

# **Intel® TeamStation™ System Administrator's Guide**

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# Table of Contents

Chapter 1 Introduction to the TeamStation System.....	1
Multi-Purpose Conference Room Tool .....	1
What's Included With the TeamStation System.....	1
Administrator Tasks .....	3
Customer Support via the Internet .....	4
Intel Customer Support Technicians .....	4
Chapter 2 Administrator Tasks .....	7
Initial System Installation .....	7
Completing Preparations for Conferences.....	8
Periodic Maintenance .....	10
User Problems?.....	11
Chapter 3 Administering the TeamStation System.....	13
Providing Information for your Users .....	13
Logon Accounts.....	14
ISDN: Configuration.....	16
ISDN: Setting Dialing Properties.....	17
ISDN/LAN: Gateways .....	17
LAN: Configuring the TeamStation System for TCP/IP.....	18
LAN: Gatekeepers .....	19
Basic Security Guidelines for the Intel TeamStation System .....	20
Security: Virus Protection .....	21
Performance Monitoring: Readiness Capability .....	22
Performance Monitoring/Management.....	23
Intel TeamStation Manager (optional) .....	23
Hardware: Adding a Second Camera (optional).....	23
Hardware: Connecting a VCR for Playback by the TeamStation System.....	24
Using a Television Instead of a Monitor to Display TeamStation System Output .....	29
Troubleshooting .....	29
Restoring your TeamStation System.....	32

Chapter 4 TeamStation System AdminTools..... 33

- Dialog Page for System Information ..... 35
- Dialog Page for Connection Types..... 37
- Dialog Page for ISDN Setup..... 38
- Dialog Page for Camera Setup..... 42
- Dialog Page for Video Image..... 46
- Dialog Page for Advanced H.323 Setup..... 48
- Dialog Page for File Transfer Preferences ..... 51
- Dialog page for Directory ..... 52
- Dialog Page for Audio/Video Call Preferences..... 53
- Dialog Page for Audio Input Selection..... 55
- Dialog Page for Document Server Setup..... 55
- Dialog Page for Login/Security..... 59

Chapter 5 TeamStation Document Server..... 61

- Using Document Server..... 61
- Guidelines for Using Document Server ..... 62
- Administering Document Server ..... 65

Appendix A Installation and Configuration Notes ..... 69

- Step 1–Unpack..... 69
- Step 2–Set up the Computer and Monitor..... 70
- Step 3–Set up the Camera ..... 70
- Step 4–Set up the Audio..... 70
- Step 5–Gather ISDN Information ..... 71
- Step 6–Power On & Configure Windows NT ..... 71
- Step 7–Configure the Intel TeamStation System ..... 71
- Step 8–Make a Video Call..... 71

Appendix B License and Warranty..... 73

Index..... 77

# Chapter 1

## Introduction to the Intel® TeamStation™ System

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The Intel® TeamStation™ System is a world-class group video conferencing system. But it does much more than just video conferencing.

### Multi-Purpose Conference Room Tool

The Intel TeamStation System is a multi-function device:

- Supports ISDN (H.320) and LAN (H.323) video conferencing.
- Provides document conferencing with Microsoft NetMeeting\*.
- Acts as a full-duplex speakerphone.
- Stores presentation documents with an integrated Web server.
- Is a high-performance Windows NT\* 4.0 workstation.
- Provides compatibility with major PC applications.

### What's Included With the TeamStation System

Each TeamStation System includes the following.

#### Hardware

- High performance Intel® Pentium® II processor-based PC with pre-installed video conferencing software
- Full-duplex, high-quality audio components with echo cancellation for clear voice communication
- High performance motorized camera with auto tracking
- Wireless infrared keyboard with built-in mouse (trackball)
- High-resolution 29" multimedia monitor (optional, available in North America)

#### TeamStation System Main User Interface

This easy-to-use interface lets you prepare documents for a conference, make conference calls, and then share documents with others in the conference.

A Readiness capability runs in the background, monitoring system performance. If it detects system deterioration, it displays a message about the condition and suggests possible remedies.

## The AdminTools

AdminTools are provided for the administrator to set up all the basic and advanced preferences of the TeamStation System.

A subset of the AdminTools runs during the initial configuration process, prompting the installer for information needed to run the system. The administrator then uses AdminTools for ongoing configuration and maintenance.

## Intel TeamStation Document Server

Document Server is a Web server that is used with the TeamStation System to assist storing and retrieving of documents during a video conference or electronic presentation.

With Document Server, users can create accounts where they can copy documents from their desktops using a Web browser. In the conference room, users can then preload their Document Server documents for sharing during a conference. Or they can simply launch a browser to display the documents to people in the same room.

## Documentation

The TeamStation System comes with the following documentation:

- Poster for Setting up the Intel TeamStation System      Installation and configuration information in a step-by-step format.
- *Guide*      This manual. Provides information about how to administer the TeamStation System and provides troubleshooting tips.
- Help      A set of online informational and procedural topics about:
  - The TeamStation System user interface
  - AdminTools
  - Document Server

To view Help, click the Help button, press the F1 key, or select Help from the System menu, as appropriate.

- TeamStation System *Quick Reference Card* Laminated card that provides tips about how to use the TeamStation System. Place this card in the room with the system.
- Online *User Quick Guide* Provides a checklist for users to prepare, conduct, and conclude a video conference. The document is provided online in printable format for the administrator to print copies as needed for their users. Access this guide from the Start menu:  
  
Start > Programs > Intel TeamStation System > User Quick Guide
- TeamStation System Restore Instructions Printed sheet with instructions for reinstalling the system software in case of an irrecoverable failure. The printed sheet is inside the Restore Packet envelope.
- Additional Documentation Documentation for Windows NT, camera, keyboard, and computer.

### Options and Related Products

- Intel® TeamStation™ Manager enables monitoring and managing of TeamStation Systems across the network from a remote desktop console.
- All other options and related products are documented at this Web address:  
<http://www.intel.com/proshare/conferencing/products/teamdata.htm>

### Administrator Tasks

See Chapter 2 for an overview of tasks for the TeamStation System administrator.

