if the button image is invisible, to let the viewer know that buttons are present. You may, for example, have a picture of a flower, on which you have placed an invisible button. To let people know that the flower has been highlighted, you could change the pointer from the default arrow in the Normal state to a bee in the Highlight state. Now when someone moves the mouse pointer over the flower, a bee appears, which indicates that the flower is a button and has been highlighted.

To remove a pointer image from a button state transition, while that transition is selected on the pop-up, click the Clear button next to the Pointer: button.

18.2.22 Appearance options

As described previously, buttons made from text elements, clips, or graphic objects can always be edited using the facilities of their Element Design menus to change how those buttons look. The Buttons menu has some additional options for controlling button appearance, accessible in its Appearance tab. The appearance options apply to whichever button state is currently selected, as indicated by the highlighted title bar button-icon buttons.



18.2.23 Button backdrops

Backdrop Image: lets you choose a backdrop, a predefined image that you can put underneath a “face” element. The backdrop image stretches to fit the size you want. You can use any normal clip image, and it will stretch to fit the button. If you use the Scala “multi-tiles”, the image will not look distorted the way stretched bitmap images often do.

These backdrop images typically have beveled edges, with special effects like rounded corners and patterned backgrounds. They are the ideal way to make plain text buttons look like they were custom-drawn by hand. You can create and edit multi-tiles for custom button backdrops using the Multi-tile Editor available from the Tools drop-down.

To use a button backdrop, select a button and click Backdrop Image:. You see the File dialog. After you choose a backdrop, you see the Buttons

menu again, and the button you selected with the backdrop image underneath it. You can select a different backdrop image for each button state, if desired.

The backdrop stretches to fit the button element; for example, if you type more text into the button, the backdrop becomes longer. You can also make the backdrop larger than the normal size of the element with the Border width and height attributes on the Effect tab of the Element Design menus.

18.2.24 Loading clips on the Buttons menu

Clicking on the Image: button on the Appearance tab opens the File dialog where you can choose a clip to replace a clip currently being used as a button face. When a text button is selected, the Image: button is disabled.

Note that you cannot use the Image: button for adding button preset or predefined button (.BTN) files. To add a predefined button, with its matching images for the various button states, you use Add, from the icon toolbar; to put a preset backdrop under a button, use Apply Preset: (see Using predefined buttons and presets, for more information).

18.2.25 Shifting the button face

The Shift option makes it easy to center a button face within a backdrop, and to make an “indenting” 3-D button look more realistic. It allows you to specify an offset, in pixels horizontally and vertically, that the button face (text or a clip) has from its normal position in relation to its bounding box. You can specify the same offset for all button faces, or a different offset for each.

The most typical use of Shift is to use a small offset down and to the right for the selected face of a button that has a beveled style. This heightens the illusion that the button is being pressed down when it is clicked. Or, if one

state of your button uses a shadow down and to the right, a simultaneous offset up and to the left makes it appear that the button face has moved up off the surface of the screen. Button backdrops automatically stretch to fit the larger area created by the offset.

18.2.26 Global button state options

The three on/off options in the middle column of the Appearance tab are not per-state, but affect all the states of the selected buttons.

18.2.27 Adjusting the hit area

The Boxed Hit Area? button lets you adjust the button's hit area (the area in and around the button that responds when the mouse pointer moves over it or clicks on it). The hit area of a button can be rectangular or it can be an irregular shape.

When Boxed Hit Area? is on, as it is by default, the hit area of the button is rectangular. When this option is off, the hit area is defined by the pixels of the button image, as opposed to the background.

The primary use of this option is with clip images that have transparent areas. The hit area of a round button (which has transparent corners), then, can be round.

If you have selected three elements with different sizes for the three different buttons states, Designer uses the size and position of the Normal state image for the hit area determination.

18.2.28 Maintaining consistent button size

Because you can adjust the different button states independently, it is possible to have different sized buttons for each state. This is occasionally

useful, but normally you want the button states to match in size. For this reason, the Link Sizes? button is on by default. Link Sizes? forces any size changes you make in one button state to be reflected in the other state(s) so that their sizes match. If this causes problems and you need to have independent control of the sizes of a button's states, turn this option off.

18.2.29 Maintaining consistent position

Designer also lets you position button states independently, if you desire. However, most buttons are designed so that the states overlap each other and thus must be in the same position. The Link Positions? button therefore defaults to being on, causing button states to retain their relative positioning as you move any one of them. If you do need to position button states independently, turn off Link Positions?, move the individual button states to the correct places, and then turn the option back on again. You can then move the entire button (all states) as necessary without losing the relative positioning.

18.2.30 Using predefined buttons and presets

Designer offers two ways to reduce the amount of time and effort you must spend creating buttons: predefined buttons and button presets. Both allow you to load a single file that can create all three button states for you, with appropriate Shift and Border values, and even predefined sounds and custom pointers, so that you do not need to set all these things yourself. Nonetheless, once they are loaded, you can modify the buttons to further customize them to your purpose.

18.2.31 Button presets

Button presets load a set of backdrop images that are already aligned, and contain appropriate Shift and Border settings so that an element fits neatly into the backdrop with no additional effort. Button presets are much

like an elaborate kind of style that you can apply to buttons.

You use button presets by choosing Apply Preset: from the Appearance tab when a button is selected. You see the File dialog open to the Buttons folder, where you can choose a preset .BTN file.

Presets are used primarily a simple way to “dress up” text buttons: if a text button is selected when you load a preset, the button backdrop automatically adjusts to fit the text. The same is true if you begin with a clip; the backdrop stretches to follow changes you make in clip size.

18.2.32 **Predefined buttons**

Predefined buttons provide complete matched, professionally designed images for three different button states.

Load predefined buttons by clicking the Add icon. You see the File dialog, where you can choose predefined buttons (.BTN files) from the Buttons folder. Clicking Open returns you to the Buttons menu with the button design you chose visible on the page in its Normal state.

The images in predefined buttons are face images, which means that you cannot attach further face elements to the button. You can, however, add text or other clips as separate elements on top of or next to predefined buttons if necessary. The button will not adapt to these elements, and options like Shift and Link Positions? do not apply.

18.2.33 **Invisible buttons**

You can create invisible buttons by using the button file “Invisibl.btn”. An invisible button does not have any imagery associated with it, but a rectangular button “hit area” on the page is still created.

You may, for example, have a page showing a photo of several people, which displays a person's name when his or her face is highlighted, and displays further information when selected. By using invisible buttons, there is no button imagery to interfere with the photo.

18.3 Working with Toggle and Radio buttons

For certain kinds of applications, the type of interactive input and visual feedback afforded by Toggle buttons and Radio buttons is more appropriate than standard Push buttons. When the viewer needs to make choices on the same page, and see the various choices before proceeding, the fact that these button types remain in their clicked states is helpful.

18.3.1 How Toggle and Radio buttons use variables

Both Toggle and Radio buttons are automatically set up to control and respond to variables. Toggle buttons control only logical (on/off) variables. Radio buttons can control logical, text, or numeric variables.

For either type, you associate a given button with one variable. The same variable can be associated with more than one button.

The variable's value changes based on the button state (whether the mouse has moved over it or clicked it). Likewise, the button responds to changes made to the variable's value, by changing to the corresponding state. This means that buttons can be made to change their state, and thus their appearance, by changing their variable values, not just by responding to mouse clicks. In this way, you can have different buttons that visibly respond to each other, or to other events in a script.

18.3.2 Toggle buttons

A Toggle button functions just like a switch: it flips a logical variable between its two possible values, Off and On. For a two-state Toggle button, the Off and On states correspond to Normal and Select. For a four-state Toggle button, there are Normal Off and Highlight Off states, and Normal On and Highlight On states. (In this case, “normal” means non-highlighted, rather than Off.) A four-state Toggle button is usually in the Normal state; it can be highlighted when either On or Off. If another button or some other event in the script sets the variable to On or Off, the button state is automatically switched accordingly.

Creating a Toggle button

To create a Toggle button:

1. Select the element you want to make into a Toggle button
2. From the Buttons Menu Type: pop-up, choose Toggle Button. You see the 2-state and 4-state buttons for selecting the number of states, and a variable list.
3. If there are already logical variables defined in this script, their names are shown in the variable list and you can choose one to associate with this button. Otherwise, enter a name to create a new logical variable with a default value of Off. Turn on the External? option if you want a new variable to be common to this script and any scripts above it in the script structure. Click OK to close the dialog.
4. By default a two-state button is created. If you want a four state button, click the 4-state button.

The Variable: button on the Other Action tab can be used to change another variable associated with this button.

You can now use the options on the Appearance and Select Action tabs, described earlier in this chapter, to define what the button looks like in each state, and what it does.

18.3.3 Radio buttons

Radio buttons are closely related to Toggle buttons. The difference is that Radio buttons allow you to use any type of variable, not just logical variables. This also implies that, when using text and numeric variables, you are not limited to in your choice of values to assign to the button states. You can choose any valid value you like for the button variable in a given state. This makes Radio buttons more versatile than Toggle buttons.

Creating a Radio button

The procedure for creating a Radio button is basically the same as for a Toggle button, except that you also must specify a variable value:

1. Select the element you want to make into a Radio button.
2. On the Buttons menu Type: pop-up, choose Radio. You see the 2-state and 4-state buttons for selecting the number of states, and the variable list.
3. If there are already variables defined in this script, they are shown in the list and you can choose one to associate with this button. Otherwise, choose a variable type and then enter a name to create a new variable. Turn on the External? option if you want a new variable to be common to this script and any scripts above it in the script structure. Click OK to close the dialog.

4. In the Value: text box, enter a value for the variable you have chosen or created.
5. By default a two-state button is created. If you want a four state button, click the 4-state button.

The Variable button on the Other Action tab can be used if you want to change another variable associated with this button.

You can now use the options on the Appearance and Select Action tabs, described earlier in this chapter, to define what the button looks like in each state, and what it does.

18.3.4 Editing buttons

Clicking on the Edit drop-down gives you the same editing options as other Edit drop-downs, with a few differences.

Cut, Paste, Select All, Appear Later, and Appear Earlier function the same way for buttons as for other elements. Copy has special results when used from the Buttons menu.

Copy copies selected buttons to the clipboard. Copied buttons retain all of their styles and GoTo's when pasted, except in cases where it is not physically possible.

For example, a button that is pasted into a different script, which does not contain the original Go To destination page, cannot retain the original Go To.

You can use the Go to Event selectors to see which GoTo's have not been retained in your copied buttons. A Go To destination page from the original

button that does not appear on the selector of the copied button has not been retained because it physically does not exist there.

To Export a button, click File->Export->Button as Preset. This action opens the file dialog for you to save the selected button. In the Save as type: pop-up, Buttons is available.

If you choose Save as type: Buttons, Designer automatically adds the file extension .BTN and saves the button, including each of its states, as a predefined button file. All its appearance-related settings are retained, but Action settings and variables are discarded.

18.3.5 Toggle buttons

A Toggle button functions just like a switch: it flips a logical variable between its two possible values, Off and On. For a two-state Toggle button, the Off and On states correspond to Normal and Select. For a four-state Toggle button, there are Normal Off and Highlight Off states, and Normal On and Highlight On states. (In this case, “normal” means non-highlighted, rather than Off.) A four-state Toggle button is usually in the Normal state; it can be highlighted when either On or Off. If another button or some other event in the script sets the variable to On or Off, the button state is automatically switched accordingly.

Creating a Toggle button

To create a Toggle button:

1. Select the element you want to make into a Toggle button
2. From the **Buttons** menu Type: pop-up, choose Toggle Button. In the panel you see the 2-state and 4-state buttons for selecting a number of states, and a variable list. Four state indicators appear

in the menu title bar.

3. their names are shown in the variable list and you can choose one to associate with this button. Otherwise, click New Variable and in the dialog, enter a name to create a new logical variable with a default value of Off. Turn on the External? option if you want a new variable to be common to this script and any scripts above it in the script structure
4. By default a two-state button is created. If you want a four state button, which highlights when the mouse pointer moves over it, click the 4-state button.

The Variable button on the Other Action panel can be used to change another variable associated with this button.

Note: It is possible to produce exactly the same functionality as a Toggle button with a Radio button, but there is no advantage in doing so.

You can now use the options on the Appearance and Action panels, described earlier in this chapter, to define what the button looks like in each state, and what it does. Note that it is possible but generally does not make sense to use a Toggle button for branching.

18.4 Working with Text Entry Fields

Text Entry Fields allow a viewer to enter data with a keyboard. For example, the viewer could be asked to enter his or her name, and the script could then refer to the viewer by name. More sophisticated applications of Text Entry Fields can gather, store, and process information entered, use it as a basis for branching, and display choices made by the script.

Like Toggle and Radio buttons, Text Entry Fields require a variable. The variable must be a Text variable, and whatever the viewer enters in the button is stored in this variable. The variable can be displayed and manipulated the same as any other variable in Designer.

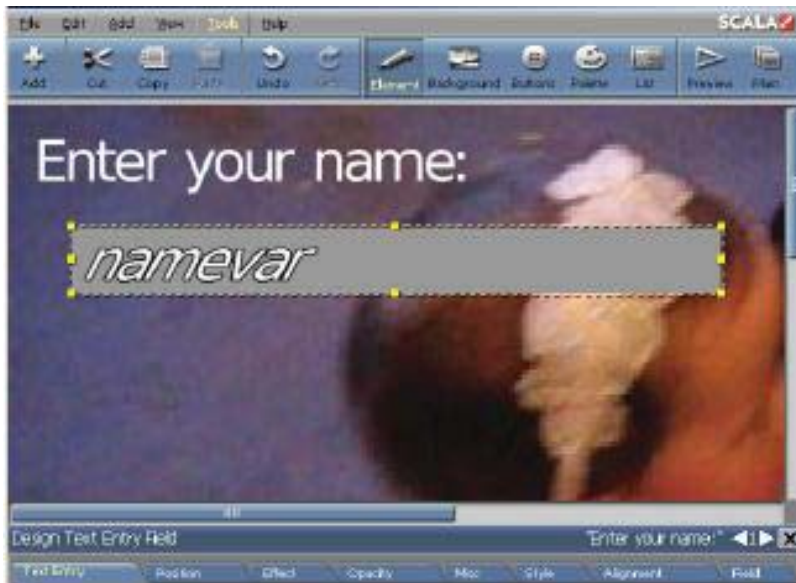
Unlike buttons, Text Entry Fields do not have different states, or any possible action other than accepting keyboard input. Thus a Text Entry Field has only one possible appearance.

18.5 Creating a Text Entry Field

1. From the Add drop-down, choose Add Text Entry Field. You see a dialog asking you to choose or create a variable for the field.
2. If there are already any user-defined Text variables, they are listed and you can select one. Otherwise, enter a name in the Variable: text box to create a variable by that name.
3. Turn on the External? option if you want a new variable to be common to the script and any sub-scripts that it has.
4. On the page, you see the variable name within a dashed box with graphic handles, representing the size of the field. The menu changes to the Design **Text Entry Field** menu.

You can now move and/or resize the field as necessary.

5. Specify options for the field, its text, and the mouse pointer.



You have all the options normally available to text elements in the Design Text Entry Field menu. (The illustration above shows a field that has been given a backdrop; the text has a contrasting color and an outline.) There is also an additional panel in the menu devoted to options specific to field elements.

18.5.1 Text Entry Field Options

The **Design Text Entry Field** menu is nearly identical to the **Design Text** menu. Aside from the addition of the Field panel, the only differences between the two menus are:

- the Text Entry panel of the menu contains a Cursor button with a color block
- the Position panel contains an Element Size control
- the Misc panel does not have the Update: pop-up

- the Alignment panel does not have Word Wrap or Line Space options, but does have a Vertical Text Alignment pop-up

18.5.2 Field Appearance

As it first appears on the script page during playback, the Text Entry Field contains nothing. The viewer just clicks in the field and begins typing a response.

If you want the field to have something particular in it to begin with, assign the text you want to the field's variable with a **Branch** menu special event.

Also, in playback the field initially is invisible; you should use one of the available options to make the field apparent to viewers. Once a viewer clicks within the field a text cursor appears.

The appearance of the variable name text that you see while working with the field (its font, styles, etc.) is what the viewer will see when typing into the Text Entry Field. Adjust the styles as necessary. Note that because you can adjust the size of the field, both Horizontal Text Alignment and Vertical Text Alignment options are available.

18.5.3 New / Edit Variable

Click the New / Edit Variable... button to create additional variables to be associated with Text Entry Fields, or to change the External? option of variables.

If you only want to change the association of the field to another existing variable, you can just select it in the scrolling list above this button.

18.6 Advanced Features

18.6.1 Creating more advanced buttons

The examples in the beginning of the chapter showed you how to create simple buttons. Now that you are more familiar with the Buttons menu, you can begin experimenting more, implementing more buttons features. The following example takes you through the process of creating more advanced buttons to give you practice implementing more button features, like:

- using clips
- giving buttons sound
- setting variables to your buttons
- using Go To with bookmarks

For the following example, let's say that you are creating an interactive production that will be displayed in the lobby of a hotel. You want the production to tell people what the hotel has to offer, so you have a page in the script that is like a menu, where viewers can choose a button to get more information. We'll create a menu with buttons for Entertainment, Food, and Services .

1. Create pages to work with by loading backgrounds for four different pages.
2. Go to the Design Text menu, and on page 1, type Choose a button for more information at the top of the page. On page 2, type: Cafe in the middle of the screen, and !special at the bottom. Type: Entertainment on page 3, and Services on page 4.

Since you are creating buttons that will advance the viewer to

pages with information, be sure to give the viewer ample time to absorb the information by setting a long enough duration for those pages.

3. On page 1, open the Buttons menu.
4. Click on the Image: button in the Appearance tab. This opens the File dialog where you can choose a clip to load.
5. Load the coffee cup image from the Guide Examples folder. You see the clip on your page in the Clip menu.
6. Adjust the size of the clip and place it next to the word Cafe. Make any other changes you want to its appearance, then return to the Buttons menu.
7. While the clip is selected, choose Push Button on the Type tab, and make it a three-state button. The clip is now a button in the Normal state.
8. Press F12 to switch the button to its Highlight state.
9. Switch to the Other Action tab and choose Mouse over button from the pop-up. Click on the Sound: button to add sound to the clip in its highlighted state. You see the Sound menu.
10. Choose a sampled sound that is appropriate. After you select a sound and click Close, you see the Buttons menu again.
11. Go to the Clip menu and change the appearance so that it looks different when highlighted. Try changing its Front color, or turning on Shadow.
12. Return to the Buttons menu, and on the Other Action tab click

the Variable: button. In the Set Variable: text box of the resulting menu, enter:

special="Today's special: Double mocha cappuccino"

and click OK. In the Variable Definition dialog that appears, the variable type Text is already selected, so just click OK.

