

Installing and configuring Windows Media Encoder 9 series

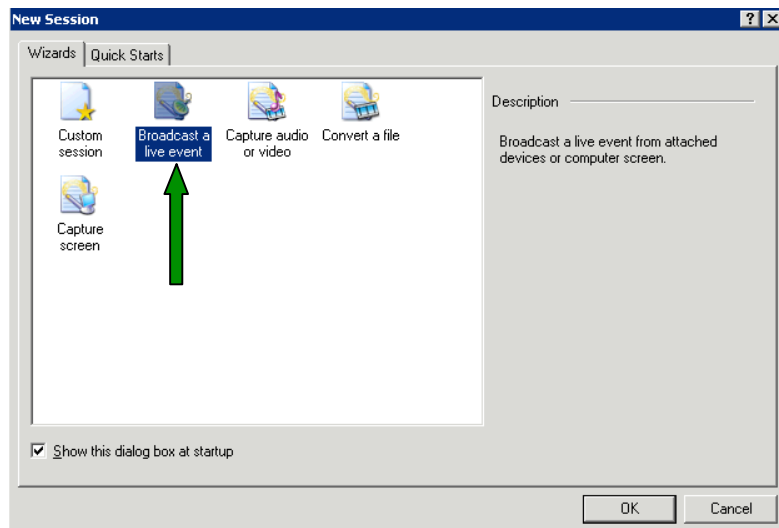
Please note, these instructions are not an exhaustive study of the many options available in Windows Media Encoder, but are a quick guide to configuring a typical audio broadcast streaming encoder.

We assume you have already downloaded and installed Windows Media Encoder 9. If you haven't done so, visit www.microsoft.com and download and install this before proceeding.

1. Open you Windows Media Encoder – The icon should look like this on your desktop:

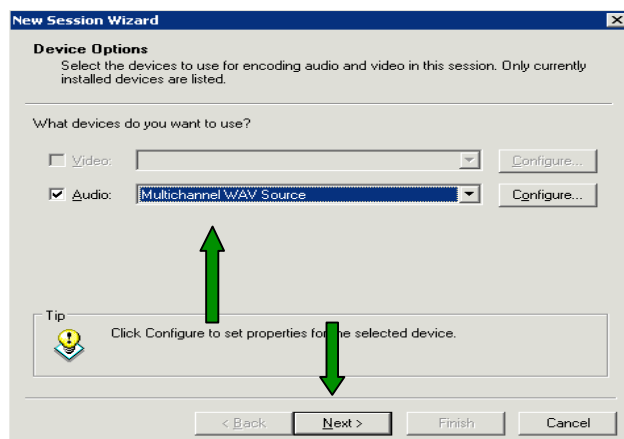


2. A Window will appear with the various options that you can do in windows media encoder. We want to select 'Broadcast A Live Event'



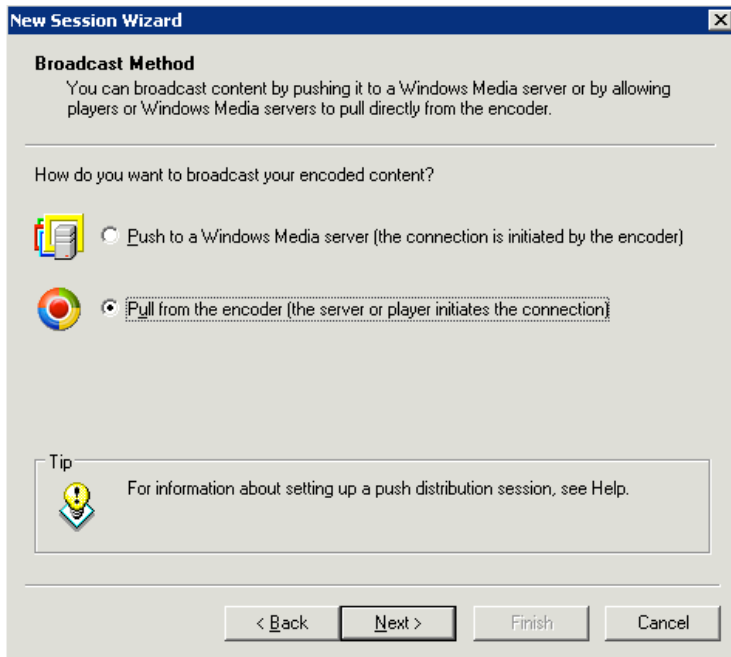
Select 'OK' after highlighting this option.