## Customer Support via Internet

Use the Internet to reach Intel's World Wide Web and FTP services 24 hours a day, every day. The services contain the most up-to-date information about Intel products. You can access installation instructions, troubleshooting information, and general product information.

### World Wide Web and Internet FTP

**How to access:**           **WWW**  
*News:*                    news://cs.intel.com  
*Customer Support:*   http://support.intel.com

**How to access:**           **FTP**  
*Host:*                    ftp.intel.com  
*Directory:*              /pub/support

## Intel Customer Support Technicians

**Free support for 90 days:** You can speak with our technical support professionals free of charge for 90 days after your initial call.

**Other support services:** You can purchase a range of support services, including 24-hour support, per incident support, on-site service, and software and hardware maintenance agreements. For details about the Intel Support Service options, download document 8549.

**Worldwide access:** Intel has technical support centers worldwide. Many of the centers are staffed by technicians who speak the local languages. For a list of all Intel support centers, the telephone numbers, and the times they are open, download document 9089.

If you don't have access to the Internet, contact your local dealer or distributor, or call +1-916-377-7000 from 07:00 to 17:00 Monday through Friday, U.S. Pacific Time.

### Other Customer Support Numbers

If you bought your TeamStation System from these suppliers, call their number:			
	Call	Hours	Time zone
France Telecom	France Telecom .EGT 08.36.68.94.00	9:00-18:30 (Mon, Thur, Fri)  9:00-16:00 (Tues, Wed)	France local time
KPN Telecom	KPN Telecom: 0800 0407	8:30-18:00 (Mon - Fri)	Netherlands local time

<b>All other customers, call your resellers or these numbers.</b>			
When calling these numbers, please have your product serial number and proof of purchase available.			
United Kingdom	Intel: 0990-168700	8:00-17:00 (Mon, Thur - Fri)  8:00-16:00 (Tues, Wed)	UK local time
<b>The rest of Europe in local language</b>			
Belgium	027 143158	8:00-17:00 (Mon, Thur - Fri)  8:00-16:00 (Tues, Wed)	UK local time
France	01.41.91.85.58	8:00-17:00 (Mon, Thur - Fri)  8:00-16:00 (Tues, Wed)	UK local time
Germany	069 95096116	8:00-17:00 (Mon, Thur - Fri)  8:00-16:00 (Tues, Wed)	UK local time
Italy	02-69633262	8:00-17:00 (Mon, Thur - Fri)  8:00-16:00 (Tues, Wed)	UK local time
<b>The rest of Europe in English only</b>			
Belgium	02 7143158	8:00-17:00 (Mon, Thur - Fri)  8:00-16:00 (Tues, Wed)	UK local time
Netherlands	020-4874590	8:00-17:00 (Mon, Thur - Fri)  8:00-16:00 (Tues, Wed)	UK local time
Sweden	08-58 77 11 04	8:00-17:00 (Mon, Thur - Fri)  8:00-16:00 (Tues, Wed)	UK local time
Japan	0298-47-0800	9:00-17:00 (Mon - Fri)	Japan local time



## Chapter 2

# Administrator Tasks

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As TeamStation System administrator, here are the tasks that you should consider performing to get your system started and to ensure the best system operation.

## Initial System Installation

### Instructions for Installing a TeamStation System

There are two sources of installation information.

- Poster for Setting up the Intel TeamStation System
- Appendix A of this manual (Installation and Configuration Notes)

Use the poster as your primary guide for installation and initial configuration of the TeamStation System.

Check also for any last-minute information in the Readme file.

### Preparation for Installation

**ISDN:** Get information from your ISDN service provider. You'll need to know the ISDN number(s), switch type, and Service Profile Identification (SPID)<sup>1</sup>. Also find out whether you need an NT-1 box. (See page 16 for further information on ISDN requirements.)

**Room Layout:** Make sure there are places in the conference room for the TeamStation System computer, monitor, microphone and keyboard.

### Installation

As shown on the *front* of the poster, you must install the following:

- Computer and monitor
- ISDN and network connections
- Wireless keyboard (with batteries)
- Motorized camera
- Audio connections and microphone

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<sup>1</sup> SPIDs are not needed in Europe.

## Initial Configuration

As shown on the *back* of the poster, you must:

- Configure Windows NT 4.0.
- Configure your TeamStation System by using AdminTools.

## Test Call

**If you are Using ISDN:** After installing the hardware and doing initial software configuration, you can make a test video conference call to the number supplied on the poster.

# Completing Preparations for Conferences

After your system has been installed and initially configured, consider doing the following to optimize your system's performance.

## Optimizing the System

1. **Enable TCP/IP:** If your system is connected to a network, consider enabling TCP/IP to support a Web browser and to support the TeamStation Document Server (see Chapter 5 for Document Server information). See page 18 for instructions on setting up TCP/IP.
2. **Update AdminTools.** You must exit from the TeamStation System before running AdminTools. Go to the following tabbed pages in the AdminTools dialog (see Chapter 4 for information about AdminTools):
  - **Video Image:** Adjust the default video image options for local conditions—see page 46.
  - **File Transfer Preferences:** Enable or disable the receiving of file transfers during a conference—see page 51. (File transfers are enabled by default.)
  - **Document Server:** If TCP/IP is enabled, also enable Document Server (page 55) so that users can copy files with a Web browser from their desktops for display and sharing in meetings. (See Chapter 5 for Document Server information). Make a note of the Document Server URL.
  - **Login/Security:** Decide whether you want to have a special login for all users of the TeamStation System and whether you want the user name and password displayed to the screen when users press Ctrl + Alt + Del. See page 59.
  - **Directory:** Add numbers that will be called from this system so that they are readily available for making calls—see page 52.

