

Quick Start Guide

GRiNS Pro Editor for SMIL 2.0

Windows-98/2000/XP

March, 2002



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GRiNS Pro Editor for SMIL 2.0 *Quick Start Guide* for Windows-98/2000/XP. March, 2002.

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Important Notices

This document is the GRiNS Pro Editor for SMIL 2.0 *Quick Start Guide*. All of the information presented in this publication has been verified, but incremental product updates may impact part of this guide.

This version of the GRiNS Pro Editor for SMIL 2.0 *Quick Start Guide* has been produced for use as an off-line reference. Images and page layout have been optimized for printing on a 600-dpi (or greater) laser printer. For best reproducibility, the use of a color printer is recommended, although every effort has been made to make illustrations readable on other printers as well. If you wish to use it as an on-line reference via a PDF reader, we recommend that you increase the level of display magnification when viewing images.

The images used in this publication were taken from the GRiNS Pro Editor for SMIL 2.0, version 2.2 as implemented for Windows 2000 and XP. While the look of other versions of GRiNS are slightly different because of adherence to common conventions on those other environments, the functionality described is similar for all versions of GRiNS. In order to reduce document size, only images from the Windows version have been included in this document.

We welcome your questions on GRiNS Pro Editor for SMIL 2.0 and comments on this documentation. Please submit all questions and comments to our support desk at grins-support@oratrix.com. We maintain a list server dedicated to sharing experiences among GRiNS Pro Editor for SMIL 2.0 users. See the on-line release notes that come with the software distribution for details of this listserver. Finally, if you wish to submit your own SMIL files as examples for other users, please send a request for submission to: grins-examples@oratrix.com.

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GRiNS Pro Editor for SMIL 2.0 Distribution Roadmap

Congratulations on selecting the GRiNS Pro Editor for SMIL 2.0 (GRiNS/Pro) for creating SMIL 2.0 presentations. GRiNS/Pro lets you harness the full power of the most common SMIL 2.0 players in an easy and intuitive manner.

Distribution Package Contents

The GRiNS/Pro distribution package consists of the following components:

- GRiNS Pro Editor for SMIL 2.0 *Quick Start Guide*: an overview of the installation instructions for GRiNS and a tour of the basics of the GRiNS Environment. (This is this guide.)
- GRiNS Pro Editor for SMIL 2.0 *Reference Manual*: a comprehensive description of the GRiNS/Pro features and options;
- GRiNS Pro Editor for SMIL 2.0 *Template Guide*: a quick and easy description of the standard GRiNS/Pro template set that gets you started making RealOne, IE-6.0 and 3GPP/Mobile presentations;
- GRiNS Pro Editor for SMIL 2.0 *HowTo Guides*: a set of step-by-step instructions for creating a wide range of RealONE, IE-6.0 and 3GPP/Mobile presentations.
- *Templates*: a set of templates used in GRiNS/Pro, which you may use to build your own presentations;
- *GRiNS-Icons*: a directory containing Icons used by GRiNS/Pro;
- *GRiNS-Demos*: a directory containing several short GRiNS demonstrators; and
- *Software*: depending on the distribution you downloaded, a GRiNS distribution for Windows-95/98/2000/XP or other platform.

Look for Updated Documentation

The documentation and demonstration presentation set for **GRiNS** will be expanded to describe and illustrate more **GRiNS** features. The most up-to-date

versions of all of our manuals and demonstrators are available via the documents link at <http://www.oratrix.com/GRiNS/Pro and GRiNS/RealOne>

GRiNS is available in several configurations: a *Pro* edition, intended for users who want full control over authoring and publishing to many popular SMIL-2.0 engines (such as the RealNetworks RealOne player, the XHTML+SMIL implementation in Microsoft's InternetExplorer 6.0, and 3GPP/Mobile SMIL for wireless devices), and dedicated editions for particular streaming players (such as GRiNS/RealOne). Unless otherwise marked, all other features discussed in this Guide are available in both GRiNS/RealOne and GRiNS/Pro. (See section 6 for a full feature comparison.)

If you purchased GRiNS/RealOne and would like to upgrade to GRiNS/Pro, please visit the GRiNS/RealOne upgrade page at:

<http://www.oratrix.com/>

Note that your original license number will be required for a product upgrade to GRiNS/Pro.

GRiNS/Pro Quick Start Guide

The GRiNS/Pro *Quick Start Guide* will help you get started making SMIL presentations for the RealOne Player. It is divided into six sections:

1. *Introduction to GRiNS and GRiNS/Pro*: a description of the GRiNS architecture and a discussion on how you can protect your authoring investment by using the GRiNS approach to presentation design and maintenance. This section also contains information required to install GRiNS/Pro onto your system and what to expect when you load an existing RealPlayer presentation in the GRiNS/Pro Editor.
2. *Bird's-Eye View of GRiNS*: a quick tour of the basics of the GRiNS/Pro environment. Spending thirty minutes here will get you ready to create and edit complex presentations without ever having to type a single line of SMIL code.
3. *Using GRiNS/Pro*: a simple tutorial that gets your fingers and mind working in GRiNS compatible mode.
4. *GRiNS Edition Comparison Information*: an overview of the differences in functionality offered in the various editions of GRiNS.

5. *GRiNS Editor Quick Reference*: an overview of the data types supported by the GRiNS/Pro environment and other useful reference information for getting started with the GRiNS/Pro Editor.
6. *Where Next?*: a set of pointers to GRiNS/Pro resources and other hints to help you on your way to creating presentations for the RealOne Player.

Each of the sections has been written to be relatively stand-alone, but we suggest that you read them all to get a good overview of the system.

Introduction to GRiNS and GRiNS/Pro

GRiNS/Pro is an authoring environment for creating, editing and maintaining streaming media documents for the RealOne player and for other SMIL 2.0 compliant players, such as IE-6 and 3GPP. GRiNS/Pro allows you to take source materials such as audio, video, image and text *assets*, and integrate them into a presentation that can be distributed via the Web. GRiNS/Pro is one product in a range of tools that help you create compelling presentations for Web-based multimedia — for more details on the GRiNS product family, see <http://www.oratrix.com/>.

Fundamental to GRiNS/Pro is that the complex task of presentation authoring is partitioned so that you have the freedom required to build and manage presentations easily. At the “assets-end,” you can work with the media assets, management tools and editors that best meet the requirements of the task at hand. At the “presentation end,” GRiNS allows presentations to be published and uploaded to a streaming server of your choice.