3. You will now be presented with a screen to select which device you are going to be using to broadcast your audio. This device will be the device you have put your input cable into. This is usually the default audio device. Once selected, click 'Next'



Please note the configure button allows you to configure your audio device, such as the levels. These are usually acceptable at the default level, but you can edit these once setup is completed

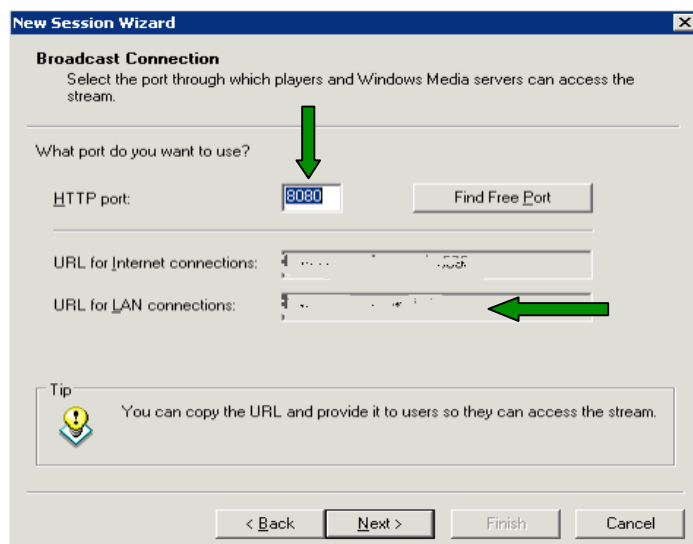
4. Now you need to select how you wish the Windows Media Servers to connect to your encoder. This will be set to 'Pull From The Encoder'. Once selected, click 'Next'.



5. Now you need to decide on which port to stream on. We usually suggest 8080 as this port is usually open on firewalls and makes setup easier. If you decide to use a different port, please make note of this, and ensure it is opened on your firewall.

You will also need to make a note of the '**URL FOR INTERNET CONNECTIONS**' box, as we will need to know this to connect to you.

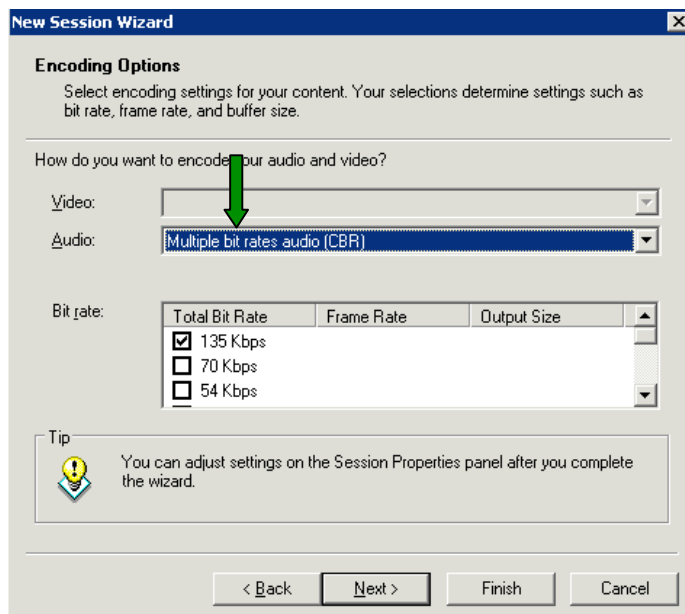
Once entered, click 'Next'



6. Now you need to select the bitrate for your audio. You need to select CBR (Constant Bit Rate). Avoid the temptation to select other options such as FM Quality.

You have to select the bit rate that you have ordered with SharpStream. Scroll down the list and select your bitrate. *(Please note, SharpStream can see the bitrate selected on the Windows Media Servers and will invoice any additional bandwidth used by incorrect bitrate settings!)*

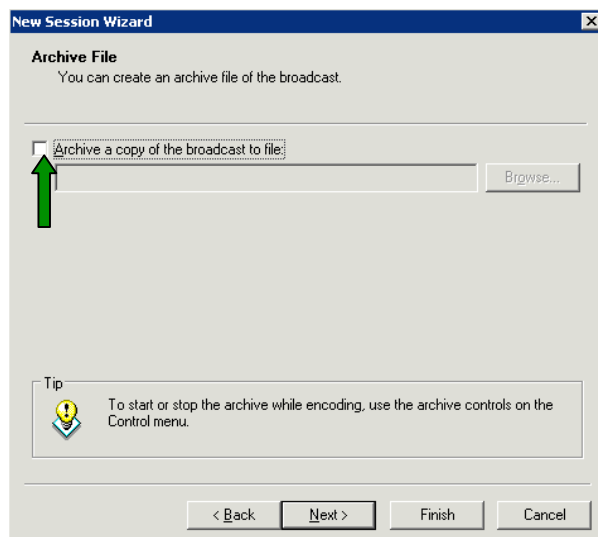
Once selected, click 'Next'