- **Camera Setup:** Check the default camera settings to decide whether you want to use other settings. Consider whether you want to use a second camera (for example, a camera that can display documents or a VCR to play video tapes)—see page 23.
  - **Audio/Video Call Preferences:** Decide whether you want the conference Mute button to mute both audio and video (the default is audio only), and whether you want an incoming call answered automatically (the default is to prompt users to answer incoming calls). You can also change the defaults for LAN call-bandwidth, audio quality, and video capability. See page 53.
  - **Advanced H.323 Setup:** Configure the proxy for outgoing calls and set Gateway and Gatekeeper preferences—see page 48.
  - **Audio Input Selection:** If you want to use an audio input other than the microphone that ships with the TeamStation System, select another audio input and decide on your use of Acoustic Echo Cancellation—see page 55.
3. **Install User Applications:** The TeamStation System lets people in a conference share computer applications. Determine which applications will be shared in conferences and install them on the system. For example, if presenters want to display Microsoft PowerPoint\* slides, the PowerPoint program must be installed.
  4. **Add Browser Favorites:** The TeamStation System ships with Internet Explorer 3.02 installed. If you know Web sites that conference-room users will visit, set Web addresses up as browser Favorites or Bookmarks. Also include the Document Server Web address in the Favorites.
  5. **Virus Protection:** The TeamStation System includes LANDesk® Virus Protect software. (It is an English-language product so it is only enabled on systems for North American and United Kingdom customers.) Consider whether you want change the default configuration and/or want to update the virus profiles. For more information, see page 21.

## Inform Users

Help your TeamStation System users by providing them with information about how to prepare for and carry out video conferences. Giving them the following information should reduce phone calls to you too.

- **Distribute *User Quick Guide*:** Print the *User Quick Guide* and distribute it to those who will be using the Team Station System. See page 14 for more information about this short Adobe Acrobat\* document.

- **Conference Room *Quick Reference Card*:** Make this laminated card available in a prominent place in the meeting room. Add login information to it.
- **Activate Login Message:** As mentioned in the previous section, to simplify user login, you can use AdminTools to enable one user login for all TeamStation System users and activate a login message box that provides the user name and password. See page 59.
- **Explain MCU Use.** If your users will be having multipoint ISDN meetings via an MCU (Multipoint Control Unit), provide printed tips in the meeting room about how to make MCU calls.

## Add Optional Products

- **TeamStation Manager:** Intel provides TeamStation Manager software to monitor and manage TeamStation Systems remotely from a desktop console. See page 23 for more information.
- **VCR or Second Camera:** The TeamStation system ships with one camera and supports use of a second camera or VCR. Consider adding a second input to enhance meetings. See page 23 for secondary camera installation information and page 24 for VCR installation information.

## Periodic Maintenance

Once the TeamStation System is being used for meetings, the administrator should perform periodic maintenance to ensure proper continuing performance. Along with normal PC maintenance, here are some other maintenance tasks you should consider.

### 1. Hard Drive

**Eliminate Leftover Files:** Conference participants may leave behind files. Check the following places for accumulations of unneeded files:

- **Document Server Shared Documents:** Documents stored on Document Server and shared in a conference remain after the conference call in the directory “C:\Document Server Files”. Users should delete the documents after they update their Document Server accounts.
- **Received Files:** Files received as file transfers during a meeting are stored in the directory “C:\Received Files”.
- **Documents Placed on Hard Drive:** Some presenters will copy documents from diskettes or from the network to the local hard drive for use during conferences.

## 2. Directory

**Update the Dialing Directory:** Add, remove, and correct directory entries as requested by users. Use the AdminTools Directory dialog page (see page 52).

## 3. Batteries

Replenish batteries used with the wireless keyboard. We recommend changing them every two months at least. (It's also a good idea to have spare fresh batteries available in the conference room.)

## 4. Document Server

- **Disk Space:** Remind users to clean their Document Server accounts of unneeded documents. If disk space is becoming a problem on the TeamStation System that is running Document Server, the administrator can remove the documents—see page 66.
- **Unused Accounts:** Remove unused accounts. See page 65 for instructions.
- **Slow Conference Performance?** If the conference performance of the TeamStation System that is running Document Server is noticeably slowing, consider enabling Document Server on several systems to distribute the load. See page 67.

## Update Virus Protection

Periodically update the virus pattern files. See page 21.

## User Problems?

Periodically poll users about any changes they would like to have in the conferencing set up. Also ask whether they lack information for using Document Server or the TeamStation System.



# Chapter 3

## Administering the TeamStation System

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Chapter 2 briefly lists the tasks the TeamStation System administrator should perform. This chapter provides details relevant to a number of the tasks. Specifically, this chapter has the following sections:

Section	Page
Providing Information for your Users	13
Logon Accounts	14
ISDN: Configuration	16
Setting Dialing Properties	17
LAN Gateways	17
LAN: Configuring the TeamStation System for TCP/IP	18
Gatekeepers	19
Security: Basic Security Guidelines for the Conference Room PC	20
Virus Protection	21
Performance Monitoring: Readiness Capability	22
Intel TeamStation Manager (Optional)	23
Hardware: Adding a Second Camera or VCR (optional)	23
Connecting a VCR for Playback with the TeamStation System	24
Using a Television to Display TeamStation System Output	29
Troubleshooting	29
Using the Restore Disc	32

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## Providing Information for your Users

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### ***Quick Reference Card***

Tips for using the TeamStation System are provided on a laminated card. Place this card in the meeting room near the keyboard and add to it information about the system login.

## Online User Quick Guide

A quick overview of meeting tasks for TeamStation System users is available on-line in a printable format for display with Adobe Acrobat. (Acrobat is preinstalled on the TeamStation System.) Print copies of this guide for your users.

To view and print the guide, click: Start > Programs > Intel TeamStation System > User Quick Guide

If you want to modify the guide to fit the particular needs of your users, copy the text from the Acrobat document into a word processing program and make appropriate changes.

## Online Help

**Main User Interface:** Help is available for the main user interface screens for the TeamStation System. Users can press the F1 key to display Help about the screens they are using.

**Document Server:** If Document Server is enabled for the TeamStation System, users can access Document Server with their browsers (see Chapter 5). They can then click the Help button to receive instructions for performing tasks.