The GRiNS/Pro environment has native support for the W3C SMIL-2.0 language. This means that you can open and edit existing presentations, whether or not they were made with GRiNS. This gives you an advantage by reducing your development time: you can update earlier versions of presentations made by others (even if they were made for RealPlayer 8), or you can create new presentations directly with GRiNS/Pro.

Version 2.2 of GRiNS/Pro

GRiNS/Pro has been designed to help you produce compelling productions that are targeted directly to the RealOne player. This gives you access to the millions of users who have SMIL 2.0-compatible players installed on their systems.

Key Features of Version 2.2 of GRiNS/Pro

GRiNS/Pro has been based on the feedback we have received from the thousands of GRiNS users world-wide. The key features of this release are:

- integrated *Preview Player* that lets you evaluate your presentation as you create it, before you publish to RealOne, InternetExplorer or 3GPP/Mobile;
- integrated *bandwidth simulation* for multiple levels of network performance to show if your presentation will 'fit thru the pipe';
- presentation authoring using the GRiNS/Pro *structured timeline, layout* and *hyperlink* editing views;
- simplified link use with RealOne's *context* and *browser* windows for presentations targetted to the RealOne player;
- *drag and drop* editing, using both source assets and pre-converted RealMedia files (allowing you to fine-tune asset conversion with RealProducer — or any other conversion tool — before placing it in your production);
- support for SMIL's <switch>, allowing you to build *adaptive presentations* that can optimize your production to the available bandwidth;
- the ability to *open previously created SMIL files*, even those created with Real's Slideshow, TAG Composer, or a text editor;
- support for *interaction* via the Exclusive groups;
- support for inserting *transitions* into a presentation on all types of media;
- support for embedded *animations* on objects;
- support for *layout hierarchies*
- support for *template-based editing* (both presentation and assets templates);
- an embedded source code viewer and editor (editing in GRiNS/Pro only);
and
- easy upload to a RealSystem RealServer for hosting your presentation.

The basis of GRiNS/Pro is the unique GRiNS *Structured Timeline View*: you create logical presentations that can be easily edited and updated without having to worry about coding detailed timing interactions among or within objects.

Installing GRiNS/Pro

The instructions for installing GRiNS depend on the platform that you use. This section reviews the general instructions. See the release notes shipped with the GRiNS software for the latest details on installing GRiNS.

NOTE:

1. The first time you execute GRiNS/Pro, you must provide your GRiNS License Key. Instructions for using this key are provided when the key is issued.

Installing GRiNS/Pro on Windows 98/2000/XP systems

To install GRiNS/Pro for Windows, download and execute the file you obtained at time of purchase. This program will install GRiNS/Pro and related files in the location you give during the installation process. (Note that the name of the executable may vary slightly depending on how you purchased GRiNS.)

When complete, the GRiNS/Pro icon will be added to your desktop. The default location for starting GRiNS/Pro is:

`c:\Program Files\Oratrix\GRiNS_SV2\GRiNS_SV2.exe.`

NOTES:

1. While Administrative privileges are not required to install GRiNS/Pro, some systems may restrict your access to shared disks or certain directories. Contact your local administrator if you have problems.
2. You can remove all of the GRiNS/Pro Components via the 'Add/Remove Programs' program in the control panel or via the Uninstall tools provided with the distribution. Administrative rights are typically required to uninstall GRiNS/Pro.
3. The GRiNS/Pro components have been architected to be as nonintrusive as possible, but care should always be taken when removing or replacing system files.
4. In the Windows release, the file extensions *.smi* and *.smil* are claimed by Real. GRiNS/Pro places its local information in a file with the *.grins* extension.
5. As part of the Windows installation process, all of your file systems are checked for earlier installations of a GRiNS product; this allow user information and recently edited files to be made available in the new installation. On certain systems, this may take upto two minutes.

Checking for updated GRiNS/Pro software

Once GRiNS/Pro has been installed on your system, you may select the **Check for GRiNS update** option in the **Help** menu to see if updated versions are available.

The GRiNS/Pro Work Flow

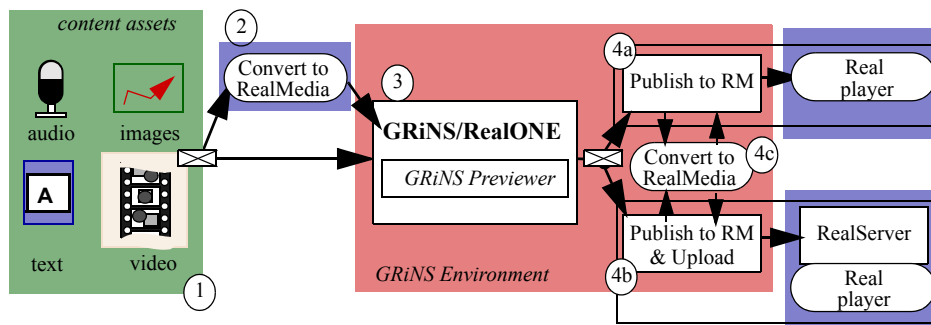
Creating compelling streaming media presentations is a complex task. The challenges that must be addressed are:

- creating or selecting appropriate media objects for the presentation
- structuring the presentation to convey the message you want
- defining a presentation that 'fits' through the network connection available to the viewer of your presentation

Designing presentations for the Web presents you with both opportunities and problems. The basic opportunity is that you can reach a world-wide audience with your message. The basic problem is that the world is a non-standard place. People speak different languages, people use different computers, people have access to the Web via connections of varying speeds.

GRiNS/Pro helps you manage the complexity of the Web by giving you control over the essential parts of your presentation. Want to quickly get out Version 1? No problem: the GRiNS/Pro template-based approach lets you get started in seconds. Want to make new versions that are tailored to specific groups of users, or to specific architectures or to users with high- or low-bitrate connections? Again, no problem: GRiNS/Pro gives you the freedom to edit, update and maintain your presentations, and to target as many specific groups as you like.

The following illustration gives you an overview of the steps in the GRiNS/Pro workflow. (Note: this illustration is geared to RealOne media flow, but is valid for other SMIL 2.0 player and server products as well.)