13. Press F12 again to switch to the Select state, then go to Clip menu to edit the appearance of the clip in its Select state. If you need to refer to what you did for the Highlight state, press F12 to cycle through the states while on the Clip menu. You can also use the indicators in the title bar, which identify the current state. (You could also add sound for this state as you did for Highlight.)
14. Return to the Buttons menu, and go to the Select Action tab. On the Action: pop-up, choose Go to Event.
15. Use the Go to: selector to tell the script where to branch to when that button is selected. (Since there are no groups in the script, and you are going to branch to another page, the Level: selector can be left unchanged being <this script>.) Set the Go To: destination to page 2.
16. Make sure that Leave Bookmark? is on. This will let the user return to the hotel menu after page 2 is finished running.
17. Click the Main icon on the toolbar to exit the Buttons menu to the Main menu.
18. Click on the Branch column button for page 2. You see the Branch menu.
19. You see the Go To tab. Use the Action: pop-up to choose Return to

Bookmark. This makes the script return to the location from which you branched (page 1), because of the Leave Bookmark? setting for that button.

You have now created an interactive button for Cafe. You can go back to page 1 and create buttons in a similar way for the Entertainment and Service categories, too, by following the same steps.

Some other approaches you could use to create these buttons:

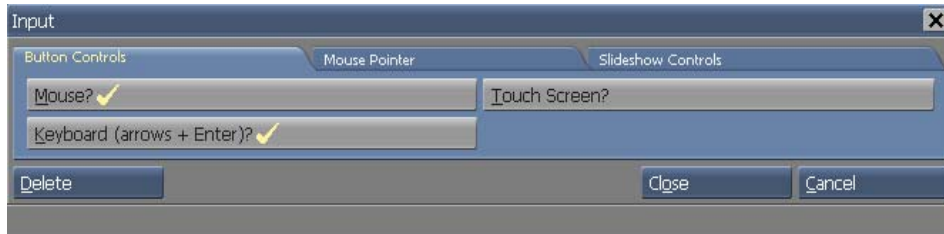
1. Instead of modifying the clip's appearance for each state, use Apply Preset: to load backdrop images for all three states. This would make the image look more "button-like", and would remove the need for steps 11 and 13.
2. Rather than make the clip a button, leave it as an illustration, and make the label text into a button. You could use Apply Preset: here also.
3. Make neither the clip nor the text a button, and instead load a predefined button with Add and place it next to the label text. This too eliminates the need to create separate appearances for each button.

So far, you have worked in the Buttons menu to create and edit buttons. There are some options related to buttons, however, that cannot be made in the Buttons menu, but must be made in the Input menu instead, which is explained in the following section.

18.6.2 Using the Input menu for custom input options

Designer offers several options related to interactive input. Some are specific to the use of buttons, but others involve the mouse and keyboard.

From the Main menu, click on the button in the Input column for a page in your script. You see the Input menu, which looks like this:



The Input menu has three tabs: Button Controls, Mouse Pointer, and Slideshow Controls.

18.6.3 Specifying button input options

On the Button Controls tab, you can choose the type of input recognized in a production using the Mouse?, Touch Screen? or Keyboard (arrows + Enter)? options. At least one of these options is always on; so you cannot turn off all three.

Mouse? allows the viewer to use the mouse to highlight and select buttons when the production plays. The mouse pointer appears and the script can respond to mouse clicks if the page uses buttons. The option is on by default.

Touch Screen? should be turned on when the system playing the production uses a touch screen.

Turning on the Touch Screen? option turns off the Mouse? option so that the mouse pointer does not appear. Because mouse and touch screen input are mutually exclusive, the appearance of the pointer would be both unnecessary and misleading to the viewer. Pointer Image options are not

necessary with touch screens, so they are also disabled.

Turning the Keyboard (arrows + Enter)? option on lets you use the keyboard rather than the mouse and main mouse button to highlight and select buttons on the screen. When this option is on, you can move to and highlight buttons with the arrow keys, and select the highlighted button by pressing Enter.

This option is available whether the touch screen or mouse options are on, and can be used by itself.

18.6.4 Changing mouse pointer designs

As mentioned previously in this chapter, to change the pointer image for buttons in the Highlight and Select states, you use the Buttons menu. However, to change the default pointer images for entire pages and scripts, or to choose when the pointer is visible in your script, you must use Input menu options in the Mouse Pointer tab.

The Pointer: pop-up lets you choose when you want the pointer visible in your production. Even on a page that has no buttons, for example, you might want to use the pointer for illustration purposes, to point to items on the page as you discuss them. Or, alternatively, you may want the pointer visible only when buttons are available for selection.

Use the pop-up to choose Always or For Selection Only. The default is For Selection Only. Choose For Selection Only when you want the pointer to be visible only if there are buttons on screen.

Choose Always when you want the pointer visible regardless of whether there are buttons on screen or not.

In addition to choosing when the pointer is displayed, Designer lets you

change pointer images using the Pointer Image: and Busy Pointer Image: buttons. These options affect the pointer designs you see when the script runs.

The Pointer Image: button controls the design of the normal mouse pointer used on screen. You may, for example, want the image to be a pointing finger instead of the standard arrow. When you click on Pointer Image: you see the File dialog open and you can choose any clip to use as a pointer image.

The Busy Pointer Image: button lets you change the image of the busy pointer, which appears on the screen when the script is busy and temporarily cannot accept input. By default, there is no busy pointer. Click this button, and in the File dialog, choose a new image.

To stop using a custom pointer image in a script, click the Clear button next to Pointer Image: or Busy Pointer Image: buttons. This returns the pointer images to the default settings - an arrow as the normal pointer and no busy pointer.

18.6.5 Changing the script default pointer

To change the pointer for the entire script, you can group the script's pages and apply the Input event to the group. Choose Select All from the Edit drop-down on the Main menu, and then Edit->Group. Input menu settings you make for the group become defaults for the entire script.

18.6.6 Controls for advancing pages

The buttons on the Slideshow Controls tab, Mouse Buttons? and Keyboard (Page Up/Down)? let you choose how you want your script to advance when you are working with a slideshow-style production. With these buttons, you can choose the mouse, the keyboard, or both the mouse and

keyboard to advance.

Mouse Buttons? controls whether the mouse buttons by themselves control the advance to another page. Pressing the main mouse button moves forward in the script, and the secondary mouse button moves back. It is on by default. Note that on any page with buttons, the button-selection function of the mouse buttons takes precedence over the page-advance function, regardless of the setting of the Mouse Buttons option.

Keyboard (Page Up/Down)? controls whether the keyboard can advance the script. The Page Down key moves to the next page, and the Page Up key moves to the previous page. It is also on by default.

Slideshow Controls **ONLY** work when playing back your script in Designer. They do not work if you publish your script to the Network and schedule that script to play on a player.

18.6.7 Input event scope

The events you set in the Input menu are different from other events on column buttons in an important way. All other events apply only to the page for which you have set the event. Input events, are “sticky” meaning that they remain in effect from page to page until another Input event changes them.

For example, if you turned on Touch Screen? for page 3, and Mouse? for page 8, the pages from 3 to 7 would have touch screen control, even though you did not explicitly set it on all those pages. This can save you some effort, but it might also be confusing at times.

18.6.8 Removing Input menu events

When you need to remove an Input event you have set for a particular

page, click the Delete button on the Input menu. The page and those following it then assume the Input settings from the most recent previous Input event, or the default settings if there was no previous Input event.

Designer⁵

||||| 19 TV Tuner EX Module

Chapter Overview

Scala 5 software products support use of various TV-capable add-on cards through the Scala TV Tuner EX Module.

The TV Tuner EX Module gives you the capability of controlling TV Tuner hardware that accepts and displays a video input. This makes it possible for you to incorporate video inputs within your Designer 5 scripts.

The TV Tuner EX Module has been designed and tested to work with certain TV-capable hardware,. Please visit:

<http://www.scala.com/infochannel-5-TV-Tuner-faq/infochannel-5-TV-Tuner-faq.html>

for an updated list of recommended TV Tuner cards.

19.1 System configuration

1. Install the latest version of Microsoft DirectX (currently version 9.0c).
2. Obtain the latest WHQL certified drivers for your video card by going to its manufacturer's Web site.
3. Install the TV Tuner hardware in your system according to the manufacturer's instructions.
4. Install the device driver software that came with the TV Tuner hardware.
5. Configure your hardware so that it works in the Windows environment. by following the instructions that are provided with the documentation until the hardware operates correctly.

6. Configure the Scala TV Tuner EX Module. (Please refer to the next section for detailed information.)

19.2 Licensing

Once the hardware, the supplied vendor software and the device drivers have been installed, you must obtain an updated license before attempting to configure and use the TV Tuner EX Module.

To obtain an updated license for Designer 5, follow these steps:

1. Start Designer 5
2. Click *Help > About InfoChannel Designer*
3. Click the *Get License File Online* button

When prompted to overwrite the existing license, click *Yes*

4. If you want to Save a copy of the license file in My Documents, click *Yes*. Otherwise click *No*.

To obtain an updated license for Content Manager 5, follow these steps:

1. Login to Content Manager 5 using the Administrator account with the password.
2. Click *Settings > License Status* . This will take you to the license status page.
3. Click the *Get License File Online* link.
4. Click *OK* to get an overview of the updated license.
5. Click *Accept* to install the updated license.

19.3 Allocating Licenses to Player(s)

Once an updated Content Manager license has been installed, you can then choose which players you want to allocate the TV Tuner licenses to. Any players that do not have a TV Tuner license will not play any TVClips or TV Tuner events. To allocate a TV Tuner license for a player, follow these steps:

1. Go to *Network > Players*
2. Select a Player, and click *Properties*
3. Click the *EX Modules* tab. You see this screen:



4. Click the checkbox next to *TV Tuner EX Module* to enable it for this player.
5. Click *Save* to keep the changes.
6. Generate a new plan for the player so that the player gets an updated license.

19.4 Configuring the TV Tuner EX Module

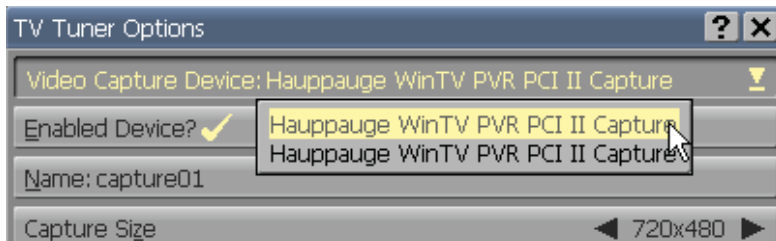
Configuring the TV Tuner EX Module for Designer and Player is identical.

1. If using Designer, click *Tools* and choose *Options*. If using Player, click *Start > Programs > Scala Player 5 > Player 5 Configuration*.
2. Click the *Modules* tab. Look for the *TV Tuner EX Module?* button in the *Optional Modules* list. If it is off, turn it on by clicking the button.
3. Now click *TV Tuner EX Module...* under *Module Settings* to open the TV Tuner configuration dialog. A dialog similar to the one pictured here is shown:

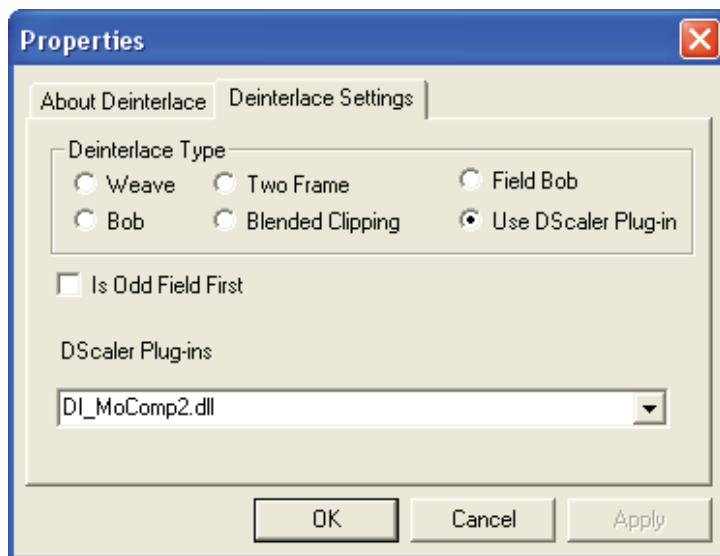


In the dialog, it is possible to select the default settings for TV Tuner EX Module. These settings are important! If not setup correctly the TV Tuner input may not appear on screen or no audio is heard.

4. *Video Capture Device:* – Select the device that you want to edit. More than one device can be listed:



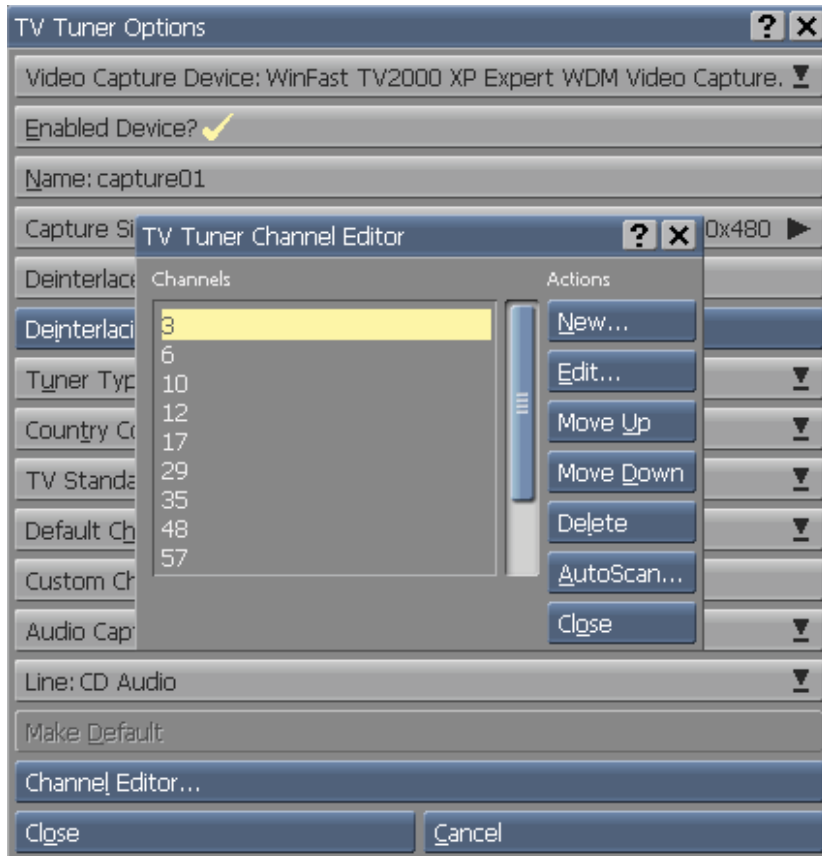
5. *Enabled Device?* – If you want to allow the device to be used, check this option. Otherwise, un-check this option.
6. *Name:* – Assign a unique name for the device. By default the name is captureXX (where XX is a sequential number starting with 01).
7. *Capture Size:* – By default, the software enumerates the best capture resolution that the device supports. We do not recommend modifying this option unless you know the device supports the capture resolution you intend on using.
8. *Deinterlace Video?* - Scala 5 is able to deinterlace video if needed. Enable this option if you want the TV Tuner EX Module to deinterlace the video input. Enabling this option allows you to configure the video deinterlacer properties.
9. *Deinterlacing Properties...* - Opens a separate dialog which allows you to configure the video deinterlacer.



10. *Tuner Type*: - Pop-up that can be switched between Cable and Antenna, depending on whether your television input is from a cable TV or an antenna hookup. By default, Antenna is chosen.
11. *Country Code*: - Pop-up that lets you specify the country code to use. By default, the country code is set to match the current system locale settings. This setting is used when a channel scan searches for available channels.
12. *TV Standard Type*: - Pop-up that lets you specify the television standard type to use (NTSC, PAL, SECAM, as well as the subtypes for each standard). This setting can be used to override the Country Code TV Standard especially when using Composite or S-Video inputs. Not all TV Tuner hardware supports each type. We do not recommend changing the default value unless you specifically know that the device supports the TV Standard you want to use AND it's not selected.

13. *Default Channel*: - Pop-up that lets you select what video input is displayed if a value has not been specified. The available options are...
 - *Custom* - Allows you to specify a custom channel for the default channel.
 - *Channel* - A listing of the channel numbers (available only if a channel scan has been done).
Composite – Yellow RCA connector and *SVideo* – S-video mini-DIN connector are listed at the bottom of the list (if available).
14. *Custom Channel* - If *Custom* was selected for the Default Channel drop down menu, then you can enter the channel you want to display directly.
15. *Audio Capture Device* – Select the audio capture device you want to use in conjunction with the TV tuner. By default, the software tries to determine what audio device is being used.
16. *Line* – If the audio device “<video device’s built-in audio>” is selected for audio capture device, then this option is not available. However if you choose another audio device, the software shows other options available for you to select for audio input.
17. *Make Default* – If you want the current device to be the default TV tuner, select this option. Otherwise leave this option unchecked.
18. *Channel editor* – By clicking this button, the TV Tuner Channel Editor dialog is shown that allows you to edit the existing channels that can be received by the TV tuner device. The first time a device is configured, no channels are

shown. Click *AutoScan* to have the software automatically search for available channels.



19. Click *Close* to store the settings and exit the TV Tuner Options dialog, or click *Cancel* to discard your changes.
20. Click *OK* to exit the configuration dialog.

If you are using Designer, you will now be allowed to create and playback TV Tuner clips and TV Tuner events. If you are using Player, TV Tuner clips and TV Tuner events will now function.

19.5 Using the TV Tuner EX Module

There are two basic ways you can use the TV Tuner EX Module.

A TVclip allows a video input to occupy a part or all of the page, with a normal background in other areas. Other Designer 5 elements can appear above or below the video input.

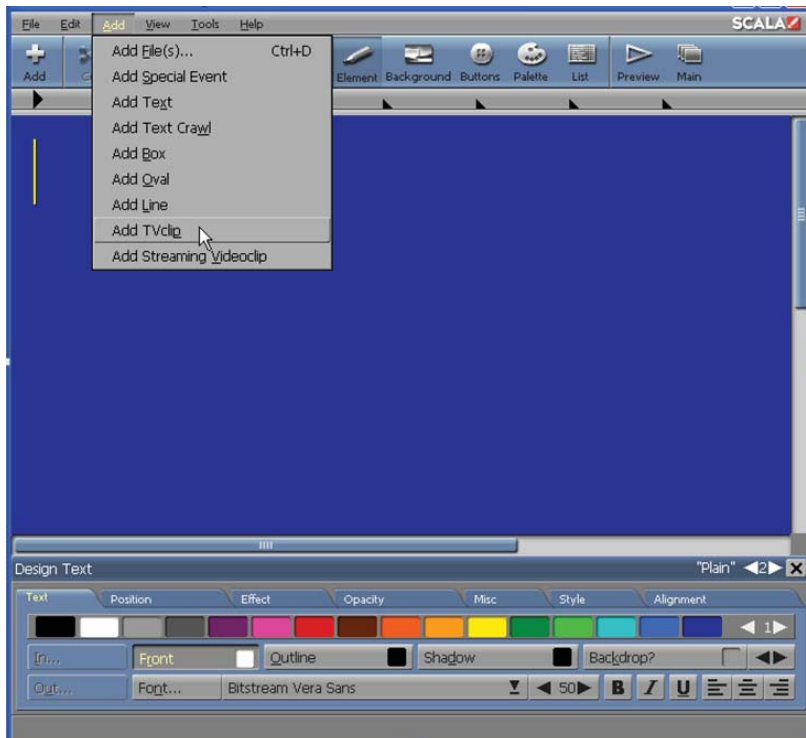
A TV event is used when you want to modify a property of an existing TV Tuner device.

