Open Broadcaster is a free tool for live streaming that can easily be configured to work with Ensemble Video. There are two versions of Open Broadcaster as of this writing:

1) A Windows-only beta that is a free download at www.obsproject.com. This help sheet is based on this Windows-only version.

2) A brand new Macintosh version that we have not yet tested. It does not appear to be as fully developed as the PC version as of this writing. We plan to test and document as this new cross-platform version matures to become a robust option for Mac users.

**Settings**

Once you download and install Open Broadcaster on your Windows 7 or Windows 8 computer, you will need to configure Settings to send a live stream to your Wowza Media server.

**Encoding** is where you define the encoding bit rate for your live stream. You will want to use x264 Encoder (will stream and record MP4/H.264 video which can be viewed on desktop/laptop computers as well as iOS and Android devices). We recommend you Use CBR (Constant Bit Rate) encoding and use a maximum bit rate no more than 900 for motion video. Use AAC as default audio Codec, MP3 audio WILL NOT stream to Android devices. An audio Bitrate of 96 Kbps works well.
Broadcast Settings is where you define the connection to your Wowza Media streaming server. The Server URL is an RTMP stream URL that you will need to get from your Ensemble Video/Wowza Server system administrator.

The Play Path/Stream Key is a name for your stream, you can choose whatever you like here. This “stream name” will be appended to the “Server:” path you specified when you go to create your live stream item in your Ensemble Video library. So, for example, if I entered “event” in the Play Path/Stream Key field above, the URL I would manually enter into my Ensemble Video item would be:

rtmp://test01.ensemblevideo.com/live44/event

(For more on this see the Ensemble Video Live Streaming Guide at http://support.ensemblevideo.com)

You can also specify a File Path to save streamed video as an MP4 recording. Then when you are done you can upload your video to Ensemble Video to publish the recording on-demand access for your viewing audience.

The Video setting is where you specify the image dimensions for your live stream. To do a straight video stream from a Webcam or connected camera(s), click the Custom radio button for Baseline Resolution and enter an appropriate image resolution for your video. For 16:9 video, which is most common, a video dimension of 640x360 works well, and using the default 30 frames-per-second (FPS) is also recommended for motion video.

(For Advanced Users: For screen capture you can click on the Monitor radio button in Baseline Resolution and stream your desktop, and add live video from our Webcam or connected camera. You will then need to use Resolution Downscale to scale down to a reasonable image dimension, and you can usually use lower FPS value.)

The Audio settings lets you select the microphone you want to use for your live stream, for example a microphone built-in to our laptop computer or a microphone you plug into a mic jack on your PC.

Once you have your settings all configured, you are ready to start streaming!
Scenes and Sources

To set up your stream you will need to create one or more “scenes.”

Each scene has at least one media object that is part of the scene. Right click in the Scenes area to add a new scene (you can also remove a scene or copy a scene). Once you have your scenes set just click on Start Streaming to start your live stream. As you stream live with open broadcaster, you can toggle between the scenes your scenes.

To add a source to a scene, right-click in the Sources area. Among the sources you can choose are:

<table>
<thead>
<tr>
<th>Source</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Video</td>
<td>Can be a Webcam or a video camera connected via USB or video capture card.</td>
</tr>
<tr>
<td>Image</td>
<td>Stream an image that appears on top of your video, or embed the image using the “green screen” Chroma key feature of Open Broadcaster within your video.</td>
</tr>
<tr>
<td>Monitor</td>
<td>Streams whatever is on your monitor.</td>
</tr>
<tr>
<td>Window</td>
<td>Stream whatever is in a particular window on your desktop. This can include any desktop application or Web page that you want to pull up. You can put this in a portion of your video or have it fill the screen.</td>
</tr>
<tr>
<td>Text</td>
<td>Want to include a title for a presenter, speaker or scene? You can insert text that will appear over the top of the streamed video, with control over fonts and location.</td>
</tr>
</tbody>
</table>

To edit your Sources click the Edit Scene button then click on the source in the streaming preview. You can also turn source on and off, and layer them like you would image layers.

You can use Scenes and Sources to create some interesting and useful live streaming programs!
Open Broadcaster Resources

The Official Quick Start Guide:

The Quick Start video tutorial:
https://www.youtube.com/watch?v=y-L5zhhVuSc

Official Overview Guide:
https://www.obsproject.com/forum/resources/official-overview-guide.6