

Creating and Publishing Streaming Media Files

This guide provides instructions on making media files available on the Web through Haverford's streaming server. It assumes some familiarity with Web publishing and multimedia.

Note: When you are taking the work of others, please be aware of possible copyright restrictions concerning use of the material. Published streaming files reside on Haverford's publicly-accessible Web space.

An account on Haverford's streaming server required to complete these instructions. This is different from the account used to publish Web pages. Contact the ACC if you do not yet have an account.

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I. Getting Started

If you are new to publishing files on Haverford's streaming server, you should first speak with your ACC liaison to set up your streaming server account. Your liaison can also help you obtain and access the necessary hardware and software for your project. A variety of devices and software programs are required to record, prepare, and upload your media files. Depending on your needs, you may be directed to one of the media labs and workstations on campus.

Follow the instructions listed below to prepare the programs and equipment needed for your project.

Required Materials

1. Check the table on the next page to determine which hardware and software is required for your needs. Install or locate the software as needed.
2. With computer you will be using to prepare files, download and install the free **RealProducer Basic 8.5** program (or the most recent version) from:
<http://proforma.real.com/rn/tools/producer/>
3. You will need a Web editor, such as **Claris Home Page** or **Dreamweaver**.
4. PC Users will also need an FTP client, such as **FTP Explorer**.

REQUIRED HARDWARE AND SOFTWARE FOR PREPARING STREAMING FILES

Original Format	Hardware	Macintosh Software	PC Software
Compact Disc	Computer with a CD Drive	QuickTime Pro 4 , \$29.99 from: http://www.apple.com/quicktime/download/ Available at the Language Learning Center	RealJukebox 2 Basic , free download from: http://proforma.real.com/real/jukebox/jukebox.html
Video Cassette	VHS Player, wired to a computer with a Digital AV Interface Available at the Roberts Multimedia lab	Final Cut Pro Available at the Roberts Multimedia lab	Not supported, use a Macintosh
Digital Camera	Digital Camera with firewire connectivity, computer with firewire port	Apple Movie Player QuickTime Pro 4 , \$29.99 from: http://www.apple.com/quicktime/download/ Available at the Language Learning Center	Not supported, use a Macintosh
Computer File	If you are starting from a media file in .avi , .mov , .qt , .wav , or .au format, proceed to Section III.		

II. Creating Your Files

If the media you wish to publish on the Web is not yet stored in a digital file format on your computer, you will need to follow the instructions in this section for converting your materials to computer files. See also the table above for a list of required hardware and software.

A. CD Tracks

Follow the steps below to use the CD copying software to record audio files.

Mac: Quick Time Pro

1. Open the QuickTime Pro Player.
2. Insert the audio CD into your computer's CD-ROM drive.
3. Select **Import** from the **File** menu.
4. Select the CD and the track you wish to record.
5. Click **Convert**.
6. Click **Options** and enter the following (these settings can be changed according to your needs):
 - Set rate to **22.050khz**
 - Set size to **16 bit**
 - Set uses to **stereo**
 - Click **OK**
7. Click **Save Location** and specify the location for your file.
8. Click **Save**. The CD will start recording, and a "movie" of your tracks will open.
9. From the **File** menu select **Export**.
10. Click **Options**. Ensure compression is set to **IMA 4:1** and click **OK**.
11. Click **OK**. Name your file and click **Save**.
12. This will start exporting the captured clip to your computer.

PC: Real Jukebox

1. Double click on the **RealJukebox** icon to start the program.
2. Insert the audio CD into your computer's CD-ROM drive.
3. Click the **CD** button on the RealJukebox toolbar. The main window will display a list of tracks. Click and select the track you wish to record.
4. Under the **Tools** menu, select to **Preferences**, then click the **Audio Quality** tab.
5. Under **Select a Format**, verify that **Wave Audio** is selected.
6. Click on the record button, which is a red circle in the top left-hand corner of the window.
7. The CD will start recording, saving the tracks as .wav audio files in your **C:\My Music** folder.

B. Videotape

Follow the steps below to use the VHS copying software to record video files.

Mac: Final Cut Pro

Play the video tape and open Final Cut Pro. Select **Log and Capture** from the **File** menu. You can then save the captured clip to your computer.