1. Creating content is perhaps the most challenging part of making a compelling presentation. You should keep in mind that the Web is not TV: the Web is a delivery vehicle that can vary widely in performance, while TV is a predictable delivery vehicle that 'looks good' in spite of supporting relatively low bandwidth audio and video information. In a similar vein, be careful with image data and with text: create or select each datatype carefully, keeping your intended audience, their equipment and their patience in mind. GRiNS/Pro allows you to use nearly all popular audio, video and image formats available, including AIFF, AVI, BMP, GIF, JPEG, MPEG-1&2, MP3 and PNG.
2. An optional second step in the process is the encoding of your media assets into one of RealNetworks' RealMedia formats, such as RealAudio, RealText, RealVideo or RealPix. You can also choose to have GRiNS/Pro do the conversion for you, but you can sometimes exercise more control over the coding of your data by using a separate tool, such as Real's RealProducerPro. GRiNS/Pro allows you to insert both converted and unconverted objects into your presentation. (Note: playback of RealMedia is only available on RealOne systems.)
3. Once your media objects have been selected, GRiNS/Pro's unique structure-based approach allows you to combine, edit and maintain your presentations in a flexible and easy manner. We look at this process in detail in section 3.

GRiNS/Pro allows you to open existing presentations for editing, whether or not initially created with GRiNS/Pro. GRiNS/Pro also allows you to preview your presentation incrementally, while creating it, using the GRiNS/Pro Preview Engine.

4. Once your presentation is made, you can publish it for use with the RealOne player or, with GRiNS/Pro, to other SMIL 2.0 systems (such as IE-6.0 and 3GPP/Mobile). You can do this in two ways:
 - (a) publish for presentation on your local computer. Using this option allows you to playback the entire presentation using the RealOne (or IE-6/3GPP) player;
 - (b) publish and upload your presentation to a remote server. You can upload the main presentation and the associated data objects to one server and send the HTML page announcing your presentation to another location. When publishing to RealOne, GRiNS/Pro will convert any objects to RealMedia equivalents for you (labelled 4c in our diagram), unless you already did this conversion directly in Step 2.

Using GRiNS/Pro, you can create complex presentations from scratch, or from one of the GRiNS/Pro templates. You can also open any existing SMIL presentation, whether created by GRiNS/Pro, another SMIL-compatible authoring tool or a simple text editor.

Building Presentations with GRiNS/Pro

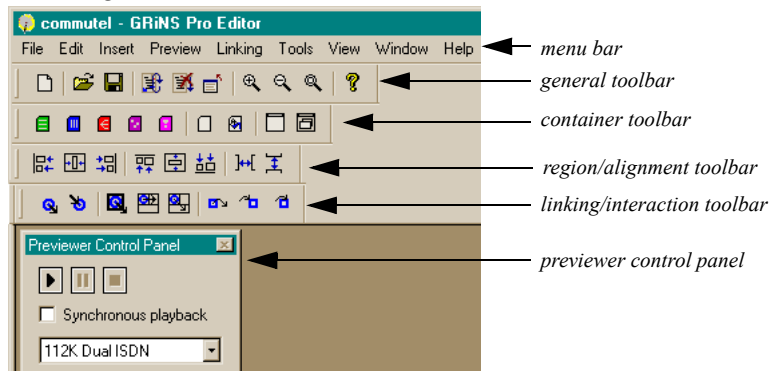
This Guide will provide a quick tutorial that will help you get started with either the Pro or Real edition of GRiNS.

If you would like us to showcase your work, please send a message to grins-examples@oratrix.com.

A Bird's-Eye View of GRiNS/Pro

The Menu/Toolbar Structure

The following menu and toolbars are available with the GRiNS/Pro Editor:



The toolbars can be *docked* or *undocked*; you can also hide them using the View->Toolbars menu.

Pull-Down Menus

The pull-down menus contain functions that allow you to easily create and preview presentations for a SMIL 2.0 compliant player:

- The File pull-down menu allows standard file open/save/close operations. It also lets you publish your documents to RealOne and (optionally) upload them to a RealServer, or publish your presentation to XHTML+SMIL (IE-6), 3GPP/Mobile or any other SMIL 2.0 player (GRiNS/Pro only). You can also set document properties via this menu.
- The Edit pull-down menu contains standard cut/copy/paste/delete operations. It also lets you access the **property tabs** for a selected node. If you have a content editing program installed for the datatype of the node (such as *Adobe Photoshop* for images), you can edit the content directly with that program via the Edit Content button. (Individual content editors are not delivered or installed with GRiNS/Pro.)

- The Insert menu lets you insert new nodes into your presentation (both structure and data nodes), and lets you wrap new structure nodes around existing ones.
- The Preview pull-down menu allows you to Start, Stop and Pause the current presentation. You can preview the entire presentation, a sub-part or a single object (either a media item or a content group).
- The Linking menu allows you to create anchors and links within your presentation, so that you can jump to them from elsewhere in the presentation or define conditional activation based on user interaction. GRiNS/Pro provides simplified anchoring and linking support to meet common needs.
- The Tools menu lets you perform utility tasks. These include checking bandwidth usage, converting existing RealPix objects to their SMIL 2.0 equivalents, and performing specialty tasks.
- The View menu lets you manage the complexity of the display in the various GRiNS views. It also lets you visualize the bandwidth constraints of your presentation and it lets you see which objects will get played at the current simulation settings.
- The Window pull-down menu allows you to open or close the active editor views (the Preview, Structured Timeline, Layout and Source views). In GRiNS/Pro, extra facilities are offered for manipulating the presentation.
- The Help menu gives you access to the on-line help files.

In all cases, inactive selections are 'grayed-out' in the menus. Many of the sensible alternatives (based on what you are doing in the Editor) are also available in the context-sensitive commands provided under the right mouse button.




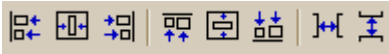
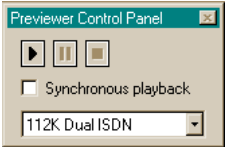
NOTES:

1. In GRiNS/Pro, you may freely import presentations made with a text editor or with any other SMIL editor.
2. The last step in creating a presentation is typically a *Publish* operation (found under the File menu); intermediate information on your presentation is saved in a file with a *.grins* type. This is a generic SMIL-compliant version of your presentation.
3. For some types of changes (like global substitutes) it is often desirable to use a text editor rather than a structure editor. This is possible with GRiNS/Pro: simply open the *.grins* file with your

favorite text editor and make whatever changes are necessary. You can then re-open the file from within GRiNS/Pro. (Be careful when doing this, since errors put in the file by direct text editing may make the presentation unusable from within GRiNS/Pro.) You may also inspect the source at any time with the built-in source viewer within the Editor. GRiNS/Pro extends this functionality with a complete source editor, adding syntax and semantic checking to the editor.

