



Template Design Guide



GRiNS Editor for Real, Version 2.0
Windows-98/2000/XP
September, 2001



© 2001 Oratrix Development bv. All rights reserved.

GRiNS Editor for Real, Version 2.0 Template Design Guide for Windows-98/2000/XP. September, 2001.

The software described in this manual is furnished under license and may be used only in accordance with the terms of that license.

No part of this publication may be reproduced, stored in a retrieval system or transmitted in any form without the written permission of Oratrix Development bv.

GRiNS, *GRiNS Editor for Real*, *GRiNS Editor for IE*, *GRiNS Editor for 3Gwireless*, *GRiNS/Pro* and *GRiNS/SMIL* are trademarks of Oratrix Development.

RealAudio, RealVideo, RealText, RealPix, RealMedia and RealONE Player are trademarks of RealNetworks, Inc. Windows, Windows-2000, Windows-95, Windows-98 and InternetExplorer are registered trademarks of Microsoft Corporation.

Important Notices

This document is the GRiNS Editor for Real, Version 2.0 *Template Design Guide*. All of the information has been verified, but incremental product updates may impact part of this guide.

This version of the GRiNS Editor for Real, Version 2.0 *Template Design 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 Editor for Real, Version 2.0 build 2.0-win32-93 for Windows 2000. 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 Editor for Real, Version 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 Editor for Real, Version 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.

Table of Contents

Important Notices	iii
GRiNS Editor for RealONE Distribution Roadmap	vii
Distribution Package Contents	vii
GRiNS and GRiNS/RealONE	vii
GRiNS/RealONE Template Design Guide	viii
Overview of GRiNS/RealONE Templates	1
GRiNS/RealONE Template Collection	1
Accessing GRiNS/RealONE Templates	2
GRiNS/RealONE Tutorials	3
Important Notice	3
GRiNS/RealONE Slideshow Templates	5
Basic Slideshow with Background Music	5
Slideshow with Background Music and Audio Captions	10
Slideshow with Background Music, plus Audio and Text Captions	13
GRiNS/RealONE Video Templates	15
Video Show (240x180)	15
Video Show (320x240)	19
GRiNS/RealONE Adaptive Templates	25
Adaptive Video Presentation	25
GRiNS/RealONE Empty Templates	29
Empty RealONE Presentation	29
GRiNS Edition Comparison Information	33
GRiNS Packaging Information	33
GRiNS/RealONE Quick Reference Information	39
SMIL Compliance Information	39
Supported Media Table	39
RealONE Media Conversion	41
References and Links	41
Where Next?	43

GRiNS Editor for RealONE Distribution Roadmap

Congratulations on selecting the GRiNS Editor for RealONE (GRiNS/RealONE) for creating SMIL-2.0 presentations. GRiNS/RealONE lets you harness the full power of the RealNetworks RealONE player in an easy and intuitive manner.

Distribution Package Contents

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

- *GRiNS Editor for RealONE Template Design Guide*: A quick and easy description of the standard *GRiNS/RealONE* template set can get you started making RealONE presentations. (This is this guide.)
- *GRiNS Editor for RealONE Quick Start Guide*: an overview of the installation instructions for GRiNS and a tour of the basics of the GRiNS Environment.
- *Templates*: a set of templates for use in building your own presentations;
- *GRiNS-Icons*: a directory containing Icons used by GRiNS/RealONE;
- *Software*: depending on the distribution you downloaded, a GRiNS distribution for Windows-95/98/2000/XP or other platform.

Once you have installed GRiNS/RealONE, registered owners will be given information on how to obtain the *GRiNS Editor for RealONE Tutorial Guide* and the tutorial assets set. The Tutorial Guide is a step-by-step guide to both basic and advanced features of GRiNS/RealONE. The Guide and Assets are not included in the standard distribution because of the size of the tutorial documents themselves. Registered owners of GRiNS may download the tutorials from the GRiNS Web site at an address provided in the purchase receipt. The site also contains example presentations created with GRiNS. (The tutorial set is not available to users with an evaluation-only license.)

GRiNS and GRiNS/RealONE

GRiNS is available in several configurations: a *Pro* edition, intended for users who want full control over authoring and publishing to various SMIL-2.0 engines, and editions (such as GRiNS/RealONE) for particular streaming players. This manual will identify features which are available in the particular editions of GRiNS.

GRiNS/RealONE Template Design Guide

After reading the GRiNS/RealONE *Quick Start Guide*, we encourage you to build some sample presentations with the GRiNS/RealONE Template set. The *Template Design Guide* has been written to help you on your way quickly. It is divided into seven sections:

1. *Overview of GRiNS/RealONE Templates*: a summary description of the available template types and their purpose.
2. *Slideshow Templates*: a description of how you can build simple and not-so-simple slideshows with GRiNS.
3. *Video Templates*: Got some footage that you are dying to get on the Web? We'll show you how RealONE can help add some spice.
4. *Adaptive Templates*: The Web is a complex place — different people, different bitrates, different languages. GRiNS can help manage this complexity without driving you crazy.
5. *Empty Templates*: Want to start from scratch? No problem, we'll show you how.
6. *GRiNS Version Comparison Information*: an overview of the differences in functionality offered in the various editions of GRiNS.
7. *GRiNS Editor Quick Reference*: an overview of the data types supported by the GRiNS/RealONE environment and other useful reference information for getting started with the GRiNS/RealONE Editor.
8. *Where Next?*: A set of pointers to GRiNS/RealONE 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.

In the examples and text given in this document, we will use “GRiNS/Pro” to identify features available only in the *Pro* edition of GRiNS, and “GRiNS/RealONE” to identify features available in the RealONE edition of GRiNS. Unless otherwise marked, all features in GRiNS/RealONE are available in GRiNS/Pro.

Overview of GRiNS/RealONE Templates

The GRiNS/RealONE comes with a basic set of design templates that can help you build presentations quickly. The RealNetworks RealONE player is based on the SMIL-2.0 language, developed by the World Wide Web consortium (W3C). The SMIL-2.0 specification is an imposing document that describes a wealth of features for making your media presentations more attractive, effective and interactive than was previously available. The GRiNS/RealONE template set gives you access to the basic facilities of the language, and the GRiNS Editor provides unprecedented support for manipulating all of SMIL-2's constructs.

GRiNS/RealONE Template Collection

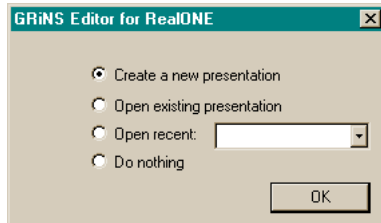
The basic set of templates delivered with the GRiNS/RealONE Editor contains four classes of templates:

- *Slideshow templates*, for creating presentations consisting mainly of images and (optional) music, spoken audio and text annotations;
- *Video templates*, for creating a sequence of one or more videos, with transitions and animations on video placement. The videos may also be accompanied with optional text and audio captions;
- *Adaptive templates*, for creating presentations that can “adapt” to the environment that the user has at the time of presentation delivery;
- *Empty templates*, for creating custom presentations without having to worry about the XML mumbo-jumbo required to format your presentation.

There are several types of templates in each class, each building upon the other. Overtime, extra templates will be released by Oratrix or our GRiNS partners.

If you are interested in creating new templates, you may want to upgrade to GRiNS/Pro. GRiNS/Pro provides extra facilities for creating templates and for enhanced SMIL and RealONE editing support. GRiNS/Pro also allows you to create templates for other variants of SMIL, such as Microsoft's HTML+TIME in InternetExplorer 6, or the 3GPP variant of SMIL Basic. For upgrade information, see: <http://www.oratrix.com/GRiNS/>.

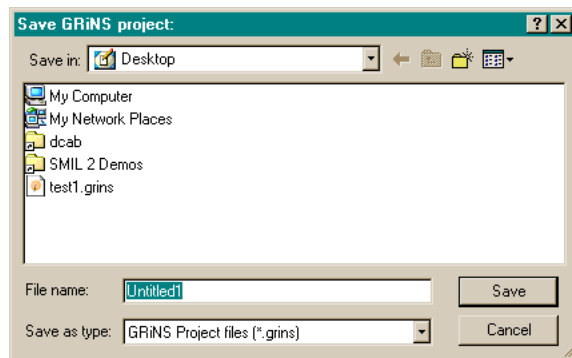
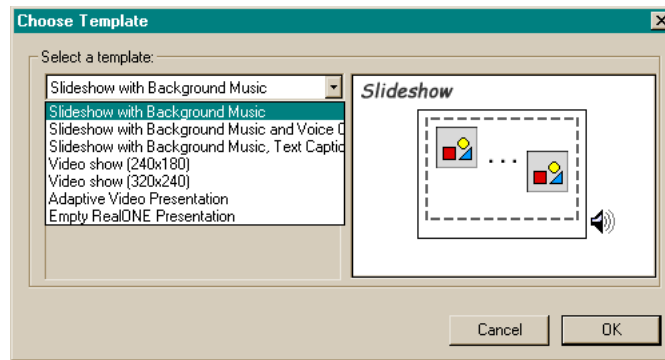
Accessing GRiNS/RealONE Templates



When you start the GRiNS/RealONE Editor, you will typically see a presentation file selection box. You can select a Template by choosing **Create a new presentation**, and then selecting **Apply**. (You can also select an existing presentation, or one of the recent files you were working on.) If you do not see

this selection box, you can also open a Template via the **File->New** menu.