**AdminTools:** Help is provided for all the tabbed dialog pages in AdminTools. Select the Help button on each dialog page to view the Help text. Chapter 4 of this manual duplicates the AdminTools Help.

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## Logon Accounts

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### Administrator Account

During initial Windows NT configuration, you set the system administrator name and password. Here is how to reset them.

#### Resetting the Administrator Name or Password

1. Press Ctrl + Alt + Delete to display the Logon Information dialog.
2. Type the current Administrator User name and Password to log on to the system.
3. After the TeamStation System starts and is ready to dial, close it.
4. Select Start > Programs > Administrative Tools (Common) > User Manager.

5. Select Administrator in the User Name column.
6. Pull down the User menu.
7. Select Properties. The User Properties dialog appears; the Username should be Administrator.
8. Type the Full Name, Password, and Confirm Password.
9. Check the appropriate conditions.

## User Accounts

### Selecting Your Security Profile Method

You can use the TeamStation System AdminTools or Windows NT User Manager to create security profiles for users. The Login/Security page of AdminTools lets you select your desired method for controlling user access. (Start AdminTools by clicking Start > Intel TeamStation System Administrator > AdminTools.)

### Using the AdminTools Security Profile

The AdminTools Login/Security page provides a way for you to create a default TeamStation System user. The TeamStation System provides a standard user profile to simplify user login. (This profile has the same permissions as the standard Windows NT Users group, plus profile additions needed to secure the key TeamStation System files.) See page 59 for information about the Login/Security page.

If you select the TeamStation System login profile, you set a TeamStation System user name and password. You can also specify whether you want a message box to display the user name and password when a user begins the login process on the TeamStation System.

### Using Windows NT Security Profiles

If you use the Windows NT Administrative Tools to create user accounts, you can place users in groups to set access permissions for security. Consult the Windows NT documentation for details. See the following sections for information on creating and deleting user accounts.

#### To Create a New User Account

1. Log on as Administrator.
2. Click: Start > Programs > Administrative Tools (Common) > User Manager.
3. Pull down the User menu.
4. Select New User. A dialog appears.

5. Type the appropriate information. Note that you may want to coordinate the User name with the network administrator.
6. Click OK.

#### **To remove a user account**

1. Click: Start > Programs > Administrative Tools (Common) > User Manager.
2. Select the user account to be deleted.
3. Pull down the User menu.
4. Select Delete.

## **ISDN**

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### **Configuration**

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ISDN (Integrated Services Digital Network) is a digital telephone/telecommunications network that carries voice, data, and video over the existing telephone network. It has suitable bandwidth for use with video conferencing systems, such as the TeamStation System.

ISDN requires special installation; you'll need to arrange it with your telephone company and/or ISDN service provider.

### **Finding ISDN Information**

All the information you'll need about your ISDN line is available from your ISDN service provider. You can also find general ISDN information at:

<http://support.intel.com/support/ISDN/index.htm>

### **Entering and Editing ISDN Information**

Use AdminTools to enter or change ISDN information:

1. Start the AdminTools by clicking: Start > Intel TeamStation System Administrator > AdminTools.
2. Click the ISDN Setup tab.

3. Use this dialog to enter/edit your ISDN connection information. You can:
  - Select the ISDN protocol.
  - Enter ISDN number(s).
  - Enter SPID number(s), if needed for your country.
  - Select line type (data, voice, or data/voice).
  - Add a second ISDN number (if necessary).

For more information about the AdminTools ISDN Setup, see page 38.

## ISDN

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### Setting Dialing Properties

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If you want to have country and area codes inserted in the System Information dialog for the TeamStation System, use the Windows NT Telephony program.

1. Click: Start>Settings>Control Panel>Telephony.
2. On the My Location page, type the correct area code.
3. On the My Location page, in the “I am in:” field, select the country.
4. Click OK to close the Dialing Properties dialog.

## ISDN/LAN

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### Gateways

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H.323 (LAN)-H.320 (ISDN) gateways are network components that:

- Allow a conferencing-system-connected-to-a-LAN and a conferencing-system-connected-to-an-ISDN-line to connect with each other (that is, gateways provide protocol translation).
- Connect conferencing systems at different ISDN endpoints by routing their communication through a network, for example, the Internet.
- Provide conferencing between conferencing systems connected to different LANs by routing their communication through ISDN lines.

Gateways rely on gatekeepers for address resolution of their prefixes and of extensions for incoming calls. You must have a gatekeeper set up to use a gateway.



**Note:** Not all LAN connections through a gateway support data conferencing. If the gateway supports the T.120 standard, it supports data conferencing. If your gateway does not support the T.120 standard, you may not be able to share applications, or use the data applications, such as File Transfer, when conferencing through that gateway.

## Setting up a TeamStation System to Use an H.323 Gateway

The TeamStation System AdminTools have an Advanced H.323 Setup dialog page, which allows H.320 (ISDN) calls through an H.323 gateway. (If a gateway is used, regular ISDN calls are disabled for your TeamStation System.) See page 48 in the AdminTools chapter for more information.

The Admin Tools Advanced H.323 Setup dialog page also lets you set the default gateway dialing prefix: (When you make a LAN-to-ISDN call through a gateway, you must enter a gateway prefix in front of the phone number or address you are calling.) Specifying the default gateway prefix causes the TeamStation System video call dialog to add the prefix to the address for outgoing video calls.

## LAN

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### Configuring the TeamStation System for TCP/IP

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If the TeamStation System is connected to a LAN and was configured for TCP/IP, users do not have to log on to the network to make TCP/IP calls. If, however, users need to get files from the network, you'll need to decide, with the network administrator, how you want users to log in.

#### Adding TCP/IP Support

If you want to add TCP/IP support after the initial installation of the TeamStation System, follow these steps:



**Note:** You must have your Windows NT Workstation disc when you add TCP/IP support.

1. Click: Start > Settings > Control Panel.
2. Double-click the Network icon.

3. Select the Protocols tab.
4. Click Add.
5. Select the TCP/IP protocol.
6. Click OK.
7. Select TCP/IP under the Network Protocols and click the Properties button.
8. If there is a DHCP server on the network, select “Obtain an IP address from a DHCP server.” Otherwise, select “Specify an IP address” and supply the requested information. See your network administrator for assistance.
9. Click the OK button.
10. Restart the computer when prompted to do so.