GRiNS/Pro Toolbars

GRiNS/Pro provides four toolbars, each of which provides support for common editing tasks.

- The General toolbar provides support for opening, saving, reopening and closing *.grins* documents. It also provides controls for zooming in/out of other views. 
- The Containers toolbar provides support for creating various *groups* in the presentation (par, seq, switch, excl and prior), or for creating nodes or layout regions. 
- The Linking and Interaction toolbar allows short-hand creation of links to the RealONE *context* and *browser* windows and begin/end *interaction events* on groups and objects. 
- The Region Alignment toolbar allows short-hand alignment functions for objects in layout regions. (GRiNS/Pro only.) 
- The previewer control allows the preview function of GRiNS/Pro to be activated. Any SMIL switch settings in the document can be dynamically set by the previewer, so that the document can be previewed under a range of real-world conditions. 

Each toolbar icon has a tool-tip documentation string. Note that the colors of the icons in the Containers toolbar match those of the respective groups in the Structured Timeline view.

The initial state of the toolbars is that all but the previewer control is docked.

Creating Presentations Using GRiNS/Pro

There are several key concepts that are common to all editions of GRiNS/Pro that will help you be more productive:

- One of the GRiNS windows is the **Previewer**. This is the run-time preview of a document. While the Previewer allows a complete presentation to be viewed using conventional **start/stop/pause** controls, it also allows you to play sub-parts of a document — anything from a complex sub-presentation to a single media object can be activated at any time. This is a tremendous productivity enhancement tool during authoring.
- The main GRiNS/Pro view is the **Structured Timeline**. In the Structured Timeline, you can manipulate the general structure of your presentation in a visual way. GRiNS/Pro isolates you from the details of the SMIL language, leaving you with an intuitive means of putting together presentations based on a standard set of presentation building blocks. The Structured Timeline is the default view you get when a presentation is loaded into the editor.
- Screen space and audio channels are managed using a concept known as the *GRiNS/Pro Regions*.
- GRiNS provides powerful hypermedia and event-based interaction support: you can define anchors across media objects and then define various types of links between these anchors. GRiNS/Pro provides extensive features to define anchors and links at various (sub-)parts of a presentation, while GRiNS/Pro gives you the ability to build simple links and anchors for navigation in and through your presentation.

GRiNS/Pro also provides full support for building adaptive presentations using the SMIL **switch** statements. The semantics and properties of the SMIL **switch** are managed in the GRiNS structure view. Here again, GRiNS worries about the syntax — you simply need to define the options available.

Important Note

The SMIL 2.0 language provides many powerful primitives for creating sophisticated presentations. The more you know about SMIL 2.0, the richer your presentations will become. In order to become familiar with the basic concepts of

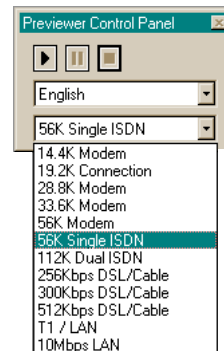
SMIL, we suggest that you read the chapter *Understanding SMIL 2.0* in the GRiNS Reference Manual. You should also read the *Real Production Guide* and individual specifications for other SMIL 2.0 players to understand the basic concepts of both SMIL and streaming presentations.

An Overview of the GRiNS Authoring Views

This section will look at each of the views provided by GRiNS/Pro and gives you an overview of how GRiNS helps you to manage the workflow during document creation and maintenance. The GRiNS/Pro Editor was designed to let you not only build, but also edit, tailor and refine presentations — even if they weren't made with the GRiNS Editor initially!

The Previewer: The Embedded Presentation Player

One of the unique features of GRiNS is the ability to incrementally preview a presentation as it is being designed. To do this, select Preview from the Preview menu or click on the VCR-like start button on the Preview control window. If you have a **switch** in your presentation, the *preview control* lets you set the environment values used during previewing.

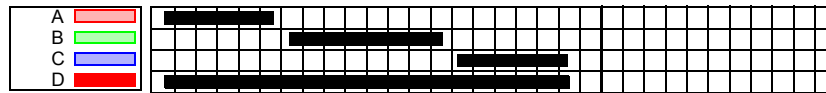


The Structured Timeline: The Logical View of a Presentation

When you open a presentation, the Editor gives you a picture of the relationship among the objects in that presentation. We call this the Structured Timeline. The Structured Timeline can be very simple for simple presentations, or it can be a complex presentation roadmap for large, complex presentations.

GRiNS takes a different approach to creating presentations than most timeline or text-based systems, so getting to know the nature of GRiNS now will help you to become more productive in the future.

The following illustration is typical of most timeline-based editors:



In this approach, a set of media items is listed on the left and their activation times are shown on the time graph. Pretty simple. Unfortunately, the time graph doesn't give us essential information. First, the length of the bottom line (node D): is it 20 time units long because this is the sum of the times of A, B and C — or are A, B and C 20 seconds in total because of D? What happens if we substitute B with an item that is 12 units long — should C shorten its duration (because of D), should B and C overlap, and should the duration of D be adjusted? Also: what if we want to show a video on a high-bandwidth connection and a sequence of four images on a low-bandwidth connection — how do you draw *that*?

Timeline systems actually hide the logical relationships among items. This means that editing, updating and maintaining a presentation is a pain in the fingers of the designer. You can't reuse combinations of media, and rather than having the timeline automatically created for you, you have to do it all by hand.

