



 Polycom[®] RSS[™] 4000 System
User Guide

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Preface

This User Guide provides system operation and setup information for users and administrators of the Polycom® RSS™ 4000 system.

The Polycom® RSS™ 4000 is a network server that enables users to easily record, stream and archive media content. It supports recording and archiving of high-definition video content, processing of streaming media, and H.323 playback. It is an important component of Polycom's peer-to-peer video communications product series.

The Polycom® RSS™ 4000 can be fully integrated with other Polycom products (Such as the Polycom RMX 2000 and Polycom HDXs), and is compatible with devices supporting the H.323 standard. Polycom® RSS™ 4000 uses easily remembered DTMF commands and Far End Camera Controls to start, stop, and pause recording, employ many other recording options, and perform H.323 playback. The device can produce superior recordings of multimedia conferences (as high as HD 30 frame/second under the H.264 standard) using synchronous sound, images, and content (point-to-point and point-to-multipoint), and transmit them to global audiences via the Internet for real-time viewing or replay. This server can store up to 700 hours of storage at 768kbps of H.323 video, audio and content, and can use common media players such as Windows Media Player and RealPlayer. Moreover, The Polycom® RSS™ 4000 Supports up to 200 Unicast streams in one single system.

The Polycom® RSS™ 4000 also offers full-strength security functions. It supports SSL certification and encryption in order to protect the security of information transmitted from the web, allows the setting of recording and viewing access rights, and can identify individual video endpoints or network users.

RSS 4000 - Supported scenarios



Polycom® RSS™ 4000 Installation and Preliminary Configuration

General Safety Precautions

Follow these rules to ensure general safety:

- Keep the area around the Polycom® RSS™ 4000 unit clean, free of clutter and well ventilated.
- Decide on a suitable location for the Polycom® RSS™ 4000 rack that will hold the Polycom® RSS™ 4000 unit and is near a grounded power outlet.
- Use a regulating uninterruptible power supply (UPS) to protect the Polycom® RSS™ 4000 unit from power surges and voltage spikes, and to keep it operating in case of a power failure.

Table 1-1 Polycom® RSS™ 4000 Hardware Specification

Hardware Specification
Intel Xeon 2.33GHzx2, 4GB RAM, 500Gx2 Hard disk (Disk 1: 500GB / Disk 2 (for mirroring): 500GB). <ul style="list-style-type: none"> ▪ Form Factor: 2U 19" ▪ Height: (89 mm) ▪ Width: (441 mm) ▪ Depth: (485 mm) ▪ Gross Weight: (19.5 kg) ▪ Power Supply: 700W ATX AC power supply w/PFC, 1+ 1 Redundant Power Supply ▪ AC Voltage: 100 - 240 VAC, 60-50 Hz, 10-4 Amps ▪ Window XP EK

Preparations

Obtain the following information from your network administrator:

- Polycom® RSS™ 4000 unit, Subnet Mask and Default Gateway IP addresses.
- Gatekeeper IP address, Prefix, and E.164 of the Polycom® RSS™ 4000.

Unpacking and Installing the Polycom® RSS™ 4000

- 1 Place the Polycom® RSS™ 4000 unit on a stable flat surface in the selected location, not for rack mount.
- 2 Insert each power cord connector into the rear of the unit and connect each to an appropriately rated socket outlet. The Polycom® RSS™ 4000 unit is supplied with two power cords, BOTH power cords should be connected to the mains power supply during normal operation.
- 3 Connect the LAN cable to LAN 1 port on the rear panel of the Polycom® RSS™ 4000 unit.
- 4 Turn on power switch.



Figure 1-2 Connecting cables



Plug Acts as Disconnect Device:

- The socket outlets to which this apparatus is connected must be installed near the equipment and must always be readily accessible.
- In order to fully isolate the equipment then both power cords should be disconnected otherwise the system will remain energized.

Initial Polycom® RSS™ 4000 IP Configuration

The system is shipped with a default IP address:

IP Address: 192.168.1.254

Subnet Mask: 255.255.255.0

Gateway: 192.168.1.1

There are two ways to change the initial IP address of the system:

- Via a cross over LAN cable
- Via a RS232 or Telnet Console.

Changing the initial IP address via a cross over LAN cable

- 1 Connect a cross over LAN cable to LAN 1 port on the rear panel of the Polycom® RSS™ 4000 unit..
- 2 Configure your PC to the same segment of the Polycom® RSS™ 4000. For example, set the IP address as that shown below:

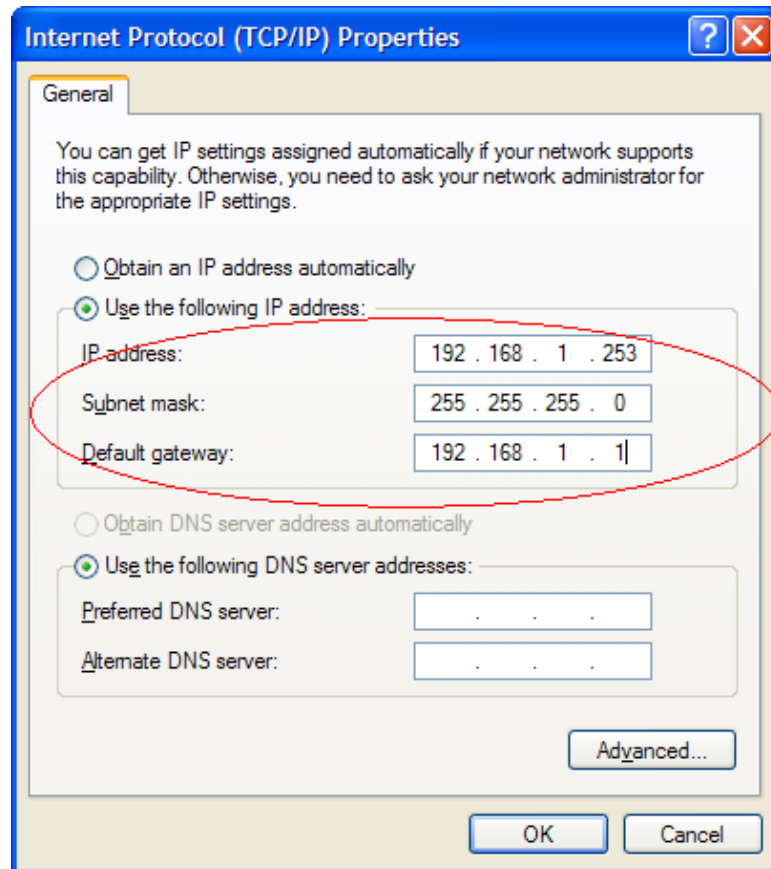


Figure 1-3 IP Address Settings

- 3 Open the internet explorer and browse to: <http://192.168.1.254>
- 4 Login to the system. Use the default User name (**POLYCOM**) and Password (**POLYCOM**).

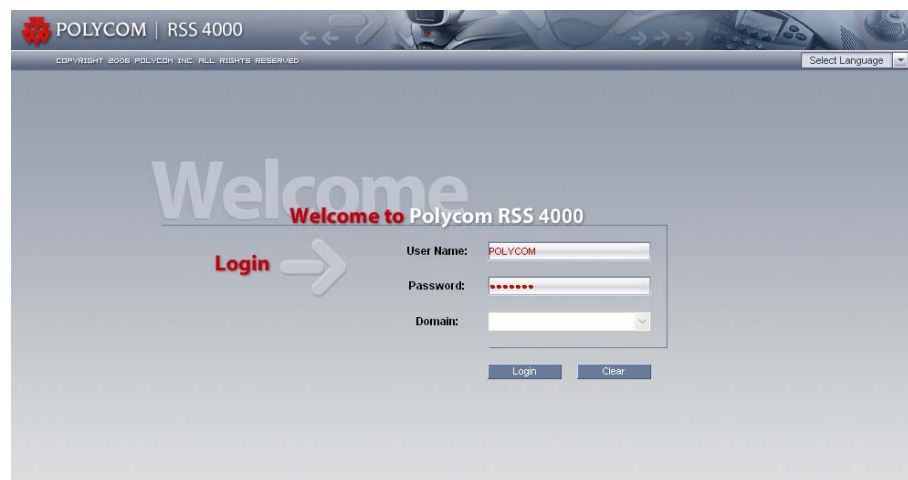


Figure 1-4 Login to Web UI

- 5 Go to **system configuration->IP setting** and set a static IP address. Click the **save** button and then reset the system.

Figure 1-5 IP Settings Page

Changing the initial IP address via an RS232 Console or Telnet

Another option to modify the IP address of the Polycom® RSS™ 4000 is using the RS232 console.

- 1 Connect to the RS232 port – and activate the console (9600, 8bits).
- 2 When login to the console, input the default password “POLYCOM” to enter the system.
- 3 After the user have logged onto the system, enter "?" or "help" after the "#" to show the following information:

```
#?
Available commands:
show Show system information.
...
set lan1 static <ip address> netmask <ip mask> [gw <gateway address>]
```

- 4 Change the IP address using the command in below format (the exact addresses are just for a instance):

```
set lan1 static 172.21.100.20 netmask 255.255.224.0 [gw 172.21.96.254]
```



- The same steps apply also for Telnet connection.
- Only one console can be connected at any given time (either Telnet or RS232 not both).

The system is now ready for use, the following chapters will give further descriptions for device configuration and operation.

Web User Interface (UI)

The Polycom® RSS™ 4000 provides two types of user interface:

- Web UI - Web Interface to configure, control, monitor Polycom® RSS™ 4000 and view archives.

The following operations can be performed using the Web UI: querying system information, activation/upgrading, registering to a gatekeeper, performing customization, backup/deletion of recording files, configuration of clusters, configuration of multicast videos, configuration of SSL certificates, setting of single point recording and point-to-point recording parameters, account management, management of recorded files, dial-out and record sessions initiated from the RSS, and more. This chapter provides a detailed explanation of Web management and configuration.

- Onscreen UI - User menu which displayed when connecting to the RSS via the H323 Endpoint (Or MCU), the onscreen UI allows the user to perform recording and playback tasks. The following two chapters will explain how to use the onscreen UI to perform recording and playback.



A user's PC must satisfy the following conditions in order to successfully work with the Polycom® RSS™ 4000's Web UI and play video files:

Must use Windows 2000 SP4, Windows XP SP2, Windows 2003 or Windows Vista operating systems.

Video player clients are Windows Media player 9.0 (or above) or Real Player or Polycom proprietary if using multicast.

Logging into Polycom® RSS™ 4000 via the Web

- 1 Enter the Polycom® RSS™ 4000's IP address in the address field and press enter. The user will see the Polycom® RSS™ 4000's login page, as shown in Figure 2-1.
- 2 After correctly entering a user name and password in the login screen, press enter to log in. The default user name is "POLYCOM" and the default password is "POLYCOM". These defaults are pre-set for use in first-time log in. Pressing the **Clear** button will clear the entered user name and password, allowing new values to be entered.

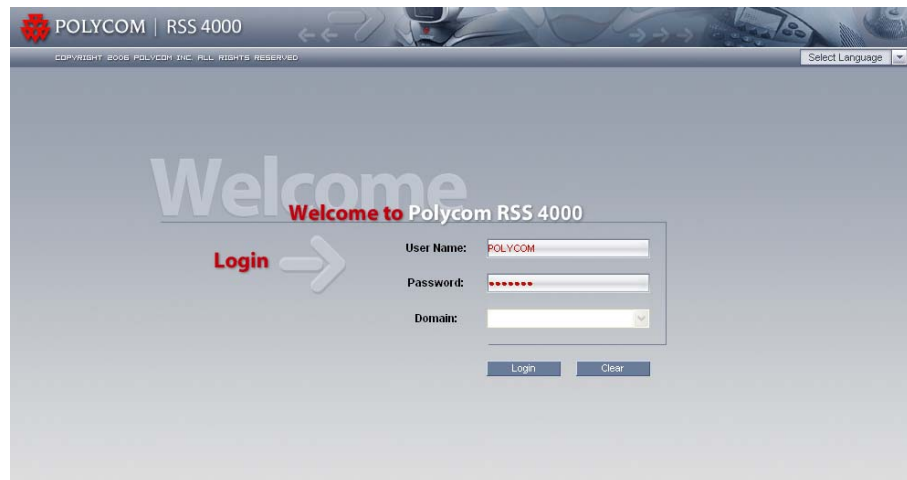


Figure 2-1 Polycom® RSS™ 4000 login screen

If the Polycom® RSS™ 4000 you are logging into is integrated with an LDAP Active Directory server, users can also enter an Active Directory domain user name and password in the login screen. In this case, the "Domain" menu in Figure 2-1 will be enabled. Enter a correct user name and password, and select the appropriate domain name from the "Domain" pull-down menu; click the "Login" button or press enter to log in. Please refer to the *Active directory settings* section for detailed information concerning Active Directory servers.

Polycom® RSS™ 4000 Web UI Main screen



Figure 2-2 Polycom® RSS™ 4000 Web UI Main screen

The Polycom® RSS™ 4000 Main screen includes three major sections:

- 1 **System Management** – This section includes the following sections: System Information, System Configuration, Account Management, Recording Setting, Archives and Live Streaming.
- 2 **Monitoring** – The right section to the System management, the information in this window will be changed based on the menu selection in the system management.
- 3 **Connected H.323 Link Status** – Monitor and control area for the H.323 devices which connected to the Polycom® RSS™ 4000 at any given time.

System Information

After logging in to Web page, the default view will display the "Product Information". This page displays product information, system usage, and activation status.

Product Information




Click on "Product Information" to view the Polycom® RSS™ 4000's system name, product type, version, maximum H.323 connections, maximum archive viewers, maximum recording sessions, and activation status, as shown below.

Product Information	
System Name :	Polycom Recording Streaming Server
Product Type :	4000
Version :	5.0.0.001 593, Build: Aug 28 2009 09:26:21
Maximum H.323 Connections :	15
Maximum Archive Viewers :	200
Maximum Recording Sessions :	15
Activation Status :	Activated
Multicast	✓
Encryption	✓
HD Live Streaming	✓

Figure 2-3 Product Information Page

Table 2-1 Product Information Details

Item	Details
<i>System name</i>	Displays the current Polycom® RSS™ 4000 device name.
<i>Product type</i>	Displays the video server type.
<i>Version</i>	Displays the current version and distribution date.
<i>Maximum H.323 Connections</i>	Displays that the Polycom® RSS™ 4000 can support a maximum of 15 H.323 playback connections.
<i>Maximum Archive viewers</i>	Displays that the Polycom® RSS™ 4000 can support a maximum of 200 users simultaneously connected to Web UI to play videos. If the playback was recorded at the rate of : [128k ~ 1024k] – It supports 200 simultaneous archived playbacks; (1024k ~ 2048k] – It supports 100 simultaneous archived playbacks; (2048k ~ 4096k] – It supports 50 simultaneous archived playbacks.
<i>Maximum Recording Sessions</i>	Displays that the Polycom® RSS™ 4000 can support simultaneous recording by 15 endpoints. This implies that it can support 15 single-point recording sessions.
<i>Activation Status</i>	Displays whether the Polycom® RSS™ 4000 has been activated. This field will show "Not activated" when the device has not been activated after a software upgrade, and will otherwise show "Activated". Only an activated Polycom® RSS™ 4000 can perform normal recording. Please refer to the <i>Product activation</i> section for detailed information concerning activation.
<i>Multicast</i>	Displays whether the multicast function is activated. When the multicast module is activated ✓ is displayed.

Item	Details
	Configure multicast parameters in the "Recording parameters-> multicast settings" page. See <i>multicast settings</i> for details. When not activated,  is displayed. To use the multicast function, acquire a multicast-activated product key code. Steps for activating the multicast function are the same as those for new device activation. Please refer to the <i>Product activation</i> section for further information.
<i>Encryption</i>	Displays whether the AES encryption function is activated. When the encryption function is activated,  will be displayed here, otherwise  will be displayed. For more information about AES encryption, please refer to the <i>System Settings</i> .
<i>HD Live Streaming</i>	Displays whether the 720p live streaming function is activated. After activating the device can live stream at 720p resolution. Note: 720p 50/60 fps is not yet supported.



- The supported number of "Maximum H.323 Connections", "Maximum Archive viewers" and "Maximum Recording Sessions" depends on the license you bought. Please consult your vendor for detail information.
- Before using the "Multicast" "Encryption" and "HD Live Streaming" functions, you need to buy corresponding license and active the device. Please consult your vendor for detail information.

System Usage

Click on "System Usage" in the navigation bar on the left side of the screen to view the Polycom® RSS™ 4000's current hard drive usage, CPU usage, current device time, and synchronization of device time and time on current computer.

There are 2 hard disk on Polycom® RSS™ 4000. The RAID is configured as RAID-1 (mirroring). The two hard disks have identical data on them. Data written to one disk will automatically be duplicated to the other one.

System Usage	
Disk Usage :	1%
CPU Usage :	0%
RAID Status:	NONE
Disk1:	Missing
Disk2:	Missing
Date & Time :	2009年9月2日 14:50:01 (+8)
	This is current date and time on the RSS4000 server, with time zone set to 8.
	To change date and time settings, go to System Configuration -> System Settings section.

Figure 2-4 System Usage Page

Table 2-2 System Usage Details

Item	Details
<i>Hard drive usage</i>	Displays the Polycom® RSS™ 4000's current hard drive resource usage.
<i>CPU usage</i>	Displays the Polycom® RSS™ 4000's current CPU usage.
<i>RAID Status</i>	Display the status of RAID: <ul style="list-style-type: none"> ▪ NONE – the RAID is not available; ▪ Optimal – the RAID is working fine; ▪ Degraded – there is something wrong with the RAID; ▪ Rebuild – the RAID is rebuilding data; ▪ Build / Verify – the RAID is building or Verifying data; ▪ Verify – the RAID is verifying data.
<i>Disk1</i> <i>Disk2</i>	Display the status of hard drive: <ul style="list-style-type: none"> ▪ Online – the hard drive is available; ▪ Missing – the hard drive can not be detected; ▪ Rebuilding – the hard drive is rebuilding data.
<i>Date & time</i>	Displays the Polycom® RSS™ 4000's current date and time.



This screen is automatically refreshed once in every 30 seconds.

Product Activation

The user must activate a Polycom® RSS™ 4000 after purchase or software upgrade before the user can perform normal recording.

To activate your device

- 1 Log into the web interface of Polycom® RSS™ 4000, and go to **System Information > Product Activation**.

Product Activation

Serial Number :	003048B97666
Current Running Version :	5.0.0.001 593, Build: Aug 28 2009 09:26:21
Activation Status :	Activated
Activation Key :	<input style="width: 150px; height: 15px;" type="text"/>
<input style="margin-right: 20px;" type="button" value="Save"/> <input type="button" value="Clear"/>	
Click the button below to register your product at Polycom Resource Center and get an activation code.	
<input style="border: 1px solid #ccc;" type="button" value="Polycom Resource Center"/>	

Figure 2-5 Product Activation

- 2 Click on “Polycom Resource Center” to enter the Polycom Resource login page.
- 3 Sign in with your registered email account and password. If you are a new user, register for an account first.
- 4 Go to **Service & Support-> Product Activation -> Single Product Activation**.
- 5 Input the License Number and the Serial Number and click **Submit** to generate the Key Code.

You can get the License Number and the Serial Number from the printed document shipped with your device.

Single Product Activation


Please enter the License Number and the Serial Number of your product to generate a Key Code. To retrieve a previously enabled Key Code, please enter the product's serial number and leave the License Number blank.

License Number:

Serial Number:

Figure 2-6 Single Product Activation

- 6 Enter the generated Key Code in the field shown in Figure 2-5 and click **Save**.

Following successful activation, the "Activation status" property in *Product Information* page will display "Activated". If you also purchase the multicast function, AES function or HD live streaming function, a  will appear in the "Multicast", "Encryption" or "HD Live Streaming" properties sections, as shown below.

Product Information	
System Name :	Polycom Recording Streaming Server
Product Type :	4000
Version :	5.0.0.001 593, Build: Aug 28 2009 09:26:21
Maximum H.323 Connections :	15
Maximum Archive Viewers :	200
Maximum Recording Sessions :	15
Activation Status :	Activated
Multicast	
Encryption	
HD Live Streaming	

Figure 2-7 The device has been activated successfully



If you wish to activate the device's optional functions alone, you must first obtain a product license with these functions. Please contact a distributor if you wish to obtain such a license.

Please do the activation in the following order: system license (5, 10, or 15); then HD Live Streaming; then multicast; then encryption.

System Configuration

Click on "System Configuration" in the navigation bar on the left side of the screen. This page can be used to perform basic configuration tasks, including IP settings, gatekeeper settings, user customization, backup/delete settings, system settings, logger settings, upgrade/reset system settings, and SSL encryption certificate configuration.

