Springboard

Version 1.03

User Guide

http://6sys.com Copyright © 1998-2011 by Six Mile Creek Systems LLC

Table of Contents

Introduction	5
Copyright and legal information	6
Tutorials	7
Quick Start	7
Layers	8
Drawing layers: Overview	8
The Layers Palette	10
Local and global layers	12
Nested layers	15
Layer colors	19
Fill layers	21
The Story Tree	24
Tasks	25
Animating the camera	25
Automatic Zoom	28
Using an external graphics editor	30
Working with sound	31
Using an external sound editor	33
Working with large files	34
Working with split files	35
Customizing Springboard	37
Reference	38
Keyboard shortcuts	38
Mouse & pen shortcuts	41
The Tools Palette	42
The Move Layer tool	43
Layer Opacity	46
The Edit Vector tool	47
Natural-media tools	48
Vector tools	49
Vector Tools	50
The Line tool	50
The Text tool	51
The Rectangle tools	52
The Ellipse tools	53
The Arrow tool	54
The Solid and Outlined Arrow tools	55
The Zoom Frame tool	56
Views	59
Storyboard View	59
Single Frame View	60
Frame Animation View	61
Movie View	64

Menu index67Add New Frame71Bake Layer Position72Clear Undo Information73Convert Layer74Deflate Layer To Fit Content75Duplicate Layer76Edit Layer Externally77Edit Sound Externally78Export To79Finish Editing Layer Externally80Import Image81Import Sound83Inflate Layer To Fit Frame84Lock Frame Position85Make Fill Layer87Matte In Layer To Fit Frame88Mate In Layer To sparency88Merge Contained Layers89Merge Contained Layers89Merge Contained Layers90Print92Play Movie93Reset Layer To Fit Frame94Reset Layer Position94Reset Layer To Fit Frame97Scroll Current Frame98Split And Edit100Split And Edit101Split And Edit101Split And Edit103Split Out/Unify102Undo and Redo103Unify Every104View Novie View108Dialogs109Export HTML111Export Mows AVI109Export Mows AVI109Export Mindows AVI114Preferences - Edit Images tab116Preferences - Edit Images tab116Preferences - Edit Images tab119<	Commands	67
Bake Layer Position72Clear Undo Information73Convert Layer74Deflate Layer To Fit Content75Duplicate Layer76Edit Layer Externally77Edit Sound Externally78Export To79Finish Editing Layer Externally80Import Image81Import Sound83Inflate Layer To Fit Frame84Lock Frame Position85Make Fill Layer87Matte In Layer To rist Frame88Merge Contained Layers89Merge Contained Layers89Merge Contained Layers90Move File91Print92Play Movie93Reset Layer To Fit Frame94Keset Layer To Fit Frame96Scale Layer To Fit Frame97Save Numbered Backup96Scale Layer To Fit Frame98Split And Edit100Split And Edit100Split And Edit100Split And Edit100View Frame Animation105View Movie View108Dialogs109Export HTML111Export To113Export Again114Preferences - Edit Sounds tab118Preferences - Display tab119Preferences - Display tab119Preferences - Display tab120	Menu index	67
Clear Undo Information73Convert Layer74Deflate Layer To Fit Content75Duplicate Layer76Edit Layer Externally77Fait Sound Externally78Export To79Finish Editing Layer Externally80Import Image81Import Sound83Inflate Layer To Fit Frame84Lock Frame Position85Make Fill Layer87Matte In Layer Transparency88Merge Contained Layers89Merge Contained Layers90Move File91Print92Play Movie93Reset Layer To Fit Frame97Scale Layer To Fit Frame97Save Numbered Backup96Sale Layer Transparency95Save Numbered Backup96Sale Layer To Fit Frame97Scale Layer To Fit Frame98Split And Edit100Split Every101Undo and Redo103Unify Every104View Frame Animation105View Movie View106View Single Frame107View Single Frame109Export HTML111Export Again114Preferences - Edit Images tab116Preferences - Edit Sounds tab118Preferences - Display tab119Preferences - Units tab120	Add New Frame	71
Convert Layer74Deflate Layer To Fit Content75Duplicate Layer76Edit Layer Externally77Edit Sound Externally78Export To79Finish Editing Layer Externally80Import Image81Import Sound83Inflate Layer To Fit Frame84Lock Frame Position85Make Fill Layer87Matte In Layer To sparency88Merge Contained Layers89Merge Layer Down90Move File91Print92Play Movie93Reset Layer To Fit Frame94Reset Layer Transparency95Save Numbered Backup96Scale Layer To Fit Frame98Split And Edit100Split And Edit101Split And Edit101Split And Edit101Split Out/Unify102Undo and Redo103Unify Every104View Movie View106View Movie View108Dialogs109Export To113Export To113Export To113Export To113Export To113Export To113Export To113Export To113Export To113Export To113Preferences - Edit Sounds tab116Preferences - Display tab119Preferences - Units tab120<	Bake Layer Position	72
Deflate Layer To Fit Content75Duplicate Layer76Edit Layer Externally77Edit Sound Externally78Export To79Finish Editing Layer Externally80Import Image81Import Sound83Inflate Layer To Fit Frame84Lock Frame Position85Make Fill Layer87Matte In Layer Transparency88Merge Contained Layers89Merge Contained Layers90Move File91Print92Play Movie93Reset Layer Tosparency95Save Numbered Backup96Save Numbered Backup96Scale Layer To Fit Frame97Scroll Current Frame98Split And Edit100Split Every101Split Out/Unify102Undo and Redo103Uinfy Every104View Frame Animation105View Movie View106Dialogs109Export Mindows AVI109Export Windows AVI111Export To113Export To113Export To113Export To113Export To115Preferences - Edit Images tab116Preferences - Edit Sounds tab118Preferences - Display tab119Preferences - Units tab120	Clear Undo Information	73
Duplicate Í ayer76Edit Layer Externally77Edit Sound Externally78Export To79Finish Editling Layer Externally80Import Image81Import Sound83Inflate Layer To Fit Frame84Lock Frame Position85Matte In Layer Transparency88Merge Contained Layers89Merge Layer Down90Move File91Print92Play Movie93Reset Layer To Fit Frame94Reset Layer To Fit Frame94Reset Layer To Fit Frame95Save Numbered Backup96Save Numbered Backup97Scoll Current Frame98Split And Edit100Split Out/Unify102Undo and Redo103View Frame Animation105View Movie View106View Single Frame107View Story Tree/Properties View108Dialogs109Export To113Export To113Export To113Export To113Export To113Export To113Export Again114Preferences - Edit Images tab116Preferences - Display tab119Preferences - Units tab120	Convert Layer	74
Edit Layer Externally77Edit Sound Externally78Export To79Finish Editing Layer Externally80Import Image81Import Sound83Inflate Layer To Fit Frame84Lock Frame Position85Make Fill Layer87Matte In Layer Transparency88Merge Contained Layers89Merge Layer Down90Move File91Print92Play Movie93Reset Layer Transparency95Save Numbered Backup96Scale Layer To Fit Frame97Scroll Current Frame98Split And Edit100Split Every101Split Every101Undo and Redo103Unify Every104View Movie View106View Story Tree/Properties View108Dialogs109Export To113Export To113Export To113Export To114Preferences - Edit Images tab116Preferences - Edit Sounds tab118Preferences - Display tab119Preferences - Units tab120	Deflate Layer To Fit Content	75
Edit Sound Externally78Export To79Finish Editing Layer Externally80Import Image81Import Sound83Inflate Layer To Fit Frame84Lock Frame Position85Make Fill Layer87Matte In Layer Transparency88Merge Contained Layers89Merge Layer Down90Move File91Print92Play Movie93Reset Layer Position94Reset Layer Transparency95Save Numbered Backup96Scale Layer To Fit Frame97Scroll Current Frame98Split And Edit100Split Every101Split Out/Unify102Undo and Redo103Unify Every106View Single Frame107View Single Frame107View Single Frame107View Single Frame107View Single Frame113Export To Kit113Export Windows AVI109Export Windows AVI119Parot To113Export Mindows Atab118Preferences - Edit Images tab116Preferences - Edit Images tab116Preferences - Dialog115Preferences - Laits tab119Preferences - Dialog tab119Preferences - Dialog tab119Preferences - Dialog tab119Preferences - Dialog tab118Preferences - Dialog tab<	Duplicate Layer	76
Export To79Finish Editing Layer Externally80Import Image81Import Sound83Inflate Layer To Fit Frame84Lock Frame Position85Make Fill Layer87Matte In Layer Transparency88Merge Contained Layers89Merge Layer Down90Move File91Print92Play Movie93Reset Layer Position94Reset Layer Transparency95Save Numbered Backup96Scale Layer To Fit Frame97Scroll Current Frame98Split And Edit100Split Every101Split Out/Unify102Undo and Redo103Unify Every104View Kory Tree/Properties View106View Single Frame107View Sory Tree/Properties View108Dialogs109Export Mindows AVI109Export To113Export To113Export Mindows AVI114Preferences - Edit Images tab116Preferences - Edit Images tab116Preferences - Edit Images tab118Preferences - Dislog115Preferences - Dislog tab119Preferences - Unist tab120	Edit Layer Externally	77
Finish Editing Layer Externally80Import Image81Import Sound83Inflate Layer To Fit Frame84Lock Frame Position85Make Fill Layer87Matte In Layer Transparency88Merge Contained Layers89Merge Contained Layers90Move File91Print92Play Movie93Reset Layer Transparency95Save Numbered Backup96Scale Layer To Fit Frame97Scroll Current Frame98Split And Edit100Split Every101Split Out/Unify102Undo and Redo103Unify Every104View Krame Animation105View Movie View106View Single Frame107View Story Tree/Properties View108Dialogs109Export Windows AVI109Export Windows AVI111Export Again114Preferences - Edit Images tab116Preferences - Edit Sounds tab118Preferences - Display tab119Preferences - Display tab119Preferences - Units tab120	Edit Sound Externally	78
Import Image81Import Sound83Inflate Layer To Fit Frame84Lock Frame Position85Make Fill Layer87Matte In Layer Transparency88Merge Contained Layers89Merge Contained Layers90Move File91Print92Play Movie93Reset Layer Position94Reset Layer Transparency95Save Numbered Backup96Scale Layer To Fit Frame97Scroll Current Frame98Split And Edit100Split Every101Split Out/Unify102Undo and Redo103Unify Every104View Krame Animation105View Movie View106View Story Tree/Properties View108Dialogs109Export Mindows AVI109Export Again114Preferences - Edit Images tab116Preferences - Edit Images tab118Preferences - Display tab119Preferences - Display tab119Preferences - Units tab120	Export To	79
Import Sound83Inflate Layer To Fit Frame84Lock Frame Position85Make Fill Layer87Matte In Layer Transparency88Merge Contained Layers89Merge Layer Down90Move File91Print92Play Movie93Reset Layer Position94Reset Layer Transparency95Save Numbered Backup96Scale Layer To Fit Frame97Scroll Current Frame98Split And Edit100Split Every101Split Out/Unify102Undo and Redo103Unify Every104View Kory Tree/Properties View108Dialogs109Export Mindows AVI109Export Again114Preferences - Edit Images tab116Preferences - Edit Images tab116Preferences - Edit Sounds tab118Preferences - Display tab119Preferences - Units tab120	Finish Editing Layer Externally	80
Inflate Layer To Fit Frame84Lock Frame Position85Make Fill Layer87Matte In Layer Transparency88Merge Contained Layers89Merge Contained Layers90Move File91Print92Play Movie93Reset Layer Position94Reset Layer Toransparency95Save Numbered Backup96Scale Layer To Fit Frame97Scroll Current Frame98Split And Edit100Split Vort/Unify101Undo and Redo103Unify Every104View Frame Animation105View Movie View106Dialogs109Export Windows AVI109Export Mindows AVI111Export Again113Preferences - Edit Images tab116Preferences - Edit Images tab118Preferences - Edit Images tab118Preferences - Units tab120	Import Image	81
Lock Frame Position85Make Fill Layer87Matte In Layer Transparency88Merge Contained Layers89Merge Contained Layers90Move File91Print92Play Movie93Reset Layer Position94Reset Layer Transparency95Save Numbered Backup96Scale Layer To Fit Frame97Scroll Current Frame98Split And Edit100Split Every101Undo and Redo103Unify Every104View Frame Animation105View Movie View106Dialogs109Export Mindows AVI109Export Mindows AVI111Export Again113Preferences - Edit Images tab116Preferences - Edit Images tab116Preferences - Edit Images tab118Preferences - Units tab120	Import Sound	83
Make Fill Layer87Matte In Layer Transparency88Merge Contained Layers89Merge Layer Down90Move File91Print92Play Movie93Reset Layer Position94Reset Layer Transparency95Save Numbered Backup96Scale Layer To Fit Frame97Scroll Current Frame98Split And Edit100Split Every101Split Every102Undo and Redo103Unify Every104View Wovie View106View Single Frame107View Story Tree/Properties View108Dialogs109Export HTML111Export To113Export Again114Preferences - Edit Images tab116Preferences - Units tab120	Inflate Layer To Fit Frame	84
Matte In Layer Transparency88Merge Contained Layers89Merge Layer Down90Move File91Print92Play Movie93Reset Layer Position94Reset Layer Transparency95Save Numbered Backup96Scale Layer To Fit Frame97Scroll Current Frame98Split And Edit100Split Every101Split Out/Unify102Undo and Redo103Unify Every104View Krame Animation105View Movie View106View Single Frame107View Story Tree/Properties View108Dialogs109Export HTML111Export HTML113Export Again114Preferences - Edit Images tab116Preferences - Edit Images tab118Preferences - Units tab120	Lock Frame Position	85
Merge Contained Layers89Merge Layer Down90Move File91Print92Play Movie93Reset Layer Position94Reset Layer Transparency95Save Numbered Backup96Scale Layer To Fit Frame97Scroll Current Frame98Split And Edit100Split Every101Split Out/Unify102Undo and Redo103Unify Every104View Frame Animation105View Movie View106View Single Frame107View Story Tree/Properties View108Dialogs109Export HTML111Export To113Export Again114Preferences - Edit Images tab116Preferences - Display tab119Preferences - Units tab120	Make Fill Layer	87
Merge Layer Down90Move File91Print92Play Movie93Reset Layer Position94Reset Layer Transparency95Save Numbered Backup96Scale Layer To Fit Frame97Scroll Current Frame98Split And Edit100Split Every101Split Out/Unify102Undo and Redo103Unify Every104View Frame Animation105View Movie View106View Single Frame107Dialogs109Export Windows AVI109Export HTML111Export HTML113Export Again114Preferences - Edit Images tab116Preferences - Edit Sounds tab118Preferences - Units tab120	Matte In Layer Transparency	88
Move File91Print92Play Movie93Reset Layer Position94Reset Layer Transparency95Save Numbered Backup96Scale Layer To Fit Frame97Scroll Current Frame98Split And Edit100Split Every101Split Out/Unify102Undo and Redo103Unify Every104View Frame Animation105View Movie View106View Story Tree/Properties View108Dialogs109Export Windows AVI111Export To113Export Again114Preferences - Edit Images tab116Preferences - Edit Sounds tab118Preferences - Units tab120	Merge Contained Layers	89
Print92Play Movie93Reset Layer Position94Reset Layer Transparency95Save Numbered Backup96Scale Layer To Fit Frame97Scroll Current Frame98Split And Edit100Split And Edit100Split Out/Unify102Undo and Redo103Unify Every104View Frame Animation105View Movie View106View Story Tree/Properties View108Dialogs109Export HTML111Export Again113Preferences - Edit Images tab116Preferences - Edit Sounds tab118Preferences - Units tab120	Merge Layer Down	90
Play Movie93Reset Layer Position94Reset Layer Transparency95Save Numbered Backup96Scale Layer To Fit Frame97Scroll Current Frame98Split And Edit100Split Every101Split Out/Unify102Undo and Redo103Unify Every104View Frame Animation105View Movie View106View Story Tree/Properties View108Dialogs109Export Windows AVI109Export HTML111Export Again114Preferences - Edit Images tab116Preferences - Edit Sounds tab118Preferences - Display tab119Preferences - Units tab120	Move File	91
Reset Layer Position94Reset Layer Transparency95Save Numbered Backup96Scale Layer To Fit Frame97Scroll Current Frame98Split And Edit100Split Every101Split Out/Unify102Undo and Redo103Unify Every104View Frame Animation105View Movie View106View Story Tree/Properties View108Dialogs109Export Windows AVI111Export To113Export Again114Preferences - Edit Images tab116Preferences - Edit Sounds tab118Preferences - Display tab119Preferences - Units tab120	Print	92
Reset Layer Transparency95Save Numbered Backup96Scale Layer To Fit Frame97Scroll Current Frame98Split And Edit100Split Every101Split Out/Unify102Undo and Redo103Unify Every104View Frame Animation105View Movie View106View Single Frame107View Story Tree/Properties View108Dialogs109Export Windows AVI111Export Again114Preferences Dialog115Preferences - Edit Images tab116Preferences - Edit Sounds tab118Preferences - Units tab120	Play Movie	93
Save Numbered Backup96Scale Layer To Fit Frame97Scroll Current Frame98Split And Edit100Split Every101Split Out/Unify102Undo and Redo103Unify Every104View Frame Animation105View Movie View106View Single Frame107View Story Tree/Properties View108Dialogs109Export Windows AVI109Export Again111Export Again114Preferences Dialog115Preferences - Edit Images tab116Preferences - Display tab119Preferences - Units tab120	Reset Layer Position	94
Scale Layer To Fit Frame97Scroll Current Frame98Split And Edit100Split And Edit101Split Out/Unify102Undo and Redo103Unify Every104View Frame Animation105View Movie View106View Single Frame107View Story Tree/Properties View108Dialogs109Export Windows AVI109Export HTML111Export Again114Preferences Dialog115Preferences - Edit Images tab116Preferences - Edit Sounds tab118Preferences - Display tab119Preferences - Units tab120	Reset Layer Transparency	95
Scroll Current Frame98Split And Edit100Split And Edit101Split Out/Unify102Undo and Redo103Unify Every104View Frame Animation105View Movie View106View Single Frame107View Story Tree/Properties View108Dialogs109Export Windows AVI109Export HTML111Export Again114Preferences Dialog115Preferences - Edit Images tab116Preferences - Display tab119Preferences - Units tab120	Save Numbered Backup	96
Split And Edit100Split Every101Split Out/Unify102Undo and Redo103Unify Every104View Frame Animation105View Movie View106View Single Frame107View Story Tree/Properties View108Dialogs109Export Windows AVI109Export HTML111Export Again114Preferences Dialog115Preferences - Edit Images tab116Preferences - Display tab119Preferences - Units tab120	Scale Layer To Fit Frame	97
Split Every101Split Out/Unify102Undo and Redo103Unify Every104View Frame Animation105View Movie View106View Single Frame107View Story Tree/Properties View108Dialogs109Export Windows AVI109Export HTML111Export To113Export Again114Preferences Dialog115Preferences - Edit Images tab116Preferences - Edit Sounds tab118Preferences - Display tab119Preferences - Units tab120	Scroll Current Frame	98
Split Out/Unify102Undo and Redo103Unify Every104View Frame Animation105View Movie View106View Single Frame107View Story Tree/Properties View108Dialogs109Export Windows AVI109Export Windows AVI109Export To113Export Again114Preferences Dialog115Preferences - Edit Images tab116Preferences - Edit Sounds tab118Preferences - Display tab119Preferences - Units tab120	Split And Edit	100
Undo and Redo103Unify Every104View Frame Animation105View Frame Animation106View Single Frame107View Single Frame107View Story Tree/Properties View108Dialogs109Export Windows AVI109Export Windows AVI109Export HTML111Export To113Export Again114Preferences Dialog115Preferences - Edit Images tab116Preferences - Edit Sounds tab118Preferences - Display tab119Preferences - Units tab120	Split Every	101
Unify Every104View Frame Animation105View Movie View106View Single Frame107View Story Tree/Properties View108Dialogs109Export Windows AVI109Export HTML111Export To113Export Again114Preferences Dialog115Preferences - Edit Images tab116Preferences - Edit Sounds tab118Preferences - Display tab119Preferences - Units tab120	Split Out/Unify	102
View Frame Animation105View Movie View106View Single Frame107View Story Tree/Properties View108Dialogs109Export Windows AVI109Export HTML111Export To113Export Again114Preferences Dialog115Preferences - Edit Images tab116Preferences - Edit Sounds tab118Preferences - Display tab119Preferences - Units tab120	Undo and Redo	103
View Movie View106View Single Frame107View Story Tree/Properties View108Dialogs109Export Windows AVI109Export HTML111Export To113Export Again114Preferences Dialog115Preferences - Edit Images tab116Preferences - Edit Sounds tab118Preferences - Display tab119Preferences - Units tab120	Unify Every	104
View Single Frame107View Story Tree/Properties View108Dialogs109Export Windows AVI109Export HTML111Export To113Export Again114Preferences Dialog115Preferences - Edit Images tab116Preferences - Edit Sounds tab118Preferences - Display tab119Preferences - Units tab120	View Frame Animation	105
View Story Tree/Properties View108Dialogs109Export Windows AVI109Export HTML111Export To113Export Again114Preferences Dialog115Preferences - Edit Images tab116Preferences - Edit Sounds tab118Preferences - Display tab119Preferences - Units tab120	View Movie View	106
Dialogs109Export Windows AVI109Export HTML111Export To113Export Again114Preferences Dialog115Preferences - Edit Images tab116Preferences - Edit Sounds tab118Preferences - Display tab119Preferences - Units tab120	View Single Frame	107
Export Windows AVI109Export HTML111Export To113Export Again114Preferences Dialog115Preferences - Edit Images tab116Preferences - Edit Sounds tab118Preferences - Display tab119Preferences - Units tab120	View Story Tree/Properties View	108
Export Windows AVI109Export HTML111Export To113Export Again114Preferences Dialog115Preferences - Edit Images tab116Preferences - Edit Sounds tab118Preferences - Display tab119Preferences - Units tab120	Dialogs	109
Export HTML111Export To113Export Again114Preferences Dialog115Preferences - Edit Images tab116Preferences - Edit Sounds tab118Preferences - Display tab119Preferences - Units tab120	6	109
Export To113Export Again114Preferences Dialog115Preferences - Edit Images tab116Preferences - Edit Sounds tab118Preferences - Display tab119Preferences - Units tab120	1	
Export Again114Preferences Dialog115Preferences - Edit Images tab116Preferences - Edit Sounds tab118Preferences - Display tab119Preferences - Units tab120		
Preferences Dialog115Preferences - Edit Images tab116Preferences - Edit Sounds tab118Preferences - Display tab119Preferences - Units tab120		114
Preferences - Edit Images tab116Preferences - Edit Sounds tab118Preferences - Display tab119Preferences - Units tab120	· ·	115
Preferences - Edit Sounds tab118Preferences - Display tab119Preferences - Units tab120	-	
Preferences - Display tab119Preferences - Units tab120		
Preferences - Units tab 120		
	1 •	

