

# Welcome to the IBM Personal Presenter Help Page

## What is IBM Personal Presenter

The IBM Personal Presenter (IPP) is an easy-to-use application designed to produce, distribute, record and view presentations. The presentations can include any combination of the following multi-media streams:

1. Audio
2. Video
3. Images

The audio and video are typically captured with a commonly available USB web-camera, but the system also works with higher-end graphics cards that may be connected to for example a high definition camera. The images are captured as either the whole user desktop or it may be a window of choice. The audio/video/image presentation is thus captured and streamed out to remote clients that connect to view the live presentation. The presentation can at the same time also be recorded. Because the clients connect directly to the IPP the system is server-less and does not require any administrative support. The streaming protocols, the file format and the encoders are standards-based. The IPP is implemented as a Java Graphical User Interface with C/C++ implementations underneath.

## How does the technology work

The IBM Personal Presenter (IPP) captures video and audio, plus still images from either a window of choice or the entire desktop. This set of multimedia streams can be streamed to remote clients using standard RTP/RTSP, while simultaneously it may be recorded to a standard MPEG-4 file. The presenter uses a single window that displays the captured video and the captured still images side-by-side. The control is deliberately made very easy, where a presentation is started with just a single click. The IPP allows configuration of several key parameters such as video size and still image capture rate.

Once the IPP is started a URL is displayed that can be copied with a single click and sent to remote clients by pasting the URL into an email or a chat session. A client that receives the URL simply copies the URL and pastes it into the browser address window. Or, as most email and chat applications support automatically starting a browser with a URL, simply double clicking the URL is typically sufficient. The URL will retrieve a web page plus a Java applet that will run and start a viewer automatically, decoding and displaying the video, audio, and still images.

The Java applet that constitutes the client is called the "IBM Personal Viewer" (IPV) and is hosted by Alphaworks. A stand-alone application version will be installed alongside the IPP on Windows and a separate install is available for Linux (as of yet without the IPP).

## What practical business problems does the technology solve

IBM Personal Presenter makes meetings more effective. Remote participants often find it difficult to follow meetings especially when the meeting includes demos, whiteboard collaborations, presentations, etc. Current existing solutions typically have one or more of the following disadvantages:

1. Servers are required, making using and managing the system complicated, expensive, and error-prone.
2. Not standards based
3. Meetings may need to be scheduled in advance
4. The application itself has too many features which makes it too complex to use.

IBM Personal Presenter refers to a simple, server less means of producing and distributing rich media content consisting of video, audio and images from the originator's computer to multiple clients. In contrast to peer-to-peer media conferencing and sharing promoted by add-ons to instant messaging and conferencing software, this framework aims at providing ad-hoc conferencing that requires no pre-existing hardware or software infrastructure for enablement.

## **What are the Requirements**

### **Software Requirements**

The IPP workstation requires Windows OS, JRE 1.5.0 (or higher) and DirectX 9.0 (or higher). It also requires the IPP installation package; this contains both the producer and the viewer.

The IPV works on both Windows and Linux. It requires JRE 1.5.0 (or higher) and the IBM Personal Presenter installation package (Windows) or the IBM Personal Viewer installation package (Linux).

The IBM Personal Presenter (includes the viewer for Windows) and the IBM Personal Viewer (for Linux) can be downloaded from

<http://dl.alphaworks.ibm.com/technologies/personalpresenter/IBMPersonalPresenter.html>

### **Hardware Requirements**

It is recommended that the IPP workstation has RAM of 512 MB or more and a CPU of 1GHz or higher. Lower end CPU's may result in a reduced frame rate or jerky and uneven video playback. The IPP can be made more efficient by reducing the video capture frame rate and size in the Configuration.

### **Network Requirements**

This will depend on how many people you expect will connect to your live event. The bandwidth required for audio and video can be seen in their respective advanced encoding options. The bandwidth required for the slides is high during slide transitions. The total bandwidth requirement you need is the number of clients times the bandwidth required for all the media you have in the event, typically about 400 kbps.