IP Address Settings

Click on "System Configuration" -> "IP Settings" in the navigation bar to enter the IP settings page. The LAN1 IP address, subnet mask, gateway, and DNS server can be set using this page.

IP Settings	
LAN1	
IP Address :	172.21.103.58
Subnet Mask :	255.255.0.0
Default Gateway :	172.21.103.254
Enable NAT :	<input type="checkbox"/> 0.0.0.0
Preferred DNS Server:	172.21.96.9
Alternate DNS Server:	172.21.96.6
External IP/DNS name:	
LAN Link Feature :	Auto
<input type="button" value="Save"/> <input type="button" value="Clear"/>	

Figure 2-8 IP settings page

The device's IP address, subnet mask, default gateway, and DNS server address can be set manually on this page. A maximum of two DNS servers can be set. After completing settings, click on the "Save" button to save the IP address and DNS server address, and a dialog box will appear to remind the user that the system required to be restarted in order for the new settings to take effect. After restart, the new IP address must be used to visit the Web UI to perform management.

Network Address Translation (NAT) network environments use private internal IP addresses for devices within the network, while using external IP addresses to allow devices on the LAN to communicate with other devices outside the LAN. If your Polycom® RSS™ 4000 is connected to a LAN that

uses a NAT, you can enable NAT option to allow the Polycom® RSS™ 4000 to communicate with external networks. If "Enable NAT" is selected, the external address for NAT usage must be configured. The calling party outside the LAN will call the NAT address of your system, while local users on your LAN will continue to use the LAN address.

When setting the IP address, only dots and numbers within the scope of 0-255 can be entered for the IP address, subnet mask and gateway address. Please check that an entered address is valid, otherwise an error message box will pop up.

Gatekeeper Settings

Click on "System Configuration" -> "Gatekeeper settings" in the navigation bar to enter the gatekeeper settings page. This page is used to configure whether the device registers to a gatekeeper. After registering to a gatekeeper, endpoints may call the Polycom® RSS™ 4000's E.164 alias to establish a connection, and there will be no need to use a cumbersome IP address.

Gatekeeper configuration items will be enabled when this box is checked. Then set the parameters. The word "Registered" will appear next to the check box after successfully registering to a GK.

Gatekeeper Settings	
<input type="checkbox"/> Register to Gatekeeper	Not registered
Gatekeeper IP Address :	<input type="text"/>
System Prefix/E.164 :	<input type="text" value="8888"/>
Recording without H.239 Prefix :	<input type="text"/>
Play Prefix :	<input type="text"/>
Recording with H.239 Prefix :	<input type="text"/>
System H.323 Alias :	<input type="text" value="RSS Server"/>
Gatekeeper Port :	<input type="text" value="1719"/>
<input type="button" value="Save"/> <input type="button" value="Clear"/>	

Figure 2-9 Gatekeeper setting page

If the device is registered to a gatekeeper, endpoints will be able to quickly access the Polycom® RSS™ 4000's Onscreen UI record or playback interfaces using the record and play prefixes registered with the GK.

Furthermore, the Polycom® RSS™ 4000 can also integrate with a gatekeeper, and take advantage of registration of identical system prefixes to enable multiple Polycom® RSS™ 4000 devices to share recording resources or H.323 connections. When an endpoint calls an E.164 alias plus a play prefix or recording prefix to connect with a Polycom® RSS™ 4000 device, the Polycom® RSS™ 4000 can determine the H.323 connection request type. If resources are not available, the RSS will send a busy message to the requesting GK. The GK will in turn send the playback or record request to

the next available Polycom® RSS™ 4000 device with the same prefix, and the user can play back or record a video on another Polycom® RSS™ 4000 without having to disconnect and reconnect.

Table 2-3 Details of Gatekeeper Settings

Item	Details
<i>Gatekeeper IP Address</i>	Enters the IP address of the GK the user wishes to register to.
<i>System prefix/E.164 number</i>	Sets E.164 alias of the Polycom® RSS™ 4000. After registering, endpoints may use this E.164 to call the Polycom® RSS™ 4000. The entered E.164 must have a numerical value and may not exceed 16 digits in length; otherwise an error message will pop up.
<i>Recording without H.239 Prefix</i>	Sets the recording prefix of the RSS. The user can directly enter the device's single point recording menu when the endpoint calls the E.164 alias + recording prefix. The Polycom® RSS™ 4000 will identify the recording request on the basis of this prefix.
<i>Play Prefix</i>	Sets the play prefix of the RSS. The user can directly enter the device's video play menu when the endpoint calls the E.164 alias + the play prefix. The Polycom® RSS™ 4000 will identify the playback request on the basis of this prefix.
<i>Recording with H.239 Prefix</i>	Sets the H.239 dual stream recording prefix of the RSS. The user can directly enter the device's single point record menu when the endpoint calls the E.164 alias + H.239 prefix. The Polycom® RSS™ 4000 will identify the dual stream recording request on the basis of this prefix.
<i>System H.323 Alias</i>	Sets the H.323 alias of the Polycom® RSS™ 4000. After registering, the endpoint will use this H.323 Alias to call the Polycom® RSS™ 4000. The entered length cannot exceed 16 digits.
<i>Gatekeeper Port</i>	The default value of 1719 typically does not need to be changed.

After completing relevant settings, click on "Save" to perform registration. "Registered" will be displayed if the registration is successful, otherwise "Not registered" will be shown.

User Customization

The Polycom® RSS™ 4000 permits users to customize the system's IVR voice messages, Web page logos, login screen welcome message, endpoint menu background, and endpoint menu language.

Click on "System settings-> User customization" in the navigation bar on the left side of the screen to enter the customization interface.

The screenshot shows the 'User Customization' interface with the following sections:

- IVR Message (*.wav[mono,16kHz,pcm,16bit])**: A dropdown menu for 'Select IVR Message' is set to 'Welcome Message'. There is a language dropdown set to 'English' and a play button. Below are 'Browse...' and 'Download File' buttons.
- Web User Interface Logo (*.gif[1003x46])**: A text input field for the logo name, with 'Browse...' and 'Download File' buttons.
- Login Screen Welcome Message**: A text input field for the message, a language dropdown set to 'English', and an 'Apply' button.
- Endpoint Menu Background (*.bmp[24bit, uncompressed, 352x288 or 352x240])**: A text input field for the background name, with 'Browse...' and 'Download File' buttons.
- Default Endpoint Menu Language**: A language dropdown set to 'English' and an 'Apply' button.

Figure 2-10 User customization screen

Customizing the IVR Messages

This close-up shows the 'IVR Message' section of the customization screen. It features a dropdown menu for 'Select IVR Message' with 'Welcome Message' selected. To the right is a language dropdown set to 'English' and a play button. Below these are 'Browse...' and 'Download File' buttons.

Figure 2-11 IVR Message setting section

Users will hear different IVR messages when operating the Polycom® RSS™ 4000. The user can change the system's IVR messages in the "IVR message" area on this interface.



When an IVR file is uploaded to the Polycom® RSS™ 4000, the file name must consist of only alphanumeric characters. The file format is PCM, 16 bit, single-channel file with a sampling frequency of 16KHz.

After changing IVR messages, the user can select the corresponding language and click on the play button to the right to listen.

If the user wish to change the IVR messages, first select the corresponding language, and then click on the "Browse" button beneath the drop-down list. Confirm the path of the file to be changed, and click on the "Download file" button to download the new file. After the file has been downloaded, play the message to confirm that the file change has been successful.

Customizing Web user interface logos

This close-up shows the 'Web User Interface Logo' section. It includes a text input field for the logo name, a 'Browse...' button, and a 'Download File' button.

Figure 2-12 Web user interface logo setting section

The user can change Web interface logos in the "Web user interface logo" area of the interface.



Logo image files must have file names consisting only of alphanumeric characters; the file format must be GIF and file size must be 1003 × 46.

Click on the "Browse" button in this area, confirm the path of the file to be changed, and click on the "Download file" button to download the new file. After the file has been downloaded successfully, the system's logos will be replaced with the new logos.

Customizing the login screen welcome message



Figure 2-13 Welcome Message setting section

The user can change the login interface welcome message in the "Login screen welcome message" area of the interface.

Enter the text of the new welcome message in the "Login screen welcome message" input box, and select the system software language version. Click on the "Apply" button to change the Web login screen welcome message.

Customizing the endpoint menu background

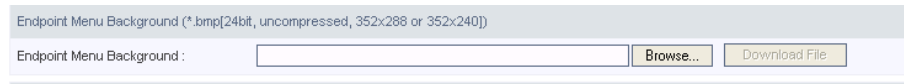


Figure 2-14 Endpoint menu background setting section

The user can change the endpoint menu background image in the "Endpoint menu background" area of the interface.



Endpoint menu background image files must have names consisting only of alphanumeric characters; images must be in bmp format, and must have a resolution of SIF (352 × 240) or CIF (352 × 288).

Click on the "Browse" button in this area, confirm the path of the file to be changed, and click on the "Download file" button to download the new file. After the file has been downloaded successfully, the endpoint menu background will be replaced with the downloaded image file, as shown below.

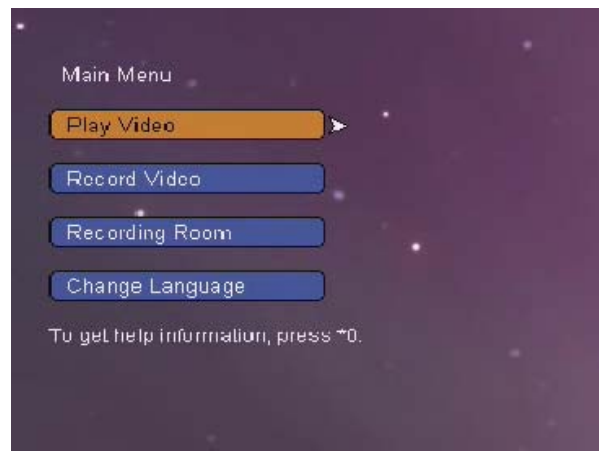


Figure 2-15 Endpoint menu after changing the background image

Setting the default endpoint menu language

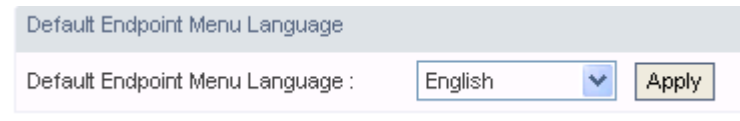


Figure 2-16 Default endpoint menu language setting section

After the endpoint is used to call and establish a connection with the Polycom® RSS™ 4000, the menu screen sent from the Polycom® RSS™ 4000 will appear on the endpoint.

The default endpoint menu language can be set using the "default endpoint menu language" area. Select on the languages and single-click the "Apply" button to change the endpoint menu language.



Changes to the menu language will take affect on the next H.323 Connection to the Polycom® RSS™ 4000.

Archives Backup/Delete

Click on "System Configuration -> Backup/Delete Settings" in the navigation bar to enter the screen shown below. This interface can be used to configure backup and deletion of recorded video files.

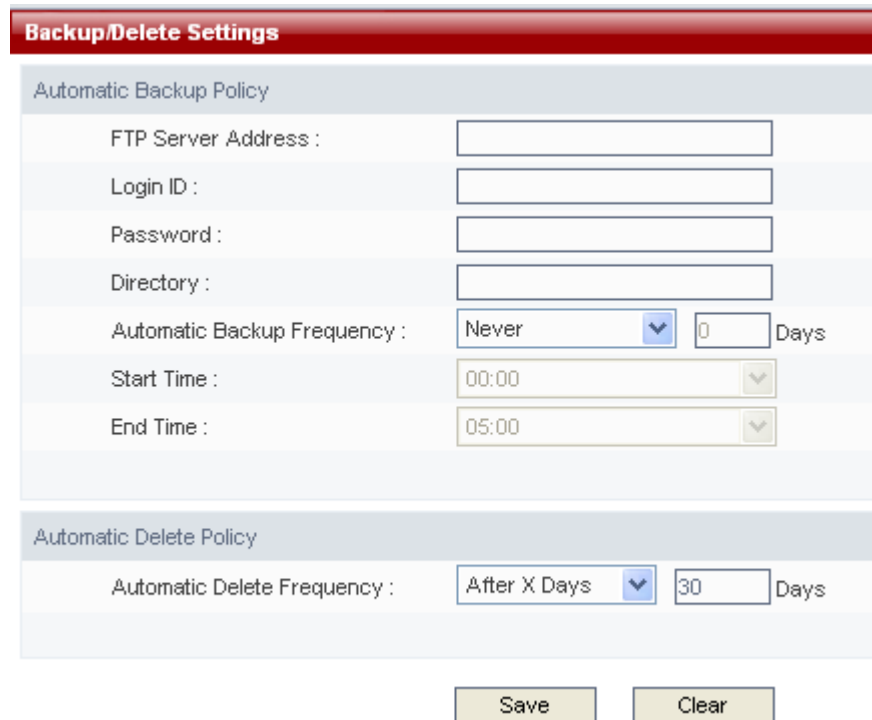


Figure 2-17 Backup/deleterious settings screen

The user should configure a FTP server in where he would like back up the archives to. The configurations include the FTP Server Address, Login ID, Password and Directory.

Backup Settings Policies

There are three options with regard to automatic backup frequency:

- **Never backup** – Video files will not be backed up to the FTP server if this is selected.
- **Backup after end of recording** – Video files will be immediately backed up to the FTP server if this is selected.
- **Backup after a specified number of days**- Video files will be backed up to the FTP server at a configured frequency if this option is selected. The backup time must be set. Specify the number of days after recording, and the backup start time on that day. The number of days may be any value in the range of 1-999, and any time may be set from 0:00 to 23:00; the backup end time must be later than the backup start time.



The file names of archives that have been backed up will be displayed in pink in the archive list.

Deletion Policies

There are three possible deletion policies that can be selected:

- **Never delete** – Video files will be stored indefinitely on the Polycom® RSS™ 4000's hard drive when this option has been selected.
- **Delete after backup** – Video files will be immediately deleted after being sent to the backup server when this option has been selected.
- **Delete after a specified number of days** – Sets the number of days after the end of recording before video file are deleted; the number of days may be any value in the range of 1-999.



- If BOTH “Back after end of recording” and “Delete after backup” are selected, the system will keep the archives for one day instead of removing it immediately, for avoiding invisibility of the Archived list.
- If “Never Auto Delete” is enabled on the video file properties screen (please refer to Changing Archive Properties section), the video file will not be deleted even if the backup/delete strategy allows deletion.

System Settings

Clicking on "**System Configuration -> System Settings**" in the navigation bar on the left side of the screen allows the user to configure items describe in Table 2-4.



Figure 2-18 System Settings Page

Table 2-4 System Settings Details

Item	Details
<i>Turn on Windows Firewall</i>	Turn on or turn off the Polycom® RSS™ 4000 system's firewall. When it is enabled, Windows Firewall blocks all unsolicited incoming network traffic on all network connections. Blocking unsolicited incoming traffic makes the RSS less open to attack and increases its level of security.
<i>Automatically synchronize device time with a time server</i>	When checked, the device time will be automatically synchronized with the set time server. The administrator must set the location of the time server. Clicking on the "Synchronize" button will synchronize the device time with the time server. When unchecked, the Polycom® RSS™ 4000's device time will be synchronized with the time of the local PC by clicking on the "Synchronize" button. <ul style="list-style-type: none"> Time Server – Sets the location of the time server. It can be a DNS name or an IP address. When setting to a DNS name, ensure that the configured DNS server is able to resolve the name. Time Zone – Sets the time zone for the Polycom® RSS™ 4000 system time.
<i>HTTPS/SSL</i>	Sets whether or not SSL authentication encryption is activated for communication between the web server and the users. After changing this setting, the device must be restarted for the new setting to take effect. If the user purchased an activation code with security mode and used it to activate the device, then this item will be disabled. It will not permit the user to turn off the authentication function in order to protect secure web communications. After turning on the authentication encryption, the SSL certificate on the server must be configured. For more detailed information, please refer to <i>SSL Configuration</i> .
<i>Enable POLYCOM Stereo Surround</i>	Selecting this item will enable the Polycom® RSS™ 4000's Siren22 stereo recording function. This option is selected (enabled) by default.
<i>Disable Preview</i>	Selecting this item will disable the playback preview function in the Onscreen UI.

Item	Details
<i>Disable H.323 Playback</i>	This item is not checked by default. If selected, it will disable the H.323 connection's playback function and "Play Video" will be disabled in the Onscreen UI main menu. This setting does not affect playback from Web site.
<i>Enable AES</i>	If this function is enabled, the system will automatically encrypt H.323 calls with other endpoints or MCUs with AES encryption, if the endpoint or MCU supports AES. Note: AES encryption is an optional function of the Polycom® RSS™ 4000 and will not be available until a license is purchased and activated. To obtain this function, please contact your supplier.
<i>Enable H.264 Content</i>	This option is enabled by default. When checked, the Polycom® RSS™ 4000 will support H.264 content sending from endpoint.

Clicking on the "View Security Updates Already Installed on this Device" link on the bottom of the page will look up a table of system updates already installed on the Polycom® RSS™ 4000 device, as shown in below figure. Clicking the "Back" button on this page will return the user to the previous System Settings page.

Security Update List					
Name	Description	OS Type	Version	Installation Date	
KB917734_VVMP10		Windows Media Player 10		11/1/2006	
KB925398_VVMP64		Windows Media Player 6.4		7/17/2007	
KB923689		Windows XP		7/17/2007	
KB883939	Security Update for Windows XP (KB883939)	Windows XP		N/A	
KB885836	Windows XP Hotfix - KB885836	Windows XP	20041028.160538	11/1/2006	
KB886185	Windows XP Hotfix - KB886185	Windows XP	20041021.090513	11/1/2006	
KB890046	Security Update for Windows XP (KB890046)	Windows XP	1	11/1/2006	
KB893756	Security Update for Windows XP (KB893756)	Windows XP		N/A	
KB893803v2	Windows Installer 3.1 (KB893803)	Windows XP	3.1	11/1/2006	
KB896358	Security Update for Windows XP (KB896358)	Windows XP	1	11/1/2006	
KB896423	Security Update for Windows XP (KB896423)	Windows XP		N/A	
KB896424	Security Update for Windows XP (KB896424)	Windows XP		N/A	
KB896688	Security Update for Windows XP (KB896688)	Windows XP		N/A	
KB896727	Update for Windows XP (KB896727)	Windows XP		N/A	
KB898461	Update for Windows XP (KB898461)	Windows XP	1	11/1/2006	

Figure 2-19 Security Updates Table



When synchronizing the device's system time with an NTP server, the user must set an active NTP server address. Since the communication between the device and the NTP server requires a certain time, the system time may not be instantly updated.

Logger Settings

Polycom® RSS™ 4000 offers a background log backup function. The log files are used to troubleshoot the system by the Polycom Certified support experts.

Clicking on "System Configuration -> Logger Settings" allows the user to configure the Polycom® RSS™ 4000 system log information, the log models generated, and the size of the log files. In general it's recommend not to modify the default setting of this section, unless instructed by the Polycom certified support expert.

Figure 2-20 Logger Settings Page

Managing Log Files

For log files already created by the device, Polycom® RSS™ 4000 offers a function to manage these log files. In the page shown above, click on the "View Log Files Created on this Device" link on the bottom of the page, and enter the View Log Files Table page, as shown below:

Log File	Creation Date/Time	File Size (KB)
2007_12_16_38.log	2007-12-22 08:41:42	2048
2007_12_16_39.log	2007-12-22 23:21:12	89
2007_12_23_00.log	2007-12-23 00:00:02	2048
2007_12_23_01.log	2007-12-23 14:38:12	2048
2007_12_23_02.log	2007-12-24 05:16:42	2049
2007_12_23_03.log	2007-12-24 16:58:39	2048
2007_12_23_04.log	2007-12-25 05:38:29	1034
2007_12_23_00.log	2007-12-25 09:49:00	2058
2007_12_23_01.log	2007-12-25 09:49:00	2059
2007_12_23_02.log	2007-12-25 09:49:00	2059
2007_12_23_03.log	2007-12-25 09:49:00	2058
2007_12_23_04.log	2007-12-25 09:49:00	2048

Figure 2-21 Log Files

In this page, the user can view the information and content of log files, and also download and delete the device’s system log files.

View Log Files:

Single-click the log file name in the table, and the user can view the contents of the log file. At this time, the system will show the file contents by opening a new window.

Download Log Files:

Right-click the log file name in the table once, and select "Save Target As". At this time, a file download message box pops up, and the user can save this

log file in his computer's file destination path.

Delete Log Files:

First select the log file for deletion, the user can select a single file or multiple files to be deleted. The user can also delete all files. After selecting the files to be deleted, single click the "**Delete**" button.