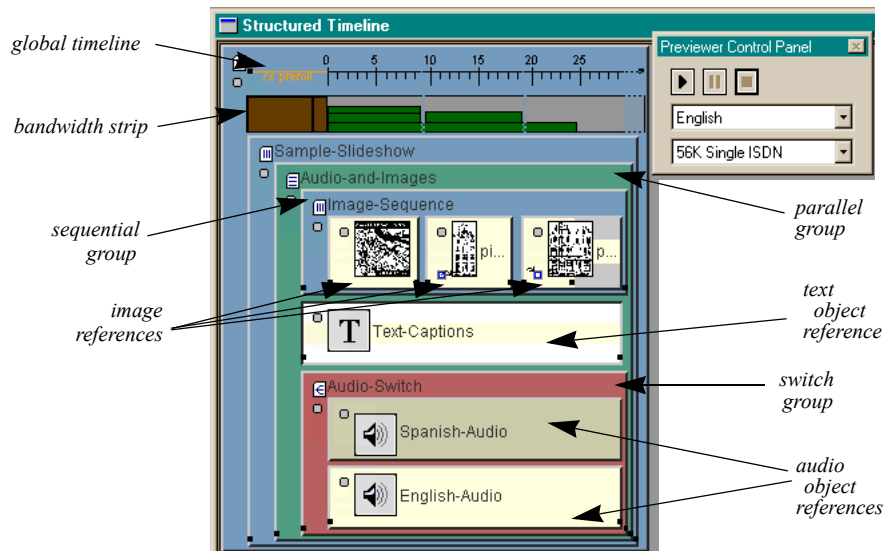
The editing philosophy behind GRiNS is that of *structured authoring*. GRiNS creates documents based on the structural relationships among components rather than getting lost in the details of a single object's activation. This not only helps initial creation, it also makes editing and updating a document much easier.

For example, if a single presentation contains an audio node and an image node that are to be presented together, GRiNS puts these inside a *parallel structure group*. If, on the other hand, a presentation contains two audio nodes that get played one after the other, GRiNS puts these inside a *sequential structure group*. If you want to define a set of alternatives (such as having both Spanish and English audio tracks available in a presentation), GRiNS puts these inside of a *switch group*. All of these notions reflect the way that SMIL works: the parallel group is equivalent to SMIL's PAR, the sequential group to SMIL's SEQ and the switch group to — you guessed it! — SMIL's Switch. (This is no accident: the designers of GRiNS/Pro were also the co-designers of SMIL.)

Consider the following SMIL code fragment:

```
<par id="Audio and Images">
  <seq id="ImageSequence">
    
    
    
  </seq>
  <text id="Text-Captions" src="d.txt" fill="freeze"/>
  <switch id="AudioSwitch">
    <audio id="SpanishAudio" src="esp.wav" systemLanguage="Spanish"/>
    <audio id="EnglishAudio" src="eng.wav"/>
  </switch>
</par>
```

The following annotated view shows the basic GRiNS version of the same file.



This picture describes a presentation named *Sample Slideshow*. It contains three images played in sequence, which are presented in parallel with one Text object containing text comments and either an English-language or Spanish-language audio object (the selection of which will be determined by the Player).

Please re-read the last paragraph and look closely at the image: if you understand the correspondence, then you already understand the basics of GRiNS.

Unlike a standard timeline, the GRiNS Structured Timeline shows the structure containers that define the logical relationships around the media. With a bit of practice, this gives you the full logical and temporal story in one view.

The purpose of the Structured Timeline is to give a logical projection of the contents in a presentation to the author. The Structured Timeline contains the following types of information:

1. It shows the *media objects* used in the presentation; these are pointers to a particular object located either in a local file or as a remote asset on the Web or in a database, and its associated properties for this particular use in the presentation.
2. It shows what kind of *structure groups* are used to compose the presentation. These structure groups can contain a nested combination of data objects or other structure groups.
3. It shows a general presentation timeline. For this simple presentation, in which all times are resolved (that is, there is no interaction), the timeline matches the passage of time as seen by the viewer. (This is not always the case if the presentation contains event-based user interaction.)
4. It shows a *bandwidth usage strip*. The strip shows when objects are loaded, and whether enough bandwidth exists to execute the presentation. It also shows preload time and stalls. Note that monitoring bandwidth is an important part of producing presentations. The *player control* allows you to set a particular presentation bandwidth and see how your presentation will behave for that class of connection.

Each of the basic types of container objects used in the Structured Timeline are color coded for easy recognition. With a bit of practice, you can build a mental picture of your presentation without ever hitting Preview — but since GRiNS lets you play anything from a single node to an entire presentation during editing, save those brain cells for other activities!

You can perform nearly all of the editing operations required to create most basic presentations from within the Structured Timeline. You can add, move, cut, copy, and paste objects (both data objects and structure containers) using drag & drop techniques, the menu options or right-mouse short-cuts. You can define SMIL switch groups and identify the alternatives associated with the switch. You can

create basic hyperlinks between nodes in the presentation. You can zoom in/out of parts of the Structured Timeline. You can also access all of the properties of each of the objects in the Structured Timeline for detailed control of the presentation.

When possible, a thumbnail image of either the contents or the type of data objects is shown. If the view becomes too crowded, these thumbnails are scaled or removed. (You may influence this behavior in GRiNS/Pro.)

You can select any object in the Structured Timeline and then select the Preview single object function from the Preview menu to preview that object (or structure container). If you select Play from object instead, the presentation will start at that point and continue playing through the rest of the presentation's objects. To view the entire presentation, select the Preview option from the Preview menu.

NOTES:

1. There are often several ways of selecting GRiNS editing functions: you can use the pull-down menus across the top of the Editor, you often can use the context menus under the right mouse button, you can make use of the keyboard equivalents for most commands, and (for many operations) you can use the toolbar and/or drag and drop interaction.
2. The keyboard equivalents have been customized to meet the expectations of experienced users on each of the platforms upon which GRiNS is implemented. The structure of the menus is constant across all versions of GRiNS in as far as they are relevant for those platforms.

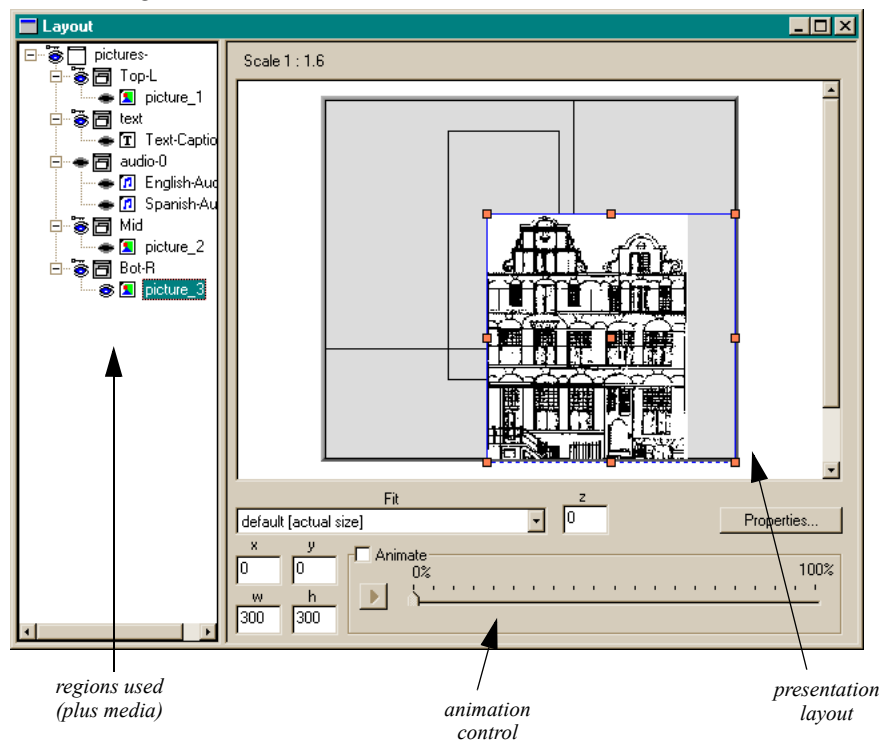
GRiNS Use Tip:

*If you select **Preview->Preview Single Object** for an image or text file, the image/text will only appear if its duration is explicitly defined in the node.*

The Layout View: Managing Visual and Auditory Resources

When working with template-based presentations, the template contains a number of Regions to organize screen and other resources in the presentation. If you use these regions, you will typically not need to visit the Layout view. For more complex presentations, or when creating your own templates, the Layout view provides a means of creating, sizing, editing and placing new regions.

The following illustration shows an annotated Layout view.



When activated, the Layout view shows a window similar to the GRiNS Player window and a separate editing window for selecting layout regions. You may select media objects for layout previewing, and you may animate objects.

The Source View: Seeing the Translated Document

In GRiNS/RealOne, you can view the SMIL source for your presentation at any time by selecting Window->Source. You can search for particular strings or look at the translated view of the document.

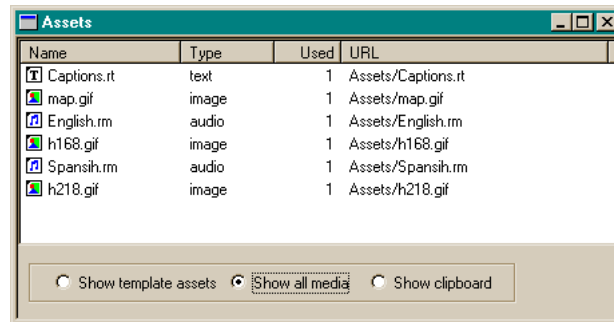


```
<?xml version="1.0" encoding="ISO-8859-1"?>
<smil xmlns="http://www.w3.org/2000/SMIL20/CR/Language" xmlns:rn="http://features.real.com/2001/SMIL20/Extensions">
  <head>
    <meta name="title" content="pictures"/>
    <meta name="base" content="file://C:/ufs/dcab/GRiNS%20Release/QSG-2.0R/"/>
    <meta name="generator" content="GRiNS Pro for SMIL 2.0, v2.0 alpha win32 build 93"/>
  </head>
  <layout>
    <root-layout id="pictures" backgroundColor="black" width="493" height="431">
      <region id="Bot-R" left="133" width="300" top="135" height="300" z-index="3">
        
        
        
      </img>
      <text id="Text-Captions" region="text" type="text/plain" dur="29.5s" src="Assets/Captions.rtf"/>
      <switch id="Audio-Switch">
        <audio id="English-Audio" region="audio-0" src="Assets/English.rm" systemLanguage="en"/>
        <audio id="Spanish-Audio" region="audio-0" src="Assets/Spansih.rm" systemLanguage="es-mx"/>
      </switch>
    </root-layout>
  </layout>
  <body>
    <seq id="Sample-Slideshow">
      <par id="Audio-and-Images">
        <seq id="Image-Sequence">
          
          
          
        </seq>
        <text id="Text-Captions" region="text" type="text/plain" dur="29.5s" src="Assets/Captions.rtf"/>
        <switch id="Audio-Switch">
          <audio id="English-Audio" region="audio-0" src="Assets/English.rm" systemLanguage="en"/>
          <audio id="Spanish-Audio" region="audio-0" src="Assets/Spansih.rm" systemLanguage="es-mx"/>
        </switch>
      </par>
    </seq>
  </body>
</smil>
```

In GRiNS/Pro, the source view is also fully editable. Any changes you make to the document will be syntax-checked and applied against the SMIL 2.0 DTD for correctness. Integrated error feedback is also given in GRiNS/Pro.

The Assets View: Managing the Objects in the Presentation

The Assets Window allows you to track use of individual media objects. It also allows you to manage the presentation clipboard, and it allows a template author to create structure templates that contain all types of predefined assets for use in a presentation.



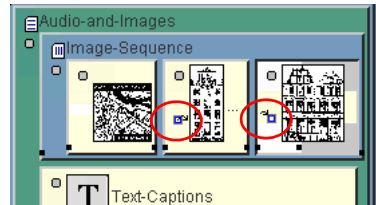
The Hyperlink View: Creating Order within the Chaos of Links

The GRiNS/Pro Editor provides you with full control over the RealONE *Browser* and *Context* windows. Using simple short-cut icons from the Linking toolbar, you can take any media item and specify that an HTML page gets synchronized in other RealONE windows. (We explain how to do this in the next chapter.)

You can also use GRiNS to make links to other SMIL documents via *external links*. The GRiNS/Pro upgrade provides further facilities to create internal links. In GRiNS/Pro, you can create anchors that cover an entire media object for its full activation time: these are *whole node* anchors. In GRiNS/Pro, you can create whole node anchors, plus *partial node* anchors that are active on only a part of a object (that is, over a hot spot somewhere over an image or video). You can also create *timed anchors*, that are active for only a particular part of the activation time of an object.

GRiNS/Pro also provides controls to make simple interactive presentations using SMIL 2.0 events. Three symbols identify the presence of events:

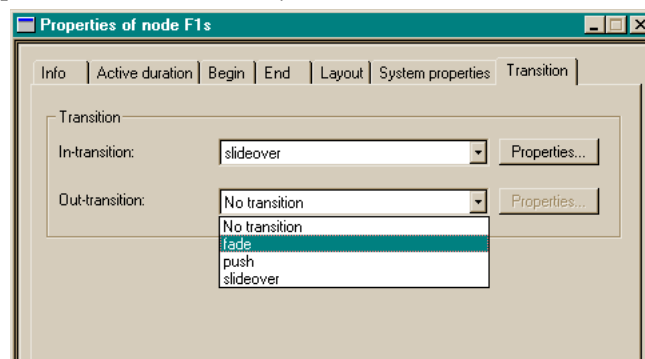
- the *event source* icon with the arrow pointing out from the center of an event box, which indicates that this node contains an event that is the source of interactive behavior in another node.
- the *create begin event* icon with the arrow pointing into the front, which indicates that this node contains an event controlling its begin.
- the *create end event* icon with the arrow pointing into the back, which indicates that this node contains an event controlling its end.