## LAN

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### Gatekeepers

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Gatekeepers are network components that are responsible for:

- Providing address resolution on the LAN for both video conferencing systems and ISDN gateways. (See the previous section for information about gateways.)
- Managing video conferencing bandwidth on the LAN.

Gatekeepers use an alias or extension to provide address resolution for video conferencing systems, converting these to a valid LAN address. TeamStation Systems can place a video call to an alias, and the gatekeeper converts this to a LAN address that can be called.

Gatekeepers provide address resolution for gateways by converting gateway prefixes to valid LAN addresses.

Registration of aliases and extensions with the gatekeeper is dynamic. Registration occurs when a device or application runs, and registration is removed from the gatekeeper when the application or device shuts down.

If a gatekeeper is not installed on a LAN, you will not be able to:

- Receive an incoming call through your gateway.
- Make a connection using an alias or extension.

See your LAN administrator for assistance.

## Setting H.323 Gatekeeper Alias and Extension

The TeamStation System AdminTools let you set your gatekeeper alias and extension.

Gatekeepers allow the use of an alias and an extension. An alias is an alternate name that others can use to call the TeamStation System. An extension is an alternate number (typically a phone extension) that others can use to call this TeamStation System. Incoming H.323-H.320 (TCP/IP-ISDN) gateway calls require an assigned extension to route the incoming call to particular conferencing system. (H.323-H.320 gateways cannot use aliases.)

See page 48 in the AdminTools chapter for information about setting the alias and extension.

## Security

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### Basic Security Guidelines for the Intel TeamStation System

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In cases where there is no control of who can access the TeamStation System, there can be security concerns. Two particular instances would be:

- Unauthorized use of the system with access to confidential files on the system or network.
- Information/data inadvertently left on the system's hard drive. This information would then be available to anyone using the system.

Access control can be accomplished by creating user accounts for individuals with passwords on the system and permissions to access only the areas the user requires.

To enable anyone to conduct a conference without having a specific login, there is a generic login placed on all systems. The user name is *user* and the password is a carriage return. This user has the user-level access to the system.

Some additional guidelines to increase the users' data security:

- **Diskettes?** If your TeamStation System is not on the LAN, consider having users bring documents to the conference room on a diskette and run from the diskette or copy the files to the hard drive. This includes any documents that will be prepared for sharing during the conference and any data for applications that will be shared.



*Note:* Using files from a diskette can result in poor performance because of the inherent slowness of diskette access.

- **Remove Shared Documents and Transferred Files:** Users should remember to remove any information that they place on the hard drive before they leave the room. To see files that were received during files transfers and those that were used during document sharing, click: Start > Meeting Documents.
- **Log Off:** Remind users to log off before they leave the meeting room, especially if the system is connected to the network.

## Security

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### Virus Protection

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The TeamStation System includes the Intel LANDesk Virus Protect program.

Virus Protect is an English-language product so that it is only enabled on systems for North American and United Kingdom customers. (Other systems can install Virus Protect from the directory: C:\Support\ldvp5.)

Please note that all virus protection programs age, and it is necessary to periodically update your system with a current list of virus pattern files. For complete information about the virus protection capabilities, as well as information about configuring, running, updating, and troubleshooting, see the online Help for Virus Protect.

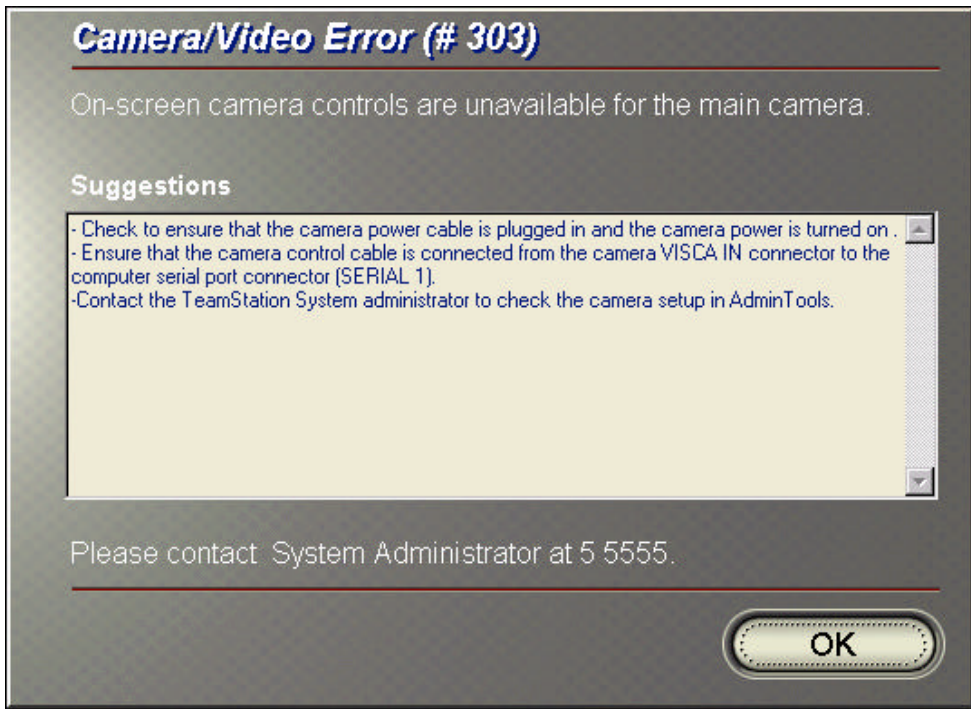
To access the Virus Protect program, click: Start > Programs > Intel LANDesk Virus Protect 5.0 > Virus Protect Client.