Story Properties	122
Frame Properties	123
Zoom Frame Properties	125
Sound Clip Properties	127
Time Controls	129
Set Background Color	130
Mirror Frames	131
Change Image Size	132
Change Canvas Size	133

Introduction

This is the documentation library for Springboard.

The Tutorials section contains general introductory material as well as task-based instruction.

The Reference section focuses more on individual features of the program. It includes lists of commands, screen objects, and keyboard shortcuts.

Copyright and legal information

This documentation describes version 1.03 of Springboard, copyright (c) 1998-2011 by Six Mile Creek Systems LLC.

For more information, see the Springboard web site at:

http://6sys.com

Please send bug reports, feature suggestions, and general comments via:

http://6sys.com/contact

Use of Springboard is subject to acceptance of the following

PLAIN-ENGLISH LICENSE AGREEMENT

- 1. This software may be freely used for its intended purpose. You may not reverse-engineer it, attempt to bypass or modify its registration code, or use parts of it in other software. You may not redistribute it in any manner other than by linking to the Web page listed above.
- 2. The Author makes no warranty as to the correct operation of the program or its fitness for any particular purpose.

Additional credits

Springboard contains the Graphics32 library, available at <u>http://graphics32.org</u>, and licensed under the <u>Mozilla Public License</u> (MPL). All modifications made by Six Mile Creek Systems to the GraphicEx library are available at <u>http://6sys.com/Springboard/GR32_Mods.pas</u> and <u>http://6sys.com/Springboard/GrayMap.pas</u>.

Springboard contains the GraphicEx library, available at <u>http://www.delphi-gems.com</u>, and licensed under the MPL. No modifications have been made by Six Mile Creek Systems.

The smooth-resizing algorithm is copyright (c) 1997, 1998 by Anders Melander, anders@melander.dk, used with permission. Source code is available from Anders.

Tutorials

Quick Start

To get started making storyboards with Springboard:



- 1. Select one of the drawing tools from the palette on the left.
- 2. Draw in the white frame box in the main window.
- 3. Type the text that goes with the frame in the text box at the bottom of the main window.
- 4. Use Edit > Add New Frame to move to the next frame.

To learn more:

- explore this Help file
- hold the mouse over buttons and controls to view quick descriptions in "tool tips"
- look in the Status Bar at the bottom of the main window for additional explanations
- press F1 while highlighting any menu item or when any dialog box is open to get more help.

Layers

Drawing layers: Overview

Each frame in a Springboard file is made up of layers. If you have used other graphic editors, such as Photoshop, Illustrator, Corel Draw, or Paint Shop Pro, you may already be familiar with the layer model. If not, you can think of layers like pieces of paper that are held together in a stack, with the following properties:

- Layers on top obscure the ones underneath.
- Layers can be moved around horizontally and vertically within the frame. Any part of a layer
 that sticks out beyond the frame is clipped off (though you can see those parts with <u>View ></u>
 <u>Single Frame</u>).
- Layers can have transparency. Full transparency is like cutting a hole in the layer with scissors; whatever is underneath will show through. Layers can also be partly transparent, like a drawing on tracing paper.

The layers in the current frame are shown in the Layers palette:



There are two basic layer types: bitmap layers, that contain a grid of colored dots ("pixels"), and vector layers, that contain a "vector object" that can be changed at any time, and which converts itself to pixels whenever it is drawn on the screen.

Springboard's drawing tools work with either bitmap or vector layers, but not both. The " natural-media" tools draw onto bitmap layers, while the vector tools create new vector objects on their own layers.

Some quick tips and links on working with layers:

- Layers can have colors assigned with them in various ways.
- You can change the name of a layer, and its other properties, with the Layer Properties dialog.
- You can use the Layer > New command to add more global or local overlay layers. Make an overlay in a different color for each kind of information you want to keep e.g., for showing object motion, areas that will require special effects, transitions, etc.
- You can reorder and nest layers by dragging them in the Layers palette.

- If you need more room outside the frame to grab vector handles or to start drawing strokes, use <u>View > Single Frame</u>.
- To select one layer out of many, right-click in the frame where the layer has some content, and choose Select Layer from the context menu.

The Layers Palette

The Layers palette shows a list or tree of all the layers in the current frame:



Tools

A tool bar at the top of the Layers palette contains tools for the most common layer commands:

□ New Layer - creates a new global or local layer.

X Delete Layer - deletes the selected layer.

Duplicate Layer - makes a complete copy of the selected layer.

 $\overline{\mathbb{A}}$ Merge Down - merges the contents of the selected layer into the layer below it.

Merge Contained Layers - merges the contents of all layers nested under the selected layer into the selected layer.

Columns

The columns shown for each layer in the Layers palette include:

- The visibility indicator ✓. This is shown for visible layers. Clicking it makes the layer invisible; clicking the same spot again makes an invisible layer visible.
- The tree expand/collapse buttons □ . Use these to show and hide nested layers.
- The layer icon, indicating the layer's type and whether it's global or local. Spot-color layers are indicated with a single-colored box , full-color layers with intersecting color circles , and vector layers with a small representation of the contained vector type \\ \ T \. Global layers' icons have a bold border around them .
- The layer name. The Base layer is in italics.

Nested layers are indented under their parent layers.

Using the mouse

Clicking on a layer selects it. All drawing affects the selected layer: natural-media tools draw onto it, and vector tools create new vector layers under it. All Layer menu commands operate on the current layer.

Right-clicking a layer opens a context menu of commands that operate on that layer, similar to the main Layers menu.

You can drag and drop layers in the Layers palette to reorder or nest them. The drag indicator is a small triangle, sometimes accompanied by a line, that shows where a layer will end up in the list if you release the mouse. In this example, the "street" layer is about to be moved so it comes after the "sketch" layer:



And in this example, the "guy-fill" layer is about to be nested under the "street" layer:



Local and global layers

The default Base and Camera layers are global layers, meaning they exist with the same name and settings in all frames in the file. If you change any of the properties of a global layer, they will change everywhere in the file.

Global layers are most useful for holding annotations that you want to make across all frames. The default Camera layer is a good example: many frames will have camera movement, and it's handy to be able to turn them all on or off together. Other examples of global layers you might like to add to your projects are:

- A Motion layer, for indicating the motion of objects within the scene rather than the motion of the camera. If you make a global Motion layer with a different color than the Camera layer, it's easy to tell object motion from camera motion.
- An FX (or Effects) layer, for indicating areas of the frame that will need to be added or modified specially in post.

You can also use local layers, that exist only in the current frame. You can use local layers in addition to the Base layer to develop and organize the image for a given frame, without affecting any other frames. For examples of local layers, see the nested layers section.

Global layers' icons are drawn with a black border around them in the Layers palette. For example, in this Layers palette:



the *Camera* layer is global (and selected), the *Space ship* layer is local, and the *Base* layer is global.

Note: The Base layer is always global. It cannot be made local, and it cannot be deleted. You can rename it and change its color, though. The Base layer's name appears in italics in the Layers palette to indicate this special status.

To create a new global or local layer:

1. Do Layer > New

or Right-click anywhere in the Layers palette and choose New from the context menu
 or -

Click the New Layer button D in the Layers palette.

2. You'll see the Layer Properties dialog. It looks like this:

Layer Properties 🛛 🔀	
<u>N</u> ame:	Layer
Туре:	⊙ <u>L</u> ocal ○ <u>G</u> lobal
	⊻ ⊻isible
Color:	
	OK Cancel

- 3. Type a name for the new layer.
- 4. Select whether you'd like it to be Local or Global.
- 5. Change the color if you like, by clicking the arrow next to the color swatch and picking a different color.
- 6. Press OK.

To change an existing layer from global to local:

- 1. Make sure the layer is selected in the Layers palette.
- 2. Do Layer > Properties - or -

Right-click the layer in the Layers palette and choose Properties from the context menu - or -

Double-click the layer in the Layers palette.

3. You'll see the Layer Properties dialog:

Layer Properties 🛛 🛛 🔀	
<u>N</u> ame:	Camera
Туре:	○ Local ④ Global
	∨ ⊻isible
Color:	
OK Cancel	

- 4. Click the Local radio button.
- 5. Click OK.
- 6. A confirmation dialog box will appear that looks like this:

Confirm	
2	About to delete all layers with the name "Camera" in all other frames in this file.
~	This operation cannot be undone.
	OK Cancel

7. Click OK.

The layer you selected will be removed from all other frames in the file, and kept only in the current frame.

