Basic Authoring User's Guide

InfoChannel[®] DESIGNER**3**

Software Release 6





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- C. Customer acknowledges and agrees that Customer is solely responsible for the acquisition and maintenance of the computer hardware, firmware, telecommunications, and information technology systems necessary to use and operate the Software. The Software documentation includes information regarding recommended Customer hardware and software configurations for operation of the Software, and SCALA and/or the Support Organization may provide advice regarding appropriate operating system(s) configuration for use of the Software. NEITHER SCALA NOR ANY SUPPORT ORGANIZATION SHALL BE RESPONSIBLE FOR CORRECTING ERRORS OR MALFUNCTIONS OF THE SOFTWARE OR SOFTWARE UPGRADES RELATED TO OR ARISING AS A RESULT OF CUSTOMER'S VALUE TO MAINTAIN COMPUTER SYSTEMS ADEQUATE TO OPERATE THE SOFTWARE, OR CUSTOMER'S USE OR OPERATION OF HARDWARE OR SOFTWARE OR SOFTWARE SYSTEMS THAT ARE INCOMPATIBLE WITH OR DEGRADE THE PERFORMANCE OF THE SOFTWARE.

5. Software Support

- A. The Support Organization will provide telephone and/or modem and/or facsimile and/or electronic mail support for problems associated with the routine use and operation of the software. This service is intended for users who have been trained in the Software and is not to be used as a substitute for basic training. The Scala Value Added Reseller ("VAR") shall be the Support Organization for first level Software Support. SCALA shall provide second-level support and shall also provide first-level Software Support in the event the VAR/Support Organization fails or refuses to provide first-level support. If the Software Support staff feels a customer is abusing the Software Support services, SCALA will notify the Customer in writing and suggest appropriate training, on-site assistance or other alternatives to meet the Customer's needs. SCALA reserves the right to qualify all customer sites before accepting an Agreement, and to refuse to provide Software Maintenance Services, or to adjust the fee based on the environment (hardware or operating systems) and/or age of the product(s) and current status of the product(s) respectively.
 - (i) The Support Organization will diligently investigate problems reported by the Customer. Subject to the exceptions set forth at Sections 4(C) and 6, if the Support Organization determines that the problem is the result of a reproducible error, defect, or malfunction in the supported Software, the Support Organization will make reasonable efforts to correct the problem. A Support Organization representative will provide Customer with a correction, a report/determination that further research is required, or confirmation that the system works per design specifications.
 - (a) If a reproducible error is not correctable, a Software performance report will be generated and sent to SCALA's engineering group. The correction for the error would be incorporated in the next release or software updates, if possible.
- A. Customer is responsible for informing SCALA of the problem severity. Customer is encouraged to call the Support Organization for clarification or uncertainty as regards to Software. More severe problems will be given priority over general questions.
- B. The Customer shall provide to the VAR or Support Organization the name and contact information of one (1) representative of Customer who, with SCALA's acknowledgement, shall have access to the Support Organization's telephone advice service. The representative may be changed from time to time by Agreement between the parties. The initial representative shall be as determined by Customer and communicated to the VAR or Support Organization during the Software registration process.
- C. All services to be provided under this Agreement shall be provided Monday through Friday, excluding public holidays) between the hours of:

In the U.S. 9:00 a.m. to 6:00 p.m. EST

In Europe 9:00 to 17:00 CET

Service coverage required outside of these hours may be arranged by agreement with the Support Organization.

6. Services Not Covered

The following services are not covered by this Agreement:

- A. Maintenance of facilities external to the Software; hardware support; questions regarding hardware installation, support or maintenance, telecommunications systems.
- B. Repair or damage resulting from malfunction of electrical power or heating, ventilation and air conditioning; water damage; fire damage; theft; integration of the Software with non-compatible systems or software, misuse or improper use of the Software (including without limitation any use not specifically authorized in the Software license agreement, documentation or manuals); vandalism; civil commotion or war; or any combination thereof.
- C. Support or Maintenance Services for altered or modified Software other than that altered or modified by SCALA and/or authorized agents of SCALA; or support versions of Software that have been superseded by a new release (provided that SCALA will continue to support superseded versions for a reasonable period, not to exceed forty-five (45) days, sufficient for Customer to implement the newest version).
- D. Supervision of repairs on associated equipment.

7. Customer Responsibilities

- A. The Customer must have a valid license to use the Software from SCALA and be in material compliance with the terms and conditions of such license.
- B. The Customer must be current in its payment obligations under this Agreement.
- C. The Customer shall notify the Support Organization of any Software problem together with complete information concerning the failure, as soon as possible after the problem has occurred.
 - The Customer shall provide as accurate and complete a description as possible to the Support Representative. The customer shall assist in problem resolution by providing copies of reports and/or files deemed necessary by the Support Services group.
- D. The Customer will provide the Support Organization with the following:
 - (i) Name of nominated personnel (and their location) who are competent to use the Software;
 - (ii) Access to the Software and computer(s) on which it resides;
 - (iii) Adequate working facilities (such as communication devices/modems);
 - (iv) Access to and use of all information reasonably necessary to service the Software;
 - (v) The Customer shall be responsible for security of its confidential, proprietary and classified information as well as for the maintenance of adequate backup procedures for files, as SCALA will not be responsible for loss of or altered files, data or programs;
 - (vi) The Customer agrees to provide a safe and secure installation environment which meets the specified requirements of the computer system(s) on which the Software is running, including without limitation environmental controls, electric supply, service clearances, cable runs and, in the event that the Support Organization agrees to send personnel to the Customer's premises, safety of the Customer's and the Support Organization's personnel; and,
 - (vii) The Customer agrees to limit use of the Software Maintenance Services that are the subject of this Agreement to occasions when the Software fails to work as set forth in the user manuals or occasions where the user manuals are unclear.

8. Service Charges

- A. Annual Maintenance Services for the Initial Period shall be provided without charge to Customer. Thereafter, Customer may elect to renew Maintenance Services for additional annual periods at SCALA's then-current standard annual fee for Maintenance Services. Annual fees may be invoiced thirty (30) days prior to the expiration of the previous period.
- B. On-site service shall be provided at the reasonable discretion of the Support Organization. If on-site service is designated by SCALA as required or customer requested of which the Software is located at a distance beyond fifty miles (50 miles) from the Support Organization's office, a travel charge may be assessed by the Support Organization upon notice to and approval of Customer.

9. Changes or Waivers to Software Maintenance Agreement

- A. During the term of the Agreement no changes and/or waivers by either party of its rights shall be made to the term and conditions contained herein other than by variation agreed to by authorized representatives of both parties and set forth in a writing duly executed by the parties. The non-enforcement or waiver of any provision of this Agreement on any occasion shall not constitute a waiver of such provision on any other occasions unless expressly so agreed in writing. It is agreed that no use of trade or other regular practice or method of dealing between the parties hereto shall be used to modify, interpret, supplement, or alter in any manner the terms of the Agreement.
- B. SCALA has the right to vary the charges made hereunder if the Customer wishes to extend the service hours beyond normal working hours referred to in Clause 5.
- C. If both parties agree in writing, additional Software to be supported may be included on this Agreement at a later date. The initial maintenance fee for the cost of supporting the additional Software will be prorated from the new Commencement Date to the original Initial Period or Renewal Term end date. An addendum form (attached) will be used to convey the additional Software to be included under this Agreement. The addendum form will be referred to as the "Addendum Page".

10. Non-Payment

The Support Organization reserves the right to decline to provide Software Maintenance if any amounts invoiced by the Support Organization have not been paid by the Customer as set forth in the customers' approved credit terms.

11. Extraordinary Expenses

The Support Organization reserves the right to charge for unusual or excessive telephone, shipping, handling, media or user manual expenses in connection with the Software Support to be provided hereunder. In all cases, the Support Organization will notify the Customer of these costs in advance.

12. Assignment

Customer may not assign this Agreement to a third party without the prior written consent of SCALA, which consent may be withheld in SCALA'S sole discretion. SCALA may assign or delegate its rights and responsibilities hereunder to a third party Support Organization upon notice to Customer, and may freely assign its rights and obligations hereunder in connection with the merger, acquisition or sale of all or substantially all of the assets of SCALA.

13. Force Majeure

SCALA shall not be responsible or liable for failure to perform or observe, or for delay in performing or observing any obligation under this Agreement where such failure or delay arises from any cause beyond the control of SCALA or the Support Organization (as applicable), including, but not limited to, strikes, lockouts, industrial action, acts of God, insurrection, terrorism, or civil commotion, or any other cause beyond the reasonable control of SCALA or the Support Organization (as applicable).

14. Limited Warranty

SCALA shall perform its services hereunder in a workmanlike manner. In the event that it is established to SCALA's satisfaction that any Software Maintenance or other service carried out by SCALA or a third party Support Organization under this Agreement was defective, Customer's sole remedy shall be the re-performance of such services without cost to the Customer. Notwithstanding the functionality or performance of any addition or release of error corrections, enhancements, or new releases to the Software program(s) in connection with the Maintenance Services, SCALA's obligation to correct errors in such additional releases shall be limited to the maintenance terms of this Agreement. EXCEPT AS EXPRESSLY SET FORTH IN THIS PARAGRAPH, SCALA SHALL HAVE NO LIABILITY FOR THE SOFTWARE OR ANY SERVICES PROVIDED, INCLUDING ANY LIABILITY FOR NEGLIGENCE; SCALA MAKES AND CUSTOMER RECEIVES NO WARRANTIES, EXPRESS, IMPLIED, OR STATUTORY, EXCEPT AS EXPLICITLY SET FORTH IN THIS AGREEMENT. SCALA SPECIFICALLY DISCLAIMS ANY WARRANTY OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE.

15. Limitation of Liability

Laws from time to time in force in the jurisdiction where any services are to be performed hereunder may imply warranties or liabilities which cannot be excluded or which can only be excluded to a limited extent. In which case, SCALA hereby limits its liability to the extent permitted by law. If SCALA cannot exclude or limit any warranty implied by law, this Agreement shall be read and construed subject to such statutory provisions. SCALA'S MAXIMUM LIABILITY TO CUSTOMER HEREUNDER SHALL BE LIMITED TO THE AMOUNT'S ACTUALLY PAID BY CUSTOMER FOR THE MAINTENANCE SERVICES. SUBJECT TO THIS CLAUSE UNDER NO CIRCUMSTANCES WILL SCALA OR ITS RELATED PERSONS BE LIABLE FOR ANY CONSEQUENTIAL, INDIRECT, SPECIAL, PUNITIVE, OR INCIDENTAL DAMAGES, WHETHER FORESEEABLE OR UNFORESEEABLE, BASED ON CLAIMS OF CUSTOMER OR ITS CUSTOMERS, INCLUDING, BUT NOT LIMITED TO, CLAIMS FOR LOSS OF DATA, GOODWILL, PROFITS, USE OF MONEY OR USE OF THE SOFTWARE, INTERRUPTION IN USE OR AVAILABILITY OF DATA, STOPPAGE OF OTHER WORK OR IMPAIRMENT OF OTHER ASSETS, ARISING OUT OF BREACH OF EXPRESS OR IMPLIED WARRANTY, BREACH OF CONTRACT, MISREPRESENTATION, NEGLIGENCE, STRICT LIABILITY IN TORT OR OTHERWISE, EXCEPT ONLY IN THE CASE OF PERSONAL INJURY WHERE AND TO THE EXTENT THAT APPLICABLE LAW PROHIBITS EXCLUSION OF SUCH LIABILITY. IN NO EVENT WILL THE AGGREGATE LIABILITY WHICH SCALA AND ITS RELATED PERSONS MAY INCUR IN ANY ACTION OR PROCEEDING ARISING OUT OF PERFORMANCE OR NON PERFORMANCE OF THE TOTAL AMOUNT ACTUALLY PAID TO SCALA BY CUSTOMER FOR THE SPECIFIC PRODUCT OR SERVICE THAT DIRECTLY CAUSED THE DAMAGE.

16. Applicable Law

This Agreement shall be governed and construed in accordance with the laws of the Commonwealth of Pennsylvania, without regard to its conflict of laws provisions.

17. Entire Agreement

This Agreement constitutes the entire agreement between the parties in respect of the Maintenance Services and supersede all proposals or prior agreements, whether oral or written, and all other communications between the parties relating to the subject matter hereof.

18. Notices

Any notice permitted or required under this Agreement shall be deemed given if in writing and personally served or sent by pre-paid registered or certified air mail, or by confirmed telex or facsimile, addressed (or as either Party may direct otherwise in writing) to the parties at the addresses provided during the Software registration process, marked for the attention of the Managing Director (in the event the Customer is a company).

Any notice given in accordance with this clause shall be deemed to be received by and served upon the other party on the date such airmail letter would in the ordinary course of post have reached such address or on the date such notice is served or left at the relevant address (as appropriate) and in the case of telex or facsimile shall be deemed to have been served on the day following the date of successful transmission.

19. Severability

If any term, provision, covenant or condition of this Agreement is held by a court of competent jurisdiction to be invalid, void or unenforceable, it shall be severed herefrom and the remaining provisions of this Agreement will remain in full force and effect and will not be affected, impaired or invalidated.

Customer understands and agrees that the Software Maintenance Agreement fee is non-refundable.

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Preface

Welcome

Whether you are a beginner or an expert, Scala[®] InfoChannel[®] Designer 3 can turn you into a multimedia producer. With ICDesigner you can create polished, professional on-screen productions that combine text, sound, graphics and animation for maximum impact. And only ICDesigner, when used with its powerful companion application InfoChannel Network Manager 3, lets you easily publish and distribute your productions to networks of InfoChannel Players over the Internet, to deliver true worldwide multimedia.

ICDesigner is ready

ICDesigner includes everything you need to get started—a library of professionally designed background images, sounds, fonts, and animations that can enhance any production. Of course, you are not limited to what Scala provides. You can use images, sounds, and other materials from outside sources; ICDesigner recognizes a wealth of standard file formats.

ICDesigner comes with support for a wide range of industry-standard input and output options, and was designed specifically to allow unlimited support for future options. With accessories like sound cards, laserdisc and CD-ROM players, touch screens and video genlocks, ICDesigner keeps you on the cutting edge of new media.

ICDesigner's many publication and playback options make the Info-Channel environment a powerful distribution medium. Scala's freely available stand-alone playback software **iplay** allows you to distribute an ICDesigner production to almost anyone with a multimedia-capable PC. And when combined with Scala's high-performance Info-Channel Player software in an InfoChannel Network, ICDesigner brings broadcast multimedia to the world. Preface ICDesigner is easy

ICDesigner is easy

Most multimedia programs give you hurdles to jump. ICDesigner has a better idea: stay out of your way! ICDesigner's unique Human-Touch on-screen menu system offers a refreshingly intuitive way for you to lay out a production, experiment with effects and transitions, and preview the results. ICDesigner menus are carefully designed to guide you through the process of creating a production. Options and functions are clear, specific and straightforward. ICDesigner's extraordinary "hands-on" feel makes it easy to explore the depths of its potential, and fine-tune your production quickly and confidently.

ICDesigner is interactive

A single, unvarying presentation is rarely appropriate for all situations. And even the flashiest show can become boring after the second or third repetition. So why be limited to presentations that can't respond to the outside world? ICDesigner was built for interactivity. Creating interactive buttons to accept mouse or touch screen input is simple in ICDesigner, with provisions for automatic aural and visual cues for highlighting and selection.

ICDesigner is ideal for use in kiosks and interactive point-of-sale displays, and is superior for flexible live productions. In addition, the option of Web playback puts the InfoChannel experience on home and office desktops for the browser users who are now on the lookout for point and click multimedia.

ICDesigner 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, ICDesigner will change your mind about multimedia authoring. ICDesigner is fast. ICDesigner is smooth. ICDesigner works.

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

ICDesigner can work for you

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

- 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
- as an interactive information terminal that lets customers respond to and control the display, choosing the items of particular interest to them, and entering their information for more personalized service
- to inform a hotel's guests of the many services it makes available
- to send presentations to colleagues via e-mail or on CD-ROM
- to distribute news and publicize products and events on your corporate information channel

Because ICDesigner 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 live humans 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 ICDesigner installation are low, thanks to Scala's easy-to-use HumanTouch graphical user interface. **Preface** About this guide

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

About this guide

The *InfoChannel Designer 3 User's Guide – Basic Authoring* is designed to serve both first-time multimedia users and more advanced users in learning how to create multimedia productions with ICDesigner. It contains Appendices, the Glossary, and an Index.

The companion User's Guide, "*Extended Authoring and Publishing*", covers further authoring topics that not all customers need, and focuses on ICDesigner's various methods for distributing your productions. It has its own Appendices and Index.

Conventions

Below are some of the conventions used in this guide.

Convention	Usage
italic text	Aside from general emphasis, we use italics in the text to highlight option names, columns, and other text that appears as labels in the ICDesigner menus.
	Use of italics also indicates terms that are defined in the Glossary.
bold text	Bold text is used for the names of ICDesigner menus, wherever they need to be emphasized.
+	The plus sign, used in keyboard short- cuts, means that you should hold down the first key and press the second key. Don't press the plus (+) key.

Convention	Usage
SMALL CAPS	Variable names are shown in small caps. However, you can enter variable names with any capitalization, or none.
ALL CAPS	Functions and logical operators are shown in all-caps text. You can enter these with any capitalization, or none. The same is true for file and folder names.

The Glossary and Index

Be sure to consult the Glossary when you come across unfamiliar terms, and the Index when you need to find specific information quickly. The topics in ICDesigner's online help system are keyed to the Index, to make it easier to find more detailed descriptions.

ICDesigner resources on the Web

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

Pages you will find at the Scala Web site provide:

- General product information, press releases, contact data
- Technical support:
 - ✤ Registration
 - Troubleshooting FAQs
 - Problem report submission
 - Discussion groups
 - Recommended hardware configurations

Preface

ICDesigner resources on the Web

- Downloads:
 - Software updates and demos
 - ✤ Bonus art packs
 - ✤ Sample scripts
 - Additional documentation on EXes and ScalaScript
- VAR resources:
 - ✤ Sales and marketing information
 - ✤ Service packs
 - ✤ Technical support and training
- Customer case studies
- Third-party support links

DESTROCTANTER 3

Overview

1: Overview



Scala InfoChannel Designer 3 (ICDesigner) makes it possible for you to use your PC to create productions that use special effects—movement, color, graphics, animation, sound—to highlight text and illustrate the points you want to emphasize.

Although it can be used with still images, the real purpose of ICDesigner is to create dynamic productions—sequences of sounds and images that flow like a professional video and can respond to outside input.

ICDesigner enables you to do this with 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 an entire department of media professionals with a daily roster of projects, you can use ICDesigner 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, ICDesigner is the ideal tool.

Getting started

This chapter introduces you to the Scala ICDesigner working environment and some of the basic terms, features and functions you need in order to begin to experiment with ICDesigner and create your own productions. The last section, "*A taste of what ICDesigner can do*", page 36, tells you how to start the demonstration productions designed by Scala so you can see and hear some examples of the power and potential of ICDesigner right away. You can use the demonstrations as a resource to stimulate your imagination and give you ideas as you plan and create your own productions. Online information and quick-reference help is always available in ICDesigner through the Information button. When you click this button, the pointer changes to the Help pointer, and you can click on any item to get more information on it. Appendix B has details about ICDesigner's online help.

Starting ICDesigner

Once ICDesigner has been properly installed on your PC running the Microsoft[®] Windows[®] 2000 operating system, you can start the program.

From the Windows 2000 Start menu, choose *Programs > Scala Info-Channel Designer 3 > InfoChannel Designer 3*.

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

You see a title window while ICDesigner loads. When the program opens you see the ICDesigner Main menu. Before you begin to create

a new production or work with one that already exists, the Main menu looks like this:

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Scripts and the Main menu

In ICDesigner, your production is defined by a *script*. A script in ICDesigner 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 an ICDesigner script the way a programmer works, through a series of text commands. You 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 you create and design graphically and arrange in the order you choose.

As you work with a production and compose the script, each page is listed separately in the Main menu. Each is assigned a page number based on its position in the production sequence and a short title that makes it easy to identify. Thus, the ICDesigner Main menu shows you an outline of your script and an overview of its structure.

The Main menu is the place from which you reach the various other ICDesigner menus needed to create the script. There are also many tasks you can do directly from this menu to manipulate and refine the script. These tasks, and how you work in the Main menu, are discussed in detail in chapter 2, "*Working in the Main menu*".

The ICDesigner interface

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

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

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

Title bar – shows the name of the menu, script, or dialog box you are working with, and sometimes additional information.

Toolbar – like popular Web browsers, toolbars in ICDesigner contain icon buttons for the most common functions in that menu or dialog. Toolbar items can toggle special options, present drop-down lists, or take you to another menu.

Tabbed panels – allow you to access different sets of related controls, to prevent menus from becoming too large or crowded. Click the tab header to display the panel of options for that type of operation.







1: Overview The ICDesigner interface

Close button – closes the active menu or script the button is associated with. In the Main menu, the Close button in the upper right corner is associated with ICDesigner itself; choosing it quits the application. The other Close button is associated with the script you are working with; choosing it closes the script and clears the Main menu.

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. Click in the text box you want to change before using the arrows.



Scroll bar – scrolls vertically through a list or horizontally across columns to see items that cannot fit in the screen space available. The bar changes size to indicate the proportion of the total number of items that is currently visible.

Pop-up button – opens a pop-up list to choose from a series of option values, or access other functions and menus. 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 pop-up button, then click on the desired choice. Or, click and hold the mouse button while moving the pointer through the list, then release the mouse button when the desired choice is highlighted.



Language: English (US)

Drop-down icon – opens a drop-down list from a toolbar to let you choose a particular function or go to another menu.



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 chooses the default. By clicking on the down arrow (\bigtriangledown) part of the

icon, you display a drop-down list of related actions, from which you can choose as with an ordinary drop-down button.



List icon – lets you choose the way you want to see the pages in a script or files in a folder. Normally you see thumbnails: miniature pictures of graphic items. When the icon is depressed, you see the List view, with pages or files listed by name.

On/off button – when clicked, turns an option on or off. If the label for this kind of button ends in a question mark (?), then a check mark (\checkmark) 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, OK and Cancel buttons – All menus and dialogs have a *Cancel* button. *Cancel* discards your changes before exiting. Menus, in which changes you make are applied immediately without requiring confirmation, have a *Close* button, which just exits the menu. (The close button in the upper right corner of the menu performs the same function as *Close*.) *OK*, seen in dialogs, accepts any changes you have made in the dialog, then exits. In a dialog, the close button in the upper right corner is the same as *Cancel*.

Tool Tips



Certain buttons in ICDesigner, such as the alignment and Script Size 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 that does not have a text label, and after a moment a small Tool Tip-style reminder pops up near the pointer with the button's name. In some cases, the reminder also contains additional information about the function the button controls.

Working in ICDesigner – some helpful hints

Unlike many applications on your PC, ICDesigner has its own operating system and on-screen working environment. Although working



Working in ICDesigner - some helpful hints

with ICDesigner is similar in many ways to working with other PC applications, this basic design makes it unique.

Below is a quick summary of a few important similarities and differences in the way some common PC terms and techniques are used in ICDesigner.

Mouse and keyboard

Although this guide assumes that you are using a mouse, almost all ICDesigner operations can be accomplished with the keyboard alone. Often using a keyboard shortcut is simply more convenient. For a very few operations, the keyboard is your only option.

See appendix A, "*Keyboard shortcuts*", for a complete list of keyboard alternatives and details about using them.

Mouse buttons

ICDesigner 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, and more.



The *main mouse button* is the button you use most often. Unless you have changed the setup of your mouse buttons, this is the left button on a standard mouse. Regardless of the type of mouse you have, an instruction such as "Click on *OK*" always means to use whichever button is your main mouse button.

ICDesigner has certain functions, such as temporarily hiding the Design menus, that use the *secondary mouse button*. The secondary mouse button is the one on the opposite side of the mouse from the main button. (If you have additional mouse buttons, ICDesigner does not use them.)

If necessary, refer to the documentation that came with your mouse and/or PC to ensure that your mouse behaves as it should when you use ICDesigner.

Terminology

This guide uses common PC terminology for mouse actions. Here is a quick summary:

Term	What to do
Point	Move the mouse until the tip of the pointer on the screen rests on the item you want to choose or select.
Click	Point to an item, then quickly press and release the main mouse button once.
Double-click	Point to an item, then quickly press and release the main mouse button twice.
Shift-click Ctrl-click	While holding down the Shift or Ctrl key, click the main mouse button.
Drag	Press and hold down the main mouse button as you move the mouse, then release the button when the pointer is where you want it.
Shift-drag Ctrl-drag	Press and hold down the Shift or Ctrl key, then drag.
Select	Use the mouse or keyboard to mark or highlight an item so that it will be affected by what you do next.
Choose	Use the mouse or keyboard to do something; for example, to carry out a command or open a menu. In some cases you may need to select an item before you can choose it. For instance, you must select a file in the File dialog, then click on <i>OK</i> to choose it and see what it contains.

Full screen and windowed operation

ICDesigner is designed to be used both in a window and as a full screen application.

In windowed operation, you can resize the ICDesigner window as needed like any Windows program, and use familiar drag-and-drop techniques to add graphics and other files to a script. The user interface design is flexible, adapting itself to different window sizes and shapes to give you maximum versatility. It is possible to size the ICDesigner window so small that some controls are obscured or too small to use, but the A taste of what ICDesigner can do!

application functions correctly regardless, and keyboard shortcuts can still be used for all controls.

When run in full screen mode, ICDesigner lets you specify a particular screen resolution, color depth, and refresh rate for optimum multimedia performance and adaptability to your preferences. Full screen mode is different from a maximized window in that there are no window borders, and the Windows title bar is replaced by an InfoChannel Designer 3 title bar with a slightly different look. No other applications or Windows elements can appear on top of ICDesigner in full screen mode.



Separate settings regarding windowed and full screen operation for authoring and playback are available. You can toggle between full screen and windowed modes at any time using the *Fullscreen* toolbar icon. By default, ICDesigner opens in a window.

A taste of what ICDesigner can do!

To give you a preview of what is possible in ICDesigner, a Welcome demo script is included. The first time you run ICDesigner, you see a dialog offering to run the Welcome script for you. Take some time to run this script, then press Esc (the Escape key) to return to ICDesigner and examine the script itself to see what an ICDesigner script looks like.

In addition to being informative, the demo script introduces you to some of the techniques you can apply in your own way for your own audience. The demo script uses a variety of techniques, and it can be useful to review them at any time to stimulate your imagination, spark new ideas, and use as examples of how to accomplish certain effects.
If you have turned off the first-time user dialog, you can proceed as follows to run the demo script:

1. From the ICDesigner **Main** menu, click on *Open*. You see the ICDesigner File dialog, like the one below, with a list of scripts that are currently available.



You may have to use the scroll bar to see all the entries. (ICDesigner scripts have the file-type extension .SCA.)

2. Look through the resulting list and find the script named "Welcome.sca".

The script is enhanced with sound, so if you have a sound card installed in your PC, make certain the speakers are on.

3. Click on Preview.

If you are requested to actively participate by pointing and clicking on buttons to determine what you see or do next, use your main mouse button to make your selections.

Some scripts simply stop when they are finished, others repeat continuously, still others offer you additional options. You can

1: Overview

A taste of what ICDesigner can do!

stop the script at any time by pressing Esc. This returns you to the File dialog.

4. Continue selecting and previewing scripts until you feel you have seen enough for now. When you are done, choose *Cancel* from the File dialog. You see the ICDesigner **Main** menu.

As you work with ICDesigner and become more and more experienced, you will notice new and different features in the demo script each time you look at it.

InfoChannel DESIGNER**3**

Working in the Main menu

2: Working in the Main menu

The **Main** menu gives you access to all other Scala InfoChannel Designer 3 menus and functions. You see the Main menu when you start ICDesigner.



You use the Main menu to begin work on a new script or fine-tune and enhance an existing script. Eventually, each page that is saved as part of the script you are working with is listed in the Main menu.

When you open ICDesigner, the Main menu 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 pages showing in the Main menu, more items on the screen become available and you can click on them to perform various functions.

Pages in the Main menu

The menu below shows the pages in a typical demo script.



In ICDesigner, a *page* in the Main menu may represent one of several things:

- a *screen 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* page an event that is not related to a file, such as a timing event or a command to an external device like a VCR.

Most pages are screen pages: a background upon which you place graphic elements like text, graphics, and buttons. Screen pages also include non-graphic elements, such as sounds and timing events. You use ICDesigner's Design menus to create and manipulate the elements of a screen page. (The **Design List** menu, described in chapter 10, Creating a new script

"Working in the Design List menu", gives you an overview of the contents of individual screen pages.)

Ultimately, a Main menu page can be virtually anything you can display, run or control from a script, and the modular, expandable nature of ICDesigner makes this an open-ended definition.

Creating a new script

To begin to create a new script, click the *New* icon. You see the Script Settings dialog.

Script Settings	• ? ×
Page Size ┥	640x480 🕨
Common Sizes	
320 x 200 320 x 240	
352 x 480 352 x 576 400 x 300	
512 x 384 640 x 400	
720 x 480 720 x 576	
<u>0</u> K	<u>C</u> ancel

This dialog lets you specify the size of a script's pages. The *Page Size* setting is the screen resolution (pixel dimensions) that is used when you author or play back the script in full screen mode and the maximum visible size of any page background image.

The *Common Sizes* list gives the most likely choices. Clicking one of these selects it. If you need a size that is not in the list, you can enter it directly using the *Page Size* value control. When you click *OK*, various parts of the Main menu become active, and you can begin adding pages to create a script.

The size you set in this dialog appears in the script title bar and applies 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.

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 menu, and you want to begin another, click the *New* icon, or click one of the arrows in the Script Switcher until you see a blank Main menu.

If you use *New*, you see a dialog asking if you want to close the current script, or leave it open. If you choose *Close*, the current script closes. If you choose *Leave Open*, the current script remains open. In either case, you see a blank Main menu. But if you chose *Leave Open*, the script you had been working on is still open and available using the Script Switcher.

You switch between showing the contents of one open script or another in the Main menu using the Script Switcher, described in the next section.

Opening an existing script

ICDesigner enables you to have several scripts open and available at the same time. You may want to do this, for example, to copy pages from one script to another. Regardless of the number of scripts you have open, the steps you follow to open an existing script are the same:

- 1. In the Main menu, click on Open. You see the File dialog.
- 2. Click on the *Scala Scripts* or *My Scripts* Places buttons or navigate to the folder containing the script. (For details about navigating in the File dialog, see chapter 3, "*Using the File dialog*".)
- 3. Scroll through the files in the list box until you see the name of the script you want, then double-click on the name or select the script and click on *OK*.

In the Main menu, you see the script you just opened.

2: Working in the Main menu

The icon toolbar



Using the Script Switcher

Whenever more than one script is open in the Main menu, the Script Switcher appears to the left of the script title bar. A number between the arrows indicates the position of the current script in the sequence of scripts as you opened them.

When you open a script, its contents are listed in the Main menu. You can click the left arrow (\triangleleft) in the Script Switcher to see the last script that was showing when you clicked on *Open* or *New*.

You can have as many scripts open at one time as the PC's memory capacity allows. Using the Script Switcher moves you continuously through the series. For example, if five scripts are open and you are currently working on the fifth, when you click on the right arrow (\triangleright) you see the first script in the series again.

When you close one of the open scripts, ICDesigner automatically adjusts the number in the Script Switcher to represent the position of the remaining open scripts. When only a single script is left open, the Script Switcher is no longer necessary, so it disappears.

The icon toolbar

At the top of the Main menu is an icon toolbar similar to what you see in popular Web browsers. The icons on the toolbar perform or allow access to all the major functions of ICDesigner.

When you first open ICDesigner, some of the icons are visibly disabled. Once you have loaded or created a script with at least one page, all the icons are enabled. Most act like ordinary buttons, and perform an action when you click on them. However, there are also two special kinds of toolbar icon:

- The *List* and *Fullscreen* icons act like toggles, remaining in either the pressed-in, highlighted state or the raised, un-highlighted state after you click them.
- The Save, Add, Edit, Design, Publish, and Tools icons, which contain a small down arrowhead, display drop-down lists from which

you can choose one of several options. *Save, Add*, and *Design* are combination icons, which are split into two sections. The smaller right-hand side of each, with the down arrowhead (\bigtriangledown), when clicked displays a drop-down list. The large main section of each when clicked performs the first option in the drop-down as a default action.

Page rows and columns

In the Main menu, every page, regardless of its type—screen page, group, sub-script, or special event—is represented by its own row, consisting of a number of columns.

The first two columns in a page row identify it by number and name. The remaining columns to the right of these are *EX columns*. Buttons in each of these columns open different menus at the bottom of the Main menu, allowing you to make settings that are associated with the page as a whole.

Settings made in the EX menus are reflected in text or graphic form on the column buttons. This lets you get a quick overview of the various settings, such as wipes and sound effects, that are applied. You can examine the settings in greater detail and make changes to refine the script by clicking the column button to open the associated menu.

Menu appearance

Whether a page is a screen page or represents a group, sub-script, or special event is indicated visually. Rows for groups and sub-scripts are darker in color than those of screen pages. Also, the thumbnail image you see for each is different in some way.

ICDesigner lets you change the appearance of the Main menu to suit your needs. As a result, the columns you see at a given time may be different from the standard ICDesigner Main menu shown on page 41. For example, you can adjust the width of each column so that you see more columns at one time, or reveal more of the setting inforPage rows and columns

mation displayed on a button. You can also adjust the order of the EX columns.

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 the text on the button, it means that the page is, temporarily, 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. You see the **Page Control** menu, like the one 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 menu according to its position in the script. You can set the status of other pages without closing the menu by clicking in the *No.* or *Name* columns of the pages. To close the menu, click on *Close* to confirm the setting or *Cancel* to leave it unchanged.

Name

The buttons in the *Name* column display a unique name for each page. If the page is a screen page, it is the name the page had when you last worked with it. Initially, ICDesigner gives the page a default name based on the file name of the background or the first element that is placed on the page.

ICDesigner handles each page as an entity separate from the file or files that it uses, so the name used to identify a page is not dependent on any specific file name. Page names can be as long as will fit into the button, can contain spaces and dots (.). The only restriction is that the name must be unique within the script.

Changing a page name

You can change the name ICDesigner initially provides at any time when you are in the Main menu.

To change the name of a page, click on the page's *No.* (number) button and, in the **Page Control** menu, edit the name as necessary. As part of a potentially long list of pages in the Main menu, the name should be short but descriptive enough so that, at a glance, it conveys the contents or purpose of the page.

The name is specific to that page and script; it does not affect any other pages or page names, nor does it affect any file name. This means that although the name ICDesigner provides might be based on the name of a file, you can change the name to something more descriptive in the Main menu without affecting the name of the file.

Wipe

The icons on the buttons in the *Wipe* column represent the page wipe that is currently applied to each page; that is, the way the page moves onto the screen and replaces the previous page. In most cases, there is also a number on the button which shows the speed of the transition.

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

You edit the wipe by clicking on the *Wipe* button corresponding to the page you want to work with. You see the **Page Wipe** menu, which looks like this:



When you select a wipe, the *Wipe* button for the page immediately reflects the icon, transition speed, and direction (if any). You can change the wipe for as many pages in the script as you want before you click on *Close* to close the menu. For each page you want to adjust, click on the page to select it and choose a wipe and/or set a speed.

Buttons in the *Wipe* column are blank and disabled for pages in the Main menu that represent a group, a special event, or a sub-script or other type of file. You cannot give wipes to those types of pages.

Working in the Page Wipe menu is discussed in detail in chapter 12, "*Using wipes*".

Timing

The *Timing* button indicates what type of automatic advance to the next page the script has. When there is no automatic advance and the mouse must trigger the transition to the next page, you see a dash. Otherwise, a time setting and the letter "P" or "D" appear. This indicates how long the page is displayed after it has finished.

A Pause setting ("P") or Duration setting ("D") 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 page 53 "*Customizing columns*"). You can also just position the mouse pointer over the column to see a Tool Tip showing the timing setting in full.

ICDesigner gives a default Pause of one second (1) to a new page. However it also assumes that a new page should have the same pause setting as the last-selected page. You should always look at the *Timing* button to verify that the setting is what you want.

To change the timing setting, click on the *Timing* button for the desired page. You see the **Timing** menu.



When a page in the Main menu represents a group of pages, a script or another type of file, ICDesigner automatically defines a Pause of zero (0) as the timing setting, indicating no delay between this page and the next. If the page 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 the main mouse button to see the next page.

For details about using the Timing menu to make adjustments in the timing of your script, see chapter 11, "Advancing the script automatically".

Input

Clicking a button in the *Input* column opens the **Input** menu. It contains options related to how mouse and keyboard input are handled on a given page.

Input			? ×
	Mouse Pointer	Slideshow Controls)
Mouse? 🗸		Touch Screen?	
Keyboard (arrows + Enter)?			
Preview Delete		Cl <u>o</u> se	<u>C</u> ancel

Unless you are working extensively with interactive scripts, you should rarely need to use this menu, because its default settings are appropriate for most situations.

The options on this menu are covered in detail in chapter 2 of the "Extended Authoring" guide, "Making scripts interactive".

Branch

Buttons in the *Branch* column let you access a menu you use to define variables and control the flow of activity in a script. Both types of operation are especially useful tools in interactive productions.

Clicking a button in the *Branch* column opens the **Branch** menu.



The Branch menu 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 menu.

The Branch menu makes it possible for you to produce sophisticated, flexible scripts that can respond to a variety of input appropriately, even if you are not a programmer. For more information about the Branch menu, see chapter 3 of the "*Extended Authoring*" guide, "*Branching and using variables*".

Sound

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

Sound			? ×
Sample/MP3	MIDI	CD Mixe	·)
Command: Play	⊻ <u>₩</u> ait?		
File:			
Pan 0 Vo		255 Loops	 ■ 1►
II.		<u> </u>	◀ 0 ►
Preview		Cl <u>o</u> se	<u>C</u> ancel

When a sound is one of the elements of a page, the corresponding button in the *Sound* column is labeled with text that describes the sound event; for example *Play* or *Volume*. If there is no sound event on the page, the button is blank.

A sound event for a page might be music, a sound effect such as a button click, or a voice, resulting from any of several sources The Sound menu has a sound mixer that makes it possible for you to adjust the volume of each sound so that, for example, music in the background fades slightly as a voice begins to speak.

As with the **Page Wipe** and **Timing** menus, you can change the sound setting for other pages in the script without closing the Sound menu each time; simply click on the next page you want to work with.

When the thumbnail or row in the Main menu 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 can, however, click on the button to define sound elements that affect the entire group or script. You may want to do this, 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 menu is presented.

For more information about the Sound menu and its controls, see chapter 1 of the "*Extended Authoring*" guide, "*Using sound*".

Page rows and columns

Background

Clicking a button in the *Background* column opens the **Background** menu.

Background						?	×
	ľ	lmage S	ettings	Orientation		Process	ןב
Type: Pictu	re	T	<u>T</u> ile?				
File: 6x2lig	nt1r.jpg						
Preview					Cl <u>o</u> se	Cancel	

The Background menu lets you make sizing and other adjustments to page background images from the Main menu. It is essentially identical to the **Design Background menu**, described in chapter 4, but it offers the advantage of being able to work with more than one page at a time

Other EX columns

In addition to these "basic" columns in the Main menu, you see columns for more specialized uses. Various additional EXes come with ICDesigner:

Integrated	Optional
Schedule EX	Optibase EX
Launch EX	MCI MPEG EX
Log EX	Serial EX
TextFile EX	Billing EX
Windows Scripting EX	

The integrated EXes are always available; the optional ones can be enabled in the Options dialog if you have a need for them. Each EX extends the capabilities that you have in a script. Other EXes can be purchased separately and are accompanied by documentation that tells how to use the EX and how to work in its menu.

See page 377 in chapter 15 for more detailed information on working with EXes.

The included EXes listed above are all described in chapter 7 of the "*Extended Authoring*" guide, with the exception of the Schedule EX, which is covered in chapter 4 of the "*Extended Authoring*" guide.

Customizing columns

ICDesigner enables you to adjust the width of the columns in the Main menu and to change the sequence of the columns that represent page elements (*Wipe*, *Timing*, etc.).

Adjusting column width

Changing the width of a column affects the number of columns to the right that you can see at one time in the Main menu. For example, if you make the *Name* column narrower, you can see more EX columns without using the scroll bar.

Adjusting the width also determines the amount of information you see 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.

2: Working in the Main menu

Customizing columns

	Scala InfoChannel Designer 3
	Mew Open Save Add Edit+ Design List Fullscreen Preview Play Publish+ Print Tools+
	Conduct.sca 640 x 480 🔂 🕁 🗙
widening the	No. Name Background Wipe Timing Sound Input Branch 2 Seize Image: seize Image: seize Image: seize Image: seize Image: seize Image: seize
	Step Seize Vour Truly btr: clear
to adjust the Input column, point here —	Easty of Fast Steady's Powerful Scala
and drag	ideasca

To change the width of a column, adjust its right edge as follows:

- 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 mouse button. The space between the columns is highlighted.
- 3. Drag the right edge until the column is the width you want, then release the mouse button.

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. You may want to do this, for example, if you need to work more frequently than usual with a column you normally have to use the horizontal scroll bar to see.

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 order you want. You can also choose not to display the columns of optional EXes such as Optibase and Serial—at all. You may want to do so if you no longer need to work with those EXes. This is also done in the ICDesigner Options dialog. See page 377 in chapter 15, "*Customizing Info-Channel Designer 3*".

The Thumbnail view

The *List* icon in the Main menu toolbar enables you to choose the way you see the pages of the script. In *Thumbnail view*, you see thumbnails, or miniature images of each page in the script. In *List view*, the script in the Main menu is presented as a list of page names. The following examples show the two views of a sample script.



Main menu, Thumbnail view



When you select the thumbnail of a page in Thumbnail view, the column buttons for that page are shown above the rows of thumbnails. The details and the columns are the same in the List view, however, you see the column buttons of all the visible pages at once.

You can change the width or sequence of the columns in the List view just as in the Thumbnail view, and you can use the corresponding buttons to define page wipes, pauses, and so forth. Changes in one view are automatically reflected in the other.

Pages shown in the Thumbnail view have the page name shown underneath them. To help you distinguish the different types of pages, The Thumbnail view

when a page in the Main menu represents a group of pages, a script or another type of file, the thumbnail also looks different, as shown in this illustration:



Switching between Thumbnail view and List view



You switch between the List view and Thumbnail view by clicking on the *List* toolbar icon. In Thumbnail view the icon appears raised. In List view the icon label is highlighted and the icon is indented. The view you choose to work in often depends on what you are doing and your own preference. The way in which you work with the pages, however, is the same regardless of the view. Details about moving, previewing, copying and deleting pages are discussed on page 59, "*Working with pages*".

Adjusting the size of the thumbnails

ICDesigner enables you to adjust the size of the thumbnails in the Thumbnail view. In the Thumbnail view shown above, there are seven thumbnails per row. When the width of the thumbnails is increased, the Thumbnail view looks like this:



In this case, the thumbnails are larger and more readable, but there are fewer rows. In a script containing more than six pages, you would need to use the vertical scroll bar to see and work with the other pages. When the width of the thumbnails is decreased, the Thumbnail view of the same script looks like this:



In this case, the thumbnails are smaller but there is space for more thumbnails in each row and there are more rows. Although the details may be difficult to read, in a large script this gives you a view of many pages at once.

Enlarging the ICDesigner window on the desktop

When ICDesigner is run on the desktop in its own window, the window can be resized. Resizing the window causes ICDesigner to readjust the menus to fit within the resized window if possible.

If you make the window larger, the script titlebar and thumbnail layout expand to fill the new space. The thumbnail images stay the same size, but the number of columns and the number of rows adjusts according to how many can fit in the window. If you make the window smaller, the contents are compressed. If you make the window too small for everything to fit, some items are obscured.



It takes a certain amount of time for the Thumbnail view to generate its images, or to regenerate them in a new size if you change your thumbnail settings in the Options dialog. Until it has finished generating the images, the Thumbnail view displays a small icon of meshing gears in the lower right corner of each unfinished thumbnail to show that it is working. The icon disappears when an image has been completely generated in the proper size.

Customizing the Thumbnail view

By default, in Thumbnail view ICDesigner thumbnails that are 100 pixels wide. The number of columns and rows available in the Thumbnail view varies according to the thumbnail size and the current size of the Main menu.

You can preset the thumbnail size. For details on how to do this, see the section "*Adjusting Thumbnail view options*" on page 375 of chapter 15.

Working with pages

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

Adding pages

To add a new page of any type (script, animation, etc.), you use the *Add* icon in the Main menu toolbar, or drag and drop. If the Main menu is empty, as it is when you begin to create a 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.

Add is a combination icon, enabling you to add any of several types of page. Clicking the main part of the icon performs the default action. Clicking the down arrow (\bigtriangledown) on the right side of the *Add* icon shows you all the choices.

2: Working in the Main menu

Working with pages

The choices are:

- Add File(s)
- Add Plain Page
- Add Special Event
- Add from Scanner/Camera

Adding a page that is based on a file

When you click the main part of the *Add* icon, or choose *Add File(s)* from its drop-down, you see the File dialog. The dialog you see is similar to the one shown below.



The File dialog gives you access to all existing files—scripts, backgrounds, animations, sound effects, etc.

 In the File dialog, click on the Places button representing the folder that 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. (For details about navigating in the File dialog, see chapter 3, "Using the File dialog".) 2. Double-click on the file name in the list box or select the file and click *OK*.

If the file was a picture background, ICDesigner assumes you want to start composing the page and a Design menu appears with the background you chose. Usually you see the **Design Text** menu, but in the case of adding an animation or movie, you see the **Design Background** menu.

When you finish the page and click the *Main* icon in the Design menu, you see the page listed in the **Main** menu.

If the file is not a picture background, you see the Main menu. The new page is automatically selected and ICDesigner assigns it a name which you can change at any time. (See page 47, "*Changing a page name*".) You also see the menu for the type of page element represented by the file you selected. For example, if you selected a sound file, the **Sound** menu is already open so that you can begin refining the sound settings immediately.

ICDesigner also enables you 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 select files randomly (Ctrl-click). The files are added to the script in the order in which you select them. The new pages are automatically selected in the Main menu.

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

Adding a Plain background page

The *Add Plain Page* choice enables you to quickly create a page that has a blank, colored background. As with other backgrounds, ICDesigner assumes you want to begin designing the page immediately, so when you choose *Add Plain Page*, you see the Design Text menu and a plain background with no graphic images or patterns. You can change the color of the background for this page and you can define a different color as the one you see by default when you create Plain pages. For more information see chapter 4, "*Working with backgrounds*".

2: Working in the Main menu

Working with pages

Adding a Special-event page

A *special-event* page enables you to add elements to a script that are not necessarily associated with a file. For example, a special event may be used in an interactive script to reset a variable value that changes with each new user. In a script that accompanies a speech, it may be used to define a mouse click that controls the volume of a microphone or music playing in the background, without affecting the page currently being displayed.

From the *Add* drop-down, choose *Add Special Event*. You see the **Main** menu. The special-event page is created and assigned a generic name by ICDesigner. You can then click the *Timing, Input, Branch, Sound*, or other EX columns to specify the action of the special event. As with any page, you can click on the *No.* button and edit the name as necessary in the **Page Control** menu. When you double-click on a special-event page in the Main menu you see the File dialog.

The special-event page is unique because it enables you to insert an event that controls a device or an action and work with it just as you would any other page even though it isn't necessarily associated with a file.

Adding a page from a scanner or camera

ICDesigner lets you add images directly from scanners, digital cameras and other imaging devices that use the TWAIN standard. You can use any device for which there is a properly working TWAIN driver installed on your system.

Choosing *Add from Scanner/Camera* to causes ICDesigner to search for TWAIN devices.

See page 115 in chapter 4 for full information on adding pages using images from TWAIN devices.

Adding pages with drag and drop

When ICDesigner is running as a window on the Windows desktop, 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 ICDesigner window showing the Main menu. The file is added as a new page of the appropriate type. The new page is placed after whatever page was selected when you dropped the file. As when using the File dialog, you can create several pages at once by dragging and dropping several files.

There are certain types of pages that cannot be created using drag and drop. Plain pages, for example, and special event pages that are not file-based (such as a branch event) must be created as described in the following section instead.

Selecting pages

You select a page by clicking on its thumbnail; in List view you click on its *Name* button.

The page is also selected when you click on one of its other buttons; in addition, you see the menu corresponding to the button's function so you can begin working immediately.

Selecting multiple pages

In either view, ICDesigner lets you select more than one page at a time. You may select pages that are listed consecutively in the menu or randomly positioned in the list. You may want to select several pages for various reasons for example:

- to copy them so you can paste them into another script
- to move them collectively to another location in the script
- to group them
- to delete them
- to apply settings, such a wipe or pause, to all of them at once

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

To select a series of consecutive pages, click on the first page in the series, then Shift-click on the last page in the series. All pages between and including the first and last pages are selected. To select every page in the script, from the *Edit* drop-down list choose *Select All*, or press Ctrl+A.

2: Working in the Main menu

Working with pages

To select a series of pages that are not consecutive, click on the first page you want to include then Ctrl-click individually on each additional page.

To deselect a page in a series of pages you have selected, Ctrl-click on it.

The page or pages you select remain selected and are affected by your next action until you click on another page in the Main menu.

Making settings for several pages at once

You can save time and effort by making settings for several pages at once.

To make settings for multiple pages, select the desired pages, then click the column for any one of the selected pages to open the appropriate menu. The settings you make in the menu apply to all the selected pages.

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

For example, suppose you selected five pages, each of which already had a different wipe assigned to it, then opened the **Page Wipe** menu and edited just the wipe speed. The pages would all get the same new speed value, but would retain their five individual wipes.

Leaving EX menus open

You are not required to close an EX menu once you have made settings for a given selection of pages. With the EX menu still open, you can click in the Main menu and select other pages, then make different settings for them in that EX menu.

You don't even have to close one EX menu before opening another. Just click in a different column to open any other EX menu. The settings you make in any menu in ICDesigner are applied immediately, as soon as you make them, and are not discarded unless you explicitly click *Cancel* or *Undo*.

Modifying a page

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

If the page represents a screen page in the script, you see the page—its background, text, clips, etc.—and a Design menu. Which Design menu you see depends on two things. For most backgrounds, it is controlled by the type of element that appears first on the page. If there are no elements on the page, or text is the first element, you see the **Design Text** menu.



the page and the Design Text menu

Similarly, if the first element on the page is a clip, you see the **Design Clip** menu, and if it is a draw object, you see the **Design Oval**, **Design Box**, or **Design Line** menu. The type of background is the other factor. If the page background is an animation or movie, you see the **Design Background** menu regardless of what is on the page.

If the page represents a group of pages, after double-clicking you see the contents of the group which may, in turn, be screen pages, groups or sub-scripts. Depending on the structure of the group, you may need Working with pages

to continue to double-click on the appropriate *Name* button until the page in the list represents the screen page you want to work with.



In any case, when the page in the Main menu represents a screen page, you can double-click on the *Name* button to get the appropriate Design menu as mentioned above, or you can select the page in the menu and use the *Design* drop-down to choose the specific Design menu you want to use as you begin working. See chapter 5 for more on Design menus.

If the page represents a script or another type of file, you see the File dialog when you double-click on the *Name* button.



double-click on a sub-script to open the File dialog

The *Look In:* box indicates the location of the file in your folder structure, *File:* indicates the name of the file—this might differ from what is on the *Name* button (see page 46, "*Name*")—and the file is selected in the list box. In the File dialog you can:

- examine the contents of the selected file: click on Preview.
- discard the current page or file and replace it with something else: select a different file and click *OK*.
- work with the file, for example a script, without closing the current script: click *OK* to return to the Main menu and follow the procedures for opening a script on page 43, "*Opening a script*".

For more information, see chapter 3, "Using the File dialog".

Moving pages

Whether a page in the Main menu represents a screen page, a group of pages, a script or another type of file, you can quickly revise a production by changing the order of the script's pages.