## Performance Monitoring

### Readiness Capability

The Readiness capability is a background monitor running on the TeamStation System. When system failure or deterioration is detected, the Readiness monitor sends messages about the condition of the system and its connections.

For instance, if camera power is accidentally unplugged, the Readiness monitor sends a message like that shown on the next page. The message states the problem and suggested remedies.



displayed at the bottom of the message window. The number is retrieved from the information entered in the System Information page in the AdminTools dialog (see page 35).

## Performance Monitoring/Management

### Intel TeamStation Manager (Optional)

If the TeamStation System is connected to your network, we suggest that you consider purchasing the Intel TeamStation Manager. The Manager enables the network administrator to monitor and manage multiple TeamStation Systems remotely from a desktop console.

If you have ordered the Intel TeamStation Manager, use the *Intel TeamStation Manager User's Guide* for installation and usage information.

## Hardware

### Adding a Second Camera (optional)

A second camera or VCR can be added to the TeamStation System to display printed documents and drawings, as a secondary room camera, or to record the conference. See the next section for information about adding a VCR to play back a video tape.



**CAUTION:** Before installing a camera, unplug the TeamStation System and attached devices. Also, for reasons of safety, turn the TeamStation System around so that you can see and have access to the system connectors.

To install the camera:

1. **Connect the Camera** to the Camera 2 connector on the back of the computer.

**Adapter:** The TeamStation System requires an S-Video connector type for the input. If your camera only has a Composite connector, use the Composite-to-S-Video adapter (supplied with your TeamStation System) to connect the camera.



2. **Camera Setup in AdminTools:** To set the camera properties, view the Camera Setup page in AdminTools by clicking: Start > Intel TeamStation System Administrator > AdminTools > Camera Setup.
  - **Type:** For the Secondary Camera/VCR, select this Type option: Static Camera (unless your secondary camera is a Sony E-DVI 30/31).

- **Video Input:** For the Video Input option, select S-Video if you do not need the above adapter. Otherwise select Composite.
3. **Restart:** After the camera is connected and camera properties are set in AdminTools, restart the TeamStation System.
  4. **Select Secondary or VCR.** In the TeamStation System user interface, from the Video Options menu , select Secondary Camera or VCR. The image from Camera 2, the added camera, will appear.



**Note:** Whenever the system hangs up from a call and returns to the Ready View, it displays the image from the default camera (set with AdminTools), regardless of which camera was selected when the call ended. (This is to ensure that every new meeting starts with the same default settings as configured by the administrator.)

## Hardware

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### Connecting a VCR for Playback by the TeamStation System

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**Playing and Recording Video:** This section is about connecting a VCR for playing video tapes into a TeamStation System. For information about connecting a VCR for recording video from a TeamStation System, see the TeamStation System portion of the Intel Support Web site at: <http://support.intel.com/>.

**VCRs Supported:** The TeamStation System supports playback using VCRs that conform to either the NTSC (North America) or PAL (Europe) standards.

**NTSC Television Standard:** The United States National TV Standards Committee (NTSC) has developed a standard for analog color television signals. The standard specifies a composite signal of red, green and blue combined with audio. NTSC video provides 525 lines of resolution at 30 interlaced frames per second.

This standard is commonly used for television sets and VCRs sold in North America.

**PAL Television Standard:** The Phase Alternating Line (PAL) standard is a European standard for analog color television signals. The standard specifies a signal providing 625 lines of resolution at 25 interlaced frames per second.

This standard is commonly used for television sets and VCRs sold in Europe.

**Not Supported--SECAM Television Standard:** The TeamStation System supports the main European television standard, PAL , and does **not** support another television standard used in some European locations: SECAM

(Systeme Electronique Couleur Avec Memoire). SECAM specifies an analog signal of 819 lines of resolution at 25 interlaced frames per second.

**Video Playback:** To use a VCR to play a video recording on your TeamStation System, connect the VCR and audio as shown and explained below:

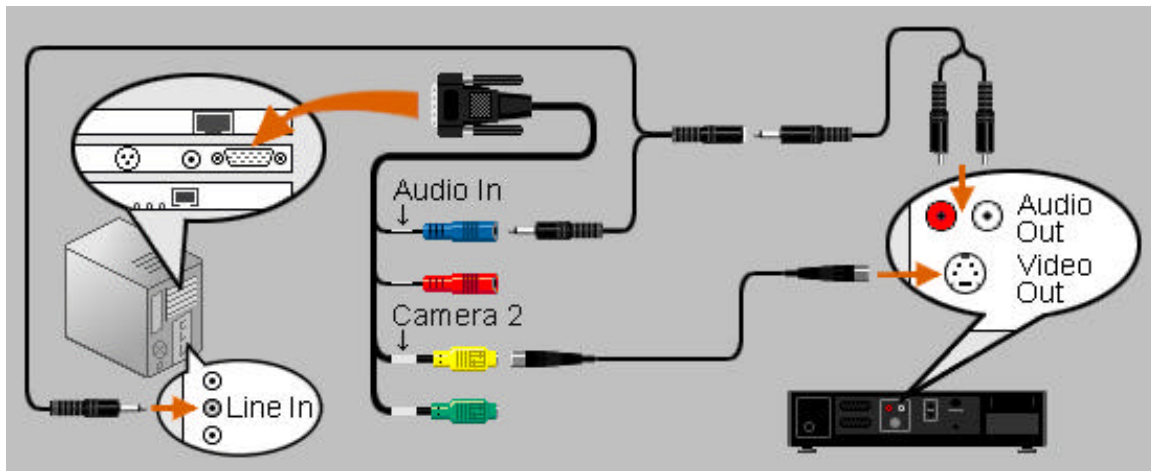


**VCR Note:** With the cable connections described below, VCR video is only available when the TeamStation System software is running. For information on playing back video using other cable connections, see the Intel Support Web site.



**Jacks and Plugs Note:** In the following instructions, “plug” refers to a male connector and “jack” refers to a female connector.