19.5.1 A TVclip

To display a video input from the TV Tuner hardware on a page, you must add a TVclip to a page. A TVClip is similar to a movie clip in that you can apply transitions, clip styles, etc. to it. To create a TVClip:

1. From the Main menu, click the right-hand side of the Add icon and choose Add Plain Page from the drop-down (you may alternatively choose a background instead). You see the Design Text menu for that page.

Click the right-hand side of the Add icon and choose Add TVclip.



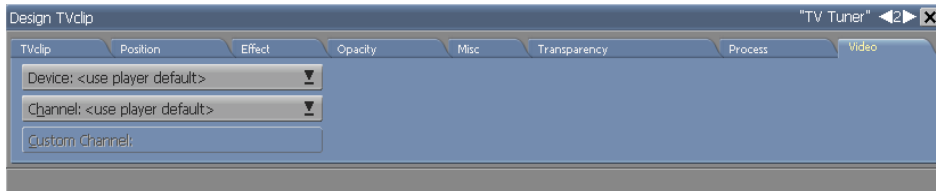
This action will add a TVclip to the current page.

2. SMPTE color bars are now visible (this is an on-screen representation of a TVClip that you can use to manipulate, size, position, etc.). The Design TVClip menu is automatically shown below. The TVClip is very similar to a movie clip.

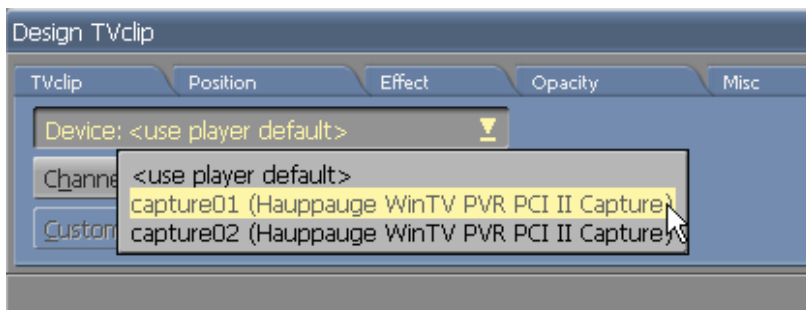


3. By clicking the video tab, you can choose to modify the default Device and Channel. Normally, the Device and

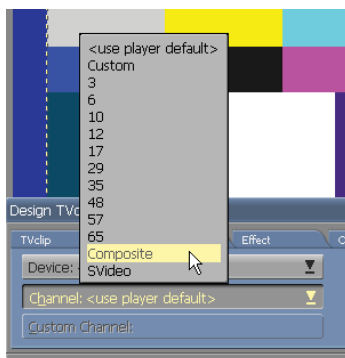
Channels are set in the TV Tuner EX Module Options menu, and do not need to be set here.



4. If you have more than one TV Tuner device, you can select it by clicking the Device pop-up menu:



5. If you want to display a channel other than the default, click the Channel pop-up menu, then select the input that carries the video you wish to use in the script. You see a pop-up similar to this: The Channel choices are...



- *Use player default* - Allows you to use the default player channel.
- *Custom* - Allows you to specify a custom channel for the default channel.
- *Channel Number* - A listing of the channel numbers (available only if a channel scan has been done).
- *Composite* – Yellow RCA connector and *SVideo* – S-video mini-DIN connector are at the bottom of the list (if available).

If *Custom* was selected for the Default Channel drop down menu, then you can enter the channel you want to display in the Custom Channel button.

Add other elements to the page as desired.

Preview the page as necessary to see how the other elements align with the video window.

Like other elements on a page, if you want the TVclip to be shown on all pages, turn on the *Global?* option on the *Misc* tab.

19.5.2 A TV event

To use a TV event, you need to add a special event in the Designer 5 Main menu or Design List menu:

1. In the Main menu, click the right-hand side of the Add icon and choose *Add Special Event* from the drop-down. You see a new special event page visible in the Main menu.

Or, add a plain page in the Main menu. Then click the right-hand side of the Design icon and choose List from the drop-

down. Now click the right-hand side of the Add icon and choose *Add Special Event* from the drop-down. You see a new special event page visible in the Design List menu.

2. Move the horizontal scroll bar if necessary to see the TV Tuner column, and click in that column for the special event page you just added. You see the TV Tuner menu:



The *Command*: pop-up determines the action of this TV event. The available options are:

- *None* - Removes this TV Tuner event.
- *Set Channel* - Lets you set the channel for a specified TV Tuner device.
- *Channel Up* - Increments the channel for a specified TV Tuner device. If a channel scan has not been performed, the channel will be incremented by one. If a channel scan has been done, then this command will show the next channel in the channel list.
- *Channel Down* - Decrements the channel for a specified TV Tuner device. If a channel scan has not been performed, the channel is decremented by one. If a channel scan has been done, then this command will show the preceding channel in the channel list.

- *Volume* - Lets you adjust the volume of a specified TV Tuner device. Valid range is from 0 to 255.
- *Reset* - Re-initializes a specified TV Tuner device.

The default choice is *None*. By changing this setting allows you to modify a given property for an existing TVClip. If no TVClip is visible on screen then the command has no effect.

Click *Close* to exit the menu.

19.6 Set Channel

The Set Channel command allows you to select the channel that is displayed on a specified TV Tuner device. The Set Channel menu:

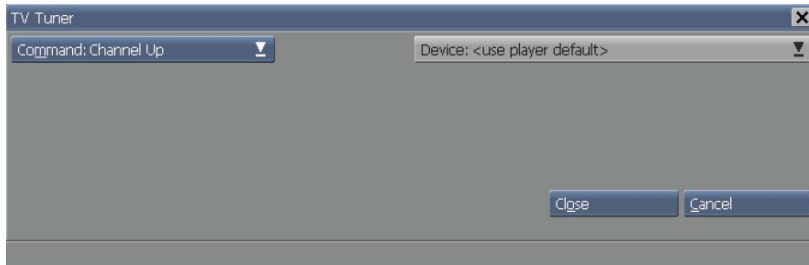


You can set these options:

- *Device* - Select the device that you want to change.
- *Channel* - Select the channel you want to display.
- *Custom Channel* - Available only if *Channel* is set to *Custom*. You can then enter the channel you want to display directly.

19.7 Channel Up

The Channel up command allows you to increment the channel number that is displayed on a specified TV Tuner device. The Channel Up menu:



You can set this option:

- *Device* - Select the device that you want to change.

19.8 Channel Down

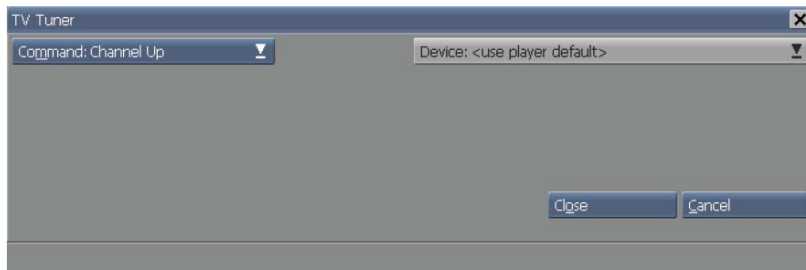
The Channel Down command allows you to decrement the channel number that is displayed on a specified TV Tuner device. This command is the opposite of the Channel Up command.

You can set this option:

- *Device* - Select the device that you want to change.

19.9 Volume

The Volume command allows you to set the volume level of a specified TV Tuner device. The Volume menu:



You can set these options:

- *Device* - Select the device that you want to change.
- *Volume* - Set the volume level for the TV Tuner hardware specified.

19.10 Reset

The Reset command allows you to re-initialize the specified TV Tuner device. This command is normally not needed.

You can set these options:

- *Device* - Select the device that you want to reset.

19.11 Advanced features

Two functions are available while you are using the TV Tuner EX Module.

19.11.1 **TVTuner.GetVolume (TV Tuner Name)**

This function takes a capture device name as a string and returns the volume as an integer.

For example:

```
CurrentVolume = TVTuner.GetVolume("Capture01");
```

You could then display the CurrentVolume in your script by typing this on a page:

```
!CurrentVolume
```

19.11.2 TVTuner.CurrentChannelName (TV Tuner Name)

This function takes a capture device name as a string and returns the current channel name as a string (as listed in the channel scan).

For example:

```
ChannelName = TVTuner.CurrentChannelName("Capture01");
```

You could then display the ChannelName in your script by typing this on a page: !ChannelName

Designer⁵

|||| 20 Weather EX Module

Chapter Overview

Scala software products support use of the Davis Instruments *Vantage Pro™* and *Weather Wizard III®* weather station units through the Weather EX Module. The Weather EX allows the display of weather information from a Davis weather unit within a Scala Designer 5 script. This information is gathered electronically from the weather station, which is connected to the computer through a serial port.

The data received from the weather station is written to variables, the values of which can be displayed on a script page.

The variables update in real time as they change, so the script becomes like a remote terminal for the weather station. The variable values can also be written to a file.

20.1 Licensing

Once the hardware and the supplied vendor software have been installed, you must obtain an updated license before attempting to configure and use the Weather EX Module.

To obtain an updated license for Designer 5, follow these steps:

1. Start Designer 5
2. Click *Help > About InfoChannel Designer*
3. Click the *Get License File Online* button. When prompted to overwrite the existing license, click *Yes*.
4. If you want to Save a copy of the license file in My Documents, click *Yes*. Otherwise click *No*.

To obtain an updated license for Content Manager 5, follow these steps:

1. Login to Content Manager 5 using the Administrator account with the password.
2. Click *Settings > License Status* . This will take you to the license status page.
3. Click the *Get License File Online* link.
4. Click *OK* to get an overview of the updated license.
5. Click *Accept* to install the updated license.

20.2 Allocating Licenses to Player(s)

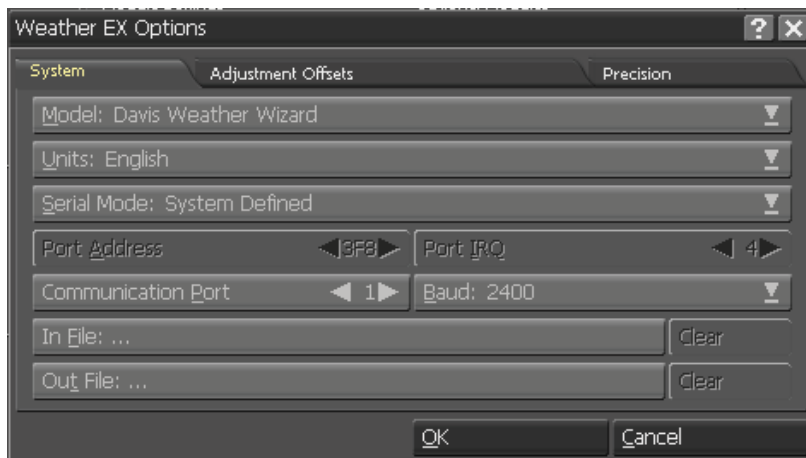
Once an updated Content Manager license has been installed, you can then choose which players you want to allocate the Weather licenses to. Any players that do not have a Weather license will not display any weather data. To allocate a Weather license for a player, follow these steps:

1. Go to *Network > Players*
2. Select a Player, and click *Properties*
3. Click the *EX Modules* tab.
4. Click the checkbox next to *Weather EX Module* to enable it for this player.
5. Click *Save* to keep the changes.
6. Generate a new plan for the player so that the player gets an updated license.

20.3 Configuring the Weather EX Module

To configure the Weather EX Module, click the *Weather EX Module* button in the *Module Settings* list to open the Weather EX Options

dialog. It allows you to choose the weather station model you are using, set up its communication and timing parameters, and configure its variables.



20.3.1 Specifying a weather station model

The different Davis weather station models have different capabilities, so you must configure the Weather EX for the one you are using. Using the *Model*: pop-up, choose either *Davis Weather Wizard* for Weather Wizard III models, or *Davis Vantage Pro* for the Vantage Pro model.

20.3.2 Units of measure

In the case of variables for which there is a choice of units of measure, the value stored can be either metric (degrees Celsius, kilometers per hour, centimeters/millibars) or English (degrees Fahrenheit, miles per hour, inches) as shown in the following table.

20.3.3 Variable English units Metric units

Variable	English units	Metric units
InsideTemp	°F	°C
OutsideTemp	°F	°C
WindChill	°F	°C
DewPt	°F	°C
HeatIndex	°F	°C
WindSpeed	MPH	KPH
Barometer	inches	millibars
Rain	inches	centimeters
DailyET	inches	centimeters

Using the *Units:* pop-up, choose either of two values, *English* or *Metric*. The default is *English*.

An indication of units (“MPH”, “°F”) is not part of the value stored. Therefore, the script author must be sure that the script displays units of measure alongside the variables displayed, and that these unit labels match the variables and the type of units set by *Units:*.

20.3.4 Serial Settings

The controls in the two rows beneath the *Units:* pop-up are for setting the serial communications parameters used for communication between the PC and the weather station.

Serial Mode

The *Serial Mode:* pop-up lets you choose between system defined and user-defined port settings for the serial port connected to the weather station.

When *System Defined* is chosen, the *Communication Port:* button is enabled and the *Port Address* and *Port IRQ* controls are disabled. The address and IRQ settings set in Windows for the port number you choose (1, 2, 3, or 4) are used.

When *User Defined* is chosen, the *Communication Port:* button is disabled, and *Port Address* and *Port IRQ* are enabled instead. This lets you choose a particular address and interrupt setting that is independent of the COM port.

Communications Port

When *Serial Mode:* is set to *System Defined*, the *Communications Port:* control lets you choose which of the standard COM ports you are using. The control is disabled when *Serial Mode:* is set to *User Defined*.

Port Address

When *Serial Mode:* is set to *User Defined*, the *Port Address* control lets you specify a port IO address. The control is disabled when *Serial Mode:* is set to *System Defined*.

Port IRQ

When *Serial Mode:* is set to *User Defined*, the *Port IRQ* control lets you specify a port IRQ number. The control is disabled when *Serial Mode:* is set to *System Defined*.

Baud rate

Use the *Baud rate:* pop-up to set the serial baud rate recommended by your weather station documentation.

20.3.5 In File and Out File

The Weather EX's capability to write and read its weather variable values to/from a file gives the EX two modes of operation:

- Direct Sensing mode – the EX gets the weather data directly from an attached weather station via the serial port

Normally, the Weather EX is in the Direct Sensing mode, and collects data from an attached weather station. The EX can optionally write the values to an output file.

- Remote mode – the EX gets weather data by reading an output file written by a Weather EX in another location. Remote mode allows multiple independent systems in a networked environment to run weather scripts while not being directly connected to a weather station. Instead, they all refer to the data generated by a single weather station and stored in an output file.

20.4 Using Direct Sensing mode

To use the Weather EX in the Direct Sensing mode, you only need to make sure there is no file path displayed in the *In File:...* button. If there is a path there, click the *Clear* button next to the *In File:...* button to clear the path.

If the Weather EX is in Direct Sensing mode and you wish to create output files for other machines to use in Remote mode, click the *Out File:* button to open the File dialog. Navigate to the location where you want the file to be stored, enter a file name ending in .SCA in the *File:* text box and click *OK*. Be sure to record the location and file name, as you will need to be able to find the file from your Remote weather script machines.

The next time you run a script while a weather station is attached, an output file with the name you gave will be created containing current weather variable values.

To stop creating output files, click the *Clear* button next to the *Out File:...* button to clear the path.

20.5 Using Remote Mode

To use the Weather EX in the Remote mode, there must be an existing Weather EX output file. If necessary, create an output file using the Weather EX on a machine that has a weather station connected, as described in the preceding section.

Click the *In File:* button to open a File dialog. Navigate to the location of the output file generated by the weather station you want to monitor. Select the output file (a .SCA file) and click *OK*.

The Weather EX will update its weather variables by reading the values from the output file that you chose.

20.5.1 The Output File

The output file is a simple Scala script that lists the variable names and their values. A typical output file looks similar to this and is representative of the onscreen data to be expected:

```
!ScalaScript
EVENT
WEATHER.InsideTemp = "73.000";
WEATHER.OutsideTemp = "87.500";
WEATHER.WindSpeed = "12.300";
WEATHER.WindDirection = "NW";
WEATHER.Barometer = "31.140";
WEATHER.InsideHumidity = "26.300";
WEATHER.OutsideHumidity = "75.300";
WEATHER.Rain = "1.030";
WEATHER.WindChill = "87.500";
END
```

20.6 Configuring Weather Variables

The Weather EX uses the following variables to store the corresponding weather measurements:

```
WEATHER.InsideTemp
```

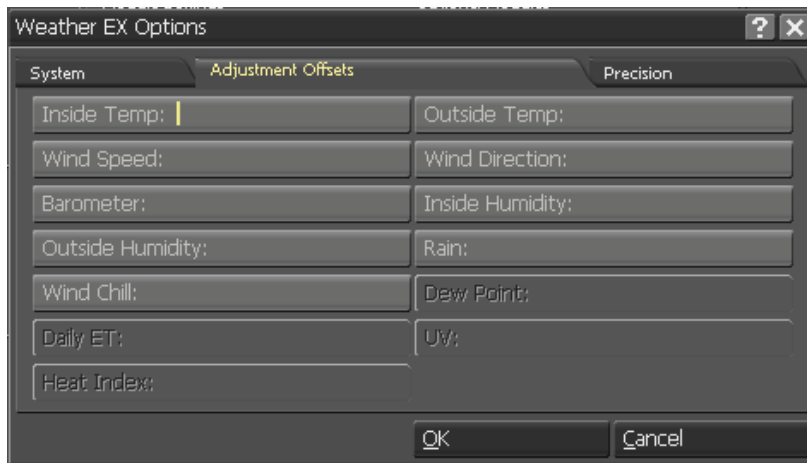

WEATHER.OutsideTemp	
WEATHER.WindSpeed	
WEATHER.WindDirection	
WEATHER.Barometer	
WEATHER.InsideHumidity	
WEATHER.OutsideHumidity	
WEATHER.WindChill	
WEATHER.DewPt	(dew point)
WEATHER.DailyET	(daily evapotranspiration)
WEATHER.UV	(ultraviolet radiation)
WEATHER.HeatIndex	

All these are text (string) variables. The Weather EX places decimal numerical values, converted to text form, into the variables. (See the example under “*The output file*”, above.)

WEATHER.WindDirection is a special case, in that the weather station’s 0-359 degree reading is converted into one of 16 compass-point directions, such as W, SW, or NNE, before being stored.

20.6.1 Variable Offsets

The *Adjustment Offsets* panel of the Weather EX Options dialog provides an offset text box for all weather variables.



Each variable can be given its own offset value. This lets you calibrate its reading to an external reference to correct for slight variances in weather station sensitivity, local conditions, etc.