## **How to install the IBM Personal Presenter**

The IBM Personal Presenter can be installed by double clicking IBMPersonalPresenterSetup.exe.

1. Click Next on the welcome screen
2. This screen allows the user to change the location where IPP is installed. The default location is C:\Program Files\IBM. Click Next to proceed to the next screen.
3. Click Install to begin installation.
4. Click Finish to finish installation.

The IPP is now installed in the location chosen in the second step. The IBM Personal Viewer is also installed under the same location.

In case of reinstalling IPP, please uninstall the previous version of IPP before installing the new version to avoid any problems.

## **How to host the IBM Personal Viewer Applet**

If you do not wish to use the IBM Personal Viewer Applet from the Alphaworks website, you need to host your own applet. To host the IBM Personal Viewer Applet, please download the IBMPersonalViewerApplet.zip from the website.

1. Unzip the IBMPersonalViewerApplet.zip file to the folder where you wish to install the applet version of the IBM Personal Viewer.
2. Create a link in your web server to point to the folder that you chose in the previous step.
3. Reboot your web server if needed.
4. Edit the ipp.properties file in the <User Home folder>\IPP (for example this may be C:\Documents and Settings\Administrator\IPP) and change the property URL.Prepend's value to be the fully qualified URL to the IPVApplet.html. For example if you unzipped the applet zip file to your web server so that the URL to the folder is http://<hostname:port>/IPVApplet, then the value of URL.Prepend property should be changed to http://<hostname:port>/IPVApplet/IPVApplet.html.

The IPV is now ready for use by clients.

## **How to use the IBM Personal Presenter**

The IPP has been designed to deliver live streaming rich-media to a small group of clients and/or record rich-media for sharing and viewing offline. Care and emphasis has been laid on the ease of use for the end-user and the ability to work with minimal configuration settings.

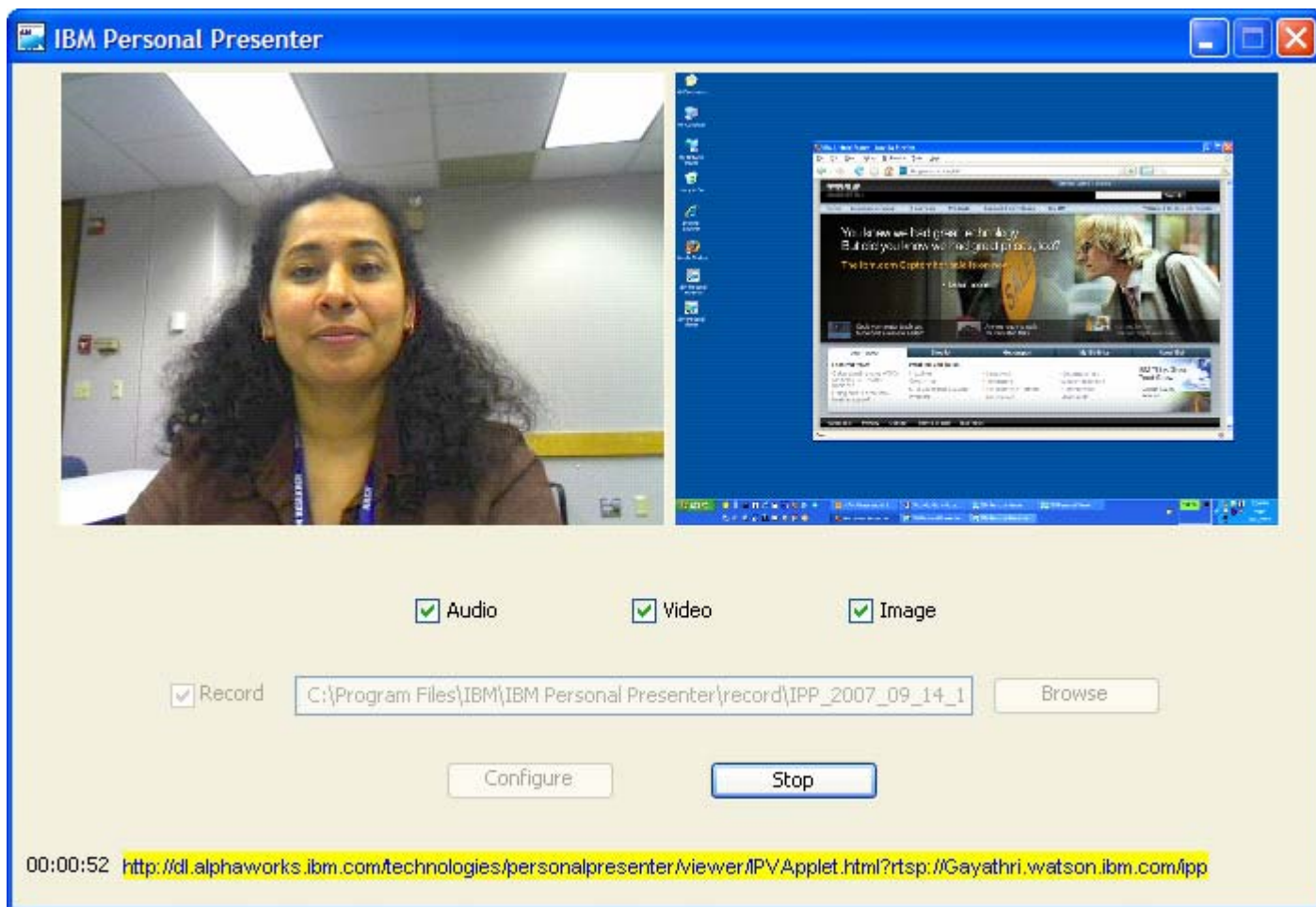
Start the IBM Personal Presenter by double clicking the shortcut for IPP on the desktop. You will be presented with the GUI for IPP as shown in Fig. 1 below.