7. A screen for Archiving the stream will appear. We presume you do NOT want to do this.

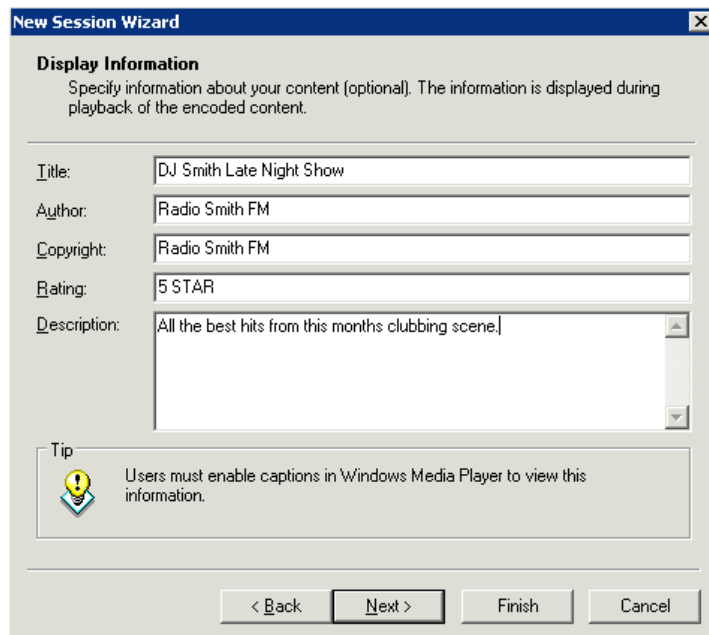
Archiving a stream sounds like a good idea, but it consumes your Hard Disk space at around 85MB per hour when set to 20kbps.

Ensure the box is Unticked and click 'Next'



8. The display information screen determines the text that is displayed inside Windows Media Player to the end listener.

Ensure you fill all sections in appropriately and click 'Next'



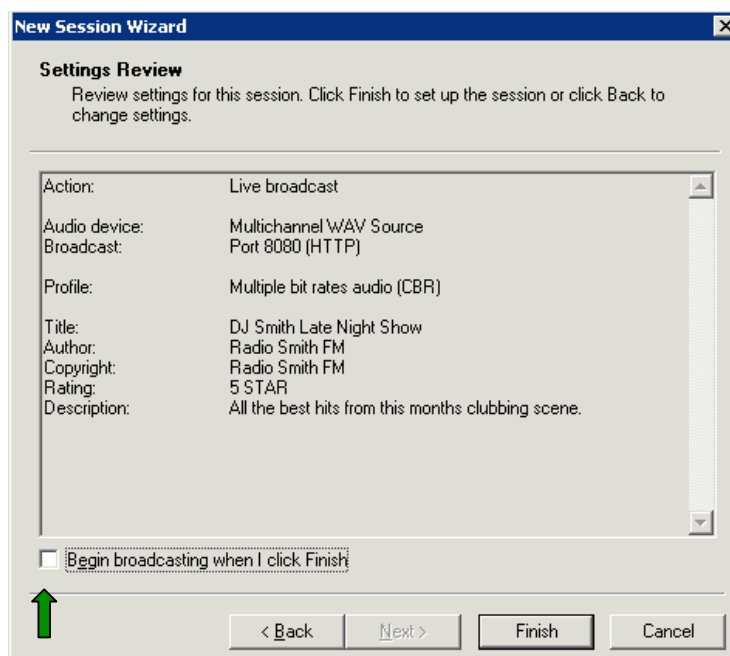
The 'New Session Wizard' window is titled 'Display Information'. It contains the following fields:

- Title: DJ Smith Late Night Show
- Author: Radio Smith FM
- Copyright: Radio Smith FM
- Rating: 5 STAR
- Description: All the best hits from this months clubbing scene.

A tip box at the bottom left contains a yellow warning icon and the text: 'Users must enable captions in Windows Media Player to view this information.'

Buttons at the bottom: < Back, Next >, Finish, Cancel.