Whenever you select a **New** file, you get to choose from a list of available Templates. Each Template has a title, an identifying icon, and a short descriptive text. (Note that the list you see may not be the same as the one shown.)



After selecting a Template, you will be prompted for a location to save your work. The Template is saved as a *.grins* file by default. If you want to create a *.smil* file from the Template, you should use **File->Publish** once your presentation has been created. Saving the Template as a *.smil* file will

cause all Template control information to be stripped — not a good idea.

GRiNS/RealONE Tutorials

The GRiNS/RealONE Template set is intended to help you get started using GRiNS to create fully functional presentations for the RealONE Player. Once you become familiar with the Editor, you can create your own presentations that make use of all of RealONE's playback capabilities.

In order to understand the full power of GRiNS, we recommend that you consult the GRiNS Tutorial User's Guide. After GRiNS/RealONE is installed, registered owners may download the expanded tutorial set from the GRiNS/RealONE Web site:

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

If you would like us to showcase your work, please send a message to

grins-support@oratrix.com.

Important Notice

During development of GRiNS/RealONE, we have had access to early releases of the RealNetworks RealONE product. The state of this product can best be described as "evolving". Since there will undoubtedly be bug fixes in both the GRiNS/RealONE Editor and in the RealONE Player, registered owners will receive product updates from time to time. We strongly recommend that you install these upgrades as soon as practical.

GRiNS/RealONE Slideshow Templates

The GRiNS/RealONE Slideshow templates will help you create smashing but simple presentations with a minimum of effort. The presentations you create have all the power of Real's Slideshow product, but much more flexibility in assigning media types and interactive content.

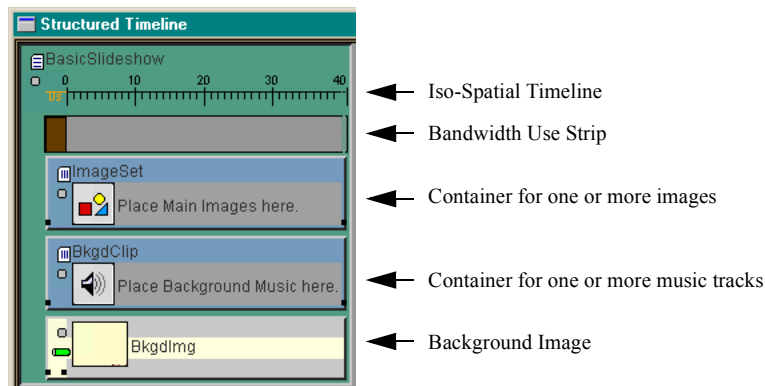
There are three Slideshow templates in the GRiNS/RealONE Template set:

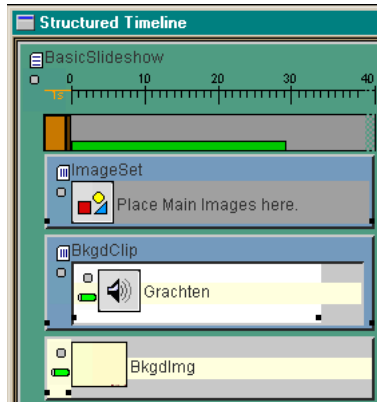
- Basic Slideshow with Background Music
- Basic Slideshow with Background Music and Audio Captions
- Basic Slideshow with Background Music and Audio plus Text Captions

We suggest that you read the descriptions of all of the Slideshow Templates.

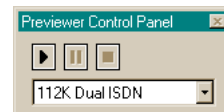
Basic Slideshow with Background Music

The *Basic Slideshow with Background Music* template is the one that was used in the *Quick Start Guide* to build a simple slideshow. It consists of two containers (or groups) to hold images and audio objects, and one static background image. As with all other templates, there is a space-saving Iso-Spatial Timeline, and a bandwidth usage strip. The empty version of the template is shown below. Note that the background image requires a short pre-roll. This is the time needed to load initial presentation assets.





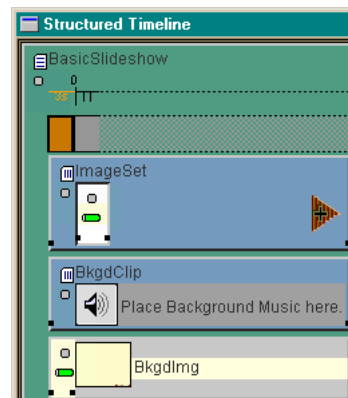
In most presentations, it is usually wise to put any timed media into the presentation first.



For example, in the figure at left, we've added an audio object (*Grachten.mp3*), which is about 32 seconds long. Note that the bandwidth strip now shows the amount of bandwidth required *at the current preview bitrate setting* to present the presentation.

This bandwidth is determined by several factors, including information in the media encoding (if any) and the properties set on each object. The RealONE Player also determines default values. Note also that the pre-roll time has increased a bit.

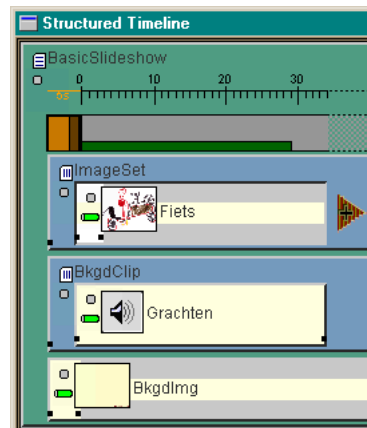
By specifying longer (in duration) media object first, the timeline scale can be optimized for use in visualizing the presentation. If we had first dropped an image onto the presentation, the time scale would have been different — not necessarily the timing of the presentation, just the time scale used by GRiNS to display the presentation structure.



In this screen shot, we see something quite important in GRiNS: the timeline is not of constant length and spacing. If you look at the timeline, we see a 3s pre-roll, followed by three seconds of image presentation time, followed by a lightly hatched area that is accompanied by a dashed timeline. GRiNS calls this dash time a *timeline discontinuity*. In this presentation, the discontinuity is not so important, but it is very useful in visualizing larger presentations.

A few of the important visual clues in the Structured Timeline view are:

- the drag handles on most media and structure objects, used to define start offsets and object duration,
- the green bandwidth pipes, which indicate that there is enough bandwidth available (at the current previewer setting) to deliver this object on time and without scheduling problems,
- the colored bar inside a media object that shows how the visual rendering of the object will be extended after the end of the object's *media duration* because of SMIL's timing and rendering fill rules,
- the use of a DropBox icon to indicate places in the template where the template designer expects you to add new media.



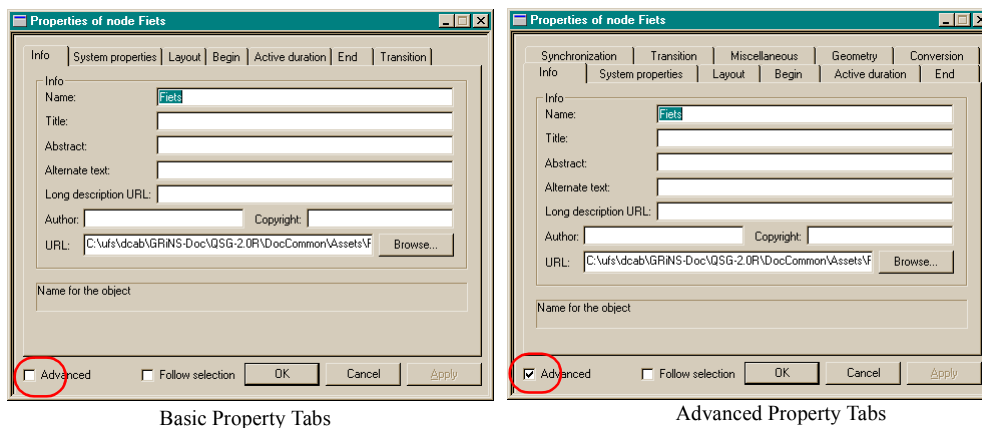
Many of these elements are brought together in the figure above. Working from top to bottom, we see:

- the pre-roll time for this presentation, at the bitrate specified in the preview control panel, is 5 seconds. Since the images *Fiets* and *BkgdImg* need to be available at time 0s in the presentation, so their bandwidth needs are calculated into the pre-roll. The continuous media object *Grachten* can be streamed, meaning that we only need to wait a little bit of extra time before we can start rendering the show;
- the image *Fiets* can be presented without bandwidth problems (the green pipe). It has a duration of three seconds, and a fill behavior of **freeze** (meaning it stays rendered until the end of its context). In addition, the template author expects you to add more images, so a DropBox was placed inviting more objects;
- the audio object *Grachten* is about 32s long. Since it is the longest object, it determines the fill time of all of the other objects. Note that while there is no DropBox after *Grachten*, you can still add a media object that gets played after

Grachten ends. The bandwidth analyzer doesn't expect any problems playing this object;

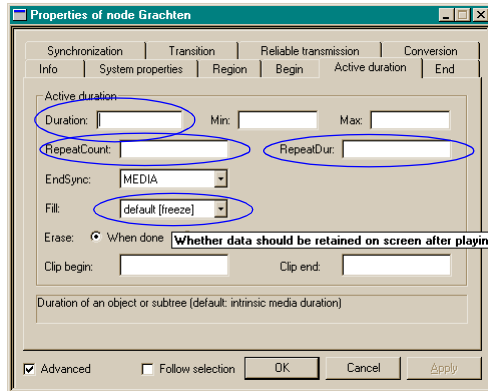
- the *BkgdImg* has a *defined duration of zero*. (Look closely at the timeline: the solid block of color that shows the media time takes up 0s of actual presentation time.) The fact that the object is visible is due to the *fill="freeze"* behavior of the media. Finally, we have enough time to load the object, since 5s of pre-roll is deemed acceptable.

When the template was created, the author determined reasonable defaults for most of the objects. You can override these, or add additional constraints in the presentation by pulling up the Property sheet of an object. (This object can be either a media item or a structure group.) The properties are divided into *basic* properties and *advanced* properties. The basic properties available for image nodes is shown below at left, and the advanced properties are shown at right.



In order to effectively control all aspects of the RealONE presentation, you should take the time to read the Real Production Guide carefully. For casual use, you probably never need to open the property tabs at all.

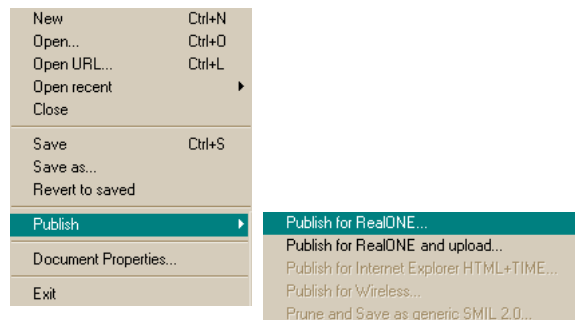
(In Template-Only versions of GRiNS, property tabs are not available to the user.)



One of the property tabs that is important to understand is *Active Duration*. This tab lets you define the value of various attributes associated with the duration of the object, and how it is rendered. (The advanced tab setting is shown; the attributes circled in blue are available in the basic setting. Note that the value-added GRiNS/Pro version of the editor allows settings of additional attributes.)

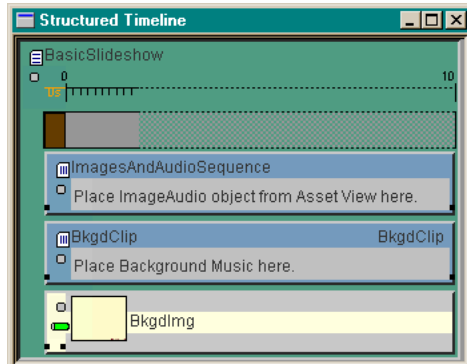
You should now populate the template with various sorts of media objects. You can preview the behavior of the presentation using the internal previewer (either the entire show or any individual object (or group of objects)).

You should also use the **File->Publish** command and view the presentation in the RealONE Player, as shown below.



Slideshow with Background Music and Audio Captions

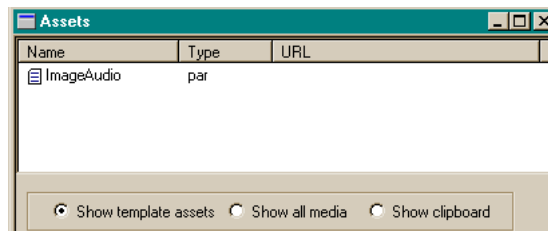
The second template in the Slideshow series is essentially the same as the first, with one important difference: it allows you to build up the presentation based on a collection of complex structure groups that are saved as *GRiNS Template Assets*.



Look at the empty view of the template at left. It has an appearance that is familiar from the first template, but the commentary on the container labelled *ImagesAndAudioSequence* says to place an *ImageAudio* object from the *Asset View* in the presentation.

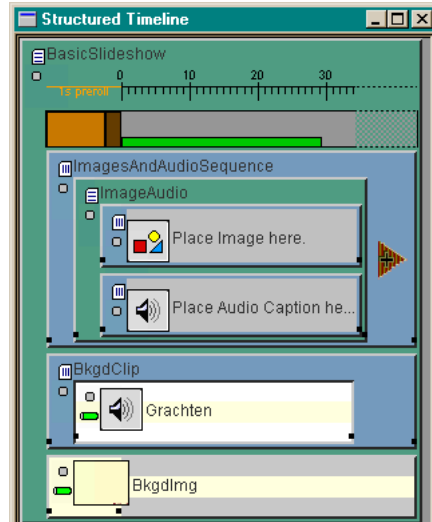
The *GRiNS* assets view is a utility container that allows you to manage assets in the presentation.

A view of the container defined for this template is shown at right. Under the button **Show template assets**, we see one asset named *ImageAudio*. It has been imported into the template, so it has no external URL. The type of group used to define the asset is a SMIL *par* container.

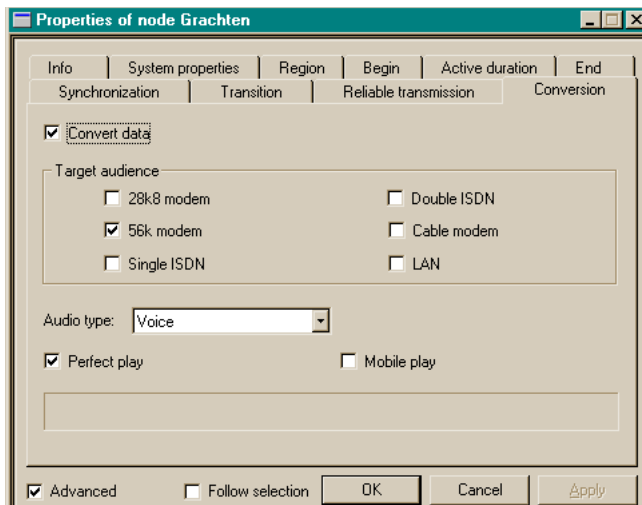


Using standard drag-and-drop techniques, grab the *ImageAudio* asset from the *Assets* view and drop it onto the *ImagesAndAudioSequence* container in the *Structured Timeline* view. As is shown on the following page, the *ImageAudio* asset provides a place to put one (or more) image(s), accompanied by some audio caption. Thus, if you have an audio caption that was made to accompany a single image, you can have one image and one audio. If, other the other hand, you want to have several images accompanied by a single audio caption, you would add more than one image to the Asset container.

In the view shown, we've added the background music and then dragged an ImageAudio asset into the ImagesAndAudioSequence container. The template author expects us to add multiple images with captions, thus the DropBox is places outside the asset. Of course, this template (like all GRiNS templates!) is intended to be enabling rather than confining. If you wish, you can place new objects anywhere in the template. (Note that some versions of GRiNS support locked templates, giving the template author more control over how the template is filled.)



As with other GRiNS templates, you have the ability to control various aspects of

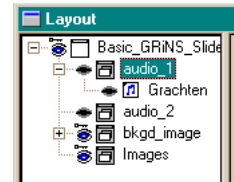


the presentation via the Property sheets. Most of these properties involve setting values for the presentation, but some involve the conversion of media objects during publishing. In the figure at left, we see how the various conversion parameters to RealMedia can be set by GRiNS/RealONE. The values set in these tabs influence the bandwidth

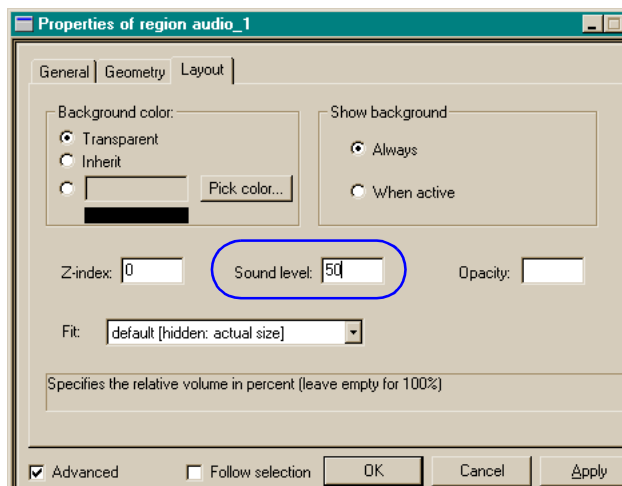
needs displayed in the bandwidth strip at the top of the Structured Timeline.