The check box on the left side of the first row in the log table is "Select All". Checking this check box will result in all log files being selected; Log files that are in the process of creating cannot be deleted.

Upgrade/Reset System

Clicking on "**System Configuration -> Upgrade/Reset System**" in the navigation bar on the left side of the screen allows the user to upgrade software. Software upgrade for the Polycom® RSS™ 4000 device requires having the corresponding upgrade key code for the upgrade package. Different software upgrade packages have different key codes.

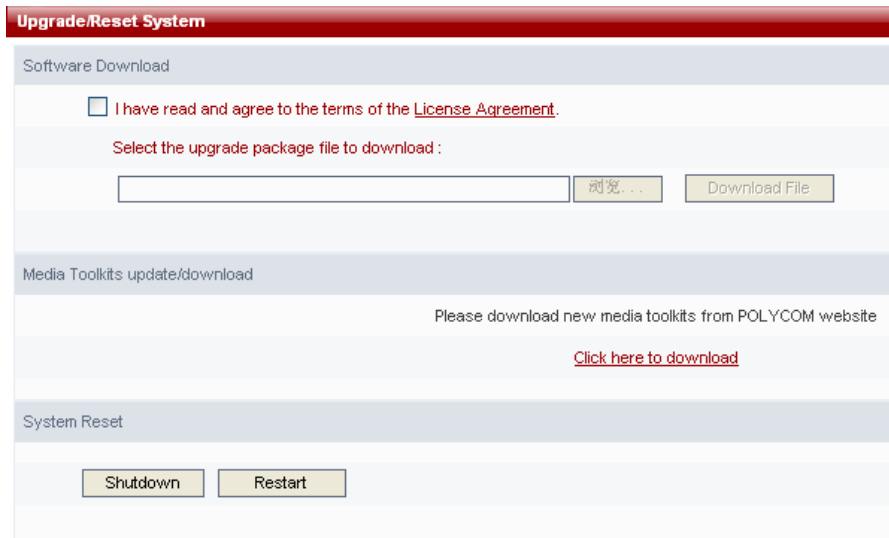


Figure 2-22 Upgrade/Reset System

To upgrade the system software version, click the License Agreement link in the **Software Download** section, if the user agrees with the terms after read them, choose the checkbox indicated agreement and then the browse button will be activated for uploading the upgrade file. Click the button and then choose the local upgrade file, click the **Download File** button to upgrade the system software.



After clicking the Download File button to upload the upgrade package, a prompt box will immediately pop up asking the user to reboot the system. However, the user should wait for (about 5 minutes) until the upload process is completed and then click the Restart button to reboot the system. If the upload is not complete, a warning box will pop up and will not allow reboot..

After the software has been successfully upgraded, the device's software version should be the same as the software version of the upgrade package.

If the software version information did not change, it means the software upgrade was not successful. In that case, enter the Product Information page to check that the software currently running on the device meets the minimum version required by the upgrade package. In addition, the user can also check to see if the software upgrade activation code the user entered was correct.

Download Media Tools

To download the media tools package used with the Polycom® RSS™ 4000, click on the "**Click Here to Download**" link in the "**Media Tools Download**" area. For a description of the media tools, please refer to *Polycom® RSS™ 4000 Media Tools*.



The system must be connected to the internet in order to achieve the above functionality.

Device Reset

To reset the device, click on the **Restart** button on the "**Upgrade/Reset System**" page. A dialog box will pop up asking you to confirm whether you want to reset the device. Select "**OK**", and the device resets and a dialog pops up that asks whether to close the current web page. Select "**Cancel**" and the current web page will not be closed.



When there is an active H.323 connection, the device will not be reset and a warning message will be presented.

SSL Configuration

The Polycom® RSS™ 4000's web server supports SSL (Security Socket Layer) protocol. After installing the SSL digital certificate on the device, the user can establish encrypted communications links between the user end and the server, ensuring the security of information transmitted from the web.

Figure 2-23 SSL Configuration Page

Step 1 - Create New Certificate Request

Click on the page's "**Create New Certificate Request**" button to enter the configuration page. Set up the basic information for the certificate, such as

the organization and location. Click on "Create" to complete the certificate request.

Figure 2-24 Create New Certificate Request

Step 2 – Get Certificate

After creating a certificate request, it automatically enters the "Certificate Signing Request" page. This shows the recently created certificate request information, copy the information in the text box into the digital certificate request page the user already purchased in order to generate a certificate.

```

-----BEGIN CERTIFICATE REQUEST-----
MIIEBmjCCAQMCAQAwWjELMAkGA1UEBhMCODYxYzAzJkBgNVBAGTAmJqMQswCQYDVQQH
EwJiajEQA4GA1UEChMHcG9seWVvbTENNAsGA1UECzHECzGNOYzEQMA4GA1UEAxMH
ZXhhbXBsZS50b3RzANBgkqhkiG9w0BAQEFAAOBjQAwgYkCgYEAxrXM2yU0ykIb14vO
CYLxOHb9xuI1Bma+g0hd6to3WmyDEeHVmVFz2cFoT014QYJ/GGC0WV0oGUmzsHYN
o631KD1/eKNE2FZmhEz+TpCYiYenjxh1EGKEhwAMlr4kjSd8K4NpsqTvJic9sDmt
nJbIROIEhnmENqh75SeCuQ+izrscAwEAAaAMAOGCSqGSIB3DQEBBAUAA4GBAljr
f9kU2x11Hr5dV7Azu+2KBljPVbqqB0artJxXv07Ww9yEBED+ei2a1A4cZD82yDSh
N16A1ONTFIBkUCIQwT1LQEErX3ZfedYeZODXj1m7DDIgiEs2ahdrU6JyhqZbTkiY
25ZfncR9G8aqdfSSzALTwhwncVDHE1SwZ5xx1sJ
-----END CERTIFICATE REQUEST-----
    
```

Figure 2-25 Certificate Request Information

Step 3 – Upload Certificate to Server

After successfully obtaining the certificate, click on the page's "Browse" button and select the folder to save the certificate file in, or enter the destination path in the text box on the left. Then click the "Upload Signed Certificate" to upload the certificate to the server. After uploading the certificate, the device must be reset before it becomes effective.

Single-click the page's "View Certificate Information" button to view the certificate information just installed on the RSS.

Since the SSL secure connection established between the user end and the server uses HTTPS protocol, after installing the certificate on the device, if

the user visits the device's web page, the user must enter the format into the browser as "https://device IP address" in order to successfully connect. And it also requires installing the certificate according to the pop up message box on the local machine to be able to login to the web page. After this, the communication between the user end and the server will always encrypt data based on the SSL secured connection to ensure the security of transmitted data.



Make sure the uploaded certificate and the currently created certificate request are the same; otherwise the device may not work properly.

Each time a certificate request is created, it will generate a random key. So even if the information configured in each new certificate request is the same, the certificate generated will be different.

After installing the SSL certificate, the authentication encryption function needs to be activated on the system settings page for the SSL security authentication mechanism to be activated. For more information about activating the authentication encryption function, please refer to System Settings.

Account Management

Click on "**Account Management**" in the navigation bar on the left side of the web page. This will allow the user to manage the configurations of endpoint properties, user properties, and groups, as well as configuration of the Active Directory.

Endpoint Management

Click on "**Account Management -> Endpoints**", and on the Endpoint Management page, the user can add endpoints, edit endpoint properties, and delete endpoints.

Endpoints						
		New		Delete		
<input type="checkbox"/>	Properties	Name	IP	E.164	H.323	
<input type="checkbox"/>		8000	172.21.120.158			
<input type="checkbox"/>		67	172.21.103.34			
<input type="checkbox"/>		celia.yu	172.21.100.111	0406	celia	
<input type="checkbox"/>		K60A	172.21.100.244			
<input type="checkbox"/>		K60B	172.21.101.116			

Figure 2-26 Endpoints Page

Add Endpoints

Click on the "**New**" button on the Endpoint Management page, and it will go to the Add Endpoint page, as shown:

Figure 2-27 Add Endpoint


Table 2-5 Details of Endpoint Configuration Items

Item	Details
<i>Name</i>	Enter the name to identify the endpoint. The user can enter any combination of letters or numbers, but the length cannot exceed 32 characters.
<i>IP</i>	Enter the endpoint's IP address.
<i>E.164 (optional)</i>	Enter the endpoint's E.164 number registered to GK.
<i>H.323 ID (optional)</i>	Enter the endpoint's H.323 ID registered to GK.
<i>Enable Immediate Recording</i>	Recording will start automatically when the Polycom® RSS™ 4000 receives a call from this endpoint's configured IP address. Use this setting to allow specific endpoints to bypass all Onscreen menus and begin recording immediately upon connection to the Polycom® RSS™ 4000.



When adding an endpoint name, duplication is not permitted. Name and IP address are required fields.
The maximum number of endpoints that can be added is 200.

Edit Endpoint Properties

For existing endpoints, the user can click the endpoint properties icon  to edit their properties. Endpoint names cannot be edited.

Delete Endpoint

To delete an endpoint on the Endpoints page, after selecting this endpoint's corresponding check box, click the **"Delete"** button. The user can select one endpoint or multiple endpoints for deletion. The user can also select all endpoints for deletion.



The first check box under the "New" button on the endpoint page is "Select All". All of the endpoints will be checked if this check box is selected.

User Management

Click on Account "**Management -> Users**" to add new users, edit user properties, and delete users in the Users page.

Add User

Click on the "**New**" button in the User Management page, and it will link to the Add User page as shown:

The screenshot shows a web form titled "Users" with a sub-section "Users Properties". A red asterisk indicates required fields. The fields are:

- *User Name: text input
- Full Name: text input
- *Password: text input
- *Confirm Password: text input
- *Level: dropdown menu (currently showing "Ordinary")
- Email: text input

 Below the fields is a checkbox labeled "User cannot change account information." and two buttons: "Save" and "Back".

Figure 2-28 Add User

Table 2-6 Details of User Properties Configuration Items

Item	Details
<i>User Name</i>	Set user name for logging into Web UI. Enter any combination of letters or numbers, but the length cannot exceed 32 characters.
<i>Full Name</i>	This item is optional, used to identify the name that goes with the User ID. Enter any combination of letters or numbers, but the length cannot exceed 32 characters.
<i>Password</i>	Set the user's password when logging into the Web UI. Enter any combination of letters or numbers, but the length cannot exceed 32 characters. When user password is not entered, the password is left blank by default.
<i>Confirm Password</i>	Enter the password again. It must be the same as that entered into the password field; otherwise the system will pop up an error message.
<i>User Level</i>	<p>There are two user levels to choose from:</p> <ul style="list-style-type: none"> ▪ Ordinary – A normal user can only view saved videos, live streaming, and their own account information. They can only edit the full name, password, and e-mail. They cannot view or configure other configuration pages; ▪ Administrator– Has privileges to view and configure all web pages. <p>Note: There is a super administrators (User name: POLYCOM, Password: POLYCOM) by default on the</p>

Item	Details
	system, and the user has all privileges and cannot be deleted. However, the password can be changed.
<i>E-Mail</i>	Enter a valid e-mail address. The length cannot exceed 64 characters (For future use).
<i>User cannot change account information</i>	This option can only be changed for ordinary user level by Administrator. When enabled Ordinary users cannot change their own user password.




User names must be unique; they cannot be duplicated. Items marked with an asterisk are required fields.

Multiple users are permitted to login and use the same user name simultaneously.

200 users in total can be added for both administrator and ordinary users.

The maximum number of concurrent logins of the Web UI is 200.

Edit User Properties

The user can click this user properties icon  to edit user properties for existing users.

Delete User

To delete a user on the Users page, select the user and then click the "**Delete**" button. The user can select one user or multiple users for deletion. The user can also select all users for deletion.



The super administrator cannot be deleted, but the password can be changed.

Group Management

Click on "**Account Management -> Groups**" to enter the Group Configuration page. Groups are used for managing users with similar characteristics together as a group. Defining groups can allow the user to conveniently make global settings for all of the users in a group, such as globally setting recording rights or viewing rights. Using the **Groups** page, the user can add groups, edit group properties, and delete groups.

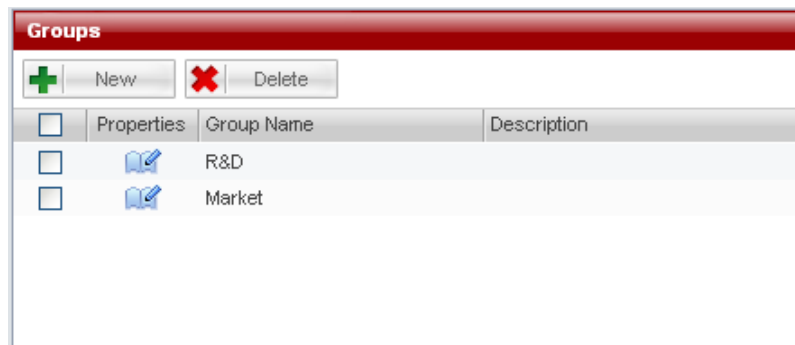


Figure 2-29 Groups Page

Add Group

Click the "New" button on the Groups Management page, and the page will jump to the Add User Group page.

On the Add Group page, the user can set the added group name, group description, and the endpoints and users included in the group.

- Name: Group Name. The user can enter any combination of letters or numbers, but the length cannot exceed 32 characters.
- Description: The user can enter any combination of letters or numbers, but the length cannot exceed 128 characters.
- User Members List: The Group Properties configuration includes two lists, for endpoints and users. The user can separately select endpoints and users to add to the group, as shown below:

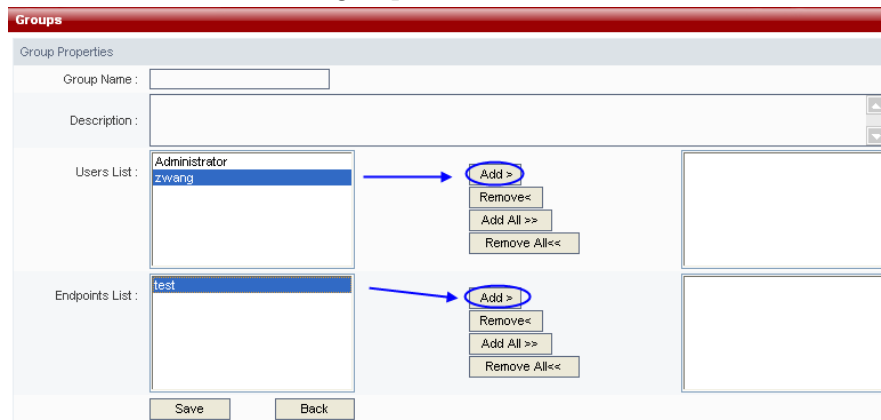


Figure 2-30 Add Group

When adding endpoints and groups, the user can select single endpoints and users to join the group, and the user can also select multiple endpoints and users to join the group. (The user can use the **Ctrl** or **Shift** keys on the keyboard to make multiple selections.) The user also can select all endpoints and all users to join the group.



Group names must be unique; they cannot be duplicated. This field is required to be filled in. Group description and group members are not required to be set up, so they can be left blank.

The maximum number of groups that can be added is 200.

After making the settings for groups, click the "Save" button to save the setting and add the group. Click "Back" to cancel the settings and return to the Groups page.

Edit Group Properties

The user can click this group properties icon  to edit group properties for existing groups.

On the **Edit User Properties** page, you can edit user group description and group members.

Delete Group

To delete a group on the Groups page, select the group and then click the "Delete" button. The user can select one group or multiple groups for deletion. The user can also select all groups for deletion by checking the check box in the header.

Active Directory Settings

The Polycom® RSS™ 4000 provides the function of integration with an Active Directory server, so that users on the integrated Active Directory do not need to register on the Polycom® RSS™ 4000 to directly visit the Polycom® RSS™ 4000 web management page to play a video.

Click "Account Management -> Active Directory Settings" in the navigation bar on the left side of the screen to enter the Active Directory Server configuration interface.

Figure 2-31 Active Directory Settings Page

Table 2-7 Details of Active Directory Settings

Item	Details
<i>Integrate with Active Directory Server</i>	Sets whether the Polycom® RSS™ 4000 integrates with an Active Directory server. When checked, Polycom® RSS™ 4000 integrates with an Active Directory server. Then, you can set the specific Active Directory server and the users and passwords that can access domains within the Active Directory. When unchecked, the Polycom® RSS™ 4000 is not integrated with an Active Directory server, and the settings related to the Active Directory server are disabled.
<i>Active Directory Server</i>	Sets the IP address or domain name of the Active Directory server to be integrated.
<i>User ID</i>	Sets the user name used by the Polycom® RSS™ 4000 when accessing the Active Directory server.

Item	Details
User Password:	Sets the user password used by the Polycom® RSS™ 4000 when accessing the Active Directory server.



When setting the domain name of the Active Directory server, make sure that the user has set a DNS server address that can resolve this domain name in "System Configuration -> IP Settings".

After successfully setting up the abovementioned configurations, the Polycom® RSS™ 4000 web login page's "Login Domain" pull-down list will be enabled and list the domain names of all set up Active Directory Servers

Now, the user can select an appropriate domain name from the pull-down list, and use a user name on this domain to directly log in. When the users using this domain directly login to Polycom® RSS™ 4000 web management, the users will only have the privileges of a normal user.

Recording Settings

The Polycom® RSS™ 4000 supports use of the call connection mode to record H.323 endpoint (or MCU) conferences. This is to say that an endpoint (or MCU) can connect with the Polycom® RSS™ 4000, which then decodes and stores the endpoint (or MCU) bit stream. Data is stored in two formats: raw bit stream and WMV format. Raw bit stream is used for H.323 Playback, while the WMV files are used for the Web live streaming and Web archives view.

The Polycom® RSS™ 4000 provides two types of recording modes: Single point recording and point-to-point recording.

Single point recording involves use of an endpoint or MCU to directly call the Polycom® RSS™ 4000 and establish a connection. During single point recording, the Polycom® RSS™ 4000 stores the stream of audio and video data from the endpoint or MCU. The Polycom® RSS™ 4000 supports recording in the following video formats: H.261/H.263/H.264, and the following audio formats: G.711A/G.711U/G.722/G.728/G.722_1C/Siren14/Siren 22 Stereo. There is an option the user or administrator can "check" to record the H.239 content at the beginning of each recording. When selected, the content will be recorded and displayed together with the people video during live streaming or playback.

Point-to-point recording occurs when two endpoints call into a pre-established Polycom® RSS™ 4000 recording room. The Polycom® RSS™ 4000 will store the bit streams from the two endpoints as a file. The endpoints can each view the images from the two participating endpoints. When only one endpoint enters a recording room and begins recording, the endpoint will only view its own loopback image. Point-to-point recording also supports H.239 dual-stream recording.



The Polycom® RSS™ 4000 supports H.239 only. To record the proprietary People + Content standard, utilize a Polycom MGC to transcode the proprietary content to H.239.

Click on “**Recording Settings**” in the navigation bar on the left side of the page, and make settings on these pages for the Polycom® RSS™ 4000’s single point recording properties, point-to-point recording properties, web dial-out recording, and multicast videos.

Single Point Recording Settings

Click on “**Recording Setting -> Single Point Settings**” to enter the **Single Point Settings** page. Here the administrator can configure the settings for the single point recording parameters. When an endpoint dials the Polycom® RSS™ 4000 to start single point recording, that session will function according to these parameters. In the single point recording settings the administrator can separately set whether or not to record H.239 dual video, request I-frames at specified intervals during recording, whether or not to allow live streaming of the video during recording, and recording rights and viewing rights.

You can set the rate for live streaming. When you choose “No limit” for this, means the actual bit rate for live streaming will be the same with H.323 connection.

Figure 2-32 Recording Settings Page

Recording H.239 Dual Video

Check the **Record my PC content if H.239 is supported by the endpoints** box and then when doing single point recording, the user will send H.239 dual video to the endpoints. When this file is played via the Web, both the main video image and the content can be viewed at the same time. The recorded dual video PC screen can support XGA resolution.



Whether the Polycom® RSS™ 4000 will record H.239 dual video depends on whether the endpoint supports H.239.

Setting a Request for Fast Forward / Backward Interval in the Recording Process

In order to ensure quality during playback, the Polycom® RSS™ 4000 will request I-frames from the endpoint at the configured time interval. The default time interval is a request of one Fast Forward/Backward interval of one minute, and it can be set to anywhere between 1 and 10 minutes. During H.239 video recording, the interval will be simultaneously relevant for the main image and the dual video image at the set time interval.

Enable 4CIF /4SIF/720P/1080P Recording

If this box is checked, the user can enable 4CIF/4SIF/720P/1080P recording in the single point recording process. After checking this box and setting the call speed parameter, during single point recording, when the call speed is equal to or greater than the set value and the endpoints support HD video, the user can record the 4CIF/4SIF/720P/1080P video stream that is sent to the endpoints.



