

# How to start a School Radio Station for FREE



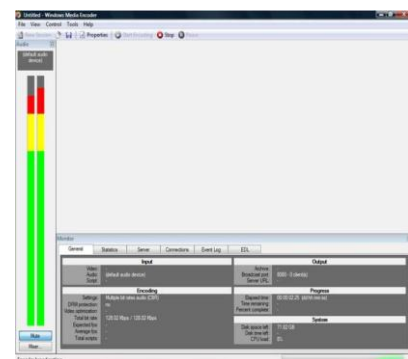
These are indeed tough times for us all and not least our school budgets, so it is perfectly acceptable to ask the question “can you start a school radio station with nothing”? The answer is yes you can. It isn’t likely to do everything elegantly and it will require higher than normal operational skills but you can start your journey into school radio right now with nothing. Use this guide to start your radio project and generate interest among staff and pupils. The following describes a route that will have your learners broadcasting music, jingles and their voices around your establishment using your network infrastructure. The audio is shipped around your network using an IP stream, much in the same way you would listen to an Internet radio station. The really good news is that you don’t need any special network privileges or permission from the network administrator to do this, it just works!

## Ingredients;

**A laptop or PC with CD player Windows Media Encoder Software (FREE to download) Microphone either connected or laptop inbuilt type Network connection – cabled type Speakers/Headphones Windows Media Player (found in the accessories sub-menu)**

First find an old laptop or desktop PC. This illustration is for PC and Windows platform technology, whatever you manage to get hold of it must have a soundcard with either a built in microphone or a 3.5mm microphone jack socket. A laptop is a perfectly good enough device; remember you are only starting your journey. The machine doesn’t have to be top spec but it must be connected to your network, a cable connection is better than Wi-Fi, I’ll explain why later on. If you name this computer using the name of your new school radio station, this will appear automatically in the listening stream address. Don’t worry if you don’t do this, the station can be renamed at anytime in the future.

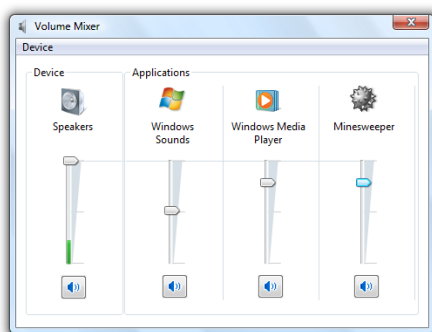
Download a copy of Windows Media Encoder onto this machine. This is a free application designed to re-code media files, it also has the capability of pushing an audio or video stream out around your network. It takes the source from the microphone and audio output of your soundcard. The wizard will take you through the setting up process where you will choose the soundcard and output quality and also the name of your station. This appears neatly on the bottom of your listeners’ media player. **Just Google Windows Media Encoder.**



You will need to answer the following questions in this order; What device do you want to use? – Select the name of your soundcard How do you want to broadcast your content? – Select pull What HTTP port number? The wizard will have already selected a number. Write

down the LAN address, as this is what you will need to type in to Windows Media Player on the network stations that you would like to listen from. Notice how Windows Media Encoder has used the computer name as part of this URL address. Next; you will have to select the quality, 135Kbps is the best for audio, lowering this will reduce the quality and network traffic on your network so you may find that you need to revisit this selection if network performance is impaired at all by streaming. You now get a chance to create an archive file for your broadcasts, this will automatically save each broadcast as a WMA file. Please note that WME will overwrite the previous WMA file the next time it is started, so please remember to copy the file to another folder if you want to save it. Finally you will see the Display Information Page. Type whatever you want to be seen scrolling on the bottom of Windows Media Player as listeners hear your broadcast. Finish and you're done, you can save this as a profile so you don't have to key it all in again. File, Save As; will allow you to name this setting file, you can then just double click on this file to start the Encoder again with all of your settings pre-loaded.

The Start Encoding green button is now illuminated; pressing this will start your broadcast. Playing a music track either from CD or from a WAV/WMA or MP3 file out through your speakers or headphones will now be broadcast as an audio stream around your network. At this stage it is not possible for this stream to be heard outside of your local network. Each listening station or device will make a direct connection with this computer, that's why a cabled connection will be better than Wi-Fi. You can still listen to your new radio station on a Wi-Fi connected device as that will only have to carry one audio stream; your network cable connection will carry up to 50 at the same time. One small adjustment may need to be made to the windows registry of this machine. Windows Media Encoder is capable of supporting 50 simultaneous listeners but the default setting is only 5. Editing the registry is a pretty scary business; get help if you need it, mucking an entry up can cost you your operating system. Technical instructions appear at the bottom of this document.



Use your Windows Volume Control Mixer to adjust the levels of content that you are playing; the CD, WAV and MIC can all be controlled separately.

To listen to the stream, connected stations will have to open Windows Media Player and type into the Open URL the address that you had previously noted during the setup wizard. This address shouldn't change, so you could put icons on desktops of listening stations.

When putting an icon onto a desktop remember to use the `mms://nameofyourstation:portnumber` format, the MMS will cause the default media player to open and start playing the stream.

Admittedly this is all a bit clunky, but it will get you started and that was the purpose of this exercise. Try some live shows at arranged times. There is something quite different with a live show compared to a podcast. Listeners can interact with broadcasters by text message and email, social networking or by phone and broadcasters can react to this too. Live radio is full of problem solving with greater emphasis on preparation; there is no safety net either.

Not getting it right will require a high level of robustness and an ability to cope. It is these skills that I have found live radio develops in young people like nothing else. Having a sense of audience and learning by doing are top skills for success in our ICT rich world.

How do you get more professional? Well I think that now you can see the relevant components of a radio station, you've probably noticed that if your speakers aren't silent when the microphone is open you will hear a howl-round or feedback sound. So wouldn't it be nice if these speakers were turned off every time you opened a microphone. The on-screen mixer could possibly be replaced by a real looking one, operating a radio station by mouse isn't really very efficient. You might also like to have an illuminated sign that shows everyone in the room when the microphone is open so people know to be quiet. And some way of stacking or preparing jingles and music for the show would be useful so they can be used again during the same broadcast.

This is how I started developing the idea of creating a live radio station 6 years ago. I now have a company that manufactures and sells the cheapest digital school radio kit in The World because live school radio doesn't have to cost the earth. If you would like to know more please visit [www.AndertonTiger.com/HUB](http://www.AndertonTiger.com/HUB)



**Russell Prue is a founding member of Wired Teachers [www.WiredTeachers.org](http://www.WiredTeachers.org) and has created [www.SchoolRadioCalendar.org](http://www.SchoolRadioCalendar.org) for schools to use FREE. He is an award winning ICT Evangelist and is well reported in the national press. To find out more about his live school radio workshops with young people at your school, please visit [AndertonTiger.com/Russell](http://AndertonTiger.com/Russell)**

Change your listening capacity to 50; run REGEDIT, navigate to;  
HKEY\_CLASSES\_ROOT\Software\Microsoft\Windows Media  
Tools\Encoder\MaxClientConnections Edit the subkey from 5 to 50