9. All the settings that you have selected will show in a summary page. Ensure you un-check the 'Begin Broadcasting When I Click Finish' as further settings are required.



The 'New Session Wizard' window is titled 'Settings Review'. It displays a summary of the session settings:

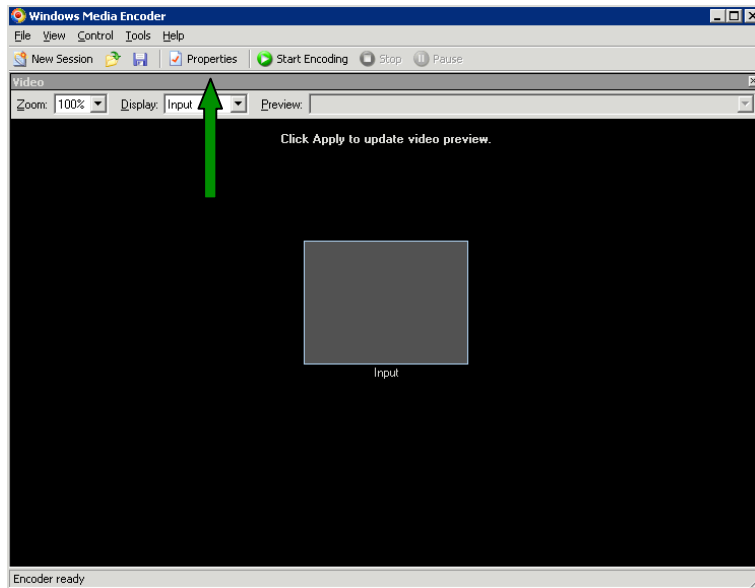
- Action: Live broadcast
- Audio device: Multichannel WAV Source
- Broadcast: Port 8080 (HTTP)
- Profile: Multiple bit rates audio (CBR)
- Title: DJ Smith Late Night Show
- Author: Radio Smith FM
- Copyright: Radio Smith FM
- Rating: 5 STAR
- Description: All the best hits from this months clubbing scene.

At the bottom, there is a checkbox labeled 'Begin broadcasting when I click Finish' which is currently unchecked. A green arrow points to this checkbox.

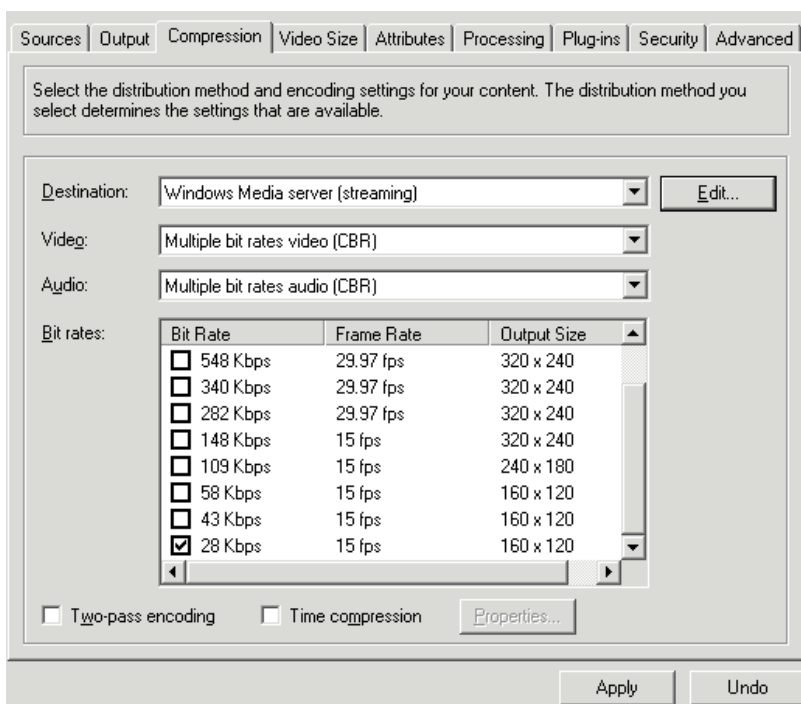
Buttons at the bottom: < Back, Next >, Finish, Cancel.