- Live streaming is not supported for 720p 50/60 fps or 1080p recording.
- The 720p 50/60 fps or 1080p video will not be immediately available for viewing via the Web interface during recording. The RSS requires 1.5 minutes of conversion time for every minute of recorded 1080P video – therefore a one-hour 720p 50/60 fps or 1080p recording will be available for WMV playback 1.5 hours after the recording completes, provided no other recordings are made during that 1.5 hours. If other recordings are made during format conversion, the conversion time will be prolonged.

Live Streaming

If this box is checked, the user can enable live streaming in the single point recording process.

You can set the rate for live streaming. When you choose “No limit” for this, means the actual bit rate for live streaming will be the same with H.323 connection.

After checking this box, during single point recording, click “**Live Streaming**” in the navigation bar to enter the Live Streaming Page where the user can see that the video is streaming.



When recording 720p 50/60 fps or 1080p video, live streaming is not available because the file must be converted to WMV format after the recording completes.

Recording Rights Settings

This is used to set which endpoints can do single point recording after establishing a connection to the Polycom® RSS™ 4000 when there are recording resources available. There are two levels of recording rights settings: allowing all endpoints to do recording, and only allowing endpoints listed in groups to do recording. The default setting is allowing all endpoints to do recording.

- **Allow All:** When this is selected, all endpoints that have established a connection to Polycom® RSS™ 4000 can begin recording when there are

recording resources available.

- **Group List:** When this is selected, only endpoints that are in selected groups can start to record. To set up groups with recording rights, the group must be selected from the list, and then the “Add” or “Add All” button must be clicked to add these to the rights list on the right side. When selecting groups to join the list, the user can use the “Ctrl” and “Shift” keys on the keyboard to select multiple groups at the same time. The user can also use this method to delete groups from the list.

When endpoints without recording rights start to record, the endpoint’s menu will show **You have no record privilege**, as shown below:



Figure 2-33 You have no record privilege Message

Viewing Rights Settings

This is used to set whether or not endpoints are allowed to view recorded videos during playback. There are three levels of viewing rights settings:

- **Allow All:** Indicates that videos generated by single point recording can be played back by any endpoint or user.
- **Deny All:** Indicates that videos generated by single point recording cannot be played back by any endpoint or non-administrator user.
- **Groups members of the recording endpoint /MCU:** Indicates that only endpoints listed as members of groups defined in recording rights can view the video, and other endpoints or users cannot view the video through the web interface, and they also cannot play it back.

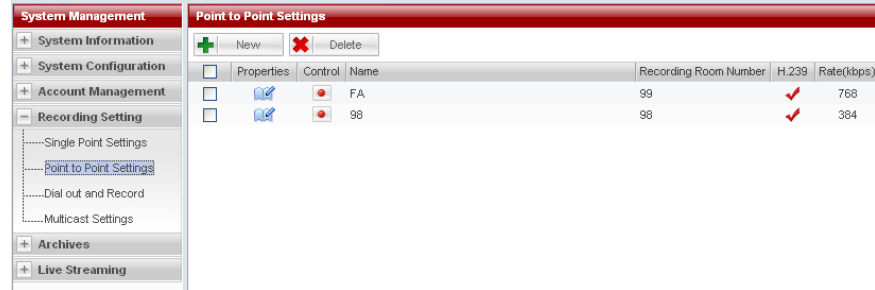
After setting the previous settings, click the “Save” button to save all the settings that were made. Before clicking the Save button, clicking “Clear” will cancel all settings that were previously made on this page.

Point-to-point Recording Settings

Click on “Recording Setting -> Point to Point Settings” to enter the Point-to-point recording page. Here the administrator can configure settings for point-to-point recording. These settings will be used when endpoints dial and connect to the Polycom® RSS™ 4000 and enter the recording room to start point-to-point recording. This will be done according to preset

parameters. In the **Point to Point Settings** page, the administrator can set recording room name, recording room number, recording room protocol, and recording room rate, as well as whether or not to record H.239 dual video, request I-frame intervals during the recording process, whether or not to stream the video, and recording rights and viewing rights.

On the “**Point to Point Settings**” page, the administrator can view all current recording room names, recording room numbers, H.239 dual video configurations, recording room rate, and current number of endpoints in the recording room, as well as recording room status, as shown below:



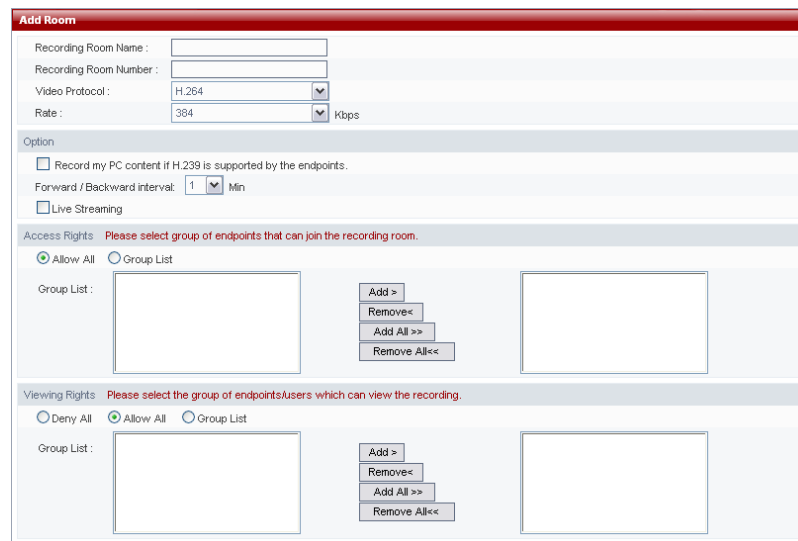
Properties	Control	Name	Recording Room Number	H.239	Rate(kbps)
<input type="checkbox"/>		FA	99	<input checked="" type="checkbox"/>	768
<input type="checkbox"/>		98	98	<input checked="" type="checkbox"/>	384

Figure 2-34 Point-to-point recording Settings Page

Recording room name, recording room number, and recording room rate are parameters used to identify the recording room. Whether or not to enable H.239 dual video identifies whether or not to display people video and content during web playback. *Participants* shows the current number of people in the recording room, 0/2 indicates that no participants have joined the recording room. 1/2 indicates that one participant has joined the recording room. 2/2 indicates that two participants have joined the recording room. There are two kinds of recording room states: idle and recording. “**Idle**” means that recording has not started, and “**Recording**” means that recording has started.

Create Recording Room

Click the “**New**” button on this page, and the page will jump to the Add Recording Room page, as shown below:



Add Room

Recording Room Name :

Recording Room Number :

Video Protocol :

Rate : kbps

Option

Record my PC content if H.239 is supported by the endpoints.

Forward / Backward interval: Min

Live Streaming

Access Rights: **Please select group of endpoints that can join the recording room.**

Allow All Group List

Group List:

Add > Remove< Add All >> Remove All<<

Viewing Rights: **Please select the group of endpoints/users which can view the recording.**

Deny All Allow All Group List

Group List:

Add > Remove< Add All >> Remove All<<

Figure 2-35 Point-to-point Recording Room Settings

On this page, the administrator can configure the settings for recording room name, recording room number, video protocol, and recording room rate.

- **Recording Room Name:** This is used to identify the recording room. Any combination of letters or numbers that does not exceed 32 characters can be entered.
- **Recording Room Number:** This is used to identify the recording room's E.164 number. Only numbers can be entered, with a maximum of 16 characters. When the endpoint and Polycom® RSS™ 4000 are both registered with GK, the endpoint can directly dial the recording room by dialing "RSS E.164 Number + Recording Room E.164 Number".
- **Video Protocol:** This defines the recording room's video protocol, which is the protocol used when the Polycom® RSS™ 4000 exchanges video images with the endpoints.
- **Rate:** Used to define the rate the endpoints connect to the recording room. The range is between 128kbps and 1024kbps.



The maximum number of recording rooms that can be added on one Polycom® RSS™ 4000 is 4.
4CIF/4SIF/720P/1080P recording for Point to Point calls is not supported.

Access Rights

In the "Access Rights" area, the administrator can limit the endpoints that are allowed to enter the recording room. There are two levels of access rights:


- **Allow All:** When this is selected, all endpoints that have established a connection to Polycom® RSS™ 4000 can join the recording room while the recording room is not full.
- **Group List:** When this is selected, only endpoints that are part of selected groups can enter the recording room. To set up groups to be allowed to enter the recording room, the group must be selected from the list, and then the "Add" or "Add All" button must be clicked to add these to the allowed list on the right side.

When selecting groups to join the list, the user can use the "Ctrl" and "Shift" keys on the keyboard to select multiple groups at the same time. The user can also use this method to delete groups from the list.



The settings for "Recording Options" and "Viewing Rights" are the same as those on the Single Point Recording page. This information will not be repeated here. For more details, please refer to *Single Point Recording Settings*.

Edit Recording Room Properties

The user can click this recording room properties icon  to edit recording room properties for existing recording rooms.

On the Edit Recording Room Properties page, the user can edit recording room parameters, options, recording rights, and viewing rights.



During the recording room recording process, recording room properties cannot be edited.


Delete Recording Room


To delete a recording room on the page, select the recording room and then click the “**Delete**” button. The user can select one recording room or multiple recording rooms for deletion. The user can also select all recording rooms for deletion.





The first check box under the “New” button on the Point-to-point Recording Settings page is “Select All”. All of the recording rooms will be checked if this check box is selected.

Point-to-point Recording Control

After establishing a connection between the endpoint and the Polycom® RSS™ 4000, entering the Point-to-point Recording page and clicking on the red button  for the recording room in the “**Control**” table begins point-to-point recording.

After clicking the red button, if there are usable resources, then the recording room’s point-to-point recording. At this time, the control buttons change to .

To pause recording, click on the pause button  on the left, and the buttons change to .

Continue recording by clicking the left button again. To stop recording at any time during the recording process, click the button on the right.

Dial Out and Record Through the Web

Click on “**Recording Setting -> Dial Out and Record**” to configure and initiate a dial out and record session from the web UI.

Figure 2-36 Dial Out and Record Page

In the location field, enter the IP address of the endpoint to be dialed. (If registered to a gatekeeper, enter the endpoint’s E.164 number or H.323 ID.) After selecting the dialing bandwidth, click on “**Dial**” button on the bottom of the page to dial. The dial rate is 128kbps-4096kbps. After dialing, the

Polycom® RSS™ 4000 will do a capability negotiation with the called endpoint and establish a connection according to the negotiated audio and video protocols.



After dialing and establishing a connection through the web, if there are recording resources available, recording starts immediately; there is no need to change additional settings on the endpoint other than answering the call.

After dialing and establishing a connection through the web, if there are no recording resources available on the Polycom® RSS™ 4000, then the connection will terminate after 40 seconds.

The settings for “Recording Options” and “Viewing Rights” are the same as those on the Single Point Recording page. This information will not be repeated here. For more details, please refer to *Single Point Recording Settings*

Multicast Settings

Configuring the Polycom® RSS™ 4000 Multicast function will enable a group of PC within the same subnet as Polycom® RSS™ 4000 or accessible via router simultaneously view the video stored on Polycom® RSS™ 4000 or being streamed.

Click on “Recording Setting -> Multicast Settings” in the navigation bar on the left side of the page, and the user can set information related to video multicasting. If the multicast function of the device is not enabled, all of the options on this page will be disabled.

Figure 2-37 Multicast Settings Page


Table 2-8 Multicast Settings Details

Item	Details
<i>Enable multicast for recording sessions</i>	When checked, the device multicasts the currently recording video. At this time, you can use the Polycom® RSS™ 4000 Multicast Player to receive to view the multicast video. When it is unchecked, the device does not multicast the currently recording video.
<i>Session Advertisement Address</i>	Through this address, users can view the list of all videos currently being multicast.
<i>Session Advertisement Port</i>	Sets the port used by the video list sent by the Polycom® RSS™ 4000 device, with a range between 3000 and 3999.
<i>Media Destination</i>	Sets the multicast address used by the video's audio and

Item	Details
Address	video sent by the Polycom® RSS™ 4000 device.
Media Base Port	Sets the port used by the video sent by the Polycom® RSS™ 4000 device, with a range between 4000 and 65000.

Archives Multicast

To multicast one archive existing:

- 1 Click Archives-> Archives in the navigation bar on the left of page, and then select an existing archive in the list in **Archives** page.
- 2 Right click the corresponding **Play** button , and then choose “**Start Multicast of this Video**”.
- 3 After refreshing the web page, the user will see the name of this video turned red, indicating that this video is being multicast. Now, this multicast video can be received using the reception tool Polycom® RSS™ 4000 Multicast Player, as shown in Figure 2-38. For details about using the reception tool, please refer to *Using Polycom® RSS™ 4000 Multicast Player*.

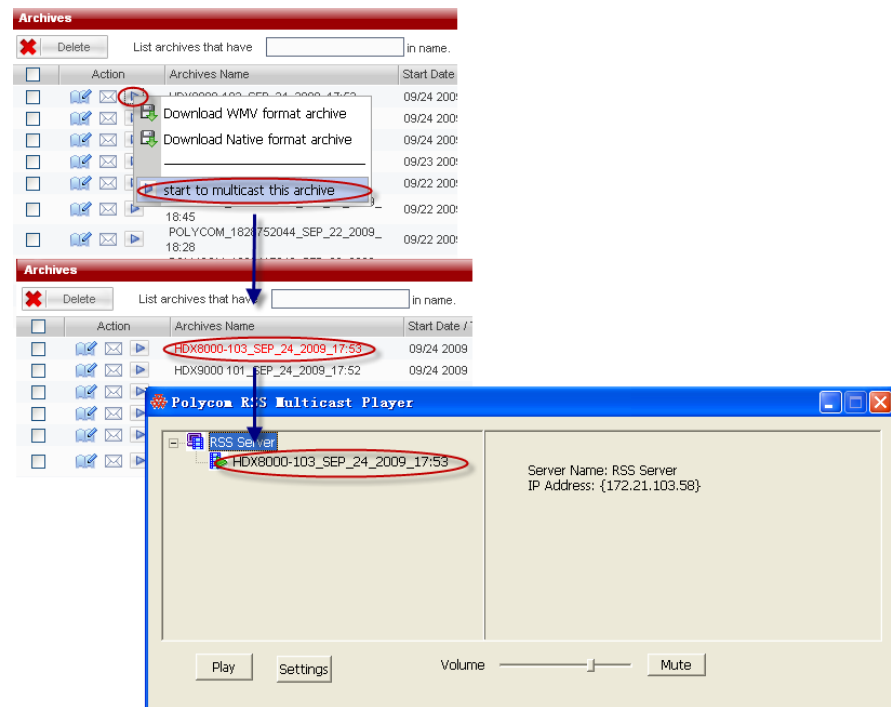




Figure 2-38 Archives Multicast

To stop multicasting video, right click the **Play** button  again and select “**Stop Multicast of this Video**”.

Also users can configure how many times they want to repeat this archive by specifying *Number of Repeats* option in the **Edit Archive** page (click the properties icon  of the archive), as shown below.

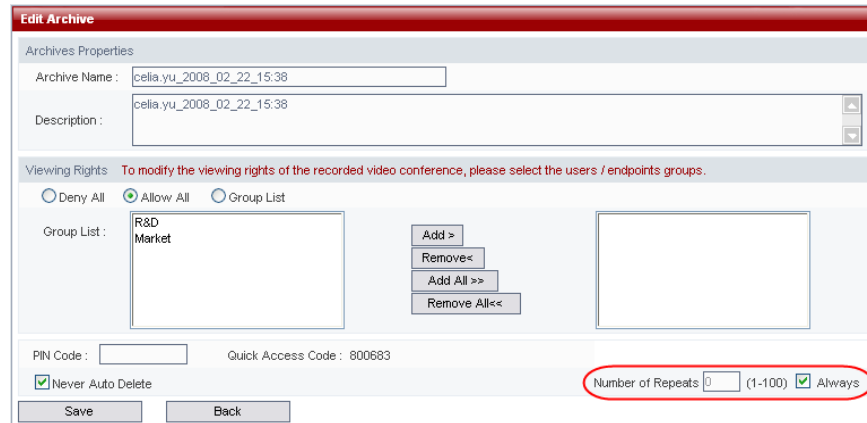


Figure 2-39 Number of Repeats Option

Live Streaming Multicast

The video being streamed is also being multicast automatically if the multicast function is enabled. In other words, when a video is being streamed, the user can launch the Polycom® RSS™ 4000 Multicast Player software to receive the video, as shown below.

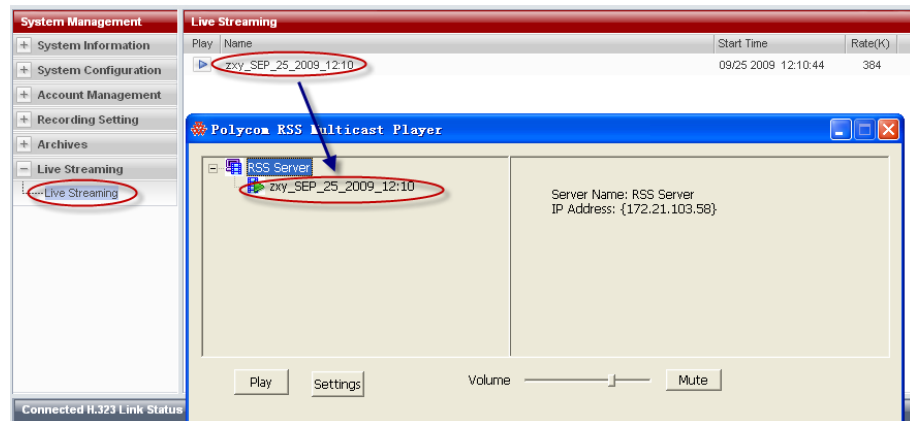


Figure 2-40 Live streaming multicast



Two archives can be simultaneous multicast.
 Multicast is a software option that can be purchase in addition
 When a LAN has multiple Polycom® RSS™ 4000 devices simultaneously multicasting, make sure to use different multicast addresses and ports.
 Polycom® RSS™ 4000 Multicast Player is multicast software specifically designed to receive multicasts sent by the Polycom® RSS™ 4000 device. For more details, please refer to *Using Polycom® RSS™ 4000 Multicast Player*.

Streaming Settings

The user can select the file conversion mode for live streaming or recording H.239 dual video to display in two floating windows or one two-squares window during web playback.

To configure the file conversion mode:

- 1 Click on “Recording Setting” -> “Streaming Settings” in the navigation bar on the left side of the Web Page to enter the following page:

Streaming settings

Video Option (For file WMV archives with H.239 content.)

Dual window (Have separate media player window for people and content)

Single window (View people and content videos in the same window)

Small Content : (The content size is 640*480)

Medium Content : (The content size is 800*600)

Large Content : (The content size is 1024*768)

Figure 2-41 File Settings

- 2 Select one of the following dual video conversion modes:

Table 2-9 Dual video conversion mode

Item	Details
<i>Dual window (Have separate media player window for people and content)</i>	During the live streaming or playback of dual video, two windows will pop up displaying the content at frame rate of up to 10 fps and people video at up to full frame rate respectively.
<i>Single window (View people and content videos in the same window)</i>	<p>During the live streaming or playback of dual video, only one two-image window will pop up displaying the content and the recording image at frame rate of up to 30 fps respectively.</p> <p>After selecting this mode, the user can set the window mode for the people and content videos:</p> <ul style="list-style-type: none"> ▪ Small Content: (The content size is 640*480) ▪ Medium Content: (The content size is 800*600) ▪ Large Content: (The content size is 1024*768)



The settings on this page only affect H.239 dual video in WMV format when streamed or played back via the Web. Playback via H.323 connection is not affected by these settings.

Managing Recording Files

Click on “Archive Videos” in the navigation bar on the left side of the web page, and for archives generated by recording a user can do status lookup, play videos, change archive properties, delete archives, lookup archives, and order of archives.