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 information defined for the page is also moved and remains unchanged. Other pages are moved accordingly and their page numbers are adjusted.

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

Working with pages

ICDesigner also lets you move several pages simultaneously. Whether you select the pages in a series that is or is not consecutive, they are handled collectively and inserted together at the new position.



- 1. Select the pages you want to move.
- 2. Point to the thumbnail for one of the selected pages.

ICDesigner Note

In ICDesigner dragging can always be interrupted to cancel the move-in-progress by pressing the secondary mouse button while the main mouse button is still pressed.

- 3. 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 see the pages inserted together in the script according to the order in which they were selected.

In List view, you can drag several *Name* buttons in the same way as the thumbnails.

2: Working in the Main menu

Working with pages



AFTER:

Previewing pages

As you refine a page using the tools of the Main menu, you can click on *Preview* at any time to test the adjustments and see if they are as you intended.

Preview is different from Play in that Preview lets you see just a selected part of the script. Also, Preview is available in most ICDesigner menus. *Play* is available only on the Main menu, and always starts the script from the beginning and plays 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 usually best to preview pages in sequence to see how well they work together.

If you are previewing several pages, you must press the main mouse button to see the next page if a specific pause time 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 return to the Main menu. You can exit the preview at any time by pressing Esc.

Copying pages

ICDesigner lets you create a new page by copying an existing page and pasting it elsewhere in the current script or in another script. You can copy one page or a series of selected pages that are or are not consecutive.

- 1. Select the page or pages you want to copy.
- 2. In the Main menu, click on *Edit* and choose *Copy*. A copy of each page you selected is placed on the clipboard.
- 3. If necessary, use the Script Switcher in the title bar to navigate to the script where you want to place the duplicate(s) or, if the script is not already available, click on *Open* and select it from the File dialog. (See page 76, "*Navigating in the Main menu*" and page 43, "*Opening a script*".)
- 4. In the script, select the page *after which* you want to place the duplicate(s).
- 5. Click on *Edit* and choose *Paste*. Each page that you copied is listed in the menu in the order in which it was originally selected.
- 6. ICDesigner gives the copy the same name as the original but adds a number that uniquely identifies the duplicate. For example, if the original name of a page is "Info", the name of the first copy is "Info.1". If the page is copied again, the second copy is "Info.2", and so forth.

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

Cutting and deleting pages

To remove one or more pages from a script, select each page you want to remove, then click on *Edit* and choose *Delete* or *Cut*. If you choose *Cut*, the pages are placed on the clipboard. If you choose *Delete*, the pages cannot be recovered, so a warning dialog asks you if you are sure you wish to proceed.

ICDesigner Note

Information you cut remains available on the clipboard until you choose *Cut* or *Copy* from the *Edit* drop-down or until you quit ICDesigner. You can replace what you cut, move it to another position in the same script or move it to a different script: in the script, select the page that is to precede the cut page(s) then click on *Edit* and choose *Paste*. If you selected and cut several pages, they are inserted in the order in which they were selected.

You can repeat the pasting process as often as necessary, in as many scripts as you want. You must, however, paste the cut information before cutting or copying again, or the page or pages are deleted permanently.

Deleting one or more pages from a script affects only the current script. No files are deleted. For example, if a page you delete represented a script, that script file remains available.

The clipboard and programs outside ICDesigner

ICDesigner uses the Windows clipboard to make it easy to transfer information to and from ICDesigner using cut and paste. You can use the clipboard to transfer images like backgrounds and clips, sound files, animations, and text. However, not everything you can copy from one application can be pasted into another.

Pages cut or copied from the ICDesigner Main menu cannot be pasted into other applications because a page is unique to ICDesigner, and can consist of numerous different kinds of elements, with settings that would be meaningless in any other application.

Similarly, nothing that might have been placed on the clipboard by an application other than ICDesigner can be pasted on the Main menu, because only ICDesigner can create pages. Clip files and text that are on the clipboard, however, can be pasted onto a page when you are in one of the Design menus. See the appropriate chapters later in this manual for information on pasting text, clips, and so on.

Grouping pages

To help you structure and organize a script, ICDesigner makes it possible for you to collect pages into groups. This can be especially useful in large scripts, where grouping pages that may be related by topic or purpose can make it easier to manage the script and get a quick overview of its contents.

A group may include any number or combination of screen pages, scripts or other groups of pages. Whether the pages you select to be in the group are or are not listed consecutively in the Main menu, the group takes the position in the script of the first page you selected. Within the group, the pages are sequenced according to the order in which they were selected.



pages to be grouped

- Select the pages you want to include in the group. 1.
- In the Main menu, click on the *Edit* icon and choose *Group*. 2.

A thumbnail/*Name* button representing the group appears in the position of the first page you selected to be in the group. That page and the other pages you selected are now in the group, and no longer can be seen. ICDesigner assigns a generic name to the group, which appears on the group's Name button.

Buttons for a group are generally a darker color than buttons for a screen page. The thumbnail for a group looks like a stack of pages with the first page in the group on top.
- 3. Click on the group's *No.* (page number) button. You see the Page Control menu.
- 4. In the *Name:* text box, type a short descriptive name for the group and click on *Close.* You see the **Main** menu and, on the group's *Name* button, you see the name you have assigned.

Editing in a group

When you double-click on a group's *Name* button, you see the Main menu with the individual screen 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 the order in which you selected them.



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 menu as usual. When you are done, click on the Script Up button in the script title bar, as necessary, until you see the level of the script structure where you want to work next. (See the section "*Navigating in the Main menu*" on page 76.)

Ungrouping

1

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* icon in the Main menu and choose *Ungroup*. The items in the group are listed individually and consecutively beginning at the position in the script that was previously occupied by the group.

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Using Undo to revise your changes

Often, as you work you find that you have ended up somewhere that you don't really want to be. You might make a mistake, or not realize the effect that a particular option would have, or you simply change your mind after seeing the results of your efforts. This can be especially troublesome when you need to take back a series of several actions to restore your script to satisfactory condition.

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 available on the ICDesigner *Edit* drop-down icon in the Main menu and the Design menus.

ICDesigner 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 if you find that you do not want to keep your editing changes. Redo in ICDesigner is similarly unlimited, so that you can move forward through the series of actions that you have just undone to arrive at exactly the desired point in your editing history.

What can be undone

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

The following are examples of actions that are affected by Undo/Redo:

- turning a style option on or off
- adjusting a style value control
- typing and editing text
- cutting, pasting, and deleting
- moving pages or elements
- grouping and ungrouping

What can't be undone

Some things you do in ICDesigner cannot be undone. Changes to settings that affect only the ICDesigner working environment and not the script itself, or that otherwise are incidental to making changes in scripts are not tracked by the undo system.

Examples of changes that cannot be undone include:

- changes made in the Options dialog
- opening or closing a menu or dialog (apart from changes made within it)
- actions that cause some form of output, such as ScalaPrint printing or publishing
- changing the ICDesigner window size or position

What is an undoable action?

ICDesigner tries to make sensible judgements about what you would consider to be a single action, so that you will know what to expect when using Undo/Redo.

For example, as suggested by the preceding lists of what can and can't be undone, if you open a menu, change a single setting, and then close the menu, that is considered a single action, not three. If you had adjusted two settings while in the menu, it would be two actions. If you had changed one of those settings several times while in the menu, that would still be considered two actions.

Thus in some cases several clicks or drags on a particular control are consolidated into a single action as far as the undo system is concerned.

Undo/redo feedback

ICDesigner always attempts to show you the results of your use of Undo and Redo, so that you can see whether they had the effect you intended.

2: Working in the Main menu

Changing page size for a script

Menu and page changes

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

Status bar messages

Messages in the Status Bar at the bottom of the ICDesigner screen describe any action(s) that you have just 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.

Changing page size for a script

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There is a special button in the script title bar used for specifying page size, the Script Settings button. 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 applies to the entire script. ICDesigner has various ways of adapting page backgrounds of different sizes to the script page size that you specify.

In ICDesigner, 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, however, the size of the pages shown within any display mode is always what is set in the Script Settings dialog.

"*Setting how scripts play back*" in chapter 15 describes setting display modes for playback.

Navigating in the Main menu

As a script becomes larger and more complex, it becomes increasingly useful to structure the script by grouping pages (see the preceding section) and adding sub-scripts (existing scripts to be run as pages). When you double-click on the *Name* button of a page that represents a group of pages, you see a listing in the Main menu of the pages in the group.

When the page represents a script or another type of file, you see the File dialog. In the File dialog you can preview the file (click on *Pre-view*) or you can replace the file currently associated with the page (select a different file and click *OK*). To see or work with the file, however, you must return to the Main menu.

If the file is a sub-script, open the script like any other to edit its contents (see the next section) or click on the appropriate page column button to define or modify events for the sub-script as it is used as a page in the current script.

Groups and sub-scripts may in turn include other groups or scripts, and so on. As you continue to double-click on group *Name* buttons, you move through the structure of the original script until you reach a level that contains the page or pages you want to work with, or where you want to add something new.

The path to the level of the script you are currently working on is shown in the script title bar. Slashes (/) in the path are used to separate the names of the different levels in the script structure. The last name is the name of the current group.



(based on the grouping example used on page 73 in this chapter)

Script title bar when sub-group "Mysub" in group "Mygroup" is open

To move up in the script structure, click on the Script Up button in the script title bar.

You can save the entire script at any time, from any level, by clicking on *Save* (see page 78, "*Saving a script*").

2: Working in the Main menu

Saving a script

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 you are working on.

- 1. In the **Main** menu, click on the right-hand section of the *Save* icon and choose *Save As* from the drop-down list. You see the File dialog.
- 2. Ensure that *Look In:* shows that you are on the drive and in the folder where you want to save the script. (You can create a folder if necessary using the *New Folder* toolbar icon.)

If you have not opened an ICDesigner folder during the current working session, you see the Scripts folder.

If necessary, navigate to the folder where you want to save the script. (For details about navigating in the File dialog see the section "*Navigation tips*", on page 96 in chapter 3.)

3. Look at *File:*, where there may or may not be an existing name. You can type the name you want the script to have, or edit the existing name.

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

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

If you attempt to save an existing script without changing its name, a dialog asks if you are sure you want the new version to overwrite and replace the old. Detions

- 4. The File dialog has an *Advanced* button under the *Options* heading in the lower left. Using it is described in the following section, *"Script save options"*.
- 5. Click *OK* to save the script. The script is saved with the .SCA extension, so that double-clicking its icon starts ICDesigner with the script open for editing.

Bypassing the File dialog

You can save the current script without having to go through the File dialog—in other words perform a Save rather than a Save As operation.

This is easily done by clicking the main section of the *Save* icon on the toolbar. The File dialog does not open, and the script is saved under the same name and location to which it had been last saved. Doing so does not allow you to use the advanced script save options, discussed in the following section. (You can also choose *Save* from the drop-down list that you see when you click the right-hand side of the *Save* icon.)

Script save options

From the Save Script dialog, you can save the script for further editing. There are several options available on the Advanced Script Options dialog, which you see if you click *Advanced*.

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Advanced Script Options

Normally, when ICDesigner saves a script, it does not also save the files you have used to compose the script—the backgrounds, wipes, sounds, animations, etc. The script file itself just stores references to

2: Working in the Main menu

Saving a script

these files—the path to each plus some information about how the file is to be displayed or played back. This is one way that ICDesigner conserves resources and maximizes its working efficiency.

This means that if, for example, you need to make a copy of the entire script to take with you on a diskette, or simply want to save the script and all its files separately in a single folder, you must specifically request ICDesigner to include copies of the associated files.

Depending on what you want to do, click on one of the following option buttons in the Advanced Script Options dialog:

Copy Associated Files? – This option copies a script and all its associated files to another location (usually a network folder, removable hard disk or diskette). Within the script, the references to associated files are changed to reflect the new location.

The *Copy Associated Files*? button is marked with a ✓ when the option is switched on. The *Copy Fonts*? and *Copy Wipes*? options become available when *Copy Associated Files*? has been turned on.

Ensure that the correct drive is selected to receive the copy (for example, drive A:).

Copy Fonts? – If the computer on which the script is to be played does not have all the fonts used in the script, you should select the *Copy Fonts?* option along with *Copy Associated Files?*. It copies the permissible font data to the destination disk. In the case of ICDesigner bitmap fonts, the actual font files are copied. TrueType fonts, however, have their data copied as encrypted data, rather than as font files.

You should be aware that there may be licensing issues involved with

ICDesigner Note

TrueType fonts that are not internally defined as freely-installable cannot be copied by *Copy Fonts?*, and if your script uses such fonts, you see a dialog advising you of this. including fonts with any production that you intend to distribute. Scala bitmap fonts are entirely royaltyfree, but any TrueType fonts used in a script may be subject to distribution restrictions. For more information on fonts and their licensing, see appendix B of the "*Extended Authoring and Publishing*" guide.

The *Copy Fonts*? button is marked with a ✓ when the option is switched on.

Copy Wipes? – Scala's wipes require their own definition files (independent of any of the graphic files you place in your script) in order to run. If you use wipes in a script, and the machine that will be playing back the script does not have the complete installation of ICDesigner with all wipe files present, you should use this option. If the script uses wipes, but the necessary wipe files are not present on the playback machine, a Cut wipe is substituted. Because the wipe image files can consume much storage space, you might choose to leave *Copy Wipes?* off to save room.

Save Script as Plain Text? – When ICDesigner saves a script, it can save it in one of two ways: either as a binary file, or as an editable text file. The binary format allows elements such as pasted images from outside ICDesigner to be conveniently embedded in the script file. However, you might wish to have the file saved in its editable form, as a text file containing statements in the ScalaScript language. This can be valuable for those who are familiar enough with ScalaScript to edit it directly and achieve special scripting effects.

To save the script as an editable ScalaScript file, make sure that this option is on (\checkmark). To save as a binary file, it should be off. You can specify which setting should be the default in the *Authoring* panel of the ICDesigner Options dialog.

If you choose to save a script that contains pasted clips using the *Save Script as Plain Text?* option, the pasted data is handled in the following ways:

- If the pasted item was originally a complete file cut or copied using the Explorer, it simply is treated as another file reference, just as if you had Added it. If you also choose *Copy Associated Files?*, the file is included among the other files in the script.
- If the pasted item was a graphic cut or copied from within a program, it is pasted into the script as raw data, and cannot be included in the text file as such. Such items thus must be converted to discrete files. Because they were not originally files, ICDesigner must invent file names for them. The file names that ICDesigner constructs for pasted data items are cryptic; if you see

2: Working in the Main menu

Running a script

unrecognizable file names included in your script directories, they are probably clipboard items that were converted to files in this way.

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 will appear on the selected pages; in a preview, events continuing from earlier pages are not presented.



To see how everything flows and functions together, you need to use *Play*. Ultimately, when you show the production, you must click on *Play* to play the finished script for the audience.

Options during playback

You can stop the script at any time by pressing Esc.

Pressing Ctrl+P pauses script playback. Press Ctrl+P again to resume playback.

Advancing

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

Using the mouse to advance when the script has reached the last event by default loops back to the beginning of the script.

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 menu) and pressing Enter on the numeric keypad. The script then continues from the page you specified. For more information and some helpful hints about the technical details of setting up and showing your script, see the sections in chapter 16, *"About video"* and *"About hardware"*.

Closing a script

When you have finished working with a script and have saved it, you can then close it. Click on the close button in the script title bar.

When you attempt to close a script that has been edited since the last save, you 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*.

ICDesigner Tools

The *Tools* drop-down on the Main menu gives you access to additional ICDesigner utilities.

Options



Click *Options* from the *Tools* drop-down to open the ICDesigner Options dialog. Here is where you change and save options that control the look of ICDesigner menus, including color, fonts, Main menu column layout and menu resolutions. This dialog also lets you:

- enable, disable, and configure ICDesigner EXes
- control the spelling checker
- view module versions and other information about the system

The Options dialog is discussed in chapter 15.

Scala on the Web



You can open your default World Wide Web browser to Scala's Web site, http://www.scala.com, by choosing this option. Another way is to click on the Scala logo at the end of any toolbar in ICDesigner.

Spelling

ICDesigner includes a full-featured spelling checker for the text you include in your scripts. You start the spelling checker by choosing *Spelling* from the *Tools* drop-down. The spelling checker is discussed in chapter 6.

Multi-tile Editor

Click *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 which can be resized without distorting their contents. This makes multi-tiles ideal for use as button and text backdrops, which must change size to fit their contents. The Multi-tile Editor is discussed in chapter 8 of the "*Extended Authoring and Publishing*" guide.

About

Choosing *About* runs a script that lists the names of Scala's development team, along with various copyright, trademark, and licensing information.

Publishing an ICDesigner script



Use the *Publish* drop-down icon to choose a publish medium and open the **Publish Script** menu for that medium. This menu allows you to publish a script, or make it able to be distributed and played on systems that do not have ICDesigner. On the Publish menu, you set various options that control exactly what script materials are included and options related to the medium. The Publish Script menu is discussed in chapter 6 of the "*Extended Authoring and Publishing*" guide.

Printing from ICDesigner



Although ICDesigner is oriented toward dynamic, interactive presentations, often it is worthwhile to have a print version of a script. Scala-Print is a tool that provides this capability. Click the *Print* icon to open the tool of the same name. ScalaPrint is discussed in chapter 5 of the "*Extended Authoring and Publishing*" guide.

Quitting ICDesigner

To stop working in ICDesigner and quit the current session, click on the application close button in the ICDesigner title bar. You can also double-click the Scala logo at the left hand end of the ICDesigner title bar.

If you attempt to close ICDesigner when an open script has been edited since the last save, you 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 ICDesigner. If you want to close ICDesigner, discarding any changes to the script you made since you last saved, click *No*. If you do not want to close ICDesigner, click *Cancel*. You see this dialog for each script that has been edited since the last time it was saved.

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Using the File dialog

3: Using the File dialog

The Scala InfoChannel Designer 3 File dialog gives you access to all the drives, folders and files normally available from your PC. It is designed to give you direct access to the files you need most as you work in ICDesigner. Although it looks different from a Windows file dialog, it provides all the same basic features, including access to all drives and folders through the familiar My Computer, Desktop, and My Network Places views.

In ICDesigner, the files used in a script may be background images, sound effects, animations or graphics such as clip-art images, drawings or symbols, even other scripts. Many files come with ICDesigner but you can use files from other sources, for example a library of clip art on a CD-ROM. As you expand the amount of work you do in ICDesigner, many files you use, such as script files, will be your own.

The folders created during the installation of ICDesigner are organized as collections of files of a similar type. Many folders are associated with a *Places button* so that when you click on the button you automatically see a listing of the files in the folder. This saves time by reducing the need for you to navigate through your file structure to find the folder you want.

You see the File dialog whenever the task you want to do requires that you select or save a file. You see it, for example, when you click on *Open* or *Save* in the **Main** menu or when you click on *Add* in most Design menus. You see a File dialog like this when you click on *Add* in the Main menu:



The File dialog you see differs somewhat depending on which type of operation you are performing. The task that leads you to the File dialog determines:

- which folder the File dialog opens in
- the File dialog's title
- the Places buttons that are available
- possible additional choices in an *Options* section

The buttons in the File dialog above, for example, give you quick access to folders containing the many types of files that you can use as the basis for a new page. These are not necessarily the same folders or files you want or need to access easily when you choose *Open*; in that case, the File dialog looks like this:



The listing in the File dialog you see in any situation may be slightly different from those shown here depending on how you installed ICDesigner on your PC.

Finally, besides reflecting the way you have personalized the organization of your files, the File dialog you see may also differ because ICDesigner enables you to define additional *Custom Places* buttons and to change those that are predefined (*Backgrounds, Sounds, My Scripts*, etc.).

Regardless of the task that leads you to the File dialog, or the way in which you have tailored it to meet your needs, the basic parts and functions of the File dialog are always the same. To help you keep track of what you were doing when you opened the dialog, the name of the dialog in the title bar reflects the task that is in progress.



The *List* icon in the toolbar lets you switch between List view and Thumbnail view, just as in the Main menu. The icon is not available

when the Thumbnail view is not practical, for example when you click on *Save* in the Main menu.

Navigating to a folder

In the File dialog, the pop-up at the top of the *Files* area shows the name of the location whose contents are currently displayed. In most cases, this pop-up is labeled *Look In:*, but for save operations it is *Save In:*.

Click on the pop-up to see the location of the current folder in the hierarchy of the current drive, and for a list of other available drives. You can select from the list to change drives or to move up the tree on the current drive.

The contents of the folder in *Look In:/Save In:* are shown in the list box. In the list box, all subfolders are listed first, then the individual files are listed. You may need to use the scroll bar to see all the files.



The *File:* text box indicates the name of a file when one is selected. If you select more than one, a message in the text box indicates the total number selected. Selected files are highlighted in a different color than other files.

The list box displays its contents alphabetically. In List view, folders are shown in darker text and followed by *folder*, and file names are followed by the file size in bytes and the date that the file was last saved. File names in ICDesigner follow the Windows standards; that is, they can be up to 256 alphanumeric characters long and can include most characters other than backslashes (\) and certain other symbols. A three-character extension identifies the type of file.

File types

The most common file-type extensions used in ICDesigner are shown in the table below.

Extension	File type			
.SCA	script			
.SCB	published script			
.BTN	predefined button or button preset			
.BMP, .GIF, .JPG, .WMF, .PCX, .PNG, .TIF, etc.	background, drawing, clip, or other graphic file			
.WAV, .MP3	sound sample (digital audio)			
.MID	MIDI file			
.FLI, .FLC, .GIF	animation			
.AVI, .MOV, .MPG	movie (digital video)			

The *Files of Type:* pop-up lets you limit the dialog to displaying only files of particular types, as determined by their file name extension. Different File dialogs have different default settings for this pop-up, so that you normally see only those files relevant to the operation you are performing. You can display any type of file at any time, however.

Files are shown as thumbnail images, either an icon representing the type of file or a miniature image of the file contents if it is a graphic

file. Thumbnails representing animation show the first frame of the animation. Those representing folders and other types of files, such as sounds, have an icon in place of an image.

The first time you choose a task that leads to the File dialog, the location of the folder you see is the folder you last worked in for that task in the current or a previous ICDesigner working session. The folders and files belonging to this folder are listed in the list box. No file is selected, however, and you see a cursor in the *File:* text box.

The next time you choose the same task, you see the dialog as it was the last time you clicked *OK* to confirm your File dialog selections. That is, *Look In:/Save In:* shows the folder you last worked in, and the dialog is set to Thumbnail view or List view as it was previously.

In either case, if the current folder contains a file you want to use, scroll through the list box as necessary and select the file. If you want only one file and you know its name, you can also type the name directly in the *File:* text box. (As you type, the list automatically scrolls so that files beginning with the letters you have typed are visible, at the top of the list if possible.) If the cursor is not already in the text box, click in the text box.

For more information about selecting files in the File dialog see page 98, "*Selecting Files*".

Using Places buttons

If the current folder does not include the file or files you want, you must navigate to the correct folder. When a Places button is associated with a folder, clicking on the button is the fastest way to move to that folder.

The name on a Places button is generally the name of the folder that the button leads to. The location of the folder is reflected automatically in the *Look In:/Save In:* pop-up. You see the contents of the folder in the list box.

To access folders outside the standard ICDesigner folders, and to reach other drives on your computer and other computers on a network, the File dialog has predefined Standard Places buttons for *My*

3: Using the File dialog

Navigating to a folder

Pictures, My Documents, My Computer, Desktop and *My Network Places.* Choosing any of these locations in ICDesigner is essentially the same as doing so in Windows: you see available computers, drives, and folders for you to double-click.

Custom Places buttons

ICDesigner pre-defines many Places buttons for you, but you can easily define your own in the *Custom Places* section. For example, you can redefine a *Custom Places* button to establish the default folder for that File dialog. This can make it easier to work with files belonging to a specific project.

You may also want to change the name, destination and/or color of an existing button. If you never use a particular *Custom Places* button, you can delete it. For more information, see page 100, "*Defining a Custom Places button*".

Although there is no limit to the number of Places buttons you can define, there are many occasions when no button is defined to help you reach the folder you want. To retrieve a file from a folder you don't use often, just navigate step-by-step to the folder, as described in the next section.

Special Standard Places buttons

In addition to buttons for folders that are standard in Windows, Scala provides two buttons in *Standard Places* for folders that have special meaning within ICDesigner: *Scala Artwork* and *Linked Content*. See the following two sections for more on each.

The Scala Artwork folder

In the File dialog, you usually see the name "Scala Artwork" under "My Computer" in the *Look In:/Save In:* pop-up. There is also a *Scala Artwork* Places button. This is a special "shorthand" way for ICDesigner to refer to both the drive and the folder in which all ICDesigner's default media files are located. Another way is through the assigned name "ScalaArt:", which you see in message dialogs and elsewhere. "Scala Artwork" and "ScalaArt:" are two simple ways ICDesigner uses to refer to the same folder location. On a standard system, Scala Artwork and ScalaArt: refer to the Program Files\Scala folder in the root of drive C:, or C:\Program Files\Scala. Clicking *Scala Artwork* in *Standard Places* or choosing it from the *Look In:/Save In:* pop-up are the same as explicitly choosing "C:\Program Files\Scala" on that system.

However, on a system in which ICDesigner was installed in a custom location, like D:\Multimed\Scala, Scala Artwork (ScalaArt:) would refer to that combination of drive and folders.

Scala Artwork provides a shortcut when the current location is some other folder and you want to return to the main ICDesigner folder just choose Scala Artwork instead of selecting the folder explicitly.

The Linked Content folder

The Linked Content folder can be significant for those publishing to the InfoChannel Network.

Linked Content Using the *Linked Content* Places button opens to the Linked Content folder. By being Added to a script from this folder, content files become "links". This designation does not change the files or how you work with them in any way. It is merely a label attached to the file invisibly within the script.

> Linked content is different only in what happens when a script containing linked content is published to the InfoChannel Network. Being labeled a "link" causes a content file not to be sent along with the rest of the script's content files when it is published and transmitted to InfoChannel Players. Since the linked content is not sent along with the script, it must be placed on the Players by some other means so the script will find it and play it properly.

> Using content this way, while adding versatility to the content management process, does present the hazard of creating scripts that will not run properly. This is because getting the actual content files represented by the links to the Players is a separate step, which if omitted results in incorrect playback on the Players. For this reason, you see a warning dialog whenever loading a file from the Linked Content folder, or saving a file to it, reminding you of the nature of the action.

One other special feature of the Linked Content folder is that you cannot create folders inside it from within ICDesigner; the *New Folder* icon is disabled. Any subfolders that are created within the Linked Content folder cannot be opened in the File dialog.

In scripts saved as plain text, paths of linked content references begin with the assigned name "Content:", representing the Linked Content folder.

For details on using linked content, see page 107.

Navigation tips

There are several ways you can manually navigate to a folder. The method or combination of methods you use often depends on where you are in the ICDesigner filing structure and where the new folder is located.

If you know the location of the folder you want, you can select it using the *Look In:/Save In:* pop-up. The contents of the folder are shown in the list box.

When you click or press Enter (\prec) to select something in the *Look In:/Save In:* pop-up list, the cursor moves to the *File:* text box and the text box is cleared of any previous file name.

▶ If you know the name of the file you want to use, you can type the name in the *File*: text box. As you type, the list scrolls to bring the most likely names to the top of the list. If you are certain that the file name is correct, you can press Enter (\downarrow) while the cursor is still in the text box. (This is a shortcut to clicking on *OK* to confirm the file and close the File dialog.) If you are not certain, press the down arrow (\downarrow). This selects the file name in the list that most closely matches what you typed.

You can use the wildcard characters "*" and "?" in the name to have the list box display only names that fit a pattern. The "*" wildcard matches any number of characters, and the "?" wildcard matches any single character. For example, entering "test?.*" would limit the listing to the files test1.bmp, test2.bmp, test3.tif, and so on. You can then select from these files normally. To move to a subfolder of the current folder, use the scroll bar, if necessary, to see the folders at the top of the list in the list box. Then, double-click the name of the folder you want. Continue to do this until contents of the desired folder are shown in the list box. The name of the displayed folder is shown in the *Look In:/Save In:* pop-up.

To move to a folder that is higher in the current folder structure, click the *Up* icon in the File dialog toolbar until *Look In:/Save In:* shows the name of the folder you want. Or, to move up several steps at a time, open the *Look In:/Save In:* pop-up and click on the desired folder name. In either case, you see its contents in the list box.

← Back To return to folders that you have previously viewed, click the *Back* icon in the File dialog toolbar until *Look In:/Save In:* shows the name of the folder you want.

To move to a folder on a different drive on your computer:

- Click the *Look In:/Save In:* pop-up, then click on another drive under *My Computer*. Navigate further in the resulting folder display until the contents of the folder you want are shown in the list box.
- Click the *My Computer* Places button, then click on another drive and navigate as necessary until the contents of the folder you want are shown in the list box.

To move to a folder on a different computer:

 Click the *Look In:/Save In:* pop-up. If the folder on the other computer has been mapped to a drive letter such as T:, find it in the list and click on it.

If the other folder has not been mapped, choose *My Network Places* from the pop-up list. The available computers in the current workgroup are displayed in the list box. Navigate through the computers and folders in the list box until it shows the folder you want.

- Click the *My Network Places* Standard Places button and choose a computer. Navigate through the computers and folders in the list box until it shows the folder you want.
- Type a standard UNC network path (starting with \\<computer name>) in the File: text box.

Selecting files

The files you see in the File dialog list box belong to the folder named in the *Look In:/Save In:* pop-up. You may need to use the scroll bar to see all the files, and if the file you want is not in the list, you may need to navigate to a different folder (see the preceding section, "*Navigation tips*").

You can use any of the standard ICDesigner techniques to select the files you need:

- **to select any file**, click on its name.
- **to select the file at the top of the list box** while the cursor is in the *File:* text box, press the down arrow (\downarrow) .
- ► to select the preceding or following file when at least one file is already selected in the list box, press the up or down arrows (↑ or ↓).
- ► to select several consecutive files, drag through all the files you want to include; click on the first file then Shift-click on the last; or click on the first file and press Shift-↓.
- to select several files that are not listed consecutively, Ctrl-click on each file.

ICDesigner also lets you automatically select all files in the list. In some situations it may be faster to select all the files and then Ctrlclick on those you want to exclude from the selection rather than scrolling through the list to click on those you want to include.

▶ To select all files in the list box, choose *Select All* from the *Edit* drop-down, or press Ctrl+A. All files are highlighted and in the

File: text box you see the total number of files selected. You can Ctrl-click to exclude files from the global selection, if necessary. You can cancel the selection by clicking on any file in the list box.

Previewing files



As you are working in the File dialog, you always have the opportunity to look at one or more files to get a "sneak preview" of the contents. To do this, in the list box, select the files you want and click *Preview*.

You may want to do this, for example, to compare several backgrounds or several sounds to determine which is the most effective for the page you are creating. Even in Thumbnail view, when you see the thumbnail of a graphic file such as a background, clip or drawing, it is often useful to see a full size preview of the image.

Previewing several files at once

If you select several files to include in the preview, they are presented

Remember:

When previewing files or running a script, you can use the main mouse button to move to the next page or file, and the secondary mouse button to move backward. in the order in which they were selected. When previewing a script or several individual files, use the main mouse button to move forward through the file and the secondary mouse button to move backward. If you are previewing several files, for example several sounds, press the main mouse button when one file is finished to advance to the next file in the series.

You can press Esc at any time during the preview, and all files included in the preview remain selected.

Completing the selection

When you have finished your work in the File dialog, ensure that the file or files you want to use are selected, then click on *OK*. As a short-cut, if you need to select only one file, double-click on the file in the list box. Or, regardless of the number of files selected, click on the *File*: text box and press Enter (\prec) .

3: Using the File dialog

Defining a Custom Places button

What you see depends on the task that brought you to the File dialog and on the selections you have made (if any) as you used the dialog. For example, if you click on *Add* in the Main menu and, in the File dialog, choose a file from the Backgrounds folder, ICDesigner assumes you want to start composing the page.

As a result, when you click *OK* in the File dialog you see the background and the **Design Text** menu. If you selected several backgrounds from the folder, however, you see the Main menu and each background is added as a new page that you can work with individually as necessary; for example, change its name, compose its contents, and so forth. (See chapter 2, "*Working in the Main menu*" for details about working with pages.)

Defining a Custom Places button

A Places button is an ICDesigner shortcut that enables you to navigate to a folder with a single click. It is equivalent to navigating step-bystep to the folder you want by clicking on a drive and subsequent folders as they appear in the list box, or specifying the location of the folder in the *Look In:/Save In:* pop-up.

All File dialogs have a set of *Standard Places* buttons, including *My Computer* and *Scala Artwork*.

The *Custom Places* buttons you see, however, are specific to the task that brings you to the dialog. For example, when you click on *Open* in the Main menu, the *Custom Places* buttons available are oriented toward reaching folders that contain scripts. Places buttons such as *Backgrounds* or *Sounds*, which are usually available in the File dialog

when you click on *Add*, are not relevant to the task of opening a script and, therefore, are not available when you click on *Open*.



ICDesigner pre-defines many Custom Place buttons for you, but you can define new ones, and change the position, name, destination or color of an existing Custom Place button.

Although it is possible to create a *Custom Places* button that takes you to any folder in your system from any File dialog, in general, you should create *Custom Places* buttons that are related to the type of File dialog that you are in. For example, direct access to the Backgrounds folder makes sense in the Add File(s) dialog, but not in the Save Script dialog.

Creating a Custom Place button

• To create a Custom Place button:

1. In the File dialog, navigate to the folder you want the Custom Place button to lead to.

3: Using the File dialog

Defining a Custom Places button

Global?

2. Choose *Add Custom Place* from the *Places* drop-down icon. You see the Add Custom Place dialog.



The *Path:* text box shows the path to the folder that will be the button's destination.

3. In the *Name:* text box, type the name you want the button to have, or edit the existing name. The button name you use should be short but descriptive.

The default name suggested by ICDesigner is the name of the folder you chose.

4. If you want, click on one of the color blocks to change the color. The color of the *Name:* text box indicates the Places button color.

You might change the color, for example, so that all Places buttons related to folders of a similar purpose have the same color.

The color choices available for Places buttons depend on the *Color Scheme* setting for ICDesigner menus.

If you want the Places button to appear in all File dialogs (as My Computer and Desktop do), click on Global so that the button is marked with a ✓. Otherwise, ensure that there is no ✓.

When the *Global* option is switched off, the button is not marked with a \checkmark and the Places button appears only in the type of File dialog in which you are defining the button.

6. Click OK.

You see the new button in the File dialog with the name and in the color you have defined.

You can define as many Custom Place buttons as you wish. When the number of buttons becomes too long to be displayed at one time in the File dialog, ICDesigner automatically provides a scroll bar.

Editing a Custom Place button

You can change a button's position in the *Custom Places* column by just dragging it up or down to where you want it. The new arrangement of Custom Place buttons is retained for future uses of this File dialog.

- To edit other aspects of an existing Custom Place button:
- 1. Click the Custom Place button you want to edit. In addition to displaying its destination folder, this selects the button.
- 2. Choose Change Custom Place from the Places drop-down icon.

You see the Change Places Button dialog box, which has the identical options as the dialog shown on page 102.

- 3. If the location shown in the *Path:* box is not the desired place, you can edit the path directly. However, it is generally easier to simply create a new Places button for that destination, as described in the preceding section.
- 4. If you want to rename the button, edit the existing name in the *Name:* text box.
- 5. If you want a new color for the button, click the appropriate block.
- 6. Turn the *Global* option on (\checkmark) or off.
- 7. Click *OK*. You see the Places button with the name and color you defined.

3: Using the File dialog

Using the different views of the File dialog

Removing a Custom Place button

If an existing Custom Place button is no longer necessary, you can remove it.

- To remove a Custom Place button:
- 1. Click the button you want to delete to select it.
- 2. Choose *Remove Custom Place* from the Places drop-down icon. The Custom Place button is deleted from the list.

If the button was used globally (*Global* was marked with a \checkmark), it is removed globally.

Using the different views of the File dialog

Just as the *List* icon in the Main menu enables you to choose the way you see the pages of a script, the *List* icon in the File dialog enables you to choose the way you see the folders and files in the list box.

In the File dialog, the images generated in Thumbnail view make it quick to browse through graphic files such as backgrounds, symbols, clips and even animations. (The first frame of the animation is displayed as a thumbnail.) The List view, however, has the advantages of showing the size and timestamp of files listed and can show more files at once when the image size in the Thumbnail view is large.

Add file(s)			? ×				
Image: two states Image: two states Back Up Edit+	List New Folder Places		SCALA				
Standard Places	Files						
My Pictures	Look In: Generic		Σ.				
My Documents	8xbrushed-blu.gif	200, 753	25-Mar-1999				
My Computer	8xbrushed-grn.gif 8xbrushed-grv.gif	201, 798 70, 361	25-Mar-1999				
Desktop	8xbrushed-red.gif	209,928	25-Mar-1999				
My Network Pl:	8xcloud-blu.gif	224, 348	25-Mar-1999				
	8xcloud-gry.gif	230,309 86,392	25-Mar-1999				
Custom Places	8xcloud-red.gif	234, 656	25-Mar-1999				
Backgrounds	8xcloud-yel.gif 8xdrops-blu.gif	213,836 235,944	25-Mar-1999 25-Mar-1999				
Clips	8xfirery.gif 8xbatch_blu.gif	180, 149	25-Mar-1999				
Multi-tiles	8xhatch-grn.gif	288,645	25-Mar-1999				
Movies	oxnatch-gry.gii	140, 633	25-Mar-1999				
Music	<u>F</u> ile:						
Files of Type: All Files							
	<u>о</u> к		<u>C</u> ancel				

This example shows the File dialog in List view in a typical folder.

Setting File dialog Thumbnail view options

You can make adjustments to the Thumbnail view of the File dialog much as you can in the Main menu. You can:

- adjust the size of the thumbnails by specifying the number of thumbnail columns.
- make the Thumbnail view the default view for the File dialog.
- control whether thumbnails generated are saved in a disk cache.

For faster File dialog response, ICDesigner can save its thumbnails as small image files in a cache folder on the system's hard disk.

Because these files also consume disk space, you might at times want to turn off the Thumbnail view image generator, and clear the cache folder. You can make one or more of these changes to the File dialog at any time. See the section "*Adjusting Thumbnail view options*" on page 375 in chapter 15 for details.

These settings apply only to the File dialog and do not affect any adjustments you have made in the **Main** menu regarding its Thumbnail view.

Managing files

The folders in ICDesigner have been carefully organized so that the files they contain are easy for you to find and use. Nevertheless, you may want to rearrange the folders and files so they fit better into your own filing system.

If you do so, it is best to keep all your ICDesigner-related folders and files somewhere within the Scala folder (the folder in which ICDesigner was originally installed, typically C:\Program Files\Scala). This makes it easier to adapt scripts written on one system to work on other systems, which might be set up differently.

You should not move ICDesigner program files or folders (those that contain something other than script content such as backgrounds, sounds, clips, and so on). Most such files and folders reside within the folder called "ICDesigner".

Also, remember that if you move the backgrounds and so on that come with ICDesigner, the demo scripts and any other scripts you created using those files would then not run properly without re-editing.

You can use your own file-management tool to copy, move or delete ICDesigner folders and files.

Creating new folders

Creating a new folder is one file management task that you can do from within the File dialog. You might want to create a new folder to organize new scripts or edited clips that you are exporting, for example.



To create a new folder, navigate so that the folder within which you want to create the new folder is displayed in the File dialog list box. Click the *New Folder* icon in the File dialog toolbar. You see a smaller dialog requesting a name. Enter the name and click *OK*.

The new folder is created. You can then double-click it to open it and save something in it.

The only place you cannot create a new folder is within the Linked Content folder. When viewing that folder, the *New Folder* icon is disabled.

Using linked content

The concept of *linked content* is significant for those creating scripts in an environment that includes publishing to the InfoChannel Network.

Linked files are not a special type of file. Any type of content file script, image, digital video, text, etc.—can be a linked file. A file becomes a link by being designated as such. Designating files as links is a task normally overseen by someone responsible for administrating the distribution of published scripts to InfoChannel Players through InfoChannel Network Manager 3.

The purpose of linked files is to allow the authoring of scripts that include content that needs to be updated from a source external to the ICDesigner publishing process. A linked file is one that, for authoring purposes, functions as a placeholder for a file of the same type that is periodically updated by a means outside of the script publishing process.

A script author uses linked files in exactly the same way as any other content file, and they behave in exactly the same way in playback. The only difference in the context of ICDesigner comes during the Publish to InfoChannel Network process. The **linked files are not transmitted as part of the script** when Network Manager sends the script to its Players—only a **reference to the file name** is included in the script.

3: Using the File dialog Managing files

The linked files are assumed to be present on the Players that scripts are transmitted to, so that the references in the script work as links to those files.

The hows and whys of linked file operation in the InfoChannel Network context are mainly invisible and irrelevant to script authors. The only things that authors really need to know about linked files are:

• Where to find them

The InfoChannel Network administrator will place linked files needed for authoring in the Linked Content folder, accessible from the *Linked Content* Standard Places button in the File menu. Files become linked files by being Added to a script from this folder.

A folder shortcut is provided in the Start menu for easy access to the Linked Content folder location from outside ICDesigner.

When you choose a file from the Linked Content folder, by default you see a dialog that reminds you of the nature of linked content:

	Add file	:(s)							? ×	
	← <u>B</u> ack	1	X Edit▼	List	New Folder	Places*			SCALA	
cala	Standard My Co Messag	Places mputer	. [Files	In. 786d11	F/03/ha	NP924U04	f438ace68	aa2 🔻	×
You are about to create a link to content named "blue.bmp". When publishing to InfoChannel Network, Linked Content is not sent with your script,										
and so must already exist on the target Player(s) or be sent separately. The script will automatically use the latest version of content with this name that it finds on the Player.										
Pr	oceed?									
		_	_					<u>Y</u> es	<u>N</u> 0	
	Movies	3	-T	File:	blue.bmp					1
	Files of Type: All Files						1			
						<u>о</u> к		<u>C</u> ancel		1
• That they are placeholders

A linked file is not the exact file that will be seen in playback in the field, but a representative example. The InfoChannel Network administrator, together with those responsible for content creation, must take care to insure that each linked file is indeed representative (in size, type, duration, and so on) of the files that later will be used in its place for actual playback.

Using Network Manager, linked content files can be retrieved from Players in the field to verify that they match expectations. Retrieved linked content files can be recognized as such by their filenames: they have a version number embedded in the filenames as part of the system that ensures that only the latest linked content is used. For example, a file named "Newsfeed.mpg" sent as linked content would on the Player be renamed to "Newsfeed;1.mpg". Updates of this file would be "Newsfeed;2.mpg", "Newsfeed;3.mpg", and so on. If included in a script, such a file would still generate a link reference to "Newsfeed.mpg".

• When and where to use them

The InfoChannel Network system administrator should inform authors which content items will be updated from an external source, and thus need to be Added from the Linked Content folder.

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Working with backgrounds

As you create a screen page, a *background* serves as a backdrop against which you design the page, using the facilities of Scala InfoChannel Designer 3 to add elements such as text, clip art and drawings. If the background is a special photograph or pre-designed graphic, it may even be the primary component of the page and the focus of attention.

ICDesigner includes a wide variety of backgrounds with different themes, colors and styles. In addition, virtually any picture or animation that is available as a bitmap file can also be used as a background.

ICDesigner supports many *bitmap* file-formats, including BMP, JPG, TIF, GIF, PNG, WMF, AVI, FLC, MPG, and MOV as background images.

Sources of background images

There are many sources that are commonly used to obtain or create bitmap graphic files:

- Scanners and digital cameras that save digitized images bitmap form. ICDesigner can acquire images directly from such devices.
- Paint and drawing programs that let you create two-dimensional images.
- Video digitizers, which convert video frames into a digital format. Individual frames of digitized video saved in a variety of formats can also be used as backgrounds.
- Image processing programs that can manipulate or enhance existing graphic images by using advanced techniques.
- Texture generators, which create images that simulate textures and patterns that can look real (wood grain surfaces, orange peel, skin, fur, etc.) or synthetic.
- Modeling and rendering programs, which create three-dimensional objects and apply color and shading to the surfaces to give

them a realistic look. Such software can often generate animations, which can be saved as digital video files.

- ICDesigner's Multi-tile Editor, which lets you create and edit *multi-tiles*, graphic images that resize without distortion, and use them as page backgrounds. Multi-tiles are most often used for interactive buttons and blocks of text, but 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 ICDesigner), which can have images from any of these sources, often categorized as to subject or function, and in many cases specially adapted for the tiling and interactive button use common in Web authoring.

Virtually any image that is available as a bitmap file can be used as a background for a screen page in ICDesigner.

Terminology

In the program, still images are referred to as "Picture" backgrounds, FLI/FLC and AnimGIF animations are "Animation" backgrounds, and digital video (AVI, MPG, and MOV/QuickTime[®] 3) are "Movie" backgrounds. There are also "Multi-tile" backgrounds, which are similar to picture backgrounds, and "Plain" backgrounds, which consist simply of a solid color.

Because many of the options available to backgrounds apply to several types, in this manual, any type of background other than a Plain background is referred to as an "image" background. "Animation" and "Movie" backgrounds are often referred to generically as animations.

"TWAIN backgrounds" refer to backgrounds acquired by ICDesigner directly from a scanner, digital camera, or other device that uses the TWAIN standard to communicate with a PC. They are a variety of picture background.

Choosing a background

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

Picking an image background

- 1. In the Main menu, click on Add. You see the File dialog.
- 2. In the File dialog click on the *Backgrounds*, *Movies*, or *Animations* quick-access buttons or navigate as necessary to the drive and folder containing the background(s) you want to use.
- 3. Scroll through the files and preview them with the *Preview* button as necessary until you find a background that suits your purposes.

You can select and preview one file at a time or select several files and preview them in succession. You can also choose *Select All* from the *Edit* drop-down to select all the files in the current folder.

If you choose to preview more than one file, press the main mouse button to advance to the next one.

4. When you are ready, select the background file(s) you want to use. You can select one file to create only one screen page or several files to create several pages at once.

To create only one screen page:

Double-click on the file name or select the file and click *OK*. You see a screen page with the background you selected and the **Design Text** menu available for you to use immediately. If you chose an anim file, however, you see the **Design Background** menu. For information on the animation-specific options in this menu, see chapter 14, "*Using animation and digital video*".

To create several screen pages:

Select the first background you want to use, 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 actually want to use all of the backgrounds in the folder, Ctrl-click on those backgrounds you specifically do not want to use to deselect them.

You see the Main menu with each background added as a new page in the script. ICDesigner gives each new page the same name as its background file but you can change the name at any time by clicking on the *No.* (number) button. There are three ways to begin designing a screen page:

- double-click on the *Name* button or the page thumbnail to see the background you selected and the **Design Text** menu
- select the page, then click the main part of the *Design* icon to see the background you selected and the **Design Text** menu
- select the page, then click the right-hand section of the *Design* icon to choose the Design menu you want to work with

Using a plain background

To create a page with a plain background:

- 1. Click the right-hand section of the Add icon.
- 2. Choose Add Plain Page from the drop-down list.

You see the Design Text menu, with a solid color background.

Using an image from a TWAIN device

If you have a scanner or digital camera, these are excellent sources of background images. You can always save the images you have scanned or photographed as graphic files, and load them normally as image backgrounds. But to eliminate the intermediate step, you can acquire

Choosing a background

images directly from scanners, digital cameras, and other devices that use the TWAIN standard for communicating with a PC.

- 1. Choose *Add from Scanner/Camera* to cause ICDesigner to search for installed TWAIN devices.
 - ✤ If there are none, nothing happens.
 - If a single device is found, it is automatically selected. ICDesigner launches that device's own TWAIN acquisition software.
 - If multiple TWAIN devices are found, you see them listed in a dialog. Pick the device you want to get an image from. When you choose the device, ICDesigner launches that device's own TWAIN acquisition software.
- 2. Use the device's acquisition software to complete the process of getting the image.

This might involve scanning an illustration with a scanner, or retrieving an image from a digital camera's storage. Once you complete the process and exit the device's software, you return to ICDesigner and see the **Design Text** menu. From that point it is just as if you had loaded the image as a file from disk. No file is involved, however; the image is held in memory only as long as it is in use. It is embedded in the script if you save a script containing it.

TWAIN backgrounds can be worked with just as any other picture background. However, you must bear in mind that because there is no underlying file, you need to repeat the acquisition process each time you want to load that image. To avoid this, you can save the image as a file from the TWAIN device's software, or use *Export* (see page 121) to create a file from within ICDesigner. Then load this as a normal background file.

The Design Background menu

ICDesigner enables you to make special adjustments to the background of a screen page just as it enables you to refine other page elements. Among other things, you can replace a background at any time with one that is more appropriate if you discover that your original choice isn't suitable.

You can also:

- 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 work with a background at any time to tailor it as necessary to meet the needs of the script or the display medium. If you are working in a Design menu, click the *Background* icon. If you are working in the Main menu, select the page you want to work with before you click on the *Design* icon and choose *Background* from the drop-down, or press F6.

The Design Background menu

You see the screen page with the current background and you see the **Design Background** menu at the bottom of the screen.



The menu has several panels for the various types of operations you can perform on backgrounds. The buttons and options available on the *Image Type* panel, which you see first, depend on the background type. The Background menu looks as it does above, for example, when the background is a picture. The *Type:* pop-up 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.



Background

If you chose a Plain background, the menu looks like this:

In this case, because no file is associated with the screen page, there is no *File:* button necessary. On the *Page Settings* panel, there is a color bar and the *Background* button with a color chip that lets you change the Background color if necessary (see page 123, "*Changing the color*"). Other panels are disabled, because their options are not applicable to Plain backgrounds.

The Design Background menu



When the page represents an FLC or AnimGIF animation, you see the first frame of the animation and the *Image Type* panel looks like this:

If the file is a digital video animation (an AVI, MPG, or MOV file), some of the options shown are different. But in either case, you see many animation-specific controls in this panel that are not present with other types of background. See chapter 14, "*Using animation and digital video*" for information on using the options in this menu to work with animations.

Replacing a background

ICDesigner lets you replace a background or change from one type to another without disturbing any other elements 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* panel of the **Design Background** menu, click the *File:* button.

- 2. You see the 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 see the screen page with the new picture or the first frame of the animation. You also see the **Design Background** menu with the settings of the new background

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

- 1. In the *Image Type* panel of the **Design Background** menu, click the *Type:* pop-up.
- 2. Choose the type of the new background.
 - If you choose Plain, you see the Plain page immediately.
 - If you choose anything other than Plain or the current type, you see the File dialog and can pick a file as described above. You don't necessarily have to pick a file of the type you chose—if you chose *Animation*, for example, you could still navigate to the Movies folder and load one of those as your new background.

When you have loaded the file you want and leave the File dialog, you see the page with the new background.

Standard Design options

Many of the options in the Design Background menu are the same as those found in other ICDesigner Design menus. See chapter 5 for details.

Exporting a background or an entire page

The *Export* option in the *Edit* drop-down saves the background with the new settings and changes you have defined. You may want to do

The Design Background menu

this, for example, if you adjusted the background to meet special size or resolution requirements and you want it easily available for use in another script.

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

Export Options	? ×		
Wha <u>t</u> to Export:	Background		
Sav <u>e</u>		<u>C</u> ancel	

Exporting the background or background with elements

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

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

You may want to use *Entire Page* to ensure, for example, that a company logo appears on every page that uses the background design. When such "foreground" elements are saved as part of the background, they become part of the background design. When that saved background is opened, they cannot be edited or manipulated independently 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. ICDesigner automatically adds the file extension .BMP and saves the file in 24-bit BMP format regardless of the original format of the background image file.

When you click on *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 if you don't need to work with the elements on the page as separate elements any more. (This allows the page to appear faster.) Choose the original if you just

wanted to save the page as a file for future use, but still need to move and adjust the items on this page.