To change an existing layer from local to global:

- 8. Make sure the layer is selected in the Layers palette.
- 9. Do Layer > Properties

or Right-click the layer in the Layers palette and choose Properties from the context menu.
 or -

Double-click the layer in the Layers palette.

10. You'll see the Layer Properties dialog:

Layer Properties 🛛 🔀	
<u>N</u> ame:	Layer
Туре:	⊙ <u>L</u> ocal ○ <u>G</u> iobal
	✓ Visible
Color:	
OK Cancel	

- 11. Click the Global radio button.
- 12. Click OK.

The layer you selected will be created in all other frames in the file. Any image contents are not duplicated, though; new layers in other frames are empty.

Nested layers

We've said above that you can think of layers in a frame like pieces of paper in a stack. One additional thing you can do with layers that you can't do with paper is to nest one layer within another. We can say the nested layer is a child layer contained within the parent layer.

Nested layers are roughly analogous to gluing pieces of paper together so that when you move the parent layer, all the nested child layers move with it. However, with layers, you can also move child layers independently of the parent when that's convenient.

<u>Opacity</u> changes in a parent layer also affect all child layers. So, for example, nested layers can be faded in or out together.

Let's look an example of a frame that uses nested layers:



This is a simple frame that has been constructed to allow for flexibility in placing the stick figure ("tjw"). Let's look at the layers:



The "face" layer contains the eyebrow, eye, and mouth.



The "solid" layer is a white layer that's been drawn to white-out whatever's behind the face.



The "tjw" layer contains the rest of the stick figure's body. Both the "face" and the "solid" layers are nested under it.

So, I can hide all three layers by simply clearing the "tjw" layer's visibility icon:



Note that the portion of the door that was obscured by the "solid" layer now shows through.

After I turn "tjw" back on, I can turn off just the "face" layer by clearing its visibility icon:



Similarly, I can move the layers all together by selecting the "tjw" layer and moving it with the <u>Move Layer</u> tool:



Note that the "solid" layer now obscures the right side of the door.

Or, I can select just the "face" layer and drag it independently:



The end result:



Layer colors

Color is managed slightly differently for each layer type.

Spot-color layers

Each spot-color layer has a single color associated with it.

Spot-color layers appear in the Layers palette as a shaded box in the associated color:

By default, drawing on a spot-color layer with a natural-media tool draws in this foreground color, and erasing makes a layer transparent so that whatever's below it shows through. The frame's background color will show through if no other layer is below.

You can set any <u>natural-media tool</u> to either draw in the foreground color or erase to the background with the Foreground and Background buttons at the top of <u>the Tools Palette</u>:



This setting will stick to each tool.

The 'X' key toggles between Foreground and Background.

You can change a spot-color layer's color with the Layer > Properties command.

Full-color layers

Full-color layers contain both color information and transparency information at each pixel. You can <u>import a color picture</u> into a full-color layer, then draw on it and/or mask it out - that is, make parts of it transparent. You can also make a full-color layer from a spot-color layer using <u>Layer > Convert</u>.

Full-color layers appear in the Layers palette as intersecting color circles:

You can draw on full-color layers in any color. The foreground color can be set for each natural-media tool using the drop-down color menu that appears next to the Foreground button when a full-color layer is selected:



Click this button:



to see this color menu:

When you select the Background button with a natural-media tool, it simply draws in the frame background color.

The exception is the Eraser tool. By default, the Eraser is set to Background. When you draw with it on a full-color layer, the layer is made transparent. If you set the Eraser tool to Foreground, it will make the layer opaque again where you drew.

<u>Layer > Reset Transparency</u> makes the entire layer opaque - so it effectively undoes any erasing you've done with the Eraser tool. <u>Layer > Matte In Transparency</u> also makes the entire layer opaque, using a slightly different technique.

Vector layers

New vectors created under a spot-color layer are created with the current Foreground or Background setting. If the Foreground button is selected, the new vector will take on the color of its containing spot-color layer. If the Background button is selected, the new vector will cut out the containing spot-color layer, leaving it transparent.

Changing the color of a spot-color layer in the Layer > Properties dialog will also change the colors of all Foreground-assigned vectors underneath that layer.

When the Edit Vector tool \checkmark is selected, the Foreground and Background buttons change the color assignment of the edited vector. If the vector is under a full-color layer, the Foreground color can be changed with the drop-down color menu; if the vector is under a spot-color layer, the Foreground color cannot be changed.

Fill layers

A fill layer is a spot-color layer in which you paint a "fill color", so that the interior of a sketched object looks opaque.

For example, let's say you have drawn a background image in a frame's Base layer, using the <u>Pencil tool</u>:



You want a character to walk into this frame. So, you <u>create a new spot-color layer</u>, and draw the character at his final resting point:



The Layers palette now looks like this:



But you'd like this Guy's insides to be opaque, not transparent. You could do this by converting the Guy layer to Full-color and then filling in precisely inside the pencil outlines without erasing

them. But it's easier if you put the "fill" on a separate layer, you don't have to worry about affecting the outline, and it's also easy to change the color later.

You'd also like the Fill layer to move with the outline layer, and the easiest way to do that is to <u>nest</u> them together.

The <u>Layer > Make Fill Layer</u> command is a quick way to set up such a layer. After you run it, the layer palette looks like this:



The Guy Fill layer has been created, and the Guy layer is nested under it. This is the easiest way to arrange layers.

The Make Fill Layer command also tries to fill in the fill layer automatically. In the example, the story frame now looks like this:



It has filled the Guy Fill layer with white inside the boundaries of all closed areas in the Guy layer.

If Make Fill Layer doesn't fill the way you want, you can tweak the results in several ways:

- If it didn't fill enough, undo one time (to undo the <u>Deflate</u> done by Make Fill Layer) and draw more in the fill layer. The <u>Quill Pen</u> is often a useful tool for drawing fills.
- If it filled too much, undo two times (to undo both the Deflate and the automatic fill) and draw in the fill layer by hand. Or, remove areas from the fill layer using the <u>Eraser</u> or the Quill Pen set to the <u>background color</u>.

When the fill is the way you want it, you can select the <u>Move Layer</u> tool and drag the Guy Fill Layer to a new position:



And you can now easily go on to record an animation of the character walking into the shot.

Tips for drawing objects that can be automatically filled

If you want to use the auto-fill feature, but it's not finding the edges of your drawings well, try these tips:

- Keep your object away from the edges of the layer.
- Draw with darker lines.
- Ensure that all parts of your drawing that you want to be opaque are entirely enclosed with lines.

The Story Tree

Use the <u>View > Story Tree/Properties View</u> command to see a hierarchical list of the contents of your story:



You can create new sections of various types (Act, Scene, Shot, etc.) to organize your storyboard frames by pressing the New Section button \Box at the top of the Story Tree view or with the Edit > Add New Section command.

If you don't like the section names provided, you can use the File > Edit Story Structure

command (or its tool button in the Story Tree view) to change the names of sections, change their nesting order, or change the way they're numbered.

When a sound clip is selected, one of the Edit Externally buttons 🔊 is enabled.

The item currently selected in the tree has its properties shown below the tree.

Properties for the entire story are shown when you select the "story root," which is the top element in the story tree, with the open book icon \bigotimes .

Sections that are split out are shown with an asterisk overlay 💆.

Tasks

Animating the camera

While some dynamic media or stylistic choices may preclude re-framing a shot as it progresses, most video and movie productions involve some kind of camera movement - zooms, pans, dollies, cranes, etc.

Camera movement in a screenplay

Camera movement can be represented in a screenplay with phrases like "PAN RIGHT" or "ZOOM IN" (conventionally all-uppercase). Whether or not you start with a screenplay before creating storyboards, typing these phrases into Springboard's frame text box is a quick way to represent camera moves, and can be particularly useful if you want to work with a printout of just the frame text, without accompanying images.



PAN across landscape and ZOOM IN on distant tower.

A frame with a camera movement instruction in its frame text

Camera movement in a storyboard

The most common way to represent camera movement in a storyboard use graphical arrows and boxes, with some loose conventions to indicate particular moves.

In general, there are two sets of conventions for representing camera moves: those that use a single thick arrow set in three-dimensional or "story" space, and those that use frame boxes in two-dimensional or "frame" space. For example:



Pan right using thick arrow and using frame boxes



Zoom in using thick arrow and using frame boxes

Springboard's <u>thick arrow</u> and <u>Zoom Frame</u> tools are designed to help represent these conventions.

In general, the thick arrow approach is compact and suggestive: it indicates the direction the camera is moving, but not exactly how far. The frame box approach is more precise, because it shows exactly where the frame begins and ends, but it sometimes takes up more visual space.

Camera movement in an animatic

When you want to view an animatic of your production, you could simply cut between frames and show camera movement with the same graphical symbols used in the static storyboard. But, it's more direct to simulate the actual camera moves dynamically.

Springboard can automatically interpret Zoom Frame vectors in the Camera layer as camera moves, so that the pan pictured above looks something like this when it's viewed in the <u>Movie View</u> or exported to a <u>movie file</u>:



Pan right, shown dynamically in an animatic

See the Automatic Zoom feature for more details.

Productive ways to work with camera movement

The alternatives described above can be used in different combinations to suit your personal style or project requirements. Here we'll suggest two different approaches that you could choose as starting points:

1. Use each technique successively as you refine your prodction.

In this approach, you would start by typing short phrases in the frame text area as you rough out your frame drawings for a production (or for a particular sequence). Then, as the drawings take shape, add thick arrows to get a more visual feel for the camera moves. Finally, replace the thick arrows with Zoom Frames to express the move more precisely and show it dynamically in animatics.

Note that you can also mix thick arrows (or other symbols drawn freehand) with Zoom Frames. If you hide a Zoom Frame vector, it will still be animated as long as "Animate camera" is still checked for the frame, so you could get a precise and dynamic camera move in an animatic while still showing a simple or customized graphic in your printed storyboards if you prefer.

2. Use Zoom Frames exclusively.

It may be simpler to use a Zoom Frame from the start and refine it successively rather than successively refine text phrases to arrows to Zoom Frames. You may also find that working with a Zoom Frame in place as you draw, and adjusting both the Zoom Frame and the drawing as you refine a sequence, helps support your visual thinking process.

Springboard can support both of these approaches comfortably, and there's no need to make a decision ahead of time.

Automatic Zoom

Springboard's Automatic Zoom feature translates Zoom Frame vectors into camera movement in animatics and when exporting a movie.

To use Automatic Zoom with a new file:

- 1. Draw your frame content.
- 2. Select the Camera layer in the Layers Palette.
- 3. Select the Zoom Frame tool, drag out a new vector, and position it where you want it.
- 4. View the resulting camera move with the Go > Play command.

The camera move starts at the beginning of the frame, and extends to the end of the frame, using a simple linear interpolation. More options for controlling the start, duration, and ease-in/ease-out of Automatic Zoom will come in a future version of Springboard.

To use Automatic Zoom with an old file:

For files created with a version of Springboard older than 0.7, Automatic Zoom is disabled by default, so that existing animatics will not be changed without your permission. To turn on Automatic Zoom in an older file:

- 1. Ensure <u>View > Story Tree/Properties View</u> is turned on, so you can see the Properties palette.
- 2. Select the frame for which you want to activate Automatic Zoom.
- 3. Check the Animate camera box in the <u>Frame Properties</u> dialog.
- 4. Repeat steps 2 and 3 for each frame containing a Zoom Frame vector that you want to be animated automatically.

To disable Automatic Zoom on new frames:

Newly-created frames (in old or new files) have the "Animate camera" box checked by default. To prevent this:

- 1. View the <u>Preferences dialog</u> with Edit > Preferences.
- 2. Select the Camera tab.
- 3. Un-check Enable automatic camera moves for new frames.

To disable Automatic Zoom on a specific frame:

- 1. Ensure <u>View > Story Tree/Properties View</u> is turned on, so you can see the Properties palette.
- 2. Select the frame for which you want to activate Automatic Zoom.
- 3. Un-check the Animate camera box in the <u>Frame Properties</u> dialog.

To disable Automatic Zoom globally:

- 1. View the <u>Preferences dialog</u> with Edit > Preferences.
- 2. Select the Camera tab.
- 3. Un-check Animate the camera to follow Zoom Frame vectors.

Using an external graphics editor

At some point during your work on a storyboard image, you may find that you want to do something that would be easy in your favorite dedicated bitmap graphics editor (like Photoshop, Corel Draw, Paint Shop Pro, The GIMP, etc.) but difficult in Springboard. Just for these situations, Springboard supports editing a bitmap layer in an external program. You can use the features you're used to in your graphics editor while still benefiting from Springboard's storyboard structure.

The steps in the process are:

- 1. Configure external editing in the <u>Edit > Preferences</u> dialog, on the <u>Edit I mages</u> tab. Test it with the Test button on that tab before continuing.
- 2. Select the layer you want to edit externally.
- 3. Do Layer > Edit Externally.
- 4. Edit the image in the external editor, and save it.
- 5. Return to Springboard. The frame will update automatically to show the changes to the layer.
- 6. When you are done, do <u>Layer > Finish Editing Externally</u> in Springboard to finish.

Troubleshooting External Editing

- You cannot edit vector layers externally. You can <u>Merge</u> them to another bitmap layer and then edit that bitmap layer externally.
- If you get an error message like "A device attached to the system is not functioning" when you try to edit an image using the Test button in the Preferences dialog, Windows may not be configured correctly to edit the specified image type. Try changing the options in the Preferences dialog some applications are set up to do Open properly but not Edit, or have Open and Edit set up properly for Windows Bitmap files but not Truevision Targa files. If changing these options doesn't work, you can try specifying the command line directly in the Preferences dialog by selecting the "With this command line:" radio button, browsing for the program file, and adding any necessary command-line arguments. (This requires detailed understanding of the way your graphics editor works.)
- If you find that a spot-color layer looks black in an external application, this may be because the layer uses transparency in a way that your graphics editor does not interpret correctly. Try viewing and editing alpha channels instead of RGB channels (these are the terms for Photoshop; the exact names may differ in other products).
- Another option that may simplify working with transparency is to use <u>Layer > Matte-In</u> <u>Transparency</u> to discard a layer's transparency information before editing that layer externally. If transparency is important for that particular layer, this won't be helpful, but for many layers, transparency isn't important. Note that Layer > Matte-In Transparency only works on full-color layers, so you would have to change a spot-color to full-color first using <u>Layer > Convert To Full Color</u>.

Working with sound

Sound clips

Springboard stores sound in sound clips, which appear in the Story Tree with this icon: 20

A sound clip contains a single sound, like a sound effect, a voice-over, a dialogue track, or a musical score. Sound clips play when the story is played in the Movie View, and are included when you export a movie.

Sound clips can be placed in the story tree under the whole Story, under a Section, or under an individual Frame. For example, in the Story Tree pictured below:



The "Voice-over" sound clip is placed under the Story, so it will play throughout the story. The "Ambience" clip will play starting at the beginning of Scene 2. The "SFX door open" and "Dialogue" clips both play simultaneously at the beginning of Frame 2.3.

Sound clips are numbered consecutively within their parent element, just so they can have unique names.

Sound clips move with their parent story elements. In the previous example, if you increased the duration of Frame 2.2 so that Frame 2.3 started later, the Dialogue clip would play later as well. The Ambience clip would still start at the same time and last the same length.

When a sound clip is selected in the <u>Story Tree</u>, the <u>Sound Clip Properties</u> dialog is displayed in the Properties panel. This dialog lets you change the title and offset of the sound clip, and see its start time and duration.