Enter a positive or negative value for any variable that requires calibration. Decimal values, such as “1.3”, can be used. The offset value is added to the raw value reported by the weather station before being stored in its weather variable. Leaving a control blank is the same as entering “0”—no change is made to the value from the weather station.

The *Dew Point*, *Daily ET*, *UV*, and *Heat Index* controls are not available when the Weather Wizard model is selected.

20.6.2 Setting Variable Precision

The precision with which weather data are stored in the variables can be controlled. Specifically, the number of decimal places used for variable values can be set per variable.

The controls on the *Precision* panel of the Weather EX Options dialog let you set the number of decimal places used to store the values of all the weather variables. The default is 3, meaning that three decimal places are shown in the value.



For example, if a temperature coming from the weather station was 56.123, then the following precision settings would have these results:

Precision	Stored value
0	56
1	56.1
2	56.12
3	56.123

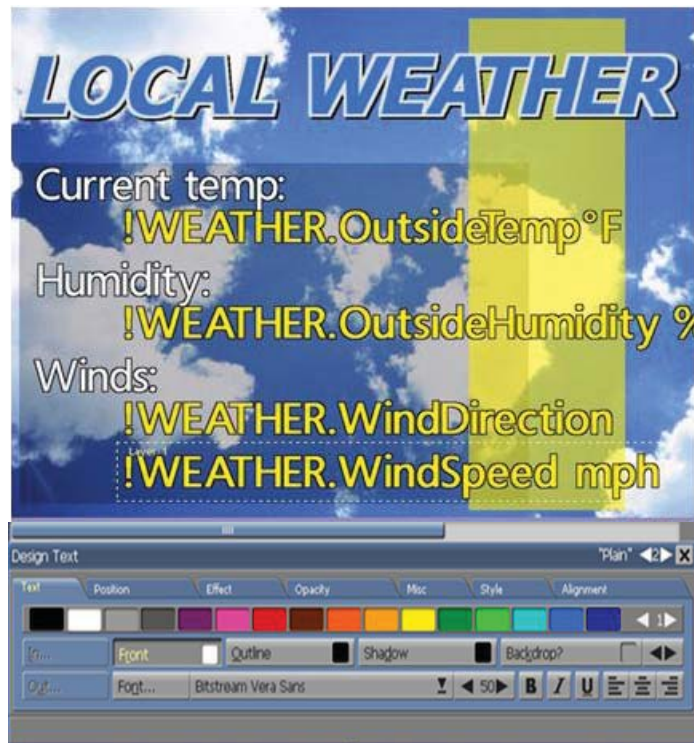
Precision controls are provided for all the weather variables except wind direction. The *Dew Point*, *Daily ET*, *UV*, and *Heat Index* controls are not available when the Weather Wizard model is selected.

20.7 Using the Weather EX

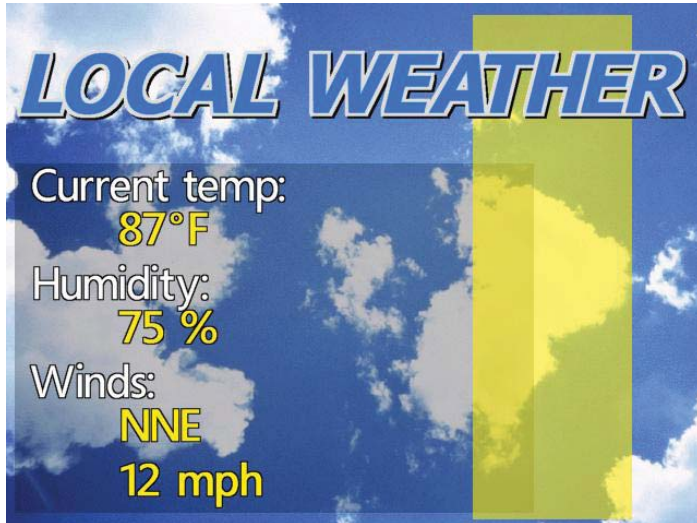
For the script author, the fundamental effect of having the Weather EX installed is that the WEATHER variables become available in the Branch menu.

To make use of them, create the page or pages on which you wish to display data from the weather station. On such a page, you include text elements with these variables embedded in text elements that include appropriate labels and unit indications.

For example, you could design a page like this:



That page might look like this when played back:



|||| 21 Video Control EXes

21.1 Licensing

You must obtain an updated license before attempting to configure and use any of the Video Control EX Module.

To obtain an updated license for Designer 5, follow these steps:

1. Start Designer 5
2. Click *Help > About Designer*
3. Click the *Get License File Online* button. When prompted to overwrite the existing license, click *Yes*
4. If you want to Save a copy of the license file in My Documents, click *Yes*. Otherwise click *No*.

To obtain an updated license for Content Manager 5, follow these steps:

1. Login to Content Manager 5 using the Administrator account with the password.
2. Click *Settings > License Status* . This will take you to the license status page.
3. Click the *Get License File Online* link.
4. Click *OK* to get an overview of the updated license.
5. Click *Accept* to install the updated license.

21.2 Allocating Licenses to Player(s)

Once an updated Content Manager license has been installed, you can then choose which players you want to allocate the Video EX licenses to. Any players that do not have a Video EX license will not be able to use any of the Video EX'es. To allocate a Video EX license for a player, follow these steps:

1. Go to *Network > Players*
2. Select a Player, and click *Properties*

3. Click the *EX Modules* tab.
4. Click the checkbox next to *Video EX Module* to enable it for this player.
5. Click *Save* to keep the changes.
6. Generate a new plan for the player so that the player gets an updated license.

21.3 Switcher EX Module

The Scala Switcher EX Module allows you to use a variety of audio/video switchers, controlling them directly with an Designer 5 script. Switchers currently supported by this EX include:

- Adrienne AEC-1
- Digital Processing Systems RS-2800 4x1
- Kramer VS-401 4x1, VS-402 4x2, VS-801 8x1, VS-802 8x2, VS-601XL 6x1, VS-808XL 8x8, 16x16, 4x4 models (incl. "Protocol 2000" models)
- PESA Bobcat
- Sigma SCI-210, SCI-8x8, SLX
- Vicon VPS-1300

21.3.1 Hardware requirements

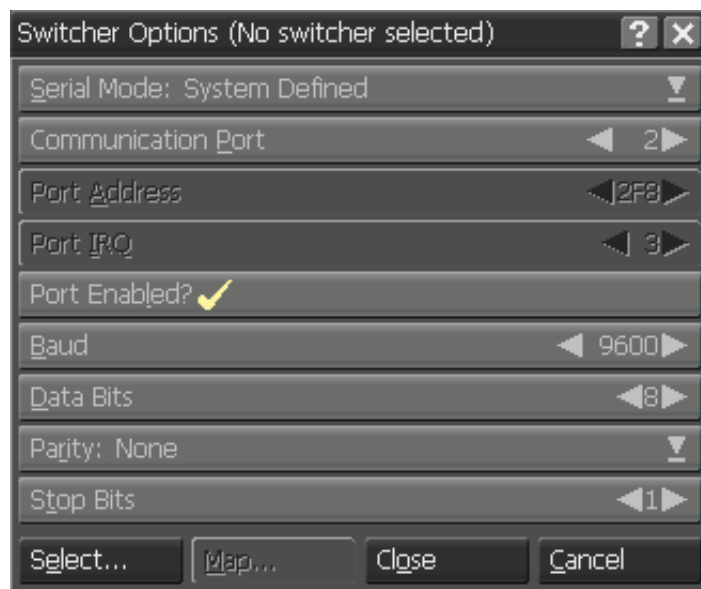
You need an audio/video switcher with a serial port, a serial cable connected between the switcher and the PC, and the necessary audio and video cables.

21.3.2 Enabling the Switcher EX

To enable the Switcher EX Module, run Designer, and on the **Main** menu click the *Tools* icon and choose *Options*. You see the Designer Options dialog.

In the Modules tab, you see the *Switcher EX Module?* button in the *Optional Modules* scrolling list. The EX is not turned on by default, so click this button to turn it on (✓).

Then click the *Switcher EX Module...* button in the *Module Settings* list to open the Switcher Options dialog. It allows you to choose the switcher you are using and set up its communication and mapping parameters.



21.3.3 The Switcher Options dialog

In the Switcher Options dialog, you first need to select a switcher. Click the *Select* button. You see the File dialog open to the Switcher folder, which lists configuration scripts for each supported switcher. Double-click the config script file for the switcher you are using. You see the Switcher Options dialog again, with the chosen switcher's name shown in the title bar.

21.3.4 Setting communication parameters

The buttons in the dialog are for setting the serial communications parameters used for communication between the PC and the switcher. The config script files for the supported switchers set these parameters to their recommended values for you, and should not normally need to be changed.

However, in case of system conflicts or other special needs, all parameters can be adjusted if necessary.

21.3.5 Serial Mode

The *Serial Mode:* pop-up lets you choose between system defined and user-defined port settings for the serial port connected to the switcher. When *System Defined* is chosen, the *Communication Port:* button is enabled and the *Port Address* and *Port IRQ* buttons are disabled. The address and IRQ settings set in Windows® for the port number you choose (1, 2, 3, or 4) are used. When *User Defined* is chosen, the *Communication Port:* button is disabled, and *Port Address* and *Port IRQ* are enabled instead. This lets you choose a particular address and interrupt setting that is independent of the COM port.

Communication Port - When *Serial Mode:* is set to *System Defined*, the *Communication Port:* pop-up lets you choose which of the four standard COM ports you are using. The pop-up is disabled when *Serial Mode:* is set to *User Defined*.

Port Enabled? - The *Port Enabled?* button is normally on, indicating that the specified serial port and video hardware are attached to this machine. However, if you happen to be editing a script with switcher events on a machine that does not have the port and hardware currently attached, turn off this button while editing to prevent error messages from appearing.

Port Address - When *Serial Mode:* is set to *User Defined*, the *Port Address* pop-up lets you specify a port IO address. The pop-up is disabled when *Serial Mode:* is set to *System Defined*.

Port IRQ - When *Serial Mode:* is set to *User Defined*, the *Port IRQ* popup lets you specify a port IRQ number. The pop-up is disabled when *Serial Mode:* is set to *System Defined*.

Baud - Use the *Baud* pop-up to set the serial baud rate recommended by your switcher documentation.

Data Bits - Use the *Data Bits* pop-up to set the number of data bits recommended by your switcher documentation.

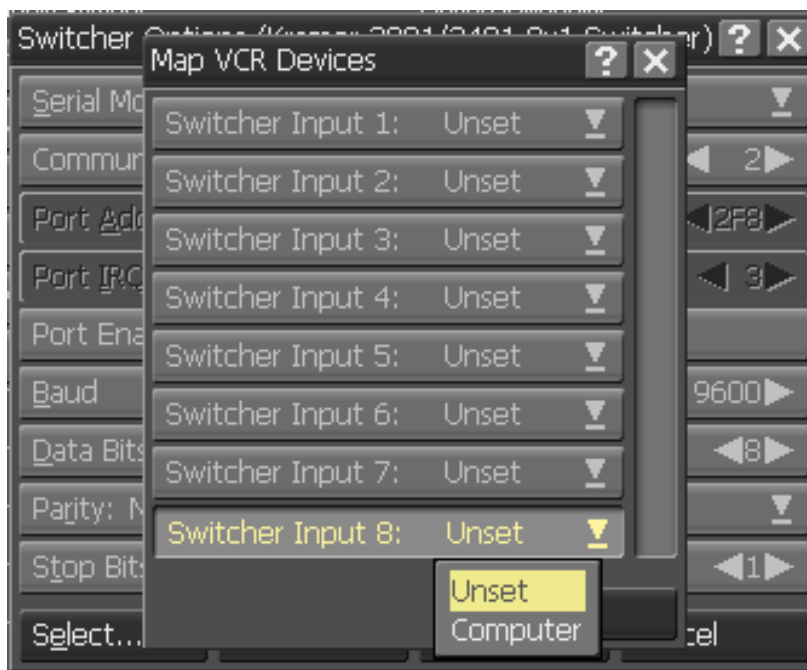
Parity - Use the *Parity:* pop-up to set the serial parity recommended by your switcher documentation.

Stop Bits - Use the *Stop Bits* pop-up to set the number of stop bits recommended by your switcher documentation.

21.3.6 Mapping switcher inputs

The Switcher EX allows you to map or associate the switcher's inputs with the outputs of any video playback devices you have set up using the VCR EX, or with the computer's output.

Click the *Map* button at the bottom of the Switcher Options dialog to open the Map VCR Devices dialog.



This dialog contains a pop-up for each video input on the switcher. By default each input is *Unset*, indicating that there is no video source for that input. When you click the pop-up, the names of any video units you have defined in the VCR Options dialog appear. *Computer* refers to the video output of the PC itself.

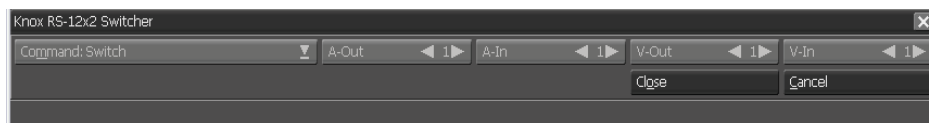
When you have made the desired settings for each input, click the *Close* button to return to the Switcher Options dialog.

Saving switcher settings

After making all the communication and map settings for your chosen switcher, you should click *OK* to use these settings, or *Cancel* to discard any changes. In either case, the dialog closes.

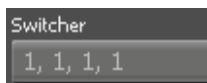
21.3.7 The Switcher menu

Click a button in the *Switcher* column in the Designer **Main** or **Design List** menus to open the **Switcher** menu.



The upper left button is the *Command:* pop-up. Use the popup to select an action, either *Switch* or *None*. When *Switch* is selected, the routing settings specified will be applied for the current page before the page displays. Select *None* to eliminate an existing switcher event for the page.

When you choose the *Switch* event, one or more additional pop-ups appear to the right. These control the routings for video (and possibly audio) sources connected to your switcher. The options available, and thus the additional buttons that appear, depend on the capabilities of the particular switcher. The button names indicate the signals they control.



Use the pop-ups to change the input/output routings. The values set by the pop-ups are also reflected on the button in the *Switcher* column, separated by commas.

Click *Preview* to see the switcher routing settings you have made.

Click *Close* to accept the routing settings (or to eliminate the switcher event, if *Command: None* is selected). Click *Cancel* to discard any changes. In either case, the menu closes.

21.4 VCR EX Module

Similar to the Switcher EX Module, the VCR EX Module allows you to control a serial-equipped videocassette recorder, videocassette player, or laserdisc player from within an Designer script. Models currently supported by this EX include:

- JVC professional models with RS-232
- Panasonic AG5700, AG7350 with RS-232
- Sony UVW models with RS-232
- RS-422 controlled VCRs such as the Sony DSR-60 (with Addenda Electronics 2/3 or 2/8 RS-232 > RS-422 adaptors)
- Pioneer laserdiscs with RS-232
- Generic RS-422

21.4.1 Hardware requirements

You need a videocassette machine or laserdisc player with a serial port, a serial cable connected between the unit and the PC, and the appropriate audio and video cables.

21.4.2 Enabling the VCR EX

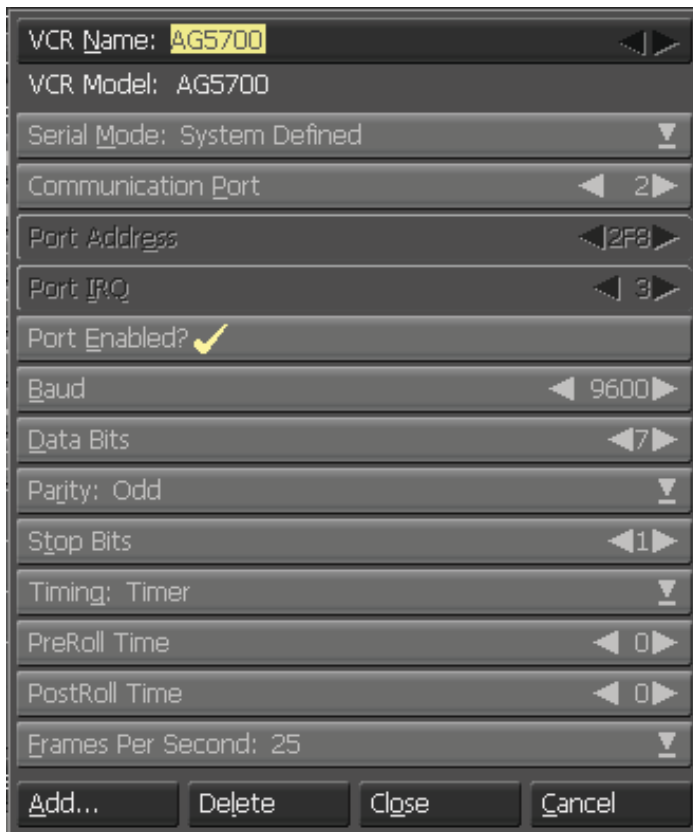
To enable the VCR EX Module, run Designer, and on the **Main** menu click the *Tools* icon and choose *Options*. You see the Designer Options dialog.

In the Modules tab, you see the *VCR EX Module?* button in the *Optional Modules* scrolling list. The EX is not turned on by default, so click this button to turn it on (✓).

Then click the *VCR EX Module...* button in the *Module Settings* list to open the VCR Options dialog. It allows you to choose the switcher you are using and set up its communication and mapping parameters.

21.4.3 Configuring the VCR EX

To configure the VCR EX Module, click the *VCR EX Module...* button in the *Module Settings* list to open the VCR Options dialog. It allows you to choose the VCR you are using and set up its communication and timing parameters.



In the VCR Options dialog, you first need to select the VCR or laserdisc player that you are using. The *VCR Name*: selector shows the name of the currently selected device definition. (If no device has been defined yet, all the controls in the dialog except the buttons at the bottom are disabled.)

Use the arrows in the selector to pick the name of the device you want. The settings and available options in the dialog vary depending on the unit you choose.

21.4.4 Adding and naming a VCR

The VCR EX supports a variety of different hardware models, and lets you define options for multiple units of a given model, or for different setups of the same unit. To do this, you choose a supported model, then specify various settings for the model, including a name for the definition. You then refer to the name to specify the desired unit or setup when you use the **VCR EX** menu to place a VCR event in a script.

To define a unit or setup:

1. Click the *Add* button. You see the Add Unit dialog, which has a single pop-up listing all the supported hardware models.
2. From the *VCR Model:* pop-up, choose the model of device for which you wish to define a setup. If your specific VCR model is not listed, but it supports standard RS-422 serial commands, choose *RS-422*.
3. Click *OK*.
4. You see the name you chose in both the *VCR Name:* selector and in the *VCR Model:* display below it. The option buttons in the dialog become enabled and are given appropriate defaults.

The default name can be changed if you wish. Select it in *VCR Name:* and type in something more descriptive, like “Ad Deck 1”. The name in *VCR Model:* does not change, so that you always know what type of device you are working with.

5. Make any necessary changes in the settings for the definition.

By clicking the *Add* button again, you can create another setup for the same VCR model—if, for example, you have several of the same type of VCR on different serial ports—or choose a different model. Another entry appears in the *VCR Name:* button. (To create a unique default name, Designer adds a numbered suffix to the name if necessary.) When there is more than one *VCR Name:* entry, use the arrows on the selector to choose which unit the option buttons apply to.

