Radiosity
Version 1.5

Internet Radio Timeshifting

1. Introduction

Thanks for choosing to try out Radiosity. Radiosity is an application to timeshift Internet radio broadcasts for later replay through a computer, portable music player, or burned audio cd.

Radiosity can only record from ShoutCast™ compatible mp3 feeds at this time.

Radiosity has been released as freeware. My only request is that if you use this program to record from a public radio station, please support them with a donation.
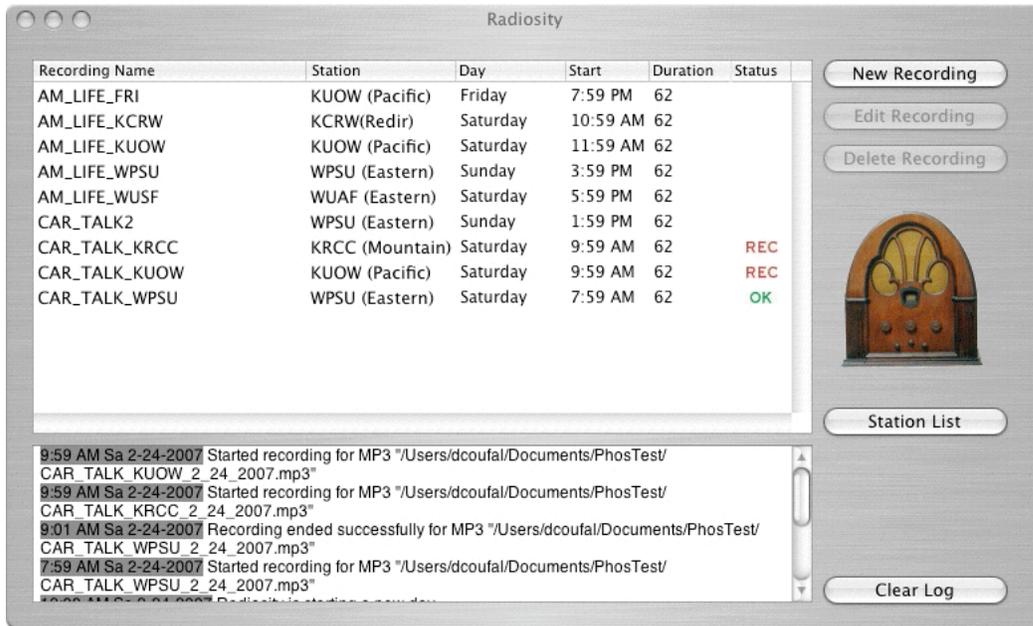
2. Installation

Radiosity is distributed as a compressed .dmg disk image. Uncompress the disk image and double click to mount. The Radiosity folder can then be dragged to your Applications folder. It is now ready for use.

3. Use

Upon opening the Radiosity application, you will see the main window, containing a list of "Recordings" that you have requested that Radiosity record for you.

Below the list of recordings is a log window. Radiosity displays a running log of all recording activity in this window (including start and stop times, and also any errors that Radiosity encountered in trying to record your show.)

Before we create any recordings, we'll have to add our favorite "Stations" (websites that stream ShoutCast™ compatible mp3 streams) to our station list.

a. Station List

To get to the Station List, press the "Station List" button or hit cmd-S. You can now see a list of Stations, and you can edit, delete or create new stations from this window. Warning: if you delete a station, all the recordings that record from that station will be deleted.

b. New Station

To create a new Station, go to the Station List and select the "New Station" button. From the "New Station" dialog, you can enter the station name and the URL of the mp3 stream.

At this time, Radiosity only supports the "playlist" style URL. These can be identified by the ".pls" file extension. Support for the ".m3u" style URL is experimental, and will not work for many stations.

You can find mp3 streaming Stations in several ways:

publicradiofan.com:

This website maintains a listing of many (if not all) public radio stations that broadcast streams over the net. Look for stations with the WinAmp™ logo (a lightning bolt).

http://www.publicradiofan.com/

shoutcast.com:

This website maintains a listing of lots of stations broadcasting music, talk, and other audio services using the ShoutCast software.

http://www.shoutcast.com/

Your favorite radio station:

Look up your favorite radio station on the web, and see if they offer a mp3 stream over the web. These are usually identified as 'WinAmp™" or mp3 streams.

Once you've found your station(s), enter them through the New Station dialog. You can test that these stations work either by setting up a temporary recording in Radiosity (see later in this document), or by opening iTunes and opening the URL of the station in the Advanced -> Open Stream menu option.
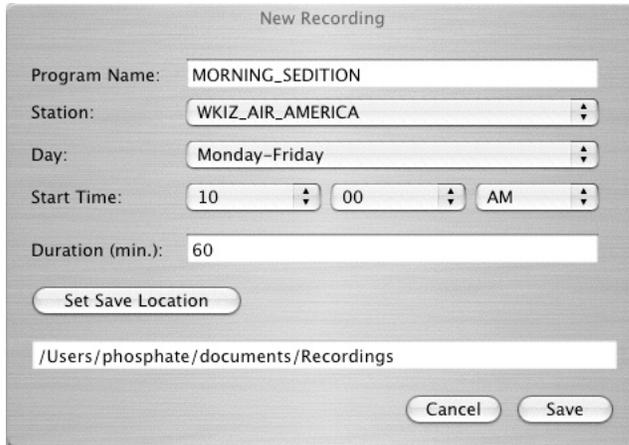
c.   Recording List

Once you've entered in your favorite stations, you can go back to the main Recording List window. Here, you can create new scheduled

recordings, delete old recordings, or edit existing recordings. Let's create a new recording.

d. New Recording

You can create a new recording by either selecting the "New Recording" button or hitting cmd–N. You are then presented with the New Recording dialog.