Action	Archives Name	Start Date / Time	Duration	Rate(K)	Video	H.239	File Size
<input type="checkbox"/>	zxy_SEP_25_2009_12:03	09/25 2009 12:03:36	00:06:44	384	H.263+		19175
<input type="checkbox"/>	HDX8000-103_SEP_24_2009_17:53	09/24 2009 17:53:31	00:09:55	4096	H.264 HD		62290
<input type="checkbox"/>	HDX9000 101_SEP_24_2009_17:52	09/24 2009 17:52:07	00:00:13	768	H.264		739
<input type="checkbox"/>	HDX8000-103_SEP_24_2009_17:48	09/24 2009 17:48:00	00:00:28	4096	H.264 HD		7185
<input type="checkbox"/>	hdx8000-112_SEP_23_2009_00:37	09/23 2009 00:37:32	13:56:42	1920	H.264 HD		505301
<input type="checkbox"/>	HDX 114_SEP_22_2009_18:54	09/22 2009 18:54:59	00:09:25	512	H.264 SD		35508
<input type="checkbox"/>	POLYCOM_1776791099_SEP_22_2009_18:45	09/22 2009 18:45:45	00:18:26	1920	H.264		21472
<input type="checkbox"/>	POLYCOM_1828752044_SEP_22_2009_18:28	09/22 2009 18:28:47	00:04:34	1920	H.264		5343
<input type="checkbox"/>	POLYCOM_1828417042_SEP_22_2009_18:20	09/22 2009 18:20:34	00:04:40	1920	H.264		4616
<input type="checkbox"/>	CMA-96_SEP_22_2009_16:30	09/22 2009 16:30:18	00:00:46	384	H.264 SD		1716

Figure 2-42 Archives Page

Viewing Archive Properties

As shown in Figure 2-42, the Archives page shows the videos that can currently be seen by users and their video properties, including: video name, server name, video start time, duration, video recording rate, video protocol used, whether or not H.239 was used, and the file size.

Table 2-10 Archive Properties Details

Item	Details
Video Name	The default name for videos generated by recording follows the naming rule of “endpoint H.323 name (recording room name) + recording time”. Video names can be edited after being generated by recording.
Server	Shows the H.323 name of the Polycom® RSS™ 4000 device the archive is saved on.
Start Date/Time	The start time is the Polycom® RSS™ 4000 device’s time when recording starts.
Duration	Shows the duration of the archive.
Rate	The rate of the connection between the endpoint recording the video and the Polycom® RSS™ 4000, expressed in Kbps.
Video	The video protocol used by the connection during recording of the video.
H.239	Whether or not H.239 was enabled during recording of the video.
File Size	The size of this archive, expressed in KB.

Looking Up Archives

In the archive table, the user can look up archives by their archive names, as shown below:

The screenshot shows the 'Archives' interface. At the top, there is a search bar with the text 'list archives that have' and an 'Apply' button. Below the search bar is a table with the following columns: Action, Archives Name, Start Date / Time, Duration, Rate(K), Video, H.239, and File Size. The table contains several rows of archive data.

Action	Archives Name	Start Date / Time	Duration	Rate(K)	Video	H.239	File Size
	zxy_SEP_25_2009_12:03	09/25 2009 12:03:36	00:06:44	384	H.263+		19175
	HDX8000-103_SEP_24_2009_17:53	09/24 2009 17:53:31	00:09:55	4096	H.264 HD		62290
	HDX9000 101_SEP_24_2009_17:52	09/24 2009 17:52:07	00:00:13	768	H.264		739
	HDX8000-103_SEP_24_2009_17:48	09/24 2009 17:48:00	00:00:28	4096	H.264 HD		7185
	hdx8000-112_SEP_23_2009_00:37	09/23 2009 00:37:32	13:56:42	1920	H.264 HD		505301
	HDX 114_SEP_22_2009_18:54	09/22 2009 18:54:59	00:09:25	512	H.264 SD		35508
	POLYCOM_1776791099_SEP_22_2009_18:45	09/22 2009 18:45:45	00:18:26	1920	H.264		21472
	POLYCOM_1828752044_SEP_22_2009_18:28	09/22 2009 18:28:47	00:04:34	1920	H.264		5343
	POLYCOM_1828417042_SEP_22_2009_18:20	09/22 2009 18:20:34	00:04:40	1920	H.264		4616
	CMA-96_SEP_22_2009_16:30	09/22 2009 16:30:18	00:00:46	384	H.264 SD		1716

Figure 2-43 Enquiring Archives

Enter the keyword for the archive’s name in the inquiry input box, and then click the apply button to inquire. After successfully looking it up, the video table shows all archives that contain the keyword entered.

Sorting Archives

Besides looking up archives by their archive names, the Polycom® RSS™ 4000 also provides the function of sorting by archive properties. The video properties that the files can be ordered by include: video name, server, start date/time, duration, rate, video, H.239, and size.

Single-clicking on a property in the archive table’s header can order the archives by that property in increasing order or in decreasing order. When the table is in ascending or descending order by any property, clicking the header again will sort the list in the opposite order.

Changing Archive Properties

The user can click this video properties icon on the Video Table page to enter the **Edit Archive** page to edit, as shown below:

The screenshot shows the 'Edit Archive' page. It contains several sections: 'Archives Properties' with fields for 'Archive Name' and 'Description'; 'Viewing Rights' with radio buttons for 'Deny All', 'Allow All', and 'Group List'; a 'Group List' section with a list of groups ('R&D', 'Market') and buttons for 'Add >', 'Remove <', 'Add All >>', and 'Remove All <<'; 'PIN Code' and 'Quick Access Code' fields; a 'Never Auto Delete' checkbox; and a 'Number of Repeats' field with a dropdown menu and an 'Always' checkbox. At the bottom, there are 'Save' and 'Back' buttons.

Figure 2-44 Edit File Properties



Table 2-11 Archive Properties Settings Details

Item	Details
Video Name	The user can enter any combination of letters or numbers, but the length cannot exceed 48 characters.
Description	The user can enter any combination of letters or numbers, but

Item	Details
	the length cannot exceed 128 characters.
<i>Viewing Rights</i>	This is used for setting the viewing rights for this video during playback. The specific operations are the same as the settings on the Single Point Recording page. For details, please refer to <i>Viewing Rights Settings</i> .
<i>PIN Code</i>	After setting a PIN for the archive, the endpoint must enter the code that is entered into this field to play the video. Enter no more than 8 numbers.
<i>Quick Access Code</i>	Automatically generated by the system. When using endpoint control menu to replay videos, they can enter this access code to directly replay the recorded file.
<i>Never Auto Delete</i>	This sets whether or not the device is allowed to automatically delete the archive after the archive is backed up on the device. When checked, even if the "Backup/Clear Settings" are set to automatically delete videos, the video will not be deleted. When unchecked, it allows the device to automatically delete the video. This setting has no effect on manual deletion of videos.
<i>Number of Repeats</i>	This sets the number of times the file will be multicast.

Playing Back Archives via the Web

The user can play back the video files stored on RSS via the Web by one of the following ways:

- Click on "Archives"- "Archives" in the navigation bar and click the Play icon  for the video to be viewed to automatically call the PC's Windows Media Player software to play the video. When playing a video, if the user selects another video to view, the first video will immediately stop playing.
- Click on "Archives"- "Playback" in the navigation bar and click the Play icon  for the video to be viewed from the Archive List to play it by the Windows Media Player embedded on the right side. The embedded player supports full screen display, so the user can click the full screen switch button or double click the play window to switch between the full screen and the normal screen. When playing a video, if the user selects another video to view or enter other page, the first video will immediately stop playing. Only the IE browser is supported.



720p 50/60 fps, 1080p video or the dual videos to be converted at full frame rate after recording cannot be played until they are completely converted. At this time, moving the cursor over the corresponding video's Play button will cause a message giving the progress of the conversion to appear. To see an updated progress message, refresh the web page.

Downloading Archives

A right click on the **Play** button  for the target file allows the user to


download the archive. The user can select “**Download WMV format archive**” or “**Download Native format archive**”. The archive is in WMV format and can be directly played by the Windows Media Player. The native archive format file can only be played after using Media Converter for Polycom RSS to convert the video format. For an introduction of the converter tool, please refer to *Using Media Converter for Polycom RSS*.

After selecting the format and destination path for the downloaded archive, the archive will be downloaded to the local PC.



Users can only download archives that are in the device's archive list.

E-Mail Link

Clicking on the “**E-Mail This Link**” icon  corresponding to the archive can automatically open an e-mail message in user's default mail client (Outlook, Outlook Express, Lotus Note etc.) to send a link to the archive as part of the body of an e-mail.

The user just needs to fill in the recipient's e-mail address. The e-mail's default subject will be “You are invited to view this archive”. After the recipient receives the e-mail, they can find the playback address for the archive in the e-mail. They can enter the playback address in their browser's address field and press the **Enter** key to view the video. In addition, a user also can open their Windows Media Player software and enter the playback address in the dialog box under “**File** → **Open URL**” to view the video. Make sure that the network the recipient is on can communicate normally with Polycom® RSS™ 4000 to make playback successful.

The default video playback address in the e-mail includes the link to the Polycom® RSS™ 4000 LAN 1 port IP address. If the network the Polycom® RSS™ 4000 is on is behind a firewall, external users usually cannot access the Polycom® RSS™ 4000's private address to play the video. When this happens, set a public network IP or DNS name in the “**External IP/DNS name**” page in “**System Configuration** → **IP Configuration**”. After this, video playback e-mails sent will provide a video playback address that includes the public network IP address or DNS name. For more details about external IP settings, please refer to *IP Address Settings*.



Permission of an archive are not stored on the archive when sending it as email link. This is the reason that the email link option is available only for the administrator who can make the decision if to use this functionality..

Deleting Archives

To delete a file on the video table, after selecting this archive's corresponding check box, click the “**Delete**” button. The user can select one video or multiple videos for deletion. The user can also select all videos for deletion by checking the check box in the header.



The first check box under the “New” button on the Archives page is Select All. All of the archives will be checked if this check box is selected.

Go to Archive Pages

The current page number and total number of pages are shown in the top right corner of the archives table.

The buttons to the right of the page numbers are used for page turning. The button on the far left and the one on the far right are used to return to the first page or jump to the last page, respectively. The two middle buttons go to the previous page and the next page, respectively. To jump to any page, enter a page number into the blank field on the right and then click the button.

H.323 Connection Status Display

The recording status of the endpoint currently connected to the Polycom® RSS™ 4000 can be displayed in real time on the bottom of the web page, as shown below. Recording control and status display can be done for the connections that show the H.323 connection status as connected.





Figure 2-45 H.323 Connection Status Display Area




With the control buttons, the user can initiate recording on the selected H.323 connection. After the connection is established, the control button display shows as in the following:



Figure 2-46 Established Connections

Click the button on the right to start single point recording. Now, the buttons

will change to  .

Repeatedly clicking on the button on the left  will pause/continue the recording operation, and the buttons will change to  .

Clicking on the button on the right  will stop recording. Clicking again on this button will disconnect the H.323 connection.

Each H.323 connection status display includes: the IP address of the H.323 endpoint that establishes a connection with Polycom® RSS™ 4000, the H.323 ID, the time the connection was established, the recording room joined, recording status, packet loss rate, the audio and video protocols, and whether it is H.239 enabled. Recording status has three kinds of displays. When it shows as “**Idle**”, it means it has not started recording or playing video. When it shows “**Playback**”, it means it is in the process of playing video. When it shows “**Recording**”, it means it is in the process of recording. Packet loss rate shows the statistics for the packet loss between the endpoint and the uplink with the Polycom® RSS™ 4000, tabulated once every 5 seconds.



The H.239 column displays whether or not H.239 is enabled on the endpoint, but does not show if the Polycom® RSS™ 4000 is recording or playing back H.239. It only identifies if this endpoint has H.239 capability.

H.323 connection status display is refreshed every 30 seconds.

Onscreen User Interface (UI) – Conference Recording

In addition to using the Web UI to manage the Polycom® RSS™ 4000, users can also use the onscreen UI which allows the user to perform recording and playback tasks to interact with the device. This chapter will explain in detail how to use the onscreen UI to perform single point and point-to-point recording. For information about playback please see *Chapter 4 Onscreen User Interface (UI) – Archive Playback*.

The Onscreen UI employs a remote control to control the Polycom® RSS™ 4000. An ordinary endpoint remote control unit can be used to manage the Polycom® RSS™ 4000 using FECC (Far End Camera Control). DTMF tones can be used to operate Onscreen menus. Polycom's HDX endpoint remote control has six buttons used to control conference recording and video playback. These six buttons consist of: Play/Enter, Record, Stop, Pause, Forward, and Reverse.

The FECC and DTMF control buttons are defined in below table.

Table 3-1 Definitions of FECC and DTMF control buttons

FECC	DTMF	Description
←	4	<ul style="list-style-type: none"> Return to upper level menu Exit menu, display image (when there is no upper level menu) Select menu (when in the image display state)
→	6	<ul style="list-style-type: none"> Enter lower level menu Confirm selection Select menu (when in the image display state)
↑	2	<ul style="list-style-type: none"> Select upward when in the menu display state (can cycle) Select menu (when in the image display state)
↓	8	<ul style="list-style-type: none"> Select downward when in the menu display state (can cycle) Select menu (when in the image display state)

Single Point Recording Using an Endpoint Menu (onscreen UI)

Main Menu

After using an endpoint to call the Polycom® RSS™ 4000 and establish an H.323 connection, the Polycom® RSS™ 4000 will present the main menu below.

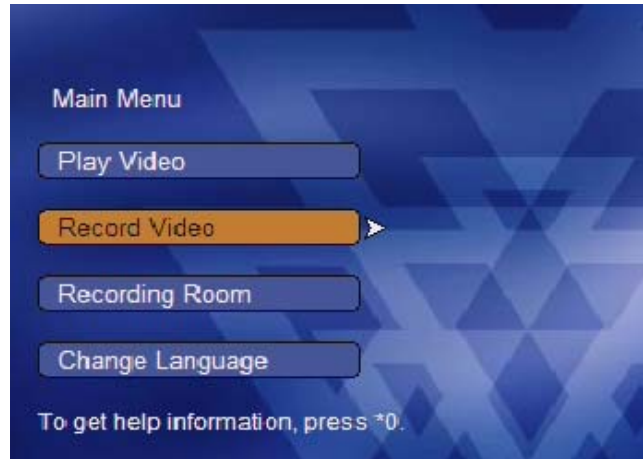


Figure 3-1 Main Menu

On the interface shown above, use the remote control to highlight and select **Record Video**. The user will see the *Record Video* menu, as shown below.



Figure 3-2 Start Recording

H.239 Dual-stream Recording

Select "Yes" or "No" after selecting **Record my PC content** to confirm whether or not the content will be recorded along with the audio/video, note that the default value of this selection is based on the single point recording setting in the recording setting of the web administrator view. When "Record my PC Content" is selected, the Polycom® RSS™ 4000 will record the content sent by the endpoint and also store the audio/video bit stream in a file. When this file is played via the Web, both the main video image and the content can be

viewed at the same time.



If PC Content recording is selected, but no PC content was sent during the recording, two windows or one two-image window will be displayed during playback on the Web but the primary window for content will remain black. Therefore, users should only check "Record my PC Content" when they are sharing H.239 content. Otherwise, the user should select "No" for this option.

PIN Code Setting

In the Record Video menu, the user can select **Set PIN code for this recording**. The system will enter the PIN code setting menu.

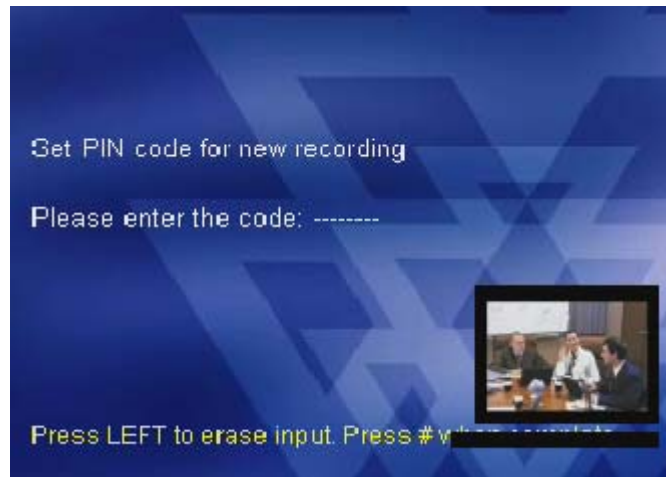


Figure 3-3 PIN Code Setting

An IVR message will alert the user to input the PIN code followed by "#" to exit. To set the PIN code, use the remote control to enter a number no more than eight digits in length. Pressing "#" to exit is not necessary if a user enters an eight-digit PIN code. The digits of the PIN code will be visible on the menu page during the setting process. After the user press "#" to complete the setting, the menu will automatically jump to the "Record Video" menu, and a marker for the PIN code will appear after "Start Recording," as shown in the figure below. If viewing a recording where a PIN has been set, viewers will be asked to enter the correct PIN code before they can play back the video.



Figure 3-4 Setting PIN code and returning to the Record Video menu

Start Recording

Once the decision has been made to include H.239 content and/or a PIN code, select **Start Recording** to begin the recording. Once selected, the recording begins immediately. The user will hear an IVR message "Conference recording has started", and see a volume indicator at the bottom of the screen. The user will see their own image on the endpoint screen as in Figure 3-5 after pressing the "←" key.



Since the recording begins immediately, the user may talk over the IVR message. The IVR message will not be included in the recorded file.

Pause/Resume

The user can pause a recording at any time using the endpoint's remote control. When viewing loopback video, pressing any of the direction keys will return to the Record Video menu. Selecting **Pause** will pause the current recording, and the "Pause" option will change to "Resume". The user will also hear an IVR message "The conference recording is now paused." The bit stream sent by the endpoint to the Polycom® RSS™ 4000 will not be stored while recording is paused.

After pausing a recording, use the remote control to select **Resume** to resume the recording. The user will hear the IVR message "The conference recording is now resumed", and the "Resume" menu option will change back to "Pause". In the video file generated from this recording, the bit stream sent to the RSS after pausing and before resuming will not be recorded.

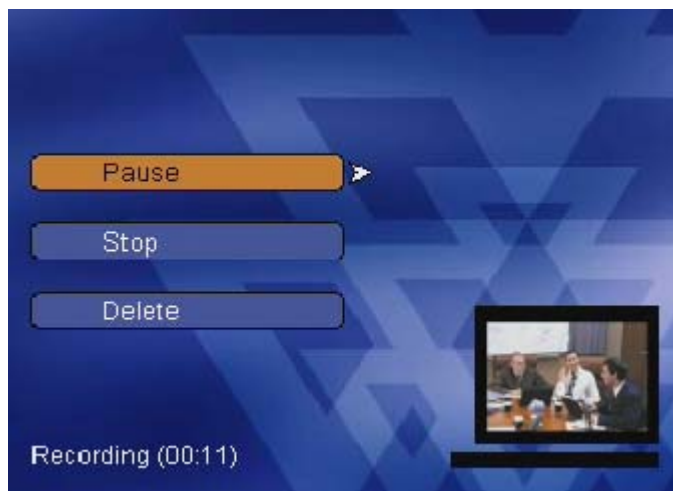


Figure 3-5 Pausing a recording

Deleting Recording

Use the remote control to select **Delete**. The video currently being recorded will be stopped, and all bit stream information being stored will be deleted. The menu will return to the *Start Recording* menu and the user will hear the IVR message "The conference recording has ended".

Stop Recording

Use the remote control to select **Stop** to stop the current recording and generation of a video file. The user will hear the IVR message "The conference recording has ended".




The Polycom® RSS™ 4000's internal storage will reserve 500 MB of storage space. Recording will be stopped and a video file created if the free hard drive space falls to less than 500 MB during a recording.

When the hard drive has less than 500 MB of available space, an IVR message will tell the user that there is insufficient hard drive space if the user tries to start a recording.

If no audio/video data is received for 30 consecutive seconds during the recording process, the Polycom® RSS™ 4000 will terminate the connection.

Live Streaming

When the **Live streaming** option is selected, the RSS can allow web users to view the bit stream while a non- 720p 50/60 fps or 1080p video is being recorded. The RSS will decode the audio/video bit stream sent from the endpoint, and will convert it in real-time to a WMV format that can be played on a PC. The Polycom® RSS™ 4000's Web Interface can be used to initiate playback of the video, as shown below. Click on the button  on the *Live Streaming* menu to view the video in real-time.

System Management		Live Streaming	
+ System Information		Play	Name
+ System Configuration			celia.yu_JAN_04_2008_17:34
+ Account Management			01/04/2008 17:34:12
+ Recording Setting			
+ Archives			
- Live Streaming			
... Live Streaming			

Figure 3-6 Streaming a video

Immediate Recording

When an endpoint's immediate recording function has been enabled, the Polycom® RSS™ 4000 will automatically start a recording (if recording resources are available) when that endpoint calls into the Polycom® RSS™ 4000.. This function ensures that the user of this endpoint will not be prompted with onscreen menus. To enable an immediate recording the user must have Administrator privileges to the Polycom® RSS™ 4000. Enter the "Account management -> Endpoints" page of the Web management interface. If the desired endpoint is not in the list, click "New" to add. If the desired endpoint is in the list, click on "modify endpoint properties" and select **Enable immediate recording**, as shown below.

