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# CREATING A REALMEDIA PRESENTATION WITH SYNCHRONIZED WEB EVENTS

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## Introduction

RealAudio and RealVideo files can be created in such a way that specific resources on the World Wide Web are opened by a Web browser at specific temporal points within the audio or video stream. This technique is especially useful for creating online lectures consisting of an audio narration synchronized with the slides of a PowerPoint presentation. General procedures for creating such a presentation are outlined in this guide.

It is assumed that the reader is already familiar with authoring and uploading Web pages, converting Microsoft PowerPoint slides presentations to HTML, and creating and uploading RealAudio files. Specific details on how to work with RealMedia files are covered in the following documents:

- **Preparing a RealAudio Presentation**  
<http://www.online.uillinois.edu/documentation/realaudio/realaudio.pdf>
- **RealAudio and RealVideo Content Creation Guide**  
<http://service.real.com/help/library/encoders.html>

## I. Create the RealMedia File

Create a RealMedia file using the instructions in the **RealAudio and RealVideo Content Creation Guide** or **Preparing a RealAudio Presentation**. If your file will be a lecture or narration with synchronized slides, you may find it helpful to view the slides with your browser (or with PowerPoint) as you record your presentation.

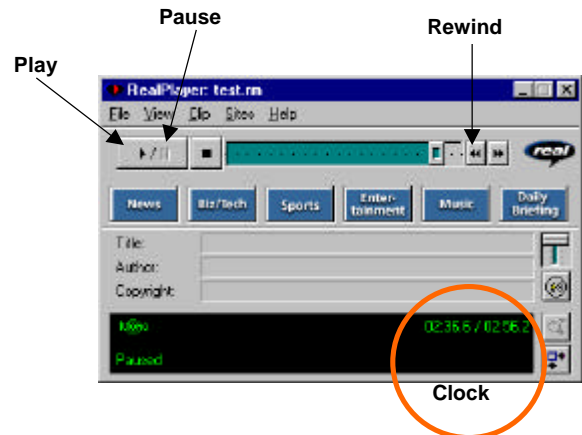
**Tip:** Although it is possible to record the presentation directly with the RealEncoder application, we recommend using a sound editor such as **CoolEdit 96** instead. Once files are encoded in RealMedia format, they can no longer be edited. Recording the file with an editor and saving it in a standard audio format such as **.wav** will allow you to insert pauses, correct mistakes, and remove noise and distortion.

**Tip:** Leave generous pauses between slide or URL changes to give the browser enough time to load the page.

For the time being, leave the RealMedia presentation file on your local storage device.

## II. Record Event Start and Stop Times

Play the RealMedia file with RealPlayer. In the lower right area of the window, a clock will display the elapsed time of the audio/video clip. See the diagram below:



Use the **pause** button to stop the clip at the moment when you would like a new Web page or resource to load. Write down the time and the URL of the resource you want to access. Then click the **play** button to start playing the presentation where you left off. Repeat this procedure until you've recorded the start and stop times for each Web event in your presentation. If you miss an event, you can use the **rewind** button to go back to an earlier point in the file.

## III. Create the Input-Event File

Use a plain text editor such as NotePad to create a so-called *input-event* file. The input-event file is a text file that contains the start-time and end-time for each Web resource that you want to visit during the presentation. The syntax of the input-event file is:

**u starttime endtime EventURL**

where **u** denotes a URL event, **starttime** is replaced with the elapsed time when the Web resource should be opened, **endtime** is replaced with the time when the browser should leave the resource, and **EventURL** is replaced with the URL for the Web resource.

The time format for **starttime** and **endtime** is:

**[[[days:]hours:]minutes:]seconds[.tenths]**

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## PREPARING A REALAUDIO/REALMEDIA PRESENTATION

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A typical series of entries might look like this:

```
u 00:00:10.0 00:00:59.9 http://www.mysite.edu/slide1.html
u 00:01:00.0 00:02:30.0 http://www.mysite.edu/slide2.html
u 00:02:31.0 00:03:00.0 http://www.mysite.edu/slide3.html
```

A template input-event file is available for download at:

<http://oliver.pb.uiuc.edu/lynnward/RealMedia/template.txt>

Save the input-event file to the directory containing your RealMedia presentation file.

### IV. Merge the RealMedia File with the Input-Event File

The RealMedia Encoder for Windows 95/NT version 5.0 and later comes with a utility called **rmmerge.exe** that merges the input-event file with the RealMedia file, creating a new RealMedia file with embedded events. Follow these instructions to use **rmmerge.exe**.

1. Get to a DOS prompt (Open the Windows **Start** menu and choose **Programs->Command Prompt**).
2. Change to the drive and directory containing the **RealEncoder** program (The file **rmmerge.exe** should also be located in this directory). For example:

```
C:\> cd \real\RVEncode
```

3. At the DOS prompt, type the following command:

```
rmmerge -f rmevents <input-event file> <input-media file> <output-media file>
```

where *<input-event file>* is replaced with the full pathname of the event file, *<input-media file>* is replaced with the full pathname of the original RealMedia file, and *<output-media file>* is the full pathname for the new merged media file. For example:

```
rmmerge -f rmevents c:\docs\events.txt c:\docs\lecture1.rm c:\docs\lecture1.merged.rm
```

4. Test the merged file by playing it with the RealPlayer. If your browser is not yet open, it should open and go to the first event and then move to each successive event according to the timings in your input-event file.
5. If you are not satisfied with some of the timings, adjust the input-event file and regenerate the merged media file.

### V. Upload the RealMedia File, Create a RealMedia Metafile, and Link to It

When you are satisfied with the quality of your RealMedia file and the timing of the synchronized events, upload the file to the data directory for your RealMedia server. Then create a RealMedia metafile and a web page that links to it as described in **Preparing a RealAudio Presentation** and the **RealAudio and RealVideo Content Creation Guide**.

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