You can select either icon to see the *event arc* relationship.

The Transitions Window: Input and Output Visual Control

Each object in a presentation may have one or more visual transitions associated with it. These transitions are defined in the presentation template, and can be selected by going to the properties tab for the object on which you wish to define the transition. If you select the transitions tab, you can select and set either the input or output transition for the object.



For each of the selected transitions, you can select further properties of that type (such as direction or duration).

Using GRiNS Pro Editor for SMIL 2.0

The GRiNS distribution contains a short tutorial to get you started with GRiNS/Pro. Please read this tutorial (one of our *HowTo* series of documents) before you start using the editor. The name of the tutorial is: *HowTo-Basic.pdf*.

January 2002	
How to:	
<i>Make Template-Based Slideshows</i>	
using GRiNS/Pro	
GRiNS/Pro "How To" Notes	
(c) 2002, Oratrix, Amsterdam, The Netherlands	
Overview	This document will give you all the information you need to create slideshows for the RealOne player using the GRiNS Pro Editor for SMIL 2.0 software (hereafter called simply: GRiNS/Pro). You will learn how to create simple slideshows and how to integrate transitions, animations and links for several SMIL players, as well as creating links to the RealOne media browser and related info panes. You will also learn how to publish your presentation for use with various media players and streaming servers.
	This is one in a series of GRiNS/Pro <i>How To</i> guides. While it is not intended to be a substitute for reading the GRiNS <i>Quick Start Guide</i> , the <i>Template User's Guide</i> or the <i>Reference Manual</i> , it does provide enough information to get you up and running with GRiNS quickly and easily.
	Your comments, suggestions and criticisms of this document and the GRiNS environment are welcome. Please send all comments to: grins-support@oratrix.com
	In the case of error reports, please include a brief description of the process that led to the error, so that we can repeat it.
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GRiNS Edition Comparison Information

The GRiNS Pro Editor for SMIL 2.0 is one member of a family of editing products for the SMIL 2.0 standard. This section provides a feature differentiation and compatibility matrix for the GRiNS/RealOne and GRiNS/Pro editions.

The features of each product are subject to change without notice.

GRiNS Feature Table	GRiNS / Pro	GRiNS / RealONE
Standard Features		
Structured Timeline Editing	☑	☑
Layout Editor	☑	☑
Animation Editor	☑	☑
Transition Selector/Editor	☑	☑
Source View/Editor (see below)	☑	☑
Full GUI-based editing	☑	☑
Design from Templates	☑	☑
Create custom presentations	☑	☑
Import existing presentation	☑	☑
Publish to popular players	☑	☑
Create par/seq/excl/switch groups	☑	☑
Integrate audio/video/text/images	☑	☑
Drag&Drop editing	☑	☑
Infinite Undo Stack	☑	☑
Create (timed) links	☑	☑
Insert events	☑	☑
Preview Presentation	☑	☑
Preview Individual Node/Group	☑	☑
Preview from any Node/Group	☑	☑
Model Network performance	☑	☑
Preview for different bitrates	☑	☑

GRiNS Feature Table	GRiNS / Pro	GRiNS / RealONE
New Presentations:		
From Templates	☑	☑
Custom Document	☑	☑
Create New Template	☑	--
Import:		
From Existing SMIL-2	☑	☑
From Existing SMIL-1	☑	--
From Existing RP-6/7/8	☑	☑
Publish:		
To SMIL-2 (Generic SMIL-2)	☑	--
To RealOne	☑	☑
To SMIL-1	☑	--
To RP-6/7/8	☑	--
To HTML+Time (IE-6)	☑	--
To 3GPP/Mobile	☑	--
Publish & Prune to Profile		
Based on Bitrate	☑	--
Based on Language	☑	--
Based on Captions	☑	--
Based on Any Test Attribute	☑	--
Convert		
RealPix to SMIL 2.0	☑	☑
SMIL 2.0 to RealPix	☑	--
Media Objects to RM	☑	☑
Media Objects to WMP	☑	--
Content		
Link to Installed 3rd Party Editors	☑	☑
Embedded image trimmer	☑	--
TWAIN object import	☑	--

GRiNS Feature Table	GRiNS / Pro	GRiNS / RealONE
Toolbars		
Standard Configuration	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Customize Configuration	<input checked="" type="checkbox"/>	--
UI Features		
Show Asset Thumbnails	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Customize Asset Thumbnails	<input checked="" type="checkbox"/>	--
Show Playable in Switch	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Customize 'Show Playable'	<input checked="" type="checkbox"/>	--
Structured Timeline View		
Standard Timeline View	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Customized Timeline View	<input checked="" type="checkbox"/>	--
Optimized Structured Timeline	<input checked="" type="checkbox"/>	--
Source View		
View Source	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Edit Source	<input checked="" type="checkbox"/>	--
Animation Editor		
Child Animations on Nodes	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Animations on Regions	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Full Animation Elements	<input checked="" type="checkbox"/>	--
Exclusive Nodes		
Create EXCL	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Create PRIORITY CLASS	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Transitions		
Use Standard GRiNS set	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Edit Standard GRiNS set	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Define new transitions	<input checked="" type="checkbox"/>	--

GRiNS Feature Table	GRiNS / Pro	GRiNS / RealONE
Switch Support		
Specify Bitrate	☑	☑
Specify Language	☑	☑
Specify Captions	☑	--
Specify Audio Desc	☑	--
Specify Subtitle/Overdub	☑	--
Specify Screen/Depth	☑	--
Specify CPU / OS	☑	--
Specify Player/Req/Comp	☑	--
Custom Tests		
Play Custom Tests	☑	--
Define Custom Tests	☑	--
Tools		
Summary Bandwidth Usage	☑	☑
Detailed Bandwidth Strip	☑	☑
Align/Distribute Nodes in Layout	☑	--
Layout Support		
Define root-layout via UI	☑	☑
Edit root-layout numerically	☑	--
Define multiple topLayout via UI	☑	--
Edit topLayout numerically	☑	--
Define regions via UI	☑	☑
Edit regions numerically	☑	--
Define reg hierarchy via UI	☑	☑
Edit reg hier. numerically	☑	--
Define sub-regions via UI	☑	☑
Edit sub-region numerically	☑	--
Select regPoints via UI	☑	☑
Define regPoint numerically	☑	--