Importing

You can import sounds from WAVE files into sound clips in a Springboard file using the File > <u>Import Sound</u> command. Imported sounds are copied and saved in the story file.

Note: At present, only WAVE files containing uncompressed PCM data are supported. You must convert compressed WAVE files or other sound files to this format before importing, using an external audio editing program. The next version of Springboard should support compressed WAVE files.

Exporting

Sound clips are mixed and included automatically in video files exported using the <u>File > Export</u> <u>AVI</u> command.

Future versions of Springboard will allow more options for export formats and codecs; currently, audio is always exported as 16-bit PCM at 22.050 kHz.

Recording

You can record sound clips while viewing your animatic in the Movie View. Use the Show More

button 🞽 in the Movie View's tool bar to display the Record Timing and Record Sound

buttons 🕙 🌒 , set them appropriately as described in the Movie View topic, and press the

Record button • to record.

Recorded sound clips are attached to the element selected when you begin recording. If a frame is selected and the Movie View continues playing into other frames, one sound clip is created for each frame. If a section or story is selected, only one sound clip is created.

Microphone setup

Before you record audio, be sure to set up your sound source appropriately. The exact steps to do this depend on your specific sound card, but you can often use the Windows Volume Control control.

To set up for recording with Windows Volume Control:

- 1. Open Windows Volume Control. You can do this by double-clicking the speaker icon in the Windows system tray, if there is one, or from the Start > Programs menu under Accessories > Entertainment > Volume Control.
- 2. View the recording settings, by selecting the menu command Options > Properties, selecting Recording, and pressing OK.
- 3. Select the source. Click the "Select" check box under the Microphone channel (or whichever channel corresponds to the sound source you'd like to record).
- 4. Drag the Volume slider up to the top of its range.

Keep the Volume Control open while you record. If what you record sounds distorted when you play it back, drag the Volume slider down until it sounds clean.

If you can't hear anything after you record sound:

- 1. Check that your microphone (or other sound source) is plugged into the right jack on your sound card or computer. If the jacks are color-coded, the microphone jack will be pink.
- 2. Check for a mute switch or volume control on the microphone, especially on headset microphones. Ensure the sound is not muted and volume is up.
- 3. Check the Windows Control Panel under "Sounds and Audio Devices" to ensure your default recording device is set up and working properly.
- 4. Try recording with the Windows Sound Recorder, usually in the Windows Programs menu under Accessories > Entertainment > Sound Recorder. If you can't record there, it's probably a system problem and not a problem with Springboard.

Editing sound externally

You can use most sound editing software to edit sound clips directly from a story file. This can be useful if you want to change your recorded sound clips in ways that aren't yet available in Springboard. For more information, see <u>Using an external sound editor</u>.

Using an external sound editor

While working on sound for a story, you may find that you want to edit a sound in a way that's easy in your favorite dedicated sound editor (like Goldwave, Audacity, Audition/Cool Edit, Soundbooth, etc.) but not in Springboard. Just for these situations, Springboard supports editing a sound clip in an external program. You can use the features you're used to in your sound editor while still benefiting from Springboard's storyboard structure.

The steps in the process are:

- 1. Configure external editing in the <u>Edit > Preferences</u> dialog, on the <u>Edit Sounds</u> tab. Test it with the Test button on that tab before continuing.
- 2. Select the sound clip you want to edit externally in the Story Tree.
- 3. Do Edit > Edit Sound Externally, or choose Edit Sound Externally or Split And Edit from the context menu, or press the button in the Story Tree's tool bar.
- 4. Edit the sound in the external editor, and save it back to the same file.
- 5. Return to Springboard. The sound clip will update automatically to match the saved file. When you play your story in the Movie View, you will hear the new sound.

Sound Clips And Split Files

When you are done editing a sound clip externally, you can choose $\underline{Edit} > \underline{Unify}$ to merge your sound back into the main story file if you like. Unlike editing images externally, you don't have to do this - you can keep sound files split out if you like.

Also, unlike other split files, which are saved as Springboard story files (.sbd), split files containing sound clips are saved as Windows WAVE files (.wav). This allows them to be edited by any standard sound editing program.

Troubleshooting External Editing

- If a sound clip hasn't yet been saved to its split file when you edit it externally, Springboard alerts you with a dialog box and gives you a chance to save it.
- If you get an error message like "A device attached to the system is not functioning" when you try to edit a sound using Edit Sound Externally or using the Test button in the Preferences dialog, Windows may not be configured correctly to edit the specified image type. Try changing the options in the Preferences dialog some applications are set up to do Open properly but not Edit, or do not support Open or Edit. If changing these options doesn't work, you can try specifying the command line directly in the Preferences dialog by selecting the "With this command line:" radio button, browsing for the program file, and adding any necessary command-line arguments. (This may require detailed understanding of the way your sound editor works.)
- Some sound editors, such as Audacity, take a "project" approach to editing a file. They will
 open a sound clip's split file correctly, but when you save your changes, they will save them
 to a different place often a project file or folder near the split file. You may have to do
 something different to get them to save back to the same .wav file. For example, in Audacity
 you need to do File > Export, then confirm that you want to overwrite the original split file.

Working with large files

If you're storyboarding a 43-minute television episode or a two-hour feature film - or some even longer project - there are a few things you should know to keep Springboard running smoothly.

- Use sections. Use the <u>Story Tree</u> to put your frames in sections of various kinds shots, scenes, chapters, or whatever other kind of sections make sense to you (you can customize the list of available section names with the Edit Structure dialog). This not only helps you keep your story organized, it also helps Springboard use your computer's memory more efficiently.
- Use split files. You can store certain sections of your story in <u>split files</u> to accelerate saving only the files containing changed data are rewritten when you save the master file. The <u>Movie</u> <u>View</u> also uses split files to decide when to pre-render movie effects, so splitting out scenes of large files can help make your movies play more smoothly within a scene.
- Keep your frame images small. If you need high resolution images for your storyboard frames, you can use them. But, if your computer has trouble keeping up, you may want to use smaller frame images and simply zoom in on them while you're drawing. For many productions and storyboarding styles, 320 x 240-pixel frames (Springboard's default) are big enough to contain all the essential information and still produce acceptable image quality.

Working with split files

Springboard's split files can help improve performance with large stories.

When you save a Springboard file, the program must copy all the data for the entire story into the file on disk. For large files, this can mean that it can take many seconds to save the file after even a small change to just one frame.

To speed up saving small changes to large files, you can choose to split out sections from the master file. These sections are then stored in their own files, in a folder stored next to the master story file.

For example, let's say you have a story file called Goldilocks.sbd. if you split out each Scene section, Springboard automatically creates the following files the next time you save:

- Goldilocks.sbd the master file.
- Goldilocks.sbd files the split folder, containing:
- Scene 1.sbd, Scene 2.sbd, etc. the split files.

The next time you change something in Scene 1 and save, Springboard saves only Goldilocks.sbd (which is now very small) and Goldilocks.sbd_files\Scene1.sbd (which is also relatively small, since it only contains the frames for Scene 1).

Managing split files

You can split files with Edit > Split Out and Edit > Split Every.

If you later want to unify all the split files back into the master file, you can do this with $\underline{\text{Edit}} > \underline{\text{Unify}}$ or $\underline{\text{Edit}} > \underline{\text{Unify}}$ or $\underline{\text{Edit}} > \underline{\text{Unify}}$.

Changes to split files don't take effect on disk until the next File > Save.

You can split out any section, or even individual frames. The recommended practice is to split out every scene, or whatever may correspond to a scene in your story.

Sections or frames that are split out are indicated with an asterisk \square in the <u>Story Tree</u>. For example, here is the Story Tree for a file with all its Shots split out:



Warnings

When using split files:

- Don't separate the split folder. Keep the split folder next to the master file; if you move the master file, always move the split folder with it.
- Don't touch files while they're open. In order to conserve memory, Springboard only loads pieces of the file as it needs them. So, if you open a file in Springboard, then move it or change it with another program while it's still open, Springboard may not be able to view parts of the file or save your changes successfully. (This does *not* apply to sound clips, as discussed in <u>Using an external sound editor</u>.)

Editing split files separately

Split files are stored as normal Springboard storyboard files. You may open them directly in Springboard, as long as the master file is not open at the same time (remember, Don't touch files while they're open).

This can be convenient if, for example, you want to send a small section of a story to someone else to work on or evaluate - for example, just Scene 3:

- 1. Make sure Scene 3 is split out.
- 2. Find the split file "Scene 3.sbd" in the split folder, and e-mail it as an attachment.
- 3. The recipient can edit the split file normally, and make changes.
- 4. The recipient then sends the changed "Scene 3.sbd" file back to you.
- 5. Delete the original "Scene 3.sbd" file from the split folder and save the new one in its place.

The changes will now be visible in the master file the next time you open it.
Customizing Springboard

Once you get accustomed to using Springboard, you may wish to change some of its defaults.

Preferences

The most obvious place to change defaults is in the <u>Preferences dialog</u>. This dialog contains settings that affect all files edited using the current user account of the current computer.

The Defaults file

You can set defaults for every file created with Springboard's File > New command on a given computer. These defaults are stored in a file that you can edit like any other Springboard file.

To create a Defaults file:

- 1. Open a Springboard file with the settings you like. Or, start with a new file by choosing File > New.
- 2. Edit the file until it contains exactly what you want in a new file.
- 3. Do File > Save As, and browse to the folder where Springboard is installed (usually "C:\Program Files\Springboard"). Save the file with the name "Defaults".
- 4. To test your new defaults, choose File > New. You should see an untitled duplicate of your Defaults file.

You can edit this file at any time if you wish to change the defaults.

HTML Templates

You can edit the templates used for the File > Export to > HTML command. These files are stored in the Templates subfolder in the folder where Springboard is installed (usually "C:\Program Files\Springboard").

You should have basic familiarity with editing HTML files in order to customize the templates. Graphical HTML editors may work, but for best results, you may need to use a text editor.

See the text file "Template format.txt" in the Templates folder for more information.

Reference

Keyboard shortcuts

Shift Keys

- Holding the Shift key down while manipulating a vector will constrain the vector in an appropriate way:
 - o Text and Line vectors are constrained to 45-degree angles.
 - o Rectangle and Filled Rectangle vectors are constrained to squares.
 - Ellipse and Filled Ellipse vectors' black (orientation) nodes are constrained to 45-degree angles, and their red (shape) nodes are constrained to circles.
 - All Arrow vectors' black (endpoint) nodes are constrained to 45-degree angles. Their red (curve) nodes are constrained to lie on a straight line.
 - Zoom Frame vectors are *not* constrained to the story's aspect ratio.
- Holding the Shift key down while resizing a layer will keep the aspect ratio constant.
- Holding the Ctrl key down while manipulating a vector or moving a layer will snap the point you're dragging to the borders and corners of the frame. While dragging a layer's pivot point, the pivot point is snapped to the center of the layer.
- Holding the Alt key down while resizing a layer or a Zoom Frame will resize around the center point.

Function Keys

Кеу	Meaning
F1	Context-sensitive help if available; otherwise, Help > Search for Help On
F2	Play Movie
F3	Previous Layer
F4	Next Layer
F5	Edit Layer Externally
F6	Finish Editing Layer Externally
F7	Add New Section (of last-used type)
F8	Add New Frame
F9	Page Back
F10	Frame Back

- F11 Frame Forward
- F12 Page Forward
- Ctrl+F9 To Starting Frame
- Ctrl+F12 To Last Frame

Other Shortcuts

Кеу	Meaning
[Moves the heaviness slider to the left.
]	Moves the heaviness slider to the right.
E	Toggles the Eraser tool while drawing.
Ν	Selects the Pencil tool, if a drawing layer is selected.
Q	Selects the Quill Pen tool, if a drawing layer is selected.
R	In the Movie view and the Frame Animation view: Starts recording.
Т	Selects the Thin Pen tool, if a drawing layer is selected.
V	When a drawing layer is selected: Toggles the Move Layer tool.
	When a vector layer is selected: Toggles the Edit Vector tool.
Х	Toggles between the <u>foreground and background colors</u> for the current drawing tool.
Escape	When playing a movie or layer animation: Stops it.
	When the Movie view is active but not playing: Closes it.
	When the keyboard focus is not on the frame grid: Moves it there.
	When you're drawing a vector: Toggles back to the last-used drawing tool.
Enter	In the Frame Animation view: Starts playing from the start of the frame.
	When you're editing vector text: Inserts a new line.
	When you're drawing any other vector: Toggles back to the last-used drawing tool.
Space	In the Frame Animation view: Starts playing from the poster time.
Ctrl+=	Zoom In
Ctrl+-	Zoom Out
Ctrl+`	View Frame Animation

Ctrl+Alt+0	Zoom Actual Size
Ctrl+0	Zoom To Fit Frame
Ctrl+1	View Single Frame
Ctrl+F	Edit > Search And Replace
Ctrl+L	Lock Frame Position
Ctrl+W	New Layer
Ctrl+Z	<u>Undo</u>
Ctrl+Shift+Z, Ctrl+Y	Redo
Left, Right, Up, Down	Nudge the layer by one pixel when the <u>Move Layer</u> or <u>Edit</u> <u>Vector</u> tools are active.
Shift+Left, Shift+Right, Shift+Up, Shift+Down	Nudge the layer by 20 pixels when the <u>Move Layer</u> or <u>Edit</u> <u>Vector</u> tools are active.
Ctrl+Alt+Left	<u>View > Scroll Current Frame > Left</u>
Ctrl+Alt+Right	<u>View > Scroll Current Frame > Right</u>
Ctrl+Alt+Up	<u>View > Scroll Current Frame > To Center</u> (biases toward the left)
Ctrl+Alt+Down	<u>View > Scroll Current Frame > To Center</u> (biases toward the right)
Ctrl+Alt+R	In the Movie View: Toggles Record Sound
Shift+Ctrl+Alt +R	In the Movie View: Toggles Record Timing

Mouse & pen shortcuts

- If you are using a Wacom-compatible pen with an eraser button, you can flip it over to erase in bitmap layers. The Eraser tool is automatically selected, and the last tool you were using is re-selected when you switch back to the pen tip.
- Right-clicking on most parts of the program brings up a context menu of commands that operate on that object. Right-clicking in the frame adds a Select Layer command for each layer that has content at the point clicked.
- You can reorder and nest layers by dragging them in the Layers palette.
- Clicking the current frame number on the main tool bar pops up a menu of adjacent frames and sections, allowing you to jump quickly to a precise point in the story.
- Double-clicking a layer in the Layers palette brings up the Layer Properties dialog.
- Double-clicking the "frame handle" (the area immediately to the left of a frame, below the frame number) is a shortcut to View > Zoom to Fit Frame.
- Double-clicking a <u>Zoom Frame vector</u> reverses the direction of its arrows.
- Double-clicking a <u>time control</u> selects the nearest digit group.
- Triple-clicking a <u>time control</u> selects the entire content.
- Clicking in the Frame Animation timeline moves to that time in the frame's animation.
- Dragging a file from Windows Explorer into Springboard's main window opens that file.

The Tools Palette

All graphics tools are selected in the Tools palette:

The Move Layer tool	
The Edit Vector tool	
The natural-media tools	
The vector tools	т/[]]())///ДД

You can also <u>select drawing and erasing colors</u> using the swatches at the top of the Tools Palette.

The Swatch Box

Below the Tools palette is a sample of the current tool, called the swatch box:



The swatch is drawn with tool weight increasing from left to right. Weight is defined differently for each individual tool type; see the sections above to see how it applies to each of the natural-media and vector tools.

Below the swatch box is the Tool Weight Slider, which shows the current weight for the selected tool. You can change the tool weight either by dragging the slider knob left and right, or by clicking in the swatch, or with the [and] keys.