The name of the new recording is important. Not only does it identify the recording for you, it also is the basis of the filename that Radiosity will store your recording in. So, pick something unique here.

Then select the Station that you wish to record from, and which day you want to record (you can select any individual day of the week, just weekends, or just weekdays).

After this is done, you select the time you wish to record. Be careful here! You may be recording from a station that is outside your time zone, and you may have to correct from that stations time zone to your own. Here's a chart to help out (assuming that you are in the United States …)

		Station Time Zone			
		Pacific	Mountain	Central	East Coast
Your Time Zone	Pacific	0	–1 hours	–2 hours	–3 hours
	Mountain	+1 hours	0	–1 hours	–2 hours
	Central	+2 hours	+1 hours	0	–1 hours
	East Coast	+3 hours	+2 hours	+1 hours	0

For example, if I were in the Central time zone, and I wanted to record from a Station in the Pacific time zone, and the program starts at 8 AM

Pacific, I would look up on the chart that I need to add +2 hours to the start time. So, I would have my Recording start at 10 AM Central.

If you are in a state or county that does not observe standard daylight savings, or are out of the U.S.A., you are on your own.

You can then enter the duration of the program, and also the directory where you want the mp3 file to be saved. Be careful! This directory should be world writable (or, at least writable by the user that is running Radiosity).

TIP: Add a little padding to the beginning and ending of programs. I usually have programs begin a minute before their stated beginning times, and end a few minutes after the ending times. Many stations, and particularly public radio stations, are not that particular about precise starting and ending times.

Once you are done specifying your Recording, hit the Save button to save it to your list.

e. What happens during a recording?

Your machine must be on and awake and Radiosity must be running to record a program! Once the time to record a program comes, Radiosity will initiate a record. A red "REC" icon will appear in the Recording list, and the Radiosity Dock icon will get a red dot to indicate that it is recording.

Radiosity will automatically record to a file in the directory you specified. It creates an mp3 file with a name that is based on both the name of the Recording and the current date. So, if you had a Recording called "FRESH_AIR" that recorded on Dec. 14, 2005, the final recording name would be "FRESH_AIR_12_14_2005.mp3."

If the recording succeeds, a green "OK" icon will appear next to the Recording in the list. You may find your completed mp3 file in your specified directory. You can then add it to iTunes, or burn it to cd, or do anything you want with it!

If there was a problem with the recording, a yellow "ERR" icon will appear next to the Recording. Also, the reason for the error will be located in the log window. Most common errors are (1) Unreachable Station (usually your internet service would be down in some way, or the Station is down or has changed their URL, or you have entered the Station URL incorrectly), (2) Unreliable connection (usually this is with smaller Stations

that have problems maintaining many streams during popular listening times) and (3) local file problems (this is usually due to permission problems, the Radiosity user must have permission to write to your specified directory.)

The "history" (i.e. the "OK" or "ERR" status of a Recording) is cleared every night at midnight.

4. FAQ

Does my machine need to be on for Radiosity to record?
Does Radiosity need to be running to record?

Yes! Your machine needs to be on and awake, and Radiosity needs to be running. You can be logged out, however, as long as Radiosity is running while you are logged out.

Can I record more than one program at a time?

Yes! You can up to the limits of your bandwidth. If you are using some kind of broadband (DSL or Cable Internet Service) or better connection, you should be fine with several simultaneous Recordings.

What versions of the Mac OS do you support?

We support 10.4 only.

Is Radiosity available for Windows?

Not yet.

Do you support "m3u" style Stations?

Not at this time. We're looking at this for 2.0.

Do you support recording from Streaming Windows Media or RealAudio streams?

No. If you need this, there is a shareware program called "Audio Hijack" that will do this for you. It's great!

Do you support recording from the audio inputs in my mac?

Not at this time. We're looking at this for 2.0.

Where does Radiosity store my Stations and Recording data?

Radiosity stores your data in "(Your home directory)/Library/Application Support/Radiosity/". Your mp3 files are stored wherever you specified in the New Recording dialog box.

Is Radiosity written in Cocoa?

The UI is written in Cocoa/Objective-C. There is a reptilian hind-brain (that does all the work) written in C++ that is more UNIX-ish.

Is Radiosity a Universal binary?

Yes it is!

I'm having problems with some particular station. What's wrong?

We do not support Windows Media streaming, RealAudio streaming, or m3u style streams (if the stream address ends in .m3u, that means we do not support it). If you're getting an error saying "Server will not accept user-agent," we will not support that stream.

If the stream is a playlist style (i.e. the address ends in .pls), and it will play in iTunes, but will not record in Radiosity, please send that station info to support@periodicsoftware.com. We will try to fix Radiosity to support that stream!

Where should I send bug reports or feature requests?

Please send all such requests to support@periodicsoftware.com.

5. Company

Periodic Software was formed as a custom software development and consulting company in 2000 by David Coufal. Periodic Software specializes in cross-platform development and porting. More information about the company can be found at:

http://www.periodicsoftware.com/

More information about the author can be found at:

http://www.davidcoufal.com/