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

Changing the color

ICDesigner enables you to manipulate the colors of backgrounds. When the background is plain, you can change the single color; when it is a 256-color image, you can change individual colors in the background palette as well as make overall adjustments. When the background is High Color or True Color, you can make overall adjustments, but not adjust individual colors.

Changing the Background color

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

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 at all.

The color bar is used to set the Background color:

- 1. In the *Page Settings* panel of the **Design Background** menu, find a color in the color bar that you want to use. You can edit the colors you see, or create new colors, in the **Design Palette** menu. Use the Color Set Switcher if necessary to move through the color sets.
- 2. Drag the color to the *Background* button. The Background color changes immediately without affecting any other elements on the page.

ICDesigner 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* panel of a Design menu. For more information see the section "*Saving settings as defaults*" on page 217 in chapter 7.

Changing individual colors in an image palette

To change individual colors in a 256-color background you use the **Design Palette** menu. Click the *Palette* icon. For details about working in the Palette menu, see chapter 13, "*Adjusting colors*".

Processing overall background color

Any image background—256-color, High Color, or True Color—can be altered in subtle or dramatic ways using the image processing controls on the *Process* panel of the Design Background menu. Because image processing also applies to clips as well as backgrounds, the *Process* panel is described in chapter 13, "*Adjusting colors*".

Video transparency

An option available only with plain backgrounds is *Video Transparent?*, on the *Page Settings* panel. Use this option when you are using a video genlock to overlay ICDesigner graphics on top of a video image.

When *Video Transparent?* is on (\checkmark), the Background color is defined such that the video input to the genlock is visible wherever the Background color normally would be seen. All elements you have placed on the page are overlaid on top of the video image. The moving video image can be seen in the background even when the script is not running.

The only effect of turning on *Video Transparent?* when there is no video signal, or no genlock attached, is that the Background color, wherever it might be visible, appears completely black.

For more on using ICDesigner with video, see the section "*About working with video*" in chapter 16.

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. The size is expressed in terms of the number of pixels that are used horizontally and vertically to display the background on a computer monitor or other display medium. A common size for ICDesigner 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, and it is saved with the file. In most cases, you do not have any choice in the size of a given graphic image that is available, for example, on a clip-art CD-ROM.

ICDesigner, however, lets you change the size of picture, multi-tile and anim backgrounds. (Plain backgrounds are always the size of the page.) Picture and anim background size can be changed by scaling, cropping, or both.

Reducing and enlarging backgrounds

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

If the background is too large (its width and height are greater than the page size), you cannot see parts of the background that are beyond the page size limits. The illustrations on page 127 show the relationship between page and background size.

Although in general you want the background to fit the page, there may be occasions when you intentionally want it to be smaller or larger than the space available.

ICDesigner offers you several ways to adjust the background so that it meets the requirements of the page and fits the resolution options Adjusting background size

available for the final display. Depending on the situation, you can change the size of the background, change the size of the pages in the script, or change 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 Internet distribution, you only need to store or transmit a small image file to cover the whole background. Options are available to control exactly how the image is repeated across the page.

Scaling the background image

The *Page Settings* panel of the Design Background menu contains the options related to the dimensions of the background. The *Custom Image Size?* button, although it is normally disabled, shows the size of an image background. The *Image Size:* pop-up provides several automatic scaling options that let you change the size to best fit the page.

By default, *Image Size:* is set to *Fill Page*, so that the image is covers the entire page without being distorted. If the image is smaller than the defined page size, it is scaled up until its smaller dimension just covers that dimension of the page. If the image is larger than the page, it is scaled down. Either way, if the proportions of the image don't match the page proportions, some of the image runs off the edges of the page.

If the image matches the page size, you probably don't need to do anything. But if it does not, the *Image Size:* options give you several ways of adapting the image to the page, depending on the relative importance of seeing all of the image versus covering the entire page.

The Image Size: pop-up can have five scaling options:

- Original no change to the image size
- *Fit Inside Page* makes the image as large as possible while leaving all of it visible
- *Fill Page* makes the image large enough to completely cover the page; the sides or top and bottom of the image may run off the edges of the page

Fill Exactly – stretches the image so that it is exactly the same dimensions as the page; this can distort the image proportions







Image Size: Fit Inside Page



Image Size: Fill Exactly

Custom – enables the *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 see no difference in the effect of the second, third, and fourth options. The proportions of most images intended for use as full-size computer backgrounds do match the proportions of the common page sizes.

ICDesigner Shortcut!

To quickly cycle to a setting, point to the (\triangleleft) or (\triangleright) arrow then press and hold the main mouse button until you reach the number of pixels you want.

To accelerate the process, press both mouse buttons. To specify a particular size for the background, choose Image Size: Custom to enable Custom Image Size. Then you can use its value control to set the dimensions (width and height in pixels) that you want. The changes you make are reflected immediately on the screen so you can continue to test and refine the size as necessary.

Changing the size stretches or squeezes the entire image so that it fits within the dimensions you define. The new

Cropping a background

dimensions apply only to the background as it is used on the current page. To save the background in this new size so that it is available from the Backgrounds folder in the File dialog, click on *Edit* and choose *Export* (see page 121 for details on using *Export*).

After you export, you usually want to use the saved background instead of the original for the current page. Otherwise, ICDesigner 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.

Cropping a background

ICDesigner enables you to *crop* or trim away outer parts of picture backgrounds that you do not want to display. The cropped portions disappear from view, but not from the background itself, and can be easily recovered. This normally makes the background smaller, but you can choose to have ICDesigner automatically scale a picture background so that it always remains the same size as you crop.

The *Crop*? button controls cropping. Normally, the button is blank. Turning the *Crop*? button on (\checkmark) and off enables and 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 uncropped image.



The crop settings you see before cropping come from the original image file. The crop position setting 0,0 represents the upper left corner of the image, and the crop size setting indicates the dimensions (in pixels) of the original image, and 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 reflect the amount of the original image still visible.

When using the *Crop?* button:

- Click on *Crop*? to enable and 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 initial values.
- Multi-tiles cannot be cropped. The *Crop?* button is disabled for multi-tile backgrounds.
- Movies with the *Use Overlay:* option set to *If Possible* or *Require* cannot be cropped. The *Crop?* button is disabled for overlay movie backgrounds.

Setting a crop position

The first of the two crop position settings represents the number of pixels you want to crop from the left edge of the original background. This determines the left edge of the new, cropped image. When you load a new background, this setting is zero because nothing is cropped from the original image. Cropping a background

In Figure 1, the left setting is changed to 110, so the left edge of the background is cropped accordingly.



110 pixels cropped from left side

Figure 1. Cropping the left side

The second of the position settings represents the number of pixels you want to crop from the top of the original background to determine the top edge of the new, cropped background. At first, this setting is zero (0) because nothing is cropped from the original image.



Figure 2. Cropping the top

In Fig. 2, the top setting is changed to 140, and the top of the background is cropped accordingly.

Setting a crop size

The first of the crop size settings represents the width of the background. Initially this is the original image width, but the crop width is updated to reflect the number of pixels of the original image currently visible. It is measured from the left edge of the background as determined in the crop position settings. Cropping a background

In Fig. 3, the width is reduced 40 pixels from 690 (the width after cropping the left side) to 580.



Figure 3. Cropping the width

The second of the crop size settings represents the height of the background. initially this is the original height, but as the top of the image is cropped, the crop height is updated accordingly to reflect the number of pixels of the original image still visible. It is measured from the top edge of the background as determined in the crop position setting. As shown in Fig. 4, the height is changed to 385, measured from the cropped top edge.



Cropping and resizing

When the *Custom Image Size?* button is disabled, cropping reduces the size of the background image, and you see a border of the Background color around a cropped image indicating the difference between the size of the cropped image and the size of the page. However, often what you want is to eliminate some areas of the background without changing the image size. You can have ICDesigner take care of this for you automatically.

Setting *Image Size:* to *Custom* not only allows you to manually resize the background, it also causes ICDesigner to resize the cropped image immediately after you crop it, scaling it up to the dimensions shown on the *Custom Image Size?* control. (Note that this distorts the proportions of the original image to some degree if you are not careful to adjust the crop values proportionately.) If you set Image *Size:* to something other than *Custom* after cropping, that option is applied using the cropped size of the image.

Cropping a background

Keep in mind that the settings on the *Crop?* button are expressed in pixels, but they are pixels of the original image, which do not correspond exactly to physical screen pixels once the image has been cropped and resized.



Figure 5. After cropping with Custom Image Size? on

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

Creating a tiled background

Turning on (\checkmark) the *Tile* option in the Background menu displays additional controls in the *Image Type* panel for creating a background by "tiling" or duplicating an image over the entire page.



With the tiling feature, you can achieve a great savings in the storage and memory needed for backgrounds by using small images.

The *Tile?* button turns tiling on and off. When *Tile?* is off, a small image appears only once, centered on the page. The remaining area around the image is the Background color. When you turn *Tile?* on, the page is filled with as many copies of the image as are necessary to cover the entire background area.

Aligning tiles with the page edge

When *Tile*? is on, three horizontal alignment buttons and three vertical alignment buttons appear, and determine how the edges of the tiled images are clipped at the edge of the page. (If the width and/or

Changing the background orientation

height of the image divides evenly into the total width/height of the page, these controls have no effect.)

Changing image offset

The *Offset* value control lets you change alignment of the duplicate images relative to each other. Normally, the duplicate images are laid out in a perfect grid, aligned horizontally and vertically. To add visual interest to the page, you might want to break up this strict grid arrangement. Changing *Offset* from zero moves each successive row or column of images over by the number of pixels specified on the control, creating a diagonal repetition of the images.

By default, *Offset* affects the horizontal alignment of rows, as shown in the preceding illustration. Turning on the *Vertical* button switches the offset to affect the vertical alignment of columns.

Changing the size of a tiled image

When using a tiled background, the source image can be resized and cropped like any other image background. The background is tiled with the sized and cropped version of the image.

Changing the background orientation

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

Design Background			"Computer 1" 🐴 🏲 🎦 🗖 🗙
+ . ※ ↔ Add Edit View E	ilement B <u>uttons</u> Background Palette	List Fullscreen Preview	SCALA
Image Type	Image Settings		Process
Elip Horizontal?			
Flip <u>V</u> ertical?			
Rotate	◀ 0►		

Flipping the background

The two Flip options switch the direction the background faces from side to side and from top to bottom.

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

Normal





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

Normal

Flip Vertical



Changing the background orientation

When both Flip options are applied at the same time, the image is upside down and backwards.



The single-key hotkey for Flip Horizontal is X, for Flip Vertical it is Y.

If you apply one or both Flip options and generate an image you will use again or want to keep, you can click on *Edit* and choose *Export* to save the customized background as a file.

Rotating the background

A background can be rotated in 90° increments around its center with the *Rotate* value control. Used with matching rotation of text and clips, this capability can make authoring portrait-style displays more practical.

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

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

Orientation and movie overlay

The *Orientation* panel is not available if the background is a movie that has the *Use Overlay:* option set to *If Possible* or *Require*.

Using the Background menu in the Main menu

One of the columns in the Main menu is *Background*. The menu that this brings up is he **Background** menu, which looks just like the **Design Background** menu. It opens on top of the Main menu, however, rather than on top of a single-page display.

The reason for this seeming redundancy is that it allows you to select any number of pages at once, and make background-related settings to them all in one operation. Because background size and similar factors typically need to affect many or all pages in a script, using the Background menu together with the Main menu, rather than the Design Background menu, lets you make these changes much more quickly.

Select all the pages to which you want to make a common background change, then click in the *Background* column. You see the Background menu at the bottom of the Main menu. Make all the needed changes to the page settings. Confirm your edits and exit the menu by clicking *Close*, or if there are other pages to edit, you can select them and make their changes without closing and reopening the menu, just like other menus in ICDesigner.

Different page types have different possible options. If you select pages of different types at the same time—picture and animation pages, for example—the options you see in the menu are those of the type you selected last, and are applied only to selected pages of that type.

Background and Design Background menus

The Background menu essentially duplicates the Design Background menu. All the options on it work the same as described in this chapter.

The only functional difference between the two versions of this menu is that it is not possible to change the background color for Plain pages from the Background menu. For that, you must use the Design Background menu.

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Using Design menus

5: Using Design menus



Design menus are where you find all the functions and settings you need to compose individual pages in your script. There is a specific Design menu for each major type of design task. You can see a list by clicking on the right-hand part of the Design combination icon in the **Main** menu or by looking at the toolbar in any Design menu.

The name of a menu reflects its purpose or the type of element it deals with. You can easily switch from one to another at any time. In the Main menu, clicking the main part of the *Design* combination icon chooses the default Design menu, which is usually the **Design Text** menu. But you can go directly to any Design menu from the Main menu by clicking the down-arrow portion of the *Design* combination icon and choosing the menu you want from the drop-down list. You can also use the shortcut key associated with the menu (F2, F5, etc.) at any time in the Main menu or any Design menu.



Although each Design menu has options specific to a particular type of task, there are some features that are common to all Design menus.

(You should read the chapters that describe each Design menu individually to familiarize yourself with any exceptions to the standard features discussed here.)

The menu title bar

The menu title bar includes the name of the Design menu and the name of the page you are currently working on.

In the Design menu title bar is also the Page Switcher. The Page Switcher enables you to move to another page in the script without closing the current Design menu or returning to the Main menu. You can click on \triangleleft to move to the previous page or \triangleright to move to the following page. If you know the page number, between the arrows enter it.



The Design menu toolbar

The Design menus all have an identical icon toolbar similar to the one on the Main menu. Certain icons—*Add*, *Edit*, and *Preview*—are present on both. The Design menu toolbar, however, has other icons, to let you quickly choose different aspects of the page to compose.

Click on an icon to choose the menu you want to work with next. You can also press the shortcut key associated with the menu you want.

5: Using Design menus

Adding elements to a page

- Go directly to the Design menu you want from another Design menu by clicking its icon in the toolbar, or pressing its F-key shortcut.
- To see the Design menu for a particular element, select that element—the appropriate Design menu automatically appears depending on the element type. The *Element* icon in the toolbar is highlighted. There is a Design menu for every type of screen element that you can create or add—Design Text, Design Clip, Design Animclip, and so on. Generically, these are referred to in the User's Guides as Element Design menus.
- To return to working with an element's styles after using one of the other Design menus, such as the **Design Buttons** menu, click the *Element* icon. You see the appropriate Design menu for the element that is currently selected.
- If no element is currently selected when you click the *Element* icon, you see a **Design Multiple Elements** menu in which most options are disabled.
- If another page is showing, navigate to the page you want by using the Page Switcher in the Design menu title bar.

Adding elements to a page

Most types of elements are added to the page through the *Add* icon. Files, special events, draw objects and so on are available from this icon's drop-down list.

The one exception is plain text elements—you simply click on the page background and begin typing to create a text element.

Using the Add icon

Clicking the main part of the *Add* icon opens the File dialog to choose file-based elements such as clips and sounds. You can navigate to any accessible location and add any valid type of file to the page, regardless of which Design menu you are working in at the time.
To add a special event, an image from a TWAIN scanner or camera, or other types of elements, use the *Add* icon's drop-down list to choose the desired item. For more on each type of item you can add, see the following pages:

- Add File(s)
 - ♦ Clips: page 233
 - Animations: page 237
 - Sounds: page 10 in the "Extended Authoring" guide
 - ♦ Text: page 191
- Add Special Event: page 282
- Add from Scanner/Camera: page 115
- Add Text Crawl: page 193
- Add Text Entry Button: page 46 in the "Extended Authoring" guide
- Add Box: page 253
- Add Oval: page 253
- Add Line: page 253

Depending on the type of item you add, the Design menu changes to provide the options needed to work with that item.

Using Edit options

Edit presents options for managing the contents of the page. The available options depend on the menu and the results of a given option may also differ slightly from one menu to another. Most Design menus include the following *Edit* options.

Undo options

Undo and *Redo* allow you to change your mind about the effects of your editing, if necessary. The Undo/Redo support in the Design

5: Using Design menus Using Edit options

menus is the same as described for the **Main** menu in chapter 2: *Undo* takes back the last action you did, and *Redo* restores that action, if you decide that undoing wasn't a good idea after all. Undo and Redo are multi-leveled, meaning that you can step backward through the sequence of your changes by repeatedly choosing *Undo*, and step forward by choosing *Redo*. See page 74 in chapter 2 for a full description of ICDesigner's Undo/Redo functionality.

Undo Page is a whole-page undo. Choosing it returns the current page to the state it was in when you last entered it from the **Main** menu or from another page in any Design menu. If you have just made many changes to a page and realize that it has all gone wrong, *Undo Page* lets you start over more easily than using *Undo* repeatedly.

Cut

Cut deletes information from a page, which can later be pasted. The information that you cut is placed on the clipboard and can be pasted anywhere in the script or another script. The information is available on the clipboard until the next time you choose *Cut* or *Copy*.

Сору

Copy copies information to the clipboard so the copy can be pasted elsewhere in the script, or in other scripts. The information remains available on the clipboard until the next time you choose *Cut* or *Copy*.

Paste

Paste inserts information from the clipboard that was cut or copied. The position of the information after it is pasted depends on the current status of the page:

- if you click on the screen and see the text cursor, the information is inserted at the cursor position.
- if one or more elements are selected, the information is placed down and slightly to the right of the currently selected items' upper left corner.

Dugo	CALIFIC
Bedo	Ctrl+Y
Undo Page	Ctrl+P
Cu <u>t</u>	Ctrl+X
<u>C</u> opy	Ctrl+C
Paste	Ctrl+V
Paste Special	
Delete	Del
Select <u>A</u> ll	Ctrl+A
Appear <u>L</u> ater	Ctrl+F
Appear <u>E</u> arlier	Ctrl+R
Export	Ctrl+E
Snap to <u>G</u> rid?	Ctrl+G
Spelling	Ctrl+S
~	

Edit *****

• if nothing is selected and there is no cursor, ICDesigner remembers the last position the text cursor occupied and inserts the information at this spot.

ICDesigner Tip

To paste to the same position from which the clipboard material was cut or copied, hold down Alt while clicking *Paste* (or press Ctrl+Alt+V). This is good for putting an item in the same place on multiple pages.

The pasted information remains selected on the page so you can easily continue working with it. The information remains on the clipboard and can be pasted as many times as necessary until the next time you choose *Cut* or *Copy*.

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 that ICDesigner can interpret as graphics.

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

Use *Paste as Clip* when the type of data you want to paste would not be useful in its "natural" form. For example, you might copy some columns out of a spreadsheet program to include on a page. If pasted normally, the spreadsheet data would appear on the page as a single text element, and the data would probably not be arranged in columns. Using this option, you could paste in an image of how the copied columns actually look in the spreadsheet. Note that for this option to work properly, the application you cut or copy from must create the bitmap image when it puts the data on the clipboard. Not all applications do this.

Use *Store as a Separate File* when you do not wish for the object you are pasting to become embedded in the ICDesigner script file, but instead want it to remain a separately referenced file. This can help

5: Using Design menus Using Edit options

keep the script file from becoming too large when you are using several copies of the same item. When you choose this option, you see the File dialog. Enter a location and filename. ICDesigner creates a file containing the clipboard object with the name and location you gave, and displays the object on the page. The script references the file just as if you had Added the file.

Delete

Delete deletes information which cannot be recovered. When you choose this option, a warning dialog asks you if you are sure you want to proceed. Deleting one or more pages from a script affects only the current script, not any files.

Select All

Select All automatically selects all elements on the page. You may want to do this, for example, to give them all the same pause setting. In some situations it is faster to select all elements on the page and then Ctrl-click on those you want to exclude from the selection rather than clicking individually on all desired elements.

Appear Later, Earlier

Appear Later makes the selected element appear on the page later than other elements. Effectively, this moves the element to the bottom of the **Design List** menu.

Appear Earlier makes the selected element appear on the page earlier than other elements. Effectively, this moves the element to the top of the **Design List** menu.

The *Appear Later* and *Appear Earlier* options also have the effect of making the selected element move in front of or behind elements that overlap it. Use *Element Layering* to control how elements cover each other independently of their temporal order. See page 161 for more information.

Export

You can use *Export* to save various kinds of items from ICDesigner. An exported item is saved as a separate file. The type of file that results depends on what you export.

The following can be exported:

- Selected elements
- Backgrounds
- Entire pages
- Color palettes

When you choose *Edit* > *Export*, you see the Export Options dialog.

Export Options	? ×
Wha <u>t</u> to Export: Se	election 🛛 💆
Export <u>a</u> s Type: Image 🛛 💆	
Sav <u>e</u>	<u>C</u> ancel

This dialog allows you to choose what you want to export from the *What to Export:* pop-up. The possible choices are *Selection, Back-ground, Entire Page*, and *User Palette*. (If no element is selected, *Selection* and the *Export as Type:* pop-up do not appear.)

Choose what to export, and if necessary set *Export as Type:* to *Text*, *Image* or *Button* (see next section). Then click the *Save...* button to open the File dialog, where you can enter a name for the exported file and choose a location to save it.

Exporting a selection

When *Export Type:* is *Selection*, you also see the *Export as Type:* pop-up in the dialog. It always gives the choice *Image*; if the selection consists only of text elements the pop-up also lists *Text*. If the selection is a button, the pop-up also lists *Button*.

Selected elements of any type can be saved as 24-bit BMP image files; text can be exported either as an image or as a text file. All styles and visible options that have been applied to the selected elements become part of the image file.

Previewing a page

When you export several elements at a time, they are saved as a single image file, retaining their relative positions. The space between elements, and any transparent areas within exported elements, are saved as black, which can easily be made transparent again when loaded back into ICDesigner by turning on the *Chroma Key?* option.

Exporting text elements as *Text* saves a standard ASCII .TXT file containing the text of the selected elements.

Exporting a button as *Button* saves an ICDesigner-specific .BTN file, which defines the appearance and other properties of the button.

Exporting a background or an entire page

Exporting either *Background* or *Entire Page* results in an image file the size of the page. *Background* saves just the background image with its styles and options (including tiling), without elements. *Entire Page* saves the background and all visible elements. For more on backgrounds, see chapter 4.

Exporting a color palette

Exporting *User Palette* saves the current ICDesigner User color palette, a collection of user-defined 8-bit colors. It is saved in an ICDesigner-specific .PAL file. For more on the User palette, see chapter 13.

Snap to Grid?

Snap to Grid? turns on and off constraint of movement to the grid positions. Turning it on makes it easier to align and space objects on the page consistently. For more on the grid, see page 156.

Spelling

Spelling begins checking the spelling of the text on the current page. For more on the spelling checker, see page 207 in chapter 6.

Previewing a page



Preview shows you the current screen page so you can see and hear all elements on the page, including their wipes.

However, *Preview* in a Design menu does not show you how the page wipes in, or let you hear a sound that 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** menu.

Returning to the Main menu



The *Main* icon closes the Design menu and returns to the **Main** menu.

The page is added to the script and listed in the Main menu. The page is saved permanently only when you save the script.

Choosing *Undo* from the *Edit* drop-down immediately after exiting to the Main menu returns you to the Design menu and undoes the last change you made to the page.

The color bar

Several Design menus include a color bar that you can use to assign colors to the elements and styles on the page. You change the color assigned to an element or style by dragging the color you want from the color bar to the small colored block or "color chip" on a menu button.



The palette is divided into color sets, each containing 16 colors. You navigate from one set to another by using the Color Set Switcher in the color bar. Each set in the palette is also assigned a number and, if you know the number, you can enter it in the Switcher.

The colors in a palette belong to the User palette, and are initially determined by ICDesigner, but you have complete freedom to change the palette and mix colors as necessary. Details about working with palettes are discussed in chapter 13, "*Adjusting colors*".

Tab panels

Tab panels

All Design menus, like most other menus in ICDesigner, comprise several tab panels. Tabs near the top of each menu show the names of the available panels. The panels organize the menu functions, so that the menu is not cluttered with too many options at once, and make it easier to see which options are related. In certain contexts a panel's options do not apply to the current situation, in which case the panel is disabled.

Click a tab to display its panel. You can also cycle through the panels with the Ctrl+Tab and Shift+Ctrl+Tab shortcuts.

All Element Design menus share the *Position, Effect, Opacity,* and *Misc* panels, as most of the options and styles they contain can be applied to all types of elements. Certain types of elements have additional panels with styles that are unique to that type. Depending on the element type, certain options that are present for other element types on common panels are not available.

Adding elements using drag and drop

When working with Design menus in a window on the desktop, ICDesigner lets you take advantage of the drag and drop feature of Windows to add elements to a page.

Dragging the icon for a graphics file into the Design menu window adds that file as a clip, animclip, or movieclip. ICDesigner tries to position it at the location on the page where you dropped it. 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 appear at the bottom of the **Design List** menu).

If you drag into the Design menu window an icon for a type of file that is unrecognized or cannot be added to an ICDesigner page, you see a message saying it cannot be added.

Using different Design menu view options

ICDesigner has features that let you adjust what is visible when you are working in the Design menus.

Using the scroll bars

A Design menu can cover the lower portion of a screen page. If any portion of the page is covered by a Design menu or because the window is not large enough to display the entire page, you see vertical and/or horizontal scroll bars in the Design menu. The scroll bars disappear when they are not needed, to leave more of the page visible.

ICDesigner can scroll the page display automatically to help you see what you are doing. For example, if you drag an element below the top of a Design menu, ICDesigner scrolls the page so that you can see the entire element.

Hiding the Design menus

To see the covered portion of a page obscured by a menu without scrolling, you can press the secondary mouse button. You can still access the menu and apply its options, however, by using the keyboard and some special key combinations. (See appendix A, *"Keyboard short-cuts*", for more information.)

When the menu is hidden, press the secondary mouse button to see it again.

If you are running in a window and your desktop is large enough, you can simply enlarge the window so that the Design menus never obscure the page.

View icon options

The drop-down available from the toolbar *View* icon offers several options that control what you see in the Design menus.

• *Show Selected Only?* is an option that is useful when you need to do a lot of work with one or more particular elements on a crowded page. When on, this option hides from view any ele-

5: Using Design menus Selecting elements

ments that are not currently selected. The selected elements remain visible, so that you can see the changes that affect them without their being obscured by other elements.

- *Hide Global Elements?* lets you hide all Global Text Crawl elements. They can still be drag-selected or selected in the List menu.
- *Show Guide Lines?* lets you view or hide any guide lines that you may have defined in the Design menus for layout reference purposes. Defining guide lines is described starting on page 158.
- *Show Grid?* lets you view or hide a predefined page grid, which can be used to constrain the positioning of elements on the page. This setting is independent of the current state of the *Snap to Grid?* feature. Adjusting the grid is described starting on page 156.

Selecting elements

When you select an element, it is highlighted with a dotted rectangular frame. A selected element that can be resized, such as a clip, also has graphic handles on its corners and edges. In the **Design List** menu, selected element rows are also highlighted. All selected elements are affected by whatever you do next.

There are several ways of selecting elements in the Design menus:

- 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 (↑↓) to select the next or previous element (in the **Design List** menu order)

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 elements you want
- Shift-click on an element to select a series of elements

• Choose *Select All* from the *Edit* drop-down or press Ctrl+A to select all elements on the page

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 the selected elements move together and maintain 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) changes the attribute for the selected elements that have that style already applied. Turning a style on applies it to all selected elements; turning a style off removes it from all. However, the elements' prior style settings are preserved unless they are explicitly changed.

Note that when you select more than one element at a time, and they are of differing types (for example, a text element and a clip), the Design menu you see is the **Design Multiple Elements** menu.



Using the grid

This menu is a subset of the other element Design menus that includes only the panels and options that can be applied to all the selected element types.

The controls in the menu can display only one setting at a time. When more than one element is selected, the displayed settings for the options in the menu are those of the last-selected element. Changes are still 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.

All elements remain selected even if you change from one Design menu to another. To cancel the selection, click anywhere on the page that is outside the area of the selected elements.

Using the grid

The *Snap to Grid?* option helps you to easily position elements so that they line up consistently on the page. Choose *Snap to Grid?* from the *Edit* icon of the Design menu to turn it on and off. The default setting is off.

When on, this option allows elements to be positioned only at specific grid points. When you drag with the grid on, the elements "snap" into the possible positions defined by the horizontal and vertical grid size values rather than moving smoothly. The grid also constrains the resizing of elements. Just turning on the grid, however, does not cause elements to move or change size.

You can see a grid of points representing the current grid settings by turning on (\checkmark) the *Show Grid?* option in the *View* drop-down.

Grid options

You can adjust the coarseness and origin of the grid in the Grid Settings dialog. Click *Edit Grid* in the *Misc* panel of any Element Design menu to see it. When you enter this dialog, the *Show Grid?* option is automatically turned on. Within this dialog, you can adjust the grid either graphically or numerically.



Resizing the grid

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

To edit the size of the grid graphically, drag the solid graphic handle, which is below and to the right of the origin (initially the upper left corner of the page). To edit numerically, highlight the value in the *Grid Size* control that you want to change (width or height), and use the value control to increase or decrease the number.

As you edit the values, you see the grid change. With coarser settings, the grid dots become larger.

Using layout guides

Moving the grid on the page

You can reposition the entire grid relative to the page, so that even with coarse grid settings you 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 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 be set as the origin.

When you are finished in the Grid Settings dialog, click *Done*. The grid settings apply to all pages in all open scripts, but have an effect only while you are editing a page.

Grid settings can be retained for future use by clicking *Save as Defaults*. They are not saved with scripts.

Using layout guides

Another feature provided in the Design menus to make aligning objects easier is the layout guides. Layout guides are optional horizontal and vertical lines that extend across the entire page. They are visible only in the Design menus. You can create and position them wherever you like. The lines give you convenient references when you are trying to position several elements consistently on the page.

No layout guides are defined by default. You use the Guide Lines Editor dialog to create and move them. Click *Edit Guide Lines* on the *Misc* panel of any Element Design menu to see it.

Guide lines are automatically turned on when you open the dialog.

Layout guide options

When the dialog is open, 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 (\checkmark) and off while in the dialog using the *Show Guide Lines?* button.

Creating guide lines

There are two ways to create a guide line:

- Click anywhere on the page while in the Guide Lines Editor to make a line at that point. The new guide line is vertical or horizontal depending on whether you clicked closer to the sides of the page or the top/bottom.
- Click *Add Line*. The new guide line is 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*.

The new line appears solid, indicating that it is the current line. Any other guide lines are dashed. A small arrowhead in the middle of the current line points to the left side, right side, the top or the bottom, depending on which is the edge that represents "0" for that line's position value.



Using layout guides

You can create any number of guide lines.

Selecting guide lines

To help you keep track of them, the guide lines are 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 from the page edge they are: line 0 is the one 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. You can use this value control to select a line, or alternatively, click on the line. The selected line becomes solid, and its Edge, Line Number, and Line Position settings are displayed in those controls.

Positioning guide lines

If you used *Add Line*, the new line is positioned relative to the last guide line you created for the current edge. Newer lines are positioned farther from the edge. The *Line Position* value control shows 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, but you must click directly on the line to avoid creating a new line instead. In repositioning guide lines, it can be easier to use the *Line Number* control to select the lines, then make precise adjustments with the *Line Position* control.

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

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*.

Clicking this button repeatedly removes successively lower-numbered lines.

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 appear on pages in the Design menus as dashed lines whenever the *Show Guide Lines?* option in the *View* pop-up is on (\checkmark). The lines do not appear in playback.

Guide line settings can be retained for future use by clicking *Save as Defaults* in the *Misc* panel. The settings are not saved with scripts.

Stacking elements

The sequence in which elements and events are listed in the **Design** List menu determines when the elements come into view and when page events take place. However, the sequence also represents the position of each element in the "stack" of elements that is built up as you compose the page.

Each new element appears on the top of the stack. The elements that are later in the List menu are on top of the earlier elements. The later elements cover earlier elements wherever they occupy the same screen area. When you move an element in the List menu you change its position in the stack, even if its position on the screen page itself does not change.



one element may partially cover another

or it can completely hide it

Though you can always change this stacking order by changing the sequence of elements in the Design List menu, ICDesigner also lets you change the stacking order from any Design menu. Ensure that the element you want to reposition in the stack is selected and click *Edit*.

Stacking elements

• Choose *Appear Later* (or press Ctrl+F) to make the element appear later on the page, moving the element in front of the elements that are above it in the stack:



or

• Choose *Appear Earlier* (or press Ctrl+R) to make the element appear earlier on the page, sending the element behind the elements that are below it in the stack:



A passive element sent to the top of the stack (made as late as possible) becomes the last item in the section of passive elements in the Design List menu. However, the element remains a passive element, so doing this affects only the visible stacking order, and has no effect on the temporal order in which elements appear.

An independent element sent to the top of the stack becomes the last item in the section of independent elements.

An element sent to the bottom of the stack (made as early as possible) becomes the first item in the appropriate section.

For more information about the List menu, see chapter 10, "Working in the Design List menu".

Using layering

Although having later elements appear on top of earlier elements is usually what you want, at times you might need to specify a stacking of elements that is independent of timing. For example, you might want to make your clip "Bird.bmp" wipe onto the page behind the "Trees.bmp" clip that is already on the page. You can do this in ICDesigner with the element layering feature.

ICDesigner allows you to specify elements as if they existed on independent layers, so that they can then be depth-arranged freely with relation to one another. Depth-arranging elements this way has no effect on their time ordering in the List menu.

There is no limit to the number of element layers, or to the number of elements that can be at a given layer level.

You adjust layering by changing a selected element's layer number. This can be done in either of two ways:

- changing the value in the *Element Layer* control on the *Position* panel of the Element Design menus.
- changing the layer number in the **Design List** menu's *Layer* column.

By default, elements are created in Layer 0. Changing an element's layer number from 0 to a higher number ensures that it will always appear on top of any elements with a lower layer number. Keep in mind that layers are only a designation of this depth relationship of overlapping elements. Layers do not exist as entities that you work with directly.

There is no difference in the way you work with elements on different layers. You can always directly select and manipulate any element on any layer. The one side effect of layering is that for any elements with

Saving settings for new pages

layer numbers other than 0, a legend appears in the upper left corner of their selection frames, indicating the element's layer number.

Layer number legend for non-layer-0 elements



You can change an element's layering at any time. First, select it. Then, in the *Element Layer* control on the *Position* panel, use the arrows to adjust the layer number.

ICDesigner Note

Negative-numbered layers are not possible. The background is in layer 0, and nothing can move beneath it. Or, in the List menu, click in the element's *Layer* column to open the **Layer** menu, where you see the *Element Layer* control. Watch the page to see how the element moves in front of or behind other elements, until you see what you want.

As with other element attributes, new elements you create take on whatever value is specified in *Element Layer* at the time. So new elements are created in the layer that is the last layer number you specified, or the layer of the last element you selected, until you change the layer number explicitly.

Saving settings for new pages

If you want the various style and text layout settings that you have made in the Text menu to be applied by default to all new screen pages, go to the *Misc* panel and click on *Save as Defaults*. The values of all the saved settings will be applied to any new pages you create.

If you instead want to restore the original ICDesigner default settings, click on *Restore Defaults* in the *Misc* panel. This does not have any immediate effect—existing pages do not change. The default settings will be applied to any new pages you create.

foChannel E S

Working with text

6: Working with text

To make text editing as simple as possible, Scala InfoChannel Designer 3 lets you work with text in ways similar to most word-processing programs. At the same time, ICDesigner gives you easy access to sophisticated design tools that enable you to control virtually all aspects of the appearance of the text.

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

In addition, you can spell-check the text in your scripts, so that spelling errors do not compromise the professionalism of your productions.

As you compose and edit text in ICDesigner you work directly on a screen page, against the background you selected. To work with text, you use the **Design Text** menu.



When you have created a new screen page by adding a background image from the Main menu, you go directly to the Design Text menu. If the page already exists in the Main menu, there are several methods you can use to see it with the Design Text menu:

- in the Main menu Thumbnail view, double-click on the page's thumbnail.
- in the Main menu List view, double-click on the page name.
- select the page in the Main menu and click on the main part of the *Design* toolbar icon.
- select the page in the Main menu and press F2.

In each of these cases you see the screen page and any elements—text, clip art and/or drawings—that are already part of the page.

This chapter begins by reviewing some features and functions in the **Design Text** menu that are common to all Design menus, and continues with a review of the basic techniques for typing and editing text.

The chapter also introduces you to certain functions of the style panels, which you use to fine-tune the appearance of text (discussed in detail in the next chapter).

Typing text

There is a text cursor on the screen page whenever you work in the **Design Text** menu. If the screen page is empty or if text is the first element on the page, you see the cursor immediately when you see the page.

If you don't see a cursor, click on the spot on the background where you want to begin working. If you do this when you are working in most other Design menus, for example the **Design Clip** menu, the menu automatically changes to the Text menu.

When you see the text cursor it is active, and you can begin typing immediately, or you can point and click anywhere to move the cursor to a different position before you start. As you type, the cursor moves

6: Working with text Typing text

to the right. When it is positioned within a word or line of text, any new character or text is inserted and any existing text is pushed further to the right.

As you type, you have access to all the standard alphanumeric keyboard characters. In addition, when you are working on a screen page, ICDesigner lets you create a bullet (•) symbol at the cursor position by pressing Ctrl + . (period). A bullet is useful at the beginning of a line to make items in a list stand out.

Text elements

When you click and type text on a screen page, you are creating a *text element*. If you click on various places on the page and type, you create several text elements. A text element can be a single word, a line, or several lines. Each text element is independent of the others, and can have entirely different settings that govern its appearance, position, and movement on the screen.

The following illustration shows 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 posi-



tioned anywhere on the page, and can overlap each other, and even run off the edge of the background.

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

Selection and editing

In ICDesigner your options are different depending on whether a complete text element is selected, is being edited, or is unselected. Therefore it is important to be able to tell which is the current state. The following illustrations show the difference.

A dashed rectangular selection frame that appears around a piece of text when it is selected is the sign that it is a text element and not just one line of a larger element. The top element shown here has no frame, so it is not selected. Nothing you do on the menus directly affects an unselected element.



The bottom element has a frame, indicating it is selected. The frame encloses the entire element. If the selected element is a multi-line element (like the "Gold Silver Nickel Copper" element in a previous illustration) a single frame surrounds all the lines.

The options you choose affect the selected element as a whole. Any number of text elements (or other elements) can be selected at one time. Options apply to all selected elements.



The two examples above show a text element that is being edited. The first has a cursor in it, the second has a segment of its text highlighted to show that those characters are selected. In the first, you would not see any changes you make to a style, for example, until you started to type. The characters would then appear in the changed style. In the second case, the highlighted characters would change as soon as you changed the style.

When a segment of text is selected, any text you type replaces the selected text. However, the same is not true when a full text element is

selected. If you type when a text element is selected, the element switches to editing mode and the new text appears at the end of the element.

Selected elements versus selected segments

Any option that you can apply to a selected segment of a text element can also be applied to the full element. However, there are options that 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, Del

The following can be applied only to text elements as a whole:

- Wipes
- 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
- Layering
- Timing settings
- Branch options

6: Working with text Selecting text

Selecting text

You can select text using only the keyboard, only the mouse or a combination of the two. The method you use generally depends on 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 you use, the text is either highlighted in a different color or is enclosed in a dashed frame, as in the preceding illustrations.

In either case, the selected text is affected by whatever you do next; for example, change the color or apply a style, delete it, and so on. The selection frame indicates that, in addition to these options, you can also apply options available only for text elements, such as apply a wipe, specify a pause setting, change the alignment or drag the text to move it.

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

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 that overlaps the one you want. The element is selected and enclosed in a frame.

or

• Use the keyboard up and down arrows.

or

• Drag select it with a dashed box, as described in the sub-section To select several elements on page 176.

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 Home or End, and then use the left/right arrows to move the cursor where you want it.

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 again 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: Working with text Selecting text

To select part of an element:

Place the cursor where you want it, then:

- Drag over the characters you want to include in the selection.
- 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 $+ \downarrow$ also.



To select several elements so you can handle them as a unit:

• Point to a spot on the page that is close to but not on the first text element you want to include in the group. Then, drag the pointer diagonally. You see a dashed box that adjusts 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 appears around each element that the box touches as you drag, showing you which ones you are selecting:



or

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

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

• Selecting the element and then typing.

or

• Double-clicking in the element to get the cursor at that position, then typing.

Multi-line text elements

By default, ICDesigner lets you create multi-line text elements—elements with their text on more than one line on the screen. Multi-line text elements in ICDesigner are much like text columns in a word processor or desktop publishing program. You can adjust the column's width, and when the text element length exceeds the column width, ICDesigner "wraps" text to a new line below the first.

6: Working with text Selecting text

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

You control when and where ICDesigner wraps text by adjusting the margins for an element, and by setting certain options on the *Alignment* panel. See the section "*Multi-line text settings*" on page 187 for details. You can adjust the distance between lines in a multi-line text element using the *Line Spacing* attribute, discussed on page 223 in chapter 7.

Correcting mistakes

If you make a mistake while typing, you can correct it by using the Backspace (\Leftarrow) and Delete (Del) keys. Backspace deletes the character to the left of the cursor. Del 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 on page 174, "*Selecting text*" and edit the text using one of the options described on page 182, "*Editing selected text*".

Joining and breaking lines

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



6: Working with text Selecting text

Another way to join text elements is to press Del when the cursor is at the end of a text element, which joins it with the text element that was typed immediately after it (is later in the List menu).



Pressing Enter (\dashv) creates a new text element below the current one, with the same style settings as the original element. Any text to the right of the cursor becomes part of the new element.

The new line is 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 determines the left margin and position of the first character in the new line. (See page 183, "*Laying out text on the page*".)

The cursor moves down in line-space increments determined by the fonts currently in the element and the *Line Spacing* attribute. If different fonts are applied to the line, the spacing can vary.

Pressing Enter several times in succession moves the cursor down but does not create any blank or empty lines in the process. Pressing the Backspace key, for example, would move the cursor (and any text that accompanies it) back to its starting position.

Breaking up text elements

Sometimes you want to use styles that can be applied only to whole elements with individual words or letters. ICDesigner has a special keyboard shortcut that 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 elements flash when you do this.

So, for example, to have each letter of a word wipe in separately, first type the word as a single element and place it where you want it. 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 wipes to them.

Moving within text

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

As you have seen, most of the familiar keys you use in word processing applications work the same way in ICDesigner. There are some key combinations that are unique to ICDesigner, however. A complete list of the many keyboard shortcuts that can be useful when editing text in ICDesigner can be found in appendix A.

Moving selected text

Once you have a text element on a page, you can move it around by just dragging it to the new desired spot. If the element is either unselected or fully selected, you can do this in one click-drag motion.

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

• double-click on the element first to select the whole element

or

• press Esc, then point to a non-transparent part of it 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) move to the new position. All elements in the selection move together but maintain their original positions relative to one another. The elements

6: Working with text

Editing selected text

remain selected so you can refine the position if 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 that they move in the horizontal or vertical direction only by holding down the Shift key as you drag.

There are ways to position elements precisely:

- 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 (↓↑←→) to move the selected element(s) one pixel at a time in the direction indicated by the arrow

Note that the *Snap to Grid* and alignment options, when on, restrict your freedom in positioning text elements.

Editing selected text

Regardless of how you select it, text is affected by each action you take until you deselect it 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 Del.

- If a *segment* of a text element is selected, typing deletes the selected part and replaces it with what you type.
- If the *full* element is selected when you start typing, ICDesigner switches to editing mode, places the cursor at the end of the selected element, and inserts your typing there.

With selected text on a screen page, you have many editing options. For example, you can change its color and its style. When one or more complete lines of text are selected, you can change the position of the text on the page, the alignment, and the wipe(s) applied to create onscreen movement.

Changing the color, style and wipes is discussed in chapter 7, "*Apply-ing text styles*". Alignment is discussed in this chapter on page 183, "*Laying out text on the page*".

Pasting styled text

You can cut, copy and paste text elements or selected segments of text elements as you wish.

If you paste when the cursor is in a text element, the pasted text is 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 is added to the end of an element or becomes 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.—are preserved as much as possible. For example, if you cut or copy a segment of a text element, the pasted element retains all characteristics of the original regardless of whether you paste it into another text element, or create a new element by pasting when the cursor is by itself on the background.

However, a pasted segment does not retain the options, such as a wipe, that are only possible for full elements. The pasted segment "inherits" the wipe, position, and other such settings from an element it is pasted into, or it takes on whatever are the current or most recent such settings if you do not paste it into another element.

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, a clip or a button—can be placed anywhere. You can point and click on any

6: Working with text Laying out text on the page

unoccupied spot on the screen page and establish the position for the cursor and the left margin of a new line of text.

In addition, 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, wherever it is, determines the left margin of any lines that may be created when you press Enter (\downarrow), or lines of a multi-line element.

Although this flexibility is one of ICDesigner's most useful features, there are occasions when you need to impose more structure. When this is necessary, ICDesigner enables you to align the text in various ways, specify per-element margin settings to create multi-line text "columns", and define tab stops.

Margins and word wrap settings

Every text element in ICDesigner has its own independent left and right margins. The margin positions are shown by the two black triangle markers on the tab/margin bar in the Text menu. As you click on

Scala: Broadcast selected element multimedia right margin marker 2 left margin marker Design Text "Scala: Broadcast multimedia" 🖪 🏲 🌅 X 6. ÷ ⊞ Ē $\overline{\mathbf{\omega}}$ SCALA Edit 🔻 Element Buttons Background Palette tab/margin bar -10 Front Outline Shadow Smooth? 🧹 in. Out Font: Segoe Bold 75 B U = -

text elements in different parts of the page, the positions of these markers changes.

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 follow the text element as you move it around the page, maintaining the same word wrap width.

ICDesigner Note

If you move a text element so that a margin is off the screen, the margin marker changes from solid () \checkmark to hollow () \triangleleft and is placed at the edge of the tab/margin bar. Click on the hollow marker to set the margin at the page edge. To adjust a margin, point to the margin marker and drag it to the new position. As you move the arrow, you see a vertical line on the screen page. The line follows the movement to help you visualize the position of the margin on the page. The line disappears when you release the mouse button. You see the text in the element wrap to additional lines if necessary to fit within the margins.

By dragging elements and adjusting the margin positions, you can create text columns of any width at any location on the

6: Working with text Laying out text on the page

page. For more precise control of the column width, you can use the *Word Wrap Width* attribute on the *Alignment* panel of the Text menu.

Word Wrap

Word wrapping is controlled by the *Word Wrap?* option on the *Alignment* panel of the Text menu.

If you do not want an element to wrap, regardless of its width, turn *Word Wrap?* off. This allows a long text element to extend off the screen on both sides, as one long line. This is needed with the "Crawl" wipe, to create a scrolling banner across the screen like a TV news bulletin. It also might 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 (\checkmark). Doing so ensures that the line will wrap whenever it becomes longer than the word wrap margin. This even works 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 the section, "*Displaying variables*" at the end of this chapter for more information on embedded variables.

Page Margins

ICDesigner predefines left and right page margins that are slightly indented from the edges of the screen with the *Page Margin*s attribute on the *Misc* panel of the **Design Text** menu. Its settings are used mainly to determine the position of text when you apply an alignment option, as described in the next section. However, they also provide the default position of the left and right margins for new elements.

Page Margins ┥ 10 🏲 ┥ 10 🏲

Alignment

The Design Text menu includes three alignment options:

E	(main)	
Aligns elements along the left margin	Centers elements between the left and right margins	Aligns elements along the right margin

To apply one of these alignment options, click on the corresponding button. (The button appears pushed in and highlighted when the option is applied.) Click again to stop applying the alignment. You can apply only one alignment option at a time to an element. All three options can be and normally are left off, to allow complete positioning freedom.

If the cursor is positioned in a text element, or if several elements are selected, the text is aligned immediately. Otherwise, the cursor moves horizontally to the appropriate position on the page and new text is automatically 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 menu. (Alignment can also be applied to a clip—see chapter 8, "*Working with clips and draw objects*".)

When you try to move text that is affected by an alignment setting, the movement is restricted to vertical movement only. 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.

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. You can, for example, have a multi-line text element within which the text is right-aligned, while the text element itself is aligned along the left page margin.

Settings for multi-line text alignment are made in the *Alignment* panel of the Text menu with the *Horizontal Text Alignment* pop-up. Use the

6: Working with text Laying out text on the page

pop-up to choose from the four options: *Auto, Left, Center,* and *Right*. The default setting is *Auto*.

You use the settings on the *Horizontal Text Alignment* pop-up in the *Alignment* panel together with the alignment options in the *Text* panel to affect your multi-line text in the following ways:

Auto: The alignment of a multi-line text element within its frame matches the left, center or right alignment of the element as a whole within the page margins, as selected in the Design Text menu. For example, if the element is centered between the margins, the text within the element is also centered within its frame. If none of the three alignment options in the Text menu is selected, the text in a multi-line text element is left-aligned.

Left: Multi-line text is left-aligned within its frame, independent of the alignment buttons in the Text menu.

Center: Multi-line text is centered within its frame, independent of the alignment buttons in the Text menu.

Right: Multi-line text is right-aligned within its frame, independent of the alignment buttons in the Text menu.

The following diagrams illustrate how the text alignment options work together. The first row shows how the Auto setting for *Horizontal Text Alignment* matches the left, center, and right settings of the alignment buttons in the *Text* panel.



The first two screens in the second row show how multi-line text elements can have alignment independent of the *Text* panel alignment options. The last shows how multi-line alignment defaults to left when there is no alignment button pressed in the *Text* panel.



Tab stops

Tab stops let you arrange text (and other elements) in columns and, when necessary, ensure that the same amount of space is consistently used between them.



Tab stops in ICDesigner work much like they do on a typewriter or word processor. Rather than creating a series of blank spaces by repeatedly pressing the spacebar, you set tab stops, which serve as horizontal

6: Working with text Laying out text on the page

positions across the page at which text will automatically line up. Tab stops apply to the whole page, unlike word wrap settings, which can be different for each element.

In ICDesigner, pressing Tab (-) inserts an invisible tab character, which moves 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 menu.

ICDesigner predefines and positions a series of tab stops (represented by white triangles) at intervals along the tab/margin bar. With each press of \vdash , the cursor and any text to its right move rightward to the nearest tab stop, then to the next, and so forth. Some examples illustrate how this works in practice:



When you reposition text elements containing tab characters, the spaces in the element created by the tabs changes as the element's relation to the fixed stops changes. After moving text containing tab characters, you might need to modify the tab stops or the number of tab characters in the text to keep the intended alignment.

You can press $rac{}$ at any time to insert a tab character in the element you are working with on the screen page.

Adjusting tab stops

To adjust tab settings, drag each tab stop you want to adjust to a new position on the tab/margin bar in the Text menu.

You cannot add or remove tab stops. If necessary, you can move unneeded stops to the left or right end of the bar to ensure that they have no unexpected effect when you move text (or another element) that includes a tab character.

Importing and exporting text

When the Design Text menu is open, the *Add* icon and the *Export* option on the *Edit* drop-down allow you to load and save text files from the current page. When you choose either of these options, you see the File dialog.

Importing text

To import text, click *Add* and navigate in the File dialog as necessary to locate a plain ASCII text file. ICDesigner imports approximately 1000 characters from the beginning of the file into a single text element. It gives all the text the current font and styles. The resulting text element can be manipulated just like a text element that you typed in.

Exporting text

Text can be exported either as text or as a clip that contains an image of the text with its ICDesigner font and styles.

To export, you must first select all the text you wish to save. If you select several elements to save as text, ICDesigner saves them in the

order you selected them. You can also save a selected segment of a text element.

When you have selected what you want to save, click *Edit* and choose *Export*. In the Export dialog, choose whether you want to export as *Text* or *Image*, then click *Export*... to open the File dialog. Enter the file name and location you want.

Any selected elements other than text are ignored if you have chosen to export as Text. The result is either a plain ASCII text file containing the text you selected with carriage return/linefeeds at the ends of text elements, or a 24-bit BMP image file.