To delete the current name and option set from the list of entries shown on the *VCR Name:* selector, click *Delete*. Be sure not to delete a VCR for which there is a VCR event defined.

21.4.5 Setting communication parameters

Most of the buttons in the dialog are for setting the serial communications parameters used for communication between the PC and the video hardware. These options, *Serial Mode*, *Communication Port*, *Port Address*, *Port IRQ*, *Port Enabled?*, *Baud*, *Data Bits*, *Parity*, and *Stop Bits*, function and are set the same as they are in the Switcher Options dialog.

21.4.6 Setting equipment-specific parameters

There are some parameters available in the VCR Options dialog that can vary in their possible settings based on the particular piece of equipment you are using. In some cases there are options unique to a given device, which appear only for that device.

Timing - The *Timing*: pop-up has three possible settings:

- *Timer*
- *Counter*
- *Time Code*

Which of these appears depends on the equipment. Laserdisc players operate by means of absolute frame counters, so their only possibility is *Counter*. Most VCRs have at least *Timer*; more advanced models also feature SMPTE time code capability, and so also have *Time Code* available. A device such as the Como Control X, which can control various types of equipment, can show all three options.

Generally, if *Time Code* is an option, it is better to use it than *Timer* or *Counter*, which can fail to work properly if the physical video device gets out of sync with the script's idea of where it is.

PreRoll Time - "Pre-roll" is the video term for the amount of time that must be allotted for a video playback device to get up to speed after being physically started, to be sure that image and sound reproduction are stable. The recommended pre-roll value varies from machine to machine, but for most VCRs, pre-roll is from 3 to 5 seconds. Use the *PreRoll Time* value control to set the number of seconds specified by the manufacturer of your VCR.

For example, when a 4-second pre-roll has been specified, the VCR automatically moves the tape to a location 4 seconds before the point at which the desired video segment begins, and starts the transport. It is assumed that an associated video switcher will be used to switch in the VCR's output at the end of the 4-second pre-roll, so that actual playback begins at the proper location.

Note: The *PreRoll Time* and *PostRoll Time* options cannot calculate their locations correctly unless the *Frames Per Second* pop-up in the VCR Options dialog is set correctly to match the video standard (NTSC, PAL, or SECAM).

PostRoll Time - Similar to pre-roll, “post-roll” is the number of seconds that a VCR transport continues to run after the specified video segment has completed. This ensures that sync is not lost before a video switcher finishes switching out the VCR after the segment.

A post-roll of 1 second is usually sufficient. Use the *PostRoll Time* value control to set the number of seconds specified by the manufacturer of your VCR.

ID/Routing Number - This option appears only for devices that themselves address more than one playback machine, such as a control box that might handle several VCRs. The number you set with the value control corresponds to one of the machines.

21.4.7 The VCR menu

Click a button in the *VCR* column in the Designer **Main** or **Design List** menus to open the **VCR** menu.



Use the *Unit:* pop-up in the upper left corner of the menu to choose which machine the event should address. The names for any playback units you have defined in the VCR Options dialog appear here. Click the pop-up to view the units available.

The *VCR: pop-up* specifies the type of event that is sent to the VCR. For each event, the selection of options that are available on the menu varies. Click the pop-up to choose a different event.

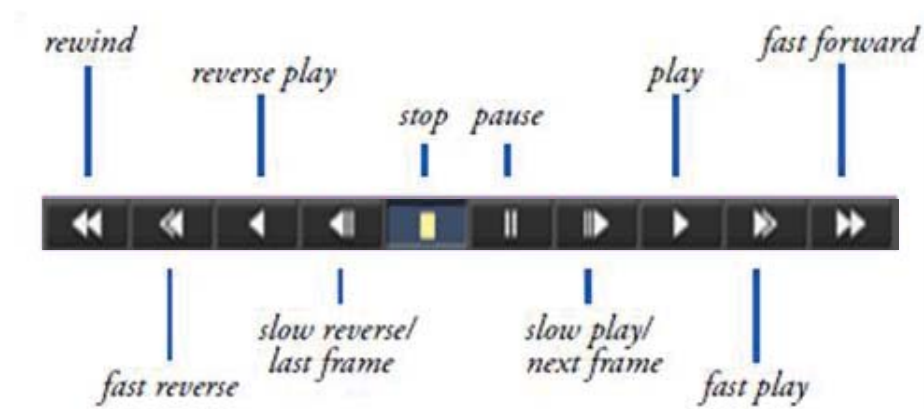
Click *Preview* to see the VCR settings you have made.

Click *Close* to accept the settings (or to eliminate the VCR event, if *Command: None* is selected). Click *Cancel* to discard any changes. In either case, the menu closes.

21.4.8 Play

The *VCR: Play* event operates the video hardware transport, starting and stopping play at In and Out points that you can specify.

The row of buttons under the heading *Adjust Now* function as a remote control to let you immediately execute any transport operation you want on the selected playback hardware.



(These buttons function in real time and are for convenience only. They do not affect the script event.) A given piece of hardware may

not offer some of these transport operations, such as fast play, so you may have to experiment to determine what certain of these buttons do on a given machine.

Set In, Set Out - You specify the point in the video at which to begin and end play by using the *Set In* and *Set Out* buttons and their associated value controls. In and Out points are set using the method you specified with the *Timing*: pop-up in the VCR Options dialog for the current machine:

- *Timer* – hours, minutes, seconds, and frames relative to a zero point (normally the beginning of the tape or laserdisc)
- *Counter* – location in terms of a six-digit frame number relative to a zero point (normally the beginning of the tape or laserdisc)
- *Time Code* – hours, minutes, seconds, and frames within the current SMPTE time code stripe

Use the value control to the right of the *Set In* button to enter the location at which play should begin. Use the value control on the far right to enter the location at which play should stop.

Alternatively, you can click the *Set In* or *Set Out* buttons to set the location to the current location on the tape or disc. Reverse play is possible by setting an In point that is later than the Out point.

Note: Do not set an In or Out location that is so close to the beginning or end of a tape that there is not enough room for the defined PreRoll or PostRoll to take place. Insufficient pre-roll space will cause a Play event to be skipped.

You can display single laserdisc frames by choosing the Counter method of timing and making the *Set In* and *Set Out* points the same.

Wait? - Turn on the *Wait?* button to prevent the script from continuing until this *VCR: Play* event has completed.

Auto? - The *Auto?* option appears in the VCR menu to the right of the *Wait?* button if the Switcher EX has also been activated.

When this option is on, the VCR EX and the Switcher EX communicate, and for a Play event, cause the Switcher EX to automatically switch the input(s) specified for the current playback device in and out at the In and Out locations defined in the VCR menu. When this option is off, you must insert explicit Switcher menu events to handle the routing of video playback.

21.4.9 Audio

This event is available only for laserdisc players. The *VCR: Audio* event lets you turn one or both audio channels of a video segment on or off. Click the *Audio Channel 1?* and *Audio Channel 2?* buttons to enable and disable their audio playback.

21.4.10 Play to

The *VCR: Play to* event is almost identical to the Play event, but it has no provision for specifying a starting location; there is no *Set In* button or value control. In addition, the *Auto?* option is not present. The remaining controls function in the same way as on the *VCR: Play* panel. When this event is executed, video playback starts at the current location and continues to the point specified by the *Set Out* control.

21.4.11 Go to

The *VCR: Go to* event allows you to change the current location within the videotape or laserdisc without beginning play.

This is valuable when used in advance of a Play event, to avoid a delay while the machine changes location to the beginning of a play segment. Specify the location to move to with the *Set* control. There are no *Set Out* or *Auto?* options.

Other controls work the same as on the *VCR: Play* panel.

21.4.12 Sync

This option helps ensure that the activities associated with an element or page are synchronized with a video segment that is already playing.

In essence, the *Sync* event places the element or page on standby until the video playback reaches the time or counter setting you specify. At that point it allows the script to continue to the next event. Rather than the script determining the video activity, as it does, for example, in the *Play* event, the video actually controls the script in a *VCR: Sync* event; the script cannot continue until the video reaches a certain point. This is useful, and often necessary, to ensure, for example, that a wipe starts at precisely the right time relative to a video segment.

Set specifies the location in the video that determines when the script runs the page you are working with.

The time can be expressed in minutes, seconds and frames, or as a counter setting, just as it is in the *Set In* and *Set Out* controls in the *Play* event. Unless you specify a setting, the sync time is 00:00:00.00. (The following explanations assume you will sync to a time.)

Use the value controls by the *Set* button to set the sync point. In order to set the time precisely, you must experiment with the setting and refine it until the other script activity is synchronized with the video as accurately as possible. Use the *Preview* button in the menu and in the List or Main menus to see and hear how the setting fits into the scheme of the current page and surrounding pages in the script. When the script encounters the *Sync* event before the video reaches the specified time, the script waits at that point. When the sync time on the video arrives, the script continues. If other events delay the script, however, and it reaches the *Sync* event after the video has passed the sync time, the script just continues normally.

This could happen, for example, if a preceding event took more time than you had thought when you calculated the sync time—you might have reduced the speed of a wipe, making it take longer to complete. An element or page associated with the *VCR: Sync* event isn't lost or overlooked; in this case it just does not appear when you planned. To avoid such difficulties, always *Preview* the script in its entirety and be aware of other events that may affect the timing and coordination.

21.4.13 **Rewind**

The *VCR: Rewind* event places the playback unit into rewind mode, effectively changing the current location to the beginning of the tape or disc.

When the current playback unit has its *Timing:* pop-up set to *Timer*, this event also zeroes the timer, ensuring that the VCR EX zero point (00:00:00.00) corresponds with the beginning of the tape. A *Rewind* event also zeroes a VCR counter (a laserdisc counter, which is absolute, returns to the first frame). To ensure accurate positioning of Set locations with VCR devices, you should always insert a *VCR: Rewind* event as the first VCR menu command in a script.

21.4.14 Pause

The *VCR: Pause* event immediately pauses a playing video. It also pauses a VCR that is recording. Resume play with a *VCR: Play* or *VCR: Play to* event.

21.4.15 Stop

The *VCR: Stop* event immediately stops a playing video. It also stops a VCR that is recording.

21.4.16 Wait

Like the *Wait?* button, the *VCR: Wait* event causes script execution to stop and wait for the completion of a VCR event.

The difference is that the *Wait?* button is an additional option for the *current* video event (which is generally to play a video).

The *VCR: Wait* event stands on its own, and causes the script to wait for a *preceding* VCR event to finish playing. It ensures that the current element or page is displayed until the current video segment is done.

In other words, you use the *Wait?* button only when you want the script to pause and wait for this video event. Use the *VCR: Wait* event when you needed the script to continue while a video event was taking place—you left its *Wait?* button off—and you need the script to wait at a later point for that video event to finish.

21.4.17 Record

When controlling a VCR, you can use the *VCR: Record* event to enter Record mode. (This event is not available when the machine specified by the *Unit:* pop-up is a playback-only videocassette machine or a laserdisc player.) The controls are identical to those in the *VCR: Play* panel, and function in the same way, except that there is no *Auto?* option.

Use the *Set In* controls to specify the location at which to begin recording, and the *Set Out* controls for the location at which recording should stop.

21.4.18 None

To eliminate an existing VCR event, change it to a *None* event.

21.4.19 Coordinating script and video playback

You should be aware that VCRs, unlike laserdisc players, do not have a fixed, frame-accurate method of positioning embedded in the medium. This means that it is possible for the script's idea of where it is in the tape to not match the actual location. Thus in order for Set points to work correctly with VCR playback, there are steps that you should take to be sure that the script does not get "lost" within a tape. That could lead to the wrong segments of video being played, or segments not being played at all.

21.4.20 Tape Timing Methods

A VCR can use any of the three methods of location specified by the setting of the *Timing*: pop-up in the VCR Options dialog. In general, using SMPTE time code is preferable. If the tape has been properly “striped” with SMPTE, the time code on the tape provides a frame-accurate random-access location method that is comparable to a frame counter, but gives you a better idea of where you are on the tape and how fast the tape is moving. However, not all VCRs support time code.

21.4.21 Using the Timer Method

Unlike time code or a laserdisc frame counter, the Timer method is a relative positioning method. It judges location relative to a single absolute reference point, the zero point (00:00:00.00 on the timer).

Successfully using the Timer method depends entirely on the script and the VCR remaining in sync with regard to their notion of the current location in the tape. Because there is nothing on the tape that can tell the VCR where it is, retaining this sync depends on two things:

- Establishing the zero point at the beginning of the tape
- The tape’s motion being controlled solely by the script while the script is running For these reasons you should always take these steps when working with VCRs using the Timer method:

- Always insert a *VCR: Rewind* event as the first VCR EX event in the script. This both rewinds the tape to its beginning and resets the timer to 00:00:00.00.
- While the script is playing, never manually operate the VCR transport controls, change tapes, or remove, work with, then reinsert a tape in an attached VCR. The VCR EX will have no way of knowing that the tape is no longer at the last location it remembered.

21.4.22 Using the Counter Method

A VCR might also offer a frame counter, in addition to or instead of a timer. Unlike a laserdisc frame counter, the zero point of a VCR counter can be reset, just like a timer zero point. Thus it is a relative positioning method and you must exercise all of the cautions as with the Timer method, described above.

21.4.23 Using the Time Code Method

If available on your hardware, using SMPTE time code (the Time Code method) is preferable to the Timer method.

Time code is has superior accuracy, but more importantly, because the time code is written onto the tape itself, it is an absolute positioning method. This means that the exact location on the tape can be determined automatically at any point, regardless of when and how the tape has been manipulated.

This eliminates the need for a rewind at the beginning of the script, and allows you to operate the tape transport manually without later causing the script to become confused.

However, there are certain potential problems with time code. Blank tapes do not have time code on them; a tape must be “striped”, or have the time code written to it. There are a number of options in the striping process, so not all tapes are striped with time code in exactly the same way. The operator can stripe only part of the tape, place more than one stripe on the same tape, or even start a given stripe at an arbitrary time. So, for example, a tape could have one stripe from 00:00:00.00 to 00:32:00.00 and a later stripe from 00:17:30.00 to 01:45:00.00. Furthermore, the time code stripe does not uniquely identify the tape.

Thus you need to beware of situations like the following:

- The current tape location is moved to a section of the tape without time code, making positioning impossible
- The current tape location is moved to a time code stripe other than the intended one
- The tape in the machine is changed

In such cases, a positioning command could fail, the wrong segment of the tape could be played, or the right segment of the wrong tape could be played.

To prevent such occurrences:

- If you use time code on any of your tapes, all tapes should use time code. This helps prevent confusion.
- No partial striping or multiple striping. All tapes should have time code in a single continuous stripe for their full length.

- Never change tapes in a machine while that machine is being controlled by a running script.

21.5 Leightronix EX Module

Bundled with the VCR and Switcher EXes is the Leightronix EX. This EX allows control of several interface devices produced by Leightronix Inc.:

- MINI-T-PRO
- PRO-8
- PRO-16

The Leightronix devices connect to a wide variety of serial controlled VCRs, and provide a combination of switcher functions and VCR transport control, making them highly versatile in a budget video production environment.

21.5.1 Hardware requirements

In addition to one of the abovementioned Leightronix models, you need one or more serial-controllable VCRs; a PROBUS interface compatible with each, connected between the Leightronix device and the VCR; a serial cable connected between the Leightronix unit and the PC; and the necessary audio and video cables.

Follow the instructions in the documentation for the Leightronix device, interface devices, and associated hardware in assembling your video installation. Be sure the installation is functioning correctly by itself before attempting to control it through the Leightronix EX.

21.5.2 Enabling the Leightronix EX

To enable the Leightronix EX, run Designer, and on the **Main** menu click the *Tools* icon and choose *Options*. You see the Designer Options dialog.

In the Modules tab, you see the *Leightronix EX Module?* button in the *Optional Modules* scrolling list. The EX is not turned on by default, so click this button to turn it on (✓).

Then click the *Leightronix EX Module...* button in the *Module Settings* list to open the Leightronix Options dialog. It allows you to choose the switcher you are using and set up its communication and mapping parameters.



21.5.3 The Leightronix Options dialog

In the Leightronix Options dialog, you need to select the equipment model you are using. From the *Type*: pop-up, choose the correct name.

Most of the buttons in the dialog are for setting the serial communications parameters used for communication between the PC and the Leightronix unit. These options, *Serial Mode*, *Communication Port*, *Port Address*, *Port IRQ*, *Port Enabled?*, *Baud*,

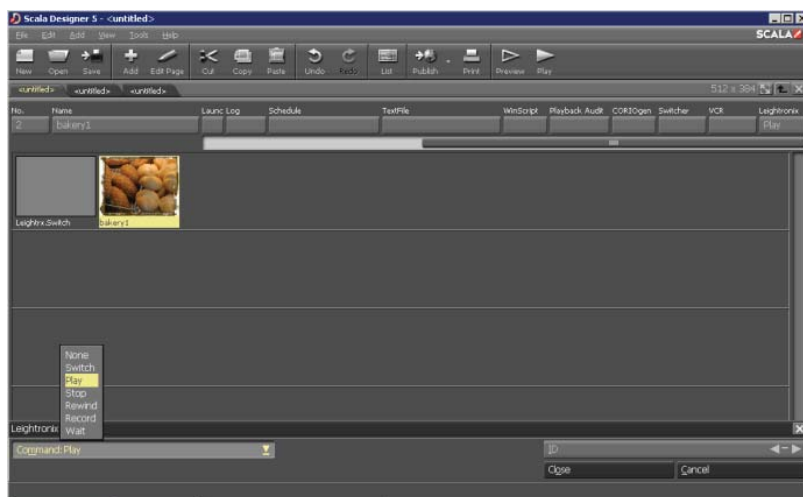
Data Bits, Parity, and Stop Bits, function and are set the same as they are in the Switcher Options dialog.

21.5.4 Saving settings

After making all the communication settings for your chosen Leightronix unit, click *OK* to save the settings for use in future Designer sessions. Click *Cancel* to discard any changes. In either case, the dialog closes.

21.5.5 The Leightronix menu

When the Leightronix EX has been turned on in the Designer Options dialog, you see the *Leightronix* column in the **Main** menu. Click this column for a page or special event to open the **Leightronix** menu.



Much like the **Switcher** menu, the Leightronix menu has a *Command:* pop-up in the upper left that you use to specify an

action. The menu displays different controls depending on the action you choose. Use the pop-up to choose a command.

21.5.6 Switch

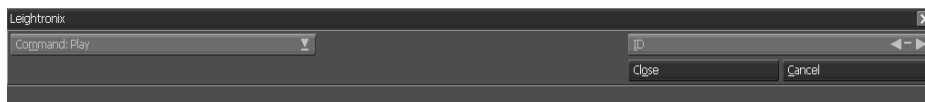
The default choice on the *Command*: pop-up is *Switch*. This command lets you select one of the video/audio inputs of the Leightronix unit and switch it to the output.

Use the *Input* pop-up on the right to choose the number of the desired input.