*Fig 1*

This screen shows a preview of the default streams included in the presentation. It also shows the .mp4x file that the presentation will be recorded to. If you are happy with the default values, you can click the Start button to start the presentation. A snapshot of the IPP GUI after the presentation has been started is shown in Fig. 2. The time duration of the presentation is shown in hh:mm:ss format at the bottom left corner of the IPP GUI.

You should copy the URL link at the bottom of the IPP GUI and send it to the client users (via e-mail or other messaging services) so that they can connect to the IPP and view the live presentation. You can copy the link to your clipboard by clicking on it, the GUI will highlight the link to show that the URL has been copied to your clipboard. This is also shown in Fig.2.



*Fig 2*

Any time you change the media streams to be included in the presentation these selections are saved as the default in your preferences. This also applies to the option to record the presentation and the record directory where the recorded files will be stored. The default record directory is your <IPP install folder>/record.

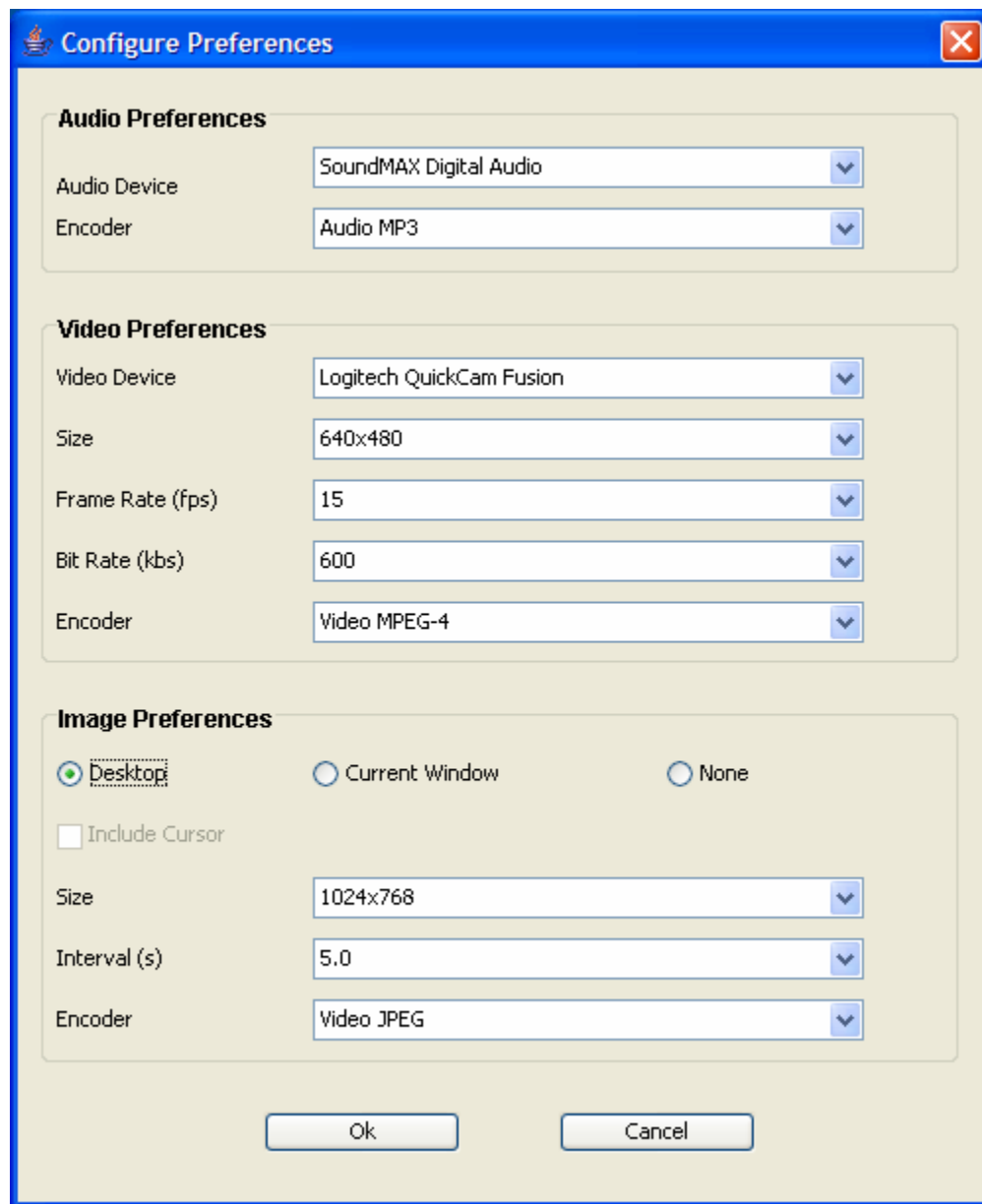
Once you have started the presentation by clicking the Start button, you can click the Stop button at any time to stop streaming the current presentation. If you had selected the presentation to be recorded, the creation of the recorded .mp4x file will occur after the Stop button is pressed. You can include or exclude any of the streams at any point in your presentation, by clicking the corresponding checkbox.

## Advanced Configuration

The media streams that can be included in the presentation depend on the capture device(s) connected to the producing workstation. To configure advanced settings including the capture devices, you can click the Configure button. This shows the Configure GUI as shown in Fig. 3 below.

Here you are presented with the option of selecting the capture devices for the Audio and Video streams in the presentation. The default devices are already selected and you need to change them only

if you need to use some other device or if you do not want to be able to include this stream in your presentation.



*Fig 3*

The Audio Preferences panel allows you to select the audio device and the audio encoder. Selecting the option <No Audio Device> in the combobox for audio devices will cause audio stream to be excluded from your presentation. The Video Preferences panel allows you to select the video device, the video encoder and some other options related to the video stream such as video size, frame rate and encoding bit rate. Selecting the option <No Video Device> in the combobox for video devices will cause video stream to be excluded from your presentation. The Image Preferences panel allows you to select the video encoder for encoding images and some other options related to the image stream such as image size, capture interval and capture window (current active window or the entire desktop or none).