Displaying variables

One of ICDesigner's special features is that it lets you display the value of *variables* in ordinary text. You do this by embedding the variable in the text, which simply requires that you type the name of the variable with an exclamation point (!) in front of it. The following example uses the ICDesigner system variable TIME to demonstrate this:



When ICDesigner runs a script, it automatically substitutes 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 had in the Design menu. The variable name can have any styles, but you must be sure that the entire variable name has exactly the same styles. If there are any differences in style within the variable name (including the "!"), ICDesigner will not recognize the variable, and its value won't be displayed. There must not be a space between the "!" and the variable name.

The *Update* option, described in chapter 7, allows you to adjust how long ICDesigner continues to update the value of a variable displayed in playback.

Working with variables in ICDesigner is covered in chapter 3 of the "*Extended Authoring*" guide, "*Branching and using variables*". In particular, see the section, "*Displaying variable values*" on page 96.

Using Text Crawls

A Text Crawl is a special kind of text element, something like an element with a built-in wipe. It allows 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 lets you specify different types of source for the text, process the text for display, and define a "window" within which the text moves.

A unique capability of Text Crawl elements is that they can be made "global", such that they are specified once for the entire script, and continue to run over all pages, independent of page wipes.

Creating a Text Crawl

Although a Text Crawl is a text element that in most ways can be treated just like any other text element, creating one is somewhat more involved. You cannot convert a regular text element into a Text Crawl, you must create the crawl element specifically.

Choose *Add Text Crawl* from the *Add* drop-down on the Design menu toolbar.

6: Working with text Using Text Crawls

You see a text element consisting of the word "Crawl". The element inherits the current set of text styles. However, unlike a normal text element, the Text Crawl element has graphic handles on its dotted frame, indicating that it can be resized.



The **Design Text Crawl** menu that you see when this element appears is identical to the Design Text menu except that it has an extra tab panel, *Crawl*. You need to use the controls on this panel to tell the crawl element what text to display and how to display it.

Defining the text source

The word "Crawl" that you see in the new element is only a Design menu placeholder for the text that will appear during playback. It is there to show you the text styles that you apply to the element. The actual playback text can be specified in one of several ways, which you choose from the *Crawl* panel's *Text Source:* pop-up:

- File the crawl text is contained in a text file
- Expression the crawl text is contained in an expression

• Cued Expression– the crawl text is contained in an expression that can be updated via a cue signal

A text file source

When you choose *Text Source: File*, the *Text File*: button lets you open a File dialog to choose the file. The file can be of any length, but must be a standard ASCII text file. All of the text in the file is crawled before looping.

If the contents of this file change after the time the text crawl begins, it is not reflected until the next time this text crawl element is displayed. That is, updating the text file during the crawl does not cause the currently moving crawl text to change.

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

An expression source

When you choose *Text Source: Expression*, you see a *Text Expression:* text box. Here you can enter an expression that determines the crawl text. The expression can contain any variables, operators and text functions that ultimately evaluate to a text string.

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

"Weather Alert - Severe thunderstorms expected!"

"SALE TODAY: !SALEITEM @ ONLY !ITEMPRICE"

"Happy New Year !(SYSTIME(YEAR))!!!!!"

The contents of variables can be updated while the crawl progresses, and if the crawl is set to loop, each repetition reflects the current variable value at the moment that iteration begins. However, the displayed

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Using Text Crawls

variable value cannot change "live" while crawling. The expression is evaluated at the beginning of the event, and at the beginning of each repeat, if any.

A cued expression source

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

The advantage of the cued source type is that it responds to an external

ICDesigner Note

The expression for a cued update does not necessarily 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. "cue" signal that indicates when to start crawling a text segment. Typically this is used when the *Text Expression:* box includes a variable that 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. Thus you can have a continuous text crawl that nonetheless can be updated at arbitrary intervals with a series of text messages.

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 through the Windows Scripting EX).

Using a cued source

A cued Text Crawl element works by operating in tandem with another process—usually a series of events in the ICDesigner script or a program in another scripting language accessed through the ICDesigner Windows Scripting EX. Two shared variables are involved: a *cue variable*, and a string (text) variable that 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 like this:

- 1. The Text Crawl element appears.
- 2. The Text Crawl element sets the cue variable to 1, and begins monitoring for a change in the value of the cue variable.
- 3. The other process updates the contents of the text variable, then zeroes the cue variable.
- 4. When the value of the cue variable changes to 0, the text crawl element "sees" this as indicating that there is fresh information to display.
- 5. The text crawl element evaluates the expression with the new variable value, and starts crawling the resulting text.
- 6. 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 that arrives while a crawltext has begun but not moved fully into view does not interrupt that crawltext.
- The Text Crawl element does not "remember" a cue signal that arrives while it is not ready.

When there is no more text available from the source, the source process should set the cue variable to -1 (or any value other than 0 or 1). Any crawltext that is already moving in the crawl window continues until the crawl window is empty. The Text Crawl has then completed.

Cue Variable

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

When you choose *Cued Expression* under *Text Source:*, ICDesigner looks for user-defined integer variables. It uses the first one it finds as the default cue variable. However, you do not need to use this variable. You can choose a different one from the pop-up list, which shows the names of all user-defined integer variables.

You can also create your own cue variables (if, for example, your script has multiple independent cued text crawls). Do this by choosing 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, you see a dialog prompting you to create one.

Wait

As with other element types that can take time to complete, the Text Crawl element has the *Wait?* option. Turning this option on (✓) prevents the script from continuing to the next event after the crawl until the crawl has completed.

Endless

The *Endless?* option exists to allow you to indicate when the Cued text source is of a continuous "stream" type that 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 that have that option.

Endless? should be turned on (\checkmark) for sources that are continuous, and left off for sources that have an end, like a string or file. Its effect is to modify the effect the *Wait*? option in view of the fact that the crawl might have a defined endpoint. Essentially, it controls what happens to the page if the crawl element continues when all other elements have 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 interactive input
Endless off, Wait off	page ends normally after page pause and other element pauses, if any; crawl fin- ishes
Endless off, Wait on	page holds until crawl finishes

Adjusting crawl speed

The crawl movement happen through a series of discrete steps, defined in terms of how many screen pixels the crawl moves in how many frames (complete screen refreshes). You can vary the speed at which the text moves using the two value controls *Pixels per Step* and *Frames per Step*.

Increasing *Pixels per Step* has the effect of making the crawl move faster. Increasing *Frames per Step* has the effect of making the crawl move more slowly. Using a combination of these two controls allows you to reach the speed of text motion that you want.

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 is displayed. You can specify a number between one (1) and ninety-nine (99) or an "infinite repeat" setting (∞).

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The infinite repeat setting is useful when you want the crawl to continue indefinitely. In an interactive script, for example, you often want a message to repeat until someone presses an on-screen button.

Use the *Loops* value control to define the number of plays you want. When the setting is ∞ , turning *Wait?* on prevents the script from continuing to the next page until there is interactive input, such as a mouse click or button press.

Gap

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

So that you can judge the distance visually, the space you set is reflected in the distance between the repetitions of the "Crawl" placeholder text that you see on the page in the Design menu.

In the case of Cued Expression text crawls, in which the space between successive crawltexts varies depending on when the texts are cued, the Gap setting specifies a minimum distance.

Direction

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

- East to West (the default, traditional for horizontal text crawls)
- West to East
- South to North (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 points in the direction you want the text to move.

Depending on whether the crawl direction you choose is horizontal or vertical, you see the "Crawl Crawl" placeholder text change to indicate how the text repetitions appear within the window.



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

How it would look in playback:



Line breaks

In vertical crawls, a carriage return in the source text creates a new line below the current one, as carriage returns normally do. In horizontal crawls, carriage returns within the source text break the text into separate crawltexts. The intervening space between crawltexts, horizontally or vertically, can be varied with the *Gap* control.

Sizing the crawl window

Text Crawl elements can be sized so that you can define the window within which their text appears. This lets you confine your moving text to just the area of the page that you want.

The crawl window is always initially blank. Text moves into the crawl window from one edge and exits the opposite edge. The crawl is considered to have finished when all the text (for all repetitions if *Loops* is greater than 1) has moved completely through the crawl window so that it is again blank.

Use the eight graphic handles on the corners and sides of the frame around the selected crawl element to resize the crawl window. You can see the effect the change will have by noticing the "Crawl Crawl" placeholder text.

Word wrapping in vertical crawls

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

Alignment within the crawl window

Text can be aligned within the crawl window. On the *Alignment* panel of the Design Text Crawl menu, one of the Alignment options is enabled, 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 uses the top and bottom of the crawl window as its references for *Top*, *Middle*, or *Bottom* alignments of the crawl text. Horizontal text alignment uses the sides of the crawl window for defining its *Left*, *Center*, and *Right* alignments.

Changing styles in the crawltext

Styles are assigned to the placeholder "Crawl Crawl" text element rather than to the actual text that is crawled, so the styles you see in the Design Text Crawl menu normally apply to all the text in the crawl.

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 changes the style in the segment of text that 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, and can take different forms depending on the style type.

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">
                                     same as "frontcolor"
<frontcolor = "#rrggbb">
                                     same as "facecolor"
<outlinecolor = "#rrggbb">
<shadowcolor = "#rrggbb">
<underlinecolor = "#rrggbb">
<face = "On or Off">
                                     same as "front"
                                     same as "face"
<front = "On or Off">
<outline = "On or Off">
<outlinethickness = "numpixels">
<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 italics here is what you replace with the style value. Most values are simply a number, typically specifying the same value seen in the menu. Color definitions take the form of three hexadecimal numbers representing the 8-bit R, G, and B values that 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 pixel of Gap that should 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 do not appear in the crawled text. They just cause the specified change in the text that comes after them in the crawl. Note that styles are not reset to their original values at the beginning of each crawl loop.

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

Text Crawl control code example

For an example that demonstrates how the different types of options work, use the following as the content of a text file used as 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 = "0n">

Still blue, also size 18 and italic.