Note that this command only switches inputs; it does not also start playback on the input unit. If there is not already a signal on the selected input, you may need to add a *Command: Play* event as well. Place the *Play* event before the *Switch* event. For a clean cut, the time delay between the two events should last at least as long as the input unit's preroll time.

21.5.7 Play

The *Play* command sends a signal to an external device (connected through a PRO-BUS interface) to begin video playback.



You identify the desired playback unit using the *ID* control to the right.

Note that the ID numbers do not necessarily correspond to input numbers. The ID numbers are not set within the Leightronix EX. Consult the reference materials created by whoever set up your

video installation to match up input numbers and ID numbers with physical pieces of video equipment.

You can choose “-” on the ID control. This causes the command to be sent to all connected devices, regardless of ID.

21.5.8 Rewind

The *Rewind* command sends a signal to an external device to begin rewinding.

As with the *Play* command, you identify the desired unit using the *ID* control to the right.

Note: For the PRO-8 and PRO-16 units, an *Output* pop-up is also available, allowing you to choose the destination output on the unit.

21.5.9 Stop

The *Stop* command sends a signal to an external device to stop playback.

As with the *Play* command, you identify the desired unit using the *ID* control to the right.

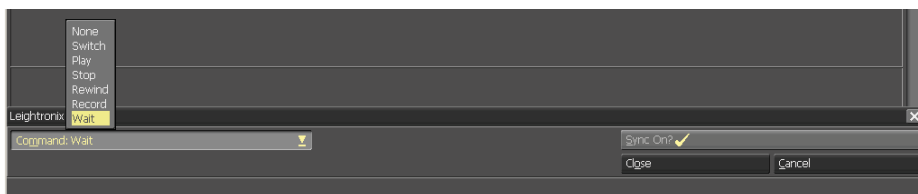
21.5.10 Record

The *Record* command sends a signal to an external device to begin recording.

As with the *Play* command, you identify the desired unit using the *ID* control to the right.

21.5.11 Wait

The *Wait* command causes the script to pause until triggered to continue with the next event in the script.



The trigger to continue is the presence or absence of a video sync signal at the Leightronix device's output. The *Sync On?* option is used to specify whether the trigger to resume execution is the presence or the absence of sync.

When this option is on (✓), the event waits for video sync to appear at a Leightronix video out. When it is off, the event waits for video sync to disappear from the video out. For the PRO-8 unit, an *Output* pop-up is also available, allowing you to choose which of the unit's outputs should be monitored for video sync.

This event can be used to synchronize the beginning of the next script event with the beginning of a video segment, or to continue the script once a segment has ended. This command does not allow you to specify an input or ID number. Video sync can appear at the video output from multiple sources. To use this command effectively, you must be certain that the currently-selected video input is the source that you intend to be the trigger.

Note: *Command: Wait* is available only for the MINI-T-PRO and PRO-8. It is not available when the PRO-16 unit is selected.

21.5.12 **None**

Use the *None* command to remove an existing Leightronix EX command on a particular event, or to exit the menu without specifying a command.

Designer⁵

Designer⁵

|||| 22 CORIOgen EX Module

Overview

Scala software products support use of the Vine Micros Ltd. CORIO[®]gen Eclipse genlock/overlay unit through the Scala CORIOgen EX Module.

To use the CORIOgen unit with Scala, any system with the unit must be configured with the CORIOgen EX Module present.

For further CORIOgen-related information, you can also visit the Vine Micros Web site at <http://www.vinemics.com>.

22.1 Licensing

Once the hardware has been installed, you must obtain an updated license before attempting to configure and use CORIOgen EX Module.

To obtain an updated license for Designer 5, follow these steps:

1. Start Designer 5
2. Click *Help > About InfoChannel Designer*
3. Click the *Get License File Online* button. When prompted to overwrite the existing license, click *Yes*
4. If you want to Save a copy of the license file in My Documents, click *Yes*. Otherwise click *No*.

To obtain an updated license for Content Manager 5, follow these steps:

1. Login to Content Manager 5 using the Administrator account with the password.

2. Click *Settings > License Status* . This will take you to the license status page.
3. Click the *Get License File Online* link.
4. Click *OK* to get an overview of the updated license.
5. Click *Accept* to install the updated license.

22.2 Allocating Licenses to Player(s)

Once an updated Content Manager license has been installed, you can then choose which players you want to allocate the CORIOgen EX licenses to. Any players that do not have a CORIOgen EX license will not be able to use the CORIOgen EX Module. To allocate a CORIOgen EX license for a player, follow these steps:

1. Go to *Network > Players*
2. Select a Player, and click *Properties*
3. Click the *EX Modules* tab.
4. Click the checkbox next to *CORIOgen EX Module* to enable it for this player.
5. Click *Save* to keep the changes.
6. Generate a new plan for the player so that the player gets an updated license.

22.3 Configuring the CORIOgen EX

To enable the CORIOgen EX, run Designer, and on the **Main** menu click the *Tools* icon and choose *Options*. You see the Designer Options dialog.

In the Modules tab, you see the *CORIOgen EX Module?* button in the *Optional Modules* scrolling list. The EX is not turned on by default, so click this button to turn it on (✓).

Then click the *CORIOgen EX Module...* button in the *Module Settings* list to open the CORIOgen Options dialog.



COM port - Use the *COM Port:* value control to choose the number of the COM port to which the CORIOgen is connected.

Baud Rate - The *Baud Rate:* pop-up gives a selection of baud rates for serial communication through the selected COM port. Generally, the default value of 9600 baud should be used.

Enable Sync? - The CORIOgen normally requires a video sync signal, which it gets from the video source connected to its external video inputs. If you need to use the CORIOgen without an external video signal, you should turn the *Enable Sync?* option off, so that the unit does not attempt to sync to a missing video source.

CORIOgen modes that require synchronized video signals—the Genlock, Overlay, and Mix modes—will not function if *Enable Sync?* is off.

Video Source - The *Video Source:* pop-up lets you choose which of the external video inputs you want as the source. Choose either *Composite Video* (the RCA/phono *In* jack) or *S-Video* (the 4-pin mini-DIN *In* jack).

Freeze On Exit? - The CORIOgen unit's Freeze function can keep a still frame of the last output image visible on the unit's VGA output for as long as necessary. The CORIOgen EX offers the option of invoking the Freeze function automatically whenever the Player Script is exited by pressing Esc.

Doing so prevents the Windows desktop from appearing on the Player's display screen, which might be visible to the public. This is invaluable when doing field maintenance on installed Players, preventing the interruption in service from being excessively jarring to anyone viewing the Player, and protecting possibly sensitive information that could be exposed if the desktop were visible.

By default, the CORIOgen's video output automatically retains the last Player script screen when the Player software exits. To allow the same display as is seen on the computer monitor from the PC Out jack appear on the video screen when exiting a script, turn off the *Freeze On Exit?* option.

Un-freeze On Startup? - If the CORIOgen's Freeze function has been activated, either by the *Freeze On Exit?* option or otherwise, it can be automatically unfrozen when the Player Script starts, to resume normal playback display. The default setting is for this option to be on.

To keep a frozen display from being disrupted even when the Player Script starts again, turn off the *Un-freeze On Startup?* Option.

Enable Audio Indicator? - The CORIOgen unit has a small built-in speaker, which can beep whenever the unit receives a command from the Player. When setting up and testing operation of the system, this can be helpful in confirming that serial communication is functioning.

To enable audible confirmation of serial commands, turn on (✓) the *Enable Audio Indicator?* option.

22.3.1 Using and saving settings

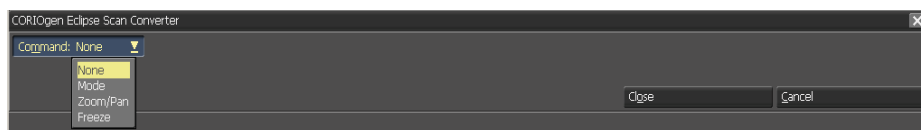
Once you have made all the settings in the CORIOgen dialog that are needed, you can click *OK* to close the dialog and save the settings.

The changes you make in the Options dialog will not take effect until the next time you open the Designer program.

Click *Cancel* to close the dialog, discarding any changes you made.

22.4 CORIOgen EX menu

When the CORIOgen EX has been enabled, a new column appears in the Designer **Main** and **Design List** menus. The *CORIOgen* column lets you create script events that control the CORIOgen unit. Click in this column for a page or a special event to open the **CORIOgen Eclipse Scan Converter** menu.



CORIOgen commands

The *Command:* pop-up lets you choose the command that this event sends to the CORIOgen unit. There are four possible commands:

- Mode
- Zoom
- Freeze
- None

22.4.1 Mode

When you choose the *Mode* command, the menu displays the *Mode:* pop-up, with which you can change the CORIOgen's display mode. This determines what comes out of the CORIOgen's video outputs (either the composite or the Svideo out jacks).

There are four possible settings for *Mode:*, each of which has its own set of options in the CORIOgen menu:

PC Out – (VGA only) - The video outputs display only the scan-converted image coming in from the computer to the PC In connector. External video is not displayed; the image goes to black if the computer image is faded out. The VGA signal is not synchronized to the video signal.

Genlock – (VGA only) - The video outputs display only the scan-converted image coming in from the computer to the PC In connector. External video is not displayed; the image goes to black if the computer image is faded out. However, the PC display is synchronized (genlocked) to the external video, so that it can be

combined with the external video signal downstream of the CORIOgen unit.

Overlay – (VGA and external video) - Overlays the scan-converted image from the computer on top of the external video image. The degree to which the video image shows through different areas of the computer image is controllable.

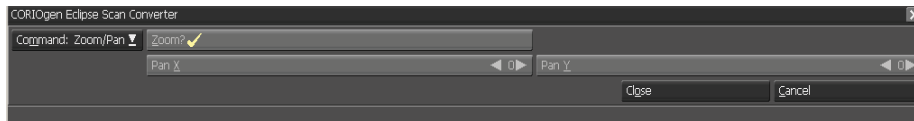
Mix – (VGA and external video) - Overlays the scan-converted image from the computer on top of the external video image. The entire images are exchanged, with no areas of either image being more or less transparent.

22.4.2 Zoom

The *Zoom* command lets you insert a zoom command to enlarge the CORIOgen output image, with optional pan adjustments to reposition the zoomed image on the screen.

The *Zoom?* button is available on the menu for this command. When it is off, the full image is displayed at normal size. When the button is on (✓), the entire image is enlarged to twice its normal dimensions, giving the effect of zooming in on the upper left quadrant of the image.

To let you zoom in on any area of the image, the *Pan X* and *Pan Y* value controls appear when *Zoom?* is on.



The Pan controls represent offsets, in pixels, that the image can be moved. The default of 0 for both controls leaves the upper left corner of the image in the upper left corner of the screen.

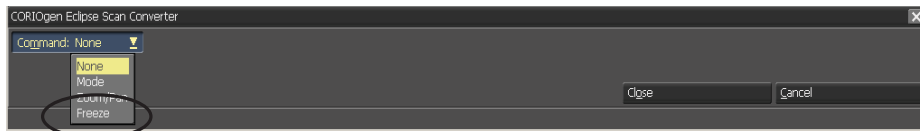
Increasing *Pan X* moves the image horizontally to the left, letting you see the right side of the enlarged image.

Increasing *Pan Y* moves the image vertically toward the top, letting you see the bottom of the enlarged image.

Executing this command with *Zoom?* turned off returns the image to normal size and position.

22.4.3 Freeze

The *Freeze* command makes the *Freeze?* button available.



When this option is turned on (✓), the PC portion of the video output of the CORIOgen freezes at the moment the command is executed. Any changes in the display from the PC—the appearance of the Designer authoring environment, or the Windows desktop, for example—are not visible on the composite or S-video outputs. The external video input, if it is visible, is not affected, and continues to play normally underneath the frozen PC image.

Executing this command with *Freeze?* turned off un-freezes the image, so that whatever is coming in to the unit's inputs once again can appear in the video display. This command is useful either for a freeze-frame effect as part of script, or as a way of maintaining a presentable display (possibly an intro screen, logo, or message) for the audience while maintenance is done on the Player machine.

22.4.4 None

The *None* command has no effect on the CORIOgen. Choosing it simply removes any CORIOgen EX command that you might have already set for the current event.

22.4.5 Using the Mode options

The different display modes include certain additional options for each.

Fade - The *Fade*: pop-up is available with all of the *Mode* selections. The setting of this control determines what happens to the PC image when the command executes. The PC image can be faded in, faded out, or it can simply appear or disappear instantly.

External video is not faded in or out by this option. For Overlay and Mix modes, the fade is to/from the external video image; for PC Out and Genlock modes the fade is to/from black.

Set *Fade*: to *In* to cause the PC image to appear gradually over top of what is beneath.

Set *Fade*: to *Out* to cause the PC image to gradually disappear, leaving visible only what is beneath.

When either *In* or *Out* is selected, the *Speed* value control appears, letting you set how fast the fade takes place; enter a number from 1 (slow) to 25 (fast).



When *Fade:* is set to “None”, any Mode change sent to the CORIOgen takes place instantaneously, as a “cut”.

22.4.6 Overlay mode Key controls

In *Overlay* mode, there are two further controls in the menu, *Keyer:* and *Level*. They let you adjust how the external video shows through the PC In image that overlays it.



The *Keyer:* pop-up is for setting the sharpness of the dividing line between the transparent and non-transparent areas of the PC image. There are four possible settings: *V. Soft*, *Soft*, *Normal*, and *Hard*.

When the *Keyer:* setting is *Hard*, all PC-image pixels below the *Level* luminance are completely transparent, and all those above that threshold are completely opaque. The other three settings define varying ranges of semi-transparent PC-image pixels that are near the threshold, softening the edge so that the PC and video images can be blended to different degrees.

The *Level* setting determines the luminance level of the PC In signal below which the PC image becomes transparent, so that the external video image can show through. This happens on a pixel-by-pixel basis, so that in any areas of the PC image that are darker than

indicated by the *Level* setting, the corresponding areas of external video are visible.

For example, by using a dark page background for clips and text in an Designer script, you could overlay that on live video, and have the text and clips float over a video background by setting *Level* appropriately.

Level can be adjusted from the default of 0 (nothing in the PC image, including pure black, is transparent) to a maximum of 250 (all but the brightest PC image pixels are transparent).

22.5 Advanced Features

There are a couple of aspects of using the CORIOgen EX that may not be immediately obvious.

22.5.1 Using Mode commands with fades

If you use back-to-back Mode commands that include fades, you should include a brief pause with the CORIOgen EX event to allow the fades to complete.

The CORIOgen unit does not have a signal for the end of a fade, so without a pause, it is possible for the next Mode command to be executed before an immediately preceding Mode (with a slow fade) has finished its fade. This would cause the fade to be cut off.

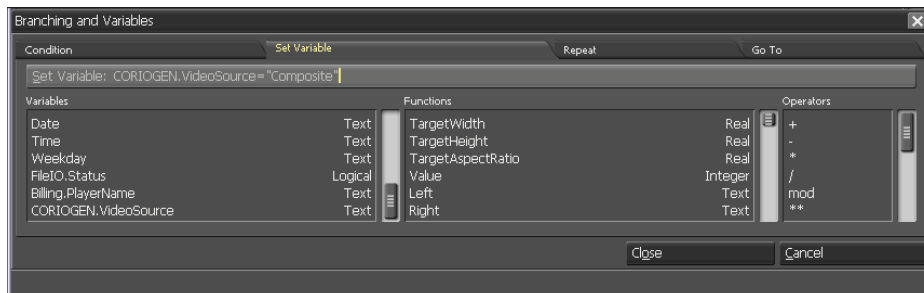
Including a Duration event of 1-2 seconds using the Designer **Timing** menu should be sufficient to prevent a fade from being cut off by a following Mode event.

22.5.2 Switching the video source using a variable

The current external video signal is normally specified using the CORIOGen Options dialog *Video Source*: setting. Changes to Options settings take place only when Designer is restarted.

However, it is possible to switch the video source from within a script, using the special variable CORIOGEN.VIDEOSOURCE. In effect, this can let you use the CORIOGen as a simple switcher.

To use the variable, you insert a **Branch** menu special event that changes the value of the variable. In the *Set Variable* section of the Branch menu, enter either CORIOGEN.VIDEOSOURCE = "Composite" *OR* CORIOGEN.VIDEOSOURCE = "S-Video"



The current video source is changed to the external input connector you specified.

Designer⁵

Designer⁵

||||| 23 ArsMedia Export Plug-in for Adobe Photoshop

Overview

Welcome to *ArsMedia Scala Script Export Plug-in* (SSE Plug-in) for *Adobe Photoshop*. The SSE Plug-in provides script export services for the *Scala Designer* line of products from Scala Inc. and integrates the powerful graphics capability of Adobe's Photoshop with the world's most powerful digital signage application.

23.1 System Requirements

The *ArsMedia Scala Script Export Plug-in* will require a computer with Microsoft Windows 2000 or Windows XP (SP1 or later) operating system and *Adobe®* or *Photoshop CS* or *Photoshop CS2* or *Photoshop CS3* installed. The *SSE Plug-in* generates scripts compatible with the *Scala InfoChannel™ Designer 1* and *Scala InfoChannel Designer 3* and *Scala 5* product line.

23.2 Application Installation

Before installing a registered version of the *SSE Plug-in*, use the standard Microsoft Windows procedure to uninstall any previous versions, including any demo versions you may have installed.

To start the installation, double click on the *sse_plugin_install.exe*. The installation will attempt to find the *Adobe Photoshop* plug-in directory on your computer and if successful, will install the necessary files in to this directory (the specific directory selected will depend on the version of *Adobe Photoshop* you are using).

NOTE: If during the installation of your *Adobe Photoshop* application you selected a directory other than the default selection, you may manually point to your unique *Adobe Photoshop* plug-ins directory during the installation of the *SSE Plug-in*.

The *Scala Script Export Plug-in* provides an easy and accurate method for users of *Scala Designer*, to use the powerful graphics features of *Adobe Photoshop* to create Scala compatible scripting clips.

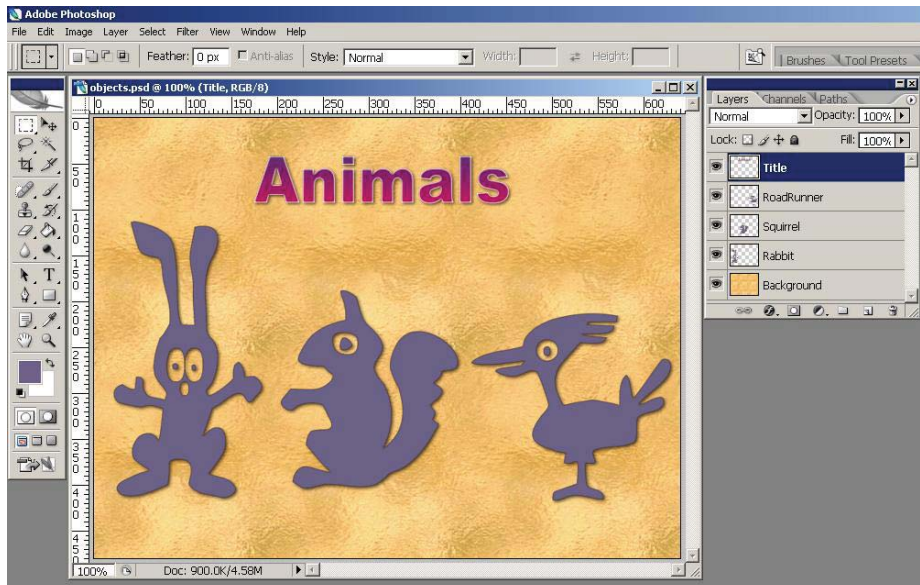
23.3 How the SSE Plug-in Works

The SSE Plug-in works by examining the individual layers within an Adobe Photoshop document and generating Scala Script compatible objects. Upon execution, the plug-in:

- Selects clips found within the Adobe Photoshop layer(s) and saves each as a new file.
- Generates a "BACKGROUND" file.
- Generates a Scala Script that incorporates the clips on a single Designer page.