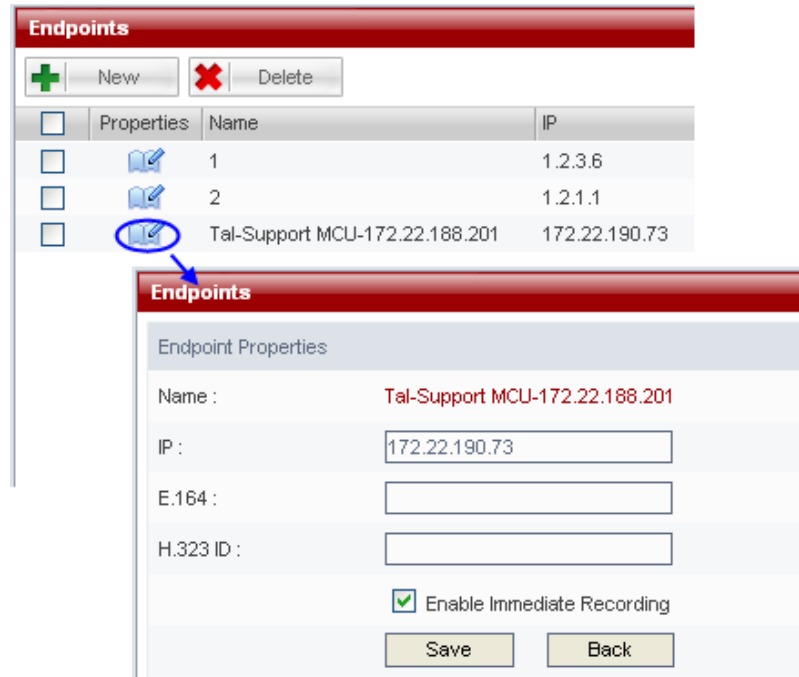


Figure 3-7 Enable immediate recording



This functionality is intended to be used in case of connection where the Far End Camera Control or the DTMF are being disabled, which will not allow the user to navigate via the Polycom® RSS™ 4000 onscreen menu.

Archive Name Format

Files produced from single point recordings are named using the following rule: Endpoint's H.323 alias + Recording time stamp (Date & Time). For instance, if an endpoint's H.323 alias is kylin-60, and the recording started at 10:45 on July 20, 2007, then the file name will be "kylin-60_JUL_20_2007_10:45", as shown below.



Figure 3-8 Document naming rule

Using a Polycom MCU for Single Point Recording

Polycom's MCU (Multipoint Control Unit) line, consisting of the MGC and RMX, can be easily integrated with the Polycom® RSS™ 4000. Use the MGC's Recording Link function to initiate a recording connection with the Polycom® RSS™ 4000 and record MGC conferences, or add the RSS as a participant in an RMX conference.

Before using an MCU to perform recording, you must first set Recording Link parameters and the address of the Polycom® RSS™ 4000 server on the MGC. The MGC will then establish a connection to the desired Polycom® RSS™ 4000 when a conference is started. Depending on the MCU's settings, Polycom® RSS™ 4000 can support two types of recording methods: Automatically activated conference recordings, or recordings initiated by MCU operators and conference chairperson participants. The Polycom® RSS™ 4000 records the audio/video bit streams transmitted by the MCU. It should be noted that when MCUs are used to perform H.239 dual-stream recording, the participating MCUs must support H.239 and that function must be enabled. The RMX supports only H.239, so this is not a concern for recording RMX conferences. Other devices, like the MGC and many Polycom endpoints, support both H.239 and the proprietary People + Content standard. In these cases, ensure that the device has H.239 enabled as the RSS cannot record the proprietary People + Content protocol.

When an MGC/RMX is used to perform a recording, the resulting files will be named according to: the following rule: the MCU's Recorded Conference Name + Recording time stamp (Date & Time), the conference name in the MGC/RMX settings. For instance, if a conference from the MGC/RMX is being recorded and the conference name is set to 'Demo' performs a recording at 11:30 on December 29, 2007, the resulting file will have the name "Demo_DEC_29_2007_11: 30".

Please refer to the product user guide concerning how to set up an MGC/RMX Recording Link.

Point-to-Point Recording

When performing a point-to-point recording, first use the Polycom® RSS™ 4000's Web UI to configure a point-to-point conference and set recording parameters by setting up a Recording Room. The Web UI can be used to establish a maximum of four conferences. Once the Recording Room has been set up, two endpoints can call into that room and will use the remote control to start, pause and stop the conference recording. When only one endpoint enters a conference and begins recording, that endpoint will view its own loopback image. When two endpoints are present in a conference at the same time, each of the endpoints will see two images processed by the Polycom® RSS™ 4000. These windows will display images from the two endpoints. Please refer to *Point-to-point Recording Settings* to learn how to configure a point-to-point conference using the Web UI.

Entering a Recording Room

From any H.323 endpoint, call the Polycom® RSS™ 4000, the user will arrive at the main menu. Use the remote control to select "Recording room," and enter the recording room interface, as shown below. This will display the

recording rooms configured on the Polycom® RSS™ 4000.

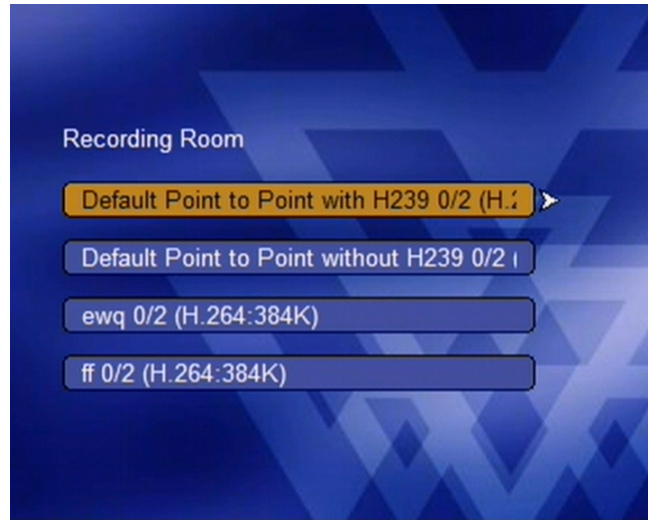


Figure 3-9 Configured Recording Rooms

From the "Recording room" interface, the user can view the names of all the conferences that have been established, the number of endpoints currently connected to each conference, and each conference's configured bandwidth and video protocol. Select the conference to join. When only one endpoint is connected, that endpoint will present loopback image after joining the conference. When a second endpoint joins the conference, both participants will be shown two images processed by Polycom® RSS™ 4000, depicting each of the two connected endpoints. Pressing any direction key on an endpoint remote control will display the main Recording Room menu, as shown below.



Figure 3-10 Start recording menu

The "Start Recording" option cannot be selected if an endpoint does not support the video algorithm defined for the recording room. For example, if the recording room is configured for H.264 and endpoint that does not support H.264 cannot use the "Start Recording" option for that room.

After selecting "Start Recording" the user will hear the IVR message "Conference Recording has started" and see a volume indicator at the bottom of the screen. If the user presses the "←" key, they will see either a loopback image or two windows.

Using an E.164 number to immediately enter a recording room

If the RSS is registered to a Gatekeeper, users can quickly access a recording room without using onscreen navigation menus. The user can dial the [Polycom® RSS™ 4000 prefix][Recording room prefix] to immediately enter a recording room.

For example, if the RSS is registered to the gatekeeper with an E.164 alias of "1234" and the Recording Room has an alias of "5678", a user registered that gatekeeper (or routing the call through it) can dial "12345678" to enter the Recording Room without onscreen navigation.

If the user wishes to invite another endpoint to join the recording room, a longer dial-string can be used to accomplish this.

[Polycom® RSS™ 4000 prefix][Recording room prefix]*[E.164 of endpoints invited to participate]

Building on the example above, if the E.164 alias for Polycom® RSS™ 4000 is 1234, the Recording Room alias is 5678, and the endpoint to be invited has E.164 alias 0460, then the user can dial 12345678*0460.



The menu can be used to pause/resume, stop or delete the recording during the point-to-point recording process, and users can also select "Delete" to stop and delete the current recording. These procedures are the same as for single point recording.

Streaming without Recording

If the user wishes to stream the content of a recording room conference without recording, select "Streaming without recording". This is the same as the single point recording streaming function. Specific instructions are given in the section *Live streaming*.

Leaving a Recording Room

Select "Leave the recording room" from the "Recording room" menu. The endpoint will leave the point-to-point conference and return to the main menu.

Onscreen User Interface (UI) – Archive Playback

After a video has been recorded, it is stored separately in two formats: as a raw H.323 bit stream (for H.323 playback), and in WMV format (for Web archive view). An H.323 endpoint can play back a video stored as a raw bit stream by calling the Polycom® RSS™ 4000.

Polycom® RSS™ 4000 can support a maximum of 15 simultaneous H.323 playback connections.

Use the endpoint remote control and Far End Camera Control to select "Play Video" on the main menu. This opens the "Play Video" menu, as shown below.

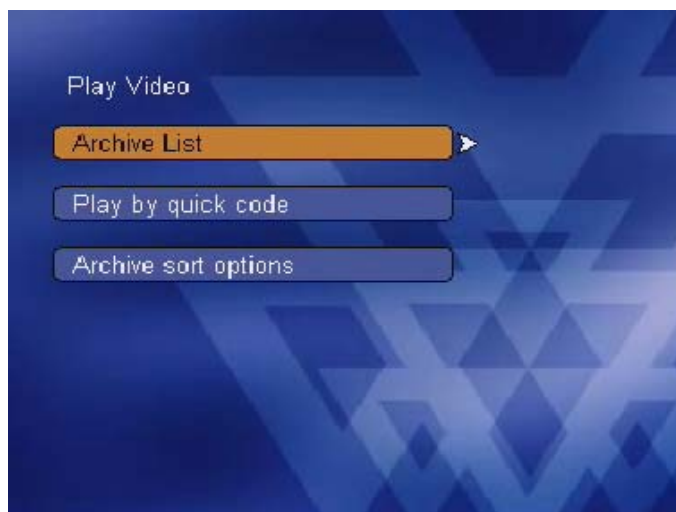


Figure 4-1 Play Video menu

Video Viewing Rights

Select "Archive List" from the "Play Video" menu. This opens the interface shown in Figure 4-2, which displays a list of the videos that the endpoint can view.

When the "Viewing rights" option of archive is set to "Allow all," or if set to "Group list" and the connected endpoint is a member of that group, the video will be included in the available "Play Video" list. Please see *Viewing rights settings* for more information on video viewing rights.

Use the remote control to select the desired video from the Archive List. Information concerning the highlighted video file will be displayed below the list, including the video protocol, quick access code, and name of the device storing the file. If the video can be previewed, you will see a preview of the video highlighted by the cursor in the small preview window in the lower right corner of the screen.

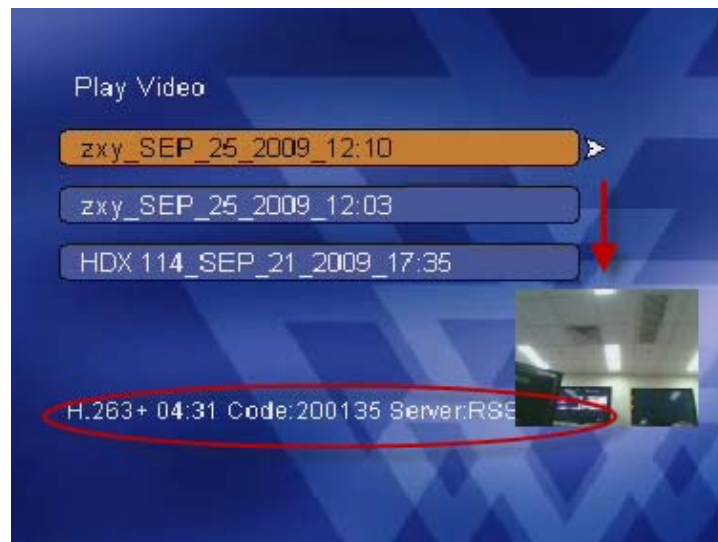


Figure 4-2 Video information and preview

Videos on the Polycom® RSS™ 4000 Archive List can be previewed if they meet the following five conditions:

- The archives were recorded in CIF resolution or lower.
- The video file is stored on a Polycom® RSS™ 4000 the endpoint is connected to.
- The video file preview function has been enabled in the Polycom® RSS™ 4000 settings. Please refer to *System settings* concerning the preview function.
- The highlighted file's video algorithm is supported on the endpoint.
- The number of current H.323 playback connections does not exceed 15.

Highlight a video and select it; the chosen video will be played back. When playing back, the user can use the "*"3" or any FECC arrow buttons on the remote control to stop playing.



After an endpoint calls a Polycom® RSS™ 4000 and makes a connection, videos will be listed for playback only when the endpoint has viewing rights and its video algorithm supports the video. If the endpoint does not support the video algorithm, a video will not be shown on the Archive List even if the endpoint has viewing rights.

Quick Access Codes for Archive Playback

The user can use the quick access code to retrieve a recording file stored on a device. The system automatically generates a quick access code for each file after ending a recording. Users can find a file's quick access code among the file properties on the Archives page of the system management web site, as shown below.

The screenshot shows the 'Archives' page of the system management web site. It features a table of archive files with columns for 'Action' and 'Archives Name'. A blue circle highlights the 'Quick Access Code' icon in the 'Action' column for the file 'HDX8000-103_SEP_24_2009_17:48'. An arrow points from this icon to the 'Edit Archive' page. The 'Edit Archive' page displays the 'Archives Properties' for the selected file, including the 'Archive Name' and 'Description'. Under the 'Viewing Rights' section, there are radio buttons for 'Deny All', 'Allow All', and 'Group List'. Below this is a 'Group List' box containing 'R&D' and 'Marketing'. At the bottom, the 'Quick Access Code' is displayed as '200131' and is circled in red.

Figure 4-3 Viewing a file's quick access code

Quick play using the H.323 menu

Use the remote control to select "Play by quick code" on the "Video Playback" menu, and confirm. This will open the quick access code play interface, as shown below.

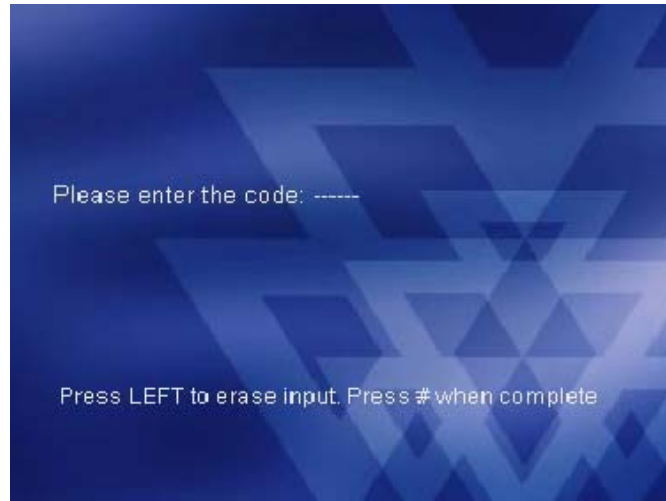


Figure 4-4 Enter the quick access code

Use the remote control's number keypad to input a file's quick access code, and press "#" when finished.

If a PIN code has been set for a recording file, the system will prompt the user to enter the PIN code after the quick access code has been input.

If no PIN code has been set, the system will immediately begin to play back the file after the quick access code has been entered.

Quick play (with Polycom® RSS™ 4000 registered to a gatekeeper)

If an endpoint has viewing rights for a video, a user can use the remote control's number keypad to input the Polycom® RSS™ 4000's E.164 alias + the video's quick access code to immediately play the file without needing to browse the menu. For example, if the RSS E.164 alias is 1234, and the desired video file's quick code is 567890, the user could dial 1234567890 to view the video without navigating through menus.

Quick play (with Polycom® RSS™ 4000 not registered to a gatekeeper)

Call the Polycom® RSS™ 4000's IP address and input the quick access code in the endpoint's extension field (the endpoint must support the extension number field) to view the video file without navigating through menus.

When playing back a video, press "*3" to stop playback.

Sorting Archives

The Polycom® RSS™ 4000 provides Archive List sorting functions in order to help users find desired videos in the archives. Use the remote control to select "Archive sort options" on the "Video Playback" menu, and confirm to enter the archive sorting interface, as shown below.



Figure 4-5 Archive sort options

Sorting rules that can be set in this interface include: Sorting by video creation time, sorting by the video's duration, sorting by the video's name, sorting by the name of the RSS (server) on which the video file is stored, and sorting by the video format.

The symbol "*" in the interface indicates the archive list's currently selected sorting rule. Use the remote control select any sorting rule, and confirm to sort the archive using the selected rule. For details of sorting rule please see below table.

Table 4-1 Sorting Rules

Sorting Type	Description
<i>Sort by Date/Time</i>	The newest archive will appear first in the archive list (Default).
<i>Sort by Duration</i>	The longest archive will appear first in the archive list.
<i>Sort by Archive Name</i>	In alphabetic order based on the archive name.
<i>Sort by Video Format</i>	Archives will be sorted from H.264, 1080P to H.261 format.

PIN Codes

After the remote control is used to select a video listed on the "Video Playback" interface, the chosen video will be played. If a PIN code has been set for a video, the Polycom® RSS™ 4000 will give a voice prompt asking the user to enter the video's PIN code. When DTMF tones are used to enter the video's PIN code, the entered number will be shown marked with an "*" on the menu interface. Press "#" after completing PIN code entry (enter a maximum of 8 numbers; users do not have to press "#" if 8 digits have been entered). If the PIN code has been entered correctly, the video will immediately begin playback. If the PIN code has been entered incorrectly, the Polycom® RSS™ 4000 will play the voice prompt "Invalid personal code please try again".

Fast Forward/Reverse/Stop

When playing back a video, viewers can use the remote control to operate the fast forward/reverse/stop functions. The Polycom® RSS™ 4000 utilizes the following DTMF tones as convenient video play functions.

Table 4-2 Description of DTMF key functions

DTMF Key	Description
*1	Pause the current video.
*2	Resumes a paused video.
*3	Stops playback of the current video and returns to the main menu.
*4	Reverses the current video. Reverse will stop at the previous I-frame. The Web UI can be used to set the interval between I-frames. The Polycom® RSS™ 4000 has a default interval between I-frames of one minute; the interval can be set as 1-10 minutes.
*6	Fast forwards the current video. Fast forward will stop at the next I-frame. The Web UI can be used to set the interval between I-frames. The Polycom® RSS™ 4000 has a default interval between I-frames of one minute; the interval can be set from 1-10 minutes.
0-9	Quickly jumps through video playback, from 0% to 90% play time positions); after jumping, the video will start to play from the nearest I-frame. For example, the DTMF tone 7 will jump 70% of the way through the video file.

Choose Language for Endpoint Menu

Use the remote control to select "Change Language" on the main menu interface, and confirm to enter the menu language selection interface, as shown below.



Figure 4-6 Changing the menu language

The interface will jump back to the main menu after a language selection has been made, and the selected language will be the set language.

Appendix A – Terminal Setting and User Commands

The Polycom® RSS™ 4000 supports command settings for the configuration of equipment and troubleshooting. There are two ways of using commands to configure settings: one is to connect to the Polycom® RSS™ 4000's serial port and use an emulation program like Hyperterminal; the other is to use telnet. The format of commands is the same in both cases. The following explains how to use commands to perform settings with hyperterminal commands only, but the commands in telnet work the same way.

Hyperterminal Parameters

- Port: COM1 (confirm on the basis of the port used on the PC)
- Baud rate: 9600 bps
- Data: 8
- Parity: none
- Stop bit: 1

The following additional parameters may need to be set if required by the emulation software:

- Echo off for local input
- DEL key and Backspace key settings
- Carriage return/line feed
- Endpoint emulation types are "automatic" and "ANSI"

Logging in

After completing the above settings and successfully enabling the endpoint emulation software, press the Carriage Return/Enter key to enter the login interface.

The login interface displays various types of information about the software and prompts the user to enter the login password. Please enter the login password and press **Enter**.



The preset default login password is "POLYCOM"
After forgetting the login password, a user can use emulation software to connect to the serial port, and then reset the Polycom® RSS™ 4000. When "." is displayed on the emulation software, press "CTRL+C," and the user will be able to login to the system without entering the password. The user can now use appropriate commands to change the user login password.

If the password entered is incorrect, the system will ask the user to login again.

If the password is correct, the Welcome interface will appear.