10. When you exit the wizard, you may see the panel below advising you of possible security implications. Click 'OK'

11. You will now see the main session screen. Make sure the encoder is not running, and click on the Properties tab.

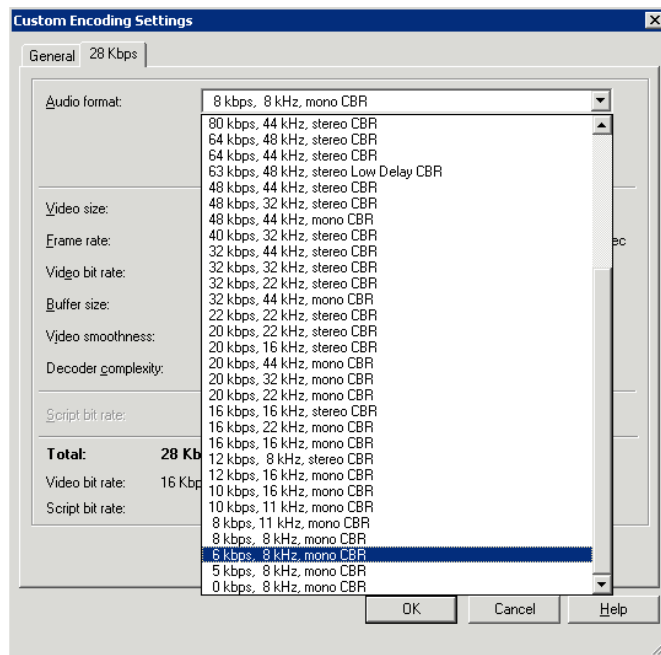


12. Once in the properties of the session, select 'Compression' option. Check your desired target bitrate (only) is ticked.



13. Now click edit highlighted above.

14. On the 'Customer Encoder Settings' screen, select the tab at the top with the bitrate you selected. Click the drop down arrow next to 'Audio Format'



You then have a list of various options (you may see a different selection depending on Windows Soundcard Options).

This lets you select the combination of bitrate/sampling rate/mode according to the account you have chosen with SharpStream, and gives you the quality you desire.

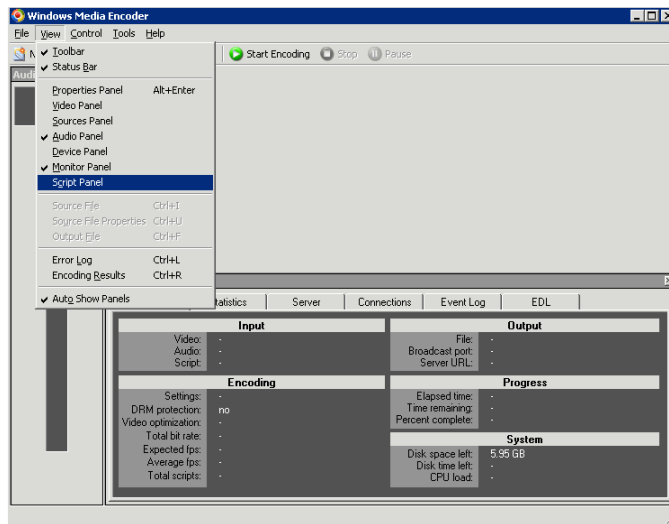
We strongly recommend you select the **mono** option for 20kbps streams, as stereo consumes bits at the expense of audio quality. A lower sampling frequency also reduces audio quality.

Our recommendation is to choose **20kbps, 22khz mono CBR** for streams intended for dial up speeds. With more bits available for broadband streams, acceptable stereo results are achievable. We suggest **64 kbps, 44khz stereo CBR**.

Click 'OK' when you have finished the edits.

15. When ready press the 'Start Encoding' button. There will be an indication that something is happening by a moving bar at the bottom right hand side of the screen.

It is useful to display the stream information at the bottom of the encoder. To do this, click 'View' and select 'Audio Panel' and 'Monitor Panel'. A large part of the session screen will remain blank; this is normal.



The audio panel will display either one or two bar graphs (depending on whether you selected mono or stereo) and the level of the incoming audio. If necessary open the 'Mixer' to adjust the audio level up or down. The level should be set so it regularly peaks up to, but not into, the red region.

The general tab of the Monitor Panel gives some useful information. The number of clients connected to the output on the 'Broadcast Port' is also shown. This should only ever be 0 (if nobody is listening to you!) or 1 to 2 if there are any number of listeners, - these connections are of course; our servers.

Ensure you take note of the CPU load figure. The encoder is very sensitive to this and is likely to stop running if it hits 100%. A figure averaging under 25% should give reliable operation. An encoding computer should be dedicated to encoding only, and not used for anything else.

Once your encoder is up and running, please give us a call or email, notifying us of the URL for listening from the internet (noted down earlier) and we will connect our servers and give you a PHP URL to embed in your website. This will enable your listeners to listen to you.