



How to Add Live Audio and Video to Your Site

RealNetworks How-To Series

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These instructions give you a quick overview on how to add a live audio or video feed of your radio station, corporate event, analyst call or almost any live event to your Web site using RealNetworks® products. Although these instructions are specific to the Windows operating system, we support four different operating systems for RealProducer and eight operating systems for the RealServer family. All are available from RealNetworks.com for immediate download and installation.

This application is to enhance—not to replace—the user documentation that ships with each product. Please see the Troubleshooting section at the end of this document for help with any problems you may be encountering.

Order and download your software:

For this implementation we recommend the following three software products, which can easily be found and purchased at RealNetworks.com:

- RealSystem® Producer 8.5 Plus—for real-time encoding of your digital audio and video media
- RealSystem® Server 8 Plus—to support and manage the delivery of your digital media for up to 60 simultaneous users
- RealPlayer® 8 Plus—to test digital media as your audience will experience it

These three products are all supported by RealSystem® iQ which has broader content support and greater redundancy than ever before. To learn more visit RealNetworks.com.

For purchased products, we'll send email instructions with the necessary download information and serial numbers (also known as license keys). Given the pace of innovation in our industry, we strongly encourage customers who are purchasing our software to include Upgrades & Support at the time of purchase.

Make sure you have the right hardware:

For a live event we recommend installing RealServer and RealProducer on separate computers (with at least a Pentium II class processor) and that they be “cleanly” connected on the same network segment rather than relying on the Internet. In contrast, your Web server can be somewhere entirely different than the two computers listed above.

Your encoding computer will need sufficient ISA cards to accept a video-capture card. The media-server computer should have a minimum of 128 MB of RAM; 256 MB is recommended. When selecting network connectivity hardware, think through your network requirements. If you plan to support up to 60 users with 34 Kbps streams, make sure you have a minimum of 2 Mbps of available capacity between your media server and your audience. Think about possible choke points; applications like Web servers or email servers are also using the capacity, and their peak load may squeeze capacity from your media server.

You'll also need the right audio and video connecting hardware. Most computers have a 1/8-inch mini-plug line-in for audio, but most audio sources use something else. Many home and semi-professional electronics use RCA or phone plugs; you'd need a 6-foot “Y” adapter audio cable. This is available at many electronics stores—for example Radio Shack cat. no. 42-2481. Your video source may also require an adapter cable to connect with the RCA receptacle on the Osprey card.

To install and configure RealServer:

1. You've downloaded the software; click its icon to start the installation process.
2. Locate your "license file" (emailed to you with your order confirmation).
3. Enter a user name and password to access the server and to confirm some port settings.
4. Click **OK** to start RealServer Plus.
5. Enter your user name and password; the interface will launch in a browser.
6. Click the **Documentation** link in the browser. The RealServer Administration Guide will appear in another browser window (the Quick Start section is extremely helpful). This will help you finish configuring your server and provide information on more advanced topics.

To install and configure RealProducer:

1. We recommend you install any necessary audio- and video-capture hardware *before* you install RealProducer Plus. Then RealProducer will smoothly detect and integrate with the hardware.
2. After downloading the software, click the RealProducer icon to start the installer.
3. Enter your serial number (see your confirmation email) and answer any other questions.

Practice encoding to files:

We recommend you practice encoding to file to ensure that the audio- and video-capture devices are working.

1. Let RealProducer's wizard mode help you through your first media capture and encoding procedure.
2. Use the wizard to capture to a file called "temp" or something similar and click **Start**. In both windows of RealProducer Plus you'll see whatever media-capture device is connected to your video input and you should see the audio meter move up and down.
3. Once you've captured a sample, click **Stop** (it will ask you to confirm), then click **Play** to view the file in RealPlayer.

If you are having difficulties with any of the steps listed above, please refer to the Troubleshooting section at the end of this document or your product manuals and service.real.com.

To connect the audio and video source to your RealServer:

1. First, connect the wires to your audio and video sources. If you can capture your signal to a local file and play it back locally, you're ready for the next step.
2. Use the Live Broadcast Wizard in RealProducer to set up the stream. Use a simple file name that's easy to remember. Remember to type the .rm file suffix (e.g., live.rm). You'll need the name of the RealServer, the user name and password you set up when you installed the RealServer.
3. When this connection is established, go to the RealServer administrator and click the Monitor tab—this will show how many RealProducers and how many listeners are connected. Other options and capabilities for more advanced users and applications are detailed in the RealServer manual, but you're now streaming media from one computer to another.

To connect your RealServer stream to your Web page :

If you've followed the procedure described above, you've got one computer encoding and another computer running a simple live encoding application with default settings. Your signal is already at the RealServer.

1. To access it directly, you may have to type something like this:

`http://address:HTTPPort/ramgen/encoder/path/file`

You'll only need to type this once into a source for the Web page. This will associate to a [Click Here](#) which your audience will recognize . Let's dissect this string:

address—This is the IP number or name of the computer running the RealServer

HTTPPort—Usually 8080, unless you've changed it

ramgen/encoder—Don't change these strings

path—Optional, probably not required unless you've specified path in RealProducer

file—This is the name you give your file; remember to use the suffix .rm

Here is an example: `http://servername:8080/ramgen/encoder/live.rm`

2. To test this path, put your version of the above in a browser; the browser will resolve the address for the stream and start RealPlayer.
3. To make this a link in a Web page, add this line to your html:

```
<a href="http://servername:8080/ramgen/encoder/live.rm">Click Here</a>
```

Now you're ready to begin streaming live audio and/or video from your Web site!

Advanced Applications

You've seen how easy it is to add basic live audio and video to your site. Here are some things you could add to the set-up above:

1. **Local Archive.** You can make a copy of your live event on either the RealServer computer or the RealProducer computer. Then you can stream a speech live, for example, and keep an encoded copy for subsequent playback.
2. **Embedded Player.** Here we've used a stand-alone instance of RealPlayer. You can also create an embedded instance of RealPlayer or even launch it in a compact mode. Compact mode is the easiest, just modify the code as follows:

```
<a href="http://servername:8080/ramgen/encoder/live.rm?mode=compact">Click Here</a>
```

Additional Resources

Streaming Media Starter Kit

Get everything you need to stream live audio/video from your site. And save \$375. The Streaming Media Starter Kit includes:

- Osprey 100 video-capture card
- RealSystem Producer Plus—Content-encoding software
- RealSystem Slideshow Plus—Web slide show software
- RealSystem Presenter Plus—Add audio and video to PowerPoint presentations
- RealSystem Server Plus—Supports up to 60 simultaneous users
- Upgrades & Support—Worth nearly \$1,000

To learn more about the Streaming Media Starter Kit, visit RealNetworks.com.

Troubleshooting

If the Sound Recorder doesn't show a waveform when the audio is live:

You may have a cabling problem or you may have to check to your multimedia settings.

1. Check the volume control (click on the speaker in the tool tray), select Options/Properties and then select Adjust Volume for Recording. Make sure the capture device is selected, not muted. You can use this slider to set your volume levels so the meter in RealProducer Plus reads in the acceptable range (just like setting recording levels in a cassette player).
2. For video, go into Options/Video Capture Settings/Video Format to change the image size you want to capture. This dialog box, from the video-capture device you've installed, should offer a variety of sizes at which to capture your video. If your driver doesn't give you sufficient control or granularity, you can capture at a larger size, then use the video-scaling control in RealProducer Plus to reduce size further.

Where to Find Additional Information

This overview will help you get started; for a more thorough explanation, refer to your product documentation or the Knowledge Base and Tech Support FAQs available through service.real.com.

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