Another of the values than can be set within GRiNS involve various rendering attributes. These attributes are not properties of individual nodes or objects, but of the layout Region in which they are presented.

To view these, open the Layout view (Windows->Layout) and look at the Region Selector at the left side of the layout view. Select the region *audio_1*, as shown in the image at right, and then select **Properties** under the right mouse.



The Region property box has the values shown below.



There are several types of SMIL related attributes in this tab, but the one that is of interest to us in this example is the **Sound Level** attribute. (See the circled area in the image.)

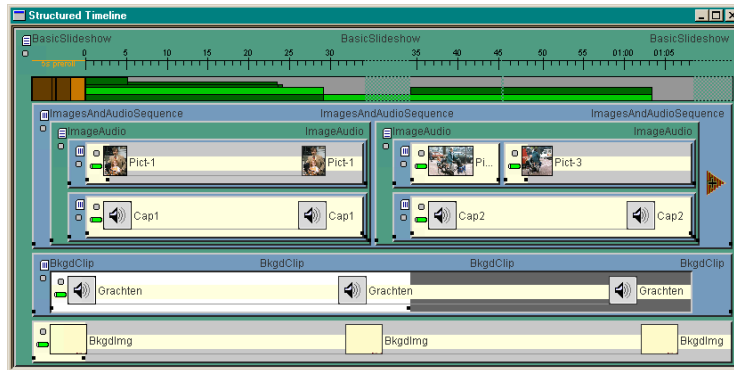
In applications with multiple audio regions, you can set the desired sound level for each region independently. The RealONE Player will produce a final result that

mixes all of the audio. (Note that GRiNS/Pro allows you to animate these values so that the sound level increases or decreases at will during the presentation.)

Assume now that we've done the following:

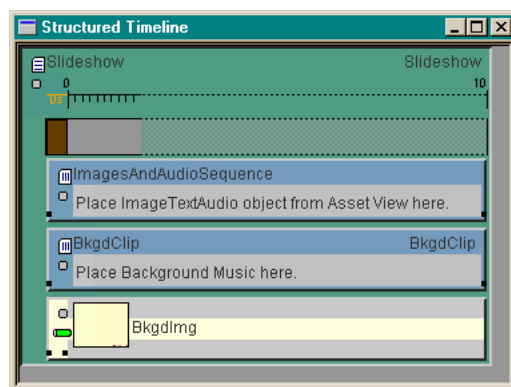
- added a background music node, and set it to repeat twice (via *ActiveDuration*)
- added two ImageAudio assets, filling one with one caption and one image, and the second with one caption and two images.

The figure below shows the Structured Timeline for these actions:



Note that the background of the BkgdClip object is now dark instead of light; this is an indication of the Repeat behavior of this object. Note also the time discontinuities in the timeline — these allow us to add structure annotation in a temporal view.

Slideshow with Background Music, plus Audio and Text Captions

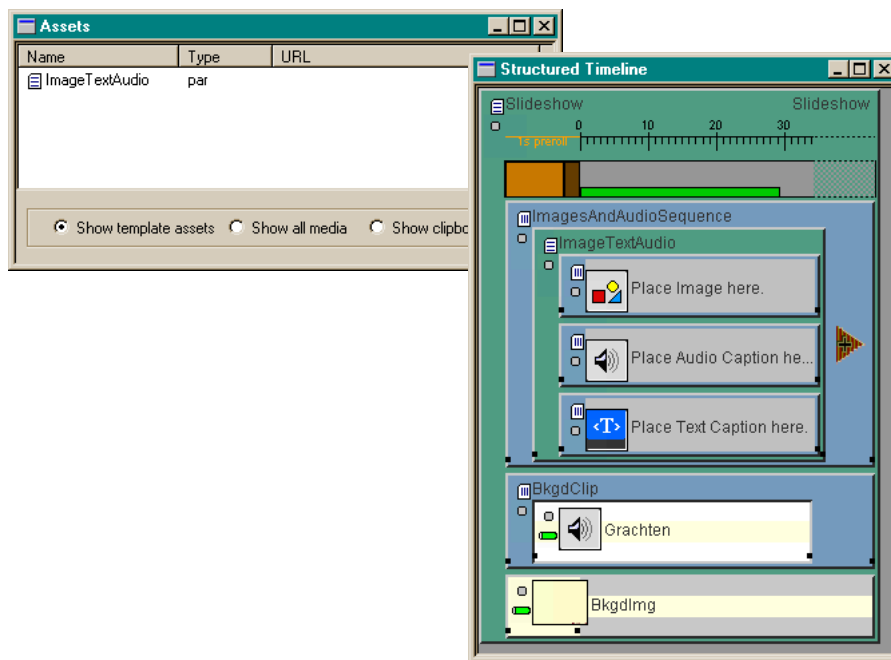


The third of the Slideshow templates allows the addition of text captions into the presentation. The basic template is the same as we've seen in the second template, but the object in the Asset view now contains a more complex media asset: a combination of containers for images, audio captions and text captions. (You can potentially use several types of text for captions, but using a

RealText object give you extra control of text placement timing.

The image at left below is the Asset view (as we've seen before); the image at right shows the placement of the object into the template. You can use GRiNS to link into your favorite object editors. The **Edit->Edit Content** command will activate the content editor associated with the file type in your presentation.

(GRiNS/Pro comes bundles with various media editors, depending on configuration of the product. GRiNS/RealONE allows you to access editors from with your application.)



GRiNS/RealONE Video Templates

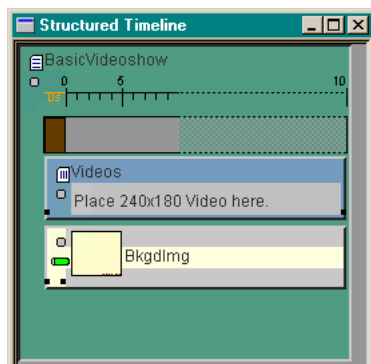
The GRiNS/RealONE Video templates will help you create video-based presentations with a minimum of effort.

There are two Video templates in the GRiNS/RealONE Template set:

- Video Show (240x180)
- Video Show (320x240)

We suggest that you read through the descriptions of all of the Template to get a better idea of how GRiNS/RealONE works.

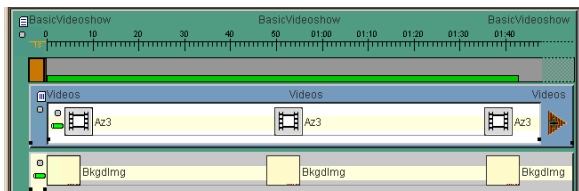
Video Show (240x180)



When many people think of streaming media, they think of small, postage-stamp sized video presentations. Luckily, with improved end-to-end bitrates and improved codecs, the size of the video on the Web doesn't need to be that small. But more importantly, if you want to partition a story from a set of video fragments — or sections of video combined with images and links — SMIL and RealONE (and GRiNS!) can help you add value to your video media.

In order to get started with video, the Video 240x180 template gives you an easy framework for publishing your work. Just drop a video object into the Videos

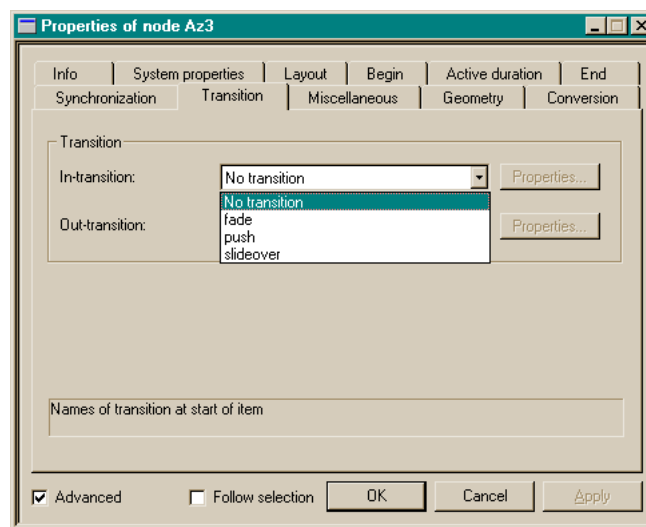
container, and hit preview, and you'll see a single video presentation. In the image above, we see the effect of adding a single video of just over 100 seconds in length. The preview bitrate was set to 112K, and the encoding of the video to 28.8K.