The Tool Weight Slider becomes the <u>Layer Opacity Slider</u> when the <u>Move Layer</u> tool is selected.

The Move Layer tool



The Move Layer tool lets you move, resize, rotate, and shear the current bitmap layer. It is not available for vector layers.

Drag inside the layer to move it:



Drag any of the handles to resize the layer:



Use Shift while resizing to constrain the aspect ratio and Alt to resize around the pivot point instead of from the opposite corner.

Drag outside the layer to rotate it around its pivot point:



When creating <u>animation</u>, it may matter whether a rotation is positive or negative - e.g., a half-turn clockwise vs. a half-turn counter-clockwise. Drag the layer in the direction you need; the angle is displayed in light blue next to the pivot point, with positive rotation counter-clockwise.

You can rotate a layer multiple times by simply using the handle to "wind it up." Multiple revolutions are displayed with an R for the count of complete revolutions, like " $1R + 25^{\circ}$ " for a full revolution plus 25°, or 385°. Use multiple revolutions to animate things like rolling balls or wheels.

By default, the pivot point is located at the center of the layer. Drag the pivot point indicator to move the pivot point:



The layer will then rotate and scale around the pivot point's new position:



Hold down Ctrl while dragging one of the side nodes to shear or skew the layer:



To return a layer to its default size and position, use the Reset Layer Position command.

The V key toggles between the Move Layer tool and the last-used drawing tool.

You can use the arrow keys to nudge the layer by one pixel. Holding down the Shift key while using the arrow keys nudges the layer by 20 pixels.

Changes made with the Move Layer tool take effect at the current frame's poster time. Use the Frame Animation View to change the poster time and create animated frames.

While the Move Layer tool is selected, the Tool Weight Slider becomes the Layer Opacity Slider.

Layer Opacity

While the <u>Move Layer</u> tool is selected, the <u>Tool Weight Slider</u> becomes the Layer Opacity Slider. This slider controls how opaque or transparent the current layer is.



When the slider is all the way to the right, the layer is fully opaque (the default). When it is all the way to the left, the layer is completely transparent, or invisible.

You can <u>animate</u> a layer's opacity to have it fade in during a frame.

If layers are <u>nested</u>, child layers are affected by changes in their parent's opacity. So, for example, nested layers can be faded in or out together.

The Edit Vector tool

The Edit Vector tool

lets you modify a vector that you've created with one of the vector tools.

While the Edit Vector tool is selected, you can drag the vector's nodes to change its shape. Each vector type has a different set of nodes that control its shape in different ways. For example, the following images shows the nodes of an arrow vector:



When the cursor is near a node, it shows the standard arrow cursor \overline{k} , indicating you can drag the node.

When the cursor is outside a node, it shows the drag cursor \bigoplus , indicating that dragging will move the entire vector.

While you're dragging a vector node, holding down the Shift key constrains the vector in an appropriate way. See each vector's section in <u>Vector tools</u> for more details.

The V key toggles between the Edit Vector tool and the last-used tool.

You can use the arrow keys to nudge the entire vector by one pixel. Holding down the Shift key while using the arrow keys nudges the vector by 20 pixels.

Natural-media tools

The natural-media tools simulate the following real-world drawing tools:

- Pencil; gets darker the harder you press
- Pencil eraser; erases a wider area the harder you press
- Steel nib or quill pen: gets larger the harder you press
- Fine-point marker or Rapidograph-style pen; always one pixel, doesn't vary with pressure.

If you're using a pressure-sensitive input device (like a tablet), simply press harder to get the changes described, and use the heaviness slider in the <u>Swatch Box</u> to adjust the pressure response.

If you are using a non-pressure sensitive device (like a mouse), you can use the heaviness slider to change the "pressure" for each drawing stroke.

As discussed in <u>Layer Colors</u>, you can change the color each tool uses, and you can erase with any of them. (The Eraser is the only tool that erases by default, but this can be changed as described in that section.)

You can only draw on bitmap layers with the natural-media tools. What you draw becomes part of the current bitmap layer as ink or graphite would go onto a piece of paper; to erase a mark you've made, you must use an erasing tool.

In the current version of Springboard, Edit > Undo undoes all drawing strokes made to the current layer since the tool was last changed.

Vector tools

When you draw with a vector tool, a new vector layer is created, <u>nested</u> under the current layer. Then the <u>Edit Vector</u> tool is selected automatically so you can modify the new vector.

If you want to draw another new vector of the same type, you can switch back to the same tool by pressing V, Escape, or Enter (except in the Text tool, which uses V and Enter to edit the text). You can also move back to the parent bitmap layer by pressing F3 (the shortcut to Layer > Previous).

Vector tools include:

- The Line tool
- The Text tool
- The Rectangle tools
- The Ellipse tools
- <u>The Arrow tool</u>
- <u>The Solid and Outlined Arrow tools</u>
- The Zoom Frame tool

Vector Tools

The Line tool

To create a Line vector, select the Line tool and drag from the first endpoint to the other endpoint:



The Line vector has handles at either end that move the endpoints independently.

Holding the Shift key down while dragging a line endpoint node constrains the line to 45-degree angles.

Like all vectors, you can also drag outside a Line vector while editing it to move the entire vector.

The Text tool

To create a Text vector, select the Text tool and click in the frame. A baseline (drawn in light blue) is created for the first line of the first paragraph. You can then type text, and edit it with the usual mouse gestures and keyboard keys:



The handles at the ends of the baseline move the endpoints independently, just like the Line tool:

Text here

Holding the Shift key down while dragging a baseline end node constrains the baseline to 45-degree angles.

The Text Properties box appears while you're editing a Text vector:

Text Properties 🛛 🔀				
<u>F</u> ont:	🖻 Arial	•		
<u>S</u> ize:	14 🚺			
<u>B</u> old				
🔄 Įtalic				
SMALL CAPS				
Alignment				
●⊑	eft <u>C</u> enter <u>R</u> ight			

Changes you make in the Text Properties box affect the current vector immediately.

The settings used for a new Text vector are copied from the last-edited Text vector. So, to make a new Text vector like an existing one, select the existing layer, select the Edit Vector tool, and then select the Text tool and click to create the new vector.

The cursor you see when the Text tool is selected reflects the last-used Alignment setting:

Left Alignment - the baseline will extend to the right of where you click.

Lenter Alignment - the baseline will be centered where you click.

 $\mathbf{T}_{\mathbf{r}}$. Right Alignment - the baseline will extend to the left of where you click.

If the last-used Alignment is not what you want for the new Text vector, create the vector and then change its Alignment using the Text Style dialog.

The Rectangle tools

To create a Rectangle or Filled Rectangle vector, select the tool and drag from the upper-left corner to the lower-right corner.

Drag from here...



Rectangle and Filled Rectangle vectors have handles at the upper left and lower right that move these corners.

Holding the Shift key down while dragging a rectangle constrains it to a square.

Rectangles are always drawn parallel to the edges of their parent layer.

The Ellipse tools

To create an Ellipse or Filled Ellipse vector, select the tool and drag from the center of the ellipse or circle to the widest radius:



An Ellipse's center is marked with a pair of light blue center lines. The gray node in the center moves the circle (just as dragging outside the entire vector does); the other gray "orientation" node sets the radius, and the red "shape" node sets the "minor radius" for the ellipse.

If the red node is never moved, the Ellipse will be a perfect circle.

Holding the Shift key down while dragging a gray orientation node constrains the ellipse to 45-degree angles.

Holding the Shift key down while dragging a red shape node constrains the vector to a circle.

The Arrow tool

To create an Arrow vector, select the Arrow tool and drag from the back of the arrow to the tip of the arrowhead:



The Arrow's nodes are:



Holding the Shift key down while dragging a gray endpoint node constrains the arrow to 45-degree angles.

The Solid and Outlined Arrow tools

To create a Solid or Outlined Arrow vector, select the tool and drag from the back of the arrow to the tip of the arrowhead:



The nodes are the same for both the Solid and Outlined arrow types:



Holding the Shift key down while dragging a gray endpoint node constrains the arrow to 45-degree angles.

Holding the Shift key down while dragging a red curvature node constrains the arrow to a straight line.

The fill lines are drawn automatically in the Outlined Arrow; there are no controls for them.

The Zoom Frame tool

To create a Zoom Frame vector, select the Zoom Frame tool and drag from the upper-left corner of the inner zoom rectangle to the lower-right corner of the inner zoom rectangle:



The Zoom Frame tool creates two rectangles, and joins their corners with arrows. The outer zoom rectangle is initially created outside the overall frame border, but you can shrink it by dragging inside its corners or move it by dragging its center point (the center blue handle).

The blue handles are drawn at the corners and center of the "from" rectangle, and the red handles are drawn at the corners and center of the "to" rectangle.

The arrows are automatically drawn so that they don't intersect any of the rectangles' lines; there are no controls for them. Here are some examples of different ways the arrows can appear:



You can reverse the direction of the arrows by double-clicking anywhere, or by checking the Reverse Direction box in the <u>Zoom Frame Properties</u> dialog. This also reverses the colors of the handles, so that the blue handles are always on the "from" rectangle.

Automatic Zoom

By default, Zoom Frames under the Camera layer are interpreted as camera movements in animatics. This is called *Automatic Zoom*, though it can also be used for other camera moves, such as pans. A blue dot is drawn over any Zoom Frame that will be automatically animated:



Zoom Frame is not under Camera - not animated



Zoom Frame is under Camera and will be animated

You can control the timing of the animated zoom frame with the Animation controls in the Zoom Frame Properties dialog.

Sizing and snapping

The aspect ratio of a Zoom Frame rectangle is constrained by default to that of the story. (This is set by the Default frame size in the <u>Story Properties dialog</u>.)

Holding the Shift key down while resizing allows you to change the aspect ratio, and displays the resulting aspect ratio while you drag.

Holding the Control key down while dragging a node snaps it to other points in the frame and snaps the aspect ratio to the story's default. You may get best results by using Shift whenever you use Control.

Holding the Alt key down while resizing resizes around the center instead of the opposite corner.

Multiple Zoom Frames

You can use multiple Zoom Frame vectors in a single frame to assemble more complex camera movements from single moves. This is particularly useful in combination with <u>Automatic Zoom</u>.

When you make a second Zoom Frame under a Camera layer, it is placed above the first in the <u>Layers palette</u>, as usual with vectors. The first (lower) vector comes first in time order, followed by the second (higher) vector. The vectors' icons are also changed to indicate this order:



The Zoom Frames are also linked so that the "to" rectangle in the first Zoom Frame (the one with red node boxes) and the "from" rectangle in the second Zoom Frame (the one with blue node boxes) move together:



Editing the first Zoom Frame (pan right)



Editing the second Zoom Frame (zoom in)



Moved the "from" (blue) rectangle in the second Zoom Frame; the first Zoom Frame is linked.

If you reverse the order of the Zoom Frames with the <u>Zoom Frame Properties</u> dialog or by double-clicking while editing one of them, the reversed order is shown in the Layers palette:



Note that Zoom Frames in other layers than the one designated in the <u>Camera tab</u> of the <u>Preferences dialog</u> are not linked, do not have the blue markers in the Layers palette, and are not used for Automatic Zoom.

Views

Storyboard View

The Storyboard View is the default view when a new file is created. It gives you an overview of the frames in your storyboard, and allows you to draw in storyboard frames while looking at the adjacent frames.

Use the Zoom commands (View > Zoom In, Zoom Out, and Zoom Actual Size) to control how many frames you view at once.

You can "focus in" on a single frame by switching to Single Frame View.

You can move around in the story in several ways:

- by clicking on frames
- with the Go menu commands, or their tool buttons or keyboard shortcuts
- by clicking the large frame number on the right end of the tool bar
- by dragging the slider at the top of the view
- by selecting a frame in the <u>Story Tree</u>.

The <u>View > Scroll Current Frame</u> and <u>View > Lock Frame Position</u> commands can help you see the context you want around the current frame.

The Storyboard View has one text box at its bottom called the frame text box. Text that you type here is associated with the current frame. It will appear with the frame when the story is printed. You can use this text for dialogue, action description, or any other kind of notes associated with the frame.

Single Frame View

The Single Frame View replaces the grid of frames in the storyboard frame view with a view of the current frame only. This can be useful if you need more room outside the frame to grab handles or to start drawing strokes.

You can also use it simply to reduce visual clutter, so you can concentrate on one frame at a time.

You can enter Single Frame View with the <u>View > Single Frame</u> command, by double-clicking a frame handle in the <u>Storyboard View</u>, with the <u>View > Zoom to Fit Frame</u> command, or by clicking on the view's tab. Pressing Esc returns to Storyboard View.

The View > Scroll Current Frame and View > Lock Frame Position commands

Frame Animation View



The Frame Animation View lets you animate layers within an individual frame.

You can open the Frame Animation View with the $\underline{\text{View} > \text{Frame Animation}}$ command, or by opening the splitter bar above it [1].

The Frame Animation View contains a property tree [2] that shows the animated properties of the current layer in the current frame. The two animated properties currently available are the transform, which controls the layer's size, rotation, and position, and the layer <u>opacity</u>.

To the right of the property tree is a timeline [3] that shows keys where the animated properties have been set. The value of a property is fixed at its keys; between the keys, the property is interpolated - it varies smoothly and automatically from one key to the next.

You can move around in the timeline by clicking in it, or by dragging the timeline slider [4] above it. The current time is called the poster time. The poster time is the time at which a frame is rendered for use in all static displays, such as printing, exporting to sequential image files, or in the story grid when the Frame Animation View is hidden. In the <u>Movie View</u> and when exporting to <u>AVI</u>, the full frame animation is shown.

Note: In the unregistered version of Springboard, only animation in the first frame is visible in the Movie View and when exporting to AVI. Subsequent frames are rendered at their start time.

The poster time's value is displayed on the main tool bar, between the zoom percent and the frame number.

You can make a new key by moving to a time with no key, then pressing the Add Key + button in the tool bar [5] at the top of the view. Or, you can simply change the key's value - e.g., by moving a layer with the <u>Move Layer</u> tool or changing its opacity with the Layer Opacity slider.

You can delete a key by clicking it, then pressing the Delete Key button \mathbf{X} , or by right-clicking

it and choosing Delete Key from the context menu. Clicking the Delete Key button while no keys are selected deletes all keys at the current time.

You can move keys left or right by dragging them.

You can play the frame's animation in real time using the Play And Stop Buttons in the tool bar. If you play through the end of the frame, the poster time is reset to its position when you started playing. If you press Stop before the frame is finished playing, the poster time is set to the time at which you pressed Stop. The Spacebar is the shortcut key for Play and Stop.

You can play the frame from beginning to end with the Play From Start $\stackrel{\bullet}{\rightarrow}$ button in the tool bar. When the end of the frame is reached, the poster time is reset to its position when you started playing. The Enter key is the shortcut for Play From Start.

If the Render Transitions button in the tool bar is highlighted (the default), transitions between the previous and following frames will be rendered normally. Clicking the Render Transitions button toggles this behavior. Transitions will always be rendered in the <u>Movie View</u> and in <u>Export Windows AVI</u>, whether or not Render Transitions is highlighted.

Recording layer animation

You can use the Frame Animation view to record animation interactively. As you make changes to a layer, Springboard can record your changes in real time as keys, so you can play back your animation just as you recorded it. This is a very quick way to make simple layer animation.

Currently, you can record layer transformations (position, rotation, and scale) using the <u>Move</u> <u>Layer</u> tool, and opacity using the <u>Layer Opacity</u> slider.