<italic = "0ff">

No italics.
```

Global Text Crawls

Define a global Text Crawl by turning on the *Global?* option in the Design Text Crawl menu.

The capabilities of a global Text Crawl are essentially the same as for a normal Text Crawl, but a global crawl always has a backdrop, and certain options are not available:

- In and Out wipes
- Left/Center/Right page-margin alignment
- Opacity options
- Border options
- Wait?
- Bevel
- Element Layer

When you turn on the *Global*? option in the Design Text Crawl menu, these options are disabled, and the placeholder text shown on the Design menu page changes to "Global Crawl".

In playback, a global Text Crawl behaves like an independent borderless window superimposed over the rest of the script. Page wipes and all other script activity happen "underneath" the global crawl, which continues to move its text uninterrupted.

Any number of global crawls may be defined in a script. Each is independent of the others. If they overlap each other on the page, the ones that are later in the **Design List** menu are on top of those that are earlier.

Hiding Global Text Crawls

To make it easier to work on your pages in scripts that contain Global Text Crawls, you can temporarily hide them in the Design menus. From the *View* icon drop-down, turn on (✓) *Hide Global Elements?*.

Any Global Text Crawls disappear from view on all pages in the Design menus and cannot be selected by clicking on them. They are still present in the script, however, and can be selected by dragging the mouse pointer on the page, or by the usual methods in the **Design List** menu. When it is selected, a Global Text Crawl becomes visible, even while this option is on. This option has no effect on playback.

Activating a Global Text Crawl in ScalaScript

An important option available to advanced ICDesigner authors for the GlobalTextCrawl() command in ScalaScript is

Active(bool)

This option controls whether the global crawl is visible. If the Scala-Script or a VBScript or JScript changes the value of the logical variable BOOL to OFF or FALSE, the global crawl is hidden. Setting the variable to ON or TRUE causes the global crawl to appear. This option is available only through hand editing of ScalaScript code and is not yet exposed in the ICDesigner user-interface.

Programmatically toggling the value of this option is a way to implement an "emergency-only" text crawl. See appendix C of the "*Extended Authoring*" guide for more on ScalaScript.

Spell-checking a script

Nothing can mar the professional appearance of a production like misspelled words. For this reason, ICDesigner 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.

Configuring the Spell checker

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

The options on this panel are described on page 382 in chapter 15.

Starting the spell checker

You can access the spell checker from the Main menu or any of the Design menus. The only difference is that starting from the Design menus begins the spell check from the current page, whereas from the Main menu you can begin the spell check at any page. In either case, all pages in the script can be checked in one operation.

When you invoke the spell checker, it searches all the text in a script, and sequentially highlights any words that appear to be misspelled. Unrecognized words, such as proper names, that are correctly spelled can be added to a user dictionary so that the spell checker will not stop on them in the future.

Spell-checking from the Main menu

To start spell-checking from the Main menu, click the *Tools* icon and choose *Spelling* from the drop-down list. The spell checker begins checking the spelling starting with the page that was highlighted when you chose *Spelling*.

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

Spell-checking from the Design menus

To start spell-checking from the any Design menu, click the *Edit* icon and choose *Spelling* from the drop-down list. The spell checker begins checking the spelling starting with the page currently showing in the Design menu.

When there are no misspellings

When you run the spell checker on a script containing no unrecognized words, you do not see the spell checker dialog at all. Instead, you see a dialog that says, "The spell check of this script is complete". You remain in the Main menu or the Design menu as you had been.

Using the Spelling dialog

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



The unrecognized word is highlighted on the page. If you do not see a word highlighted, the word is hidden beneath the Spelling dialog. (As with a Design menu, you can temporarily hide the dialog to see the word in context by clicking the secondary mouse button.)

The highlighted word also appears in the *Not in Dictionary:* text box. If the word is similar to a word in one of the dictionaries, the spell checker offers 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 a choice of several possible actions at this point.

- Accept the suggested correction:
 - ✤ for this occurrence.
 - ♦ for all occurrences.

- Make a different correction:
 - using one of the other suggested alternatives.
 - typing the correct spelling yourself.
- Tell the spell checker to ignore the word:
 - ✤ for this occurrence only.
 - ✤ for all occurrences in the current session.
 - always, by adding the word to the user dictionary.
- Delete the word from the page.
- Go to the Design Text menu to edit the page.
- Preview the page.
- Go on to check the next page.
- Close the spell checker.

Changing the highlighted word

Clicking *Change* replaces the highlighted word on the page with the word in the *Change To:* text box. The corrected word retains the same text styles as the original word. The spell checker then resumes 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, select the word in the list to make it appear in the *Change To:* box. Then click *Change*.

If the highlighted word is not correct, but none of the suggestions is the intended word either, select the word in the *Change To:* box and type the intended word. Then click *Change* to make the correction.

Ignoring a word

To leave the highlighted word as is, and tell the spell checker to continue checking the page, click *Ignore*.

To ignore the word and continue ignoring it for the remainder of this authoring session, click *Ignore All*. The word is added to a temporary list in memory of words to ignore. Until you shut down and restart ICDesigner, or use the *Reset Ignore All* option in the ICDesigner

Options dialog (see page 382), the spell checker does not stop on that word.

Adding a word to the user dictionary

The dictionary against which ICDesigner checks spellings is extensive, but it cannot possibly contain all words that 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, and could occur frequently in your scripts.

To prevent the need to continually use *Ignore All* for such words, the spell checker lets you 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 disk, once entered a word is ignored in future ICDesigner sessions as well as the current session.

To add the highlighted word to the user dictionary, click *Add*. The word is added to the file User.lex, and checking of the rest of the page continues. 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, have to be added separately.

You can see the contents of the user dictionary, and delete any words that should not be there, on the *Spelling* panel of the ICDesigner Options dialog. See page 382 for a description.

Multiple language dictionaries

The user dictionary is language-specific, so there can actually be several user dictionary .LEX files, each of which contains only the words added when a particular spell check language was selected in ICDesigner Options.

Editing the page during spell checking

At times the spelling corrections you make change the lengths of words and thus disrupt the layout of text on the page. If this happens, you can go to the Design menus 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 menus while spell-checking, click the *Design* button at the bottom of the Spelling dialog. You see the **Design Text** menu. You can revise the positioning of text elements so that every-thing fits properly again, and/or go to other Design menus as usual to rearrange other elements.

When you have finished, click *Edit* and choose *Continue Spelling* from the drop-down. (This choice appears in place of *Spelling* in the *Edit* drop-down while spell checking is in progress.) You see the Spelling dialog again, and spell checking restarts at the point at which you left the dialog.

Previewing the page during spell checking

You can click the *Preview* button to see how the current page looks in playback with any changes you've made.

Continuing the spell check

As you continue to click *Change*, *Ignore*, or *Ignore All*, the spell checker moves on to the other text on the page. When all text on the current page has been checked, the *Next Page* button is enabled. Requiring you to explicitly move to the next page gives you the opportunity to review the page, and if necessary adjust the layout before continuing.

When you are satisfied with the page as it is, click *Next Page*, and the spell checker begins checking the text of the following page in the script. If there are no unrecognized words on that page, it proceeds to the page after that, and so on. You see the next page that has an unrecognized word on it.

When the spell checker reaches the end of the script that you did not start checking on the first page, it loops back to the beginning and continues checking. Once all text in the script has been checked, you see the message, "The spell check of this script is complete".

Finishing a spell check

Click the *Close* button at any time to complete a spell checking session. You see the **Main** menu.

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Applying text styles

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All text has a style. The style may be nothing more than the design of the typeface or it may be a special effect that is applied to add emphasis, attract attention or create a mood. In InfoChannel Designer 3 terms, a "text style" is any option that can be applied to a character, a word or a phrase that affects the way it looks on the screen.

In addition to standard options like underlining, bold, and italic, ICDesigner offers you a variety of special text options, ranging from styles like a simple outline to precise control of character and line spacing. ICDesigner has a wide variety of styles, and many of them can be applied to clips, draw objects, even animations, as well as to text. This chapter covers styles that are used exclusively or primarily for text.

In the **Design Text** menu, each of the most commonly applied styles has its own button. When you switch one of these styles on, the button on the screen appears to be pressed and the style name on the button changes color.



Several styles that are very useful but generally applied or adjusted less often—*Smooth*, *Underline*, *Focus*, *Backdrop*, and *Bevel*—are available on the multistyle button. When a style on this button is applied, it is marked with a \checkmark .

Though some styles can only be switched on or off (for example Bold or left alignment), many style buttons also let you set some additional attribute of the style, such as color:



When you apply a style like this, ICDesigner uses the color that is showing on the button. You can change the color without applying the style. A style stays on until you switch it off.

Most styles can be applied to one or more characters, words or lines of text. Wipes, however, can be applied only to entire text elements. You can apply more than one style at a time, including any number of the styles on the multistyle button. For example, you can make the text italic, then underline it and apply a special underline color and a backdrop:



You can change text styles either before or after creating the text:

• If the text exists, select the text you want the new style settings to affect, then make the adjustments in the Design menu. As you change a setting in the menu, you immediately see the effect in the selected text. The text remains selected until you move the cursor or click outside the selected area. (For a review of methods to select text, see the section "*Selecting text*" on page 174 in chapter 6.)

or

• Position the cursor where you want to begin working with new styles, adjust the styles in the Design menu and begin typing. The new text has the new styles. The styles remain in effect until you change them again or click on existing text with different styles.

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Using the styles panels

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

Using the styles panels

ICDesigner has more styles and options available than can fit on a single menu panel. In addition, many styles have characteristics or *attributes* that you can control and customize. For example, you may want to change the direction of a shadow or the slant of italic text. For this reason, the Design Text menu, like many other menus in ICDesigner, has a number of tab panels, each of which lets you make settings for a particular type of style.



Changes you make in the styles panels are reflected immediately in the text. You click the tab to see the panel for the desired type of style, then use a value control or pop-up in the panel to make the adjustment.

Several of the styles panels you see in the Design Text menu are also found in other Design menus, and contain all or some of the same functions. (See the section chapter 6.) However there are some styles and attributes that are applicable only to text. The remainder of this chapter covers the text-specific styles. Other styles, which can be applied text and to other types of elements, such as clips and graphic objects, are covered in chapter 9, *"Applying object styles"*.
Saving settings as defaults

The *Misc* panel in the Design Text menu (which you'll also find in the other Element Design menus) includes an option, *Save as Defaults*, that enables you to save the current style settings in the Design menus as the standard settings that are used each time you create a new screen page. Otherwise, any changes in style are applied only to the current page or to the currently selected text. To save the settings as global defaults, click on *Save as Defaults*.

Restoring ICDesigner's default values

The *Restore Defaults* button on the *Misc* panel lets you recover the original ICDesigner default settings for all styles and attributes. Click on this button at any time to recover the original settings in the Element Design menus.

Note that *Restore Defaults* does not have an immediate visible effect. The screen page and the values you see in the menu do not change when you click *Restore Defaults*. Instead, it sets the styles and attributes used for the *next* screen page you create.

Font

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

A typeface is a set of characters, including letters of the alphabet and other symbols, that have the same basic design. For example, the typeface used in this guide is called *Garamond*. The form of the curves in

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characters is consistent throughout this typeface but quite different from the design of characters in other typefaces.

BodoniScala ICDesignerCourierScala ICDesignerVerdana®Scala ICDesignerFlash™Scala ICDesigner

There are thousands of typefaces, some with designs that are very distinctive and others with subtle variations that non-experts might not notice.

"Size" refers to the height of the characters in a typeface, including the amount of space between lines of text. In printing, this size is measured in *points*, the smallest unit of measure in typography. In ICDe-signer, size is measured in *pixels*, the smallest unit of a screen picture.

The *Font* button indicates the name and size of the typeface you are currently using for text. To change the font:

1. In the **Design Text** menu, click on *Font:*. You see the Select Font dialog:



The current typeface and size are selected in the scrolling lists.

The *Typeface* list shows the names of both TrueType scalable typefaces and ScalaType bitmap fonts. TrueType typefaces have the "TT" logo to the left.

You can filter the list to display the available typefaces according to "theme", or language family. For example, themes include Western (for western European languages), Hebrew, Greek, Cyrillic, Turkish, and so on. The *Theme:* pop-up, below the list, lets you choose for which theme to display typefaces. If you choose *Theme: All*, the dialog displays all available typefaces, and lists the theme for each in parentheses.

- 2. Scroll through the list of typefaces and click on one you would like to see. You can type a letter to select the first name in the list beginning with that letter. In the font sample box you see some text displayed in the typeface you selected. It is displayed in the first size available in the font size list box. You can click on the sample text and type in any other text if you need to see particular characters.
- 3. 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 are a selection of representative sizes. You can choose one, or use the value control below to specify a size not in the list. For ScalaType fonts, the sizes in the list are the only available sizes.

The characters in the sample box reflect the typeface and size you select.

4. When you find the font you want, click on *OK* to apply the typeface and size settings you have made. This closes the Select Font dialog.

If you applied the changes to selected text, you see the effects immediately and the *Font* button reflects the new typeface and size. Otherwise, the typeface and size are displayed on the *Font* button and affect the next text you type. In either case, however, the text has the styles it

7: Applying text styles Character spacing

had before you clicked on the *Font* button. You change styles independently, according to the procedures described in the next sections.

Restrictions on embedding TrueType fonts

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

To make you aware of this limitation in distributability of your scripts, the Select Font dialog provides an indication whenever you select a TrueType font with embedding restrictions. The *Not Embeddable* button appears in the space beneath the *Sample* box when a non-embeddable font is selected in the *Typeface* list. You can click this button for a dialog containing a fuller explanation of the font's licensing status.

Character spacing

Each character in a font has its own natural width. For example, "w" uses more space than "i".

In addition to its natural width, extra space is added to the right of a character to ensure that it is visually separated from the next character. That is, the width of a character includes its natural width and the space between characters. The width of a character is, in turn, part of

the design and definition of the font it belongs to (the typeface, size and style of the text). This is called character spacing.



ICDesigner provides the *Character Spacing* attribute, which lets you increase or decrease the overall amount of space between characters as necessary to expand or contract a word or phrase.



Kerning

Because of their shapes, some pairs of characters appear to have too much space between them when spaced strictly according to their character width.



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.

ICDesigner automatically applies *kerning* or adjusts the space between character combinations that require special spacing. In essence, kern-

7: Applying text styles Character spacing

ing overrides the normal character width in problem character pairs. With kerning applied, the example above looks like this:



ICDesigner has three kerning options: *Normal, Normal and Digits*, and *Off*. With *Normal* kerning, kerned relationships between special character pairs are maintained even when you adjust the overall character spacing.

Normal kerning does not, however, kern digits. This means that the number one (1) and the number zero (0), for example, take up the same amount of space on your page (assuming they are in the same font). Having un-kerned digits is mainly useful when creating tables, so that columns of numbers line up properly.

When you apply *Normal and Digits*, kerning is applied to numbers in addition to letters. For text that contains numbers, but does not have columns of figures, this is the setting you would normally use.

If, for any reason, kerning produces an undesirable effect, you can set kerning to *Off*.

To change the automatic kern setting, or to manually adjust the overall character spacing, click the *Alignment* tab in the **Design Text** menu to see the *Character Spacing* and *Kerning* settings.

esign Text				"Pla	in" 🚽 2 🕨 🎴 📘
to a second seco	ent B <u>u</u> tton	s <u>B</u> ackgro	und Pajette Ligt Fullson	een Preview Main	SCAL
ext Position	Effec	t	Opacity Mi:	sc Style	Alignment
Kerning: Normal and D	igits	X	Horizontal <u>T</u> ext Alignm	nent: Auto	T
Character Spacing		0 🕨	Word Wrap?	Word Wrap Width	◀ 589►
		0 🕨			

You can change one setting or both settings at any time. If you intend to change both, however, it is best to change the kerning setting first to see the adjustments in spacing that it creates and then adjust the character spacing accordingly.

To change the kern setting, select the text you want the setting to affect then use the pop-up to 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 the text you want the setting to affect, then use *Character Spacing*. Initially, the setting is zero (0) because no extra space is added to or subtracted from the normal character width.

Use the value control to increase or decrease the space. The range of values is greater than necessary for most purposes. If the value is too low, the characters run together and cannot be read. If the value is too high, characters can be pushed off the edge of the page.

Line spacing

Pressing Enter (\prec) to create a new line or divide an existing text element moves your cursor or text down one line on the page. Entering more text in a text element than will fit within the word wrap width also causes the cursor to move down. ICDesigner sets the spacing between new lines based on the size of the font. You can use the *Line Spacing* option in the *Alignment* panel of the Design Text menu to adjust that spacing, and ICDesigner adds or subtracts pixels between the lines accordingly.

The default line spacing is zero (0). Use the value control to increase or decrease that space. Negative values bring the lines closer together, positive values 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 only the spacing of lines 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 (\bot) on that line, the position of the new line will reflect the spacing setting.

7: Applying text styles

Color

Color

Many style buttons in the **Design Text** menu enable you to specify the color that is used when the style is applied. This gives you the opportunity to control the color of everything from the text itself to the color of the underline to the shadow that is cast by each character.

The default User palette includes a selection of colors that will stand out against the background so that the text is easy to 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 used automatically when you apply a style unless you first choose a different color. Text, for example, is white; an underline has the same color as the text; and a shadow is black.

To change the color of a style:

- 1. If necessary, use the Color Set Switcher to move through the color sets and examine the colors available in the current palette.
- 2. Drag the color from the color bar to the style button (a color square follows the pointer as you drag).



If the style is currently applied—that is, the button appears to be pressed and its label is highlighted—the color affects either the text you have selected or the next text you type. Otherwise, the color is used the next time you click on the style button to apply the style.

You can also drag a color directly from one style color chip to another. This is helpful if you need the colors of different styles to match exactly, and can be faster if the color bar does not currently show the color set containing the required color.

ICDesigner lets you customize the colors available for styles if you are not satisfied with the defaults. You can modify the default colors in the color bar, and add additional colors. To adjust the colors, you use the **Design Palette** menu, which is discussed in detail in chapter 13, *"Adjusting colors"*.

Bold

Making text bold adds weight to the characters: **bold text**. In addition to applying the basic style, you can control the amount of weight that is added.



When you apply the B (Bold) style, ICDesigner increases the weight of the characters. To change the bold weight, 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 that the text is only one step heavier than normal. The text becomes heavier as you increase the setting.

7: Applying text styles

Italic

Italic

When an italic style is applied to text, the characters slant away from the normal, upright position: *italic text*.

ICDesigner enables you to control the degree to which the italic characters slant. In fact, you can actually change the direction of the slant and make the characters lean toward the left rather than the right.

When the *I* (Italic) style is applied, the selected characters are slanted. To change the angle of the slant, click the *Style* tab. Use the *Italic Slant* value control to increase or decrease the angle of a character.



At the minimum positive setting, one (1), the text may not slant visibly. Settings of two (2) or higher are usually necessary before the slant is apparent. The text slants more to the right as the setting increases. Characters can be difficult to read at high settings. If you use a negative setting, the text slants toward the left.

Underline

Text with the Underline style is displayed with a line just below it: <u>underlined text</u>.

Initially, an underline has the same color as the text it highlights and its thickness and the position relative to the body of the text have default values. However, ICDesigner lets you control each of these characteristics, as well as the amount of space or "air" between the underline and text.



Multimedia the easy way.

You can turn on underlining with either the multistyle button in the **Design Text** menu or the \underline{U} button. To change the color of the underline, 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.

The other attributes of an underline are adjusted under the *Style* tab in the Text menu.

In the *Style* panel, the option *Underline Position* 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 moves down in pixels. Although you can lower the line far below the text, this is seldom useful as an underline.

As you decrease the setting, the line moves up. Negative settings make the underline run behind the body of the characters; for many fonts the lowest setting can 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 lets you adjust the thickness of the underline, in pixels, with a minimum setting of one

7: Applying text styles Update

(1). In general, an underline becomes too thick to be useful long before the largest possible setting.



The option *Underline Air* in the *Style* panel lets you add space around text characters where the underline crosses them, so that the characters remain distinct.

When the setting is zero (0), for example, the lower part of the characters touch the underline. Increasing the setting makes the text more readable. This is especially necessary if the underline is thick and close to the baseline.



The amount of air is measured in pixels, and the default air setting is one (1). Regardless of the font, the maximum setting is three (3).

Update

The *Update* pop-up in the *Misc* panel of the Design menu allows you to control the way embedded variables display onscreen. As described in the "*Displaying variables*" section at the end of chapter 6, ICDe-signer lets you embed variables in text elements, and the variable display automatically updates as the variable values change. However, the

updating can be affected by subsequent events. The *Update* option lets you choose the exact update behavior you need.



When *Update* is set to *None* for an embedded variable, the value does not update at all. It stays the same as it was at the time it was first displayed on the page.

When *Update* is set to *Normal*, the variable updates as its value changes, but the updating continues only until the end of the current page, whether the next page is a screen page or a special event. This prevents a variable from updating prematurely, before the next page appears, which can sometimes happen. However, this means, for example, that on a screen page containing an embedded variable that is followed by a special event page that plays a sound, the variable updating stops 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 continues to update its value until the beginning of the next screen page.

	PAGE 1	PAGE 2	PAGE 3
With Update: Normal,	The time is: !time	(sound special event page)	
the end of its page	PAGE 1	PAGE 2	PAGE 3
With Update: Extended,	The time is: !time	(sound special event page)	
!time continues updating 🥣	-		I



Graphics are the heart of any multimedia production, and Scala Info-Channel Designer 3 includes a varied collection of high-quality clip-art graphics that let you get started creating your own productions right away. Use these images to illustrate a point, enhance a page and add diversity to your scripts.

ICDesigner also enables you to import and separately position on a page virtually any image that is available as a graphic file, even animations. In ICDesigner, any graphic image that you place on a page is referred to as a *clip*—or, in the case of animations, an *animclip*, *movie-clip* or *Flashclip*. A clip is an independent element that can be moved, resized, and styled on top of the current page background.

This means that in addition to the hundreds of clips that come with ICDesigner, any bitmap file created using the techniques described in chapter 4, "*Working with backgrounds*", can be used as a graphic element on a screen page. This includes image files from a scanner, paint or drawing programs, photo CDs, and video digitizers, as well as animations in DirectX[®]-supported formats such as FLC, AVI, MPEG, and QuickTime 3. In addition, files in the SWF (Macromedia[®] Flash[™]) multimedia format can be used as animated clips.

Regardless of how it is created, almost any bitmap file that is available on your hard disk or network, or on a diskette or CD-ROM, can be used as a clip.

Adding a clip



When you work with clips you use the **Design Clip** menu.

The Clip menu features numerous style tabs to contain all the options available for working with clips. The more basic options, and those applying only to clips, are covered in this chapter. Additional options that can apply to text and also to drawings are described in chapter 9, *"Applying object styles"*.

There are several ways you can access the menu and the method you use generally depends on your current activity:

- In any Design menu click on the *Add* icon. You see the File dialog. When you choose a graphic from any folder, you see the **Design Clip** menu.
- To acquire an image directly from a TWAIN device, choose *Add from Scanner/Camera* from the *Add* drop-down. See page 115 in chapter 4 for more on adding an image using this option.

Adding a clip

• Select a page in the Main menu, then click on or select a clip that is already on the page.

If you see the menu as a result of selecting a clip, the menu changes to reflect the type of clip (static or animation), and the *Clip:* button indicates the name of the file. (This is not necessarily the name assigned by you or ICDesigner in the **Design List** menu.) The *Clip:* button displays the name of the clip, animclip, movieclip, or Flashclip file. If you added the clip by pasting, the *Clip:* button reads *<embedded>*, indicating there is no underlying file.

Regardless of the status of the *Clip:* button or the number of clips already on a page, when you click on *Clip:* you see the File dialog. You can navigate as necessary in the dialog and choose a graphic file to add as a clip. The clip is 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 replaces the previous clip.

ICDesigner handles the new clip in the same way it handles an element being 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 is positioned at the cursor.

If nothing is selected and the text cursor is not visible, ICDesigner remembers the last cursor location and positions the clip accordingly.



before loading clip

after loading clip

• If part or all of one or more elements is selected, or if the text cursor is in a line of text, the clip is positioned down and slightly to the right of the top left corner of the element(s).





after loading clip

You see the clip on the page and a dashed frame with eight graphic

ICDesigner Shortcut

selected text element

Several single-key hotkeys that are specific to clips are available. They allow you to quickly perform certain common operations on a selected clip from most Design menus.

These are in addition to the usual Alt combination hotkeys common throughout ICDesigner. handles positioned around the edge of the clip. The handles indicate that the clip is selected. You can continue to work with the clip, or click anywhere on the page outside the clip image to deselect it. If the clip is too large (for example, if you're importing a background as a clip), you can use the single-key hotkey H to make the clip half its normal width and height.

ICDesigner may hide the Design Clip menu at first to ensure that you can see the lower portion of the clip. If the menu is hidden, click the secondary mouse button to see the menu again.

You can work with a clip at any time by clicking on it to select it. If the clip has transparent areas, you need to click on a non-transparent part to select the clip. When a clip is selected you can do any of several things:

• To move the clip, point to a non-transparent part anywhere inside the dashed frame and drag the clip to the new position. Hold down Shift while dragging to constrain the clip to horizon-tal or vertical movement only.

Selecting clips and other elements

• 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.

ICDesigner Reminder

You can cancel any dragging operation by pressing the secondary mouse button while still holding down the main mouse button. Dragging a handle at a corner enables you to adjust the width and the height simultaneously. Dragging a handle on a side allows you to adjust only that side. To maintain the original proportions of the image, Shift-drag a corner handle.

• To crop away parts of the clip you do not want to display, point to a graphic handle on the side or corner of the clip. Then Altdrag the handle until the edge or edges it moves enclose only the portion of the clip you want to keep.

Alt-dragging a corner enables you to crop the width and height of the clip simultaneously; Alt-dragging a handle on a side crops only that side.

Selecting clips and other elements

When you click on a clip, it is selected and you see the graphic handles that are placed around its edges. The clip is affected by whatever you do next.

Remember that you need to click on a non-transparent part of a clip that has the *Chroma Key?* option on in order to select it. If several clips overlap each other, you can click through the transparent part of one to select another that is underneath.

You can 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 you want to select, release the mouse button. Each element is selected: each text element is enclosed in its own frame, and each clip has graphic handles.

Unlike text, you cannot select just part of a clip.

Regardless of which selection method you use, you see the Design menu for the last type of element you select. If it is a clip, you see the **Clip** menu; if it is text, you see the **Design Text** menu, if it is an oval, you see the **Design Oval** menu, and so on.

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 elements in the group move together and maintain their original positions relative to one another.

You can also collectively apply styles. Whatever styles you apply or edit affect all the selected elements. If you have selected elements of different types at the same time—for example, both text and clips—you see the **Design Multiple Elements** menu. This menu shows only those options, such as *Shadow* and *Bevel*, that can be applied to all the selected element types.

All elements remain selected even if you change from one Design menu to another. To cancel the selection, click anywhere on the page that is outside the area of the selected elements.

Adjusting settings for animclips and movieclips

Animclips and movieclips are not fundamentally different from fullscreen animations that you might use as page backgrounds. Aside from the way you change their size, you work with animated clips in essentially the same way. In chapter 14, "*Using animation and digital video*", there is additional general information about animations and animation options that are also helpful in understanding how to work with animated clips.

Almost all options that can be applied to a plain clip can be applied to an animclip or movieclip: they can be sized, rotated, cropped, have a beveled edge, shadow, or outline, etc. The *Focus*? option has no effect with animclips or movieclips, however, and for movieclips the *Chroma Key*? option has no effect.

Adjusting settings for animclips and movieclips

When an animclip (an animation loaded as a clip) or a movieclip (a digital video segment loaded as a clip) is selected, the menu becomes **Design Animclip** or **Design Movieclip**. Each adds a *Video* panel, which has settings that are specific to animations.





Settings that apply only to animations are described below.

Options common to animclips and movieclips

The following options apply to both animclips and movieclips.

Wait?

You can allow other events to begin while the animation plays, or you can suspend other events until the animation has completed its play. When the *Wait?* option is off, subsequent script events can begin while the animation is playing. With *Wait?* on (\checkmark), the animclip or movieclip must finish playing (including the set number of loops, if any) before the next event in the script can begin.

Loops

Loops lets you specify the number of times the animation repeats before the next event in the script is displayed or the animation stops.

You can specify a number between one (1) and ninety-nine (99), or an

ICDesigner Note

When *Loops* is infinite, the Wait option works like this: if *Wait*? is on, the anim continues until the page advances from interactive input. If *Wait*? is off, the page advances when all remaining elements on the page have completed. "infinite repeat" (∞) setting. This last setting repeats indefinitely, and is useful when you don't know exactly when the animation should stop. The default for animclips is infinite repeat, as these animations are most often designed to loop. Movieclips, however, default to a *Loops* value of 1, because they are usually made to be played through just once. For more detail on this option, see the *Repeating the animation* section on page 363 of chapter 14.

Options for animclips only

Because an animation takes time to play, certain special options are needed.

Speed

The *Speed* value control governs the speed at which the animclip plays, in frames per second. For more information on animation speed, see the section on the *Frames per Second* option in the **Background** menu on page 361.

Stop on First?

The *Stop on First?* option lets you set whether the frame that remains showing when an animclip has completed is the first frame or the last. In some cases, one or the other looks better. Turn this option on (\checkmark) to leave the first frame showing. For more detail on this option, see the *Stopping on the first frame* section on page 365 of chapter 14.

Options for movieclips only

Most movieclip options match those for animclips, but 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 if desired.

Adjusting settings for animclips and movieclips

The default is to play the entire movieclip. To exclude some part of the beginning and/or end of the movieclip, turn on (\checkmark) the *Start Time* and/or *End Time* buttons as necessary in the *Video* panel. Turning these buttons on activates their associated value controls, which let you specify an offset time from the beginning or end of the movieclip.

To have the movieclip 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 movieclip 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.

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.

Using overlay

You have the freedom to resize, flip, and otherwise manipulate movieclips so that they will look and play exactly as you want them to. However, this flexibility comes at some cost in playback performance.

As with movies used for page backgrounds, ICDesigner offers the option of using the overlay hardware that most graphics cards provide to improve performance.

The *Use Overlay:* pop-up in the *Movieclip* panel has three options: *Never, If Possible,* and *Require.*

Choosing *If Possible* or *Require* for a movieclip means that you can't use certain other options on it, but it will play back with the best possible speed and smoothness if your graphics card has overlay support.

The following options are disabled for a movieclip when *Use Overlay:* is set to either *If Possible* or *Require*:

- Wipes
- Cropping
- Rotation, Flip controls on the Position panel
- Whole Element control on the Opacity panel

- Chroma Key controls on the *Transparency* panel
- Image processing controls on the *Process* panel

See the "Using overlay" section in chapter 14 for more detail on hardware overlay and how Use Overlay works.

Volume

Because a movieclip can have sound, ICDesigner allows you to control the sound level. When a movieclip is selected, use the *Video* panel's *Volume* slider to preset the volume.

Options available for Flashclips

There are no options unique to Flashclips. The options available for Flashclips match those for movieclips, with the exception of certain features that are not available.



The following options that are available in the Design Movieclip menu are absent on the **Design Flashclip** menu:

- Use Overlay
- Cropping
- Rotation, Flip controls on the Position panel
- all options on the *Video* panel, which does not appear in the Design Flashclip menu

All other options work the same with Flashclips as with movieclips.

Applying clip styles

Applying clip styles

The Design Clip menu has the same basic features as other Design menus. You can easily move between the menu and the screen page as you experiment with different styles and, in most cases, you see the results immediately. For more information about Design menus in general, see chapter 6.

With the exception of styles that are specifically related to text, such as bold and italic, the Design Clip menu includes the same style options as the **Design Text** menu. You use the same techniques to outline a clip, create a shadow, apply a wipe, or choose a color for these styles.

As with text, you use the tab panels of the menu to fine-tune any of the styles you apply that also have attributes you can control. From the multistyle button you can choose *Backdrop* or *Bevel* just as you can to text, and then adjust the related attributes on the *Effect* panel.

Exporting clips

You can save clips with all the size, crop and style changes you have made by choosing *Export* from the *Edit* drop-down.

In the resulting File dialog, choose a location and enter a name for the processed clip. If you selected several clips, they are exported as one, with any transparent areas saved as black. (This black fill can be made transparent when the exported file is loaded back into ICDesigner by turning on Chroma Key.)

You are then asked whether you want to use this new clip file on the page in place of its original file. If you answer Yes, keep in mind that all the styles that were applied when you exported the file become a part of the image itself, and are no longer editable. For example, you cannot change the shadow depth of a clip that was exported with the *Shadow* option on.

For a detailed description of styles and how to apply them, see chapter 9, "*Applying object styles*".

Making parts of a clip transparent

A style for clips only, *Chroma Key?*, is available on the multistyle button in the Clip menu. When *Chroma Key?* is on (✓), certain areas of the clip are not visible, so that the page background or other elements show through. When *Chroma Key?* is off, you see all colors in the clip.

Regardless of the design of its image, a clip is always rectangular. When selected, it is bounded by the rectangular frame with graphic handles. However, in many clips, such as the one shown here, the background area between the frame and the image can be made transparent. Even areas surrounded by opaque colors can be transparent.

Transparency allows clips to appear to be any shape, and fit cleanly into any background. Transparent areas also allow you to click through them to select underlying clips, which is handy when you have several clips that overlap.

The area that is transparent, however, actually has a color associated with it. The setting of the *Chroma Key?* style on the multistyle button determines whether this color is visible or not.



Chroma Key? off

Chroma Key? on

The particular color in the clip's palette that has been defined as transparent is what determines which areas of the clip disappear when *Chroma Key*? is turned on. You can see this color by turning off the

Applying clip styles

Chroma Key? option. You can specify which color in a clip is transparent with options using the *Transparency* panel in the Clip menu:

Design Clip		"Get connected!" < > ? 🔤 🗙
+ . X So entropy Sector Ba	ckground Palette Li <u>s</u> t Fullscr	reen Preview Main SCALA
Clip Position Effect	Opacity Misc R 83 Cr G 52 Cr B 62 Cr	Transparency Process hroma Key Range O Pick hroma Key Feathering O

Selecting a transparent color

You often want to make the clip background transparent so that the content of the clip integrates into the page without a rectangular background. Sometimes you want to make other areas of a clip transparent, for special effects. Although some clips already have part of them defined as transparent, you might need to change this to some other area. ICDesigner allows you to turn transparency on and off with the multistyle button on the Clip menu, and, for most clips, to pick the transparent color(s) on the menu's *Transparency* panel.

The *Transparency* panel features a set of sliders and associated value displays to show the chosen transparency or "chroma key" color. The color block shows the clip color that you want to be transparent. The *Chroma Key Range* control lets you specify a color "tolerance", so that colors similar to the one you choose also become transparent. The *Chroma Key Feathering* control lets you adjust the transition between transparent and non-transparent areas.

To choose a color to be transparent, click *Pick*, then with the Pick pointer (\Box) click on the desired color in the clip. The large color block displays the color you choose. If the *Chroma Key?* button is on in the *Clip* panel, that color becomes transparent in the clip.

If you did not get exactly the right color, you can use *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 shown numerically in the RGB/HSV display box.



Provided that the *Chroma Key*? option is on as you adjust the values, you can immediately see how the changes affect the clip.

As on the **Design Palette** menu, you can switch between the RGB and HSV color models by clicking in the RGB/HSV display box. (See the section "*Editing a color*" on page 341 in chapter 13 for detailed information on using RGB and HSV sliders to specify a color.)

If there are similar colors you wish to make transparent-for example

ICDesigner Note

Not all clips allow their Chroma Key settings to be adjusted. For clips with a preset alpha channel—such as some PNG images, including clips distributed with ICDesigner the *Transparency* panel is disabled. the blues in a sky—pick a typical color, then move the *Chroma Key Range* slider to the right until as much of the clip as necessary is transparent. You may need to experiment with the range value and the exact color you pick to achieve the effect you want. When the range slider is all the way to the left, only the exact color on the color block is affected.



Chroma Key? is on by default. If, as in the illustrations here, the clip was designed to have some parts that are transparent, it is usually obvious when you see the clip. Generally, in more detailed images or digitized photographs, all colors are intended to be displayed. If an image does not look right with transparency on, switch it off. The *Chroma Key?* setting for each clip is saved with the script.

varying the range makes more of the clip transparent

Applying clip styles

Adjusting the degree of transparency

The *Chroma Key Feathering* control gives you the option of adjusting the gradation of transparency between the transparent colors and nontransparent colors. This can be valuable for softening the sharp edge between transparent and non-transparent areas of a clip, and for special effects.

By default, the *Chroma Key Feathering* slider is set to 0, which makes 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) is increasingly graduated, until at the maximum value of 128, much of the previously opaque area of the image has some degree of transparency.

The *Chroma Key Feathering* control interacts with the *Chroma Key Range* control to produce this effect. When the range control is at 0, only a single color is defined as transparent, and varying feathering settings essentially adjust the opacity of this color alone.

When the range value is increased, additional colors are defined as transparent, but with feathering, those that are less similar to the chosen transparency color are less transparent, making the transparent areas merge smoothly into the non-transparent areas.

When Range is non-zero, you 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 in cases when high range values affect areas of the clip that you hadn't intended to be transparent. The right feathering setting can make those areas largely opaque again.

Using transparency with other styles

When you use the *Chroma Key?* option, it has the additional effect of changing how other styles look when applied to a clip. With no transparency, the *Outline* and *Shadow* styles follow the rectangular shape of the clip. But when transparency is on, both *Outline* and *Shadow* follow the shape of the edges of the image, where transparent color areas meet non-transparent areas. This is a very effective way of making monochrome clips stand out.



clip with Chroma Key? on, Feathering = 90



clip with Chroma Key?, Shadow, and Outline options on

Clip attributes

Many attributes, such as *Position* and *Outline Thickness*, affect clips the same as text elements. However there are also several attributes that don't apply to text:

- Size?
- Chroma Key Color, Range, Feathering
- Crop?, Crop Position, Crop Size
- Rotate Angle

These attributes are available only when at least one clip is selected or included in the selection of several elements. The attributes that are common to both text and clips work the same with clips as they do with text, as described in chapter 9.

Changing clip size

The *Element Size* setting in the *Position* panel indicates the width and height of a clip in pixels. Initially, the size is determined when the clip is created and is information that is part of the file. However, you can change the clip size as needed. Turn the *Size*? button on (\checkmark) to enable the *Element Size* value control to the right. Turning *Size*? off causes the clip to revert to its original dimensions.

The settings on this button are updated immediately when you use the graphic handles to adjust the size of a clip. Similarly, if you change the dimensions on the *Element Size* control, the selected clip changes size accordingly.



Applying clip styles

Crop? 🧹

► To change the width or height of a clip, drag its handles, or use the corresponding *Element Size* value control until you see the size you want. 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.

Cropping a clip

You can use the graphic handles as mentioned earlier to crop a clip, or by turning on the *Crop?* button, you can use the *Crop Position* and *Crop Size* buttons in the *Misc* panel.

Before you begin to crop or trim a clip, the Width and Height settings on the *Crop Size* button reflect the dimensions of the original clip. If you adjust the size of the clip as a whole, the crop settings don't change, so 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 change accordingly. In the illustration that follows:

Left – Represents the number of pixels you trim from the left edge of the original image.

Top – Represents the number of pixels you trim from the top edge of the original image.

Width – Represents the number of pixels in the width of the new, 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 also changes the size of the clip and the *Element Size* dimensions are also updated. When you have finished cropping the image (and released the Alt key) you can once

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again use the handles to adjust the size or change the settings on the *Element Size* control.

cropped image



Cropping without changing the size

If you want to trim the image, but *not* change its size on the screen, do it by first making sure the *Size?* button is on, then changing the settings on the *Crop* buttons instead of using the handles. The *Element Size* dimensions are not affected. ICDesigner automatically enlarges or reduces the cropped image so that it remains the width and height specified by the *Element Size* dimensions.

To change a Crop setting, use the corresponding value control. The screen updates immediately so you can 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, but using the graphic handles is generally faster. It is often quite useful to apply a combination of the two techniques.

Applying clip styles

Cropping, sizing, and the original image

Cropping and sizing, like other styles, do 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 again or turn off the *Crop?* and *Size?* buttons. The maximum crop width and height settings are the original dimensions; when nothing is cropped, the Crop Position settings are both 0.

For additional examples of cropping and a more detailed description of each setting on the Crop buttons, see the section "*Using the crop settings*" in chapter 4, "*Working with backgrounds*". The crop function is essentially the same for both clips and backgrounds, except that backgrounds cannot be cropped using graphic handles.

Flipping a clip horizontally or vertically

The two Flip options in the *Position* panel together give you four different options to control the direction that the clip faces.

When *Flip Horizontal*? is applied, the button is marked with a \checkmark and the image faces in the opposite direction horizontally.

Normal





Flip Horizontal

When *Flip Vertical*? is applied, the button is marked with a \checkmark and the image faces in the opposite direction vertically.

Normal





Flip Vertical

When both Flip options are applied at the same time, the image is upside down and backwards.



Flip Horizontal and Flip Vertical

The single-key hotkey for *Flip Horizontal*? is **X**, and for *Flip Vertical*? it is **Y**.

If you apply one or both Flip options to generate an image you will use again or want to keep, you can click on *Edit* and choose *Export* to save the customized clip as a file.

Changing the colors in a clip

There are two possible ways of adjusting clip colors in ICDesigner: 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 is possible only with 256-color clips. Processing the entire palette can be accomplished for any clip.

Changing colors in a 256-color clip

For 256-color clips such as GIF images, ICDesigner lets you make changes in the image palette and mix the colors differently, if necessary, by using the **Design Palette** menu. High Color and True Color clips have fixed palettes, in which colors cannot be adjusted individually.

The Palette menu enables you to individually adjust the colors used in a 256-color clip. When a clip is selected, the Clip palette in the Palette menu contains the colors used to create the clip as you see it displayed. As you modify the colors in the palette, the changes are reflected in the clip itself. Ultimately this gives you the ability to change the entire

Changing the colors in a clip

tone or impression of the image; for example, from bright and bold to subtle and subdued.



original colors



edited colors

In general, changing individual colors in a clip that is a digitized image can lead to unnatural-looking effects unless considerable time and effort is taken. The large number of subtly varying colors in digitized images makes it difficult to make large adjustments in the Palette menu without upsetting the natural color balance. Simpler, non-digitized images with relatively few colors, like the one seen here, can be easy to change with good results, however.

Processing a clip palette

If you do want to make changes in the overall color balance and tonal qualities of a clip, you can do so within ICDesigner. For this, you use the image processing capabilities available in the *Process* panel of the Clip menu.

Because image processing also applies in the same way to backgrounds, the *Process* panel is described in chapter 13, "*Adjusting colors*".

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 can work well with the *Outline* and *Shadow* styles. As noted in the preceding section on the *Chroma Key?* option,



Front off, with Chroma Key, Shadow, and Outline
when a clip has *Chroma Key?* on, using *Outline* or *Shadow* outlines or shadows just the non-transparent parts of the clip, rather than its rectangular border.

To prevent the clip from becoming invisible, it is not possible to turn off *Front*, *Shadow*, and *Outline* simultaneously. If you try to do this, the last of these three options cannot be turned off.

Adding draw objects

Although ICDesigner's ability to import and manipulate bitmap graphics is considerable, sometimes you need more flexibility. When designing a page and trying to get everything to fit and look right alongside text that may be changing constantly, certain graphic elements need to change often. It can be cumbersome to have to create elements externally, and go back and forth between ICDesigner and an external drawing program in order to make minor adjustments.

ICDesigner has 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 add lines, arrows, boxes, circles, and ovals, and as with clips can easily adjust their size, position, color and other attributes.

To create a draw object, open the *Add* drop-down and choose *Add Box, Add Oval*, or *Add Line*. You see the **Design Box, Design Oval**, or **Design Line** menu.

Drawing an object

When you add one of the three draw object types, the mouse pointer becomes a cross (+). You click with the cross pointer to place the corners or endpoints for the object you are drawing. You can also click other buttons on the menu, such as the *Fill* button, with this pointer.

8: Working with clips and draw objects

Adding draw objects

Drawing boxes

With *Add Box* you can create rectangles or perfect squares—referred to generically 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 at the position on the page where you want one corner of the box, and press the main mouse button, then move the pointer to the position of the diagonally opposite corner. Release the mouse button to finish 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 appear around the resulting box, indicating that it is selected and allowing you to change its shape.

Drawing ovals

With *Add Oval* you can create ellipses or perfect circles—referred to generically 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 at the position on the page where you want one corner of an imaginary box that



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 finish 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 appear around the resulting oval, indicating that it is selected and allowing you to change its shape.

Lines and arrows

With Add Line you can create lines or arrows.



Place the cross cursor at the position on the page where you want the start of the line, and press the main mouse button, then move the pointer to the position of the end. Release the mouse button and the line is drawn.

If you want an arrow, after drawing a line, go to the *Misc* panel and turn on the *Arrowhead at Start?* or *Arrowhead at End?* options. The arrowhead size automatically adjusts 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 makes it easy to draw perfectly horizontal, vertical, or diagonal lines.

Graphic handles appear at the two ends of the resulting line, indicating that it is selected and allowing you to reposition the ends. Adding draw objects

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* panel. The *Arrowhead at Start?* and *Arrowhead at End?* options let you change one or both ends of a line to arrowheads. When these options are off, the ends are normal.

These options are enabled only when a line object or the Line button is selected. Whatever settings you make for the start and end of a line remain active for any future lines you draw, until you explicitly change the settings.

Drawing options

Most options that apply to clips also apply to draw objects: you can add In and Out wipes, and turn on *Shadow*, *Outline*, *Smooth?*, *Back-drop?*, 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 to control most draw objects, one on the *Fill* button and one on the *Line* button. You assign colors with these color chips they same as elsewhere in ICDesigner, 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, to control whether the object you are about to draw is filled or not.

When *Fill* is off, the area that would be occupied by the fill color is transparent. In other words, it means the object is an unfilled object.

You cannot turn *Fill* off unless the selected object has *Line* turned on—this prevents you from creating an invisible object.

Fill is not available for lines and arrows, so this button is not available when one of these is selected. However, if you want the effect of a line or arrow with a colored edge you can achieve it using the *Outline* option, as shown in the following illustration.

The *Line* color chip specifies 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 prevents you from creating an invisible object. When you turn *Line* off, the color of the *Line Thickness* area changes to match the *Fill* color. The object still retains the additional size created by the specified thickness, however.

Line Thickness

The *Line Thickness* value control specifies the thickness of the line used to draw the edges of boxes and ovals, and the thickness of lines and arrows. For boxes and ovals, this is like having a second, independent

Line Thickness

2>

-

8: Working with clips and draw objects

Adding draw objects

Outline option, but you can control its thickness without having to go to the *Effect* panel.



Manipulating objects

After you have drawn an object, you can use the *Fill, Line*, and *Line Thickness* controls, and any of the options available on the style panels of the Draw menu, to alter the object's appearance, position, or orientation. The options available are almost the same as those available for clips. The only clip options that are not available are *Focus*? and *Chroma Key*?.

As you change the shape of objects, you do not have to worry about their edges becoming excessively rough as you size and rotate them. Because they are structured objects, rather than bitmaps, they are always rendered at the same resolution as the screen, which minimizes "jaggies". This means that, other things being equal, it is better to use draw objects than clips if the objects must be manipulated much, especially rotation or enlargement. As well as being easier to edit, the draw objects will look better and will not add to the size of the script.

The *Smooth?* option, which is on by default, helps further in making draw objects look good.

foChannel s I G N E R 3 E

Applying object styles

9: Applying object styles

Of the three basic types of graphical elements in InfoChannel Designer 3—text, clips, and draw objects—each has certain styles that apply only to it, and not to the others. The italic style, for example, is relevant only for text. However, there are many styles in ICDesigner that apply to more than one type of element. Some even apply to all three.

This chapter describes styles that apply to more than one type of element. Styles that apply only to text are covered in chapter 7, and styles that apply only to clips or draw objects are covered in chapter 8.

Front

Front is available for text elements and clips.

For text, it not only determines the color of the text, but also whether you see the text against the background. When *Front* is applied, you see the text in the color indicated by the color chip.

When *Front* is off, the text is transparent. It would be invisible against the background unless another style, such as an outline, is applied to give the characters a recognizable shape. For this reason, it is not possible to turn off *Front* if neither the *Shadow* nor the *Outline* style is on.





when the Front style is off, other styles (Outline and Shadow) make the text readable

To switch *Front* on or off, click on the button as necessary. By default, the text color is white, but 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* panel of the **Design Text** menu.

For clips, the *Front* button differs slightly depending on the type of clip. Monochrome clips are treated the same as text elements: the color in the color chip determines the image color, and *Front* can be turned off if the *Outline* or *Shadow* style is on. With multicolor clips, the color chip on the *Front* button is absent. Turning the button off makes all colors in the clip become transparent.

Shadow

When you apply the *Shadow* style, a selected text, clip, or draw object casts a shadow—a duplicate image of the element appearing underneath it.



The default shadow color is black. To change the color, drag the color you want to apply from the color bar to the *Shadow* button.

ICDesigner lets you adjust the length and position of a shadow relative to the light source. The default is a shadow that falls slightly down and

9: Applying object styles

Shadow

to the right. To change these attributes you use the *Effect* panel in the Design menu.



In the *Effect* panel, point to the control in the *Shadow* box and drag the control to a new position. As you drag the control you are changing the position of an imaginary light source and, thus, changing the direction and length of the shadow.

Or, select the numerical values above the *Shadow* box and type in horizontal and vertical shadow offsets for more precise adjustment.

When there is no shadow, the light source is directly in front of the element and the control is 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 shown above the *Shadow* box change accordingly.

The first number represents horizontal shadow movement; as the shadow moves to the right of the object, you see positive values, as it moves to the left you see negative values. The second number represents vertical shadow movement; positive values result in a shadow that is lower than the object, negative values produce a shadow that is higher than the object.

Regardless of where you envision the light source as you design a screen page and apply a shadow effect, the direction of the shadow should be the same for all elements on the same page that have shadows. You can change the lengths of the shadows for various objects, however, without creating a problem.

Adjusting the shadow opacity

Another control related to element shadows is the *Shadow* slider on the *Opacity* panel. This control lets you adjust the degree of transparency of the shadow, from fully opaque to fully transparent. Partially opaque shadows provide a more natural shadow effect for more subtle page designs.

By default, shadows are fully opaque, represented by a setting of 100. A setting of 0 makes the shadow invisible. At intermediate settings, the background or other elements beneath the shadow show through the shadow, softening the effect.

The maximum shadow opacity is affected by the setting of the *Whole Element* control for the entire element (described on page 272). Reducing the *Whole Element* opacity to 0 also makes the element's shadow invisible, even if its *Shadow* opacity is set to 100.



Outline

The *Outline* option produces an outline of a different color along the inner and outer edges of selected text, clips, or draw objects.



An outline can be especially useful to help light text stand out against a light or busy background. ICDesigner applies a thin black outline by

9: Applying object styles

Backdrop

default. In addition to letting you change the color of the outline, ICDesigner lets you adjust the thickness of the outline.

To experiment with different outline colors, drag colors from the color bar to the *Outline* button.

To experiment with bolder outlines, use the *Outline Thickness* value control in the *Effect* panel 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.



Backdrop

This option fills the area behind the selected text, clips, or draw objects with a selected color. The area expands as you type more text or otherwise change the size of the element, and as you apply other styles that take up space, such as *Shadow*. The *Backdrop?* option is especially useful when you must ensure that text is always readable against a background that is visually busy or constantly changing, such as live video. It is also a good way to make interactive buttons stand out from the background.



To access the option and switch it on or off, click the arrows on the multistyle button in the Design menu until you see *Backdrop?*. The button is marked with a \checkmark when the style is applied.

The backdrop box may extend slightly above and below the tops and bottoms of the characters of a text element. When the *Backdrop?* option is off, you see the background color or image surrounding the characters, as normal.

When *Backdrop?* is used with clips or draw objects, the backdrop is visible only when the elements have transparent areas, and/or in which the Border attributes (described next) make the backdrop area larger than the size of the element itself.

The default color is a medium gray. To change the color, drag the color you want to apply from the color bar to the *Backdrop?* button. Note that the backdrop color is related to the bevel color. See the section "*Backdrop and the Bevel colors*" on page 268 for details.

You can increase the dimensions of the backdrop box by using the four Border attributes.

Border

The *Left Border*, *Right Border*, *Top Border*, and *Bottom Border* options in the *Effect* panel of the Design menu let you increase the width and height of the backdrop area by adding extra pixels to the edges of the area. (See the preceding section for information on *Backdrop?*.) Moving the edges of the backdrop area away from text elements makes text more readable and aesthetically balanced. It also lets you make interactive buttons, whether based on clips or text, as large as necessary.

The additional pixels are the same color as the backdrop area. If *Back-drop?* is not on, the border of additional pixels is transparent and the

9: Applying object styles

Bevel

difference in size is not apparent unless the *Bevel*? style (described in the next section) has also been applied.



Border options have their default values (all 0)

Border width and height increased

The default settings produce no additional border. The four controls let you adjust the border amount independently for all four sides.

Bevel

All of the buttons you use in ICDesigner menus are *beveled*; that is, their edges are highlighted and shadowed so as to make a two-dimensional rectangle look as though it has depth. When you click on a button the highlighting reverses, producing an indented appearance.

ICDesigner lets you produce the same effect easily with the *Bevel*? style. A beveled edge is most often applied to a clip or text when making interactive buttons. As you can see in this illustration, the beveled edges are added around the backdrop area (described previously) that surrounds text elements, draw objects and clips.



To access the option and switch it on or off, click the arrows on the multistyle button in the Design menu until you see *Bevel*?. The button is marked with a \checkmark when the style is applied. You can apply a beveled edge to text you have selected or to the next text you type, and you can apply it regardless of the current combination of other styles, such as a backdrop or border.

Bevel colors

ICDesigner 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 appropriate shades. As a result, each edge has its own color chip on the *Bevel*? button.



The main color is not used for the edges, but is the color that is used as the basis for the selection of edge colors. Usually a backdrop is 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, ICDesigner automatically suggests colors from the palette for each edge that are compatible with this color yet provide some contrast. ICDesigner always attempts to suggest four colors, but its options may be limited by the colors available on the current palette. To create the effect you want, you may need to change the palette by adding new colors. See the section "*Adding colors to the User palette*" on page 340 in chapter 13 for details about adding new colors.

When a complete range of colors is available for use as edge colors, ICDesigner uses the lightest one for the top edge, the darkest for the bottom edge, and in-between tones for the left and right sides. In effect, it positions an imaginary light source above and slightly to the

9: Applying object styles Bevel

left of the text box. This produces the three-dimensional effect, making it appear as though the top edge of the box is fully lighted while the bottom is in shadow. Reversing the normal order of these color assignments in the *Bevel*? button color chips creates the inverse effect, making the box appear indented:



The three-dimensional effect can also be achieved with only two edge colors, placing the light color on two edges adjacent to one corner and dark color on the remaining edges.

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 at any time.

However, under particular circumstances, the backdrop and main bevel colors are linked. When:

- a. the backdrop and main bevel colors already match, and
- b. Backdrop? is already on,

then changing the backdrop color also changes the bevel colors so that bevel and backdrop retain their matching color scheme. (Changing the main bevel color never affects the backdrop color, however, and you can still adjust the bevel colors directly if you want them to contrast with the backdrop.)

Bevel styles

Beveled edges are two pixels wide by default, but you can adjust the width as necessary in the *Effect* panel 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 (see page 265, "*Border*").

Smooth

When using lower resolutions and sharply contrasting colors, the curves and diagonal lines in text characters and draw objects appear jagged rather than smooth. In addition to not looking good, on video monitors it can cause text to flicker. ICDesigner includes the *Smooth*?

9: Applying object styles Focus

option, which counters this effect and improves the appearance of elements in these situations.



Smooth is on by default. To apply it when it is off, click the multistyle button when you see *Smooth*? so that the button is marked with a \checkmark . ICDesigner blurs the roughness of jagged lines by shading neighboring pixels to reduce the distinction between the background and the element. If the element has an outline or shadow, ICDesigner also smooths around the outline and shadow colors.

The result depends on several factors. For text, the smoothing is more effective for TrueType fonts than for ScalaType bitmap fonts. The quality of the smoothing also is affected by the resolution of the screen, and by the colors available in the current color palette that ICDesigner can use in this process. The lack of enough colors for effective smoothing is rarely a problem with High Color and True Color display modes.

Focus

The *Focus*? style, on the multistyle button, lets you use a special color to temporarily highlight a new element when it is first displayed on a page. It automatically changes the color to its Front color when the next element is displayed. It is mainly used for text. *Focus*? is available

for monochrome clips and draw objects as well, but it has no effect on 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 receives the emphasis until another element is brought into view.

You can apply *Focus?* only to elements that also have an In wipe applied and a defined pause setting. The wipe specifies how the element moves onto the screen, and the pause setting ensures that it is displayed long enough for the highlight color to be visible. Unless a pause setting is defined, the next element is displayed as soon as the current element has wiped in (or out). The pause setting may be a mouse click or a predefined length of time.

Select a text element, draw object or monochrome clip and turn on *Focus?* to apply the style. Drag a color from the color bar to the *Focus?* button. Ideally, the color should be brighter than the element's normal color.

Note that the last element on a page that has the Focus style remains the focus color until the page wipes out. In order to have that element revert to its normal color before the end of the page, you would have to create an invisible final element and give it an In wipe.

9: Applying object styles

Opacity

Opacity

Graphic elements and styles are normally opaque, meaning that they have no transparency, and completely cover the background and any other element that they may be above. However ICDesigner makes it possible to give elements and styles a variable level of transparency using the controls in the *Opacity* panel of the Design menus.

Opacity is not turned on and off. Instead, it is governed by sliders that vary the level of opacity in percent. They can be adjusted from 100 (the default, completely opaque) to 0 (completely transparent). At intermediate values, the colors of whatever is beneath a partially opaque element are blended with the element so that you see both, giving the impression that the element is translucent.



The ten sliders on the *Opacity* panel give you control over the many different graphic styles that elements can have. The sliders in this panel correspond to the styles of the same name:

- Front (disal
- (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 draw elements)
- *Line* (enabled only for draw elements)

Sliders are disabled for styles that are not applicable to the selected element.

The *Whole Element* control acts as a master control for the opacity of all aspects of the selected element. That is, although the opacity controls can be adjusted independently, *Whole Element* controls the overall degree of transparency in the element's various parts. This means that reducing *Whole Element* to 0 makes everything in a heavily styled element invisible, regardless of the settings of the sliders for *Shadow*, *Outline*, *Backdrop* etc.

Element Position

The position of any element on a screen 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* panel of the Design menu reflects these distances as you move the element.

In most situations, it is faster, easier and accurate enough to drag an object to a new location on the page. However, for those occasions requiring more exact placement, the *Element Position* attribute enables you to place an element with single-pixel accuracy.

ICDesigner Shortcuts

Holding down Shift while dragging an element constrains movement to either horizontal or vertical directions. Pressing an arrow key while holding down Ctrl moves the selected element(s) one pixel in the arrow direction. To change the position of a selected element with the *Element Position* attribute, go to the *Position* panel.

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 that the upper left corner of the element is off the screen page, above or to the left.

9: Applying object styles

Rotate Angle



200 pixels

75 pixels

Rotate Angle

ICDesigner also lets you rotate an element using the *Rotate Angle* option in the *Position* panel. 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* rotates elements clockwise, and you can watch the element rotate as you adjust the

value control. Note that you cannot enter negative values. To get rotations that appear to be counter-clockwise, use values from 180 to 359.

Using a matching rotation for all text and clips on a page with a rotated background can make authoring portrait-style displays more practical. (See page 138 for information on background rotation.)

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** rotates the selected clip 15 degrees clockwise. Shift+**R** rotates 15 degrees counter-clockwise.

Text rotation

Text elements rotate clockwise around their upper left corner. The possible values are 0, 90, 180, and 270 degrees.



9: Applying object styles

Locked?

When you rotate a text element, the text cursor's orientation also changes: the cursor becomes horizontal when the text is vertical (a rotation angle of 90 or 270 degrees). However, you still use the same keyboard keys to move the cursor within the element—the right arrow key (\rightarrow) always moves the cursor toward the end of the element.

Locked?

At times it is worthwhile to prevent any editing changes to a given element. You may want to do this if you need to keep a particular clip in the same position at the same size on a number of pages, for example.