C. Digital Video

Mac: Quick Time Pro

1. Transfer the digital video camera movie to the Macintosh
 - a. Plug in your digital video camera to the Macintosh G4 with the firewire cable.
 - b. Set your digital video camera to video switch for play back purposes
 - c. Open **Apple Video Player** from the Apple menu.
 - d. Under **Windows** select **Show Controls Window**.
 - e. Click **Play** on the digital video camera while simultaneously hitting **Record** on the control window.
 - f. The video will start recording from your video camera to the computer. Click **Pause** to stop recording portions of the video as desired.
 - g. When you have finished the portion of the video you want to record, click **Stop**.
 - h. Name your file in the window.
2. Convert the saved movie to QuickTime format
 - a. Open QuickTime Pro, and under the **File** menu select **Open Movie**.
 - b. Select your saved movie file and click **File Export**.
 - c. Click on **Options** and ensure the video settings are **sorenson video** and the audio settings are **IMA 4:1 44.100 kHz 16 bit stereo** (for optimal sound).
 - d. Name your file in the **save as** box. Ensure your exporting to a QuickTime movie from a movie.
 - e. Click **Save**. This will start your movie exporting (this may take awhile).

D. Other Formats

Contact your ACC liaison for information and instructions on working with audio cassettes, and live audio and video feeds.

III. Preparing Your Files: Using RealProducer

Starting with your computer media file, follow the steps below to produce a file to be loaded on the streaming server.

1. Launch the Real Producer program and select **New Session** from the **File** menu (this window automatically appears when starting the program).
2. Select **Record from File** and click **OK**.
3. **Browse...** for the media file you would like to convert to Real media. RealProducer only recognizes files of type **avi, mov, qt, wav, or au**. Select your file and click **Next**.
4. Enter the title, author, and description if you wish and click **Next**.
5. Select **Single rate for Web servers**, and click **Next**. (If you are preparing a file for off-campus users, you may want to change this setting to include modem users).
6. Check **Corporate LAN** and click **Next**. (Again, depending on your circumstances, you may want to change this setting).
7. Select **Stereo Music** and click **Next**.
8. Enter a name for your converted file, and click **Next**.
9. Click **Finish**.
10. Click the **Start** button in the RealProducer window. Your file will start encoding. When the process finishes you will get a dialog box saying **Processing complete**, click **Close**.

IV. Uploading Your Files

Publishing your media files on Haverford's streaming server requires that you have an account on the server. If you do not have an account, contact your liaison in Academic Computing. Your liaison will discuss your project with you. In cases where you have a need for intense use of disk space or other resources, you may also need to discuss your project with the director of Academic Computing.

You can upload your Real Media (.rm) files by following the instructions below.

Macintosh - via AppleShare

1. From the **Apple** menu, select the **Chooser**.
2. In the **AppleTalk** services list (the top left box), click the **AppleShare** icon.
3. In the **Zone** list, click on **HC ACC Services**.
4. In the **File Server** list (the large box on the right side), select **www2.haverford.edu** then click the **OK** button.
5. When you are asked to connect as a **Registered User**, enter your email username for **Name** and your Eudora email password in the **Password** field.
6. In the next window, select the **stream for name** volume then click the **OK** button.

7. The appropriate volume will appear on your desktop. You can now close the **Chooser** window and access your streaming content. Drag and drop files to move them between your computer and the server.

PC - via FTP

1. Using your FTP client (such as FTP Explorer), open the following connection:
 - **Host address:** ftp.haverford.edu
 - **Login:** Your Eudora email username
 - **Password:** Your Eudora password
2. Change the directory to **/home/stream/name** (where **name** is your Eudora username)
3. You can now copy files between your computer and your directory on the server.

V. Linking to Your Files

From a Webpage, you can link to the .rm files on the streaming server. The linking syntax is:

`http://stream.haverford.edu:8080/ramgen/~juser/filename.rm`

Where *juser* is your Eudora username, and *filename* is the name of the media file.

Authors wishing to protect their media files from outside visitors should place their page containing the streaming media links on Haverford's Internal Web space.

For example:

- The streaming file **lecture.rm** is uploaded to the streaming server as described in **Section IV**.
- The Webpage file **lecture.html** includes a link to the **lecture.rm** file, using the syntax shown in the box above. The Webpage is uploaded to the instructor's Web space.
- Visitors to the **lecture.html** page clicking on this link and having the necessary software installed will be served with the streaming **lecture.rm** file.

Real Media files can be played with the free RealPlayer Basic program, which is available for download at: <http://www.real.com/player/>. Minimum system requirements for RealPlayer are listed on this site. Users should also have the most recent version of their preferred Web browser.

Experienced Web users can also embed media files to play within a Web page by using the HTML `<EMBED>` tag. The HTML code for an embedded Real Media video file, for example, may look something like this:

```
<p align="center">
<embed src="http://stream.haverford.edu:8080/ramgen/~juser/filename.rm?embed"
autostart="false" controls="ImageWindow" width="300" height="240" console="window1">
</embed>
<br>
<embed src="http://stream.haverford.edu:8080/ramgen/~juser/filename.rm?embed"
width="300" height="100" controls="All" console="window1">
</embed>
</p>
```

For more information on creating multimedia for the Web, see the online **Help** menus in RealProducer and the other programs. If you require additional assistance, contact your liaison in Academic Computing.