23.4 SSE Plug-in Tutorial

Following picture illustrates an example image that was created in Adobe Photoshop:



While creating the image, it was recognized that the SSE Plug-in could create individual graphic clips of the work based on the contents of each layer. It is important to use a different layer for each element of the image that is intended to be used within the Designer application.

To design a background for Scala, either:

- Name the bottom most layer “Background” or “background”

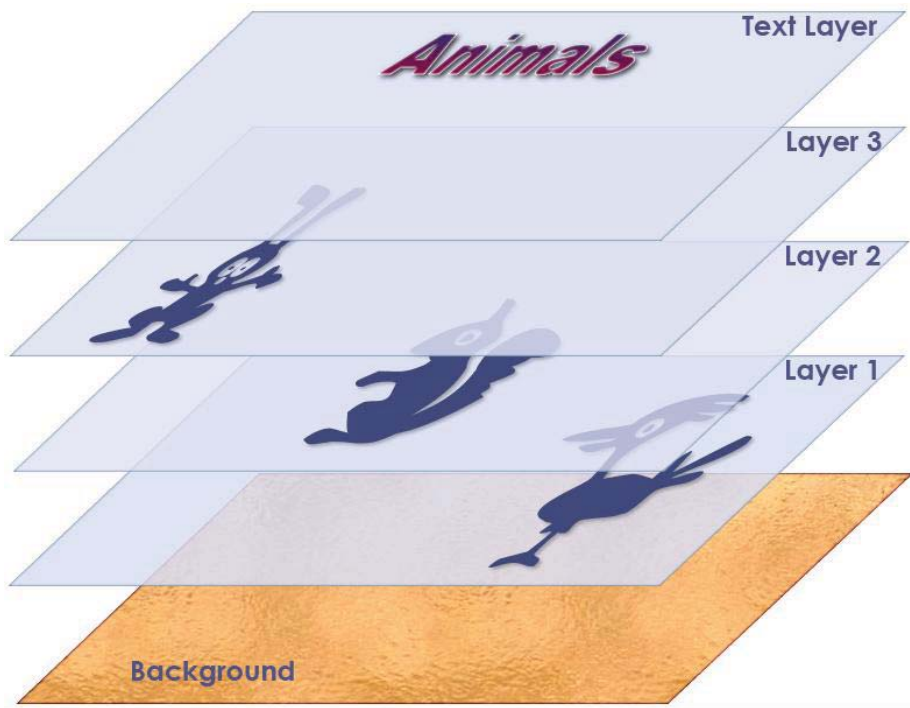
Or

- Use true background layer for the bottom most layer

Otherwise, the SSE Plug-in will automatically generate a plain background file.

Designer⁵

Individual “clips” can be drawn on distinct layers to allow for controlled application of effects and to help with image organization. The ArsMedia SSE Plug-in captures the clips that are not 100% transparent from each of these layers and creates unique clip files that can then be used within a Scala Script.



In this example, the intention was to have each individual clip and text “fly in” on the final Designer page as individual graphic clips. Therefore each element was drawn on its own *Adobe Photoshop* layer. These layers can have virtually any of Adobe Photoshop's effects applied to them - such as drop shadows, bevels, and gradient fills.

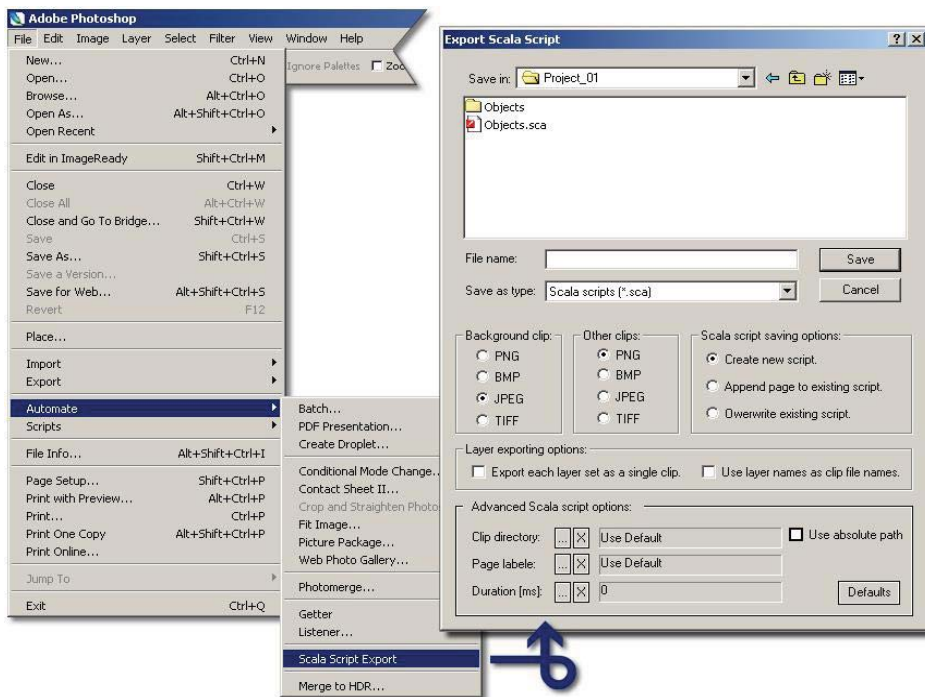
Text layers within Adobe Photoshop can also be preserved. Each text layer can be exported as either a graphic or a Designer text element by the *Ars Media SSE Plug-in*.

TIP: To keep a text layer and a specific object element together, select both layers then use Adobe Photoshop's *Group Into New Smart Object* command in the Layer Palette. The SSE Plug-in will export the grouped elements as a single image file.

23.4.1 Exporting the Final Image

Once our image editing is complete, use the Scala Script Export command found in *File>Automate* menu. The *Export Scala Script* dialog is shown. Once a *File name* is entered, click the *Save* button.

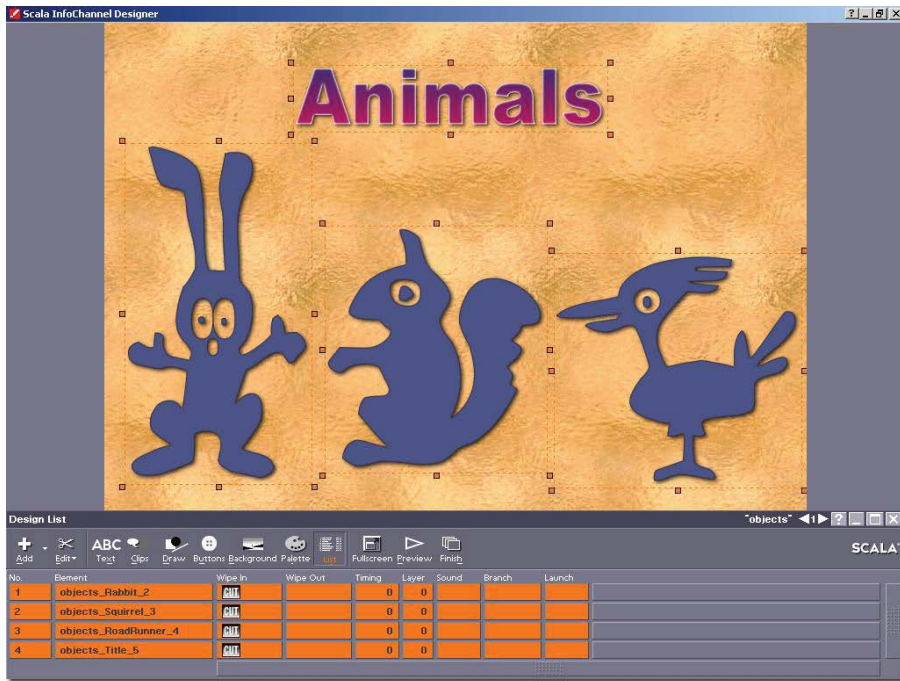
For this example, the script is saved as “objects.sca”



The SSE Plug-in displays a dialog that shows the progress of the export process.

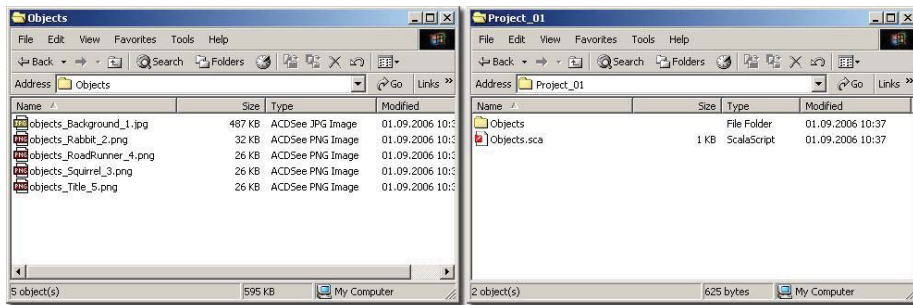
23.4.2 Opening Script in Scala

To open the script, double click on the “objects.sca” file and it will be opened in Designer. It is then possible to see that each layer is exported as a separate clip, so additional modifications can be made to the Scala Script.



23.4.3 Understanding Exported File Structure

By default, the SSE Plug-in exports a series of files to the directory specified within the *Save as Scala Script* dialog. In this example, a new folder “Project_01” was created and the *File name* provided was “Objects”. The SSE Plug-in generates a folder within the “Project_01” folder named “Objects” and then places the newly exported clip files within that folder.



In the example above, the clip files were created within the 'Objects' folder:

1. object_Background_1.jpg
2. object_Rabbit_2.png
3. object_RoadRunner_4.png
4. object_Squirrel_3.png
5. object_Title_5.png

The first file generated is the background file and is used as the background for the newly created script. By default this image is saved as JPEG and is the same dimensions as the original Adobe Photoshop document.

Files 2, 3, 4 represent the image clips in the Adobe Photoshop document, namely the rabbit, squirrel and roadrunner. By default, these images are saved as PNG with transparency preserved.

The last file created is the Adobe Photoshop text layer. This was also saved as a PNG file with transparency preserved. Because the text was exported as a graphic, no further editing of the text is allowed within the Designer application.

During the export process a Scala Script file is created within the 'Project_01' directory. This Scala Script file in our example is named: 'Objects.sca'

The Scala Script file contains all the scripting instructions to reproduce the original Adobe Photoshop document as a Designer page.

23.4.4 Creating Buttons

The Scala Script Exporter Plug-in can automatically recognize Scala compatible Buttons created within Adobe Photoshop.

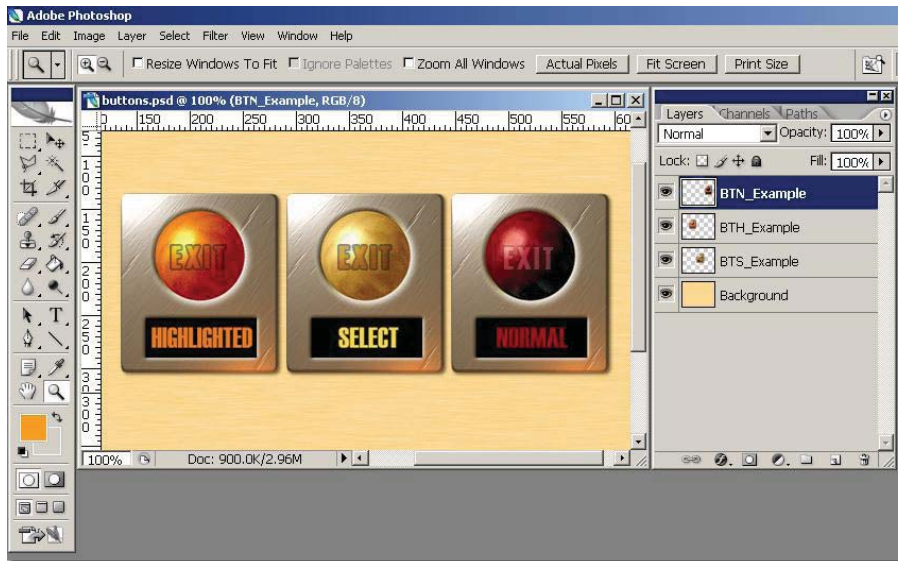
Adobe Photoshop layers must use layer names with the following parameters:

- BTN_name (normal button state)
- BTH_name (highlighted button state)
- BTS_name (selected button state)

The layer prefixes (BTN_,BTH_,BTS_) are used to identify the unique button states that are used within Designer. The layers must also be in sequential order (BTN_ positioned above the BTH_ which in turn must be positioned above the BTS_ layer).

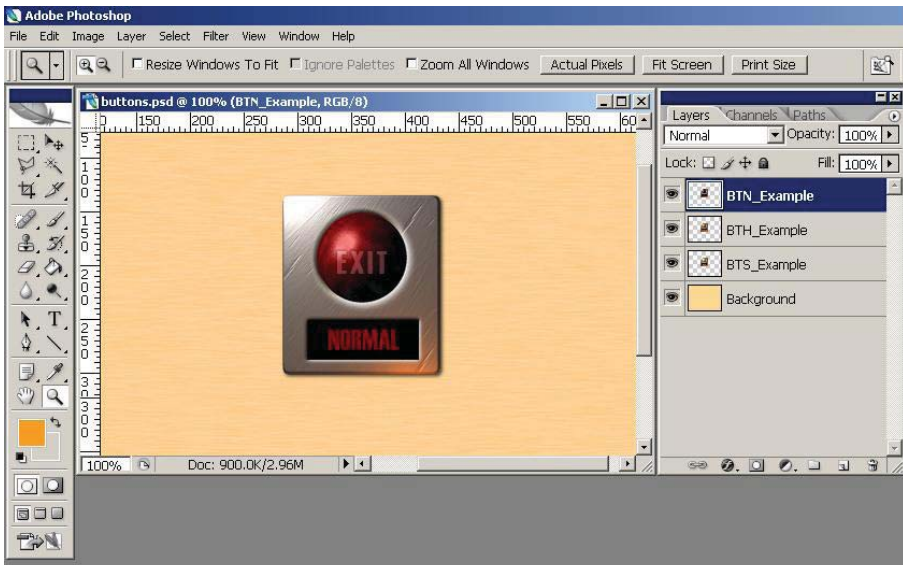
If a two state button is desired then only use BTN_ and the BTS_ naming conventions. If a single state button is desired use only the BTN_ naming convention.

For example, a three state button is created within Adobe Photoshop named EXAMPLE:



Note the layer order: `BTN_EXAMPLE`, `BTH_EXAMPLE`, `BTS_EXAMPLE`. Each of these layers holds the image clip for the particular button state.

Before exporting Scala Script, position the images one over the other, as shown in the example:



During the export process, the SSE plug-in will automatically generate clips for the button and create a Scala Script that contains the button on a Designer page.

23.4.5 Creating Designer Text objects

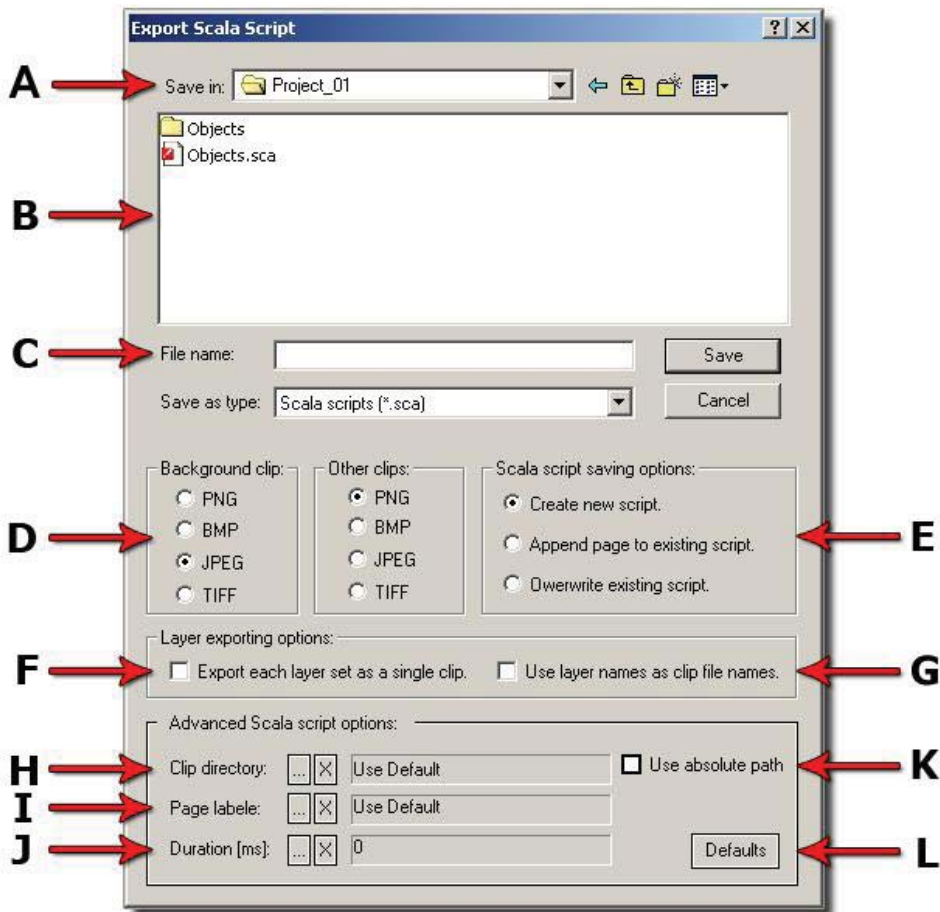
It is possible to export Photoshop text layers as Designer text objects. To accomplish this, the layer name must be prefixed with `TXT_` (as shown in the following example):



NOTE: When exporting text layers; only font, font size and font colors are preserved. English text is only supported.

23.5 EXPORT SCALA SCRIPT DIALOG

The *Export Scala Script* dialog offers a variety of options for exporting:



23.6 FILE AND CLIP DIALOG OPTIONS

A Location of the directory where the SSE Plug-in will save the exported files.

B Files listed are Scala Scripts that exist within the chosen directory.

C *File Name* for the exported Scala Script. This name is also used as part of the file name for each file created as well as the Scala Script.

D *Background clip* allows the user to select which file format to use for the Background Image. The default value is JPEG.

The *Other clips* option allows the user to select which file format to use for the clips. By default, this value is PNG.

