

Eduspot Technical Specifications:

Eduspot is a software product that enables real time webcast and recording of video and slide presentations over the Internet using off-the-shelf hardware. Our product achieves the following:

- Capable of being controlled by lay personnel
- Multiple Camera Views
- Single Person Multiple Camera Control
- Full Room Coverage
- Full Instructor/ Presenter Mobility
- Ability to zoom with good legibility for On-Line audience on handwriting on White/Black Boards.
- Coverage of both Instructor/Presenter and On-Site audience
- On-Site audience interaction video and audio capture
- On-Line audience interaction through text messaging
- Video and Audio Latency of about 50 seconds for On-Line audience
- Achieves full 1:N unidirectional video and audio coverage.
- Not recommended for heavy instantaneous two way interaction like in a Video-Conference.
- Recommended for occasions where predominant data flow is from point of presentation to On-Line audience – like lectures, presentations and events
- Single Video Stream + Chat Window + Slide visible to On-Line Audience,

Our software enables integration of hardware items that need to be directly purchased by the customer to perform the application function described above.

The main hardware components are as follows:

- a) Recorder Computer: The heart of the system is a Windows based PC with Windows XP Operating System which is used by a designated person to control the cameras; to select a view from a multiplicity of cameras, to compose the shot; to encode sound from an amplified source with the video frames, to locally record the real-time edited video stream and to push the video on to a streaming server for archiving as well as for streaming.

The software tool used for encoding is Windows Media Encoder V 9.0
The video is streamed and saved in Windows Media Format.
The choice of frame rate is 15 fps or 30 fps
The bit rate for encoding has stops ranging from 60 kb/s to 1000 kb/s

Source of Video Signals: Our standard unit has 2 nos. of Axis – 213 PTZ cameras

Axis – 213 Specifications:

Pan, tilt, zoom network camera with built-in 26x optical zoom, auto focus lens + 12x digital zoom which operates under all light conditions, indoors as well as outdoors

It provides wide coverage with its ability to pan 340 degrees, tilt 100 degrees and zoom in on specific details.

Encoding: Simultaneous Motion JPEG and MPEG-4

Resolutions up to 704x576 at up to 25 fps (PAL) or 704x480 at 30 fps (NTSC)

b) Presenter Computer:

The has to be a Windows based computer with Windows 2000 or later version of Windows operating system with .Net framework installed.

The Presenter Computer enables a person performing Instruction or Presentation to set up the Lecture, Presentation or Event as well as to do a presentation from. The Presentation elements can include slides in Power Point format or PDF format or an MSWord document or a web page.

b) Streaming Server:

This is a Windows 2003 Server with IIS and SQL Server installed.

This both webcasts the content to On-Line audience as well as Archives the content to make the content available to the audience on an On-Demand basis.

Software:

Our software has components on each of the above hardware items and its main function for the three components to interact with each other to achieve the application functions described.

Browser Support:

Currently the content can be viewed using Internet Explorer V6.0 or higher on Windows machines. It will be shortly made available on Firefox on Windows, Safari on MAC and using MPLAYER on Linux and Unix,

No. of Simultaneous On-Line Users

Available Upload Bandwidth / Bit Rate of Encoding

Unlimited number of simultaneous On-Line Users can be achieved by employing CDN (Content Delivery Network) – however, charges proportional to total data transferred apply in such a case.