### Connecting a TeamStation System to a VCR



TeamStation System

VCR


#### What You Need

- VCR that supports the NTSC or PAL video standard (see page 24)—not supplied with the TeamStation System.
- Video cable that matches your VCR video output connector (see next section)—not supplied with the TeamStation System.
- Composite-to-S-Video Adapter if your VCR has a Composite video connector (see next section)—supplied with the TeamStation System.
- Two audio cables (see page 27)—not supplied with the TeamStation System.

#### Video: Connecting VCR Video for Playback

Here’s how to connect your VCR *video* output to the TeamStation System.

- 1 **Locate VCR Video Connector:** On the back of your VCR, locate the Video Out connector. Your VCR may have one either an S-Video or composite video connector.

 Composite (RCA-type) jack

 S-Video jack

- **S-Video Connector:** In the above connection illustration, we show an S-Video connector as the Video Out connector on the VCR. (The TeamStation System input accepts only an S-Video plug.)
- **Composite Connector:** Some VCRs use a single-pin RCA composite connector for Video output. If your VCR uses a composite connector for its video output, you can use the composite-to-S-Video adapter (supplied with your TeamStation System) to connect to the TeamStation System's video input jack (the Camera 2 connector).



Composite-to-S-Video Adapter

- 2 **Obtain a Cable:**

- **S-Video Connector:** If you have an S-Video connector on your VCR, obtain an S-Video cable with plugs on both ends (assuming that your VCR has a female Video Out connector).
- **Composite Connector:** If you have a composite connector on your VCR, as indicated in step 1, you must use the composite-to-S-Video adapter supplied with the TeamStation System. To use the adapter, first obtain a composite cable with RCA-type plugs at both ends.

### 3 Connect Cable:

- **S-Video Connector:** If you have an S-Video connector on your VCR:
  - 1 At the VCR, plug the S-Video cable into the VCR video output jack.
  - 2 At the TeamStation System, plug the other end of the cable into the Camera 2 input connector. (See the illustration on page 25.)
- **Composite Connector:** If you have a composite connector on your VCR:
  - 1 At the VCR, plug the composite cable into the VCR video output jack.
  - 2 Plug the other end of the composite cable into the composite-to-S-Video adapter.
  - 3 At the TeamStation System, plug the S-Video side of the adapter into the Camera 2 input connector.

### Connecting VCR Audio for Playback

Here's how to connect your VCR audio output to the TeamStation System.

- 1 **Locate VCR Audio Jacks:** On the back of your VCR, locate the two audio output jacks. Typically these are RCA-type connectors and are labeled Audio Out L(ef) and Audio Out R(ight).
- 2 **Obtain Two Audio Cables:**
  - Obtain one cable that has dual RCA-type plugs on one end and a single monaural 1/8" (3.5 mm) mini plug on the other end (as shown at the top right in the illustration on page 25).
  - Obtain a cable that has a single monaural 1/8" (3.5 mm) mini jack on one end and dual monaural 1/8" (3.5 mm) mini plugs on the other end (as shown in the top middle of the illustration on page 25).
- 3 **Connect Cables:** As shown in the illustration on page 25, connect the cables as follows.
  - **At the VCR:** Connect the two RCA-type plugs of the first audio cable to the VCR audio output jacks.
  - **At the End of First Audio Cable:** Connect the 1/8" (3.5 mm) mini plug of the first cable to the 1/8" (3.5 mm) mini jack of the second cable.

- **Audio In at the TeamStation System:** Connect one of the two 1/8" (3.5 mm) mini plugs on the second audio cable to the Audio In jack.
  - **Line In at the TeamStation System:** Connect the second 1/8" (3.5 mm) mini plug on the second audio cable to the Line In jack.
- 4 Configure AdminTools:** See the next section to complete your VCR playback configuration.

### **Configuring AdminTools and Viewing VCR Output**

Once you have connected your VCR video and audio, check that AdminTools is correctly configured to play back video when TeamStation software is running.

- 1** Display the Camera Setup tab in AdminTools.
- 2** Select VCR as the Secondary Camera/VCR input.
- 3** Select Video Input type. Select S-Video or Composite to match the video output connector type of your VCR.
- 4** Click OK.
- 5** Start the TeamStation System software.
- 6** Select the Video Options button.
- 7** Select Secondary Camera or VCR.

When a VCR is set up in Admin Tools as the Secondary Camera/VCR input Type, and when the Secondary Camera or VCR video input is selected during a conference from the Video Options menu, the TeamStation System automatically switches to the audio available at the Audio In and Line In connectors of the TeamStation System.

### **Audio Distortion?**

The TeamStation System only supports monaural audio for audio input from a VCR. The diagram on page 25 uses a stereo-to-monaural cable to combine the VCR stereo audio into a monaural signal. If you notice audio distortion of the VCR audio, only connect one channel of the VCR's audio output.

## Hardware



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### Using a Television Instead of a Monitor to Display TeamStation System Output

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The TeamStation System can be operated using a television as the display. In general, the display is of a lower quality than when used with a personal computer monitor.

To connect the TeamStation System to a television, use the Composite video connector (known as a phono jack or RCA jack) or the S-Video (or S-VHS) connector on the television to connect the video card to the TV.

1. Make sure all the equipment is turned off.
2. Check to see if you need an S-Video or Composite cable. If the television has an S-Video input, use it because it has better video quality.
  -  Composite (RCA-type) jack
  -  S-Video jack
3. Connect the cable between the computer and the TV. On the video card, the Composite jack is at the left; the S-Video output is the center connector.
4. Turn on the television and computer.
5. Check that the display resolution is set to 800 x 600 pixels (click: Start > Settings > Control Panel > Display > Settings).

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## Troubleshooting

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This section describes some of the more common problems encountered with the TeamStation System. For the most recent TeamStation System troubleshooting information, see this Web site:

<http://support.intel.com/support/teamstation>

## General System Problems

### Parts of the System Don't Seem to be Working

- Check all cables.
- Make sure the power strip is turned on and plugged into a power source (wall outlet or non-interruptible power supply).