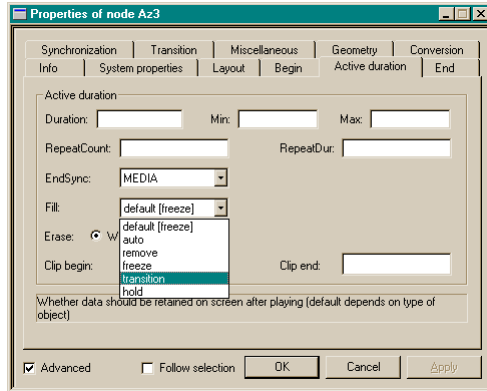
Having a video start and stop abruptly does not always give a very positive user experience. You can improve this by adding input and out transitions. There are basically two ways to add such transitions: you can alter the source data by using video editing software (such as Adobe's Premier), or you can use GRiNS to insert transitions in the SMIL presentation instead of the data. The main advantages of using GRiNS are:

- you don't have to alter the source data. If you use the same video clip several times in a presentation, you can use different in-/out transitions with every instance.
- you don't violate the copyright of the source by changing it.

In order to set a transition on a media item, you bring up the Properties sheet and select the Transitions tab, as shown at right. The *Video* template has three transition types pre-defined. They all have default properties (such as direction and duration), which you can change by selecting the (sub-)properties tab set for each transition type.

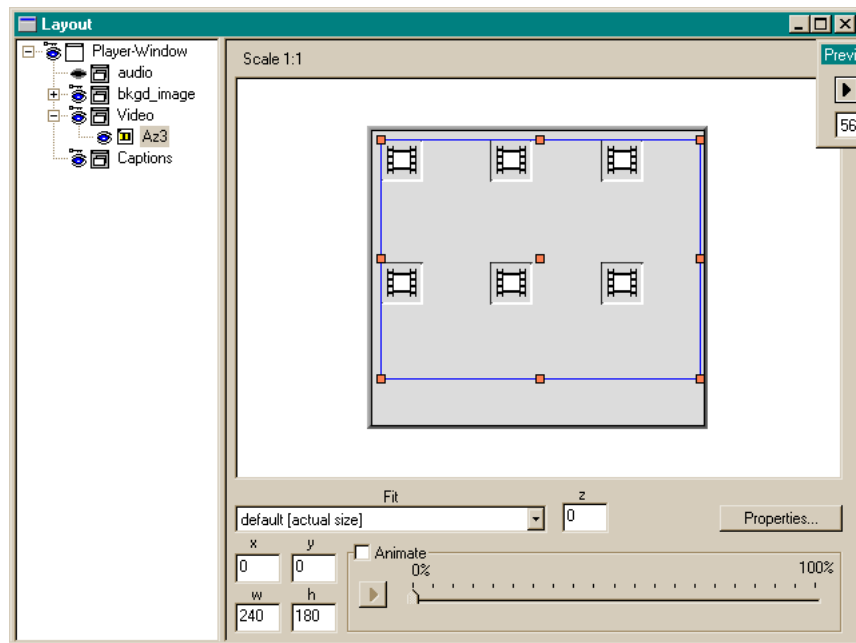


Selecting an *input transition* is usually a one-step process. If you specify an output transition, however, you may also have to specify (in the **ActiveDuration** tab) that the object you want to transition out stays on the screen long enough for the transition to be visible. SMIL gives you two choices: you can set the fill attribute to either *transition* or *hold*.



In order to set the value of the fill attribute to *transition*, open the **ActiveDuration** tab and pull-down the selection menu for fill type. Then select *transition*. You can also select an explicit duration for the video (which will override the intrinsic duration of the video itself). You can also select to show only part of a video by specifying a clip begin/clip end time (but doing this without using a Real server will sometimes cause problems).

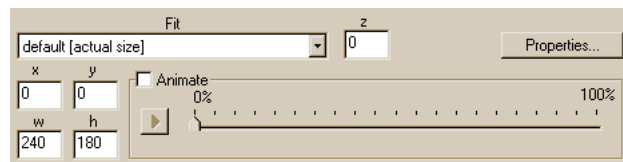
Another option to add life to your video presentation is to animate its position. You specify this via the GRiNS Layout window, as shown below.



The layout window contains several sub-windows. At top-left is the Region selection window. This window allows you to select a top-level layout window, a region within that window or a media object in a region. When a key appears above the 'eye' icon, it means that region or object will be displayed in the main Layout view. The object being manipulated is indicated by the grey-back selection.

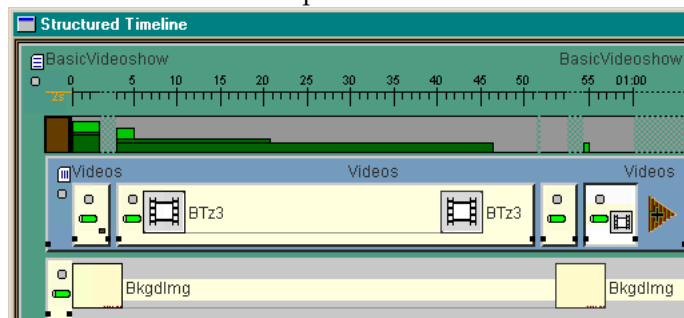


You can specify how the video object fits in the window by trying various values for the Fit attribute. This will allow the media to be shown at full size, or scaled to meet the window size. You can also enable animation and move the location of



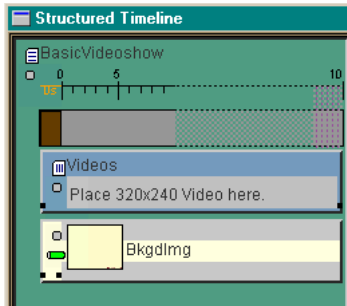
the video within the region over time. When you animate, you define what happens during the video's active duration, but not during its fill behavior.

In order to get familiar with the features for video, add two videos to a presentation and then test various settings for placement and alignment. A two-video structure view is shown below. Note that each video is preceded by a title slide, which is shown in the same region. Note also that since the last (and very short) video is highlighted, we see the impact of this video on the bandwidth in a highlight color in the bandwidth strip.



Video Show (320x240)

The template for the 320x240 video show is identical to that of the 240x180 show, except that the video is somewhat larger — and thus requires a larger background image.

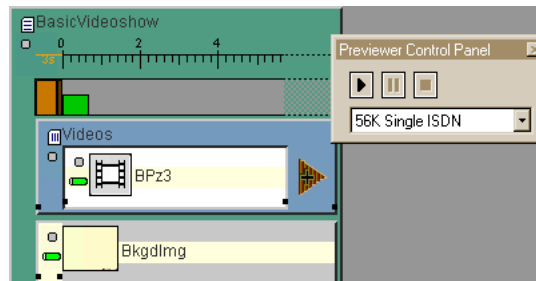


In point of fact, depending on the setting of the fit attribute in the layout view (shown above), this template will take on a video of any size and either scale it to fit in the window, or clip off the parts that don't fit. Still, it is better for everyone concerned when the client doesn't have to scale the final video product.

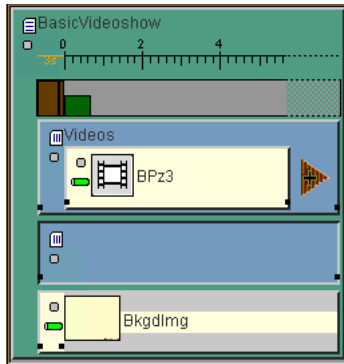
Since we already have shown how you can manipulate most of the basic template options, we'll use our discussion of this template to show how the basic presentation can be expanded.

First, take a piece of video and place it in the *Videos* container. Doing so yields the view at right.

Now suppose we'd like to add some captions to this presentation. There are several ways to do this. We'll look at two of these ways: adding a general captions container, and adding individual caption to each video object.



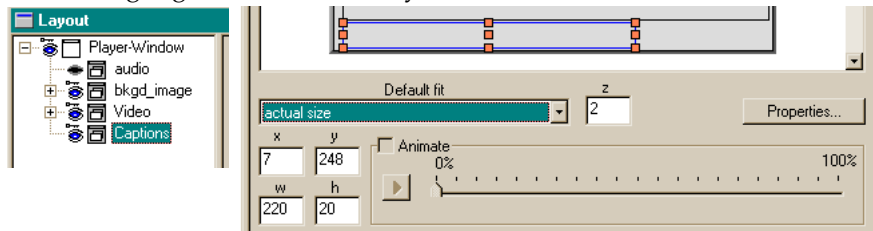
To create a separate captions container, go to the Containers toolbar. This should be in the toolbars area of your window, but if it isn't, you can activate it via the View->Toolbars->Containers command. (The toolbar is shown at left.) Select the blue container, with the tool tip *Sequential Group*.