To record layer animation:

- 1. Open the Frame Animation View, and set the poster time where you want to begin recording.
- 2. Select the layer you want to animate in the Layers palette.
- 3. Select the Move Layer tool.
- 4. Press the Record button or press the R key. The Record button will turn red and stay

- 5. Either drag the layer, its handles, or the <u>Layer Opacity</u> slider to animate the layer.
- 6. When you start dragging, all keys in the appropriate property will be deleted from the poster time to the end of the frame.
- 7. Recording will stop when you release the mouse.

Your changes will be recorded and saved in keys for the appropriate property.

If you drag the mouse for longer than the current frame duration, the frame is extended to include your entire drag.

To animate a layer with changes in more than one transformation component, you must record the most difficult part first, then make the remaining key changes one at a time. For example, if you want a layer to dance around and grow bigger at the same time, record the dancing motion first, then go to the end of the frame and scale the layer up.

This restriction doesn't apply to opacity - opacity and transformations are fully independent, and both can be recorded independently.

Movie View



The Movie View lets you play your story in real time, as an animatic.

You can open the Movie View with the <u>View > Movie View</u> command, or with <u>Go > Play</u>, which also starts the movie playing from the current frame.

You can play the movie in real-time, pause, and move around by frame with the transport buttons at the bottom of the frame, which have their usual meanings.

You can drag the slider left and right to move quickly through the story. Any sound in the story "scrubs," or plays in short loops, as you drag.

The current time point is displayed in the lower right. You can go to a particular point in time by double-clicking on the time, editing it, and pressing the Tab key.

Recording frame timing

You can use the Movie view to record frame durations interactively. As you watch your movie play, you can tell Springboard when to transition between frames. Springboard will time your keystrokes and note down the duration of each frame and transition, so that when you play or export your movie again, the timing will match.

To record frame timing:

- 1. Ensure the Movie View is open, and set to the frame where you want to begin. (The timing for frames before this one will be left as they are.)
- 2. Press the Record button or press the R key. The Record button will turn red and stay

pressed in <u>e</u> and the time will begin to advance.

3. Press the Frame Forward button is or the Right Arrow key when you want the frame to

advance. Release the button or key quickly.

4. To stop recording, press the Stop button or the Escape key. Recording will also stop when you advance past the last frame.

Your timing will be recorded and saved in the frame durations.

Transitions you record in this way will be "cuts" - the frames will not overlap.

Smooth frame transitions

You can also record smooth "fade" transitions between two frames, so two consecutive frames overlap in time.

To fade between two frames:

Hold down the Right Arrow key or Frame Forward button if for the duration of the transition; let the key up when the transition should be complete.

You must hold down the key or button for at least 0.3 seconds in order to record a fade transition. If you release it quickly, the transition will be recorded as a cut.

You can fine-tune both frame durations and frame overlap by editing the values directly for each frame in the Frame Properties dialog.

Advanced controls

The Show More button 🞽 in the Movie View's tool bar reveals the advanced controls:

- Press the Lock button to keep the current frame in the main story view synchronized with the current frame in the Movie view. When the Movie View plays or when you use its transport buttons, the main story view will move along in sync. This can make it easier to anticipate timing, because you can read dialogue, direction, or other frame text, and you can look ahead to the next frame.
- If Lock is *not* down, the Rewind On Stop button controls whether the Movie View will go back to the main story's current frame when playback stops. This can be useful if you want to play the same sequence repeatedly.
- The Border Color button sets the color that surrounds the movie frame (which can help you to see your movie without anything distracting around it).
- The Matte Color button sets the color used for fade-outs and around the borders of frames that don't have the default aspect ratio.
- The Zoom buttons 1/2 x1 x2 x4 set the magnification for the movie view. They have no effect on the main view, or on the size of the exported movie.
- The Record Timing and Record Sound buttons volume toggle these two types of recording.

Recording Sound

To record narration along with frame timing, set up your microphone as described in Working

with sound, and ensure the Record Sound button *National is down.* Then follow the instructions above under Recording frame timing, while speaking into the microphone. When you stop recording, sound clips will be created and inserted into the Story Tree.

If you begin recording with a frame selected in the Story Tree, new sound clips will be attached to each frame played as you record. If you begin recording with a section selected in the Story Tree, a single sound clip will be attached to that section.

To record sound without changing existing frame timing, ensure the Record Sound button is

down and the Record Timing button ⁽¹⁾ is up. Frames will play and transition at their normal rate, and your recorded sound will be placed in sound clips as above.

Existing sound clips play during recording if Record Timing is off. If Record Timing is on, sound clips that are attached to the story root are played normally; sound clips attached to frames are played when those frames are triggered, but will have their beginnings cut off due to the

If neither Record Timing nor Record Sound is on, the Record button 💻 is disabled.

Commands

Menu index

This section lists the commands grouped by their location on the main menu.

File

- File > New
- File > Open
- File > Save
- File > Save As
- <u>File > Save Numbered Backup</u>
- File > Move
- File > Edit Story Structure
- File > Print
- File > Import Image
- File > Import Sound
- File > Export To > Windows AVI
- File > Export To > HTML
- File > Export To > Sequential Bitmap
- File > Export To > Sequential GIF
- File > Export To > Sequential JPEG
- File > Export To > Sequential Targa
- File > Export Again
- File > Close
- File > Revert
- File > (most-recently-used files)
- File > Exit

Edit

• Edit > Undo

- Edit > Redo
- Edit > Clear Undo Information
- Edit > Cut
- Edit > Copy
- Edit > Paste
- Edit > Delete
- Edit > Add New Frame
- Edit > Add New Section
- Edit > Split Out/Unify
- Edit > Split Every
- Edit > Unify Every
- Edit > Edit Sound Externally
- Edit > Split And Edit
- Edit > Search And Replace
- Edit > Preferences

Go

- Go > To Starting Frame
- Go > Page Back
- Go > Frame Back
- Go > Frame Forward
- Go > Page Forward
- Go > To Last Frame
- <u>Go > Play</u>

Image

- Image > Image Size
- Image > Canvas Size
- Image > Set Background Color
- <u>Image > Mirror Horizontally</u>
- I mage > Clear

Layer

- Layer > Previous
- Layer > Next
- Layer > New
- Layer > Duplicate
- Layer > Properties
- Layer > Reset Position
- Layer > Bake Position
- Layer > Mirror Horizontally
- Layer > Scale to Fit Frame
- Layer > Convert to Full Color/Spot Color
- <u>Layer > Merge Down</u>
- Layer > Merge Contained Layers
- Layer > Deflate to Fit Content
- Layer > Inflate to Fit Frame
- <u>Layer > Reset Transparency</u>
- Layer > Matte-In Transparency
- Layer > Matte-Out Color
- Layer > Clear
- Layer > Edit Externally
- Layer > Finish Editing Externally

View

- View > Zoom In
- View > Zoom Out
- View > Zoom Actual Size
- View > Zoom To Fit Frame
- <u>View > Single Frame</u>
- <u>View > Frame Animation</u>
- <u>View > Scroll Current Frame > Left/Right/To Center</u>
- <u>View > Lock Frame Position</u>

- View > Tool Palettes On > Left / Right
- <u>View > Movie View</u>
- <u>View > Story Tree/Properties View</u>

Add New Frame

Edit > Add New Frame inserts a new frame after the current one.

To insert a frame *before* the first frame of the file, use Add New Frame and then drag the new frame above the first frame in the Story Tree.

The default frame size is 320 x 240 pixels; you can change this in the Story Properties dialog.

Bake Layer Position

Layer > Bake Position keeps the current contents of a layer where they are, but normalizes the layer's scale and position so it is neither rotated nor scaled. It also fits the border of the layer around its contents, like Layer > Deflate To Fit Content.

This is particularly useful to reduce the resolution of a layer's image. If you import a very large image, say 4000 x 3000 pixels, into a 640 x 480 frame, Springboard will scale it down. It will look fine, but the extra pixels don't contribute to the appearance and may consume a lot of space in your file. Springboard saves the extra information because you want to enlarge the layer later to see more detail. But, if you don't need to enlarge the layer, you can Bake it to resample it at the frame resolution and save space.

You can also use Bake to *increase* resolution, if you've enlarged a very small image. It will smooth out the large pixels, which may improve the layer's appearance. And, it will give you more pixels to work with if you're drawing over it, either in Springboard or in an external editor.
Clear Undo Information

The <u>Undo and Redo</u> commands store data that is used to undo and redo the effects of other actions. This data takes up memory, and the longer you use Springboard, the more memory it takes up.

If you see symptoms that you are running out of memory - e.g., the computer is running slowly, or Windows shows a message saying it has increased the size of its virtual memory pool, or Task Manager or another tool says the Springboard program is using more memory than your computer has - you can use Edit > Clear Undo Information to discard all that data and free up memory.

After clearing the undo information, you can no longer undo the actions you've done. New actions you take will continue to be added to the undo list normally.

Convert Layer

This command converts a bitmap layer between <u>spot-color and full-color modes</u>. Its full name matches the current layer type.

Layer > Convert to Full Color converts a spot-color layer to full-color. The resulting layer is filled with the spot color, and is opaque where the spot-color layer was drawn on and transparent where it was blank.

If you want to convert a spot-color to a full-color layer that's entirely opaque, that goes from the frame background color to the spot color instead of from transparent to opaque, follow this command with Layer > Matte In Transparency.

Layer > Convert to Gray Spot Color converts a full-color layer to a gray spot-color layer. The resulting layer is transparent wherever the full-color layer was white or transparent, and opaque black wherever the full-color layer was dark.

Deflate Layer To Fit Content

Layer > Deflate to Fit Content discards the transparent areas of a drawing layer and shrinks down its border so it only includes a rectangular region around what's been drawn. Use it to reduce the layer for easier resizing and rotation.

Note that only areas that are 100% transparent are trimmed away from the layer. So, if the layer's border appears to enclose empty space, there may be pixels that appear transparent but are just slightly opaque. Running over the edges with the Eraser tool again may help ensure that the areas you intend to erase are completely transparent.

Duplicate Layer

Layer > Duplicate duplicates the current layer's contents onto a new <u>local layer</u>. The original layer still exists with the same contents, and you can edit both layers separately.

Edit Layer Externally

The Layer > Edit Externally command saves the current bitmap layer to a file, then opens that file in the external graphics editing program of your choice. The current frame is then locked from modification until you do Layer > Finish Editing Externally.

To specify the external editor to use, the mechanism used to start it up, and the type of file used to open the layer in the external graphic editor, see the <u>Edit I mages</u> tab of the <u>Edit ></u> <u>Preferences</u> dialog.

See also: Using an external graphics editor

Edit Sound Externally

Edit Sound Externally opens the currently-selected sound clip in your preferred external editor.

It's only enabled if the current selection in the Story Tree is a sound clip that is already split. If it's a sound clip that is unified (not split), the <u>Split And Edit</u> command is enabled instead.

If you haven't saved the file since the sound was split, you will be prompted to do so. This ensures that the split file will exist.

The split file is then loaded in the external editor. Once it's open, you can edit it in the external editor. After you save it, the new saved version will automatically be used when you return to the Springboard file.

See also Using an external sound editor.

Export To

Use the File > Export To commands to export to a series of numbered GIF, JPEG, Targa, or BMP files, to an <u>HTML page</u>, to a Wave audio file, or to a <u>Windows AVI file</u>.

Finish Editing Layer Externally

After you have done <u>Layer > Edit Externally</u> on a layer, the frame that contains that layer is locked for changes and updates automatically whenever you switch back to Springboard from the external editor.

To finish editing externally, do Layer > Finish Editing Externally. This reloads the temporary file that you were editing externally, deletes it, and unlocks the frame.

You must finish all external editing operations before closing a file.

Import Image

File > I mport I mage lets you select one or more graphic image files and bring them into the Springboard story file.

Supported import formats include Windows Bitmap (BMP), Encapsulated PostScript (EPS), GIF, JPEG, Photoshop (PSD), PNG, Targa (TGA), TIFF, Windows Metafile (WMF), and Enhanced Metafile (EMF). Alpha channels are supported in BMP, Photoshop, PNG, Targa, TIFF, and Metafiles; a single level of transparency is supported in GIF files.

You can select the files to import in the usual file-selection dialog.

Springboard then shows you the files in a list:

🖾 Import Images 📃 🗆 🔀		
Image files (drag to reorder):		
C:\TJW\My Pictures\Stewart_Park_02.jpg C:\TJW\My Pictures\Stewart_Park_03.jpg C:\TJW\My Pictures\Stewart_Park_04.jpg		
Import images as new: 		
OK Cancel		

The files are in alphabetic order by default, but you may drag them up or down to reorder them.

You may also choose one of the radio buttons below the list to determine how the new images will be inserted:

- Layers the images are placed as new consecutive layers in the current frame, and each new layer is named after its source file
- Frames, in Base layers a new frame is created for each image, the images are placed in the new frames' Base layers, and the Base layers for those frames are converted to color if necessary
- Frames, in new layers... a new frame is created for each image, the images are placed in new layers in those frames, and each new layer is named after its source file.

When you press OK, Springboard checks the size of the input files. If some are larger than the frame size, it presents the Reduce I mported I mages dialog:

Reduce Imported Images		
All of your images are much larger than the frame size.		
You can choose whether to resample them, scale them, or leave them at their current size.		
The original image files will not be modified by any of these choices.		
Import <u>Full-Size</u> The frames will be enlarged to fit the images.		
Shrink the images, but allow rescaling later.		
Besample Shrink images and save memory.		
Cancel		

Resample is generally the right choice for background images; it discards the resolution that is not needed to display the image at the frame size. But, you can choose Scale To Frame to keep the full resolution internally if you plan to enlarge or crop the imported images later, or I mport Full-Size if you want to import frames or layers at the full size of the image files.

Images are imported as <u>full-color layers</u>. Once imported, you can optionally convert them to <u>spot-color layers</u> with the <u>Image > Convert</u> command.

If you chose Scale to Frame, you can later restore the imported layers to their original scale with <u>Layer > Reset Position</u>.

Import Sound

File > I mport Sound lets you select a sound file and copy its contents into the Springboard story file as a sound clip.

Supported import formats include only Windows WAVE files containing uncompressed PCM data. The next version of Springboard should support compressed formats as well.

You can select the file to import in the usual Windows file-selection dialog. You can press the black triangle button 🕨 to play the selected sound file.

Imported files are placed under the currently-selected element in the Story Tree.

See also Working with sound.

Inflate Layer To Fit Frame

Layer > Inflate to Fit Frame adds transparent regions around the edges of the current drawing layer to expand it to fill the entire frame.

Use this command if you have a layer that's been <u>deflated</u>, scaled down, or <u>imported from an</u> <u>external file</u>, and you want to draw new content on that layer in an area outside the layer's current border.

Lock Frame Position

When View > Lock Frame Position is checked, Springboard will try to keep whichever frame is currently selected in the same place in the frame grid.

For example, if your screen looks like this, with frame 1c selected in the lower left:



Selecting View > Lock Frame Position and then Go > Frame Forward will scroll the window so frame 1d appears in the lower left:



You might want to use this command in situations like these:

- You're drawing a storyboard in sequence, one frame at a time. In this case, lock the current frame in the last spot in the grid, so you can see everything that came before it as you draw.
- You're evaluating the flow of your story, and you want to make notes about shot durations or transitions while seeing as much context as possible for the current frame. In this case, lock the current frame in the center of the grid (perhaps with <u>View > Scroll Current Frame ></u> <u>To Center</u>).
- You're recording audio narration in the <u>Movie View</u>, and you want to see what's coming next to help time your delivery.

Lock Frame Position is automatically turned off when you change frames with the mouse, and when you close a file.

Using the View > Scroll Current Frame commands while Lock Frame Position is active leaves the frame position locked, but changes it as indicated by the Scroll command.

Make Fill Layer

Layer > Make Fill Layer creates a new spot-color layer whose color is the same as the current frame's background, and inserts that layer as the parent of the current layer (which we will call the "outline layer" here).