Overview of Commands

Help

After the user have logged onto the system, enter "?" or "help" after the "#" to show the available commands.

```
#?  
Available commands:  
show Show system information.  
...  
help or ? Show this message.  
quit Logout.  
#
```

Logout

Enter "quit" after the prompt "#" and press Enter to logout.

```
# quit  
  
User logout ok.  
  
Please input your password:
```

System reset

Enter "reboot" after the prompt "#" and press Enter to automatically restart the system.

```
# reboot  
  
System is restarting now....  
# .....
```

Reset login password

Enter "reset password" after the prompt "#" and press Enter to reset the current password to the default password (POLYCOM), allowing the user to reset the login password.

```
# reset password
```

```
Password has been successfully reset.
```

Show system information

Enter "show" after the prompt "#" and press Enter to display system information including system performance, software version, PHP version, image version, Apache version and LAN address.

IP settings

Enter the command in below format after the prompt "#" to set LAN 1 IP address:

```
set lan1 static <ip address> netmask <ip mask> [gw <gateway address>]
```

For example, set the IP address of the LAN1 interface to 172.21.103.129, subnet mask to 255.255.255.0, and the gateway address to 172.21.103.254:

```
# set lan1 static 172.21.103.129 netmask 255.255.255.0 gw
172.21.103.254
```

Telnet settings

Enter "telnet on" or "telnet off" after the prompt "#" and press Enter to enable or disable Telnet.

Entering "telnet off" disables the Polycom® RSS™ 4000's telnet function. The user can now only use the serial port to perform system setting tasks.

```
# telnet on
Set Telnet ON ok
```

Entering "telnet off" disables the Polycom® RSS™ 4000's telnet function. The user can now only use the serial port to perform system setting tasks.

```
# telnet off
Set Telnet OFF ok
```

FTP settings

Enter "ftp on" or "ftp off" after the prompt "#" and press Enter to enable or disable the FTP function.

Entering "ftp on" enables the Polycom® RSS™ 4000's FTP functions. Those users defined on the Polycom® RSS™ 4000 can now use the FTP protocol to download video files on the device.

```
# ftp on
Ftp service enabled. You need restart media service to make it
valid.
```

Entering "ftp off" disables the FTP function.

```
# ftp off
Ftp service disabled. You need restart media service to make it
invalid.
```

Cleankey

This command is used to inactivate the Polycom® RSS™ 4000. Enter

“cleankey” after the prompt “#” and press Enter to remove the existing activation key code.

```
# cleankey
Are you sure to clean activation key.
WARNING: RSS will be inactivated after this operation.
.....? [Y for yes / N for no]
```

The system displays the prompt to confirm the operation, enter “Y” to continue, or enter “N” to cancel.

ClearArchives

This command is used to delete all video files on the Polycom® RSS™ 4000. Enter "ClearArchives" after the prompt "#" and press Enter to implement this operation.

```
# ClearArchives
Please input administrator's password to continue:
```

Enter the correct administrator password after the prompt and press Enter; the system will start to delete all video files on the Polycom® RSS™ 4000. The following information will be shown after all files have been successfully deleted:

```
Clear all archives command send out OK.
```

Shutdown

This command is used to shut down the operation system of Polycom® RSS™ 4000. Enter "shutdown" after the prompt "#" and press Enter to implement this operation.

```
# shutdown
Are you sure to shut down system? [Y for yes / N for no]
```

The system displays the prompt to confirm the operation, enter “Y” to continue, or enter “N” to cancel.



To restart the Polycom® RSS™ 4000 system after being shut down, turn off the power first and wait for at least 2 minutes, and then turn on the power to start up the device.

Imageversion

This command is used to view the version information of current image file. Input “imageversion” after the prompt “#” and press Enter to implement this operation.

```
# imageversion
Current image version(0):
```

ResetConfig

Enter "ResetConfig" after the prompt "#" and press Enter to restore the Polycom® RSS™ 4000's default configuration. Please enter the administrator password now.

```
# ResetConfig
```



```
Please input administrator's password to continue:
```

Enter the correct administrator password after the prompt ":" and press Enter. The Polycom® RSS™ 4000 will begin resetting.

```
Prepare to reset configurations...
```

```
Resetting configurations now...
```

```
Reset configurations OK.
```

The Polycom® RSS™ 4000 must be restarted in order for the new settings to take effect. The Polycom® RSS™ 4000 will now be restored to the default configuration. The IP address will be: 192.168.1.254, the subnet mask: 255.255.255.0, and the gateway: 192.168.1.1.

The user can now use the serial port to set the Polycom® RSS™ 4000's IP address.

Appendix B - Polycom RSS Media Tools

This section introduces three software tools used exclusively on the Polycom® RSS™ 4000: Polycom RSS Multicast Player, Media Converter for Polycom RSS, and Polycom RSS Archive Transfer Manager; these tools have the following functions:

- Polycom RSS Multicast Player: Used exclusively to receive multimedia sent by the Polycom® RSS™ 4000.
- Media Converter for Polycom RSS: Used to convert the format of raw bit streams from Polycom® RSS™ 4000 video recordings.
- Polycom RSS Archive Transfer Manager: Used to upload video code converted by the Media Converter for Polycom RSS to the Polycom® RSS™ 4000.

Accessing and Installing Polycom RSS Media Tools

To install the Polycom RSS Multicast Player, Media Converter for Polycom RSS, and Polycom RSS Archive Transfer Manager, enter the System Configuration-> Upgrade/Reset System screen using the Web UI, click on the "Click here to download" link to download the media tool pack. Follow the on-screen instructions to complete software installation. Following successful installation, the three tools will be installed on your PC.

Shortcuts to the installation programs for these tools can be found on the Start -> All Programs -> polycom -> RSS Media Tools menu. Single-click on the shortcuts to open these software tools.

Uninstalling Polycom RSS Media Tools

Either of the following two methods can be used to uninstall the Polycom® RSS™ 4000's media tools:

- Open the Control Panel and click on "Add or Remove Programs". Select "Polycom RSS Media Tools" from the list of programs, and click on the Remove button to uninstall the three tools.
- Click on the uninstall shortcuts for any of the programs from the Start -> All Programs -> Polycom -> RSS Media Tools menu to immediately uninstall the software.

Operating Environment

The operating environment for the three Polycom® RSS™ 4000 software tools must satisfy the following requirements:

- CPU: at least 1.5GHz or high-resolution 2G
- Memory: at least 512M
- Video Card: at least 32M
- Operating System: at least Windows 2000/XP/Vista



The user's PC must have at least 1G memory if he use the Media Converter for Polycom RSS to convert the format of a high-definition video bit stream.

Using Polycom RSS Multicast Player

Before the user use the Polycom RSS Multicast Player to receive multicasts, please make sure that the Polycom® RSS™ 4000 device on the network is multicasting and set the firewall on your PC to allow multicasts.

Click on Start -> All Programs -> Polycom -> RSS Media tools -> Launch MultiCastPlayer.exe to use this tool. The software will open two windows: the media play window and the multicast file list operating window, as

shown below.

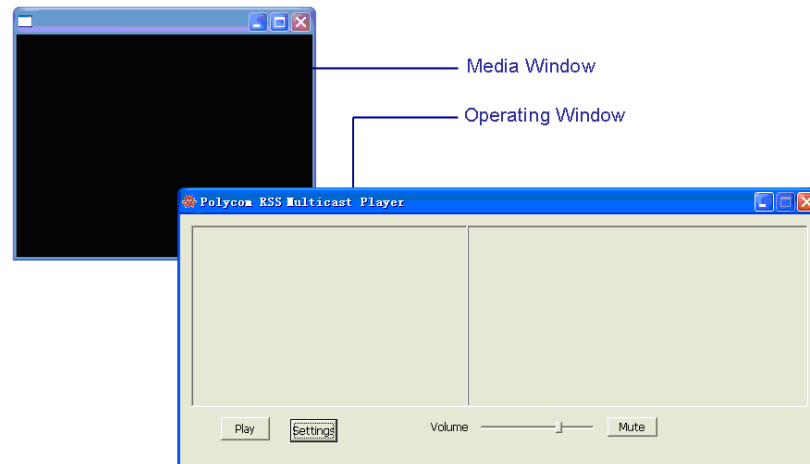


Figure 6-1 Multicast Player

Receiving Multicast Videos

Click on the "Settings" button in the multicast operating window to change the Polycom RSS Multicast Player's settings, as shown below.

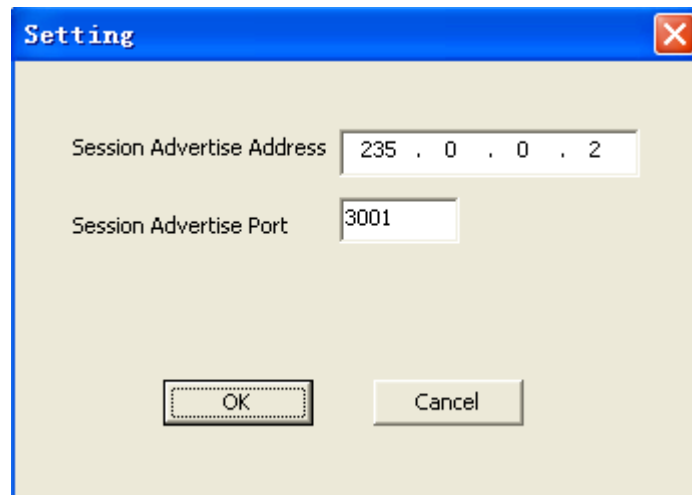


Figure 6-2 Setting

The user must set the following two options in this interface:

- **Session Advertisement Address:** Configure the IP address for receiving the multicast file list. This address must be the same as the Polycom® RSS™ 4000's session announcement address.
- **Session Advertisement Port:** Configure the port number for receiving the multicast file list. This port number must be the same as the Polycom® RSS™ 4000's "session announcement port."

Click on the "OK" button after completing settings. The Polycom RSS Multicast Player will now begin receiving videos from the specified multicast channels within 45 seconds. A list of received multicast videos will be shown in the multicast operating window, as shown below.

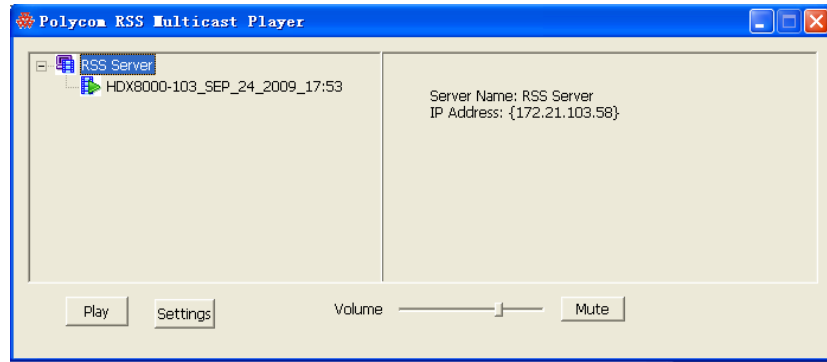


Figure 6-3 List of received video files

Playing Multicast Videos

Use the mouse to select a video from the list shown in Figure 6-3, and single-click the "Play" button to play the selected video, as shown below.

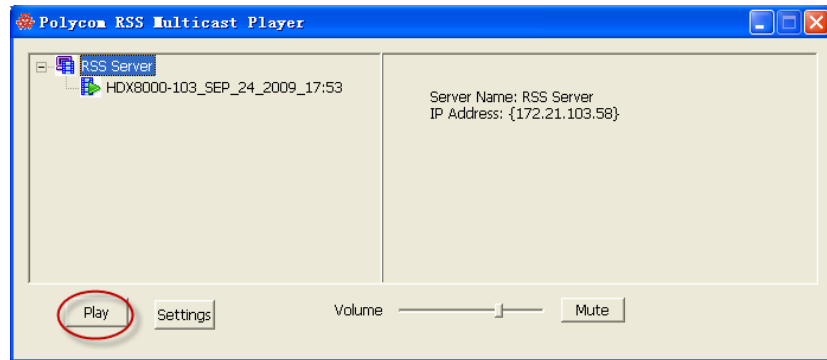


Figure 6-4 Playing a video file

The user can also double-click on a video in the list to play that video. Click on the "Stop" button to stop playing a video, as shown below.

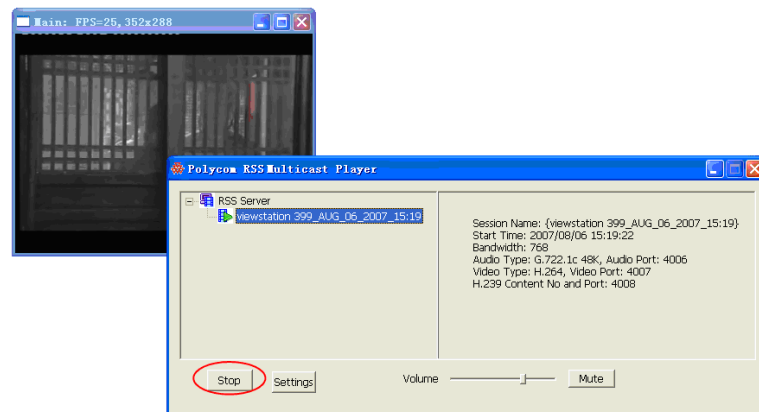


Figure 6-5 Stop an archive

When selecting a device or a video using the mouse, detailed information concerning the selected device or video will be shown on the right side of the window.



Because the software requires some time to acquire the I-frame of the video stream, there will be a slight delay between clicking on the "Play" button, or double-clicking on a video, to the time the video actually starts playing.

Adjusting Video Window Size

Press the right mouse button while viewing the media play window; the user will see the setting options.

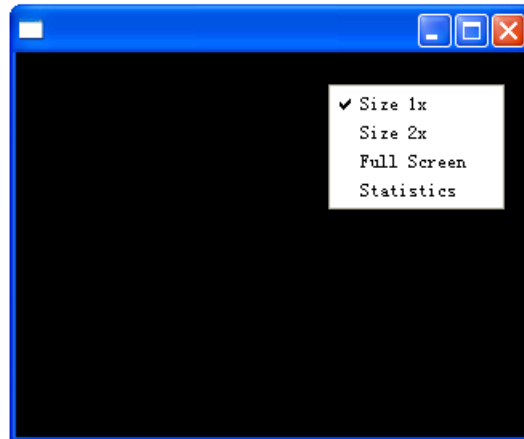


Figure 6-6 Adjusting window size

- Select "Size 1x" to revert to the window's original size.
- Select "Size 2x" to enlarge the window to twice its original size.
- Select "Full Screen" to show a video on the full screen

The user can also double-click on the media window to view a multicast video on the full screen, or move the mouse pointer until it reaches an edge of the window; when the adjustment symbol appears, drag with the mouse to expand or shrink the window to any desired size.

Video Statistics

The user can view statistical information concerning a multicast video that is currently being received. Select "Statistics" among the options shown in Figure 6-6, and the user will see the statistical information shown in Figure 6-7, including the frame rate and video size.

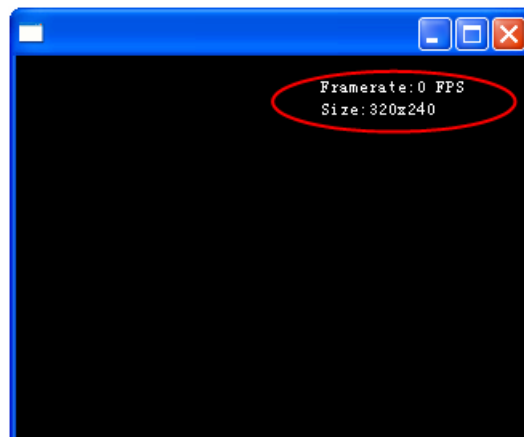


Figure 6-7 Statistical information

Using Media Converter for Polycom RSS

Format conversion

The Media Converter for Polycom RSS can be used to convert the format of video bit streams in two ways:

Conversion between source code types:

This type of conversion is used only to convert the video format and bandwidth of a bit stream.

When video is recorded in a high-resolution format or using high bandwidth, it may not be possible to play the recorded video normally on an ordinary endpoint. The user may, however, use the bit stream conversion tool to change the format and bandwidth of the bit stream, and enable it to be played by other endpoints. The converted bit stream files can only be used by the Polycom® RSS™ 4000. Use the file upload tool – Polycom RSS Archive Transfer Manager – to upload the files back to the Polycom® RSS™ 4000. Please see *Using Polycom® RSS™ 4000 Upload* for an overview of the file upload tool.

Conversion to MP4 format:

Converts to a format that can be directly played on an iPod or by QuickTime.



Media Converter for Polycom RSS is for changing algorithms (H.264 to H.263, etc) but does not support .asf to .wmv conversion.

Starting file conversion



Media Converter for Polycom RSS doesn't support converting files with a size of more than 2GB.

Use the following steps to begin file conversion:

- 1 Click sequentially on Start -> All Programs -> Polycom -> RSS Media Tools -> Launch MWVConverter.exe to use the Media Converter for Polycom RSS . The interface will be as shown below.

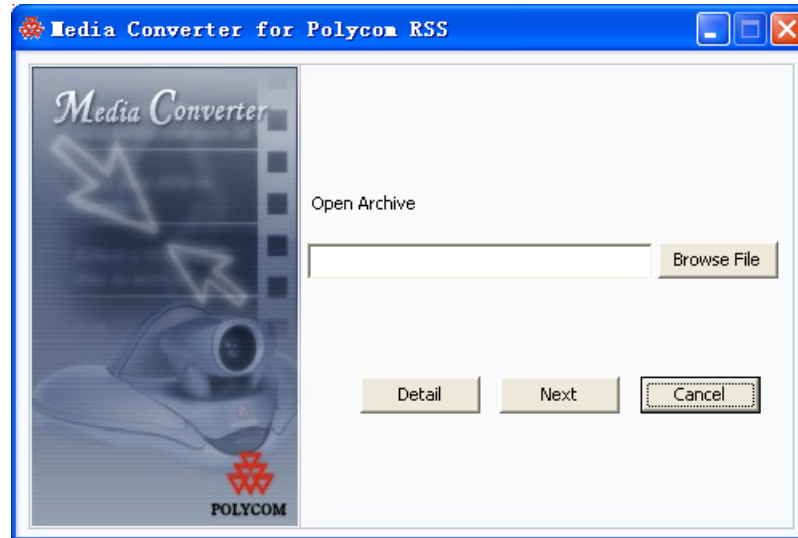


Figure 6-8 Open Archive

- 2 Click on the "Browse File" button and select the bit stream file the user wish to convert.

If the user wishes to view information concerning the file, click on the "Detail" button to call up the interface shown below.

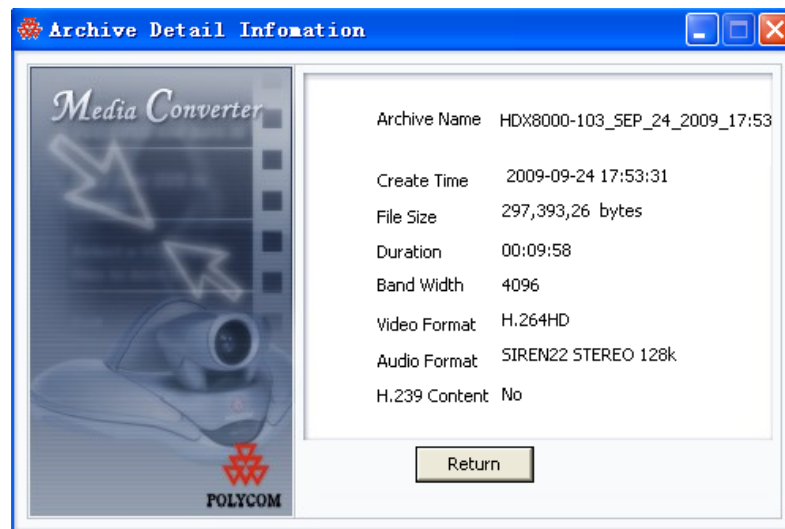


Figure 6-9 Video file details

- 3 In the interface shown in Figure 6-8, click on the "Next" button to enter the conversion type interface.

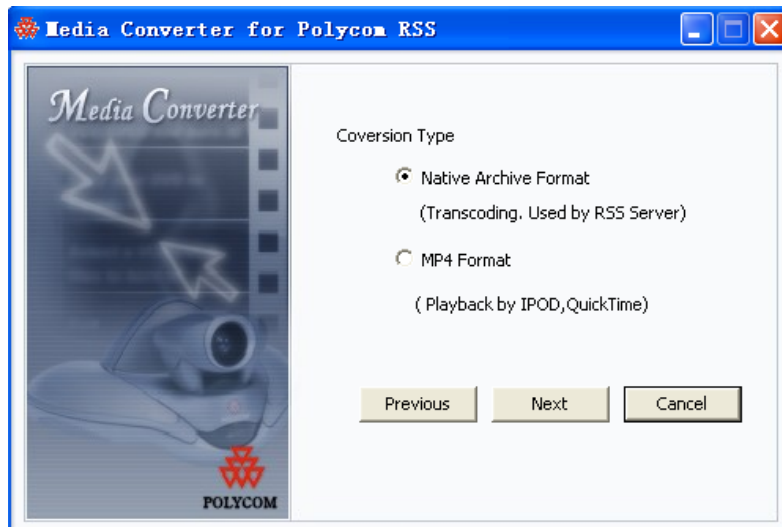


Figure 6-10 Conversion type

- 4 Select a file conversion type: Native Archive Format or MP4 Format.
- 5 After selecting, click on the "Next" button to enter the other conversion option interface.