Drag the *Sequential Group* icon onto the Structured Timeline, placing it below the *Videos* container. This will result in the view at left.

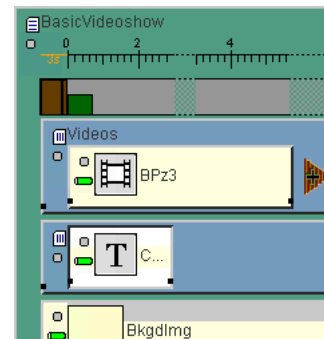
What we have done is to define a new container inside of the same parent par container as the *Videos* group. Since we want to insert a caption, we also could have just added a media object here, but planning ahead and using groups to hold media means that you can create multiple objects in a uniform manner.

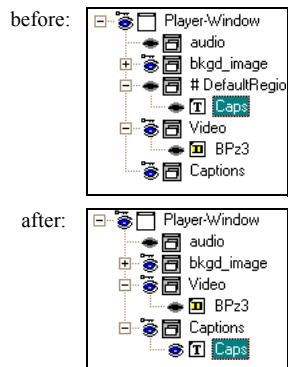
Before adding any assets, we should also indicate where we want the caption to be played. Open the Layout view. You will see that the Template author was thinking ahead: there is a Captions region already defined. Select the region and note the highlighted area on the layout area.



Now, place a text media caption into the presentation by dragging the text file holding the caption into the container we've just made. The resulting view is shown at right. What this view is telling us is:

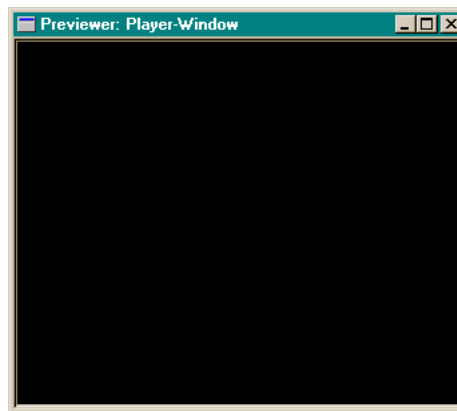
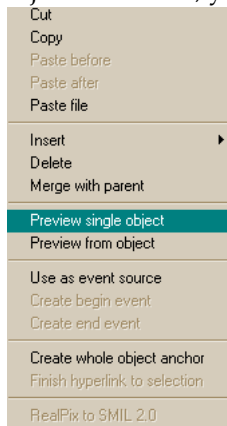
- we have a video container, a captions container and a background image that will run from a common timebase.
- The video is about 5 sec. long, the image is about 3 sec., and the background image is 0 seconds (but with a fill="freeze".)



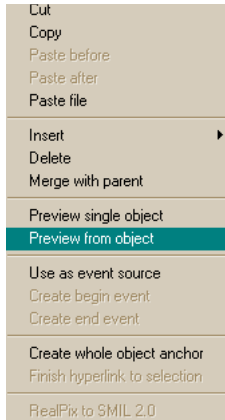


Once you've added the captions object, look at the Layout view again. In the left selection area, you'll see that the *Caps.txt* object was placed into a temporary default region (named *#DefaultRegion*). Since this is not where we want the object to be, we can grab the *Caps.txt* object and drag it to the *Captions* region. The before and after effects of making this move are shown at left. (Note that if the template author was really thinking ahead, the template would have said that *Captions* was the default regions for new text items!)

At this point, we've added a caption into the presentation. To make sure we have the correct data object, we should preview the show. If you do this via the Preview Single Object command, you get the view below:



We see a lot of black, but this is not an error. We are actually seeing a caption with a default text color of black against the default black background. (This is the behavior in GRiNS previewer; early versions of RealONE always inserted a white border around the text.)



In order to see what the caption looks like in context, try the Preview From Object command in the Editor. He we see that the black caption is correctly placed against the presentation background.

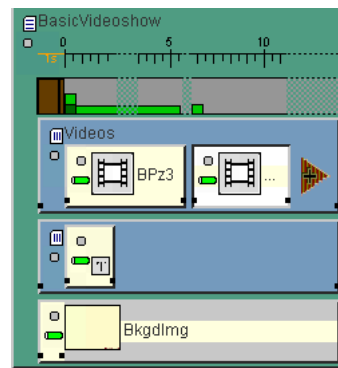
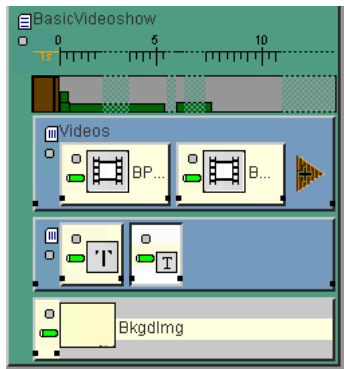
(The entire caption file we used had the text:

This is a boy trying to hit a softball thrown by his sister.

The text has been clipped because of the value of the Fit attribute for the region.)

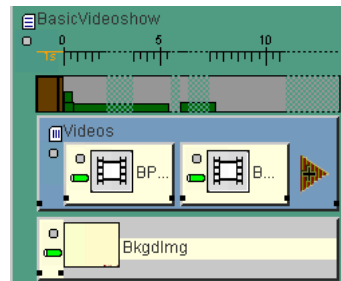
Now, let's add a second video to the presentation. Drop the video after the first. This will give you the Structured Timeline view shown at right. The duration of the caption is unchanged, but the duration of the overall presentation has doubled.

You should now add a second caption file:

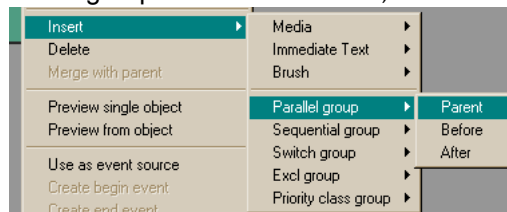


The second caption will start when the first one ends, rather than when the second video starts. Adjusting the start times of each of the captions to match that of the corresponding video is not hard: you use the drag handles at the bottom of each text object. However, if you later replace some of the videos, you will need to adjust the start times of the captions manually.

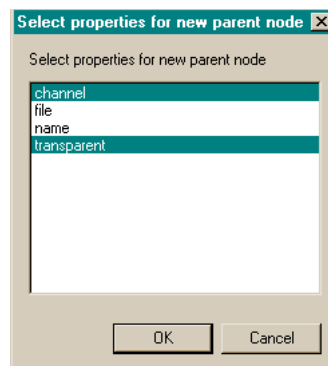
GRiNS can make the structure of your presentation more media-independent. Start by getting rid of all of the captions items by deleting the container in the **Structured Timeline**. This yields the view at right. What we will now do is to wrap the first video object within a parallel group, and add a caption object to that group.



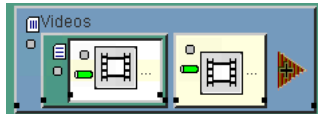
Start by selecting the first video object, and then select the **Insert->Parallel group->Parent** command, as shown below.



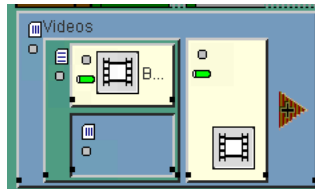
This creates a wrapper group around the one selected. When you create a new group in this manner, you get a special GRiNS dialog that lets you select which attributes of the child you would like to send to the parent. (See right.) You should un-select all of the options, since we don't need to actually set any parent values.



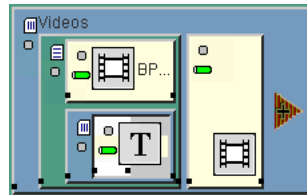
The set of images on the next page show the effect on the presentation of adding the wrapper, then adding a *Seq* group and then adding a caption.



Step 1: Add a PAR wrapper around the video



Step 2: Drag a SEQ group from the Container toolbar into the new PAR wrapper



Step 3: Drag a captions object into the new SEQ group

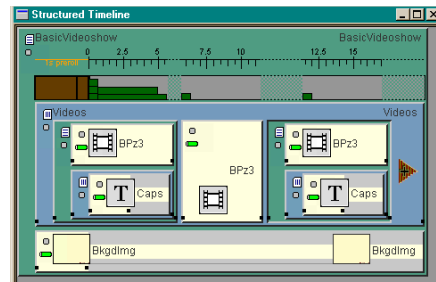
(You could have dragged a captions object directly into the PAR group, but using a SEQ can give you some flexibility if all of your captions are not in one file.)



Once you've created the captions group and verified that the region association is correct, You can copy the entire PAR wrapper element and then paste it within the videos component using Paste Special->Within.