For clips, the PNG file format will preserve transparency. Other formats use the current Adobe Photoshop background color for the background. It is possible to have Designer use this as the transparent color. However, this approach is cumbersome compared to using the PNG choice.

The SSE Plug-in also preserves any opacity settings within an Adobe Photoshop layer. This opacity is applied to each clip within Scala as the "Overall Opacity". Note that any opacity within an Adobe Photoshop Alpha Channel will not be preserved during the export.

Any layers that are marked as "hidden" within Adobe Photoshop will not be exported.

E *Scala Script saving options* allows the user to select how the exported Scala Script and image clips will be saved within the selected directory. One of three options is available:

Create a new script: This setting does not allow an export operation to overwrite folders and clips that have the same name. Attempting to do so generates an error message. This is the default option.

Append new page to existing script: Allows the user to append newly generated scripts to existing Scala Scripts. The newly exported script becomes an appended page to the existing script. A couple of conditions must be met for this to work properly however:

- Both scripts must have the same dimensions.
- Any events within the script may not have the same name as any of the Adobe Photoshop layers.

Overwrite existing script: Allows the user to override the “overwrite” protection. Caution should be taken with this setting as this will replace all pre-existing scripts and clip files.

23.7 LAYER EXPORTING OPTIONS

F This option provides the user the ability to export Layer Sets as a single clip. By default, objects located on layers within a Layer set will be saved as individual clips when exported. If *Export each Layer Set as single clip* is selected, then all the objects within a Layer Set will be exported as a single clip. In other words, the Layer Set will first be flattened by SSE Plug-in, and then exported.

Note: *Adobe Photoshop CS2 has renamed the Layer Set feature to Layer Group.*

G This option allows the user to use the Adobe Photoshop layer names as the names for the exported clip files. If meaningful names are used for the Adobe Photoshop layers, this can be helpful when editing the Scala Script generated by the SSE Plug-in. However, keep in mind these two important points:

1. Adobe Photoshop allows the user to use any character in a layer's name. (Adobe Photoshop does have some restrictions, such as ?, /, \, etc.).
2. Adobe Photoshop allows for two or more layers within one document to have the same name.

In order to avoid any conflicts within the SSE Plug-in, the following conventions are followed:

- Unique clip names are generated by the SSE Plug-in using the Adobe Photoshop file name as a prefix in the clip name and then adding the layer's position as a postfix to the clip name.
- The SSE Plug-in checks layer names for restricted characters and replaces them with an underscore "_" character.
- If available, the SSE Plug-in uses the Adobe Photoshop layer names as names for the exported clips. However, if multiple layer names are the same, the SSE Plug-in will create one unique clip containing all of the images within it.

23.8 ADVANCED SCALA SCRIPT OPTIONS

- H** *Clip directory*: Allows the user to select a directory, other than the default, set by the SSE Plug-in.
- I** *Page Labels*: Allows the user to set a specific label for the page that is created.
- J** *Duration (ms)*: Allows the user to set the page duration. The value is in milliseconds. The default duration of “0” is converted to “Wait for mouse click”.
- K** *Use absolute path*: Allows the user ensure that the file paths to the clips are saved in absolute paths instead of relative paths.
- L** *Defaults*: Allows the user to reset all options to their default values. In order for this setting to take effect the user must shut down the SSE Plug-in and restart it.

23.8.1 Automating the SSE Plug-in

The SSE Plug-in may be used within an Adobe Photoshop action or in Adobe Photoshop batch mode. However, the following consideration should be kept in mind:

If the SSE Plug-in is used within an action or in batch mode, Adobe Photoshop will append a numerical suffix to the Scala Script name (if the export uses a file name that already exists). For example:

If an Adobe Photoshop document named “Sample” was exported to a directory that contained an existing Scala Script called “Sample”, then the SSE Plug-in will rename the exported Scala Script as “Sample001”, “Sample002”, etc. This option ensures unique file names for Scala Scripts when the SSE-Plug-in is used.

23.8.2 A Word about Exporting Effects

Many of the various effects that can be applied to a clip within Adobe Photoshop, such as drop shadow, inner and outer glow, satin etc. are handled by the SSE Plug-in. However, keep in mind the following restrictions:

If a particular effect is applied to a clip layer that changes only inner pixels of that layer, any blending mode can be used for these effects. For example, if *Multiply* or *Screen Blending* mode is used for a *Gradient Overlay*, *Inner glow* or *Inner Shadow* effect; the SSE Plug-in would export a clip that would look identical in Designer as it would in Adobe Photoshop. This is because these particular effects only modify pixels in the clip that are within the clip boundaries.

Some *Adobe Photoshop* effects create pixels outside of boundaries of the clip object currently drawn on a layer. Effects such as “Drop Shadow” or “Outer glow” are some examples of this. Using these types of effects, it is only possible to use the Adobe Photoshop “Normal Blending” mode. Designer only recognizes pixels created using “Normal Blending” mode, therefore the clip may look different in Designer than it does in Adobe Photoshop.

23.8.3 Limitations

Some limitations exist within the *SSE Plug-in* due to the differences between Adobe Photoshop and Designer.

Adobe Photoshop has many layer blending modes, such as multiply, overlay, hard, light, etc. Currently Designer only supports “Normal Blending” mode. This does not mean that the other blending modes cannot be used when designing an image. It just means that you will have to convert layers with the other blending modes to “Normal Blending” mode to ensure that your clips maintain the same appearance in Designer as they do in Adobe Photoshop.

Adobe Photoshop Layer Sets (Layer Groups in CS2) are supported with one exception:

The first layer, (the one at the bottom of the layer stack) may NOT be a member of a Layer Set.

The SSE Plug-in has an intentional resolution limitation of 3840 pixels by 2160 pixels. However, if higher resolution images are needed, we offer a custom SSE Plug-in that does not have this limitation. Contact us via email at: support@arsmedia.tv to request it.

23.8.4 Error Handling

Rather than interrupting the export operation in the event of an error occurring, the SSE Plug-in generates an “Error.log” file within the clip folder directory. If an Error.log file is found after performing

an export, the user should examine the file. It is a plain text file and can be opened with any text editing application (such as Windows Notepad). The file's contents will list any operations that failed to execute. If there is a fatal error (such as a lack of sufficient memory to perform the operations) the *SSE Plug-in* will abort **and Adobe Photoshop** will report an error.

23.8.5 Support

ARS Media provides free email support to registered users of any of our products. If you have any questions about any of our products, please contact us via email at:

support@arsmedia.tv

We endeavor to respond to all questions within 24 hours (1 working day). Usually questions are handled much sooner. We don't use auto responders, so all questions and requests will be handled by our staff of professionals.

We are always looking for ways to improve our products, so we encourage you to let us know what you think.

Designer⁵

|||| 24 Keyboard and Mouse Shortcuts

All tasks in Scala Designer 5 can be done using the mouse, the keyboard or a combination of the two. In most cases it is faster to use the mouse for example, to drag text to a new location on a page or rearrange the sequence of script pages in the Main view. In most instances, there are specific Context menus available when selecting an element or area on the screen and right-clicking with the mouse.

In other situations, however, it may be more convenient to use the keyboard—for example, to access a panel while you are typing in text on the screen. There are various shortcuts that allow you to directly access options on another Design panel, so that you do not have to switch back and forth between Design panels as often.

24.1 Designer versus Windows Shortcuts

Many keyboard alternatives offered by Designer are similar or identical to those common in Windows applications. For example, Cut, Copy, and Paste are available through the standard Ctrl + X, Ctrl + C, and Ctrl + V combinations. Also, if the name on a button has an underlined letter, you can choose its action by holding down Alt and pressing the underlined letter.

Many keys or key combinations, however, are specific to Designer and the way you work in the Designer environment.


The following tables summarize the keyboard shortcuts in Designer . In some cases the function depends on the panel you are working in or the task you are doing; these are specified accordingly.

In the tables, as in the rest of this manual, a plus (+) between the keys (for example Alt + Z) means to press and hold the first key as you press and release the second key. Don't press the plus key.



MAIN VIEW

Menu

File

 New	Ctrl+N
 Open	Ctrl+O
Close	Ctrl+W
 Save	Ctrl+S
Save As	Ctrl+Shift+S
 Print	Ctrl+P
Exit	Ctrl+Q

Edit

 Undo	Ctrl+Z
 Redo	Ctrl+Y
 Edit Page	Enter
 Cut	Ctrl+X
 Copy	Ctrl+C
 Paste	Ctrl+V
Delete	Del
Select All	Ctrl+A
Group	Ctrl+G
Ungroup	Ctrl+H

Add

 Add Page from Media File	Ctrl+D
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View

 Preview	Alt+P (Esc to Stop)
 Play	Space or Ctrl+Space (Esc to Stop)

Tools

Spelling	Ctrl+E
Options	Ctrl+T

Help

Help	F1
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Page Selection

Previous or Next Item	Up or Down
Range of Items	Shift+Up or Down
First Item	Home
Range from Current to First Item	Shift+Home
Last Item	End
Range from Current to Last Item	Shift+End
Up One Page	PgUp
Add a Pageful Up to Selection	Shift+PgUp
Down One Page	PgDn
Add a Pageful Down to Selection	Shift+PgDn
Select a Range of Items	Shift+Click
Add or Remove Item from Selection	Ctrl+Click
Edit a Page	Enter or Double Click
Context Menu	Right Click
Scroll View	Mouse Wheel

Dragging Pages

Cancel a Drag-in-Progress of a Page	ESC or Right Click
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Script Navigation

Next Script	Ctrl+Tab
Previous Script	Shift+Ctrl+Tab

Panel Navigation

Next Field	Tab
Previous Field	Shift+Tab
Next Tab	Ctrl-Tab
Previous Tab	Ctrl+Shift+Tab

PAGE VIEW

Menu

File

 Save	Ctrl+S
Main	Alt+M








Edit

 Undo	Ctrl+Z
 Redo	Ctrl+Y
Undo Page	Ctrl+P
 Cut	Ctrl+X
 Copy	Ctrl+C
 Paste	Ctrl+V
Paste to Same Position	Ctrl+Alt+V
Paste Format	Ctrl+W
Delete	Del
Select All	Ctrl+A
Appear Later	Ctrl+F
Appear Earlier	Ctrl+R

Add

 Add File(s)	Ctrl+D
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View

 Element Panel	F3
 Background Panel	F4
 Buttons Panel	F5
 Palette Panel	F6
 List Panel	F7
Hide Design Panel	F11
Show Global Elements	Ctrl+T
Show Extras	Ctrl+H
Snap	Ctrl+G
Zoom In	Ctrl+Plus
Zoom Out	Ctrl+Minus
Actual Pixels	Alt+Ctrl+0
Fit On Screen	Ctrl+0
 Preview	Alt+P (Esc to Stop)
 Play	Ctrl+Space (Esc to Stop)

Tools

Spelling	Ctrl+E
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Help

Help	F1
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Screen View

Zoom In	Ctrl+Plus
Zoom Out	Ctrl+Minus
Zoom In or Out	Alt+Wheel
Actual Pixels (100%)	Ctrl+Alt+0
Fit on Screen	Ctrl+0
Scroll Vertically	Mouse Wheel
Scroll Vertically by Screenfuls	Shift+Wheel
Scroll Horizontally	Ctrl+Wheel
Scroll Horizontally by Screenfuls	Shift+Ctrl+Wheel
Drag Page View	Middle Mouse Button

Page Navigation

Next Page	Ctrl+PgUp
Previous Page	Ctrl+PgDn

Panel Navigation

Next Field	Tab
Previous Field	Shift+Tab
Next Tab	Ctrl+Tab
Previous Tab	Ctrl+Shift+Tab

Element Selection

Previous or Next Item	Up or Down
Up One Page in List Panel	PgUp
Add a Pageful Up in List Panel	Shift+PgUp
Down One Page in List Panel	PgDn
Add a Pageful Down in List Panel	Shift+PgDn
Select a Range of Items in List Panel	Shift+Click
Add or Remove Item from Selection	Ctrl+Click
Deselect All Items	Esc
Context Menu	Right Click

Element Position

Move One Pixel	Ctrl+Up, Down, Left, Right
Move Ten Pixels	Ctrl+Shift+Up, Down, Left, Right
Cancel a Drag-in-Progress of an Element or Handle	ESC or Right Click

Text

Bold	Ctrl+B
Italic	Ctrl+I
Underline	Ctrl+U
Decrease Font Size	Ctrl+[
Increase Font Size	Ctrl+]
Previous Font	Shift+Ctrl+Num Keypad Plus
Next Font	Shift+Ctrl+Num Keypad Minus
Insert Bullet Character	Ctrl+Period
Move Cursor to Beginning of Text	Home
Move Cursor to End of Text	End
Select Whole Element	ESC
When Cursor is Visible	
Insert a Line-Break Within Element	Shift+Enter
Break the Element at Cursor Position	Ctrl+Enter
Open Font Selector Popup	Alt+N
Open Font Selector Dialog	Shift+Alt+N
Set Element Text Direction to be Left-to-Right	Ctrl+Left Shift
Set Element Text Direction to be Right-to-Left	Ctrl+Right Shift

Clips

Rotate 15° Clockwise	R
Rotate 15° Counter-Clockwise	Shift+R
Flip Clip Horizontally	X
Flip Clip Vertically	Y
Resize Preserving Aspect	Shift+Drag Handles
Half Clip Size	H
Double Clip Size	D
Crop	Alt+Drag Handles

Boxes and Ovals

Constrain to be Square/Round	Shift+Drag New Box/Oval
Create Around Center Point	Ctrl+Drag New Box/Oval
Resize Preserving Aspect	Shift+Drag Handles
Grow/Shrink Around Center Point	Ctrl+Drag Handles

Lines

Constrain to 15 Degree Angles	Shift+Drag New Line
Create Around Center Point	Ctrl+Drag New Line
Constrain to Line's Existing Angle	Shift+Drag End Point
Extend or Shrink Around Center Point	Ctrl+Drag End Point

Buttons

Cycle Button States	F12
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Selecting

Key	Function
<i>Shift + ^ (up arrow)</i>	when the cursor is in a text element: selects a range of text in the current text element
<i>Shift + v (down arrow)</i>	Ctrl+Arrows move by word.
<i>Shift + >(right arrow)</i>	Shift+Ctrl+Arrows select by word.
<i>Shift + <(left arrow)</i>	
<i>Shift + Home</i> <i>Shift + End</i>	when typing text: selects from the cursor to the beginning or end of the current line when working in the Main view Thumbnail or List modes: selects from the current item to the beginning or end of the list
<i>Ctrl + Home</i> <i>Ctrl + End</i>	in the List mode: selects the first or last event/element on the page
<i>Ctrl-click</i>	when working in the Main view or Page view: selects any item; Ctrl-click again for each additional item (thumbnail or element) you want to include in the selection
<i>Shift-click</i>	when working in a list: selects a series of items; Shift-click the last item in the series you want to select
<i>Esc</i>	when the cursor is in a text element: selects the entire element
<i>Ctrl + A</i>	Select All

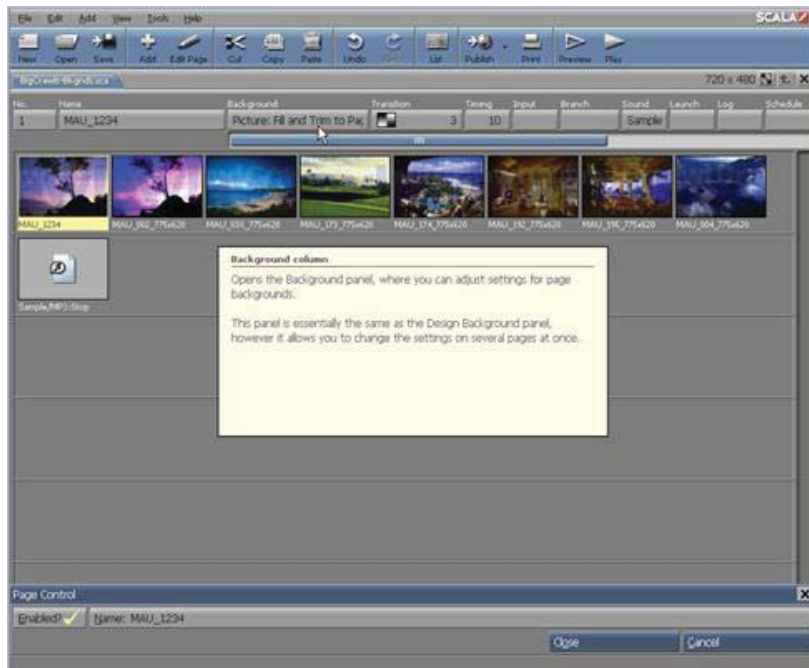
Mouse Shortcuts

Mouse click	Function
<i>double-click the main (left) mouse button</i>	<p>on a Main view Name button or thumbnail for a page: goes to the default Page view for that page</p> <p>on a Main view Name button or thumbnail for a group: opens the group</p> <p>on a Name button or thumbnail for a sub-script or special event: opens the File dialog</p> <p>on a folder in the File dialog: displays the contents of the folder</p> <p>on a file in the File dialog: selects and OKs the use of that file</p>
<i>click the secondary (right) mouse button</i>	Open the Context Menu to the element or screen area underneath the cursor
<i>press the secondary (right) mouse button</i>	while holding down the main mouse button on a value control arrow: accelerates the change in the value
<i>drag the pointer over an empty area of the page background</i>	in any Page view: deselects all elements and resets all styles to default settings
<i>Alt+N</i>	Opens font popup list.
<i>Shift+Alt+N</i>	Opens font dialog
<i>Ctrl+[and Ctrl+]</i>	Increases or decreases font size
<i>Ctrl+(numericpad minus) Ctrl+(numericpad plus)</i>	Changes the fonts of the selected text to the next/previous font in the list
<i>Click PageDown</i>	During playback, advance to the next event
<i>Shift+Click Shift+PageDown Right+Click PageUp</i>	<p>During playback, advance to the next page</p> <p>During playback, back up a page</p>

|||| 25 Using Designer's Online Help

Designer⁵

Designer 5 provides an online help system to assist you as you work. You can access online help by clicking on the Help pull-down menu and selecting Help, or by pressing F1.



When you see the Help pointer, notice that as you move the pointer, different areas of the screen highlight. You can click on anything that highlights to get information on it. You can also use keyboard shortcuts to get help on the functions they activate. A Help window appears, containing text with a brief description of what you selected and how to use it.

If there is more text than will fit in the Help window, click in the window, or press Enter or the spacebar to display more text. When you are finished reading the help text, click anywhere, or press Enter, the spacebar, or a keyboard shortcut and the Help window disappears. You can continue to click the Information button or press F1 to get information on additional items on the screen.

25.1 Tool Tips

In addition to the descriptions available in the Help window, Designer provides “Tool Tips”. Certain controls in Designer, such as the Background column button and the Toolbar buttons, are marked only with symbols, and not with their names. To help you identify such buttons, Tool Tip labels are provided.



Just move the mouse pointer over any button (including Transition icons) and after a moment a small Tool Tip-style reminder pops up next to the pointer with the button’s name or other identifying information.

Designer⁵

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Designer⁵

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