The *Locked*? option in the *Position* panel of the Design menu makes this possible for any element. Select one or more elements and then turn this option on (\checkmark) to lock them. A locked element can be selected, but small lock icons appear near the corners of its selection frame to indicate its status, and it cannot be moved, sized, or otherwise edited.



locked clip

Turn off the Locked? option while an element is selected to unlock it.



Working in the Design List menu

10: Working in the Design List menu

As you compose a page in Scala InfoChannel Designer 3 and begin to add special effects such as In and Out wipes to its elements, it often becomes difficult to keep track of the sequence in which things happen. The **Design List** menu gives you an overview of the relationships between the elements and events that take place on one page, just as the **Main** menu gives you an overview of how each page fits into the total scheme of your script.

The List menu lists the events on a page in the order they should occur and enables you to change this sequence without affecting the position of the elements on the page itself. It lets you apply and remove wipes and control the timing of all kinds of events.

For example, from the List menu you can access the **Sound** menu to create a sound event that is specifically associated with an element, the **Timing** menu to define a pause setting that determines how long an element that wipes in should be "at rest" before the next event on the page takes place, and the **Element Wipe** menu to determine how elements enter and leave the page.

Using the List menu

You can work in the List menu at any time to adjust the order of existing events on a screen page or to create a *special event* that is not necessarily associated with an element you can see. If you are working in a Design menu, click on the *List* icon, or press the shortcut key F8. If you are in the **Main** menu, select the page you want to work with before you choose *List* from the *Design* drop-down or press F8.

You see the **Design List** menu, and the screen page as you designed it, including all its text, clips, and buttons.



If the page has more than a few elements, you can use the scroll bars to see different parts of the list, or you can click on the Normal/Full Size button in the menu title bar to enlarge the menu to full screen size. This enables you to see more events in the list at one time and get a more complete impression of the relationships among them.



To reduce the List menu to its standard size to see both the screen page and the menu simultaneously, click the Normal/Full Size button again.

Regardless of the menu size you choose to work in, you can press the secondary mouse button to temporarily hide the List menu or, if the menu is hidden, press the button again to see the menu.

Other features common to Design menus also apply. For example, you can easily move between the List menu and the current page as

10: Working in the Design List menu

The List menu and the Main menu

you work. Any selections or changes you make in one are applied and reflected immediately in the other.

+ . Add	. 🛠 😽 🥒 🤫	Background	Palette Li	st Fu		> 💼 view <u>M</u> ain		\$
No.	Element	Layer	Wipe In	Wi	pe Out	Timing	Sound Brar	nch
1	Publish to:	0	<u> </u>					
2	• Web	0						
3	 HTML slides 	0						
4	• Email	0						
5	• Video	0						
6	CD-ROM	0	N	5		0		
7	• Disk	0	• ≥	5		0		
8	InfoChannel Network	0	Î∎ ↑	5		0		
9	Logo	0		5		0		

click Normal/Full Size button to return to standard size List menu

> However, unlike settings defined in most Design menus, you will not be able to see or hear the results until you preview the page or run the script, because changes made in the List menu are timing-related, and thus not apparent on a static page.

> You can move from one page to another using the Page Switcher in the menu title bar, and you can access a different Design menu by using the toolbar icons or a shortcut key. (For more information about Design menus in general, see chapter 5.)

The List menu and the Main menu

In addition to the features of a Design menu, the List menu gives you the same facilities as the Main menu to access a variety of other menus and define attributes for one or more elements from a central place. For details on how to use the List menu functions that correspond to those in the Main menu, see chapter 2, "*Working in the Main menu*".

Similarities

The List and Main menus share several basic similarities:

- An *event* in the List menu is analogous to a *page* in the Main menu: it can be a single line of text, a clip or a button, or it may be a special event that defines a sound event, a pause or a variable. Essentially, an event is anything you can introduce on a page and control from the List menu. Events representing something you see on the page, such as text and clips, are usually referred to as *elements*, but more generally they are also 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** menu, which is the same as the **Page Control** menu on the Main menu. When an event is disabled, the *No.* button reads *Off*, its row in the List menu changes color, and if the event is a element, the element disappears from the screen.

• In the *Element* column, the name of an element is based on the element itself. If the element is a line of text, the name is the same as the contents of the line; that is, the actual text. A clip is identified by its file name. For a button, the normal text or clip name is prefixed by "Btn:".

If the same text or the same type of element is used more than once on a page, ICDesigner automatically adjusts the name by adding a numerical suffix such as ".1".

You can change the name that identifies an element without affecting the element itself. To edit the on-screen text in a text element, you must work directly on the screen page; you do not edit the text by editing the name of the element in the List menu.

10: Working in the Design List menu

Adding elements on the List menu

- You can change the order in which events take place by dragging the *Element* button of an element to a different position.
- You can adjust the width of the columns and change their order.
- To work with several elements simultaneously, you can select the elements on the screen page using the techniques described in the section "*Selecting text*" on page 174 in chapter 6, and the section "*Selecting pages*" on page 63 in chapter 2. For example, you can Shift-click and Ctrl-click to select more than one item.
- All the standard functions of the *Edit* drop-down list (*Cut*, *Copy*, *Delete*, etc.) are available.

Differences

However, there are also a number of ways in which the List menu differs from the Main menu:



- You can choose between full-screen and partial-screen views of the menu by using the Normal/Full Size button.
- Because you can already see the page and elements as you work in the List menu, there is no Thumbnail view.
- There are two wipe columns in the List menu, *Wipe In* and *Wipe Out*. Unlike a page, an element can both enter and exit the screen.
- The List menu has a *Layer* column, which opens a menu giving you independent control of element depth arrangement.
- The List menu 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 on page 283, "*Working with elements*".
- The freedom of movement within the list depends on the type of element you are moving, either passive or independent.

Adding elements on the List menu

ICDesigner lets you add elements to the current page directly from the List menu. Click on the page and type to add text, just as in the

Design Text menu. You can add an element that exists as a file in your system, such as a clip or even a script, or you can add a *special event* that inserts a blank element in the List menu. This makes it possible for you to define an element that is not necessarily visible as a separate entity on the page but has settings that make something happen. For example, you can define a pause setting to ensure there is a brief delay before the first element wipes onto the page.

To add an element to the page from the Design List menu, click on *Add*. You see the File dialog. You have access to the same quick-access buttons, folders and files as when you click on *Add* in the Main menu, and you can select files accordingly. In this case, however, if you choose a file in the Backgrounds folder it is handled as a graphic file and positioned on the page as a clip.

To add a special event rather than a file, choose *Add Special Event* from the *Add* icon drop-down list. An event named "<untitled>" then appears in the List menu.

When you double-click on a file name, click *OK*, or choose *Add Special Event*, you see the List menu again. The new event is inserted below the previously selected event or at the end of the list if nothing was selected. On the screen page, a new element is handled as though it were being pasted, and is positioned down and to the right of the currently selected element. If nothing is selected, the element is inserted at the cursor position or, if the cursor is not active, at the last position occupied by the cursor.

An added element is automatically selected on the page (if the element is visible) and in the List menu, so that you can immediately begin to work with it. If, however, the new element overlaps existing elements on the screen page, you may need to adjust its position.

Working with elements

In the Design List menu, 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

10: Working in the Design List menu

Working with elements

from the top-to-bottom arrangement of the elements as they are positioned on the page itself.



Passive elements

Elements without an In wipe come into view together with the background when the script runs. They are all displayed at the same time and are collectively affected by the settings that apply to the entire page. If they are Global Text Crawls, they are displayed over all backgrounds.

These are called *passive* elements; meaning that they are not separate events in time and cannot have special EX column events of their own, such as a sound or pause. They are always listed first in the List menu. When you assign an In wipe to an element, it is no longer passive—it becomes an independent element.

In the preceding examples, the first five elements are passive.

Independent elements

In contrast, elements with wipes and events created as special events produce effects that don't begin to happen until the page has finished wiping in. These are *independent* elements and, as a result, appear in the List menu after the passive elements.

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. In the last example, elements 4 through 7 are independent elements.

To make an independent element passive, assign the None wipe as an In wipe.

Changing the order of events

You can change an element's position in the List menu by pointing to its *Element* button and dragging the row to a new position.

ICDesigner Note

Changing the position of an element in the List menu does not affect the position of the element on the page.

However, you cannot move a passive element into the section of the menu that lists the independent elements and, similarly, you cannot move an independent element into the area of passive elements. If you try to do so, the events just end up at the bottom or top of their respective sections.

Changing the order of passive elements does not affect the order in which they are displayed since they are all displayed immediately as part of the page. Nevertheless, you may want to change their order in the List menu if they overlap to place a particular element on top, or simply to make the menu more closely resemble the screen page.

Changing the order of independent elements, however, affects the sequence of events and determines which element is displayed first, next or last.

Moving "HTML slides" to the top of the List menu changes the listing, but has no effect on the page, because passive elements appear with the page background.



If the Scala logo clip, "BANG.BMP", is not moved from its place at the bottom of the list of events, it will be the last element displayed, despite the fact that it is at the top of the screen page. If it was dragged Working with elements

to the top of the list like "HTML slides" in the above example, it would end up as event 4, the first independent element. The page would then look like this just after the clip made its appearance on the page:



Listing order and stacking order

Most Design menus have the options *Appear Earlier* and *Appear Later* in the *Edit* drop-down. These exist primarily to arrange the sequence in which the events appear on the page, as reflected in the List menu. However, within a given layer the ordering options also directly affect the stacking or visual depth arrangement of screen elements. (See the following section for more on layers.)

Appear Later moves the selected event down in the List menu; Appear Earlier moves the selected event up. If the event is an independent element, it therefore happens earlier or later than it did previously. Within a given layer, later elements appear to be on top of earlier elements.

Neither changing the listing order with these *Edit* options nor dragging events up and down in the List menu has any effect on depth arrangement that has been achieved by adjusting the layer numbers in the **Layer** menu or the *Position* panel. It is only within layers that the List menu ordering has a corresponding effect on depth arrangement.

Layering elements

The List menu contains a column not found in the **Main** menu, the *Layer* column. In the column button is the current layer number of each element. Clicking in the *Layer* column opens the **Layer** menu, which contains the *Element Layer* control.



Use the Layer menu to create visual layering of elements that is independent of their time ordering. Click *Preview* to see how the page and its element wipes look in playback.

See page 162 in chapter 5 for more details on element layering.

Applying wipes from the List menu

In and Out wipes can be applied to any element that is not a sub-script or non-graphic special event (such as a sound or a pause). When you first add a page element, it has the None wipe as In wipe, and no Out wipe.

If you click on a wipe button you see the **Element Wipe** menu. Depending on the size of the List menu you are using when the menu opens, you see either the screen page and the Wipe menu or the fullscreen **List** menu and the Wipe menu.





Element Wipe menu over standard List menu and page

Element Wipe menu over full-screen List menu

The benefit of using the List menu to apply wipes is that it gives you an overview of the sequence of page elements and events. It also lets Working with elements

you see the wipe speed settings. As a result, it is often more practical to work with the full-screen List menu and the Wipe menu. You can always click on *Preview* to test the on-screen effects of the adjustments you make.

In any case, you work in the Element Wipe menu using the techniques described in chapter 12, "*Using wipes*". For example, you can select a wipe, adjust its speed and preview the results. You can work in the menu and apply In and Out wipes to as many elements in the List menu as you want before you close the Wipe menu.

Wipes and passive elements

If you apply an In wipe to a passive element, ICDesigner automatically moves the element to the bottom of the list of independent elements in the List menu. Similarly, if you remove an In wipe from an independent element—that is, apply the None wipe to it—the element is automatically repositioned and listed last in the series of passive elements. (Elements that are special events are always handled by ICDesigner as independent elements.) If the list of elements is long, ICDesigner scrolls to the element in its new position and selects the element so you can continue working with it.

Even passive elements, however, can have an Out wipe to move the element off the screen page. When you apply an Out wipe, ICDesigner creates a new event in the list of independent elements. The name is the same as that of the original element but includes the prefix "Out:". This enables you to easily distinguish between each type of wipe and, at the same time, clearly see which events are related. If you change the name of one of the related events, ICDesigner automati-
10: Working in the Design List menu Adjusting the timing

cally updates the other. If you do not apply an Out wipe to an element, it remains on the page until the next page wipes in.



Adjusting the timing

Timing settings help ensure that the audience has time to absorb the information presented on the page. When you apply both an In and an Out wipe to an element, ICDesigner at first schedules the element to wipe out immediately after it wipes in. That is, in the list of independent elements, the Out wipe event is placed directly below the event with the related In wipe, and is next in the sequence of activity.

(In the preceding illustration, the Out wipe event would have originally appeared as the fourth event, the first independent element. It was dragged to the position shown.)

You can change the timing, however, by moving one or both of the elements in the list or by changing the Timing setting for the element with the In wipe.

Since an element can never wipe out of view before it is displayed, you cannot move an Out wipe event to a position that precedes its related "In" event. The Out wipe can be much later in the sequence, however, with any number of things happening on the screen between the time the element first appears and the when the Out wipe begins.

Adjusting the timing

Adding pauses

Regardless of how the elements with In or Out wipes are arranged, ICDesigner assumes that one event in the list of independent elements should follow another without delay. The setting on the *Timing* button of an element indicates how long ICDesigner pauses before it proceeds to the next event in the sequence. Initially, this setting is zero (0)seconds and when one event is finished the next occurs immediately.

To vary the timing, click on the *Timing* button of an element. You see the Timing menu. You see this same menu when you click on a *Tim*ing button in the Main menu (see the section "Timing" on page 48 in chapter 2).

The timing options for elements are the same as for pages.

Special event pauses

Special-event pause (3 seconds)

lish to: Web, HTML slides, Email, Video") before the next text, "CD-

ROM["], wipes in.

In addition to changing the Timing settings of existing elements, it is often useful to create a special event that is used only to define a pause. You may want to do this, for example, to create a brief delay between the information presented by the passive elements that come into view with the page and the appearance of the first independent event, which might be additional text.

You would need to add a pause after passive elements in this way because you cannot apply a pause directly to a passive element.)



These and other uses of the Timing menu are discussed in detail in chapter 11, "Advancing the script automatically".

Working with sound and other events

Using the List menu 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** menu in order to:
 - apply sound to an existing element (click on its *Sound* button).
 - create an element that is itself a sound (click on *Add* and from the Sounds folder choose a sound file).
- the **Branch** menu to set variables or do comparisons, then control the sequence of events on the page based on variables or expressions (click on an element's *Branch* button).
- other menus specific to Scala EX modules that you install as special ICDesigner utilities. These EXes are also represented by columns in the **Main** menu. (Click on a button in the EX's column to open its menu.)

Regardless of how you access the Sound menu or other menus, the way you work in them is the same. The Sound menu is discussed in chapter 1 of the "*Extended Authoring*" guide, "*Using sound*". The Branch menu is discussed in chapter 3 of the "*Extended Authoring*" guide, "*Branching and using variables*".

EX events

The menus you see when you click on buttons in the other columns available in the List menu depend on the Scala EX modules you have installed and activated. For information about working in these menus, see chapter 7 of the "*Extended Authoring*" guide, or see the documentation that came with the module.

In general, EX options are available and special settings can be applied to most independent elements in the List menu. If you are working with a series of selected elements, some of which are passive, you can still do many of the operations, but the results are applied only to

10: Working in the Design List menu

Working with sound and other events

independent elements that have the options available. A new, independent element or event does not inherit any of the settings of the previous element in the list.



Good timing is the backbone of a well-paced production, and ensures that it maintains a forward momentum, both holding the audience's interest and giving them time to absorb the information presented. With careful use of Scala InfoChannel Designer 3's timing options, you can synchronize pages with music, narration, or live events so that your script runs as smoothly and effectively as possible.

ICDesigner Note

Advancing is essentially the same for both pages and elements. This manual uses the term *events* to apply to both.

This chapter talks about timing in general and focuses on using the **Timing** menu to control the way the script advances. You use the Timing menu to adjust the timing of elements on the page as well as the timing of the page itself.

Advancing from event to event

Loosely speaking, a script in ICDesigner can be regarded as a chain of events, a linear series. A script proceeds by advancing from event to event—from page to page on the **Main** menu level and from element to element within each individual screen page. This chapter concerns how and when each event in the script sequence is "triggered", and how long it lasts. The combination of the trigger methods you choose and the other timing parameters and options ultimately determines the exact sequence and pace of the script.

There are two basic ways that a script can advance in ICDesigner: interactively and automatically. A script can use either at any point, and often the same page of a script will allow advance by either method.

Interactive advance

Interactive advance refers to use of the mouse, keyboard, or other device to trigger the next event directly. Simply pressing a keyboard key or mouse button offers a very simple way to advance. ICDesigner also has extensive support for interactive buttons, which allow scripts to employ familiar computer GUI approaches for easy and flexible navigation through more complex productions.

Business presentations that use a slideshow format and kiosk applications requiring input from users are examples of ICDesigner scripts that would make use of interactive advance.

Automatic advance

Using automatic advance means that you specify time values for the durations of events, or for the intervals between them. When this time value, or *timeout*, is reached without some interactive input, the next event is triggered. This way, pages and elements in your production can run at a pre-set pace, without requiring any direct human input to advance.

The timeout options in ICDesigner provide different levels of precision, different methods of specifying the time value, and different ways of determining where the time counters start and end.

It is important to emphasize that these two approaches to advancing through a script—automatic and interactive—are not mutually exclusive. Indeed, in many types of ICDesigner applications, settings for both types of advance are likely to be employed simultaneously at almost any point in the script.

Understanding relative timing

In ICDesigner, automatic timing of events is relative, not absolute. This means that the start times of events are determined by the endings of the preceding events, rather than preset as a series of points in time referenced to a real-world clock.

In a relative-timed system, if you lengthen an event, the events that follow it don't need to have their start times explicitly changed. They

Working in the Timing menu

just happen later. Fig. 1 illustrates this, showing how lengthening the first event on page 1 pushes back all later events, including page 2.



Figure 1. Illustration of relative timing of events.

Working in the Timing menu

Clicking the *Timing* button for a page in the **Main** menu, or an event in the **List** menu, opens the **Timing** menu.

Timing				? ×
<u>T</u> iming: Pause		Σ	<00:00:01.00►	Close
Preview	Reset on Input?			Cancel

This menu allows you to specify how you want the script to advance to the next event—that is, to the next page or the next element on a page.

Types of advance

The *Timing:* pop-up in this menu determines the type of advance. There are four possibilities:

- Timing: Record Time with Mouse
- Timing: Duration
- Timing: Pause
- Timing: Wait Forever

The first three specify different kinds of automatic advance. The last, *Wait Forever*, disables automatic advance and is used when the

advance is strictly interactive, through a button, mouse click, or other user input.

Setting the advance for several events

When working in the Timing menu, as in other ICDesigner menus, you can set timing for several events without closing the Timing menu each time. Clicking on a new event confirms any changes you made to the previous event before it shows you the timing for the new one.

If you want to set the same timing for each page in your production, you can avoid having to go to every page to do so. Simply click *Edit* and choose *Select All* to select every page. Then, open the Timing menu and make a setting. All the selected pages will automatically be set the same way. You can also select more than one item at a time by Shift-clicking or Ctrl-clicking on the pages that you want.

Settings in the Timing menu

Use the *Timing:* pop-up to choose one of the following types of timing setting.



Wait Forever

The *Wait Forever* setting is indicated by a dash in the *Timing* column. With this setting, the script does not proceed to the next event automatically, no matter how much time passes.

When you have used *Timing: Wait Forever*, it is assumed that the viewer can manually control the advance of the script by some interactive means:

- clicking a mouse button
- choosing an on-screen button (using mouse, keyboard, or touch screen input)
- pressing a key on the keyboard

Setting up an advance of this type usually depends on additional settings in the **Input** and/or the **Design Buttons** menus. However, the Settings in the Timing menu

default Input menu settings in ICDesigner allow advance to the next or previous event based on a mouse button click. See chapter 2 of the *"Extended Authoring*" guide for detailed information on both of these menus.

Controlling advance interactively

Using *Wait Forever* is common when you want to interactively control the way the script progresses. If, for example, your production is in the form of a slideshow—a simple succession of whole pages—you often want to pause a page to discuss it with the audience before you are ready to continue. You can achieve the same effect with interactive buttons, but doing so is considerably more involved.

Wait Forever is different from other advance settings because it allows "live" timing: timing is determined as the production is displayed, not before. When using *Wait Forever*, then, you interactively control the pace of the production to ensure that it is right for your audience. Using the mouse to advance events, you can interrupt a page at any time—even during a wipe—to begin the next event.

Wait Forever is the option normally used on pages with interactive buttons. The viewer controls the pace him- or herself by using the buttons to advance the script. (See chapter 2 of the "*Extended Authoring*" guide, "*Making scripts interactive*".)

Timing setting and button use

If you try to create a button on a page that has a different Timing setting, a dialog asks if you want to switch the page to *Wait Forever* timing. You are not obligated to do so, however, as you may wish to provide an automatic advance if the viewer does not choose a button within a certain time.

Pause

Pause is the simplest ICDesigner *Timing:* option to use and is ideal for most non-interactive situations. You can adjust the length of your pause by using the value controls to the right of the pop-up.

When you choose *Pause*, you see a value control that has text boxes for hours, minutes, seconds, and hundredths. Use the arrows to adjust any

Settings in the Timing menu

of the four values by first clicking on the value you want to change. The time you set is reflected in an event's *Timing* column button.



If the column is narrow, times up to 999 seconds (about 16.5 minutes) are displayed in seconds only. For example, 2 minutes and 1 second is displayed as 121. (Time has been converted into seconds: 121 is $2 \times 60 + 1$.)

If the timing you have set exceeds the amount of seconds that can be displayed in three digits, ICDesigner does not abbreviate, but a narrow *Timing* column will show only part of the information. In any case, if you widen the timing column (see "*Customizing columns*" on page 53 in chapter 2), you see the whole thing, for example, 01:32:06.50.

You use the Pause setting to provide pauses between each event, assuring that each event is displayed long enough for your audience. If, for example, you think the audience will need four seconds to absorb an event after it wipes in, you can set *Pause in Seconds* to four, and the script will wait that long before the next page begins.

When does the Pause time start?

It is important to keep in mind that the Pause time doesn't begin until the event finishes whatever action that it performs. (The event can be considered to encompass the length of the Pause time—as suggested by the diagrams in this chapter—but the event proper is finished when it is no longer doing anything.)

The point at which an event (a page, or an element/event that is on a page) is considered finished might not always be obvious.

• Page finish: when all independent elements on the page, including their In and Out wipes, are finished, while the background and all remaining elements are displayed

Settings in the Timing menu

• Page element/event finish: when a graphic element has finished its In wipe or Out wipe; when an animation has finished playing; when a sound sample, MIDI file, or CD track has finished playing

It is important to see that for graphic elements, like clips, that have the Cut wipe, the event is finished almost instantaneously, because the Cut wipe takes no time. Thus the Pause begins immediately. The length of time that the element remains displayed on the page has no bearing on when the event is considered finished.

Also, an Out wipe for an element is a separate event itself. It does not extend the length of the element it is related to.

The following illustration shows these relationships:



Figure 2. Example with both event and page Pauses.

Reset on Input

Pause timing offers the Reset on Input? option when the Pause time is

ICDesigner Note

If the *Mouse Buttons* option is enabled in the **Input** menu, using the mouse buttons will still go to the next or previous page. greater than zero. While *Reset on Input?* is switched on (\checkmark), ICDesigner listens for any keyboard or mouse activity during the pause. If a key is pressed or the mouse is used, the pause clock resets to zero, giving additional pause time for the page or element.

This makes using a timeout in interactive productions

much more practical: if there is no input after a given length of time, the script can return to a demonstration mode or "attract loop". This combines the flexibility of viewer interactivity with the predictability of automatic advance.

Applications for Reset on Input

For example, a kiosk-type production might display a page (using *Timing: Wait Forever*) that has a picture of five automobiles, and asks shoppers to click on one for more information. The pages for each car could have various interactive buttons for displaying information on different aspects of the car. Each page would also have a long Pause with *Reset on Input?* specified. When a shopper walks off after seeing as much as he or she wanted on a particular car, the Pause time eventually passes, and the script returns to its initial screen with the five cars.

Using *Reset on Input?*, you could also create a fast-paced production with short pauses, but make it possible for the production to "slow down" if mouse or keyboard activity indicates that someone is interested. A page with a picture and some text might be given a 3-second Pause so that the presentation continues without delay if no one needs extra time to read. However, the viewer who does need more time to read the entire page only has to move the mouse or touch a key to keep from being interrupted by the end of the Pause interval.

Duration

When you choose Duration, you are telling ICDesigner to measure the total length of an event as opposed to the idle time between its end and the beginning of the next event.

Once you have chosen Duration, use the value control to change the time value as with *Pause*. The new value is reflected in the *Timing* column and appears abbreviated if the *Timing* column is narrow.

The next event begins after exactly this amount of time has passed, regardless of the length of the event itself, *unless* the event takes longer than the Duration time. In that case, the next event begins as soon as the current event ends.

Establishing a useful Duration time

If the time that the event must take is already established, you simply set that time as the Duration value. You may then need to adjust the event itself (wipe speed or MIDI tempo, for example) so that its length does not exceed the Duration time.

Settings in the Timing menu

Alternatively, the event involved may be set in stone, so that you need to find a Duration time to encompass it. The simplest way to do this is to play the script under conditions as similar as possible to its ultimate intended use, and measure how long the event takes. Then set the Duration to something equal to or greater than that time. Consider using the *Record Time with Mouse* feature (see page 303) to do this interactively.

In either case, because Duration covers the length of the entire event, and the length of time taken by many events is indeterminate, finding the right Duration value or event settings can require some experimentation. You need to know (or measure) how long it takes for the events covered by the Duration to take place, and then set a time that is at least that long.

This is crucial because *event completion overrides Duration time*. For example, if you set a Duration for the page of 8 seconds, and a page takes 11 seconds to run, the page events are not cut off, nor are they accelerated. The Duration setting has no effect: the page takes its full 11 seconds to finish running, then the next page begins without any delay.

When using a Duration setting, the timeout you set must exceed the time it takes to actually run the event, or the setting simply has no effect. This is not the case with a Pause setting, for which the timeout

doesn't begin until after the event has finished running (however long that might take), and thus always has an effect.



Figure 3. Page Duration.

When timing is tight, it is still generally a good idea to add a "safety factor" to the event time to get the Duration time. Doing so allows for possible event slowdowns caused by less-capable hardware and system resource fluctuations.

Record Time with Mouse

The *Record Time with Mouse* option is an interactive way to make a series of *Duration* settings. It lets you click the mouse to indicate when to advance as the script actually runs. ICDesigner records the click-timings and applies them as Durations to the appropriate events.

Since you usually want to set the durations of a series of events when using Record Time with Mouse, select all those you want before clicking in the *Timing* column. On the Timing menu pop-up, choose *Record Time with Mouse*. You see the *Timing* column display a mouse icon for each selected event. Now run the script.

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As the script runs, there is no automatic advance after the events you selected. Instead, the script waits for you. Click the main mouse button each time you want to advance from one of your selected events.

Pause or Duration – which to use?

ICDesigner records the timings you have chosen, which show up as HH:MM:SS.hh values in the *Timing* column. When you later run the script, it uses these timings.

After recording, the mouse icons are replaced by the time values that ICDesigner measured from the beginning of each event to the moment you clicked.

If you are not satisfied with the timing of one of the events, you can easily replace it by selecting the event and using *Record Time with Mouse* again. Follow the same procedure. You can also change the Duration setting directly, with the Timing menu value control; this can be easier than repeating the Record Time with Mouse procedure when you need to make fine adjustments in a recorded timing.

Record Time with Mouse is particularly valuable if you want to synchronize your script with music, for example. You can quickly and precisely set a large number of advance timeouts without having to manually specify a whole series of HH:MM:SS.hh settings.

Pause or Duration – which to use?

Each of ICDesigner's automatic timing options is either a Pause or a Duration. Both are similar in that they let you specify a timeout value for an event, after which the script automatically advances to the next event (providing there was no other input). Indeed, for any given instance of playback, you could achieve exactly the same result using either a Pause or a Duration setting. So in many situations, it does not matter greatly which approach you choose.

The difference between Duration and Pause

As described in preceding sections, there is a single basic difference between these two methods of automatic advance:

- a Pause starts to measure its timeout when the event is *finished*
- a Duration starts to measure its timeout when the event begins

Using Pause

The main advantage of using Pause settings is that they are simple. Pause lets you quickly set up a script with a reasonable pace without having to first determine how much time each event takes. If your audience needs extra time to absorb information in certain parts of your production, you can adjust a Pause setting without having to consider other timing-related factors.

The disadvantage of Pause is that it does not necessarily produce consistent results after editing other aspects of the script, or when playing back the script on different computers. If you need to have comparable timing when the script is played back on both slow and fast machines, you would have to create two versions of the script, with longer Pause values for one of them. The script's overall timing would also change if you adjusted the speed of a single wipe, meaning that you would have to adjust one or more Pause times to compensate.

Using Duration

The main advantage of using Duration settings instead of Pause settings is that they let you achieve consistent, accurate automatic advance intervals within your script even on a variety of hardware and under varying system conditions. Durations also maintain the same timing when you adjust wipe speeds and perform most other editing operations.

Duration settings are the natural choice for situations in which there is some continuous, non-editable event, such as a video or music track, to which you need to synchronize script events.

For example, if you want to display text on the screen corresponding to lyrics in a music track that the script plays so that people can sing along, you need to make sure that the text and music correspond exactly. Because all computer speeds vary—meaning that a wipe can be faster on one computer than another—setting Pauses between the pages will not guarantee the exactness this situation calls for.

Using Duration settings allows you to maintain consistency (a 13.5second Duration will always take 13.5 seconds provided the event

Overriding timeout settings

itself takes no longer than that), which allows the words and music to stay in sync.

The disadvantage of using Duration for an event is the extra effort

ICDesigner Note

Even when using Duration timing, the length of time it takes for an event itself to run—especially wipes—can still vary from machine to machine. required: you need to determine how long the event itself takes in playback, so that you can choose a Duration time that is longer. If the event takes more time to complete than the Duration time you set, the Duration has no effect: the script proceeds immediately to the next event after however long this event takes. (In contrast, a Pause always has some effect, regardless of the event it is applied to.)

Remember these factors to consider when establishing a Duration time, to make sure that the event length will not exceed that time:

- Hardware speed (affects wipe speeds, can affect animations)
- Speed settings (wipes)
- *Wait?* settings (wipes, sounds, animations)
- Loops settings (sounds, animations)
- Frames per Second settings (animations)
- *Tempo* settings (MIDI tracks)

See the sections "*The Wait option*" on page 308 and "*Factors that affect timing*" on page 311 for more detail.

Overriding timeout settings

Because flexibility is vital to a successful production, ICDesigner does not make the different types of timeout settings mutually exclusive. You can, when necessary, override automatic timeouts or have automatic timeouts override interactive settings.

Overriding automatic timeout settings

By default, any automatic timeout setting can be overridden by clicking the main mouse button or pressing the Page Down key. Doing so will interrupt a Pause, a Duration, or even a wipe, and proceed to the next event. (Clicking the secondary mouse button or pressing Page Up moves to the previous event.) This is most often useful during script creation, when you need to check the sequence of events, or you want to move quickly through the script to view some later portion.

Pause settings can also be overridden by the mouse or keyboard when you switch on (\checkmark) the *Reset on Input?* option, discussed on page 300. It has the effect of making the Pause longer rather than shorter.

If you want to be sure that automatic timing settings cannot be overridden by the mouse, you can do so on a page by page basis. The **Input** menu's *Slideshow Controls* options let you disable the mouse and/or the keyboard so that the preset timings are not interrupted. See chapter 2 of the "*Extended Authoring*" guide, page 84 for information on these options.

Overriding interactive settings

Sometimes, you need to allow a preset time to override interactive input. This is necessary when you want to allow interactive input, but do not want the production to stop completely if there is none.

You do this by setting a Pause or Duration for a page—possibly turning on *Reset on Input?* if using a Pause—for a page on which you've defined one or more interactive buttons. If someone chooses a button before the automatic timing you set, then the button function is executed. If not, the script continues to the next page when the preset timeout has finished.

Timings with long events

Adjusting the timing for simple events is basically the same regardless of the type of event. There is, however, an additional factor special to timeouts for events that take time to complete: the *Wait?* option.

Timings with long events

The Wait? option

Some events are essentially instantaneous: Cut wipes, setting variables, branches, and various others. Other events, such as sound, animation, and elements with wipes other than Cut, by their nature take time to complete. Events that take time have the Wait? button on their menus.

When this option is on, the event being defined—including its Pause, if any—must finish before the next event begins (Fig. 4 uses a sound event as an example).



Figure 4. The effect of leaving the Wait? option on.

If *Wait?* is off, however, following events in the script can begin to run after the current event has begun, so that more than one event runs simultaneously (shown in Fig. 5).

PAGE 2		PAGE 3
Event 2 Pause		
Event 1 Event 3 E	Event 4	
Event 2 - Sound event with Wait? off		

Figure 5. The effect of turning the Wait? option off.

The Wait option makes the Pause resemble a Duration, in that the timeout countdown now begins right after the event begins. In this situation, however, a time that is less than that of the current event is desirable, because that is what creates an overlap. The extent of the overlap depends on the Pause value for the event.

When setting a Pause on an event that has *Wait?* off, the time must be less than the length of time the event takes to complete, or there will be no overlap. If the Pause is longer than the amount of time the event takes to complete, it would nullify the effect of having the Wait?

Event 2 has Wait? off, so Events 3 and 4 can begin while the sound event continues

has finished

option off: the next event wouldn't begin until after the current event had finished.

For more information about the *Wait?* option and sound events, refer to chapter 1 of the "*Extended Authoring*" guide, "*Using sound*".

Choosing the right setting

In order to choose the timing options that work the most effectively for your ICDesigner production, think about the focus of your production. Is precise timing crucial—as in synchronizing music to images—or is it more important that your audience have enough time to absorb text on a page before the next page begins? Your production may have both situations, and call for a variety of timing approaches.

The best way to find out which type of setting is best for your particular need is to experiment with the different settings. Depending on the situation, more than one setting can often accomplish the same thing, but in different ways. One, however, is usually easier to use for your particular purposes than the others, so it is a good idea to see exactly how they work in order to choose the most efficient way to time your script.

Different general types of productions lend themselves to the use of one approach or another. Here are some general suggestions:

Slideshows

A "slideshow" is a simple production that consists of a series of fullpage images shown in sequence, without individual elements wiping on or off of the pages. Slideshows can be interactive, automatically timed, or a mixture of both, depending on the specific requirements of the production.

Typically, if the slideshow is an accompaniment to a spoken presentation, the ICDesigner production works the same as a presentation using a traditional slide projector: all pages simply use *Wait Forever*, and the speaker triggers the next page when ready by clicking. Because

Choosing the right setting

Wait Forever is the default, such a slideshow needs no explicit timing settings.

Kiosks

A kiosk is an information terminal set up in a public place, such as a hotel lobby, convention floor, or shopping mall. A production intended for kiosk use can be a simple slideshow, but most often requires a combination of buttons and automatic timing. Buttons allow the audience to proceed at their own pace. Automatic timing (which could be Durations, or Pauses with *Reset on Input?*) ensure that the production does not remain on a single, static screen forever while waiting for an audience response. The end of a timeout can lead to an "attract loop" of pages with various images and messages that draw attention and announce the type and range of information available from the kiosk. (See page 335 in chapter 12 for recommendations for using wipes in attract loops.)

If there is considerable text on a page, using *Pause* with *Reset on Input?* will allow interested people additional time to read the text when they touch a touch screen, press a key or move a mouse. A more flexible approach is to add interactive buttons that lead to additional text or pages with more detailed information.

Quizzes

A timed quiz could make good use of buttons, together with a Duration timeout to limit the time allowed for each question. See chapter 2 of the "*Extended Authoring*" guide for complete information on creating buttons.

Music video

A "music video" style production, in which there is a music track that is accompanied by related images or text, clearly calls for Duration settings, to allow precise synchronization. You would start the music track first, with its *Wait?* option off. Then add a special event page for an initial delay, and pages for the events you want to synchronize. Give them all a *Record Time with Mouse* timing, and run the script, clicking when each new event should appear. The events would each get a Duration having a time sufficient to reach the next synchronized event in the music track. If the recorded timing was not exact enough for certain events, edit the Duration times for them directly, or re-do the *Record Time with Mouse* procedure for just those events.

Factors that affect timing

It is important to remember that some events in ICDesigner that take time, such as wipes and fades, is dependent. This means that you cannot always be certain exactly how long the events will take. The time they take to run varies depending on a number of internal and external factors, such as:

• In wipes and Out wipes

When you set In and Out wipes, you also choose a *Speed* setting for each wipe (except the Cut wipe, which is instantaneous). The speed controls how long the wipe takes to complete, but it does not specify a length of time. A given Speed setting is intended to produce a wipe time that is proportional to other settings. The same wipe setting can vary considerably in actual speed of execution on different machines. You must remember that because timing in ICDesigner is relative, the overall time of a page or script generally includes the sum of the times taken by its various wipes.

• Passive vs. independent elements

A passive element is one that has no In wipe, and is on the page when the page wipes in. An independent element, on the other hand, does have an In wipe, and doesn't begin to appear on the page until—at the earliest—the page's In wipe (if any) completes. If you apply an In wipe to a passive element, the element is moved to the beginning of the list of independent elements, thus adding that wipe's time to the page's total time, and also changing the order in which events appear on the page.

For more information on how wipes affect timing, see chapter 12, "Using wipes", and chapter 10, "Working in the Design List menu".

Factors that affect timing

External factors affect timing also. These factors include computer speed, length of sound/music tracks, and length of video clips.

• Hardware speed

Several aspects of the hardware used by the computer system playing the script affect script timing. To begin with, the refresh rate of the graphics mode used for playback acts as an overall speed control for wipes and animations. The speed of the display adapter affects the smoothness of wipes and other graphic effects in your script. With a fast display adapter, you can run wipes especially fly-ons—more smoothly. The speed of your storage devices also plays a role. A slow hard disk, for example, takes longer to load the image and sound files the script uses. Processor speed plays a role in timing by affecting how quickly operations like scaling and 3D effects can be done.

• Sound and animation

Using sound and animation in scripts pushes timing questions to the forefront, because a script usually requires that other events be synchronized with music or animation. This often requires timing adjustments in the **Sound**, **Design Movieclip** or **Design Animclip** menus.

Some animations allow you to set the number of frames shown per second, which directly affects how long the animation takes to complete—the higher the number of frames per second, the faster the animation. Sound events also have timing-related settings. Raising the *Tempo* for a MIDI sequence makes it go faster, taking less time.

Both sound and animation events have loop settings, which control the number of times an animation or sound repeats. Dealing with sounds and animations that loop or otherwise take significant time and possibly overlap other events requires careful planning. Often, you need to use settings on the Timing menu as well as other menus to achieve the intended effect.

Looping sounds that have been set on "infinite repeat" can be interrupted by timing events. You can, for example, set a sound to

11: Advancing the script automatically Factors that affect timing

repeat indefinitely until you click on the mouse to begin the next event. (See the description of the *Loops* option on page 18 in chapter 1 of the "*Extended Authoring*" guide for details on looping.)

See the chapter corresponding to the event that you are working with for details on adjusting timing in ways other than using the Timing menu.



Using wipes

12: Using wipes

InfoChannel Designer 3's most dynamic feature is its huge variety of built-in graphic transitions. Being able to move foreground elements such as text and graphics, as well as backgrounds, means that you can easily use these animated transition effects not only between pages, but within them. And since these transitions or "wipes" are done by ICDesigner, you don't need an external animation program to add movement to your scripts.

Wipes are functional as well as visually appealing. You use wipes to pace your production and to capture the viewers' attention, ensuring that they are focused on your point at all times. ICDesigner gives you many simple ways to achieve the exact timing and visual interest you need for a professional production.

This chapter covers both the process of applying wipes and how to use them in your scripts to achieve the best results.

Page wipes

To animate the page itself, you use a *page wipe*. Page wipes create a moving transition from one page background to the next. You reach the **Page Wipe** menu, similar to that shown below, from the **Main** menu. Page wipes include spin, zoom, push and reveal transitions plus a wide variety of special effects.



Page wipes control how the page to which they apply first appears. If you don't specifically apply a wipe to a page, it (the background along with any passive elements) appears all at once, as soon as any preceding events have finished. You cannot apply a wipe to a special event page, group, or sub-script.

Element wipes

Element wipes are available for any text, clips or draw objects that you have created or imported. Element wipes control how an element moves onto and off the page. You reach the **Element Wipe** menu from the **Design List** menu or any of the Element Design menus.

Each of these menus has *In* and *Out* buttons, to select wipes for both the appearance and disappearance of an element. Element wipes include most of the effects available to page wipes, plus some that are not available for pages. You cannot apply a wipe to a special event or sub-script.

Categories

Both the Page Wipe and Element Wipe menus have an assortment of buttons with icons that represent the wipes. Related wipes are grouped together into categories such as Fades and Alpha. The set of wipe buttons or icons you see in the menu depends on which category tab panel you select.

With the exception of those in the Special category, wipe categories are only for convenience; there is nothing fundamentally different about how you use them. You may need to use the scroll bars to see all the wipes in a category.

Not all wipes are available in both the Page and the Element Wipe menus. For example, Fly-ons apply only to text or graphic elements and are therefore not available in the Page Wipe menu. Similarly, the Fade wipes cannot be applied to text or graphic elements and so appear only in the Page Wipe menu. See the end of this chapter for more description of the different types of wipes and how to use them.

Wipe motion

Setting wipe speed

Each wipe has a speed setting that lets you control its rate of progress. The *Speed* value control displays the setting and allows you to change it. Most wipes have a Speed range from 1 (slow) to 10 (fast), but some wipes have higher maximum speeds.

The default for each wipe is a medium speed. However, the actual speed at which the wipe's action takes place varies based on many factors, the most important being the number of pixels being moved or processed at a time—the size of the element, for element wipes. With smaller elements, you may need to reduce the *Speed* setting.

View the wipe at the current speed using the *Preview* button. When the preview is completed, you see the Wipe menu again.

Setting wipe direction

Each wipe button has an individual icon representing the wipe's pattern of movement. Some wipes, or types of wipes, are symmetrical or have no motion or predominant direction to them—fades and Alpha wipes, for example. For wipes that do have a direction, there may be arrows on the icon to show how the wipe normally moves.

Wipes that have a predominant direction of movement usually let you specify the direction. You can do this graphically, with the wipe direction compass, or using the keyboard.

Using the wipe compass

To the right of the wipe icons is the *Direction* compass. If the selected wipe is one that does not allow a direction adjustment, the compass is empty. Otherwise, it contains a pointer that indicates the direction of motion for the wipe.

The possible directions for that wipe are indicated by white dots around the edge of the compass. Most adjustable wipes have either four or eight directions. A four-direction wipe offers either North, South, East, and West, or Northeast, Southeast, Northwest, and Southwest. With other wipes you have the freedom to choose any of the eight compass directions.

Click on or around any of the dots to set the wipe to that direction, or drag the compass pointer to the desired direction.

Using wipe direction hotkeys

When you hold down Alt, you can use the arrow keys to change the direction to south, west, east, and north, as indicated in these diagrams.



Certain wipes can also move diagonally, and you select these using Alt with the End, Page Down, Home, and Page Up keys.

The title bar displays the wipe direction after the name of the wipe, as "North", "Southwest" and so on. The direction shown changes as you use hotkeys or the compass. In some cases, the wipe icon changes also to indicate the direction.

Setting wipe orientation

Many wipes, in addition to or instead of offering a wipe direction, also let you choose a wipe orientation. The *Flip Horizontal?* and *Flip Vertical?* options operate essentially the same way as their counterparts in the *Orientation* panels of various Design menus: they flip the overall pattern of the wipe around an imaginary vertical or horizontal axis.

Often, the wipe Flip options produce an effect similar or identical to the effect of a particular change in the Direction setting. In other cases, a certain effect can be achieved only using the Flip options, possibly in conjunction with a Direction setting.

Reversing wipe motion

Some wipes let you specify that their pattern of motion progresses from the end to the beginning rather than the beginning to the end. For example, an Alpha wipe that reveals the new image from the center outward can be made to reveal from the outer edges to the center instead.

Wipes that can be reversed like this have the *Run Backwards*? button enabled. Turn it on (\checkmark) to make the selected wipe reverse its pattern of motion.

Experimenting with combinations of these options is the best way to find the wipe you are looking for.

Applying page wipes

Until you specifically select a wipe, a page's wipe button shows the Cut icon. The Cut icon represents a "non-wipe": the page simply appears all at once, with no transition. Click on the *Wipe* column button in the **Main** menu for the page you want to wipe in. If you want to apply the same wipe to many pages, select them by choosing *Select All* from the *Edit* drop-down and/or using Ctrl-click and Shift-click, then click a *Wipe* column button. This opens the **Page Wipe** menu.

Click one of the tabs to choose a category, then scroll through the individual wipe icons until you find one that looks interesting. Just moving the pointer over a wipe icon shows you the wipe's name in a Tool Tip.

When you click on the wipe icon, the name of the wipe is displayed in the Wipe menu title bar and the icon appears on the page's button in the *Wipe* column. To see the wipe in action, click on *Preview*. The screen starts with the page before your chosen page—or from black if this is the first screen page—and shows the transition to the new page using the selected wipe. When the wipe finishes, you see the Wipe menu.

You can adjust the rate of the wipe motion by using the *Speed* value control.

You can edit page wipes on other pages without leaving the Page Wipe menu. Simply click on a *Wipe* or *Name* button in the Main menu to select a new page. The Wipe menu changes to reflect the wipe choices previously selected for the new page and you can continue editing.

When you are satisfied that you have found the right page transition effect(s), click on *Close* to accept the current wipe, or *Cancel* to discard the most recent wipe choice. In either case, the Page Wipe menu closes and you see the **Main** menu.

Applying element wipes

From the **Main** menu, select the page that contains the elements for which you wish to apply wipes, then choose *Element* from the *Design* drop-down, or *List* to be able to edit any element wipe. It is easiest to work with wipes for more than one element from the **List** menu, because you see all elements listed on the screen together, including Out wipes and non-graphic elements.

ICDesigner Note

You can apply wipes only to an entire text element and not to selected words or characters within a text element. To wipe individual words, make them separate text elements with the Ctrl+Enter shortcut. Select the element to which you want to apply a wipe. If you want to apply the same wipe 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 menus while any elements are selected opens the Element Wipe menu. If a wipe has been applied to the element, the panel containing that wipe is already open.

Until you specifically select a wipe, the title bar of the menu indicates that *None* is selected and the blank wipe button is highlighted. With no In wipe specified, the element is in position on the page when the

12: Using wipes Applying element wipes

page wipes in. An element with None as the Out wipe remains on the screen as long as the page is displayed.

If the element you selected has no wipe yet, click one of the tabs to choose a category and click on a wipe icon to select one. If it already has a wipe, you can edit the speed or other parameters, or click on an icon to select a new wipe. To see the wipe in action, click *Preview*. After the preview, press Esc or a mouse button to continue working in the Wipe menu.

Out wipes

The same wipes that 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 wipe.

When you click on the *Out* button and select a wipe, you create a new event in the list of independent elements in the List menu. Its name is the same as the original element but includes the prefix *Out:* so that you can easily distinguish between each type of wipe and see which events are related. If you change the name of one of the related events, it automatically updates the name of the other.

The Out: event initially appears immediately after its In event in the List menu, so the element would begin to wipe out as soon as it finishes wiping in. However, you can add a Pause to the In-wiped event, drag the Out: event to a later location in the event list, or insert other events above it, so that the element stays on-screen for as long as necessary.

Additional descriptions and illustrations of the relation of In and Out wipe events can be found throughout chapter 10, "*Working in the Design List menu*". Also see the section "*Removing a wipe*" on page 327 for further remarks on Out wipes.

Turning off Wait? for overlapping wipes

ICDesigner allows you to start an element wipe before a preceding one has finished, by turning off the preceding wipe's *Wait?* option. When you do this, the following event's In wipe (or the event's Pause, if any)

begins immediately after the first wipe begins. The result is that several element wipes can be happening at the same time. This can be a particularly dramatic and graceful effect in a script.

However, you do need to keep performance in mind when using overlapping wipes. See page page 325, "*Maintaining good wipe performance*" for more information.

The *Wait?* option is not available in the Page Wipes menu, because only one page wipe can take place at a time.

Accepting your wipe choices

You can select, edit, and preview wipes for as many elements on the page as necessary, and even move to another page with the Page Switcher in the List menu, without leaving the Element Wipe menu.

When you have applied all the wipes you want, click on *Close* to close the Wipe menu. If you entered the Wipe menu from the Design List menu, you remain in the List menu. Otherwise, you see the Element Design menu for the last type of element you worked with. The *In* or *Out* buttons in the Design menu show the icons of the wipes you applied.

Applying Special wipes

The wipes in the Special category are ones that do not fit into other categories. Some are not really wipes, but function as utilities that help you apply other wipes. The Direction and Flip options are not available to most Special wipes.

Cut



The Cut wipe is a "non-wipe" that simply causes the next page or element to display all at once. Cut is the default wipe for pages. Because Cut is by definition the fastest possible wipe, the *Speed* value control is disabled. Applying Cut as an Out wipe makes an element disappear.

None

The None wipe is a "non-wipe" available only for elements, and is the default. An element with None as an In wipe is already in position on the page as the page wipes in. An element with None as an Out wipe remains on the page until another page wipes in. The *Speed* value control is disabled.

RandomOnce

When you choose this wipe button, ICDesigner randomly selects a wipe from all those available. When you leave the Wipe menu, the icon of the wipe that was selected is displayed in the wipe button. The script will use this wipe until you specifically change it. Clicking the wipe icon lets you edit the speed, Flip options, and direction for the particular wipe selected if they are available.

RandomAlways

ICDesigner randomly selects a different wipe each time the page or element to which you applied this wipe is displayed. The speed you set is used for every wipe. The Flip options are not available, and the direction used is the default for whichever wipe is used.

Next

2

Similar to RandomAlways, every time the script encounters this wipe, a new wipe is chosen. But rather than choosing randomly, it steps through the wipes in each category. This can be useful, for example, if you want to ensure that a different wipe is applied to each line in a series of text lines. The speed you set is used for every wipe.

Dissolve

The Dissolve wipe uses ICDesigner's variable transparency capabilities dynamically to smoothly make a page or element appear in place, just like the video wipe of the same name. This is a particularly compelling, cinematic effect.

The General version of the Dissolve wipe, available only for elements, although not quite as smooth as the normal Dissolve, is preferable in
some cases. It should be used when the Dissolving element overlaps another element or background area that is not static—for example, an animation or an auto-updating variable in a text element.

Maintaining good wipe performance

The speed and smoothness of graphic operations like wipes depends to a large extent on the playback system. Some wipes or wipe techniques, however, place special demands on the computer and its graphic display hardware.

Smoothness

In particular, wipes like pushes and fly-ons that move an image across

ICDesigner Note

It is the performance of the system running the script, not the system on which the script is created, that governs wipe performance. the screen (rather than reveal it or change its color) place a heavy load on the system. If the load is too great, the moving image cannot be updated quickly enough, resulting in motion that is not smooth, and an image that looks broken as it moves.

This effect depends mainly on the size of the image that is moving: a full-screen push wipe is the worst case, because every pixel on the screen must move at once. Zoom, Alpha, and 3D wipes place a particularly heavy load on the computer's processor chip (CPU).

Using simultaneous element wipes—multiple successive element wipes for which one or more wipes have their *Wait?* options turned off so that the wipes overlap—also dramatically increases the load on the computer.

A faster CPU chip in your PC and a more advanced display adapter can drastically improve performance when using these kinds of wipe. However, when upgrading the display system is not possible, there are some ways to help your script transitions look smoother:

• Move a smaller number of pixels at a time. Avoid full-screen push wipes if you have a slow system; use the Cut wipe instead. If you

12: Using wipes

Maintaining good wipe performance

are using a fly-on wipe for a clip, make the clip smaller, or break it into pieces and wipe them in separately.

- Use a lower color depth. Consider using 256-color (8-bit) pages where speed and smoothness are essential. High Color and True Color imagery use two and three times as much data per pixel, which can slow down the wipe performance. This is hardwaredependent, however. More modern display adapters may actually be faster in True Color modes.
- Turn off the *Smooth?* option. The smoothing process works as the element moves over the background, and this requires processor time. This can cause hesitation in the wipe motion.
- If using the Dissolve wipe on an element that overlaps other elements, try using the Dissolve (General) wipe. Better yet, when you using a Dissolve on an element, make sure it does not overlap any other elements that are not static.
- Use a slower wipe speed. The smaller the distance that an object has to move in a given time, the less obvious any jerkiness or breakup will be.
- Use a different kind of wipe. Reveals and fades, for example, can be handled smoothly even by less advanced systems.
- Avoid overlapping element wipes. Keep the *Wait?* option turned on so that only one element wipes in or out at a time.

Page wipes and palettes

One other factor that has an effect on the appearance of page wipes when using 256-color pages is the color palettes of the pages involved. So that the images in your script can all look as good as possible, each page can have its own color palette. However, during most page wipes, you can see both pages at the same time. If the palettes of both pages are not the same, not all colors in both images can be displayed properly.

ICDesigner handles this by automatically adjusting the screen palettes of both images as the wipe progresses. The new image's palette gradu-

ally replaces that of the old image. In most cases this is not very noticeable, but if you look at the old page just before the wipe is finished, you can often see that the colors have changed.

If this is a problem for your script, you can:

- Use wipes that don't show this characteristic, like Cut and the Fades.
- Use images with similar palettes.
- Use a faster wipe speed, making it harder to see.

Timing considerations

Adding a wipe is more than just a style; it is an event that takes a certain amount of time. A wipe—at the speed you give it—shapes the pace and feeling of an element's appearance. Adding Pauses and allowing for interactive input using the **Timing** menu lets you define the time between the wipes. See chapter 11, "*Advancing the script automatically*", for complete details on this aspect of script timing.

Passive elements

A wipe does not normally change the order of elements as shown on the List menu. Each element is handled individually and remains in the sequence in which you placed it. Applying an In wipe to a passive element is one exception, however.

A passive element is one that has None as its In wipe; it is already on the page when the page wipes in. The passive elements on a page are always listed first in the List menu. An independent element, on the other hand, has an In wipe. If you apply an In wipe to a passive element, it moves the element to the top of the list of independent elements.

Removing a wipe

If you remove an In wipe from an independent element—that is, you apply the None wipe to it—the element becomes passive and is automatically placed last in the series of passive elements. Removing an

12: Using wipes

Making the best use of wipes

Out wipe can be done by deleting the Out: event, or applying None as the Out wipe.

You must be careful when using the None wipe, because of its effects on other events, such as *Sound* or *Timing* column events, that you can give to an event. A passive element cannot have such events, so if you make an element passive with the None wipe, any associated sound, timing and/or EX events you defined for it disappear. Similarly, any associated events disappear if you remove an Out wipe event.

Applying Out wipes to passive elements

Even if an element is passive, you can apply an Out wipe to it. Applying an Out wipe to a passive element is no different than for an independent element. The Out: event appears in the list of independent elements.

Using pauses and Wait

Element wipes offer the *Wait?* option, which is on by default. If you have several consecutive elements wiping in, and you switch their *Wait?* options off, the wipes overlap. The extent of the overlap depends on the wipe speeds and the pause values for each element with a wipe.

The length of the pause must naturally be less than the length of time the element's wipe takes to complete, or there will be no overlap. Using a pause that is longer than it takes for the element's wipe to complete looks the same as if the element had its *Wait?* on and a shorter pause.

Making the best use of wipes

Your productions will have the greatest impact if you carefully plan the transitions you use. This section covers some general factors you should keep in mind to help your productions look their best.

Choosing a wipe

The most important thing to keep in mind when choosing wipes is that the transitions are not what the audience is there to see. The audience is there to see what is between the transitions, to get some kind of information from your production. A wipe should add a dash of visual interest, but it is mainly a tool for helping the audience grasp the information more easily. Therefore you should always first ask yourself what a transition needs to accomplish before you choose the wipe.

More often than not, the best choice is a simple, familiar type of wipe. This ensures that the audience's attention is drawn to the content that follows the transition, not the transition itself.

The two main aspects you need to think about are the general intent and style of the transitions, and their pacing.

Transition style

Wipes serve much the same purpose as punctuation in written communication. In the long history of film and video production, many standard wipes have been developed. We recognize these transitions as performing a particular function or having a particular impression on the viewer.

Some suggest continuity or the passage of time, and work to link what comes before and after. Others have a separating function and are best used 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 wipe 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 wipes, or even knowing where to start, first try getting a "rough cut" of the script's timing, using only Cut wipes. Run it a few times. You'll probably find that some of the transitions look fine as straight cuts. For the rest, here are two approaches that might help:

• Try imagining that your production is finished, and you are seeing it on television—what would it look like? From years of familiarity with this form of "classic multimedia," your mind's eye will

12: Using wipes

Making the best use of wipes

suggest some wipes where you need something more than a straight cut.

• Also try the reverse approach: look at various wipes in different categories, and think of what kind of thing you would expect them to be used for. Again, your long-time familiarity with video wipes will undoubtedly point toward some appropriate applications in your script.

Finding the right wipe

As a general rule, you should minimize the use of different kinds of wipes in a given script, especially the more fantastic ones.

Don't hesitate to use a simple wipe more than once. In fact, this helps give your production continuity, and ensures that the wipes don't detract from the overall point or theme, but serve to focus and reinforce it. If you stay primarily to simple wipes, when you do use the occasional more elaborate wipe, it will have far more impact.

The simplest wipe is the Cut wipe, in which the page or element simply appears all at once (or, in the case of using it as an Out wipe, disappears). Although it is more an instantaneous transition than a wipe, in ICDesigner you use it like other wipes. Since its effect is abrupt, it is best used where you do not need to emphasize continuity, but want to contrast two things, or simply move on to a new subject.

In a fast-paced production, particularly one that needs to synchronize to upbeat modern music, or to present a quick montage of images, the Cut wipe is almost required, since by definition it is the quickest possible transition. However, its simplicity is a good reason for Cut to be used in many kinds of production, wherever a quick, straightforward transition is called for.

Wipe families

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 the object. You can also use fly-ons and fly-offs with clips to add simple kinds of animation to a script without creating an actual animation. Most Fly-on wipes let you set their direction of motion. Fly-ons are available only to elements.

• Through

Through wipes are a special kind of element wipe that moves an element onto and off the page in one smooth motion. It is essentially a fly-on In wipe seamlessly coupled with an immediate flyon Out wipe. Through wipes are available only to elements, and only from the In wipe button.

• Alpha

A unique and especially stunning type of reveal is ICDesigner's set of Alpha wipes, which have reveal patterns based on the grayscale image files depicted on their wipe buttons. Many Alpha wipes resemble dissolves, but they have a unique, organic appearance completely different from the usual geometric wipe forms.

• Fade

Fades are graceful transitions that smoothly blend from the page image to a solid color. They are most often used at the end of a production, and tend to suggest the continuation of what was last on the screen. A fade-out followed by a fade-in suggests the passage of time.

• Push

Push wipes actually move the old and/or new pages on and off the screen in different directions. These are good for suggesting that the subject of the new image replaces the subject of the old, as in an advertisement in which a new product makes older products obsolete. Push wipes apply only to pages.

• Reveal

ICDesigner features a very wide assortment of reveals. These wipes uncover the new image beneath the previous one, revealing different parts of the new image in various patterns. This is somewhat similar to a dissolve, but is more dynamic and attention-get-

12: Using wipes Pacing

ting. The Dissolve wipe in the Special category could also be classed with the reveals.

• Zoom

Zoom wipes simulate zooming in or out of an image in various ways, for a very dramatic effect.

• *3D*

An eye-catching option for element transitions is to use 3D wipes. These are special fly-on wipes that can spin, flip, and warp any element while moving it onto the page using real three-dimensional geometry for very cinematic effects. Anyone can use 3D wipes, but the ICDesigner wipe engine can take advantage of graphics cards that feature dedicated 3D hardware for especially smooth movement.

ICDesigner also features many exotic wipes that are unique to the program, and don't fit easily into any category or family. These can be just right for productions that do need something spectacular.

Pacing

Once you have appropriate wipes for the various points in your production, you then need to find the ideal way to present them in time. The pacing of your production has a tremendous effect on whether your audience gets what you intend from the production.

The concept of pacing your production is simple: if it goes too slowly, people will get bored or impatient and will lose interest; if it goes too fast, people will not be able to read or absorb all the information; they will miss more important points and feel frustrated. You need to choose a middle course, neither too fast nor too slow. It is usually better to err on the side of being too slow, however.

Since it is often difficult for the script author to judge the pacing of the script from "inside" it, you should frequently run the script, looking at nothing but the length of each segment. It is important that you also get feedback from others on the script pacing; if you happen to be a fast reader, for example, you might misjudge how much time others need to read the text. The varying running speeds of different systems also affects the perceived pacing.

Pause and Speed

The two main aspects of pacing in a script come from the Pause settings and the wipe Speed settings. Of these, Pause settings are by far more significant to the effectiveness of the script, as 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 pause settings and the ordering of elements in the **List** menu, see chapter 10, *"Working in the Design List menu"*.)