You now have the ability to add captions (or any other type of media) based on the composite structure containers you've created. The view at right shows a mix of individual videos and captioned components.

(If you plan to do a lot of captioning, consider upgrading to GRiNS/Pro; it contains features to streamline caption production and editing.)



GRiNS/RealONE Adaptive Templates

The GRiNS/RealONE Adaptive templates will help you create presentations that can scale to the bandwidth available across a network connection. Unlike encoding-centric solutions, such as Real's SureStream technology, the GRiNS/RealONE templates provide a solution based on the SMIL switch construct. The advantage of using the switch mechanism is that you can make non-trivial substitutions of content: the issue is not always a different encoding of, say, video — sometimes you may want to use a whole different encoding for each audience.

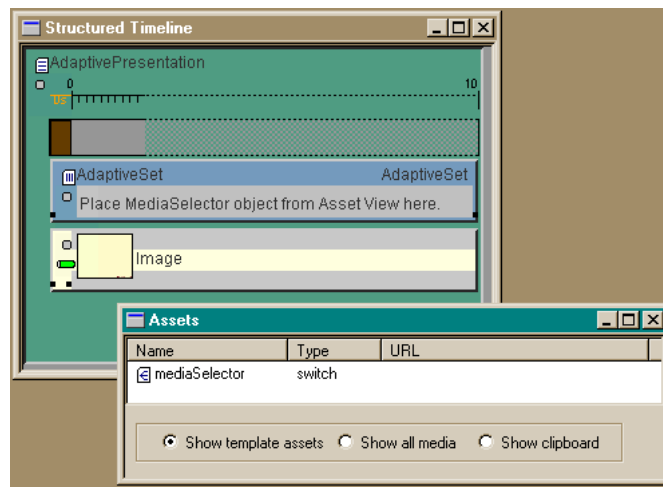
There is one Adaptive template in the GRiNS/RealONE Template set:

- Adaptive Video Presentation

Only one Template has been included in the base set, because the techniques you learn by using this Template can be applied to many other presentations as well.

Adaptive Video Presentation

Select the Adaptive Video template from the template set. You will see the following view in the editor:

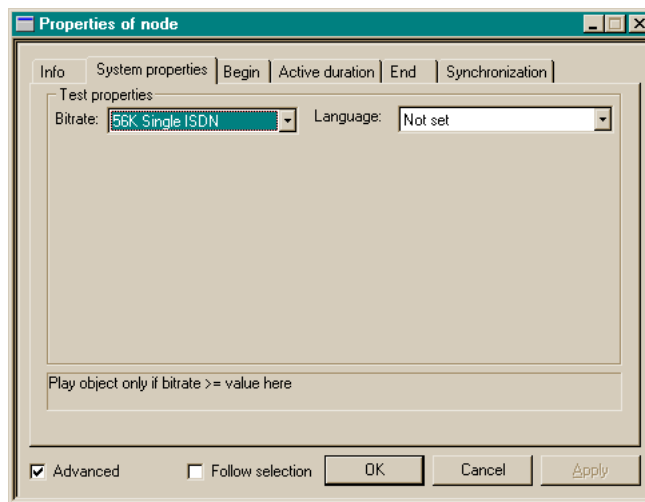
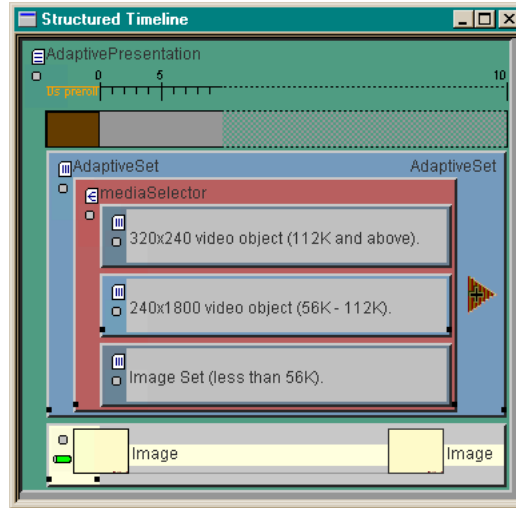


This view is similar to the more complex slideshow templates. You drag a complex structure container (defined by the template author) into the Structured Timeline. The view you now see is shown at right.

The *AdaptiveSet* object contains a red *mediaSelector* object, which contains:

- a container for 320x240 video
- a container for 240x180 video
- a container for a set of images

The red container is the GRiNS representation for a SMIL *switch*.



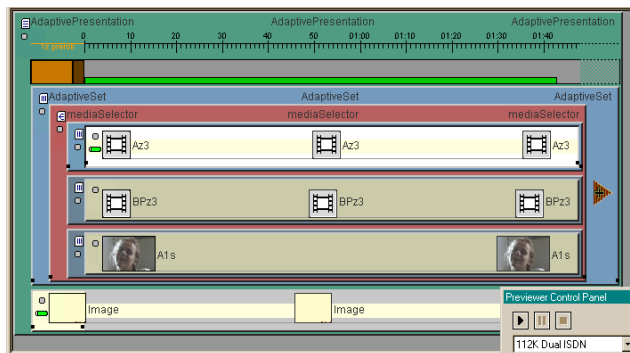
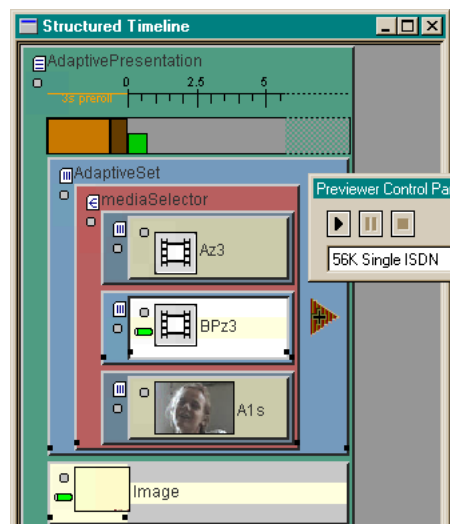
A *switch* is a selector container. Each of the objects inside the switch are evaluated by the RealONE Player in a top to bottom order. Each object can contain a *test attribute* setting. These settings are defined in the System Properties tab of the object's property sheet. An example of a system properties tab is shown. GRiNS/RealONE gives

you access to the Bitrate and Language properties. GRiNS/Pro allows you to set all SMIL system test attributes.

Of the powerful features of a switch is that only one of the candidate items are selected for presentation, based on the runtime characteristics of the environment. This mean, however, that the overall presentation timeline will change, depending on which element gets selected. The *structure* of the presentation doesn't change, just the *timeline*.

In the example at left, the top object is defined to play if the available bitrate is 112K or more. The middle object will play if the bitrate is between 56K Modem and 122K. The lower object will play if no other object has been selected. (It has this behavior because it has no bitrate set in its property tab: if none of the object above have been selected, then this one is activated by default.)

You should open the property tabs for each of the objects and look at the System Properties settings. Keep in mind that only the settings for the first-level children of the *switch* are used — the settings on the media objects don't matter.



(The image at left shows the same Structured Timeline view as above, but with 112K selected in the previewer control panel. GRiNS greys out the nodes that are not active in the switch, so that you get a better view of the presentation.

The use of the *switch* node is a very powerful construct in GRiNS and SMIL. In the example above, we've done a fairly straightforward substitution of media objects, but in more complex presentations, you can substitute entire sub-presentations.

The switch element can be nested — that is, a switch can have a *switch* as a child. You should be careful to remember that it is the direct children of a *switch* that have their system properties evaluated, and not the *switch* itself.

In some presentations, you may not want to substitute one element for another, but instead may only want to conditionally add a single object. You can do this without a switch by simply setting the system properties of any object. The player will then check to see if the requested condition is true — if so, it plays the object, and if not, it won't.

The GRiNS/RealONE editor was designed to allow manipulation of basic system test attributes. The GRiNS/Pro editor provides additional facilities to control more aspects of the presentation, including conditional captions and other accessibility features.

GRiNS/RealONE Empty Templates

The GRiNS/RealONE Empty templates will help you create presentations that can serve a wide range of needs. The Empty template contains all of the structure and background information you need to get started making custom presentations. You can then add structure groups, switches, animations and media content at will.

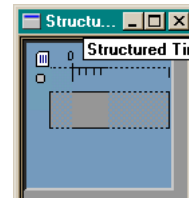
There is one Empty template in the GRiNS/RealONE Template set:

- Empty RealONE Presentation

Only one Template has been included in the base set, because the techniques you learn by using this Template can be applied to many other presentations as well.

Empty RealONE Presentation

Open the Empty template from the template set. You see a Structured Timeline that does not contain any internal objects, just a general timeline and an empty bandwidth usage strip. While the empty template seems fully empty, it actually has some useful content.