It then attempts to make the fill layer opaque only under the outline layer's content. It does this using a "flood fill" of transparency, starting from the upper-left corner of the frame and stopping when it hits content in the outline layer.

It then <u>deflates</u> the fill layer, so it's easier to grab and move.

All three of these actions - inserting the new layer, auto-filling, and deflating - are undoable.

See Fill Layers for why you'd want this command and how to use it.

Make Fill Layer is only enabled when the current layer is a local bitmap layer.

Matte In Layer Transparency

Layer > Matte In Transparency works similarly to <u>Layer > Reset Transparency</u>, in that it also makes an entire <u>full-color layer</u> opaque. But, it tries to preserve the current appearance of the layer, by essentially painting the transparent areas with the frame's background color.

This is particularly useful when you've drawn with the drawing tools on a color layer (or you've converted a spot-color layer to a full-color layer), and you want to start working with transparency.

Merge Contained Layers

Layer > Merge Contained Layers works like <u>Layer > Merge Layer Down</u>, but combines all layers nested under the selected layer into the selected layer itself.

If you're sure an entire subtree of layers is positioned in the right place, this saves memory and file space, and also simplifies your layer set.

Merge Layer Down

Layer > Merge Down "stamps" the content of a layer down to the layer below it and discards the old layer.

If you're sure a layer is positioned in the right place, this saves memory and file space, and also simplifies your layer set.

Move File

Use File > Move to rename a file or move it to a new folder.

This command works just like File > Save As, but it removes the original file after successful completion.

It also moves the split folder correctly, if any.

Print

The File > Print command lets you lay out your storyboard as you wish, shows a preview of how it will look when printed, and lets you select a printer, change its settings, and print. You can also load print settings from other files you've made.

[More information to come.]

Play Movie

Go > Play shows the <u>Movie View</u>, and begins playback from the current frame.

Reset Layer Position

Layer > Reset Position undoes any adjustment that's been done to a layer's position, whether through the Move Layer tool or other layer commands.

It returns drawing layers to their full resolution (1:1 scale), undoes any rotation, and moves them to the upper-left corner of the frame.

If a layer is nested under another layer, its scale, position, and rotation will be reset to the same as its parent layer's, which may not be aligned with the frame.

Reset Transparency

Layer > Reset Transparency makes a <u>full-color layer</u> completely opaque, by revealing all areas of it that have been made transparent. It effectively undoes any erasing you've done with the Eraser tool.

Save Numbered Backup

Use File > Save Numbered Backup to make a backup of your file in the same folder.

For instance, if your file is called "myfile.sbd", this command will save a copy of the file in "myfile_1.sbd". The next time you save a backup, it will be called "myfile_2.sbd", etc.

You can delete older backups whenever you wish, and newer ones will still continue following the highest-numbered backup file that remains in the same folder as your main file.

Scale Layer To Fit Frame

Layer > Scale To Fit Frame reduces or enlarges the current bitmap layer so it will fit in the current frame.

The current aspect ratio and rotation of the layer is preserved, so if the frame's aspect ratio is different, the layer will only be resized until it fills the frame in one dimension.

To make a layer exactly fill the frame:

1. Do Layer > Reset Position.

2. Do Layer > Scale To Fit Frame.

3. Holding the Ctrl key down, drag the corners of the layer until they snap to the corners of the frame.

Scroll Current Frame

The View > Scroll Current Frame commands scroll the story grid so that the current frame stays selected, but moves to a different cell in the grid. You can use them to control which frames you can see on either side of the current frame.

For example, start with the storyboard shown here:



Scroll Current Frame > Left moves the current frame to the left in the grid, by moving forward in the story:



Scroll Current Frame > Right moves the current frame to the right in the grid, by moving backward in the story:



If either of these commands can't scroll the current frame any farther in the indicated direction, it will move to the next frame in that direction.

Scroll Current Frame > To Center puts the current frame in the center of the grid:



If frames vary widely in size, Scroll Current Frame > To Center may not choose the exact center position. If the grid contains an even number of frames, the current frame will move to the position to the right of the center.

Split And Edit

The Split And Edit command lets you split a selected sound clip, and then edit it externally, in a single step.

It is otherwise identical to selecting <u>Split Out</u> on the sound clip and then <u>Edit Sound</u> <u>Externally</u>.

See also Using an external sound editor.

Split Every

Edit > Split Every splits out every object in the file that are the same type as the current selection.

For instance, if you click on a Shot in the Story Tree:

Story Tre	e:
i 🖸 🙀	• đ
001	Fransformativa
. Ė⊷ 6	🗅 Act I: Via Positiva
(🗄 🛅 Chapter I.i: Receiving the
	🗄 🛅 Scene 1: Awakening
	🚊 💼 Scene 2: Travel to the
	🕀 🗂 Shot 8
	🖨 🗂 Shot 9
	Frame 9
	🗄 🖻 📩 🛄
	🗄 🖻 🛅 Shot 11
	🗄 🗂 Shot 12

the Edit menu item now reads "Split Every Shot." If you now choose Edit > Split Every Shot, all Shots in the story are split:

Story Tree:
ha 💆 - 🗗
🖃 🗇 Transformativa
🚊 🗂 Act I: Via Positiva
🚊 💼 Chapter Li: Receiving the
🗄 💼 Scene 1: Awakening
🚊 💼 Scene 2: Travel to th
🕀 🗂 🗄 🕀 🕀
🖨 🗂 Shot 9
Frame 9
🗄 🗂 🗂 Shot 10
🗄 🗂 🗂 Shot 11
🗄 🗂 🛗 Shot 12

Split Every has no effect on objects that are already split out.

The new split files are not actually saved until the next File > Save.

The reverse of Split Every is Unify Every.

This command also appears on the Story Tree's context menu.

Split Out/Unify

Edit > Split Out makes the currently-selected frame or section into a split file.

This command is a toggle; when the currently-selected item is already split, it's labeled Unify and stores the current selection in the master file.

Split files are not actually saved or removed until the next File > Save.

This command also appears as a button $\stackrel{\mbox{d}}{=}$ on the Story Tree's tool bar and in the Story Tree's context menu.

Undo and Redo

Edit > Undo reverses the last change made to the story.

Edit > Redo restores the last change undone. When you make a new change, Redo is no longer available.

Undo and Redo are currently available for:

- Individual strokes made with one of the <u>Natural-media tools</u>.
- Deleting objects from the Story Tree and the Layers Palette.
- Pasting all kinds of object from the clipboard.
- Dragging objects in the Story Tree and Layers Palette, and changing layer visibility in the Layers Palette.
- Changes made to objects in all of the Properties dialogs.
- Add Key and Delete Key commands in the Frame Animation View.
- Dragging keys in the timeline in the Frame Animation View.
- Changes made with the Move Layer tool, including recording.
- Changes to layer opacity, including recording.
- All Image menu commands.
- These Layer menu commands: New, Duplicate, Properties, <u>Reset Position</u>, Mirror Horizontally, <u>Scale To Fit Frame</u>, <u>Convert Layer</u>, <u>Merge Down</u>, <u>Merge Contained</u> <u>Layers</u>, <u>Deflate to Fit Content</u>, <u>Inflate to Fit Frame</u>, <u>Make Fill Layer</u>, Clear.
- <u>Frame property</u> changes duration, overlap, and Animate Camera.
- Changes to frame text, including those made with Search And Replace.
- Changes to text vector text, including those made by pasting.
- <u>Splitting</u> and unifying objects.
- Importing and recording <u>sounds</u>.
- Recording frame timing.

When you make a change that is not yet undo-able, Undo is no longer available. That is, you can only undo the most recent changes that are undo-able.

Saving the information required to undo all your changes requires memory. If Springboard uses up too much memory on undo information, you may want to <u>Clear Undo Information</u>.

The shortcut key for Undo is Ctrl+Z. The shortcuts for Redo are Ctrl+Shift+Z and Ctrl+Y.

Unify Every

Edit > Unify Every is the reverse of $\underline{Edit} > \underline{Split} \underline{Every}$ - it unifies all sections or frames that are the same type as the current selection.

It has no effect on objects that are not split out.

The split files are not actually removed until the next File > Save.

This command also appears on the Story Tree's context menu.

View Frame Animation

View > Frame Animation switches to the <u>Frame Animation View</u>.

The tool button for View > Frame Animation is:

Its shortcut is Ctrl+`. You can exit back to the Single Frame View by pressing Esc.

View Movie View

View > Movie View turns the <u>Movie View</u> on or off.

View Single Frame

View > Single Frame activates <u>Single Frame View</u>.

Its shortcut is Ctrl+1, or double-clicking the "frame handle" at the left of a frame. You can return to the <u>Storyboard View</u> by pressing Esc.

View Story Tree/Properties View

View > Story Tree/Properties View shows or hides the <u>Story Tree</u>, as well as the Properties dialog below it.
Dialogs

Export Windows AVI

File > Export To > Windows AVI shows the standard Export To dialog to find a file name, followed by the Export Windows AVI Options dialog:

Export Window	s AVI Options 🛛 🔯
Export to file:	C:\Copy\test.avi
Frames: Fr <u>o</u> m	1 v to 26 v All ⊆urrent
Frame ra <u>t</u> e:	24 v fps Default Rate
Resizing	Video Options
Resize to	fit in: 320 x 240 (4:3)
	Match current frame
	Use <u>s</u> mooth resampling (better, slower) <u>P</u> ad with white to the identical aspect ratio
Color reductio	n
<u>R</u> educe o	colors to: 256 colors (optimized)
Error	-diffusion <u>d</u> ither (better, often larger)
-Timecode bur	n-in
🔄 <u>B</u> urn time	code into frame
Opacity:	· · · · · · · · · · · · · · · · · · ·
<mark>. ⊡</mark> pen whe	en done
	Export Close

You can change the Frame rate to use for the exported movie with the drop-down box, or revert to the story's default frame rate with the Default Rate button.

The Video Options button brings up the Windows standard Video Compression dialog, letting you choose from all the video compressors available on your computer and customize their options. Springboard tries to select a compressor and compression settings that will work well for you, but for optimum results you may need to experiment.

You can use the standard Resizing options to create an AVI file with a different size than your story's default size. An AVI file must have a single consistent size throughout, so if your frames are different sizes, these settings will control how they are fit into the AVI file's frame size.

You may need to select the Color reduction options to work properly with your chosen video

compressor. Using no color reduction is usually appropriate; if color reduction is required by a compressor, Springboard attempts to turn it on automatically, but you may need to experiment.

You can select the Timecode burn-in options to show the current story time in the lower right corner of every frame of the AVI file. The Opacity slider adjusts the transparency of the gray rectangle behind the timecode.

Sound clips in your story will automatically be mixed down into the output AVI file.

If you check Open when done, the AVI file will be opened and played in the default movie player registered on your computer.

Export HTML

File > Export To > HTML shows the standard Export To dialog to find a file name, followed by the Export HTML Options dialog:

Export HTML O	ptions
Export to file:	C:\Copy\test.html
Frames: Fr <u>o</u> m	1 v 10 26 v All Current
Template:	One tall page
Resizing	
🔄 Resize to	fit in: 320 x 240 (4:3)
	Match current frame
	Jse <u>s</u> mooth resampling (better, slower)
	ad with white to the identical aspect ratio
-Color reduction	n (for GIF only)
✓ <u>R</u> educe c	olors to: 256 colors (optimized)
🗹 Error	diffusion <u>d</u> ither (better, often larger)
-Compression (for JPEG only)
<u>Q</u> uality:	9: Excellent quality, medium size 🛛 💌
	Compress to <u>G</u> rayscale Pr <u>og</u> ressive
🗹 Open in d	efault <u>b</u> rowser when done
	Export Close

The Export to file box shows the folder and name for the main file; other files will be created in the same folder, as needed.

Choose a template from the list provided to determine how your Web page will look. Notes on customizing these templates and creating new ones are in the text file Templates\Template Format.txt, in the Springboard install directory.

The HTML title is taken from the story title set in the <u>Story Properties dialog</u>. It defaults to the file name.

You can use the standard Resizing options to resize all your frames to a given target size. If you do not check the Resize to fit in box, all frames will be saved at their current resolution.

Color reduction settings are used where the template uses GIF files. You can decrease the colors further than the default to save space.

JPEG compression settings are used where the template uses JPEG files. You can decrease the quality setting to save space.

If you check Open in default browser when done, the HTML file will be opened in the default Web browser registered on your computer.

Export To

The File > Export To menu lets you export to a number of sequential file formats, including Windows Bitmap (BMP), JPEG, GIF, and Targa.

(more details to come)

Export Again

If you've exported using one of the File > Export commands once already with a given story file, you can use File > Export Again to export to the same file type, over the same file name, with the same settings.

Preferences Dialog

The Preferences dialog contains tabs for various collections of preferences that affect the entire program.

These settings affect all files edited in the current user account of the current computer. They are not saved in files, so they will typically have different values if a Springboard file is opened by another user on a different account or computer.

All changes in all tabs take effect when the OK button is pressed, and Cancel reverts all changes in any tab.

Preference	s			×
Edit Images	Edit Sounds Disp	lay Units	Camera	

Tabs include:

- Edit Images
- Edit Sounds
- <u>Display</u>
- <u>Units</u>
- <u>Camera</u>

Preferences - Edit I mages tab



The Edit Images tab of the <u>Preferences dialog</u> contains settings that relate to editing graphics in another graphics editor, like Photoshop, Corel Draw, etc. See "<u>Using an external graphics editor</u>" for an overview of this process.

You can test these settings with the Test button. If a file is open in Springboard, the current frame will be sent to the external editor; if no frame image is available, a sample image is sent.

Run which external editor

The "Run which external image editor" box specifies how Springboard should find the external editor. Most graphics editors register themselves with Windows as the default editor for the file types they support. Windows has two built-in ways an application can register itself to handle a given file type: Open and Edit. These work the same, but typically the Open verb is used for applications that are mainly quick viewers, and Edit is used by applications that can modify a file.

So, normally, your external graphics editor should register itself with Windows under the Edit verb, and Springboard will work correctly without any changes in this dialog box.

If it does not work correctly - if you get an error message, or if the image loads in the wrong program - you can try the other verb (Open vs. Edit), or you can choose "With this command line:" and click the button at the right of the edit box to browse for the program you want to run. This should work with most graphic editors; unusual ones may also require extra symbols on this line called "command line arguments." This information should be provided in the documentation for your external program.

Format for external files

The "Format for external files" box specifies which graphics file format Springboard should use to send the image to the external program.

Any image editor should support the Windows Bitmap format. If your external editor opens the file in a strange way - for instance, if it discards transparency information - you may want to try the Truevision Targa format instead; if your external editor supports it, it may be more reliable.

Sample settings

Here are some settings that have been tested with various external editors:

Photoshop: "Edit" and "Targa" produce good results, with a default Photoshop installation.

Windows Paint: "Edit" and "Windows Bitmap" work with most Windows installations, assuming no other application has redefined the Edit verb.

(If you have settings that work with another editor, please send them to Six Mile Creek Systems for inclusion in this page, at support@6sys.com.)

See also: <u>Using an external graphics editor</u>

Preferences - Edit Sounds tab

Preference	es				×
Edit Images	Edit Sounds	Display Uni	ts Car	nera	
-Run which	n external sound	d editor:			
🔵 🔿 The de	fault <u>O</u> pen app	lication			
🔵 The de	fault <u>E</u> dit applic	ation			
💿 With th	iis <u>c</u> ommand lin	e:			
"C:M	Program Files\G	oldWave\Gold	fWave.e	xe''	æ
<u>I</u> est		0	ĸ	Car	ncel

The Edit Sounds tab of the Preferences dialog contains settings that relate to editing sounds in a dedicated sound editor, like Audacity, Goldwave, Audition/Cool Edit, Soundbooth, etc. See "<u>Using</u> an external sound editor" for an overview of this process.