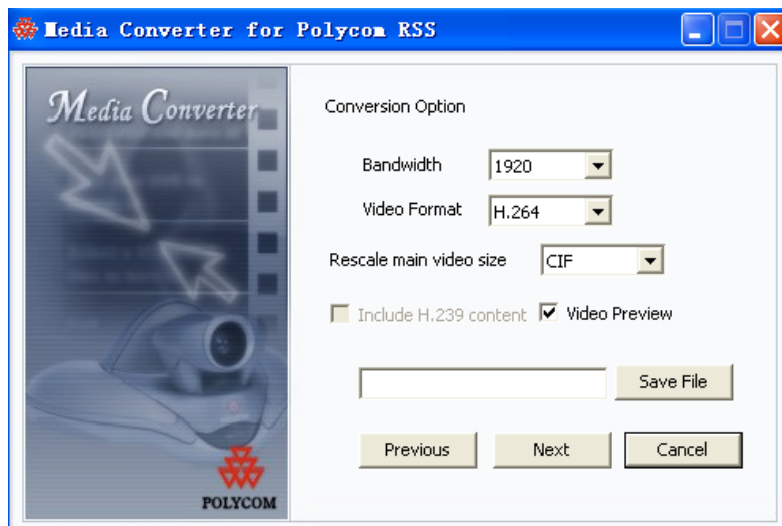


Figure 6-11 Conversion option

The user can set the following options in this interface:

- **Bandwidth:** Sets conversion bandwidth
- **Video Format:** Sets the video algorithm. This option can be used only when converting between raw bit stream formats.
- **Rescale main video size:** Sets the video format after conversion. This option can be used only when converting between raw bit stream formats.
- **Include H.239 content:** This option is enabled when the recording bit stream includes H.239 dual stream video. Checking this option will cause the second video channel to be converted. The second video channel will not be converted if this option is not checked.
- **Video Preview:** Sets whether a video preview will be shown by the

conversion tool during the conversion process. A preview is shown when this box is checked, but not permitted when this box is unchecked.

- 6 Click on the "Save File" button and set the save path and filename after conversion.
- 7 Click on the "Save File" button and set the save path and filename after conversion Figure 6-12 will appear.

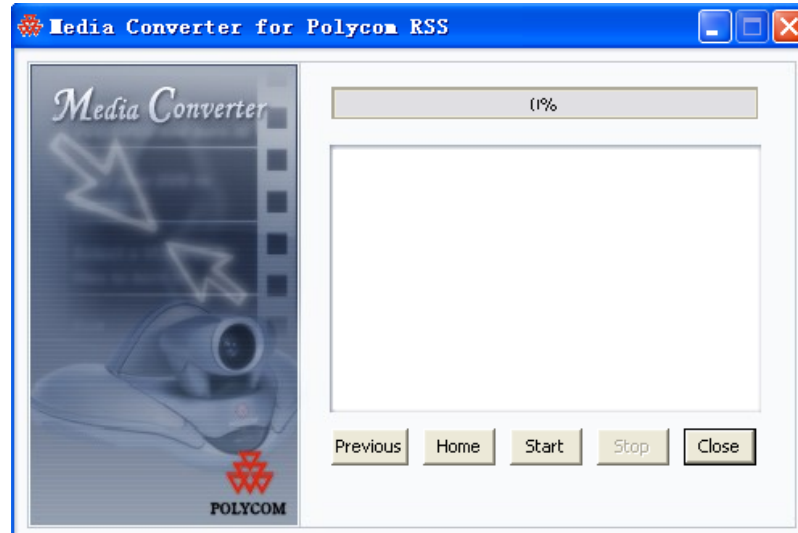


Figure 6-12 Preparing to convert

- 8 In this interface, click on the "Previous" button to return to the previous screen; click on the "Home" button to return to the initial setting screen; or click on the "Start" button to begin conversion. After conversion begins, the progress bar at the top of the screen will show file conversion progress. If "Video Preview" was checked in Figure 6-11, a preview of the video is displayed in the space under the progress bar, as shown in below.

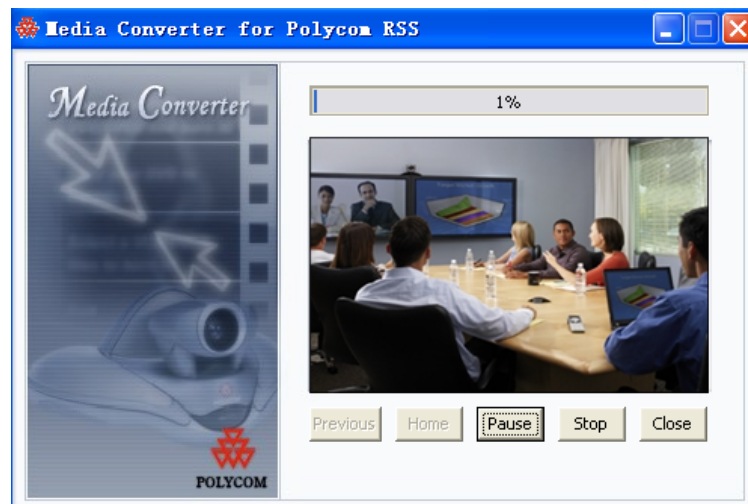


Figure 6-13 Video previe

A preview will not be shown if "Video Preview" is unchecked.

Clicking on the "Pause" button at any time during the conversion process

will pause file conversion. Clicking on the "Resume" button will then resume video conversion. Clicking on the "Stop" button will cause a confirmation dialog box to pop up; clicking on "OK" will stop the current conversion, and clicking on "Cancel" will enable the conversion to continue.

- 9 After completing conversion, click on the "Close" button to close the Media Converter for Polycom RSS tool. The user can now find the converted video file in the preset save directory.

Using Polycom® RSS™ 4000 Upload

The file upload tool – Polycom RSS Archive Transfer Manager – is used to upload video code converted by the Media Converter for Polycom RSS back to the Polycom® RSS™ 4000. Newly uploaded video files have the same names as the original, unconverted video file; for instance, if the original video file had the name "123456," the newly uploaded video file will also be named "123456".

Overview of Interface Areas

Click sequentially on the Start -> All Programs -> Polycom -> RSS Media Tools -> Launch AsfUpload to use Polycom RSS Archive Transfer Manager . The interface will now be as shown below.

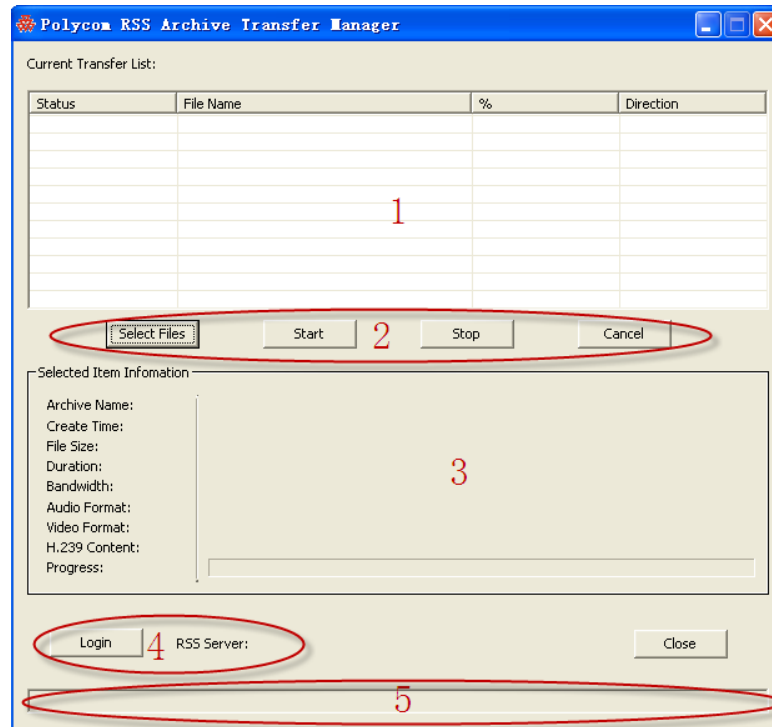


Figure 6-14 Polycom RSS Archive Transfer Manager Software interface

Figure 6-14 shows five numbered functional areas of the Polycom RSS Archive Transfer Manager software interface:

- **Area 1 (Current Transfer List)** displays a list of bit stream files to be uploaded

to the Polycom® RSS™ 4000. Information shown in this list includes: Status, File Name, %, and Direction. Status indicates the file's upload status, which may be "pending," "transferring," "pause," "stop," "canceled," or "done." File Name shows the file's full pathname on the current computer. % shows the percentage of the file uploaded; 100% will be shown after the file has been successfully uploaded. Direction shows the file transfer direction; "upload" will be shown in this spot. If the user wish to delete any file in this list, he can use the mouse to select the file, and press the "Delete" key on the keyboard; he can also highlight the file, press the right mouse button, and click on "Delete." Deletion of multiple files is permitted.

- **Area 2** contains functions for controlling file upload. The function of each button will be described in detail below.
- **Area 3 (Selected Item Information)** displays detailed information about each file to be uploaded. Selecting one of the files listed in Area 1 will show information about that file in this area, as shown below.

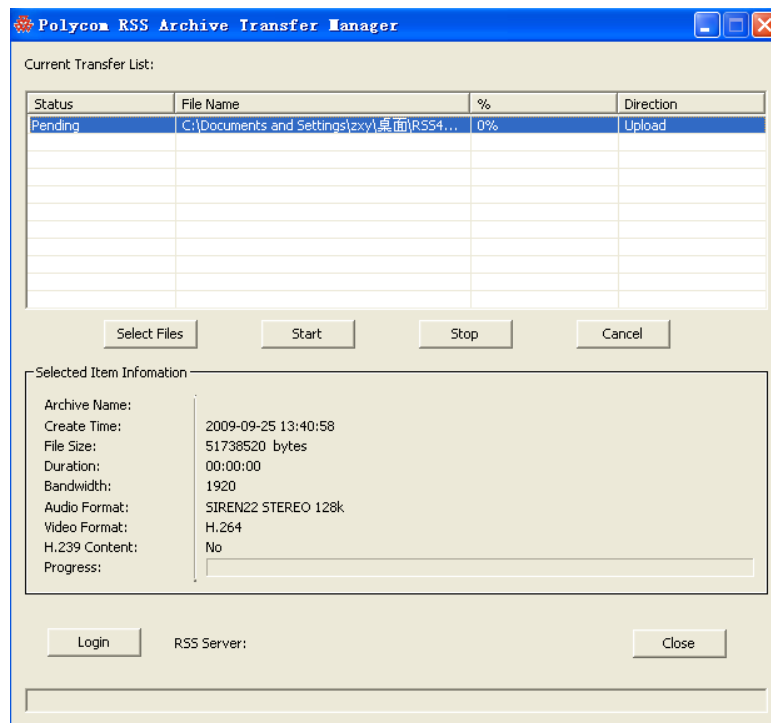


Figure 6-15 Video file information

- **Area 4** is used to login to the Polycom® RSS™ 4000 server. Clicking on "Login" will cause the login screen shown Figure 6-16 to pop up.

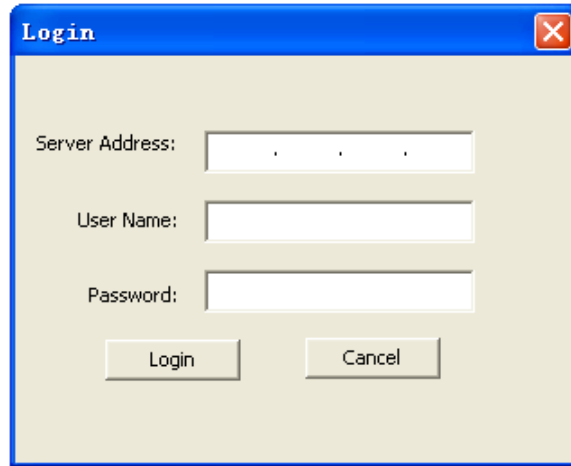


Figure 6-16 Login dialog box

Enter the IP address, administrator name, and password of the Polycom® RSS™ 4000 the user wish to connect to, and click on "Login" button to login to the Polycom® RSS™ 4000. After successful login, the IP address of the Polycom® RSS™ 4000 will be shown after "Polycom® RSS™ 4000:" in Area 4, as shown in Figure 6-17. The files will now be uploaded to the Polycom® RSS™ 4000. If login has failed, failure information will be shown in Area 5.

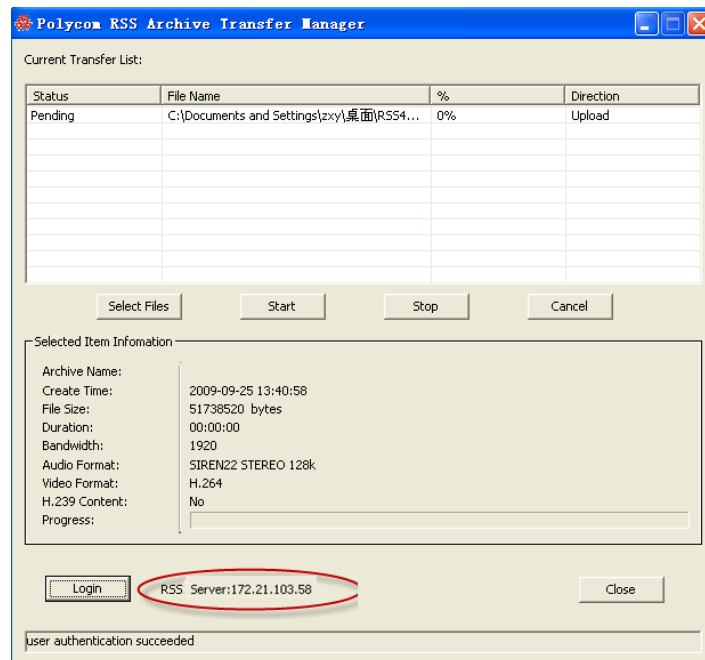


Figure 6-17 Successful login

- **Area 5** shows all system reminders and information during the upload process.

Starting File Upload

Use the following steps to upload files:

- 1 Click on the "Select File" and select bit stream files that you wish to upload. You can select multiple files. The software will show an incorrect format message if the format is not suitable for uploading.
- 2 Click on the "Start" button to begin file upload. If you have not logged into a Polycom® RSS™ 4000 before uploading files, a Polycom® RSS™ 4000 login screen will now pop up. Correctly fill out login information—the uploads will begin after successfully logging in. If the "Login" button in Area 4 has already been used to login to a Polycom® RSS™ 4000, click on the "Start" button and file upload will begin immediately.
- 3 If there are multiple files on the list of files to be uploaded, the system will upload the files in sequence.
- 4 After files have been successfully uploaded, the file status will show "Done". You can click on the "Close" button to close the program after all files have been uploaded, or can also select more files to upload.



The same bit stream file can be uploaded only once.

Pausing File Upload

You can click on the "Pause" button when files are being uploaded to temporarily pause the upload process; the "Pause" button will now appear as "Resume."

Click on the "Resume" button to cancel the pause and resume the upload.

Stopping File Upload

You can click on the "Stop" button when files are being uploaded to stop the current upload.

The system will save the already-uploaded portion of the file after a file upload has been stopped. When the upload is restarted, the system will only upload the part of the file not uploaded on the previous occasion.

Cancelling File Upload

You can click on the "Cancel" button to cancel the current file upload.

The system will delete the already-uploaded portion of the file after a file upload has been cancelled. The system will restart if the file is uploaded again.

Appendix C – Regulatory Notices

Important Safeguards
<p>Read and understand the following instructions before using the system:</p> <ul style="list-style-type: none">▪ Close supervision is necessary when the system is used by or near children. Do not leave unattended while in use.▪ Only use electrical extension cords with a current rating at least equal to that of the system.▪ Always disconnect the system from power before cleaning and servicing and when not in use.▪ Do not spray liquids directly onto the system when cleaning. Always apply the liquid first to a static free cloth.▪ Do not immerse the system in any liquid or place any liquids on it.▪ Do not disassemble this system. To reduce the risk of shock and to maintain the warranty on the system, a qualified technician must perform service or repair work.▪ Connect this appliance to a grounded outlet.▪ Only connect the system to surge protected power outlets.▪ Keep ventilation openings free of any obstructions.▪ If the system or any accessories are installed in an enclosed space such as a cabinet, ensure that the air temperature in the enclosure does not exceed 40°C (104° F). You may need to provide forced cooling to keep the equipment within its operating temperature range.▪ Do not use this product near water.▪ Avoid using this product during an electrical storm. There may be a remote risk of electric shock from lightning. <p>SAVE THESE INSTRUCTIONS.</p>

Regulatory Notices
<p>USA and Canadian Regulatory Notices</p> <p>This Class [A] digital apparatus complies with Canadian ICES-003. Cet appareil numérique de la classe [A] est conforme à la norme NMB-003 du Canada</p> <p>This device complies with part 15 of the FCC Rules. Operation is subject to the following two conditions: This device may not cause harmful interference, and this device must accept any interference received, including interference that may cause undesired operation</p> <p>NOTE: This equipment has been tested and found to comply with the limits for a Class A digital device, pursuant to part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference when the equipment is operated in a commercial environment. This equipment generates,</p>

Regulatory Notices

uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instruction manual, may cause harmful interference to radio communications. Operation of this equipment in a residential area is likely to cause harmful interference in which case the user will be required to correct the interference at his own expense

In accordance with part 15 of the FCC rules, the user is cautioned that any changes or modifications not expressly approved by Polycom Inc. could void the user's authority to operate the equipment.

EU Regulatory Notices

This Polycom® RSS™ 4000 has been marked with the CE mark. This mark indicates compliance with EEC Directives 2006/95/EC and 2004/108/EC. A full copy of the Declaration of Conformity can be obtained from Polycom Ltd, 270 Bath Road, Slough, Berkshire, SL1 4DX, UK.

この装置は、情報処理装置等電波障害自主規制協議会（VCCI）の基準に基づくクラスA情報技術装置です。この装置を家庭環境で使用すると電波妨害を引き起こすことがあります。この場合には使用者が適切な対策を講ずるよう要求されることがあります。

声明

此为A级产品，在生活环境中，该产品可能会造成无线电干扰。在这种情况下，可能需要用户对其干扰采取切实可行的措施。

A 급 기기 (업무용 정보통신기기)

이 기기는 업무용으로 전자파적합등록을 한 기기이오니 판매자 또는 사용자는 이 점을 주의 하시기 바라며, 만약 잘못된 판매 또는 구입하였을 때에는 가정용으로 교환하시기 바랍니다.

WARNING

This is a Class A product. In a domestic environment this product may cause radio interference in which case the user may be required to take adequate measures.

Electrical safety advisory

We recommend that you install an AC surge arrester in the AC outlet to which this device is connected. This action will help to avoid damage to the equipment caused by local lightning strikes and other electrical surges.

Special Safety Instructions

Follow existing safety instructions and observe all safeguards as directed.

Installation Instructions

Installation must be performed in accordance with all relevant national wiring rules.

Mechanical Loading - Mounting of the equipment in the rack should be such that a hazardous condition is not achieved due to uneven mechanical loading.

Circuit Overloading - Consideration should be given to the connection of the equipment to the supply circuit and the effect that overloading of the circuits might have on overcurrent protection and supply wiring. Appropriate consideration of equipment nameplate ratings should be used when addressing this concern.

Reliable Earthing - Reliable earthing of rack-mounted equipment should be maintained. Particular attention should be given to supply connections other than direct connections to the branch circuit (e.g. use of power strips)."

Plug Acts as Disconnect Device

The socket outlets to which this apparatus is connected must be installed near the equipment and must always be readily accessible.

Regulatory Notices

Lithium coin cell warning

This equipment contains a Lithium coin cell which is not user serviceable. Refer servicing to qualified service personnel only. Do not attempt to open the case of this product.

Caution

Danger of Explosion if Battery is incorrectly replaced.

Replace only with the same or equivalent type

Recommended by the manufacturer.

Dispose of used batteries according to the manufacturer's instructions

ADVARSEL!

Lithiumbatteri - Eksplosionsfare ved fejlagtig håndtering.

Udskiftning må kun ske med batteri af samme fabrikat og type.

Levér det brugte batteri tilbage til leverandøren.