You can see this content by opening the Source window.

```
Source
<?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="Empty RealONE Presentation"/>
    <meta name="generator" content="GRiNS Editor for RealONE win32 build 97"/>
    <meta name="author" content="Licensed to: Dick Bulterman"/>
    <layout>
      <root-layout id="Player-Window" backgroundColor="black" width="480" height="240"/>
    </layout>
    <transition id="slideover" type="slideWipe"/>
    <transition id="fade" type="fade"/>
    <transition id="push" type="pushWipe"/>
  </head>
  <body>
  </body>
</smil>
```

The empty document contains most of the XML boilerplate required to create a correct SMIL-2 application. It also hold some of the meta data that can be used to catalogue the presentation.

You can create the actual presentation by placing structure groups and media objects into the Structured Timeline. The groups can be entered via the **Containers** toolbar, shown at right. The color of the groups match their GRiNS visual equivalents:



- the green container is a SMIL par;
- the blue container is a SMIL seq;
- the red container is a SMIL switch;
- the dark purple is a SMIL excl; and
- the light purple is a SMIL priority class.

Whenever you add a container object to a presentation, you get the property sheet for that node. Use this to fill in properties such as the node name, or other useful information. An empty generic property sheet is shown below.

Properties of node

Info | System properties | Begin | Active duration | End | Synchronization

Info

Name:

Title:

Abstract:

Alternate text:

Long description URL:

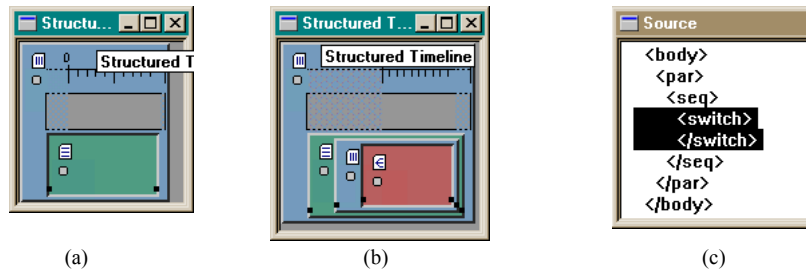
Author:

Copyright:

Name for the object:

☒ Advanced ☐ Follow selection

The figure below shows the effects of adding several container nodes to the Structured Timeline:



- (a) shows the impact of adding a PAR container;
- (b) shows the view after adding a nested SEQ and Switch; and
- (c) shows the SMIL source view for (b).

You can create any RealONE application using the empty template and the various GRiNS editing features. The advantages of using GRiNS over a text editor (which you could also use to create any RealONE application) are:

- incremental previewing via the GRiNS/RealONE preview engine;
- syntax and other error checking
- bandwidth monitoring and evaluation
- the ability to import and convert legacy RealPix
- the ability to open and extend any existing SMIL content and publish for the RealONE player
- the ability to visualize the structure and the temporal aspects of the presentation as it develops.

We welcome your comments on GRiNS/RealONE and the GRiNS template set.

Please contact:

grins-support@oratrix.com

GRiNS Edition Comparison Information

GRiNS Packaging Information

The GRiNS Editor for RealONE 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 each of the available editions.

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

GRiNS Feature Table	GRiNS / Ent	GRiNS / Pro	GRiNS / Real	GRiNS / IE-6	GRiNS / 3G
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 / Ent	GRiNS / Pro	GRiNS / Real	GRiNS / IE-6	GRiNS / 3G
New Presentations:					
From Templates	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Custom Document	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	--
Create New Template	<input checked="" type="checkbox"/>	--	--	--	--
Import:					
From Existing SMIL-2	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	--
From Existing SMIL-1	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	--	--	--
From Existing RP-6/7/8	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	--	--
From Existing HTML+Time	<input checked="" type="checkbox"/>	--	--	<input checked="" type="checkbox"/>	--
Publish:					
To SMIL-2 (Generic SMIL-2)	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	--	--	<input checked="" type="checkbox"/>
To RealONE	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	--	--
To SMIL-1	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	--	--	--
To RP-6/7/8	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	--	--	--
To HTML+Time	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	--	<input checked="" type="checkbox"/>	--
To SWF	<input checked="" type="checkbox"/>	--	--	--	--
To MPEG-4	<input checked="" type="checkbox"/>	--	--	--	<input checked="" type="checkbox"/>
Publish & Prune to Profile	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Based on Bitrate	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Based on Language	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	--	--	--
Based on Captions	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	--	--	--
Based on Any Test Attribute	<input checked="" type="checkbox"/>	--	--	--	--
Convert					
RealPix to SMIL 2.0	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
SMIL 2.0 to RealPix	<input checked="" type="checkbox"/>	--	--	--	--
Media Objects to RM	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	--	<input checked="" type="checkbox"/>
Media Objects to WMP	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	--	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Content					
Link to Installed 3rd Party Editors	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Embedded image trimmer	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	--	--	--
TWAIN object import	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	--	--	--

GRiNS Feature Table	GRiNS / Ent	GRiNS / Pro	GRiNS / Real	GRiNS / IE-6	GRiNS / 3G
Toolbars					
Standard Configuration	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Customize Configuration	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	--	--	--
UI Features					
Show Asset Thumbnails	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Customize Asset Thumbnails	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	--	--	--
Show Playable in Switch	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Customize 'Show Playable'	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	--	--	--
Structured Timeline View					
Standard Timeline View	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Customized Timeline View	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	--	--	--
Optimized Structured Timeline	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	--	--	--
Source View					
View Source	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	--	--
Edit Source	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	--	--	--
Animation Editor					
Child Animations on Nodes	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<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"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	--
Create PRIORITY CLASS	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	--
Transitions					
Use Standard GRiNS set	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<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 / Ent	GRiNS / Pro	GRiNS / Real	GRiNS / IE-6	GRiNS / 3G
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 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 / Ent	GRiNS / Pro	GRiNS / Real	GRiNS / IE-6	GRiNS / 3G
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	☑	☑	☑	☑	☑
ReadIndex	☑	--	--	--	--
Event Sensitivity	☑	--	☑	☑	☑
Erase	☑	--	--	--	--
Sychnronization 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 / Ent	GRiNS / Pro	GRiNS / Real	GRiNS / IE-6	GRiNS / 3G
Linking					
Create whole-node anchors	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	--	--
Create partial-node anchors (X/Y)	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	--	--
Create timed anchors	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	--	--
Created external anchors	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	--
Events					
Create short-cut events	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Create/edit begin events	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	--
Create/edit end events	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	--

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/>

GRiNS/RealONE Quick Reference Information

SMIL Compliance Information

The GRiNS/RealONE 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 various versions of GRiNS Editor for RealONE:

MIME type	Extensions	Windows 98/2K/XP	Mac	Linux(4)
audio/basic	au	yes	yes	yes
audio/x-aiff	aiff, aifc, aif	yes	yes	yes
audio/x-wav	wav	yes	yes (1)	yes (1)
image/jpeg	jpeg, jpg	yes	yes	yes
image/png	png	yes (2)	yes	yes
image/tiff	tiff, tif	yes	yes	yes
image/x-portable-anymap	pnm	no	yes	yes
image/x-portable-bitmap	pbm	no	yes	yes
image/x-portable-graymap	pgm	no	yes	yes
image/x-portable-pixmap	ppm	no	yes	yes
image/x-rgb	rgb	yes	yes	yes
image/x-xbitmap	xbm	no	yes	yes

MIME type	Extensions	Windows 98/2K/XP	Mac	Linux(4)
	bmp	yes	yes	yes
	ras	yes	no	no
	tga	yes	no	no
video/mpeg	mpeg, mpg	yes	yes	yes
video/quicktime	qt	yes	yes	yes
video/x-msvideo	avi	yes	yes(3)	yes (3)
video/x-sgi-movie	mov	no	no	yes
text/html (5)	html, htm	no	no	no
text/plain	txt	yes	yes	yes

Notes

1. Uncompressed WAV only.
2. Support seems to be somewhat buggy.
3. Not all encodings supported.
4. Linux information provided for planning purposes only.
5. HTML data is rendered by the GRiNS Preview Player, but not converted to RealText.

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/RealONE 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	yes

Notes

1. GRiNS/RealONE 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/RealONE 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.

References and Links

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

Where Next?

The GRiNS Editor for RealONE *Quick Start Guide* provides you with a general overview of GRiNS and a particular introduction to GRiNS/RealONE.

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 following a set of simple and straight-forward GRiNS/RealONE tutorials. These can be found in the GRiNS/RealONE *Tutorial Guide*, which is available in on-line (HTML) or off-line (PDF) formats. Consult the documentation provided with your GRiNS/RealONE Editor access key to find the current set of tutorials 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.

The GRiNS Web site (www.oratrix.com/GRiNS) 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!