You can test these settings with the Test button. A sample sound is sent to the external editor.

Run which external editor

The "Run which external sound editor" box specifies how Springboard should find the external editor. Most sound editors register themselves with Windows as the default editor for the file types they support. Windows has two built-in ways an application can register itself to handle a given file type: Open and Edit. These work the same, but typically the Open verb is used for applications that are mainly quick viewers, and Edit is used by applications that can modify a file.

So, normally, your external sound editor should register itself with Windows under the Edit verb, and Springboard will work correctly without any changes in this dialog box.

If it does not work correctly - if you get an error message, or if the sound loads in the wrong program - you can try the other verb (Open vs. Edit), or you can choose "With this command line:" and click the button at the right of the edit box to browse for the program you want to run. This should work with most sound editors; unusual ones may also require extra symbols on this line called "command line arguments." This information should be provided in the documentation for your external program.

Preferences - Display tab



The Display tab of the <u>Preferences dialog</u> sets options relating to the overall display of storyboards.

Check the "Use smooth resizing..." check box to get a smoother appearance when the storyboard grid is zoomed in closer than 100% using the View > Zoom commands. This can slow down your computer, so leave it unchecked if your computer seems too slow while zoomed in.

The "Font for frame text" box lets you choose the font and point size used for text in the Frame Text box. The Sample box shows what the text will look like.

This font is also used for printing, by default, but can be overridden in the Fonts tab of the Print dialog.

Preferences - Units tab

Preferences				×
Edit Images Edit Sounds	Display	Units	Camera	
Length				
linches				
O <u>c</u> entimeters				
	_			
		OK		Cancel

The Units tab of the <u>Preferences dialog</u> sets the units you wish to use throughout Springboard. These units are used to display values in the Page tab of the Print dialog.

Preferences - Camera tab

Preference	łs	, ou	iononononononono	iononononononono	×
Edit Images	Edit Sounds	Display	Units	Camera	
Camera ar	imation				
Manima	ite the camera	to follow 2	Zoom Fra	me vector:	s
Follov	v Zoom Frame	vectors in	the laye	r <u>n</u> amed:	
	Camera		~		
<mark>.</mark> <u>E</u> nabl	e automatic ca	imera mov	es for ne	w frames	
			OK		Cancel

The Camera tab of the Preferences dialog controls Automatic Zoom.

The Animate... check box turns Automatic Zoom on or off globally.

The Follow... drop-down box below it lets you change the name of the layer whose <u>Zoom Frame</u> vectors should be used for Automatic Zoom. For example, if you use a layer called "Kamera" instead of "Camera," type "Kamera" in this box to activate Automatic Zoom for that layer.

(It's probably easiest to use a <u>global layer</u> as the camera layer, but it's not required. Only global layers are listed in the drop-down list, but you can type any name you like.)

The Enable... check box setting determines whether newly-created frames have their Animate camera check box set in <u>Frame Properties</u> - that is, whether Automatic Zoom is enabled for individual new frames. This is set by default.

Story Properties

The Story Properties dialog shows the properties that apply to the entire story.

To view Story Properties:

- 1. If the <u>Story Tree</u> is not already visible, do <u>View > Story Tree/Properties View</u>.
- 2. Click on the top element in the story tree, with the open book icon $^{\diamondsuit}$.

The Story Properties dialog then appears below the Story Tree.

Story Properties:		
Title:	EarlyBird	
Frame rate:	24 🔽 fps	
Duration:	00:00:17:00	
Default fra	ime size	
320 x 240 (4:3) 💉		
Match current		

The Story Properties dialog contains:

- The story's title. This is the name of the file by default, but you can change it. The title is used by the default HTML export templates and is also used by default in printing.
- The story's frame rate. This is the number of frames per second used when exporting to AVI (video). It also determines how times are displayed in the Frame Properties dialog and in the Movie View.
- The story's duration. This is the total length of time contained by all the story's contents.
- The default frame size for new frames. This is the width and height, in pixels, of new frames created with Edit > Add New Frame. (The size of an individual frame can also be changed after they're created with <u>Change I mage Size</u> or <u>Change Canvas Size</u>.)

The Match current button sets the default frame size to match the current frame.

The "..." button next to Match current opens the Custom Size Dialog so you can enter a frame size that doesn't appear in the list.

Frame Properties

The Frame Properties dialog shows the properties that apply to an individual frame of the storyboard.

To view Frame Properties:

- 1. If the <u>Story Tree</u> is not already visible, do <u>View > Story Tree/Properties View</u>.
- 2. Select the frame whose properties you want to view. You can select the frame in the story grid, with the Go menu commands, or by clicking its node in the Story Tree.

The Frame Properties dialog then appears below the Story Tree.

Frame Properties:		
Title:	Climb out	
Start:	00:00:27:11	
Duration:	00:00:03:15 🚺	
Overlap:	00:00:01:10 🚺	
End:	00:00:31:02 🚺	
🗹 Animate camera		

The Frame Properties dialog contains:

- The frame's Title. This appears in the Story Tree to help identify the clip. You can also optionally include with the frame number when printing storyboards.
- The frame's Start time. This is the duration of all the preceding frames.
- The frame's Duration how long it will last on screen, including any Overlap.
- The duration of the Overlap between this frame and the next frame.
- The frame's End time. This is the time at which the frame has completely passed, including any Overlap.
- The Animate camera check box, which controls camera animation for this frame. If this box is checked, <u>Automatic Zoom</u> is performed for <u>Zoom Frame</u> vectors within this frame's camera frame (as set in the <u>Preferences dialog</u> <u>Camera tab</u>).

All times are shown in time controls.

To change a frame's duration:

Do one of the following:

- Change the Duration value to the desired duration.
- Change the End time to the time point at which you'd like the frame to end.
- Record the duration interactively in the Movie View.

Frame durations default to 3 seconds per frame.

Overlapping transitions

To indicate a transition between two frames other than a straight cut, set the Overlap property of the first frame. The following frame will then start fading in before the current frame ends. If there is no following frame, the Overlap is the length of the fade-to-black applied to the end of this frame.

You can set the Overlap duration manually, by editing the Overlap control, or you can record transitions interactively in the <u>Movie View</u>.

Zoom Frame Properties

The Zoom Frame Properties shows the properties of the currently-selected Zoom Frame vector:

Zoom Fram	e Properties	
<u> ∏</u> <u>R</u> everse	direction	
-Animation:		
<u>S</u> tart:	00:00:01:12	🕺 🔽 Auto
Duration:	00:00:01:12	🔨 🔽 Auto
<u>E</u> nd:	00:00:03:00	14
Ea <u>s</u> e:	In And Out	•

This dialog is shown automatically when a Zoom Frame vector layer is selected.

Reverse direction

Checking or clearing the Reverse direction check box reverses the direction of the zoom arrows. This is described in more detail under <u>The Zoom Frame tool</u>.

Double-clicking in the frame has the same effect as clicking the Reverse direction box.

Animation timing

The Start, Duration, and End time controls determine when the Zoom Frame will be animated, if <u>Automatic Zoom</u> is enabled. The Start and End times are story times (relative to the beginning of the story). Setting the Duration changes the End time, and vice versa.

By default, the Auto check boxes are set for both Start and Duration/End. This means that the timing for this Zoom Frame is set automatically: it starts animating at the beginning of the frame and animates to the end of the frame. If there are multiple Zoom Frames in the frame, the frame duration is divided evenly among them.

Changing the Start, Duration, or End time clears the corresponding Auto check box, and "pins down" or "fixes" the corresponding time. A Zoom Frame with a fixed Start time looks like this:

Zoom Fram	e Properties 🛛 🔯
<u> ∏</u> <u>R</u> everse	direction
-Animation:	
<u>S</u> tart:	00:00:02:00 🏂 🗆 Auto
Duration:	00:00:01:00 🏂 🔽 A <u>u</u> to
<u>E</u> nd:	00:00:03:00 🍾
Ea <u>s</u> e:	In And Out 💌

Automatic times adjust when new Zoom Frames are added to the frame; fixed times do not. Fixed times are adjusted, however, if the frame that contains the Zoom Frame is moved in time - e.g., if additional frames are inserted or deleted before it. Checking the Auto box resets the corresponding time to its automatic value.

Ease

The Ease property controls how the Zoom Frame animates between its "from" rectangle and its "to" rectangle. The possible values and their meanings are:

- In And Out: The animation starts and ends slowly, and moves more quickly in the middle. This is the default for new Zoom Frames.
- Ease In: The animation starts slowly, speeds up, and stops abruptly.
- Ease Out: The animation starts abruptly, then slows down at the end.
- None: The animation starts and stops abruptly, and moves at a constant speed. This is the default for Zoom Frames that were created in Springboard version 0.70 and before.

In general, In And Out is most useful when you have a single Zoom Frame in a frame, because it gives a clear start and end to the camera move. If you have a continuous sequence of Zoom Frames, you may want to use Ease In on the first and Ease Out on the last, and None on the rest (if there are more than two). You may also use None if you want an abrupt effect; for instance, to insert a reaction shot during a continuous pan.

Sound Clip Properties

The Sound Clip Properties dialog shows the properties that apply to the currently-selected sound clip. See also Working with sound.

To view Sound Clip Properties:

- 1. If the Story Tree is not already visible, do <u>View > Story Tree/Properties View</u>.
- 2. In the Story Tree, click the sound clip whose properties you want to view.

The Sound Clip Properties dialog then appears below the Story Tree.



The Sound Clip Properties dialog contains:

- The clip's Title. This appears in the Story Tree to help identify the clip.
- The clip's Offset. This is added to the Start time of the story element that contains the sound clip to determine the clip's Start time. You can edit this to start a sound clip later than its parent story element.
- The clip's Start time. This is the time from the start of the story when the sound will start playing.
- The clip's Duration how long it will play. Clips will continue to play if they overlap into subsequent frames. They will stop playing, however, at the end of the last frame of the file (even if their Duration extends further).
- A Volume slider. Drag this slider to the left to make the clip quieter, and right to make it louder. The default volume (10) means to leave the sound as it was imported or recorded, with no change in volume. While you hold the mouse down, the clip plays, along with other clips that are at the same time in the story.
- A Mute check box. Checking this box will silence a clip it will produce no sound, either in the Movie View or in export. This is not an animatable control, and it silences the clip no matter what the Volume setting is.
- A Play button. Clicking this button plays the sound clip once, by itself. If you hold it down until the sound has finished, the sound will loop until you click the button again.

All times are shown in time controls.

If the sound clip is stored in a split file, and the split file is damaged or missing, the Duration edit box will be pink, and it will contain a message describing the problem.

To adjust the time when a sound plays:

Do one of the following:

- Move it to an earlier or later parent element.
- Change the Offset to a larger value, to start it later in time.

Negative Offsets will be supported in a future version of Springboard.

Time Controls

In various places in Springboard, time is expressed in time controls. They look like this:

00:00:04:07 🚺

If a time control is unchangeable - for display only - it is grayed out, like this:

00:00:29:15

Time format

Time is always expressed in digit groups like this:

hours: minutes: seconds: frames

The *frames* number uses the story's frame rate setting, which you can change in the <u>Story</u> <u>Properties</u> dialog.

Editing in time controls

You can change the value of a time control in a number of ways:

• You can select the contents of the control and type over it, like other text controls. Some examples of how the value you enter will be interpreted:

12	12 frames
12.	12 seconds
12.5	12.5 seconds
12:5	12 seconds + 5 frames
12:	12 seconds
12:0:0	12 minutes
12::	12 minutes

- To select a digit group, double-click it. To select the entire value, triple-click.
- Click the up and down arrows at the right of the control to increase or decrease the digit group at the left of the selection, or at the cursor.
- Press the Up and Down arrow keys to increase or decrease the current digit group.
- If the entire text is selected, the up/down buttons and keys affect the seconds.

Set Background Color

Use the I mage > Set Background Color command to bring up the Set Background Color dialog.

Use this dialog to change the color that appears below all other layers (it's white by default).

For convenience when you want to draw in white on black, select the "Invert..." check box to invert any black or white spot-color layers in the affected frames.

Mirror Frames

Use the Image > Mirror Horizontally command to bring up the Mirror Frames dialog.

Use this dialog to reverse a single image or a range of images left-to-right, as it would look in a mirror. This can help you explore different options for frame composition and sequencing.

Change I mage Size

Use the I mage > I mage Size command to bring up the Change I mage Size dialog.

This dialog lets you enlarge or reduce a frame or a group of frames. The image contents are resized as well.

To leave the image contents the same size while you change the frame size, use $\underline{\text{Image}} > \underline{\text{Canvas Size}}$ instead.

Change Canvas Size

Use the I mage > Canvas Size command to bring up the Change Canvas Size dialog.

This dialog lets you enlarge or reduce the drawing area for a particular frame without changing the size of what you've already drawn. You can fasten down a corner of the existing image with the Anchor buttons, and the new space will be added on the sides opposite the anchor.

To squash or stretch the image contents while you change the frame size, use $\underline{Image > Image}$ Size instead.

Index



Add New Frame 71 Animating the camera 25 Automatic Zoom 28

- B -

Bake Layer Position 72

- C -

Change Canvas Size 133 Change Image Size 132 Clear Undo Information 73 Convert Layer 74 Copyright and legal information 6 Customizing Springboard 37

- D -

Deflate Layer To Fit Content 75 Drawing layers: Overview 8 Duplicate Layer 76

- E -

Edit Layer Externally 77 Edit Sound Externally 78 Export Again 114 Export HTML 111 Export To 113, 79 Export Windows AVI 109

- F -

Fill layers 21 Finish Editing Layer Externally 80 Frame Animation View 61 Frame Properties 123

- | -

Import Image 81 Import Sound 83 Inflate Layer To Fit Frame 84 Introduction 5



Keyboard shortcuts 38



Layer colors 19 Layer Opacity 46 Local and global layers 12 Lock Frame Position 85

- M -

Make Fill Layer 87 Matte In Layer Transparency 88 Menu index 67 Merge Contained Layers 89 Merge Layer Down 90 Mirror Frames 131 Mouse & pen shortcuts 41 Move File 91 Movie View 64

- N -

Natural-media tools 48 Nested layers 15

- P -

Play Movie 93 Preferences - Camera tab 121 Preferences - Display tab 119 Preferences - Edit Images tab 116 Preferences - Edit Sounds tab 118 Preferences - Units tab 120 Preferences Dialog 115 Print 92

- Q -

Quick Start 7

- R -

Recording 64 Reset Layer Position 94 Reset Layer Transparency 95



Save Numbered Backup 96 Scale Layer To Fit Frame 97 Scroll Current Frame 98 Set Background Color 130 Single Frame View 60 Sound Clip Properties 127 sound clips 64 Split And Edit 100 Split Every 101 Split Out/Unify 102 Story Properties 122 Storyboard View 59

The Arrow tool 54 The Edit Vector tool 47 The Ellipse tools 53 The Layers Palette 10 The Line tool 50 The Move Layer tool 43 The Rectangle tools 52 The Solid and Outlined Arrow tools 55 The Story Tree 24 The Text tool 51 The Tools Palette 42 The Zoom Frame tool 56 Time Controls 129

- U -

Undo and Redo 103 Unify Every 104 Using an external graphics editor 30 Using an external sound editor 33

- V -

Vector tools 49 View Frame Animation 105 View Movie View 106 View Single Frame 107 View Story Tree/Properties View 108



Working with large files 34 Working with sound 31 Working with split files 35



Zoom Frame Properties 125