Wipe speed, on the other hand, is more open to variation. Although fast wipe speeds would obviously be appropriate for a fast-paced highenergy script, fast wipe speeds can also work well on a script that is relatively slow, or is paced interactively. Again, remember that the audience doesn't really care how beautiful the wipe is. They just want the next piece of information. So don't be afraid to let the wipe go by quickly.

Some wipe applications

Following are some general ideas on using wipes imaginatively, plus some specific points on using certain wipes.

Building a page

One of the most basic wipe strategies is to build your page, point by point. Open with a background, wipe in a headline, then a pattern or shaded block over part of the image, and finally start wiping in bullet points onto the shaded block.

This gives the audience time to absorb everything, while keeping them focused on exactly what you intend. It also keeps the production moving. Presenting the whole page with everything on it at once and allowing extra time to read everything drains away the script's momentum, and lets the audience get restless. Although finding all the right wipes and pause settings to do an effective build takes more time, it is worthwhile. You can see many examples of the build technique in the demo scripts provided with ICDesigner.

Relevant wipes

When trying to decide on element wipes, always think of ways that different wipes might relate to your subject matter. A simple Reveal in a certain direction can often work well. For example, a plain bar-graph or chart presentation can be put in motion by revealing rising sales figures from left to right, or from bottom to top. An information display on transportation arrangements could be enlivened by airplane clips that fly on from one side and fly off the other. A photography tutorial could make good use of zoom wipes and the Nuclear fade wipe.

Once you start to think along these lines, clever ways to make the wipes support your message will start to become second nature.

Sound

Many wipes clearly suggest sound effects that could be used as if they were part of the wipe. Many wipes seem to call out for swishing, creaking, or slamming noises, for example. And those wipes that progress as a series of events, such as those that break the screen into smaller blocks, might be synchronized to bits of music. when done right, the effect could be dramatic. If you use this technique, however, the wipe must relate to the subject matter, since the sound draws attention to it.

Virtual wipes

With some preparation, those searching for a really special effect can create virtual wipes—wipes with features ICDesigner doesn't even have yet. For example, suppose you want to display an image, then tint it dark blue before wiping in some text over it. You can alter the image using the options in the *Process* panel of the **Design Background** or **Design Clip** menu to tint it, then follow the normal image with the tinted one. To prevent the impression that you have two separate images and are simply putting the plain one on top of the processed

one, use a reveal wipe. It will look like you have used the BlueTint wipe—which doesn't exist!

Attract loops

An "attract loop" is a looped animation or presentation that runs on an information kiosk to attract customers. Once the customer responds to the loop (by inserting a coin, or touching an on-screen button) the presentation can start its interactive role. But the attract loop's purpose is only to grab attention, so many of the guidelines mentioned elsewhere for productions in general don't apply. Almost anything goes, as long as it draws people toward it.

Depending on how visually "noisy" the environment for the attract loop is (a hotel lobby calls for some restraint, a convention hall does not) you can ignore most considerations of readability and pacing. The only things the attract loop must be clear about are what its general intent is—to give you information on hotel services, to get you to play a game, etc.—and how to get it to stop its attract mode and perform its real purpose.

An attract loop is the perfect opportunity to use many different wipes together, including some of the sensational ones that aren't appropriate in many other situations.

5 foChannel s I G N E R 3 E

Adjusting colors

13: Adjusting colors

One of the main advantages of InfoChannel Designer 3 is its advanced color-handling ability. ICDesigner has many automatic functions that help to make your images look their best on any graphics display hardware, but it also lets you create, manipulate, and otherwise directly control colors.

To work with all the colors in a background or clip image at once, ICDesigner provides the *Process* tab in the **Design Background**, **Design Clip**, **Design Movieclip** and **Design Animclip** menus. This panel contains image-processing functions that let you change the colors in an image in subtle or dramatic ways.

Several Design menus allow you to assign colors to elements from a color bar. You control these colors from the **Design Palette** menu, where you apply color options to images and edit individual colors.

To open the Design Palette menu from the Main menu, choose *Palette* from the *Design* drop-down or press F7. Or, from any Design menu, click the *Palette* icon or press F7.

The Design Palette menu

ICDesigner 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 ICDesigner involves the User palette.



The User palette contains a selection of default colors, to which you can add your own. The Background palette contains the colors in the background image, and the Clip palette contains the colors for the currently selected clip.

You choose which palette to work with using the *Palette:* pop-up, which lets you access the User, Background, and Clip palettes.

You do not see a Background palette option if:

• the background is Plain, a High Color or True Color image, or a movie

You do not see the Clip palette option if:

- 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 shown in the color bar at the top of the menu, in color sets of 16 colors at a time. Use the Color Set Switcher on the end of the color bar to cycle through all the color sets in the palette.

The color bar for the User palette initially contains the 19 systemdefault 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 also is displayed in a larger color block to the right of the sliders.

The User palette

When you open the Palette menu, you see the User palette. This is also the palette you see in other Design menus that have a color bar.

The User palette is much like a traditional artist's paint palette—it exists mainly to let you mix and select from a variety of colors, so you can apply them to text, boxes, buttons, and other elements in the other Design menus. The colors in the User palette are not necessarily all used on a page. Only those that you specifically apply to something, or which are used by a style you have applied, are seen.

You can add colors to the User palette, delete colors from it, copy colors to it from Background or Clip palettes, and edit any of the existing

13: Adjusting colors

Creating, editing and saving colors in the Palette menu

colors. Although the size of the User palette is unlimited, in practice you should not add colors unnecessarily.

Adding colors to the User palette

You may want to transfer some of the clip or background colors to the User palette, for example to color text blocks so that they exactly match the background. You do this by:

- 1. Switching to the Background or Clip palette by using the *Palette*: pop-up.
- 2. Selecting the color on the Background or Clip palette color bar.
- 3. Clicking the *Add to User Palette* button. (This button replaces the *Add* and *Delete* buttons when you switch from the User palette to the Background or Clip palettes.)

Each time you click on the *Add to User Palette* button, the selected color is copied to the User palette. You can then switch to the User palette display, where the color you added is already selected.

Deleting colors

You can remove colors from the User palette if they were introduced by mistake or if you don't need them anymore. Deleting unneeded User colors makes it easier to find the colors you want. To do so, select the color in the User palette and then click the *Delete* button. You cannot delete colors from the Background or Clip palettes, so the *Delete* button is not available there.

If you delete a color that is in use (applied to some element), the element's color is remapped to the next closest matching color in the User palette.

Creating, editing and saving colors in the Palette menu

Creating a color

If you need a color that is not in the default User palette, and not in the Background or any Clip palette, you can create the color and add it to the User palette. Click the *Add* button beneath the *Palette:* popup (not the *Add* icon) to create a new chip. The newly created chip is located to the left of the currently selected color chip and becomes the selected color. (Colors to the right of this on the color bar, and those in the higher numbered color sets, are moved over one space.)

Initially, the new chip is the same color as the previously selected color chip. You can then edit it to be the color you want.

Editing a color

Adjust the color of the selected chip to the desired shade by using the three color sliders. You can use the sliders in either of two color modes, RGB or HSV. For both modes, the large color block in the middle of the menu shows the color, and the corresponding numerical display changes to show an exact value. You can also click the value itself and enter a number. Click on the *RGB/HSV* display to switch between modes.

Using RGB sliders

The *RGB* color mode is simple. The sliders control the Red, Green and Blue amounts that combine to form a color. The *R*, *G*, and *B* values range from 0 to 255.

Using HSV sliders

The HSV color mode is slightly more involved than RGB, but once

HSV Color Hints

Make sure the V slider is not at 0 before starting, or the color will remain black. To get grey tones, set S to zero and adjust V; H will have no effect. For bright, pure colors, set S and V to maximum and work with H. you understand it, you can often make color adjustments more easily than with RGB. The three sliders in HSV control 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.

Experiment with the sliders in both RGB and HSV modes to get a feel for how to achieve different colors. You can switch back and forth between modes at any time to compare settings.

13: Adjusting colors

Creating, editing and saving colors in the Palette menu

You can edit the colors in the Background or Clip palettes the same as for a User color. Select the color on the color bar, then adjust the color controls, observing the changes on the page.

Picking a color from the screen

When a palette is large and there are many similar colors, it can be difficult to tell which color you want to edit by looking at the color chips. So the Palette menu makes it possible to choose the color from the image itself.

- 1. Select a color in the User palette that you do not need, or click the *Add* button to create a new color chip.
- 2. Click the *Pick* button. The pointer changes to the Pick pointer (©).
- 3. Place the Pick pointer so it encloses the color you want and click. In the User palette, the predominant color at that spot is transferred to the color chip that was selected, and can then be edited.

Using *Pick* when you have selected either *Palette: Background* or *Palette: Clip* works the same way. The color on the selected color chip changes to the color you pick, and all pixels in the clip or background that had the color that was on the color chip are recolored with the new color. Be careful not to use *Pick* with Clip or Background palettes unless this is what you intend.

Creating a color spread

One special feature of the Palette menu is automatic color spreads. This lets you easily create a series of any number of colors that shade smoothly 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 you added, or Pick a color from the page. This color will be one end of the spread.

Creating, editing and saving colors in the Palette menu

- 4. Select the first color you added, and adjust it (or Pick a color) to be 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 you created shade smoothly between the two colors.



One use for a spread is to create four colors for using with the *Bevel* style. Longer spreads can let you 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 color bars, however the effect of this on the image is unpredictable and is useful only for special effects.

Loading and saving a palette

User palettes and 256-color background and clip palettes can be saved as files. It is possible to load and save a palette at any time. Having several User palettes available can make assigning colors for different production projects more convenient. Loading a Background or Clip palette into a different image can create unusual "posterization" effects.

To save the current palette, click on *Edit* and choose *Export*. This opens the File dialog, where you can give the palette a name and save it. A file-type extension of .PAL is automatically added to the name.

To load a palette that you have previously saved, click the *Add* toolbar icon to open the File dialog, where you can choose a .PAL file to load.

Changing the default User palette

If you create a set of colors that suits the work you do and is arranged in an order you find convenient, you can save it as the default palette. The Background palette

ICDesigner saves the current User palette as the default when you choose *Save as Defaults* in the *Misc* panel of the Element Design menus.

The Background palette

Every time you start a new screen page and load a new background image (picture or animation) onto it, its constituent colors go into the Background palette. What you can do with this palette depends on the type of background.

8-bit (256 color) background: the palette is editable within ICDesigner.

Plain background: its one color comes from the User palette, and there is no Background palette accessible on the *Palette:* pop-up.

High Color and True Color backgrounds: individual colors in the image are not editable within ICDesigner, thus there is no Background palette accessible on the *Palette:* pop-up. 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** menu. The *Process* panel is discussed later in this chapter.

Working with an 8-bit background palette

A Background palette has a given number of color slots, or locations

ICDesigner 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 that use a particular color, the earlier in the palette it is. The leftmost color chips in color set 1 are the colors used by the most pixels in the image. 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 are empty slots at the end of the palette.

The backgrounds supplied with ICDesigner generally don't use all color slots, so that there are still color slots left for clip and user colors.

The Background palette typically changes for each page, because each image background requires a different assortment of colors.

In general, although you can edit colors on the Background palette directly, it is not often a good idea to do so. Image backgrounds usually look best with their original colors.

If you need to make overall adjustments in the way a background looks, use the color parameters in the *Process* panel of the Background menu. For the ultimate in color control and flexibility, you can manipulate the image in an external image-processing program. Within ICDesigner's Palette menu, however, minor fine-tuning and special color effects are easy to accomplish.

The Clip palette

The Clip palette is accessible on the *Palette:* pop-up only when a clip is loaded and selected, and the clip is not High Color or True Color. The color bar in the Clip palette shows the colors in the selected clip. There are actually as many Clip palettes as there are clips; each one is independent.

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 as a whole on the *Process* panel of the **Design Clip** menu. The *Process* panel is discussed later in this chapter.

Using the Process panel

When using images in ICDesigner, especially photographic images, it's not uncommon that an image needs some "touching up" to work best for your purposes. You might want to tint an image a particular color for artistic effect, or reduce its contrast to make it work better as a background. Sometimes, an image is just what you need, but it is flawed in some way—too dark or light, or with poor color balance. You can address all of these matters within ICDesigner, using the *Pro*- Using the Process panel

cess style panel, which can be found in the **Design Clip**, **Design Animclip**, **Design Movieclip**, and **Design Background** menus.

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<u>G</u> amma	0 Saturation	0 Brightness	O Contrast	0

The controls in the *Process* panel let you make fine or drastic adjust-

ICDesigner Note

The *Process* panel is not available for movie backgrounds or movieclips that have *Use Overlay:* set to *If Possible* or *Require.* ments to the color, brightness, and other visual qualities of an image. You can adjust any still image available for use in ICDesigner: individual clips or entire backgrounds. FLI/FLC animations and animclips can also be adjusted in this panel, as can AVI, QuickTime 3.

The adjustments you make in the *Process* panel do not alter the source image. You can always get back to the original, unprocessed image if necessary with a single click.

Types of image processing

The image processing tasks that you can accomplish in the *Process* panel can be distinguished as two general types: *color* processing and *luminance* processing.

Color processing obviously deals with adjusting the hues that make up an image. Using color processing, you can make minor alterations in the strength of a particular color component to correct a picture's color balance, or you can make a radical adjustment that completely changes 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 menu, the effects of the controls are not independent. There can be more than

one way to achieve much the same effect, and the controls do interact with one another. All the controls affect the entire image at once.



a single image (the clip in the center) with different Process menu settings

Choosing what to process

To process backgrounds, go to the Design Background menu and use the *Process* panel there. To process a clip or animclip, got to the Design Clip menu's *Process* panel. In the Design Clip menu, only one image can be processed at a time; if you select more than one clip, the last one selected is the one processed.

Process controls

The Process panel includes these 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

13: Adjusting colors

Using the Process panel

Luminance controls include:

- *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 the amount of one parameter continuously. The value represented by the slider's position is shown above the upper right corner of the slider. You can select this value and enter a number directly if you want.

The initial value for all sliders is 0. When all sliders are at 0, you see the original, unaltered image. All sliders can have either positive or negative values, either increasing or decreasing their associated parameter. Most have a range of -100 to +100. Because of the different function of the *Hue* parameter, its value ranges from -179 to 180.

Using the color controls

To achieve a specific color effect, you will often need to experiment with several of the controls. The controls often interact in ways that can be difficult to predict. Keep in mind that increasing one or more parameters may require you to decrease some others in order to retain the overall brightness or color balance of the image.

Hue

Hue is the basic color of a object, such as green, yellow, or red. Using the *Hue* slider shifts all the colors in the selected image by some amount, producing the effect of recoloring the image. Because 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, requires coordinating the three color values, and might also involve adjusting *Saturation* or *Brightness* to compensate for the changes. Using *Hue* automatically maintains the same color saturation and brightness as in the original image, using only one slider.

Saturation

The *Saturation* control adjusts the intensity of the colors in the image. At the minimum value, all color is removed and the result is a gray-scale image. At the maximum value, colors are greatly exaggerated, for a bright, cartoonlike effect. Note that increasing *Saturation* by itself cannot add color to an image that was originally grayscale, nor will it affect colors that were already fully saturated in the source image.

Red

The *Red* control lets you increase or decrease red in the image. Adding red makes the image "warmer", and at high values tints the image red. Subtracting red makes the image "cooler", generally resulting in a blue-green tint. Adjusting this slider has no effect on any areas of an image that have no red to begin with.

Green

The *Green* control lets you increase or decrease green in the image. Higher values tint the image green, and lower values give it a purple cast. Adjusting this slider has no effect on any areas of an image that have no green to begin with.

Blue

The *Blue* control lets you increase or decrease blue in the image. Adding blue makes the image "cooler", and at high values tints the image blue. Subtracting blue makes the image "warmer", generally resulting in a yellow tint. Adjusting this slider has no effect on any areas of an image that have no blue to begin with.

Using the luminance controls

The luminance controls do not alter the color balance of the image, but instead affect the overall brightness of pixels in the image in differ-

13: Adjusting colors

Using the Process panel

ent ways. This can allow you to improve the appearance of an image that is too light or too dark, or make a given image more suitable for a particular use.

Brightness

You adjust the overall brightness of the image using the *Brightness* control. At the minimum setting, an image can turn completely black. At the maximum setting, all areas of the image are extremely light. Small to medium adjustments of the *Brightness* control can correct overexposure or underexposure of photographic images. Often, adjusting the *Contrast* control is desirable after modifying an image's brightness.

Contrast

"Contrast" describes how sharply defined the different features of an image are, and involves the amount of difference between the lightest and darkest areas of an image. If an image's dark areas are black or almost black, and the light areas are white or almost white, the image has high contrast. In a low contrast image, all the tones throughout the image exist within a relatively narrow range of brightness, so that the features in the image blend into one another and look "washed out".

Increasing *Contrast* for photographic images, especially ones that were not made professionally, is often called for to help add sharpness and definition to the picture. On the other hand, it is usually a good idea to sharply reduce *Contrast* on a photograph or other type of image that is to be used as a background. This keeps the background from distracting from the elements you place on top of it.

Note that varying the contrast of an image can have a corresponding effect on the image's saturation and brightness, so you may need to adjust one or both of those parameters to compensate.

Gamma

The effect of the *Gamma* control is similar to that of *Brightness*. The difference is that 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* is a way to adjust image brightness without disrupting the image definition as much as using *Brightness*

alone can. This way, you can often avoid having to make compensatory adjustments in *Contrast* after modifying the brightness.

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

This section talks about certain techniques that are appropriate to each use, and gives some additional information that can help you determine how to achieve certain ends.

Correcting flawed images

The correction of flawed images is a chore limited almost exclusively to photographic images, which you might wish to use as backgrounds or as clips. Professional photographs such as those found in clip art and photographic image collection CD-ROMs seldom need any treatment. Amateur photographs, however, are frequently taken without regard to proper lighting, exposure, film stock and so on, and thus are likely to benefit from some careful processing.

Exposure

To correct moderate over- or under-exposure (a picture that is too light or too dark), first try using the *Gamma* control. This will lighten or darken most of the image, but 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, it is very likely that a slight increase in the *Contrast* control will improve the picture's definition.

Contrast

Often, the overall exposure is good, and it is primarily contrast that needs to be adjusted. If the image seems to be flat and lifeless, and

looks as though there is a slight haze surrounding the subject, the contrast is low. Assuming this is not the effect you want, 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 pull back the control slightly if you notice details becoming lost.

You might need to make a slight adjustment to the *Gamma* or *Brightness* controls after adjusting *Contrast*, to restore the image's overall level of exposure.

Color

Sometimes a photograph's color balance is poor, so that it takes on a slight overall tint of one hue or another. Careful adjustment of the color controls in the *Process* panel can all but eliminate the imbalance, restoring the appearance of natural color.

Using the *Hue* control probably will not be useful to address color balance problems, because its effect is fairly radical and difficult to control precisely. 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 those 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 *Blue*.

Remember that since you are in effect adjusting the brightness of the colors, you might need to compensate for your adjustments with the *Saturation* and/or *Brightness* controls to maintain the original image's tonal values.

Adapting an image

In many multimedia situations, a source image—whether photographic or drawn—is technically perfect, but not well-suited to the specific use for which you need it. The most common situation is needing to use as a background an image that was not designed for background use.

Lowering background contrast

To work well as a background for large amounts of small to medium sized text, it is best for the background image to have low contrast, so that variations in the background image do not make the text difficult to read. If you have only a normal, full-contrast image to use, you can alter it appropriately in the *Process* panel. Bring the *Contrast* control down to -50 or more. This de-emphasizes all the features of the background considerably. Depending on whether your overlying text is light or dark, you might also want to raise or lower *Brightness* for the background. In the final result, any overlying text or clips will stand out clearly against the processed background.

Changing brightness for emphasis

Another type of adaptation that is often useful is making clips lighter and darker to emphasize and de-emphasize them. This can be valuable, for example, in a script that refers in sequence to several different clips on a page. You could have each clip highlight at the appropriate time by wiping in the highlighted version. To do this, you create a highlighted clip version by adjusting its brightness and contrast as necessary and choosing *Export* to save the processed clip. Then position the processed clip directly over its unprocessed counterpart on the page, and have the processed clip appear at the right time by using a Cut, Reveal, or Alpha wipe.

Adjusting palettes for video use

Creating productions that will run on video displays calls for some special palette treatment. Bright colors, especially when shown on NTSC displays, tend to bleed, or blend into each other, producing a blurred image. This can be avoided by reducing the saturation of the colors in the display slightly.

Creating special effects

In many situations, your original source images are not quite right aesthetically for the page design you have in mind. The *Process* panel makes it easy to apply fairly radical kinds of processing to images, to achieve eye-catching special effects that add life to your pages. This gives you the artistic freedom to create unique visual layouts. Using the Process panel

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 can also allow you to better fit a given image into an existing color scheme. Adjust the *Hue* control for a dramatic change in all the colors in your images. Using the *Red*, *Green*, and *Blue* controls can also produce dramatic color changes, but they allow you to make more 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 use *Hue* and *Saturation* to further alter the color scheme
- When working with the *Red*, *Green*, and *Blue* controls, remember that hues are complementary, so that you can get 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 affects color intensity, so you may want to adjust *Saturation* as well 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 to process it further
- Yellow is an equal combination of red and green



Using animation and digital video

14: Using animation and digital video

In InfoChannel Designer 3, as in the movie world, an animation is a series of still pictures or *frames*. Each picture differs slightly from the one preceding it, and when the frames are shown quickly in sequence, they create the illusion of continuous movement. Cartoons are perhaps the most familiar and popular type of animation.

The wipes and page transitions available in ICDesigner enable you to add movement and activity so that a script flows smoothly like a professional, made-for-TV production. These effects are dynamic and can be easily changed at any time.

However, ICDesigner also enables you to use animation files. A variety of animations comes with ICDesigner and, of course, you can use your own, but they must be created using separate, animation-specific software.

ICDesigner can use any type of animation that is supported by DirectX, which includes FLI, FLC, AnimGIF, AVI, QuickTime 3, and MPEG-1/MPEG-2. ICDesigner also lets you use Macromedia Flash animations as "Flashclips". You cannot control or make changes in the contents of an animation from within ICDesigner, but you can usually adjust settings like the speed and number of repetitions.

Types of animation

Traditionally, the characters and objects in an animation were handdrawn, frame-by-frame. Today, however, computer drawing and animation tools have revolutionized the way animations are created. The methods used depend on a combination of hardware, software, artistic skill and imagination, and, ultimately, on the intended audience for the animation. There are three basic types of computer-generated animation:

• Two-dimensional animation that is drawn, composed and manipulated by using a paint or animation program. Animation of this type generally resembles familiar cartoon-style films:



2-dimensional cartoon-style animation

• Three-dimensional rendered animation. This type of animation is created using applications that mathematically define the shape, movement and appearance of objects. This involves constructing a computer model of the image and then "rendering" the model. The rendering process adds color, texture, highlights and shadows to closely simulate objects in the real world:



"wire-frame" threedimensional cone model

rendered cone, with color, highlights, and shadowing

Animations in ICDesigner

This type of animation is used for everything from automobile and architectural design to television advertising 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:



digital video

Animations in ICDesigner

ICDesigner recognizes two basic types of animation, based on file format: *animations*, which are in the FLI, FLC, and AnimGIF formats, and *movies*, which are in the AVI, MOV (QuickTime 3), and MPG digital video formats supported under DirectShow[®], plus SWF (Flash). Animations are limited to 256 colors, and are silent. Movies are inherently High Color or True Color, and can have sound. Generically, both types are 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.

Adding an animation to a script

Any type of animation supported in ICDesigner can be added as a clip—an animclip, a movieclip, or a Flashclip—in the Design menus. Adding and using animations as clips is discussed in chapter 8, starting on page 233.

Animations as page backgrounds

When you add an animation as a background for the screen page, you

ICDesigner Note

Flash (SWF) animations cannot be used as page backgrounds.

can work with it from the Main menu just as you would any other page, applying sound effects or wipes and defining timing settings. Or you can use the Design menus to add text, clips, and other elements with the animation as a background.

To include an animation in a script as a page:

- 1. Click on *Add* in the Main menu. You see the File dialog.
- 2. Click on the *Animations* or *Movies* quick-access buttons or navigate to the folder you want.
- 3. Look through the folder, previewing the animations if necessary, until you find the one you want to use.
- 4. In the list box, double-click on the animation file or select it and click *OK*.

You see the Design Background menu.

Animations in the Background menu

You go to the Design Background menu from the Main menu when you double-click the page, press F6, or choose *Background* from the *Design* drop-down while any animation page is selected.

14: Using animation and digital video

Animations in the Background menu

When an animation is the selected page, the *Image Type* panel of the Design Background menu looks like this:


When a movie is the selected page, the *Image Type* panel of the Background menu looks like this:



Replacing an animation

Click the *File:* button to replace an animation background with another image background. You see the File dialog, where you can choose another animation, or navigate to another folder and choose a different kind of image background. You also see the File dialog if you change the image type using the *Type:* pop-up.

To replace an animation background with a Plain background, use the *Type:* pop-up to choose *Plain*.

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) but most animations are run at higher speeds to ensure that the movement looks smooth. The higher

14: Using animation and digital video

Animations in the Background menu

or lower the fps setting, the faster or slower objects in the animation 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. (See the section in appendix B, *"About working with video"*, for an explanation of the differences in the international television standards.)

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 you must also consider:

- An animation is generally created to run at a certain speed. For movement to look natural, so that 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, the time it takes to complete changes, so 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. This may have been done, for example, 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 be no noticeable difference between one setting and another. ICDesigner is fast and works with the animation as efficiently as possible, but there are limitations that are not within ICDesigner's control.

At any time as you work in the Background menu, you can click on the *Preview* button to see the animation at the speed currently set. 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 speeds depends on the animation. The lowest setting, one (1) fps, is slow enough that you can see each frame of the animation as a separate image. The upper limit is determined by the refresh rate of the display monitor. For example, if the refresh rate of the monitor is 70 Hz, then the maximum animation speed is 70 frames per second. An animation cannot be run at a speed that is faster than the refresh rate of the monitor.

2. Click on *Preview* to see the animation and, when it is finished, press Esc or either mouse button to return to the **Background** menu.

Repeating an animation

Loops lets you 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 repeats indefinitely, and is useful when you don't know exactly when the animation should stop.

For example, in an interactive presentation at an information kiosk, you may want an animation to repeat until a participant selects an interactive button to stop the animation and proceed with the script. Since you cannot predict when this will happen, the infinite repeat setting ensures that the animation runs continuously until the button is pressed. If a button is not pressed to interrupt the animation, the animation potentially could run forever.

In addition to the setting defined for *Loops*, the animation is also influenced by the pause setting defined in the **Timing** menu for the animation as a page in the script.

When *Loops* is infinite (∞) , a Duration setting will not stop the repetition. If you need an animation to loop for an indefinite length of time, you need to provide an interactive means to allow the script to advance, such as an on-screen button, or directing the viewer to click the mouse. Otherwise the animation will continue to run.

When *Loops* is between 1 and 99, however, the animation is played the specified number of times, even if the repetitions take longer than the time allowed in a Duration setting for viewing the page. For example,

L<u>o</u>ops

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Animations in the Background menu

if three repetitions of the animation take more than the 10 seconds defined in the Duration setting, the animation is still played in full three times before the script proceeds to the next page.

Regardless of the setting defined for *Loops*, the animation stops when a mouse button is pressed. Pressing the main mouse button shows the next page in the script, while pressing the secondary mouse button displays the previous page.

Playing an animation after page elements

Although you cannot change the basic contents of an animation, ICDesigner enables you to display text and other elements at the beginning or end of the animation. You do this by specifying that the animation should play either before or after the other elements appear, using the *Play After?* option.

Normally, *Play After?* is off and the animation plays before any elements defined for its page appear. The elements then wipe on over the frame that is left showing when the animation stops.

When *Play After?* is turned on (\checkmark), the first frame of the animation is displayed as a static background as the page elements appear. The animation does not start until all element wipes for the page are finished. Elements that remain in the frame are displayed as long as the animation runs. In effect, these elements are on top of the animation.

ICDesigner Tip

Cartoon-style animations, unlike digital video, often have large areas of solid color, such as blue sky, that do not change. These areas can be a safe place for other elements when using *Play After?*. You should be aware, however, that elements displayed before the animation starts will be partially erased or their colors can be disrupted if they overlap areas of the screen that change because of the animation. As a result, you may need to preview the animation several times and move the elements to an area of the screen that does not change so the animation does not interfere with them.

To control whether an animation plays before or after the page elements appear, click on the *Play After?* button to turn the option on or off. If an animation page has no elements, the setting of this button has no visible effect. Note, however, that sounds or other non-visual events on the page will occur before or after the animation, as specified by this option.

Stopping on the first frame

Some looping animations are designed so that the final frame shown when the animation ends is either the first or the last frame of the animation. Because the final frame shown is often used as a freeze-frame background for subsequent material, this can be important.

The *Stop on First*? button lets you 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 shows the last frame of the animation. When *Stop on First*? is on (\checkmark), the animation advances one more frame to the beginning of the loop, so that the first frame of the animation remains on screen.

Using overlay

Almost all modern PC graphics cards have an "overlay" feature for hardware-assisted rendering of digital video. When the card's overlay hardware is being used, certain graphics display functions that would otherwise be done in software by the CPU are instead done in hardware by the card.

The benefit of using overlay is smoother playback of digital video, unaffected by CPU speed or load. The cost of using overlay is that because the graphics card renders the image directly, special graphics manipulations offered by the playback application (in this case, ICDesigner) will not be available.

In ICDesigner you can optionally take advantage of the overlay capabilities of your graphics card for movie playback. The *Image Type* panel of the Design Background menu for a movie background has the *Use Overlay:* pop-up for controlling animation overlay.

14: Using animation and digital video

Animations in the Background menu

Overlay settings

The Use Overlay: pop-up provides three options:

• Never - Overlay capability will not be used, even if it is available.

Use this if you need to use the *Crop* option on the *Image Settings* panel, or any of the options on the *Orientation* or *Process* panels.

• *If Possible* – Overlay capability will be used if it is available, otherwise digital video will be rendered using the CPU.

Use this if playback smoothness is crucial, and you do not need to crop the movie or use any *Orientation* or *Process* panel options. Those options are all disabled when *If Possible* is chosen. In addition, wipes other than Cut are not possible. If any other wipe is set for the page, it will be "demoted" to a Cut wipe.

There are two reasons that using overlay might not be possible:

- The machine's graphics card does not support overlay, or does not support it in the current screen mode.
- Overlay mode is already in use. Only one overlay is possible at a time.
- *Require* Overlay capability will be used if it is available. If it is not available, the movie will not play back.

Use this option when movie playback is to be handled by a device that is inherently an overlay device, such as a hardware MPEG card, video overlay (genlock) card, or DVD playback card. A software codec might also require using overlay. As with *If Possible*, page wipes other than Cut are not possible, and *Crop*, *Orientation* and *Process* are disabled.

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 if desired.

The default is to play the entire movie. To exclude some part of the beginning and/or end of the movie, turn on (\checkmark) the *Start Time* and/or

End Time buttons as necessary. Turning these buttons on activates their associated value controls, which let you 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 have the *Loops* option, which functions the same as described in the preceding section. However, the frame rate and stopping frame in a movie are fixed, so the *Speed* and *Stop on First?* options are not available.

Adjusting the volume of a movie

If the animation is an AVI, QuickTime 3, MPEG or other Direct-Show supported digital video segment, it may also have sound associated with it. You can adjust the volume of the sound with the *Volume* slider, which appears only when there is a movie background.

Putting elements on top of a movie

It is not possible to have page elements on top of a movie background while it is playing. If you have placed elements on a page with a movie background, they do not appear until after the movie has finished playing, regardless of whether they have In wipes or not.

However, if you require the effect of elements on top of a running movie, you can achieve it by using the movie as a movieclip rather than a background. See page 237 in chapter 8 for more on movieclips.

Wipes and animations

You can give an animation a wipe in the Main menu, just like any other page. When the page plays, ICDesigner uses the first frame of the animation as a static background that is wiped in. The animation does not begin to move until the wipe has completed.



Scala InfoChannel Designer 3 allows you to customize your working environment to suit your hardware setup and your personal preferences. You can adjust the appearance of the ICDesigner menus, set options to improve performance, choose the time and date format for your national region, and configure ICDesigner to recognize new devices you have added to your system. Most of the options that control things that you can customize in ICDesigner are in the Options dialog, which you reach from the *Tools* drop-down on the **Main** menu.

On the Main menu, click *Tools* and choose *Options*. You see the Options dialog.



The Options dialog has the tab panels *Playback*, *Authoring*, *Thumb-nails*, *EXes*, *Spelling*, and *Info*.

Setting how scripts play back

The *Playback* panel lets you decide how you want scripts to play back on your system. The primary things for you to decide are whether scripts should play back in a window or fill the screen, and what display mode is used for playback.

You can choose one of two ways to make these decisions on the *Play-back Mode:* pop-up, by picking either *Standard* or *Custom*. Two of the options on this panel change depending on which mode you choose.

Ensuring full screen playback

The default is for playback to be set to be full screen.

- To make scripts fill the screen when you click *Play*:
- 1. Set Playback Mode: to Standard, if it is not already.
- 2. Turn on (✓) the Always Play Back Full Screen? option.
- 3. To keep the display mode from changing from the standard Windows setting, make sure *Adapt Resolution to Script?* is off.

Using Standard mode does not let you choose a specific resolution for all your scripts to play back, or a particular color depth (number of colors) or monitor refresh rate. You can do that in Custom mode.

Forcing custom full screen playback

Sometimes you might need to make sure all scripts play back in a particular resolution, color depth, and refresh rate. For example, you could be using a laptop computer that offers only one display mode.

To ensure full screen playback in a particular display mode:

- 1. Set *Playback Mode:* to *Custom*, if it is not already.
- 2. Click the *Full Screen Display:* button to open a display mode dialog.
- 3. Choose the size, color depth and refresh rate you prefer for script playback.

Customizing your authoring environment

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 blanks to adjust to the new mode. For normal playback—which is relatively infrequent and for which the optimum display quality is important—this is not objectionable. But preview playback is usually done much more often while authoring, and the repeated interruption can be annoying.

ICDesigner 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, meaning that during preview playback, display mode switches are suppressed, regardless of other settings. This is designed mainly for the common situation in which you author in a window and play back in full screen mode. With *Quick Preview?* on (\checkmark), preview playback is also in a window, so that no mode switch takes place. To make previews work like normal playback, turn *Quick Preview?* off.

Customizing your authoring environment

The *Authoring* panel in the Options dialog offers various settings that let you adapt the appearance and operation of ICDesigner's script authoring environment to your preferences.

Options	? ×			
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Large Font (High-res): SHelveticaL 10 Bold				
Small Font (High-res): S65Frutiger 9				
Custom Full Screen Authoring?				
Full Screen Display:				
Save Scripts as Plain Text by Default? 🧹				
Reset Settings QK C	ancel			

Choosing a toolbar style

The toolbar you see in most ICDesigner menus is configurable. It can show an icon for each function and/or text describing the function underneath. Using the *Toolbar:* pop-up, you can choose from the options *Text and icons, Text only*, and *Icons only*.

Turning off the Status Bar

At the bottom of the ICDesigner screen is the Status Bar, where ICDesigner displays brief messages about Undo/Redo usage and other program operations. You can remove the Status Bar to give your ICDesigner screen more vertical room by clicking the *Status Bar?* button to turn the option off.

Changing the menu color scheme

Scala provides over fifty predefined color arrangements for the ICDesigner menus. Click the arrows on the *Color Scheme* control to cycle through them until you find one you like.

Choosing menu fonts

There are two fonts used in ICDesigner's menus, a large font used on most controls and in the Information window, and a small font used for column headings, toolbar labels, panel tabs and certain other places. You can change these fonts at any time, according to your sense of style or to better match the user interface to the size of the screen or window you are using.

- To change a menu font:
- 1. Click the *Large Font:* button or the *Small Font:* button, depending on which font you want to change. You see the Select Font dialog.
- 2. Click the name of the typeface design you want in the *Typeface* column. In the *Sample* box, you see an example of how that typeface looks.
- 3. Choose a size for the font in the Size column.
- 4. If you want, turn on the Bold? or Italic? styles for the font.

Customizing your authoring environment

The menus change to use the new font as soon as you click *OK*. The name, size and style of the font you choose is shown on the *Font* button.

The menu does prevent you from choosing unreasonably large sizes, but it is still possible to choose a size that makes some items unreadable. If you pick a larger font for better legibility on high-resolution screens, check the toolbar and a few representative menus to ensure that all icons, buttons, and control labels remain visible.

Specifying a custom full-screen authoring mode

Normally the display mode you use for authoring (creating scripts in the ICDesigner menus) matches that used by Windows. The resolution, color depth, and refresh rate of the screen matches that set in the Windows Control Panel through the Display properties sheet.

You can use the *Fullscreen* toolbar icon to switch back and forth between windowed operation and full screen operation. When you switch to full screen mode, the program normally changes the display mode to a resolution that best matches the size set for the script.

However, if you should want to force a particular display mode for full screen ICDesigner authoring (for example, to author in a resolution different from that of either the Windows display mode or the playback display mode), you can do so:

Caution!

It is possible to choose a display resolution that your monitor cannot display properly or at all. If this happens, your screen may become unreadable, making it impossible to click *Cancel* to undo the change. **Use Esc as the keyboard shortcut for** *Cancel* **(you could also use the Alt+C shortcut).**

- Click the *Custom Authoring Screen*? button to turn it on (✓). If ICDesigner is not already in full screen mode, the display switches to it, as if you had clicked the *Fullscreen* toolbar icon.
- 2. Click the *Full Screen Display:* button to open the Custom Full Screen Authoring dialog.
- 3. If the default full screen mode is not what you want, choose a size, color depth, and/or refresh rate. The screen changes to reflect your changes when you click *OK*.

Choosing a default script save format

ICDesigner scripts can be saved in either binary or text-only formats. You can pick the format you wish to save your script in as one of the Advanced options available from the Save Script File dialog.

So that you need not always visit the Advanced Options dialog when saving, the *Authoring* panel has a default option. Choose which should be the default save format with the *Save Scripts as Plain Text by Default?* button. Normally this option is off, so that scripts are saved in binary format. To save scripts in editable, plain-text format by default, turn this option on (\checkmark). Note that you can still choose either format when you go to save a script.

See page 79 in chapter 2 for more on script save formats.

Configuring the Thumbnail views

The layout of the Thumbnail views in the ICDesigner Main menu and File dialog is configurable. You can specify the size of the thumbnail images, so that you can balance the value of seeing more thumbnails at once against that of having larger images.

The Thumbnail views of the Main menu and the File dialog can be controlled independently in the *Thumbnails* panel.

In the *Script Thumbnails* column is a single *Size* control for the Main menu thumbnails. The value in this control is the width of the thumbnail images of script pages. As you adjust the value, you can immediately see the thumbnails in the Main menu change size, and the effect this has on how many columns and rows are visible.

Decrease the value if you want to see more images at once, or increase it if you want to see larger, more detailed images.

Adjusting the File dialog thumbnail settings

The *File Dialog Thumbnails* column provides more advanced control over the image size in the File dialog. The *Width* control specifies the image width, controlling the basic size, as for the Main menu.

Configuring the Thumbnail views

The *Aspect:* pop-up lets you choose an image aspect ratio, to better match the proportions that predominate among the images you are working with. The default is 4:3, which is the aspect ratio of standard PC screen sizes (640×480 , 1024×768 , etc.) and many images. However, if you often work with images that are considerably wider than they are narrow, or vice versa, adjusting the aspect ratio allows ICDesigner to better fill the space in the File dialog with images.

The other choices for aspect ratio include 16:9, for working with HDTV widescreen format images, and the Custom setting, which enables the *Height* control, allowing you to explicitly set an exact size for the File dialog thumbnails.

File dialog image caching

There are two additional options in the *File Dialog Thumbnails* column, *Cache Thumbnails*? and *Clear Thumbnail Cache*.

In order to allow the File dialog Thumbnail view to display the images of graphic files quickly, it is possible to have the dialog save small files for each thumbnail image that it generates. The thumbnail files are stored in a cache that the File dialog creates within a temp folder, and are generated whenever you examine a folder with the File dialog in Thumbnail view and thumbnails of the proper size have not yet been saved for it. The File dialog can display the images much faster by loading these files than by loading large image files and scaling them to a small size.

This feature is on by default. However, if you want to conserve disk space and do not mind slower File dialogs, you can turn off *Cache Thumbnails?*. If you then click *Clear Thumbnail Cache*, the thumbnail files are deleted and the disk space they had consumed is recovered. This button is disabled if the cache is currently empty.

15: Customizing InfoChannel Designer 3 The Scala EX system

The following illustration shows how your Main menu might look if you changed the default menu resolution, fonts, thumbnail size, column arrangement, and color scheme:



The Scala EX system

ICDesigner has been designed to make it easy for you to expand and control its capabilities. ICDesigner enables various functions and "talks" to hardware devices through special software modules called *EXes*. An EX ("extension") module often works similarly to a printer driver: it is software that knows about the kind of signals and the data format needed by a particular hardware device. It also knows how to talk to ICDesigner, so in effect it translates commands that come from a script—for example, an event that runs a videotape—into the form required by the hardware.

However, an EX module is more than a simple driver, in that EXes actually add new capabilities to ICDesigner, things that ICDesigner's

The Scala EX system

creators might not have even considered. EXes that enable you to use a new piece of hardware often have their own menus, and add a column of buttons to the **Main** menu. Others might operate entirely in software, as in an EX that lets ICDesigner exchange data with another software application.

EX modules can be supplied by Scala or by third-party developers as new hardware, file formats and so on become available. You can add EXes to your ICDesigner setup at any time. When you install a new EX module on your system, a new entry appears in the *EXes* panel list in the Options dialog.

The *EXes* panel shows EXes in two scrolling lists. EXes that are integral to the ICDesigner software and have no optional settings do not appear here, even though .EX files for them appear in the EX folder. Those EXes that have configurable settings and/or are optional are listed.

EX menus and settings

When you click on a button in a Main menu EX column, you see a menu for that EX. There you can adjust settings just as you do for other columns in the Main menu. The contents of the menu vary depending on the EX, so you need to consult the documentation provided by the EX manufacturer.

Some EXes have configuration settings associated with them. Those EXes—such as *Timing* and *Launch* in the default ICDesigner installation—are shown in the Options dialog *EX Settings* list. The settings available on these dialogs are global settings that would apply to any event or script that uses that EX on that system.

In contrast, the EX menus that you see on the Main and **Design List** menus control settings that are specific to a particular script event.

Configuring the Timing EX

The Timing EX Options dialog primarily controls how the ICDesigner system variables TIME, DATE, and WEEKDAY display their information. There are several options for each, so that you can use the formats best suited for your geographic region (or the region in which

15: Customizing InfoChannel Designer 3 The Scala EX system

your scripts will run). You display the day, date, and time in scripts by embedding these variables in normal text. For information on using variables in text, see "*Displaying variables*" on page 192 in chapter 6.

To choose time and date formats, click the *Timing EX* button in the *EX Settings* column. You see the Time, Date, and Weekday variables dialog, with *Time format:*, *Date format:*, and *Weekday format:* options. The options are indicated by examples on three pop-ups.

Options			? ×		
Playback	Authoring Thumbr	nails EXes 9	Spelling Info		
	Time, Date, and Wee	kday variables ?	×		
Timing EX	Time format: 07:30	:58 (24h)	⊻		
Launch EX	Date format: 5 October 1999				
	<u>W</u> eekday format: Thursday <u>Y</u>				
	Upper-case only?				
	Default Timing Type:Pause				
	<u>о</u> к	<u>C</u> ancel			
Reset Settin	gs	<u>о</u> к	<u>C</u> ancel		

Time format: has eight options, with different combinations of 12-hour and 24-hour, leading zero, and seconds:

1)	07:30:58 (24h)	5)	07:30:58 am (12h)
2)	07:30 (24h)	6)	07:30 am (12h)
3)	7:30:58 (24h)	7)	7:30:58 am (12h)
4)	7:30 (24h)	8)	7:30 am (12h)

Date format: has fourteen options, using different combinations of separators, leading zero, and day/month/year order:

1)	5 October 1999	8)	5-Oct-99
2)	5. October 1999	9)	991005
3)	October 5, 1999	10)	99/10/05
4)	10/5/99	11)	05.10.99
5)	10/05/99	12)	5.10.99
6)	05/10/99	13)	5.10.1999
7)	05-Oct-99	14)	1999-10-05

The Scala EX system

There are two options for *Weekday format:*, the full day name (for example, Thursday) and the three-letter abbreviated form (Thu).

If you prefer text that appears in the timing variables (am/pm, October, Thursday) to be all in upper-case (AM/PM, OCTOBER, THURSDAY), turn on (\checkmark) the *Upper-case only?* option.

An option not related to variable display is *Default Timing Type:*. This pop-up lets you choose either *Pause* or *Duration* as the default type of automatic timing given to new pages and elements.

To save these settings as the defaults and exit the Timing dialog, click *OK*. Click *Cancel* or the dialog close button to discard any changes you made.

Configuring the Launch EX

The Launch EX (described in chapter 7 of the "*Extended Authoring*" guide) allows an InfoChannel Designer 3 script to launch external applications and commands under script control. The Launch EX has one option, which is accessible from the Launch EX Options dialog.

The *Security:* pop-up lets you set a security level when opening scripts that contain Launch EX events. It determines whether ICDesigner displays a warning dialog before running a script that contains Launch EX events. The dialog advises that an application launched from a script could potentially have undesired effects, such as overwriting or deleting files without notice, and gives the option to abort opening the script.

The default choice is *Warn when opening*, which causes a cautionary dialog to be displayed whenever you open a script that contains Launch EX events. You should use this choice if you may be opening scripts from sources that are not trusted.

Disallow opening prevents the opening or authoring of scripts that contain Launch EX events. If the scripts that you will be creating or using do not contain Launch EX events, select this choice.

No warning when opening disables Launch EX event warnings. This can be convenient for those who often work with scripts that contain Launch EX events and prefer to avoid the dialogs. If you select this

choice you should be careful when opening scripts from sources you do not trust.

The Launch EX's power makes the playback machine vulnerable to possibly damaging software. Because of this risk, it is recommended that you do not set the Launch EX security level to *No warning* if you are opening scripts from unknown sources.

To save the setting as the default and exit the Launch dialog, click *OK*. Click *Cancel* or the dialog close button to discard any change you made.

Enabling and disabling EXes

The EX buttons in the *Optional EXes* list allow you to turn an optional EX on and off. EXes that are "on" have a \checkmark on the button; those are "off" have no \checkmark . When you turn an EX off, its column, if any, no longer appears in the **Main** menu.

Once an EX has been installed, there is never any need to remove it from the EX folder. But if an optional EX seems to be causing problems with a script, or you never need to use it, you can turn it off.

If an EX adds new script production capabilities to ICDesigner, a column for that EX appears in the Main menu when that EX is on. The column for a new EX (one that did not come with the original ICDesigner software) appears to the right of the usual Main menu columns. You may need to use the horizontal scroll bar on the Main menu to see the columns for EXes you add. You can reorder the EX columns in the Main menu as described in the section, "*Customizing columns*" on page 53 in chapter 2.

Configuring optional EXes

Some optional EXes have configuration options. When such EXes are turned on in the *Optional EXes* column, a button for that EX appears in the *EX Settings* column. Click this button to display an Options dialog for that EX.

Configuring the optional EXes that ship with ICDesigner is covered in chapter 7 of the "*Extended Authoring*" User's Guide.

Spelling options

Spelling options

There are several options associated with the spell checker, which are found in the *Spelling* panel.

Choosing a language

The spell checker can check spellings of words in many different languages. It can check only one language at a time, so you need to select the language. The default is US English. The *Language:* pop-up lists the languages available for spell checking. For a language to appear here, a dictionary (.LEX) file for that language must exist in the ICDesigner folder. Choose a language from the pop-up to allow spell checking in that language.

Resetting the ignored words list

The spell checker builds a list in memory of words that you have specified for the checker to temporarily ignore. Any words that are on this list are not checked by the spell checker for the rest of this ICDesigner session.

You might at times want to clear the ignored words list, so that words you placed on it will be checked again. For example, you could have a script that uses a deliberately misspelled common word as a trademarked name. To prevent the spell checker from always stopping at this word in this script, you would click *Ignore All* the first time the spell check stopped at the word. (You would not add this word to the user dictionary, because then this misspelling would always be ignored, and never be caught in normal usage outside this particular script.)

However, you would want to have the spell checker find this misspelling when working on other scripts later in the same session. This makes it desirable to be able to make the spell checker clear the ignored words list.

To clear the ignored words list, so that words on it will again be checked, click *Reset Ignore All*. Once the list has been reset, the words that had been on it cannot be recalled.

Editing the user dictionary

The spell checker allows you to build a custom user dictionary of words that are never to be flagged as misspelled. Over time, this dictionary can grow to be large, and it may come to contain words that are no longer necessary or were added mistakenly. For example, 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 slows down the spell checking process.

For this reason, it is possible to view the user dictionary's contents, and delete words from it if 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 that shouldn't be there, select it and 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 need to choose the correct language before you can edit its user dictionary.

Information options

The *Info* panel displays product identification information. It shows the name, release date and language of the ICDesigner release 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 ICDesigner or with EXes, it can help to record the version numbers, so that you can report your system setup accurately to technical support personnel.

Using and resetting Options settings

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 those settings, you have a few possible choices.

OK confirms the changes made since you entered the Options dialog, *Cancel* discards them. In either case, the dialog closes. If you confirmed the changes, the settings you made are in effect for the rest of your editing session, and are saved for future sessions.

This saves all settings on the Options dialog.

Resetting all options

If, after making some changes on the Options dialog, you decide you want to return to ICDesigner's default settings, click *Reset Settings*.



Tips on creating an effective production

16: Tips on creating an effective production

Creating a production that communicates your message in the most effective way requires planning and testing. This appendix briefly discusses some questions and issues you should consider as you plan and prepare your Scala InfoChannel Designer 3 production, whether it is a video, an interactive program or simple audiovisual support. We also offer some helpful hints that you may find useful as you experiment with ICDesigner's unlimited design possibilities.

Planning a production

Although using ICDesigner to compose a production script is fast and easy, taking time in advance to plan the content and format is a vital step in the production process. With any type of production and any combination of media and effects available, there are several factors you should consider before you begin to work with ICDesigner:

- the purpose of the production
- the intended audience
- the display medium
- the material

Define the purpose of the production

Regardless of the topic, you must clearly identify the aim of the production. Among other things, you must determine if the production is intended to inform, instruct, persuade or recommend.

Although any of these objectives might apply, each requires a slightly different focus and, when considered in combination with the intended audience, affects the type of script you compose in ICDesigner. For example, if the purpose of the production is to instruct, you may want to consider creating interactive, step-by-step training material where the viewer controls the direction of the production by responding to on-screen problems, questions or information.

Determine the intended audience

Regardless of the audience's size, defining it before you begin to compose your script in ICDesigner helps you structure the production and ensure that it meets the needs of the greatest number audience members.

You must consider, for example, the general level of expertise of the audience. This affects the amount of background information you must include, your use of technical details, jargon and so forth.

Many other factors, which you often can't control, also influence the way in which your audience receives and absorbs your message. These include:

- their basic reasons for wanting the information. For example, are they seeking it voluntarily or are they required to do so?
- their attitudes toward the message. Are they enthusiastic, skeptical, interested, etc.? Do they expect to be entertained, or just informed?
- the psychological atmosphere. Are they likely to be in a positive mood, or might they be bored, impatient, etc.?
- the physical environment. Is the room or setting small or large, light or dark, is it noisy or quiet, etc.?

The more you know in advance, the more you can predict the audience's needs and reactions and plan accordingly.

Determine the display medium

Whenever possible, get as much information as you can about the place where the production will be viewed, whether it is an office, an auditorium, a shopping mall, or a living room. Consider such things as:

- the size of the room
- the seating arrangement or viewing perspective
- the size and position of screens and equipment
- lighting conditions

16: Tips on creating an effective production

Preview and refine the production

These can influence not only the lines of sight for the audience, but the text, colors, fonts and special effects you use when you design and produce the production.

Even if you use your own equipment and run the production in familiar surroundings, there may be features about the setting or functional quirks about the display equipment that affect the decisions you make as you compose the ICDesigner script.

If the production is intended for individual viewers on the desktop, the concerns are different. In such a situation, you are most concerned with making sure that all elements of the production are present and play back properly on the system(s) that viewers can be expected to have.

Select appropriate material

Select the material that is most appropriate given the needs of the audience, the type and purpose of the production, and the time allowed. Remember that what you leave out is just as important as what you include. Whatever doesn't specifically support the production can only distract your audience and blunt the message you are trying to get across.

Preview and refine the production

Before you finish the script, you should test it in a setting that is as close as possible to the actual production. At the very least, this means running it on the same type of equipment and viewing it on the same type of screen that will be used when it is displayed. Ideally, you should test the production in the actual setting with an audience of at least a few other people.

Previewing the production using the same type of equipment enables you to discover potential technical problems. Using the same type of screen gives you time to make any adjustments in the script to account for variations between the authoring and final output systems. For example, computer monitors generally have better resolution than TV monitors. Colors, characters and images that look clear and sharp on your computer screen as you compose the script tend to blur or flicker on a TV screen. You may need to adjust font sizes and color combinations. Fortunately, ICDesigner makes it easy for you to do this kind of fine-tuning, but it is better to uncover these potential problems beforehand. Struggling with connections, switches or changes in the script not only distracts the audience and takes time, it affects your professional image and the impact of your message.

Running the production with a test audience of one or more helpful colleagues or random volunteers gives you valuable feedback and the opportunity to ensure that your message is clear. Even if you cannot adjust the current script in response to reactions or comments, the things you learn can be useful in planning your next ICDesigner script.

Evaluate the final production

If feedback from a production preview improves your current script, feedback from the intended audience improves future scripts. Whenever possible, evaluate the final production. This can be done formally using an audience survey, or informally by observing the reactions of viewers and noting their comments.

Helpful hints - making the message look great

ICDesigner makes it easy for you to create a multimedia production that looks good. Making the production look great take a bit more time and energy but can be well worth it. It helps to understand a few basic principles of design for on-screen multimedia productions in general, and ICDesigner in particular.

The hints in this section should be considered suggestions, not unbreakable rules. An effect that is not generally recommended may be quite impressive when applied in a special context. These sugges-

16: Tips on creating an effective production

In general...

tions provide a foundation for your work but you must always experiment and test your own ideas.

In general...

- Keep the page design simple.
- Maintain a point-by-point focus.
- Use familiar conventions to help the viewer understand the page.
- Make every effect that you use serve a specific purpose.
- Don't be afraid to experiment or change your mind.

About backgrounds...

The background is the most basic element of the page. It establishes the type of information to expect and the tone—funny, serious, elegant, etc.

Determine the impression or feeling you want to convey, then select the background and adjust the background color accordingly. Use plain backgrounds with muted colors when just presenting information is the main task. As it becomes more important to create an atmosphere or get your audience excited, you can consider brighter colors, patterns, and picture backgrounds.

About colors...

Color can be used for anything from emphasizing contrasting points to connecting similar ideas.

Colors vary not only from one display medium to another, but from screen to screen as well. For example, colors that appear clear and intense on a computer monitor often appear very different on a television screen, either faded or overly bright. And, of course, each TV monitor tends to have its own color-setting peculiarities. • Use contrasting color combinations for foreground and background elements.

Whatever colors or color combinations you choose to use, make sure the page elements are not absorbed by the background.

Although the color contrasts on a page should be strong, some high-contrast combinations, such as orange on blue, are quite difficult to read.

• Avoid using too many colors on a page.

More than three or four foreground colors on a page tend to create the "angry fruit salad" effect, a kind of sensory overload.

• Don't rely only on color as a distinguishing factor.

Color can enhance the design and intelligibility of your pages, but should not be used as the only factor that distinguishes important items from one another. There might be situations in which your script is displayed on a monochrome monitor, or on a system with very poor color reproduction. In such cases, referring to "the red text" might not be interpreted correctly.

• Consider the mood or impression a color conveys.

Different colors or color combinations give different impressions and affect viewers differently. Try to match the color with the purpose of your message and the audience. Viewers associate color with familiar things, regardless of what you may want a color to suggest.

• Avoid using full-power colors for video productions.

Elements with fully saturated or pure colors tend to bleed when they appear on a video monitor. The **Design Palette** menu and the Process panel of the **Design Background**, **Design Clip**, **Design Animclip** and **Design Movieclip** menus enable you to adjust the hue, saturation and brightness of the color you want. See chapter 13, "*Adjusting colors*".

16: Tips on creating an effective production

About text...

• Keep in mind that members of the audience might be color-blind.

Whenever possible avoid colors or color combinations, such as red and green, that may create problems for someone who is unable to distinguish them properly.

• If your presentation audience is multicultural, take cultural differences into account.

Non-western audiences have cultural associations that are often very different from those familiar to Europeans and Americans. In Japan, for example, white is associated with death, and yellow with royalty. A color choice could have unfortunate consequences if such differences are not considered.

About text...

In the world of typography, there are two kinds of typefaces. A *serif* typeface has a small stroke at the upper and lower ends of the lines that form a character. A *sans serif* typeface does not have these strokes.



Typefaces, like backgrounds, send different signals to the viewer. In general, serif typefaces are perceived as classic and elegant, while sans serif typefaces give a modern, neat impression.

Whether based on a serif or sans serif typeface, each font that comes with ICDesigner has proven to be effective in a variety of production formats. Nevertheless, there are some things you should consider when you select a font and apply text styles. • Make the text large enough.

Even if your graphics and colors are dazzling, you won't communicate your message if the audience can't read the text. Using text that is too small to read is one of the most common, and worst, mistakes multimedia newcomers make.

The fonts you use generally depend on the display medium and the size of the audience. In an interactive production displayed on a computer monitor, the viewer is normally close to the screen and the image resolution is good, so smaller fonts are legible. However, in a production in an auditorium where the viewer is a considerable distance from the screen, only larger fonts are clearly readable.

Test the font to see how it looks on the display screen. Stand as far from the screen as the most distant viewer will be.

Characters in different typefaces can differ greatly. Some typefaces are inherently less legible than others. Even within the same typeface, a font of one size may be very legible while another font in the same size is not. Unusual, decorative fonts should never be used for body text, and only very sparingly for headlines and other "display" uses.

• Avoid using more than two typefaces on a page.

Having too many type styles on a page tends to make it appear cluttered. It is also distracting because the viewer must expend effort deciphering the design rather than concentrating on the message. To differentiate text items on a page, try another size or style of the main typeface, or a different background treatment.

• Don't put too much text on a page.

First, condense your text into simple, direct statements that are as brief as possible. If necessary, spread the text and the ideas it represents over several pages. Even in an interactive production, which can normally accommodate more text than other formats, it is best to leave some empty space on the page.

16: Tips on creating an effective production

About text styles...

About text styles...

Just because ICDesigner provides a full range of text effects, that doesn't mean you must use them all. On the contrary, use effects like spices in food—to enhance the flavor, not to overwhelm it. Experiment, then test the results on the final display medium and, if possible, in front of an objective audience.

• Use all-uppercase text sparingly.

Text written entirely in uppercase characters is less legible than mixed-case text. It also eliminates important cues to the presence of proper names and the beginning of sentences. Restrict your use of uppercase text to brief titles and other items that particularly need to stand out from other text.

• Think twice before applying three or more attributes at the same time.

Applying several text attributes simultaneously often makes the text less legible and, as a result, your message less clear. On the other hand, when handled with care in combination with the right colors and the right setting, the effects can be quite stunning.

• Use bold fonts for emphasis and legibility.

When used in moderation, bold fonts can make text easier to read and focus the viewer's attention. Overuse of bold text, however, makes text look heavy, and negates its value for emphasis.

• Use shadowed text for variety and legibility.

Shadows add a pleasing 3-D effect to the page, and often make large letters easier to read. Smaller characters can be more difficult to read when shadowed, however. Shadows can be especially effective when used with light text against a mixed background. If you shadow more than one item, be sure the shadow direction is consistent.

• Use outlining for legibility.

Using a contrasting text outline is almost mandatory when text and background contain similar colors, to prevent the text from bleeding into the background. The *Backdrop* option can also be used for this.

• Use smoothing for quality appearance.