GRiNS Feature Table	GRiNS / Pro	GRiNS / RealONE
Timing Specification		
Specify Duration	✓	✓
Specify EndSync	✓	✓
Specify Fill	✓	✓
Specify repeatCount	✓	✓
Specify repeatDuration	✓	✓
Specify Min	✓	--
Specify Max	✓	--
Begin/End Specification		
Delay / NodeID / Indefinite	✓	✓
AccessKey / WallClock	✓	--
Event	✓	✓
X-Path Based Events	✓	✓
Restart Semantics	✓	--
Media		
via Drag&Drop	✓	✓
via local name	✓	✓
via URL	✓	✓
ClipBegin / ClipEnd	✓	✓
Event Sensitivity	✓	✓
Erase	✓	--
Synchronization Behavior		
Specify Sync Default	✓	--
Specify Sync Behavior	✓	--
Specify Sync Master	--	--
Productivity Enhancements		
Specify Default Layouts for Groups	✓	✓
Specify Default Timing for Groups	✓	--
Specify Default Fill for Groups	✓	--
Specify Default Transitions	✓	--
Merge Nodes with Parents	✓	--

GRiNS Feature Table	GRiNS / Pro	GRiNS / RealONE
Linking		
Create whole-node anchors	☑	☑
Create partial-node anchors (X/Y)	☑	--
Create timed anchors	☑	--
Create external anchors	☑	☑
Create internal anchors	☑	--
Create Link to RealONE Browser Window	☑	☑
Create Link to RealONE Context Window	☑	☑
Events		
Create short-cut events	☑	☑
Create/edit begin events	☑	☑
Create/edit end events	☑	☑

NOTE:

1. The available versions of the GRiNS/RealOne products are updated regularly. Please consult the following Web URL for the most recent version of the GRiNS product matrix at:
<http://www.oratrix.com/>

GRiNS/Pro Quick Reference Information

SMIL Compliance Information

GRiNS/Pro supports the entire SMIL 2.0 specification, although not all features are previewed during editing. Documents that make use of these constructs are parsed correctly, but the features are ignored during rendering.

Supported Media Table

The following chart gives a listing of the media types supported by the Win32 versions of GRiNS Editor for RealOne:

MIME type	Extensions	Windows 98SE/2K/XP
audio/basic	au	yes
audio/x-aiff	aiff, aifc, aif	yes
audio/x-wav	wav	yes
image/jpeg	jpeg, jpg	yes
image/png	png	yes (2)
image/tiff	tiff, tif	yes
image/x-portable-anymap	pnm	no
image/x-portable-bitmap	pbm	no
image/x-portable-graymap	pgm	no
image/x-portable-pixmap	ppm	no
image/x-rgb	rgb	yes
image/x-xbitmap	xbm	no
	bmp	yes

MIME type	Extensions	Windows 98SE/2K/XP
	ras	yes
	tga	yes
video/mpeg	mpeg, mpg	yes
video/quicktime	qt	yes
video/x-msvideo	avi	yes
video/x-sgi-movie	mov	no
text/html (5)	html, htm	no
text/plain	txt	yes

Notes

1. Uncompressed WAV only.
2. Support seems to be somewhat buggy.
3. Not all encodings supported.

Each of these formats is converted to the appropriate RealSystem datatype. For highest quality rendering of a final presentation, we recommend converting some datatypes to RealMedia before inserting them in a presentation, if possible.

RealOne Media Conversion

The following chart describes the levels of support provided in the GRiNS/Pro version for the listed RealMedia data types used in the RealNetworks RealOne Player:

RealMedia	Extension	Importable	Auto-Generated
RealAudio	ra, rm	yes	yes
RealVideo	rm	yes	yes
RealText	rt	yes	no(1)
RealPix	rp	yes	no

Notes

1. GRiNS/Pro provides support for the automatic generation of simple RealText documents from immediate strings in the Editor, but it does not at present provide full RealText editing facilities. This is expected in a future release.
2. GRiNS/Pro can import and convert most existing RealPix files. Limited support is available for creating RealPix from SMIL 2.0 constructs for users wishing backward compatibility.
3. RealMedia playback is only available on those systems that support the RealMedia formats.

References and Links

Please see the Links section of the GRiNS/Pro Web site (www.oratrix.com/GRiNS).

Where Next?

Once you have installed GRiNS you can either set out on your own in the process of creating multimedia presentations, or you can save your time and energy by reading the *HowTo Make Basic Slideshows* document (included with the distribution). You should then try using a set of simple and straight-forward GRiNS/Pro templates. Instructions for using these can be found in the GRiNS/Pro *Templatse Guide*, which is available in on-line (HTML) or off-line (PDF) formats. Consult the documentation provided with your GRiNS/Pro Editor access key to find the current set of templates for your version of GRiNS.

You should also consult the RealOne IQ Production Guide, available from RealNetworks, Inc. This guide provides an overview of the facilities supported by the RealOne player. It also provides a comprehensive introduction to the concepts of streaming media and details on the SMIL 2.0 language.

You should also consult profile documentation from Microsoft and the 3GPP consortium for working with other versions of SMIL 2.0. Search the Microsoft knowledge base with the keyword time2 for XHTML+SMIL, and use a Web search engine with keywords "3GPP PSS4" for information on 3GPP/Mobile.

The GRiNS Web site (www.oratrix.com/) provides a set of *release notes* and *issues reports* for each version of the GRiNS Editor and Player releases. This site also contains a publicly-available version of the GRiNS Frequently-Asked Questions list and errata to this and other GRiNS publications. If you purchased GRiNS, you will have had the opportunity to enroll for our automatic notification service for the version(s) of GRiNS you acquired.

We recommend that you use the Check for GRiNS update button in the Help menu. This version will poll the GRiNS Web site to see if an updated version of GRiNS exists. We welcome your comments, criticisms, compliments and suggestions. You can reach us at: grins-documentation@oratrix.com.

We hope you find working with GRiNS a productive experience!