Selecting None as the capture window will cause the image stream to be excluded from your presentation.

You can click the Ok button to apply your settings and save them as the default in your preferences. You can also click the Cancel button to discard any changes you may have made to your settings.

## Selecting the encoder for Images

The user has a choice when selecting the encoder for the images. One choice is to capture the images at a fairly high rate (2-4 per second) and encode the stream as MPEG-4 video. The other choice is to capture images at a low rate (one image every 3-5 seconds) and encode each image as a JPEG. The recommended choice is to encode the images with the MPEG-4 video encoder. It has a reasonable frame rate that will show animations and such. Further, compared to JPEG encoding the bandwidth is also much lower. However, the drawback is that video encoding at this rate and with these large frame sizes requires substantial CPU. Therefore, if the encoder is set to video and the application becomes slow and the CPU is at 100%, the user should try to select a smaller window, a lower frame rate, or in the last resort, select the JPEG encoder.

## Reporting Errors

The IBM Personal Presenter records errors in the <IBM Personal Presenter install folder>\\*.log files. It also records some errors in the <User Home folder>\IPP\\*.log files. For example, this folder may be "C:\Documents and Settings\Administrator\IPP". Please email the all the error logs along with detailed description of the scenario in which the error occurs to [g3@us.ibm.com](mailto:g3@us.ibm.com) or [peterw@us.ibm.com](mailto:peterw@us.ibm.com) so that the problem can be corrected in future releases. Please note that the error logs are deleted and recreated every time you run the IPP, so in case you need to report an error, please make a copy of the error logs before restarting IPP so that they are preserved.

The level of logging in IPP can be set to various levels. The levels in descending order are:

1. SEVERE
2. WARNING
3. INFO

The default logging level in IPP is WARNING. To debug problems, it is desirable to set the logging level to INFO and then run the IPP to reproduce the problem with more detailed logging.

If there is an error in the .mp4x file creation process then the program indicates an error, and temporary files are left in the system to help better understand what the problem might have been. Say you wanted to create MyRecording.mp4x in directory path MyDirectory. When the conversion error occurs please open the folder MyDirectory. Here you should find temporary files MyRecording.sdp and MyRecording.rtp. Please email these files (the file and the rtp file) to [peterw@us.ibm.com](mailto:peterw@us.ibm.com) or [g3@us.ibm.com](mailto:g3@us.ibm.com). The problem will be corrected in the next version of the program release. Time permitting we may even respond to your email and help you fix the problem. PLEASE NOTE we WILL be able to view your recorded event, hence if you have any privacy concerns regarding the event please do not send us the information, just email us your system configuration and the devices you are using and we will try to replicate the problem. Also keep checking for new releases and bug fixes on the website, <http://dl.alphaworks.ibm.com/technologies/personalpresenter/IBMPersonalPresenter.html>.

# FAQ

## **How do I install a Java Runtime Environment (JRE) if I don't have it already installed?**

If you have determined that JRE is not installed on the system then please install your preferred JRE. Search for Java JRE in a web search engine and you should be able to download and install Java JRE from one of the results. The IBM and the Sun JREs have been tested. The system will not work with the Microsoft JVM that comes with Windows/Internet Explorer. Once you have installed the JRE, please update your environment variable IPP\_JAVA\_HOME with the install directory for the JRE.

## **I have given the wrong configuration and would like to change it**

Click the Configure button and specify the correct configuration and click the Ok button to apply/save the configuration.

## **Whom do I contact to report a problem?**

Please check all the software requirements before reporting a problem. Also read the section on what choices you have in reporting Recording and .mp4x file creation errors. Send the problem and its description along with the system configuration you are using (OS and media capture devices) to [g3@us.ibm.com](mailto:g3@us.ibm.com) and [peterw@us.ibm.com](mailto:peterw@us.ibm.com) .