The *Smooth* option gives a high-quality, professional look to text, and is especially effective with TrueType fonts. Using smoothing with very small fonts, however, can impair legibility.

• Adjust character spacing.

Extra space between the characters in a headline makes the text more airy and elegant; in a smaller font, however, the text becomes more difficult to read. Reducing the normal character spacing slightly gives a modern, forceful look.

About wipes...

ICDesigner wipes can make an otherwise static presentation come to life. When you don't have an animation to show, text wipes and page wipes maintain visual excitement, pulling the viewer into the page and giving the presentation forward motion.

• Avoid using several different types of wipe on a page.

Too much activity quickly becomes distracting, and undermines the energizing effect of later wipes.

• Give the viewer enough time to absorb the information.

Elements on a page that move too fast or pages that change too quickly frustrate a slow reader; leaving insufficient reading time is a very common mistake in multimedia authoring. On the other hand, movement that is too slow is frustrating for a fast reader.

• Use a focus color to emphasize successive items.

Highlighting the most recently wiped-in text with the *Focus* option is an effective way to direct the viewer's attention when presenting a series of points.

16: Tips on creating an effective production

Graphics...

Observe conventions of motion.

In western cultures, motion from left to right, top to bottom, and clockwise are considered normal and positive directions. Don't go against these conventions without a good reason.

See the later sections of chapter 12, "Using wipes" for more detailed information on choosing appropriate wipes and making best use of them.

Graphics...

That "a picture is worth a thousand words" is especially true in onscreen productions, where graphics such as drawings, imported clips or photographs, can greatly enhance the impact of a message.

• Make sure the graphic is relevant to the message.

If the connection between the graphic and the point you want it to illustrate or enhance is not clear, the graphic will detract rather than add to the message.

• If the graphic is a photograph, be aware of the quality of the image.

Photographic images always lose a certain amount of detail when displayed on a computer screen—when converted to video they lose a great deal more. In addition, color rendition of digitized images varies widely in accuracy, and the dithering effect used to improve color fidelity in some images adds "noise" to the image.

For these reasons, choose photographic images carefully. Start with pictures that are as clear and sharply defined as possible, and don't make the production depend on fine detail in the images.

• Avoid using text on a picture that is used as clip art.

Text added as an element on top of a photograph used as a clip on a page (as opposed to the background), obscures the picture, reducing its effectiveness. The text also tends to be difficult to read because of the color and detail of the picture.
• Ensure that graphs and tables are uncluttered.

The purpose of any table or graph is to display data, often complex data, in a way that is simple for the viewer to grasp. Using too many additional elements, such as extra text, undermines the statistics.

About sound and animation...

Sound and animation are the essence of multimedia and, more than any other factors, help grab the viewer's attention. In a self-running production, sound can stop a person passing by; in an interactive production it can give the participant audible feedback for an action. Colorful graphics may have been the key to effective presentations in the past, but sound and animation are the essential elements today.

Staying in sync

When using sound in a script, pay special attention to the synchronization of sounds with what is happening on-screen. If a sound and a some visual event should happen together, they should happen at exactly the same time.

For example, notice the subtle clicking sound in some ICDesigner demonstration scripts, produced when you click a button on the screen to make a selection from the main menu. It not only looks as though the button is being depressed, it sounds like it too. ICDesigner makes synchronizing sounds with interactive button presses automatic, but in other situations you must do it yourself.

Make sure that musical selections start at the beginning of a graphic sequence, and don't stop or change suddenly without some equivalent event occurring on the screen. When you need to coordinate scripted events with some continuous, external event, the *Record with Mouse Click* option can make establishing your timing settings easier.

About working with video...

About working with video...

To display an ICDesigner script on a television or video monitor requires special hardware—an encoder or scan converter—that converts the digital computer image into a video signal. Even with such a video converter, however, there are some basic differences between the quality of the images you see on the computer screen and the quality of the converted images on the video screen. For example, some colors, such as bright red, are distinct and crisp on the computer monitor but tend to bleed or blur when displayed on a television.

ICDesigner has a variety of capabilities to help ensure that the script you produce will be just as effective and professional when displayed on one medium as another. Although you do not have to be a video expert to use the ICDesigner facilities to adapt your script, it helps to understand why such considerations and adjustments are necessary.

Refresh rate and interlace

First, a computer display commonly has a higher *refresh rate* than a television or other types of video display. This is the speed at which the entire screen is scanned to maintain a constant, steady image. A refresh rate of 60 Hz, for example, means that the screen is redrawn 60 times per second.

On most modern computer displays, every horizontal scan line of the screen is scanned in order from top to bottom during each refresh cycle. A video display, however, uses a process called *interlacing* which alternately scans all odd-numbered lines and then all even-numbered lines in successive refresh cycles. This means that any single line on the screen is updated only half as often as a non-interlaced display, for example 30 times per second if the refresh rate is 60 Hz.

Ultimately, this means that some areas of an image that looks steady on a non-interlaced computer display appear to flicker on a video display. Even if a computer display and a video display both have the same stated refresh rate, the overall image stability is not as good in video. The flicker is distracting, and can make text harder to read.

Fighting flicker

Flicker is generally noticeable only where there are contrasting horizontal edges. Using narrow horizontal lines alternating between black and white causes the worst flicker.

To reduce flickering and to ensure that your ICDesigner production looks its best on video monitors there are several things you can do:

- Avoid using 1-pixel horizontal lines.
- When you cannot avoid horizontal edges, for example the tops and bottoms of rectangular areas, choose colors that do not contrast strongly in brightness. If you need to use strongly contrasting color blocks, try using an outline of an intermediate color around the blocks.
- Avoid using images or fonts that are too small or too thin. Using a sans serif font can help.
- When underlining, ensure that the underline is at least two pixels thick and two pixels below the baseline of the text (see chapter 6, *"Working with text"*).

Resolution and video standards

In addition to differences in refresh rates, computer monitors and video monitors also define resolution quite differently. As described in chapter 4, the screen resolution of a computer monitor is measured by the number of pixels, horizontally and vertically, that can be used to display an image. The resolution of a video monitor, however, is measured only in the vertical dimension, in terms of the number of horizontal scan lines it uses. In both cases, the resolution improves as the number of pixels or lines increases.

The resolution of a computer monitor is determined by the display hardware installed in the PC and the monitor itself. The resolution of a video monitor depends on the video standard the monitor is made for. There are three international video standards, and their usage varies from country to country. Each standard has its own resolution definition.

About working with video...

- NTSC, named after the National Television Standards Committee in the United States, is the system used mainly in North America, Japan, Central America and western South America. Its standard resolution is 525 lines, and it has a 60 Hz refresh rate.
- PAL (Phase Alternating Line) is used throughout Europe (except France), South America, Australia and parts of Asia and has a resolution of 625 lines. As a result, the picture quality is higher than NTSC, although the refresh rate for PAL is lower, at 50 Hz.
- SECAM (Séquential Couleur avec Memoire) is used in France, Eastern Europe and countries that were formerly members of the Soviet Union, most of Asia and Africa, and parts of the Middle East. SECAM is not compatible with PAL, but it has the same resolution (625 lines) and refresh rate (50 Hz).

Scripting for video displays

A PC is not designed to produce a video signal that can be displayed in these standards and must rely on a video converter to manage the change in formats. The converter, however, may have special requirements regarding the PC screen resolution that it converts. For example, many converters require a PC resolution of 800×600 pixels to convert to PAL or SECAM, and 640×480 to convert to NTSC.

For example, when you convert a background that uses a resolution intended for viewing in NTSC and display it in PAL or SECAM, it is too small to fill the entire video screen. There are blank, black areas at the bottom and top. On the other hand, a background designed for PAL/SECAM resolution is cropped when it is shown in NTSC format. Any text or images that are close to the top or bottom of the background may be cut off.

Adjusting resolution and background size for video

Most PCs support several resolutions, including one that will work with NTSC, one with PAL/SECAM and others that are available for other purposes. These settings vary, however, and the setting that is compatible with PAL, for example, may be an option with slightly different resolution values than you might expect. To ensure that your script is displayed correctly, check the documentation that came with the video display device you are using to determine the resolution you should use on the PC for scripts you intend to convert. Then, adjust the resolution of your computer monitor and/or the size of the backgrounds to match the standards of the display medium as closely as possible. You can change background size settings on a page-by-page basis or you can change one or both settings so they apply globally as you work in ICDesigner.

Changing the playback resolution is discussed in the section "Setting how scripts play back" on page 371 in chapter 15. Changing the size of a background is discussed in the section "Adjusting background size" on page 125 in chapter 4.

If you are traveling or preparing scripts for international use, check the list at the end of this appendix for a list of video standards used in various countries throughout the world. Although you can change the resolution settings in your script at any time, making the adjustments before you arrive at your destination can save you valuable time.

About hardware...

Even if the production is shown directly on a computer monitor using equipment with which you are very familiar, there are still some hardware considerations and options that you may want to keep in mind.

• The size of the display monitor

Regardless of the type of monitor, the smaller the screen the closer the audience must be to see it properly.

• The position of the display monitor

Whether the production is a self-running display or a large-screen video production, you must consider the position of the display equipment relative to the audience. Displays on some monitors can be seen from virtually any angle in any light but other monitors are more sensitive to surrounding light sources whether direct or reflected, bright or dimmed.

About hardware...

You also need to ensure that each member of the audience has an unobstructed view of the monitor.

• The types of display options

In general, if your ICDesigner script is not displayed directly on a computer monitor, then it is shown via a device that a computer plugs into. Here is a brief overview of some of the display options you might have available when your ICDesigner production is displayed on something other than a standard computer monitor.

Touch screen

This is a special computer monitor or monitor attachment that can sense the location of a viewer's touch on the screen, and return location information to the computer. An ICDesigner script can respond to touch screen input just like mouse clicks.

LCD projection panel

This is a portable unit that is placed on top of an overhead projector and connected to the display-monitor port on a PC. Information normally seen on the computer screen is reproduced on the LCD (liquid crystal display) panel and projected onto a large screen. The resulting image is sharp and fairly bright, and can be large enough for a good-sized audience. Some LCD panels are self-contained units that do not depend on an overhead projector for the light source.

The LCD panel is a very portable, easy-to-use way to take advantage of the common overhead projector.

Video projector

Many video projectors are capable of handling information directly from a PC and simply projecting it onto a large screen. Some projectors, however, require a PAL, SECAM or NTSC video signal, which means that you may need to use a special screen resolution in your ICDesigner script.

Most exhibition or conference facilities already have video projection systems. There are also smaller units, which are more portable. These devices are often described as "data projection systems".

16: Tips on creating an effective production About hardware...

If a video projector is available for displaying your ICDesigner production, you must be sure whether or not it accepts computer (VGA/SVGA) graphics. If not, you will need a separate scan converter. It is also important to know in advance what kind of cabling and connectors the projector accepts and where the connectors are. If, for example, the connections must be made at the back of the room or a distance away from your position when you are running the script, you may need to use an assistant or a remote control mouse to advance the script.

Flat screen monitor

Flat screen monitors, which use plasma or other technologies different from cathode ray tubes, are beginning to become practical for some types of display uses. The slim profile and wide viewing angle of a flat-screen monitor can be the deciding advantages in some installations, but the sharp, bright, stable image quality is a significant bonus as well. The primary drawback is high initial cost, and in some cases relatively short screen life. It can also be challenging to find graphics cards with drivers that support the unusual display resolutions that some flat screen monitors require. But with installations for which cost is not a driving issue, flat screen devices can offer major advantages.

Video monitor

Although there are video monitors that are dedicated to displaying only video signals, the most common video monitor is a television set. Televisions and video monitors are often larger and less expensive than computer monitors and are among the most common display devices for an ICDesigner script.

To display a script on a video monitor, however, the script must be converted from computer graphics to a video signal. This process is handled by a video scan converter, which may be an expansion card that is installed in your PC or an external device. If the television does not allow for standard *composite* video input, however, you must also have a device called an RF modulator. See the preceding section, "*About working with video*", for details about

About hardware...

the adjustments you must make in an ICDesigner script to ensure that it looks correct when displayed in a video format.

Genlock

This is one of the most popular types of video accessories because it enables you to lay computer information over another video source and mix one with the other. You may want to do this, for example, to add titles, subtitles, captions or credits to anything from a home video to a production for a cable-TV network. Some devices sold as genlocks also have conversion capabilities to turn the computer signal into video, making them particularly handy for multimedia purposes.

A typical setup for producing a video using ICDesigner and basic "desktop video" equipment is shown in the following diagram.



Notice that the genlock has input connections from your PC and from a VCR in Playback mode and/or a video camera. The genlock mixes the PC and video information and sends it via an output cable to a video monitor for viewing and, in most cases, to another VCR in Record mode so that there is a finished version of the video that includes the computer graphics (subtitles or other text, clips, and so on). The dotted lines indicate control connections that you could use to automate the VCR and genlock functions, if you have Scala EX modules to control those particular devices. The genlock and converter could also be expansion cards installed in your PC.

• If possible, have backup production plans.

Remembering "Murphy's Law" which contends that "Anything that can go wrong will go wrong", take a few production precautions by having some alternative plans and equipment available. For example, if the three-beam video projector is out of order or more difficult to adjust than you expect, be prepared to use an LCD projection panel. If the touch screen for an interactive display stops working, be prepared to substitute a mouse or a keyboard as the on-screen controller. Extra cables and connectors in a variety of types and lengths, extra laptop batteries, a backup diskette or CD of your production and even a backup of ICDesigner itself, may make the difference between a successful production and no production.

About performance...

You want your ICDesigner productions to look as professional as possible at all times. This means having the smooth, seamless quality in both sound and image of broadcast television programming, and maintaining the full-time consistency of advertising signage. Achieving this high level of performance can be difficult when dealing with the enormous range of hardware/software combinations available on the PC platform.

What is performance?

The prime aspects of good performance:

- Animations playing smoothly
- Sounds playing without stuttering
- Wipes moving smoothly
- Image and soundtrack of digital video remaining in sync
- Consistent playback from machine to machine
- Reliable long-term (24/7) playback

About performance...

The first four items listed are things that viewers and customers can be expected to notice immediately, and thus they are likely to be the areas where you first focus your efforts.

The last two items tend not to be obvious right away, but especially in large, long-term, high-profile installations, may turn out to be more pressing issues.

Getting the best performance

The prime determinants of good performance, roughly in order of importance:

• Using up-to-date, stable drivers

The importance of good drivers for the devices in your playback system—particularly the graphics card and sound card—cannot be overstated. Nor can it be overemphasized how often shoddy drivers are at the root of performance and stability problems.

The latest drivers for your equipment are usually, but not always, the ones you want. Drivers certified by Microsoft's "Windows Hardware Quality Labs" (WHQL) often sacrifice a small amount of absolute performance for a significant gain in stability and compatibility.

Drivers must also be compatible with the family of Windows operating system that you use—the WDM driver family introduced with Windows 2000 is significantly different from the drivers in earlier Windows versions. Non-WDM drivers might work in WDM Windows versions, but WDM offers the potential of better performance and stability. Some devices may require WDM drivers when installed in systems with Windows 2000 and beyond. Consult the Hardware FAQ and other resources on Scala's Web site at <u>http://www.scala.com/support</u> for detailed information.

• Using an up-to-date version of your Windows operating system, and Scala-approved versions of certain system components

Scala software relies extensively on DirectX and Windows Media Player, the multimedia components built into Windows operating systems. Certain other third-party components may also be required.

The correct versions of these must be installed for Scala software to function correctly. Generally, later versions of DirectX/Media Player provide better performance, but the newest releases by Microsoft sometimes will induce compatibility problems. Consult the FAQs on Scala's Web site at http://www.scala.com/support for detailed information.

• Using the latest service pack of your Scala software

Scala makes periodic intermediate releases or "service packs" of its software. Addressing stability and compatibility issues is the major reason for service packs. Check http://www.scala.com/support regularly for information on the latest service pack.

• Correct installation of all hardware and software

Hardware and software can't work for you if you don't install them right. Read and follow manufacturers' instructions for installing all add-on components of a system. Whenever possible, test them individually, then in combination, for proper operation in a given system before attempting to use them within your Scala software.

• Avoiding software conflicts

It is unfortunately not unusual for applications, hardware drivers or codecs to conflict with each other. Often the reason for the conflict is mysterious, and you must simply find a different combination of products to achieve your goal. At times you may be able to discover the root cause and remedy the situation.

In many cases, the installation of certain software disrupts files or settings needed by already-installed software—for example, overwriting crucial shared DLL files with an older version, or a newlyadded codec insisting on having top playback priority.

About performance...

It pays to be aware of what system software components each application or device affects during installation, and to limit the number of items you install on mission-critical systems to the bare minimum.

• Observing tips and caveats posted on the Scala Web site regarding system configuration and specific performance topics (such as timing, and use of MPEG video)

Scala has gone to great lengths to make available current, detailed information that can help you design and maintain high-performance systems. The numerous FAQs, especially the Hardware FAQ on Scala's Web site at http://www.scala.com/support are invaluable resources for your reference on system configuration, components, and maintenance procedures. As newer hardware, drivers, software releases and so on become available, this information is updated.

Do pay close attention to items and combinations of items that are specifically recommended or not recommended—this advice is based on Scala's extensive in-house qualification testing coupled with customer field reports.

There are also many respects in which script design—such choices as what graphics and digital video file formats to use, settings for sampled sounds, script structure, page size, and so on—can have important effects on performance. The User Discussion forum on the Scala Web site can be especially helpful for tips in this area.

• Quality motherboard design, including an up-to-date BIOS

Not all motherboards are created equal. Motherboard design has a large effect on both reliability and overall system speed. Aside from practical aspects such as the processor chip(s), memory and expansion capabilities that the motherboard supports, the chipset that ties all system functions together is key. Some chipsets are reliable and efficient, some are not. The BIOS contained on the motherboard can also be a factor. Some system BIOS releases offer useful special features. A BIOS update can sometimes cure performance and stability flaws. • Avoiding hardware conflicts

Add-on hardware devices, or the system resources they require, can conflict. The most common such conflict is shared interrupt request (IRQ) lines. Some devices can share IRQs peacefully, but it is always best for multimedia-specific devices to have their own, unshared interrupt lines. If you notice problems with stuttering audio or video—especially if you can link such problems to activity by another device—it may be that the assignments made by Windows Plug and Play setup are allowing IRQs to interfere with one another. You will need to manually reassign IRQs, and/or move cards around in the PC's expansion slots, to make sure that each sensitive device can have an IRQ line all to itself.

Less common but still possible are other hardware conflicts such as two SCSI devices having the same ID, IDE hard drives not configured properly for master-slave operation, and devices trying to use the same DMA channels.

Sufficient processor horsepower

Multimedia is very processor-intensive, so a faster processor will almost always lead to some performance improvements. It is important to understand what things do and do not present a heavy load on a computer's processor, so that you can optimize if necessary.

Processor-intensive script features:

- Digital video, especially software MPEG
- ♦ 3D, Fly-on, Push, and Alpha wipes
- Decompressing JPG files
- ✤ WAV, MP3 file sample-rate conversion
- Transparency, chroma key feathering, rotation, resizing

When it is not possible for you to upgrade playback machines' processors, you can help ensure smooth performance by substituting script techniques that require lower processor overhead:

For digital video playback, use a hardware MPEG decoder; use MPEG-1 instead of MPEG-2 when you don't need full-screen

About performance...

digital video, or if image quality is not critical; use AnimGIFs instead of digital video.

- Use Cut or Reveal wipes.
- For backgrounds and clips, use only BMP files, which do not require decompression.
- Be sure that all sound sample files that will be playing simultaneously have the same sample rate and format (for example, use only 11-KHz mono ADPCM-encoded WAV files).
- Avoid using transparency and chroma key effects, and use clips that have been Exported after applying all needed styles so that these modifications do not need to be done during script playback.
- Sufficient RAM

Having plenty of memory frequently helps performance; having too little memory can bring a machine to its knees even with simple scripts. With modern, inexpensive memory, it is not unreasonable to install a minimum of 256 MB of memory in almost any machine.

Having large amounts of dedicated graphics RAM does not hurt, but for the type of work that Scala software does, more than 16 MB of memory on the graphics card provides only minimal performance improvement.

• New, high-performance graphics, sound, and storage hardware

Note that high-performance hardware is at the end of the list. If the preceding recommendations have been followed, relatively "dated" hardware often will provide excellent performance for the kinds of things that Scala software does.

Ultimately, the value of stability and compatibility often outweighs pure performance. Unless you absolutely need some feature of the latest and greatest hardware, the older, proven solutions are likely to give overall better results.

16: Tips on creating an effective production Other sources

Other sources

To keep up-to-date on new ideas and trends in on-screen design, and to learn how to deal with the accompanying challenges, watch for related articles in computer publications, especially those aimed at users of multimedia and video applications.

Also check on-line information from Scala itself. Scala is available through the World Wide Web:

http://www.scala.com

Video standards around the world

Video standards around the world

Country	Standard
Afghanistan	PAL and SECAM
Albania	PAL
Algeria	PAL
Andorra	PAL and SECAM
Angola	PAL
Antilles (except Guadeloupe & Martinique)	NTSC
Argentina	PAL
Australia	PAL
Austria	PAL
Azores	PAL
Bahamas	NTSC
Bahrain	PAL
Bangladesh	PAL
Belgium	PAL
Belize	NTSC
Benin	SECAM
Bermuda	NTSC
Bhutan	PAL
Bolivia	NTSC
Bosnia- Herzegovina	PAL
Botswana	PAL
Brazil	PAL
Brunei	PAL
Bulgaria	SECAM
Burkina Faso	SECAM
Burma (Myanmar)	NTSC
Burundi	SECAM
Cambodia (Kampuchea)	NTSC and PAL
Cameroon	PAL
Canada	NTSC

Country	Standard
Canary Islands	PAL
Cape Verde	SECAM
Central African Republic	SECAM
Ceuta	PAL
Chad	SECAM
Chile	NTSC
China	PAL
Colombia	NTSC
Comoros	SECAM
Congo (Republic)	SECAM
Costa Rica	NTSC
Cuba	NTSC
Croatia	PAL
Cyprus	PAL
Czech Republic	SECAM
Democratic Republic of the Congo (Zaire)	SECAM
Denmark	PAL
Diego Garcia	NTSC
Djibouti	SECAM
Dominican Republic	NTSC
Ecuador	NTSC
Egypt	SECAM
El Salvador	NTSC
Equatorial Guinea	SECAM
Ethiopia	PAL
Fiji	PAL
Finland	PAL
France	SECAM
French Guiana	SECAM
Gabon	SECAM

Country	Standard
Gambia	SECAM
Germany	PAL and SECAM
Ghana	PAL
Gibraltar	PAL
Greece	SECAM
Greenland	NTSC
Guadeloupe	SECAM
Guam	NTSC
Guatemala	NTSC
Guinea	SECAM
Guinea-Bissau	PAL
Guyana	SECAM
Haiti	NTSC
Honduras	NTSC
Hong Kong	PAL
Hungary	SECAM
Iceland	PAL
India	PAL
Indonesia	PAL
Iran	SECAM
Iraq	SECAM
Ireland	PAL
Israel	PAL
Italy	PAL
Ivory Coast	SECAM
Jamaica	NTSC
Japan	NTSC
Johnston Island	NTSC
Jordan	PAL
Kenya	PAL
Kiribati	PAL
Korea (North)	PAL
Korea (South)	NTSC
Kuwait	PAL
Laos	PAL
Lebanon	SECAM

Country	Standard
Lesotho	PAL
Liberia	PAL
Libya	SECAM
Liechtenstein	PAL
Luxembourg	SECAM and PAL
Масао	PAL
Macedonia	PAL
Madagascar (Malagasy Rep.)	SECAM
Madeira	PAL
Malawi	PAL
Malaysia	PAL
Maldives	PAL
Mali (Republic)	SECAM
Malta	PAL
Martinique	SECAM
Mauritania	SECAM
Mauritius	SECAM
Mexico	NTSC
Micronesia	NTSC
Midway Islands	NTSC
Monaco	SECAM and PAL
Mongolia	SECAM
Montenegro	PAL
Morocco	SECAM
Mozambique	PAL
Namibia	PAL
Nauru	PAL
Nepal	PAL
Netherlands	PAL
New Caledonia	SECAM
New Guinea	PAL
New Zealand	PAL
Nicaragua	NTSC
Niger	SECAM
Nigeria	PAL

Video standards around the world

Country	Standard
Northern Ireland	PAL
Norway	PAL
Okinawa	NTSC
Oman	PAL
Pakistan	PAL
Panama	NTSC
Papua/New Guinea	PAL
Paraguay	PAL
Peru	NTSC
Philippines	NTSC
Poland	SECAM
Portugal	PAL
Puerto Rico	NTSC
Qatar	PAL
Romania	PAL
Russia *	SECAM
Rwanda	SECAM
Samoa	NTSC
Saudi Arabia	SECAM
Senegal	SECAM
Serbia	PAL
Seychelles	PAL
Sierra Leone	PAL
Singapore	PAL
Slovakia	SECAM
Slovenia	PAL
Solomon Islands	PAL
Somali Republic	PAL
South Africa	PAL
South Yemen	PAL
Spain	PAL
Sri Lanka	PAL
Sudan	PAL

Country	Standard
Surinam	NTSC
Swaziland	PAL
Sweden	PAL
Switzerland	PAL
Syria	SECAM
Tahiti	SECAM
Taiwan	NTSC
Tanzania	PAL
Thailand	PAL
Togo	SECAM
Tonga	PAL
Trinidad and Tobago	NTSC
Tunisia	SECAM
Turkey	PAL
Uganda	PAL
United Arab Emirates	PAL
United Kingdom	PAL
United States	NTSC
Uruguay	PAL
Venezuela	NTSC
Vietnam:	
northern region	SECAM
southern region	PAL and NTSC
Virgin Islands	NTSC
Western Sahara	SECAM
Western Samoa	NTSC
Yemen	PAL
Yugoslavia **	PAL
Zambia	PAL
Zanzibar	PAL
Zimbabwe	PAL

* and regions formerly members of the Soviet Union

** and regions formerly part of Yugoslavia

16: Tips on creating an effective production Video standards around the world



Regions covered by NTSC ■, PAL ■, and SECAM □ video standards



Appendices

Appendix A: Keyboard and mouse shortcuts

All tasks in Scala InfoChannel Designer 3 can be done using the mouse, the keyboard or a combination of the two. In most cases it is faster to use the mouse if you have one; for example, to drag text to a new location on a page or rearrange the sequence of script pages in the Main menu.

In other situations, however, it may be more convenient to use the keyboard—for example, to access a menu while you are typing in text. There are various shortcuts that allow you to directly access options on another Design menu, so that you do not have to switch back and forth between Design menus as often. Whether you use mouse or keyboard may also be a matter of personal preference or of the availability of the mouse itself.

ICDesigner versus Windows shortcuts

Many keyboard alternatives offered by ICDesigner 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 ICDesigner and the way you work in the ICDesigner environment.

The following tables summarize the keyboard shortcuts in ICDesigner. In some cases the function depends on the menu 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.

Key	Function
spacebar	in the Main menu: runs the current script
Ctrl + P	during script play: pauses or resumes script playback
Esc	during script play: stops the script and returns to menus

Starting and stopping script play

Performing actions

Key(s)	Function
Esc	in many menus and dialog boxes — equivalent to clicking the close button or <i>Cancel</i>
	while dragging a page, group, element, or graphic handle: cancels the operation
Enter (↓)	when an option is selected: initiates the action — equivalent to clicking <i>OK</i>
	when entering text in a Design menu: splits the text line at the current cursor position and creates a new text element containing the text to the right of the cursor
Shift + Enter	when entering text in a Design menu: inserts a line- feed (creates a new line in the existing text element)
Ctrl + Enter	when the cursor is in a text element: breaks the text element into two elements at the cursor point without moving either one
Alt + Enter	toggles between full screen and windowed menus

Appendix A: Keyboard and mouse shortcuts

Performing actions

_	Key(s)	Function
	Ctrl + Z	Undo (multilevel)
	Ctrl + Y	Redo
-	Ctrl + X	Cut
_	Ctrl + C	Сору
_	Ctrl + V	Paste
	Alt + Ctrl + V	Pastes to the same position on the page
	Del	Delete
-	Ctrl + G	Group
-	Ctrl + H	Ungroup
-	Ctrl + F	Appear Later
	Ctrl + R	Appear Earlier
-	Ctrl + B	in the Text menu: makes the selected text bold
-	Ctrl + I	in the Text menu: makes the selected text italic
-	Ctrl + U	in the Text menu: makes the selected text underlined
-	$Ctrl + \leftarrow$ $Ctrl + \rightarrow$ $Ctrl + \uparrow$ $Ctrl + \downarrow$	when an element on a screen page is selected: moves the element one pixel left, right, up, or down
-	<i>x</i>	in most Design menus: turns on <i>Flip Horizontal</i> for a selected clip
_	Y	in most Design menus: turns on <i>Flip Vertical</i> for a selected clip

Appendix A: Keyboard and mouse shortcuts Navigating

Key(s)	Function
Н	in most Design menus: halves the size of a selected clip
D	in most Design menus: doubles the size of a selected clip
R, Shift + R	in most Design menus: rotates a selected clip 15 degrees; R=clockwise; Shift + R=counter-clockwise
Shift + space	when entering text in a Design menu: inserts a non- breaking space
F12	in any Design menu: cycles the selected button to the next button state
Ctrl + . (period)	wherever you can type text: inserts a bullet character (•)
Alt + underlined character	performs the indicated function

Navigating

Кеу	Function
F1	Enters Help mode to get information on highlighted items
F2	Goes to the Element Design menu
F5	Goes to the Design Buttons menu
F6	Goes to the Design Background menu
F7	Goes to the Design Palette menu
F8	Goes to the Design List menu

Appendix A: Keyboard and mouse shortcuts

Navigating

Кеу	Function
↑ (up arrow)	when typing text: moves the cursor up a line in the current text element, or moves to the next higher element
	in the Main menu: moves the highlight to the previ- ous page
	in the File dialog: moves the highlight up in the file list
↓ (down arrow)	when typing text: moves the cursor down a line in the current text element, or moves to the next lower element
	in the Main menu: moves the highlight to the next page
	in the File dialog: moves the highlight down in the file list; moves to the first file in the list box when something has been typed in the <i>File:</i> box
← (left arrow)	when typing text: moves the cursor left (back) one character, or moves to the preceding text element if the cursor is at the beginning of an element
\rightarrow (right arrow)	when typing text: moves the cursor right (forward) one character, or moves to the following text element if the cursor is at the end of an element
Home End	when typing text: moves the cursor to the beginning or end of the current line
	when working in a list: selects the first or last item in the list

Function
when entering text on a Design menu page: inserts a Tab character (cursor and text to the right of it move to the next tab stop)
in menus with text boxes or value controls: moves to the next text box or value control
when a script is running and keyboard input is enabled: moves to the next interactive button
in menus with text boxes or value controls: moves to the preceding text box or value control
when a script is running and keyboard input is enabled: moves to the previous interactive button
in menus with tab panels: displays the next or pre- ceding tab panel for that menu
in the Design menus: moves to previous or next page (same as clicking Page Switcher arrows)
in the Main menu: opens the File dialog, Scripts folder, to open a script
in the Main menu: saves a script; if it has been previously saved, does not open the File dialog
in the Main menu: opens the Options dialog
in most Design menus: opens the File dialog to Add a file

Appendix A: Keyboard and mouse shortcuts

Selecting

Кеу	Function
Ctrl + E	in most Design menus: opens the File dialog to Export a file

Selecting

Кеу	Function
Shift $+ \leftarrow$ Shift $+ \rightarrow$ Shift $+ \uparrow$ Shift $+ \downarrow$	when the cursor is in a text element: selects a range of text in the current text element
Shift + Home Shift + End	when typing text: selects from the cursor to the beginning or end of the current line
	when working in the Main or List menus: selects from the current item to the beginning or end of the list
Ctrl + Home Ctrl + End	in the List menu: selects the first or last event/ele- ment on the page
Ctrl-click	when working in the menus or a screen page: selects any item; Ctrl-click again for each additional item you want to include in the selection
Shift-click	when working in a list: selects a series of items; Shift- click the last item in the series you want to select
Esc	when the cursor is in a text element: selects the entire element
Ctrl + A	Select All

Numeric keypad mouse equivalents

ICDesigner is fully compatible with the Windows "MouseKeys" emulation of mouse movement and button presses using the numeric keypad. This makes it possible for those who cannot use a mouse for any reason still to use all ICDesigner features through HumanTouch.

The key mappings, described in your Windows documentation, are also shown here. This feature is off by default. To enable and disable numeric keypad mouse control, open Accessibility Options in the Windows Control Panel folder, and turn on the MouseKeys feature. You can make settings there that control how MouseKeys works. Then, when in ICDesigner, press the key combination Left Alt + Left Shift + NumLock to switch between normal numeric keypad operation and MouseKeys operation.



Use the eight outer number keys to move in the directions indicated by the large arrows. You see the mouse pointer move accordingly, with acceleration if you hold down the key.

Appendix A: Keyboard and mouse shortcuts

Numeric keypad mouse equivalents

The following qualifier keys affect the speed of the movement:

- Ctrl + a keypad direction moves the pointer quickly
- Shift + a keypad direction moves the pointer slowly, without acceleration

To click a button:

- 1. Press /, *, or on the keypad to make a mouse button (or both mouse buttons) current.
- 2. Press 5 on the keypad to single-click the current button(s), or press + to double-click.

To drag:

- 1. Press /, *, or on the keypad to make a mouse button (or both mouse buttons) current.
- 2. Press 0 (Ins) on the keypad to lock the current button(s) down.
- 3. Hold down the appropriate keypad number keys to drag.
- 4. Press . (Del) on the keypad to release the current button(s) from being locked down.

Turning the mouse emulation feature on and off has no effect on normal mouse operation.

Mouse shortcuts

Mouse click	Function
double-click the main mouse but- ton	on a Main menu Name button or thumbnail for a screen page: goes to the default Design menu for that page
	on a Main menu Name button or thumbnail for a group: opens the group
	on a Name button or thumbnail for a sub- script or special event: opens the File dialog
	on a folder in the File dialog: displays the con- tents of the folder
	on a file in the File dialog: selects and OKs the use of that file
click the secondary mouse button	in any Design menu: toggles the visibility of the menu
	while dragging a page, group, element, or graphic handle: cancels the operation
press the second- ary mouse button	while holding down the main mouse button on a value control arrow: accelerates the change in the value
drag the pointer over an empty area of the page background	in any Design menu: deselects all elements and resets all styles to default settings

Appendix B: Using ICDesigner's online help

?

InfoChannel Designer 3 provides an online help system to assist you as you work. You can access online help by clicking on the Information button, indicated with a question mark (?), or by pressing F1.

The Information button is available near the upper right corner of every ICDesigner menu and most dialogs. Clicking on the button changes the mouse pointer to the Help pointer, with the "?" symbol attached to it.



When the 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

Appendix B: Using ICDesigner's online help

Tool Tips

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.

If you need more information than the Help text provides, you can always return to this guide for more detail. Look in the index of the *User's Guide* for the subject of each Help text window.

Tool Tips



In addition to the descriptions available in the Help window, ICDesigner provides "Tool Tips". Certain controls in ICDesigner, such as the Script Size button and the Tab/Margin bar, 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 wipe icons) that does not have a text label, 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.

Appendix C: Table of characters

Char #	Character						
32	(space)	64	@	96	`	128	
33	!	65	Α	97	a	129	
34	"	66	В	98	Ь	130	,
35	#	67	С	99	c	131	f
36	\$	68	D	100	d	132	"
37	%	69	E	101	e	133	
38	&	70	F	102	f	134	†
39		71	G	103	g	135	‡
40	(72	Н	104	h	136	^
41)	73	Ι	105	i	137	‰
42	*	74	J	106	j	138	Š
43	+	75	К	107	k	139	<
44	,	76	L	108	1	140	Œ
45	-	77	М	109	m	141	
46	•	78	Ν	110	n	142	
47	1	79	0	111	0	143	
48	0	80	Р	112	Р	144	
49	1	81	Q	113	q	145	۰
50	2	82	R	114	r	146	,
51	3	83	S	115	s	147	"
52	4	84	Т	116	t	148	"
53	5	85	U	117	u	149	•
54	6	86	v	118	v	150	-
55	7	87	W	119	w	151	—
56	8	88	Х	120	x	152	-
57	9	89	Y	121	у	153	ТМ
58	:	90	Z	122	z	154	š
59	;	91	[123	{	155	>
60	<	92	١	124	1	156	œ
61	=	93]	125	}	157	
62	>	94	^	126	~	158	
63	?	95	_	127		159	Ÿ
160		184	د	208	Đ	232	è
161	i	185	1	209	Ń	233	é

Appendix C: Table of characters

Char #	Character						
162	¢	186	0	210	ò	234	ê
163	£	187	»	211	Ó	235	ë
164	¤	188	1⁄4	212	Ô	236	ì
165	¥	189	1⁄2	213	Ő	237	í
166	1	190	3/4	214	Ö	238	î
167	\$	191	ż	215	×	239	ï
168		192	À	216	Ø	240	ð
169	©	193	Á	217	Ù	241	ñ
170	a	194	Â	218	Ú	242	ò
171	«	195	Ã	219	Û	243	ó
172	7	196	Ä	220	Ü	244	ô
173	-	197	Å	221	Ý	245	õ
174	®	198	Æ	222	Þ	246	ö
175	-	199	Ç	223	ß	247	÷
176	o	200	È	224	à	248	ø
177	±	201	É	225	á	249	ù
178	2	202	Ê	226	â	250	ú
179	3	203	Ë	227	ã	251	û
180	,	204	Ì	228	ä	252	ü
181	μ	205	Í	229	å	253	ý
182	5	206	Î	230	æ	254	þ
183		207	Ï	231	ç	255	ÿ

Windows (ANSI Latin-1) character set




 \downarrow (Enter, Return) key – used to choose a default option when one is available or to start a new line of text when typing.

 \Leftarrow (Backspace) key – deletes all selected text, if any, or the text character to the left of the cursor.

/ (slash) – used in the Main menu title bar to separate each level in the path of a script that contains groups or sub-scripts.

\ (backslash) – used in the File dialog to separate each folder in the current path.

✓ (checkmark) – indicates that the related option or setting is switched "on"; for example, *Wait?* ✓ indicates that the *Wait?* option is on.

ActiveMovie[®] – see *DirectShow*

ActiveX[®] – Microsoft's technology for enhancing interactive control, primarily in Web browsers and other network-oriented interactive software applications. **iplay** uses ActiveX for playback within a browser.

air – an option that helps keep underlined text legible. An outline that is the color of the background ("air"), is applied to the letters of underlined text. When the color of the text and the underline is the same, the air keeps the text and underline from blending together.

alignment – the position of an element, or the lines in a multi-line text element, in relationship to left and/or right margins.

animation – a sequence of frames that, when played in order at sufficient speed, presents a smoothly moving image like a film or video. An animation can be digitized video, computer-generated graphics, or a combination.

animclip – an animation in the FLI/FLC or AnimGIF formats that has been loaded as a clip. Like clips, animclips can be moved and sized; like animations, their speed and other animation parameters can be controlled. See also *movieclip*, *AnimGIF*.

AnimGIF – an animation in the GIF format, capable of automatic looping playback. See also *GIF*.

arrow keys – the keys on the PC keyboard with directional arrows $(\leftarrow \uparrow \downarrow \rightarrow)$ on them, used to move and highlight items on the screen.

ASCII (American Standard Code for Information Interchange) – the universal standard for representing text—letters, numerals, punctuation marks and control instructions—in computer storage and communication.

attribute – a characteristic of a style that you can modify; for example, the degree of slant in the italic style.

AVI (Audio Video Interleave) – a type of compressed digital video format common on the PC platform. See also *file format*.

background – the graphic image or plain color used as the basis for a screen page in ICDesigner, on which elements are placed.

backdrop – an optional adjustable rectangular area of color behind a screen element.

Backspace (\Leftarrow) – a key that deletes all selected text, if any, or the text character to the left of the cursor.

bevel – a three-dimensional effect that can be applied to text elements and clips in ICDesigner.

bitmap – a type of font or graphics file that is stored in the form of a pattern of memory bits, each of which specifies the color of a pixel of the stored image. ICDesigner supports many bitmap file formats including BMP, PCX, PCD, JPG, TIFF, GIF, WMF and IFF.

BMP – a standard bitmap graphics image format. See also *bitmap*; *file format*.

bold – a type style in which characters appear heavier: **this is bold**.

bounding box – the box, represented by the selection frame, that surrounds a text element. The element's text lines can be aligned within the bounding box (left/center/right, top/middle/bottom) independently of the alignment of the element as a whole.

branch – for script execution to jump to a different point in the linear sequence of events, as the result of a Go To or Repeat event.

busy pointer – a mouse pointer, shaped like an hourglass, that replaces the normal arrow pointer while ICDesigner is busy with some task and cannot accept further mouse input.

button – an area on the screen that responds when selected. ICDesigner menus consist primarily of buttons, and ICDesigner scripts can define buttons that the viewer of the script can select, for example to proceed to the next page of the script.

byte – the basic unit of computer storage, comprising eight bits. Typically, a byte can store one character of text, or one pixel. In ICDesigner, the unit used to express the size of files.

CD – see compact disc.

CD-ROM (Compact Disc–Read Only Memory) – a compact disc containing up to 650 megabytes of information that can be read only from a CD-ROM drive. Audio CDs can be played on both CD players and many CD-ROM drives, but a CD-ROM cannot be used on an audio CD player.

CD-ROM drive – a device that uses laser optics to read software and file information from a compact disc.

center alignment – alignment that places items an equal distance from left and right margins.

choose – to put a menu option into effect, usually by clicking on a button. This is different from selecting, which highlights an object, file, etc. to work with, but does not actually perform the work.

click – to point to an item and then quickly press and release the main mouse button once.

clip – a predefined graphic image, such as a picture, drawing, symbol, etc., that can be imported and positioned on an InfoChannel Designer 3 background.

codec (compressor-decompressor) – a software module responsible for compressing and/or decompressing an encoded media format such as AVI digital video.

color bar – the horizontal strip at the top of many Design menus, used to assign colors to elements and certain styles. It shows the color chips of the current color set in the User palette, and also includes the Color Set Switcher.

color chip - a small box on the button of a style affected by color changes. The chip shows the color used when the style is applied. The blocks of color on the color bar are also color chips.

color depth – the number of possible colors in a graphic image, stored as a given number of bits per pixel. A color depth of 8 bits provides 256 colors; 16 bits (also known as "High Color") provides about 65,000 colors; 24 bits (also known as "True Color") provides about 16,000,000 colors.

color palette – a set of colors that make up an image or animation, or the set of colors available to be applied to elements on a page.

color set – the set of 16 colors of a palette that are shown at one time in a Design menu color bar. A palette can have many color sets, selectable by the Color Set Switcher.

Color Set Switcher – a special value control to the far right of the color bar in Design menus that allows you to cycle through the color sets in a palette.

combination icon – a toolbar icon that is divided into two areas. The right-hand side of the icon, containing a downward pointing arrow (\bigtriangledown) , opens a drop-down list when clicked. The main part of the icon chooses one of the items in the drop-down as a default when clicked.

compact disc (CD) – a high-fidelity digital audio storage medium. See also *CD-ROM*.

composite video – a standard video signal containing color, brightness, and sync information. VCRs and laserdisc players almost always include a composite video output.

compression – the process of condensing a file, video, or animation using special hardware, software, or both so that it requires less storage space.

crawltext – the segment of text that moves through a Text Crawl element's box.

crop – to cover up portions of a graphic image that are not needed by adjusting its top, bottom, and side borders.

Ctrl – either of the two Control keys, which are used for keyboard shortcuts, and let you select multiple items when using the mouse.

cursor – a vertical line on the screen that indicates where the next typed text character will appear.

cursor keys – see arrow keys.

D

decompress – the process of expanding a file to its original uncompressed form after it has been compressed.

default – a value or option that ICDesigner uses if you do not specify anything.

Del – the Delete key, which deletes the text character to the right of the cursor. When text is selected, it deletes all selected text.

deselect – to cancel a selection, usually by clicking outside the selected area or moving the cursor.

Design icon – a toolbar combination icon that generates a drop-down list of the menus available for designing and composing a page that has a background.

Design menu – a menu providing access to text, graphics, and other utilities that can be used when composing a page. The Design menus include:

Text	to create and manipulate text elements.
Clip	to import and manipulate clip-art images.
Box, Oval, Line	to create and manipulate draw objects.
Buttons	to create and modify buttons for interactive presentations.
Background	to modify or replace an existing page back- ground.
Palette	to customize the colors in backgrounds, clips, and text.
List	to examine the relationship in sequence and in time among the elements of the page; for exam- ple, when text appears, or a graphic wipes in or out.

digital video – a True Color animation medium that can also contain audio information, suitable for display of high-quality video and computer animation imagery. Common digital video formats include MPEG, QuickTime, and AVI.

DirectShow[®] – Microsoft's graphic driver software for playback of various types of animation formats, which may or may not include sound. DirectShow (formerly called ActiveMovie) includes support for AVI, QuickTime 3, and software MPEG animations; other formats can be added through the DirectShow plug-in architecture. (DirectShow is not required for support of FLI/FLC and AnimGIF formats.) ICDesigner works with any format for which there is DirectShow support installed.

DirectX[®] – Microsoft's universal graphics driver software for Windows PCs. ICDesigner depends on DirectX for its graphics playback functions, thus DirectX must be present on any PC that plays back ICDesigner scripts.

diskette – a floppy disk.

double-click – to point to an item then quickly press and release the main mouse button twice.

drag – to point to an item, press and hold down the main mouse button as you move the mouse, then release the button when the item is where you want it.

draw object – a box, oval, line, or arrow element on a screen page.

drop-down icon – a toolbar icon with a small downward pointing arrow (\bigtriangledown) that displays a list of options; choosing one of the options enables you to access other functions or menus.

element – anything that can appear on a page of an InfoChannel Designer 3 script, for example, a clip or a text line.

Element Design menus – any of the several Design menus used for working with the properties of the different types of elements in ICDesigner, such as the Design Text, Design Clip, Design Box, Design Animclip and Design Text Crawl menus. Each Element Design menu has a main panel with the same name as the element type (Text, Clip, etc.) as well as Position, Effect, Opacity, and Misc panels. Each element type has additional panels with options appropriate to that type.

element wipe – an effect that defines the way an element (text and/or graphics) of a screen page moves onto and/or off the page.

enter – to type something into a text box and press the Enter key.

Enter key – (also referred to as the Return key) the key with the \dashv symbol, used to choose a default option, enter a value, or to start a new text element when typing.

Esc – the Escape key, used to interrupt or stop a presentation that is being run or previewed, and return to the ICDesigner menus.

evaluate – for ICDesigner to look at an expression and return the single numeric, logical, or text value that is its result. For example, the expression '1+2+3' evaluates as 6; '8 < 5' evaluates as FALSE. See also *expression*.

event – an action in a script; virtually everything that happens in a script is an event, including pages, text, sounds, wipes, animations, etc.

EX (extension) module – a software module, which may be available separately, to extend the functionality of ICDesigner; for example, enabling control of a new hardware device. If the function involves an activity that can be controlled by the ICDesigner user, a column is added to the Main menu and a new menu specific to the EX can be opened by clicking on the corresponding button.

expression – a mathematical or logical statement that ICDesigner can evaluate to arrive at a variable value or TRUE/FALSE condition.

extension – see file-type extension.

fade – a gradual change in a setting (such as volume) that takes place over a specified period of time.

file format – the structure of a file, which defines the way it is stored and used. Generally, a *file-type extension* to the file name identifies the format. For example, some common bitmap graphics file formats supported by ICDesigner are BMP, GIF, TIF, WMF, and JPG. Common animation formats are AVI, FLI, FLC and MPG. Common audio file formats are WAV and MP3. ICDesigner uses the extension .SCA to identify a script file, and .SCB to identify a published file.

file-type extension – a suffix of a dot (.) followed by three characters, added to a file name to identify the type of file. It is not required by the Windows naming standards, but files saved from ICDesigner are generally given an extension.

Flash – a multimedia format that uses the file-type extension SWF, developed primarily for animated Web graphics by Macromedia Inc. Because Flash graphics are based on a vector approach, their files tend to be very compact compared to those of bitmap animations of comparable quality. Flash animations can also include synchronized audio. See also *Flashclip*, *SWF*.

Flashclip – a clip that is in the SWF (Macromedia Flash) format. See also *Flash*, *SWF*, *clip*.

FLC - see file format.

flexible frame – a dotted box that appears when you drag the mouse on a background in a Design menu. Used to select several items, the frame expands or contracts as the mouse is moved.

FLI – see file format.

fly-on – a type of wipe in which an image or text moves onto the screen from a position outside the screen borders.

font – a set of characters that has the same typeface, style (italic, bold, etc.) and size (10,12, 24, etc.). See also *typeface; font size*.

font size – the height of a character together with the amount of space between lines of text. Size is measured in points for printed text and in pixels for text that is displayed on screen in ICDesigner. See also *point*.

fps – see frames per second.

frame – (1) in an animation or film, one of the individual images displayed in sequence with others to create the illusion of movement.
(2) In the ICDesigner Sound menu, the smallest unit of time used to measure a CD selection, equal to 1/75 of a second. (3) In ScalaPrint, box that can optionally appear around each page slide in a printed script.

frames per second – the speed at which an animation, film or video is displayed. The frames per second setting for an animation should be at least 12 to create the illusion of movement.

FTP (File Transfer Protocol) – a standard method for requesting and transmitting files over TCP/IP, requiring a username and password for access.

function – an automatic procedure that accepts one or more variables or values as input and returns a value (text, numeric, or logical) as a result. See also *return value*; *variable*.

genlock – a video device that synchronizes two video signals and enables them to be mixed; for example, to overlay a subtitle produced on the computer onto live video.

GIF – A 256-color bitmap graphic file format, which supports both still images and animations. See also *bitmap*; *file format*.

graphic handle – one of eight small, solid squares placed along the edge of a clip or draw object, used to adjust the size or shape of the element.

group – A collection of pages or elements represented by a single thumbnail or row in the Main menu.

handles – see graphic handles.

High Color – a setting describing graphics that have 16-bit color, providing up to approximately 65,000 colors in the image.

hit area – the area of an interactive button that responds when the mouse pointer passes over it or clicks on it. This can be a rectangular area surrounding the button, or an irregular area defined by pixels in the button image.

horizontal scan rate – a figure that describes the speed of the electron beam that creates the scan lines of a video or computer display. The horizontal scan rate for standard NTSC/PAL video is approximately 15 kHz. For VGA displays and above, scan rates of 31.5 kHz or more are used. Ι

HumanTouch – the name of the *graphical user interface* used by ICDesigner software.

Hz – The abbreviation for hertz, or cycles per second.

ICDesigner title bar – the title bar at the top of the Main menu, which identifies Scala InfoChannel Designer 3 and contains the application close button.

image processing – enhancing and manipulating an image, such as by adjusting its size, resolution, or color palette.

In wipe – the way an element moves onto a page or a page moves onto the screen to replace another page. See also *element wipe*; *page wipe*.

independent element – an element that has an In wipe, so that it wipes in independently of the background. See also *passive element*.

infinite loop – See loop, infinite.

InfoChannel Network – a system of InfoChannel Player computers that play back ICDesigner scripts that are transmitted to them and are updated remotely from an InfoChannel Network Manager computer. See also *Network Manager*; *Player*.

interlace – a process used to refresh video displays and some computer displays that alternately scans every other horizontal scan line in the display. Interlaced displays often flicker, especially when showing static images containing narrow horizontal lines.

interrupt scheduling – a type of scheduling for ICDesigner pages that causes a scheduled page to play at a precise time, interrupting any other script activity currently occurring.

iplay – Scala's freely available multimedia playback software, which allows scripts created in ICDesigner and other Scala products to play back as stand-alone productions.

italic – a type style in which the characters slant slightly: this is italic.

JPEG (Joint Photographic Experts Group) – a graphics file compression format for still images that features adjustable levels of compression. See also *bitmap*; *compression*; *file format*.

JPG – the file-type extension for images in the JPEG format.

kerning – An adjustment of the normal space between certain combinations of characters, to eliminate excess space.

kHz – the abbreviation for kilohertz, or thousands of cycles per second.

kiosk – a small, freestanding, often interactive presentation station in a public place, for displaying information on products, events, locations, etc.

LCD projection panel – a portable display unit that is placed on top of an overhead projector and connected to a computer so that the computer's display can be projected onto a large screen.

left alignment – even vertical alignment along a left margin.

linked content – content in an ICDesigner script that is included by reference, but is not published along with the other script media. The actual content represented by the link references must be sent to Info-Channel Players separately.

List view – in the Main menu, a listing of pages by name, in sequence by page number; in the File dialog, an alphabetical listing of subfolders and files in the current folder. See also *Thumbnail view*.

loop - (1) in a script, a sequence of events that repeats. (2) A setting determining the number of times a sound or animation should repeat when it runs.

loop, infinite – See *infinite loop*.

lowercase – the term for letters that are not capitalized, such as a, b, c. See also *uppercase*.

M

main mouse button – the mouse button used for most operations. This is usually the left mouse button, but it could be the right button if you have customized your mouse configuration for left-handed use.

menu – in ICDesigner, 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.

MHz – the abbreviation for megahertz, or millions of cycles per second.

MID – the file-type extension used for MIDI compositions. See also *MIDI*; *file format*.

MIDI (Musical Instrument Digital Interface) – a hardware and software standard for electronic musical instruments and related equipment. MIDI also defines the standard file format (.MID) used for MIDI compositions.

Mixer – in the Sound menu, a set of panels that allow you to adjust the volume and pan settings of all sound sources in a script.

monitor – the device on which an InfoChannel Designer 3 presentation is displayed; for example, a computer monitor, television, video wall, etc.

MOV – the file-type extension for digital video files in the QuickTime format. See *file format*.

movieclip – a digital video segment in a DirectShow-supported format, such as AVI, QuickTime 3, or MPEG, that has been loaded as a clip. Movieclips are similar to animclips, but they can also have sound associated with them. Movieclips cannot have their frame rate or color palettes adjusted. **MPEG** (Motion Picture Experts Group) – a standard used for the compression of digital video and audio sequences. MPEG sacrifices some image quality to achieve very high compression.

MPG – the file-type extension for digital video files in the MPEG format. See *file format*.

MSF (minutes, seconds, frames) – a way of measuring time on a compact disc (CD), expressed in the format mm:ss:ff, where mm is minutes, ss is seconds and ff is frames.

multistyle button – a special button in the Element Design menus, used to access a variety of styles that can be applied to text or graphics. The multistyle button has two arrows ($\triangleleft \triangleright$), used to cycle between several modes or options, which are shown to the left of the arrows.

multi-tile – a special type of bitmap image in ICDesigner that can be resized without distorting the image. A multi-tile divides the source image into several "slices", which are tiled together to produce a final image of the desired size. See also *tiling*.

Network Manager – Scala's application for transmitting scripts (published using the Publish to InfoChannel Network option) to remote Players. Network Manager and InfoChannel Networks are described in the *InfoChannel Network Manager User's Guide*.

NTSC (National Television Standards Committee) – the color video and broadcasting standard used mainly in North America and Japan. NTSC screen resolution is 525 lines and its refresh rate is 60 Hz. See also the map on page 415; *PAL*; *SECAM*; *resolution*.

option – a possible choice, usually appearing in the form of a menu button, that produces some useful action in ICDesigner when chosen. For example, *Chroma Key?* or *Preview*.

Р

Out wipe – the way in which an element moves off a page. See also *element wipe*; *page wipe*.

overlay – a feature of most video cards that allows particularly smooth digital video playback without overloading the computer's CPU.

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, wipe, etc.; or it may represent a group of pages or another script. See also *screen page*; *group*.

page wipe – an effect that defines the way in which one page moves onto the screen as it replaces another page.

PAL (Phase Alternating Line) – the color video and broadcasting standard used mainly in western Europe and South America. PAL screen resolution is 625 lines and its refresh rate is 50 Hz. See also the map on page 415; *NTSC*; *SECAM*; *resolution*.

palette – see color palette.

panel - see tab panel.

passive element – an element that has no In wipe, and is already on the page when the page wipes in. See also *independent element*.

path – (1) in the File dialog, the sequence of folders leading from a drive to a file, such as C:\Tmp\Tempfile.txt. (2) In the Main menu, the sequence of pages and groups leading from the top level to the current level, such as Myscript/Catgroup/Tigergroup.

PCX – the file-type extension for images in the PCX format. See also *bitmap*; *file format*.

periodic scheduling – a type of scheduling that defines ranges of time within which events are allowed to play.

picture – in ICDesigner, a category of backgrounds for a screen page, in addition to plain and animation. Essentially any bitmap graphic in

a format that ICDesigner supports (for example, BMP, TIF, JPG) can be used as a picture background.

pixel (from "picture element") – the smallest unit of an image, one of the colored dots that make up a screen picture. A typical VGA screen has a resolution of 640 pixels (screen width) by 480 pixels (screen height).

Places buttons – buttons in the ICDesigner File dialog that provide shortcuts to commonly used folders.

plain background – a solid, single-color background that does not come from an image file. The color can be adjusted.

Play – the icon on the Main menu toolbar used to start an InfoChannel Designer 3 production.

Player – a computer running Scala InfoChannel Player software, designed for remote networked update and playback of ICDesigner scripts in an InfoChannel Network. See also *Network Manager*; *Info-Channel Network*.

PNG – the file-type extension for images in the PNG (pronounced "ping") format. PNG is the format used for button backdrops and multi-tile files. See also *bitmap*; *file format*; *multi-tile*.

point - (1) to move the mouse until the tip of the screen pointer rests on the item (button, text, etc.) you want to use, choose or select. (2) The standard unit used to measure the size of printed characters, equal to approximately 1/72 inch. See also *font size*.

pop-up – a button with the symbol \checkmark that displays an option and its current value. Clicking the button opens a list of settings; choosing one makes it the current setting.

processor – the CPU chip in your computer, the chip that performs most of the work.

production – a way of representing and distributing information which, in ICDesigner terms, involves running a script on some type of display (computer monitor, television monitor, etc.), usually with audio accompaniment.

projection panel – see *LCD* projection panel.

publish – to prepare an ICDesigner script for distribution to any of the publish media that ICDesigner supports.

Publish Location – a folder, defined in InfoChannel Network Manager, where scripts published to the InfoChannel Network are deposited.

qualifier keys – keys on the PC keyboard, such as Shift, Ctrl, and Alt, that, when pressed at the same time as another keystroke or mouse click, change the resulting action.

refresh rate – the speed at which a video or computer screen is scanned to maintain a bright, stable image. A rate of 60 Hz, for example, means that the image on the screen is redisplayed 60 times per second.

relative timing – timing for script events that is defined by intervals of time from event to event rather than by reference to a fixed time.

resolution – the number of pixels in a graphic or screen in the horizontal and vertical dimensions, which governs the level of fine detail images can have. For example, a typical VGA computer monitor has a resolution of 640 pixels (screen width) by 480 pixels (screen height).

Return key – see Enter key.

return value – the value that results as the output of a function or the evaluation of an expression.

right alignment – even vertical text alignment along the right margin of the screen page; the left edge of the text varies based on the length of the line.

S

sample – see sound sample.

sampling precision – the degree of accuracy of the scale used to measure the fluctuations in amplitude of a sound that is being digitized. Measured in bits, an 8-bit sample can store one of 256 different amplitude levels, while a 16-bit sample has 256 times greater accuracy.

sampling rate – the number of samples taken per second when digitizing sound. The quality of the digital reproduction improves as the number of samples taken per second increases.

sans serif typeface – a typeface (such as this) in which the characters do not have serifs or strokes at the ends of the lines that form the characters. See also *serif typeface*.

SCA – the file-type extension used by ICDesigner to identify script files.

ScalaScript – The scripting language that underlies all ICDesigner scripts. Script files saved by ICDesigner are actually files of ScalaScript commands, which describe the objects and flow of the script, and refer to external graphics and sound files.

SCB – the file-type extension used by ICDesigner to identify published script files.

screen page – a single page that has a background and often one or more additional elements such as text, clip art, interactive buttons, sound, etc. This is distinguished from a special-event page or a group.

script – the page-by-page definition of a presentation, which specifies image files, text, sound files, and all other elements of a page, as well as settings that control the way in which it is displayed.

Script Switcher – a special value control in the script title bar that lets you switch to another open script.

script title bar – in the Main and List menus, a title bar that indicates the name of the current script and the path to the level of the script where work is currently being done.

scroll bar – a movable control used to scroll a screen area vertically or horizontally. ICDesigner provides them automatically as necessary to see all the available items or page areas.

SECAM (Séquential Couleur avec Memoire) – the video and broadcasting standard used in France, eastern Europe, Russia, and most of Asia and Africa. SECAM has the same screen resolution of 625 lines and 50-Hz refresh rate as PAL. See also the map on page 415; *NTSC*; *PAL*; *resolution*.

secondary mouse button – the button on the opposite side of the mouse from the main mouse button.

select – to mark or highlight an item so that it will be affected by the next action. This is different from "choose" in that selecting does not actually perform an action, it identifies items you intend to work with.

serif typeface – a typeface, such as the one used for this text, in which each character has small strokes at the ends of the lines that form it. See also *sans serif typeface*.

slash (/) – used in the Main menu to separate each page in the path of the current script while navigating through the structure of the script.

slides – miniature images representing script pages, as in the Scala-Print page preview or a script published to HTML slides.

sound event – an activity in a script that plays or manipulates a sound that is heard as the script is running.

sound sample – (1) the smallest unit of a digitized sound, typically an 8- or 16-bit value representing the audio signal at a particular moment. Several thousand samples are required to digitize a sound.
(2) The complete set of samples that make up a digitized sound, available as a file. The most common types are MP3 files and wave files with the file-type extension WAV. See also *sampling rate*.

sound source – a type of a sound that ICDesigner is able to play and/or control; for example, a sound-sample file, an audio CD or a MIDI file, and such external devices as a microphone or VCR. **special event** – an event that is not associated with a file. Special events can be added like pages in the Main menu, or like elements in the List menu. They are used to control a device or an element, for example, changing the volume of a sound.

string – a segment of ASCII text, which can consist of 0 or more characters. This term is used when referring to text that is placed in a variable or used in an expression. It can be a symbol, a word, or several words, and does not have any style (bold, underline, etc.) associated with it. See also *variable*; *expression*; *ASCII*.

style – a special feature that can be applied to an element to enhance its appearance; for example, shadow, underline, color, bold, italic, etc.

SWF – the file-type extension of Macromedia Flash files, which are usable in ICDesigner as Flashclips. See also *Flash*, *Flashclip*.

tab - (1) an invisible character created by pressing the Tab key, which moves the cursor and all text in a text element to the right of it to the next tab stop. (2) An area near the top of certain menus that displays the name of a tab panel. Clicking the tab reveals its full panel in the menu.

tab panel – a section of an ICDesigner menu that can be selected to display a related set of options and controls. A panel is displayed by clicking its tab.

television monitor – a video monitor; a screen that displays interlaced, 15-kHz images according to one of the video broadcast standards—PAL, NTSC or SECAM.

tempo – the speed at which music (such as a MIDI file) is played, measured in beats per minute (BPM). Changing the tempo changes only the speed, and does not affect the pitch of the sound.

text – alphanumeric characters, such as those you type in a text box, type as elements of a page in ICDesigner script, or view as a text file. In a script, text can have such attributes as an outline, underline, shadow, italic slant, etc. See also *ASCII*.

text box – in ICDesigner menus, a box where you can enter a file name or other data; for example, the *Path:* text box in the File dialog.

text crawl – an element that allow you to move a segment of text continuously from one side of the screen to the other.

text element – an element in ICDesigner comprising one or more text lines on a screen page.

text entry field – an element that allows typed input from the user to be accepted and stored in a script variable.

thumbnail – a small graphic representation of a page, image or file, seen in the Thumbnail view of the Main menu and File dialog. If an item in Thumbnail view is not a page or graphic, the thumbnail shows a generic icon for the item.

Thumbnail view – an option that displays pages in the Main menu or files in the File dialog as thumbnail images reflecting their contents if the page or file contains graphics; otherwise it shows a generic icon. See also *List view*.

TIF – the file-type extension for TIFF (Tagged Image File Format) images. See also *bitmap*; *file format*.

tiling – creating a larger image by building it up from repeated copies of a smaller image "tile", the copies arranged adjacent to one another in a grid pattern. Tiled images conserve storage space because only the original tile actually needs to exist on disk. ICDesigner page backgrounds can be tiled, and multi-tiles are an advanced use of this technology. See also *multi-tile*.

title bar – a horizontal bar at the top of a menu or dialog box that provides information about the current task, and which may contain buttons. See *script title bar*; *ICDesigner title bar*.

toggle – to switch back and forth between two mutually exclusive options, as between List view and Thumbnail view.

touch screen – also called a touch-sensitive screen, a computer monitor attachment that can sense the location at which a viewer touches the screen to respond to a question or prompt in a script. **track** – an individual segment on a CD that has a defined beginning and end. Each track has a number and a time code that uniquely identifies it.

True Color – a setting describing graphics that have 24-bit color, which can provide approximately 16,000,000 colors in the image.

TrueType fonts – a type of outline fonts used primarily in Windows. TrueType fonts can be scaled to any size and appear on the screen just as they appear in print.

TWAIN – a standard developed to allow imaging devices such as scanners and digital cameras to communicate with PCs.

typeface – a collection of characters, letters and symbols that have a unique design. In this manual, for example, the typeface used for most text is called Garamond.

U

UNC (Universal Naming Convention) – a standard format for paths referring to locations directly accessible on a local area network: "*<machinename*>*<driveletter*>*<folder*>*<subfolder*>\..."

Up button – a button (\bigstar) in the script title bar in the Main menu, which moves up one level in the structure of the current script, out of a group.

Up icon – an icon in the File dialog toolbar that moves out of the current folder to the folder above.

uppercase – the term for capital letters, such as A, B, C. See also *lower-case*.

URL (Universal Resource Locator) – a string that specifies the location of an object accessible via TCP/IP, typically a web site address or FTP location. A Web URL begins with "http://".

V

value control – a combination of two arrow buttons with one or more text boxes between them (for example, $\triangleleft 2 \triangleright$), used for displaying and adjusting option settings in ICDesigner. For example, *Speed* in the Wipe menus is a value control. You can either click the arrows to adjust the setting or enter a value directly in a text box between them.

variable – A named "container" for a quantity that can change within a script in response to user input or the script's execution. A quiz script, for example, might have a SCORE variable, to hold the number of points scored by the person taking a quiz. In addition to simple numbers and strings, a variable can also hold expressions. See also *expression*.

video – technically, a form of electronic moving image technology that uses a 15 kHz horizontal scan rate and a 50 or 60 Hz interlaced refresh rate. In ICDesigner, refers generally to any sequence of digitized or rendered moving images.

video digitizer – a device that converts video, film or animation into a digital format that can be displayed using a computer. Also known as a "frame grabber" because it digitizes one frame at a time.

video monitor – a device that can display video images (see *video*). A television is a video monitor with a built-in TV tuner. To be viewed on a video monitor, an InfoChannel Designer 3 production must be run on a computer whose graphics output runs through a VGA-to-video converter.

video projector – a device, similar to a film projector, that projects moving images on a large, separate screen. The source of the images is video input from a VCR, camera, or computer video system.

W

WAV – see file format; sound sample.

wildcard – a character, such as * or ?, that can be used in the filename text box of a file dialog for pattern-matching listings. The wildcard

matches one or more characters in existing filenames, allowing the file list to be restricted to specific related files or file types.

wipe – a graphic effect for making transitions between pages or moving page elements on and off the screen. See also *page wipe*; *element wipe*; *in wipe*; *out wipe*.

wipe icon – the picture on a wipe button representing the wipe's pattern of movement.

word wrap – the automatic breaking of a text line to form another line when the text exceeds a certain length. See also *bounding box*.

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