### Keyboard Stops Working

- **Remote Control Interference:** If it appears that the keyboard stops functioning while you type, it may be because the camera's remote control is being used at the same time. Don't use the camera remote control and type at the same time.
- **Infrared Path Blocked:** Check that the infrared path from the wireless keyboard to the infrared receiver is not blocked by an object.
- **Batteries:** Check the wireless keyboard batteries regularly. We recommend changing them every two months at least. (It's also a good idea to have spare batteries available in the conference room.)

## ISDN problems

### Telephone Not Configured Message

(This message is not likely to occur on systems used in Europe.) You need to reset your ISDN configuration, as follows:

1. Exit from the TeamStation System software.
2. Start AdminTools by clicking: Start > Intel TeamStation System Administrator > AdminTools.
3. Click the ISDN Setup tab.
4. In the ISDN Protocol box, reselect the protocol for your system. (Even if it appears that the correct one is selected, reselect it.)
5. Restart the system.

## Video problems

### Check Monitor Cable

Check all cables. Make sure that the cable between the computer and the monitor is connected correctly. (Consult the manual that came with your monitor.)

## Check Camera Cables

If the camera does not respond to the software remote control, make sure the CAMERA CONTROL cable is plugged into the back of the camera and to Serial 2 on the back of the computer. Also check the camera's power cable.

## Using the Camera Remote Control

Most users will find it easiest to use the on-screen camera controls for the Sony motorized camera. However, if you will be using the camera remote control, make sure that both the camera and the remote control have the same camera number selected.

## Check Camera Preferences

Ensure that the preference for the Default Camera is set to the desired camera. Use the TeamStation System AdminTools to check or change the preference (see page 42).

## Adjust Video Image

Adjust the Saturation, Contrast, and Brightness of a TeamStation System using the on-screen Video Image Settings (accessible from the Video Options menu). Use the Default Video Image page in AdminTools to adjust the default values for Saturation, Contrast, and Brightness. Tint can only be adjusted using the AdminTools Default Video Image page. For more information about adjusting the video image, see page 46.

## Audio problems

Here are some common problems and possible solutions:

### If the remote participants can't hear you

- Check the audio cable connections, including the external microphone connections.
- Make sure you have not inadvertently muted the system.

### If the volume needs adjustment

You can change the TeamStation System volume during a conference using the on-screen Volume controls. You can also use the monitor's volume adjustment.



**Note:** The volume adjustment of the Monitor should be set by the system administrator. TeamStation System users should only use the on-screen volume control.

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## Restoring your TeamStation System

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In the event that there is a problem that makes the hard drive of the TeamStation System unusable, you can restore the system using the Restore Packet.

To restore the TeamStation System you need:

- The TeamStation System Restore Packet, containing:
  - The TeamStation System Restore floppy diskette
  - The TeamStation System Restore compact disc
  - Instructions for restoring the TeamStation SystemThis packet was shipped with the TeamStation System.
- Microsoft Windows NT Workstation 4.0 compact disc
- Microsoft Windows NT Workstation 4.0 Certificate of Authenticity (located on the cover of the Windows NT manual.)

Follow the instructions in the Restore Packet to restore your system.

## Chapter 4

# TeamStation System AdminTools

---

The TeamStation System includes a set of tools that the system administrator can use to customize and configure the system.

The TeamStation System AdminTools dialog has these twelve pages:

AdminTools Page	Information and Parameters You can Set
System Information	Computer name, system description, administrator name, and contact number
Connection Types	ISDN and/or TCP/IP
ISDN Setup	Protocol, ISDN number(s), Line Type(s)
Camera Setup	Type, video input, serial port, default camera, secondary camera/VCR
Default Video Image	Saturation, contrast, brightness, tint
Advanced H.323 Setup	Use H.323 proxy, proxy information, directory server (ILS), Gateway information, Gatekeeper information
File Transfer Preferences	Accept files during a conference
Directory	Manage (add, remove, and edit) the directory of saved numbers
Audio/Video Call Preferences	Mute, Incoming Call action, LAN call bandwidth, audio quality, video capability
Audio Input Selection	Audio input source and Acoustic Echo Cancellation
Document Server Setup	Document Server location and URL
Login/Security	Create logins and passwords for the users.

**First Use of AdminTools:** During the initial configuration of a TeamStation System, only the pages required for basic system setup are displayed: System Information, Connection Types, ISDN Setup, and Directory.



**Note:** If you have difficulties making your first video call, we recommend that you run AdminTools again and check all appropriate settings.

After the initial configuration process is complete and the TeamStation System is operating normally, the entire set of AdminTools is available to a system administrator.

**Conditions for Running AdminTools:** You can access AdminTools only if:

- The TeamStation System program is **not** running.
- You are logged on to the system with administrative rights.

**To Start AdminTools:** Click: Start > Intel TeamStation System Administrator > AdminTools. Or double-click the AdminTools icon on the desktop.

## AdminTools Dialog Pages

On the following pages in this manual are screen captures of the eleven AdminTools Dialog pages. Information is supplied for each field on every dialog page. Note that you can obtain the same information when you are using AdminTools by pressing the Help button for a particular dialog page.

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## Dialog Page for System Information

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Use this dialog page to identify this TeamStation computer (during initial configuration) and to supply information about the system administrator.

The screenshot shows the 'TeamStation System AdminTools' dialog box with the 'System Information' tab selected. The dialog has a title bar with a close button. Below the title bar is a grid of tabs: Audio/Video Call Preferences, Audio Input Selection, Document Server Setup, Login/Security, Advanced H.323 Setup, File Transfer Preferences, Directory, System Information (selected), Connection Types, ISDN Setup, Camera Setup, and Default Video Image. The 'System Information' section contains two sub-sections. The first, 'Computer Name', includes a text box for 'Computer Name' (containing 'COMPUTER\_1') and a text box for 'Description (for example, room name)' (containing 'Conference Room 1'). The second, 'System Administrator', includes text boxes for 'Administrator Name' and 'Contact Number'. At the bottom right are 'OK', 'Cancel', and 'Help' buttons.

### Computer Name Section

**Computer Name:** Enter a computer name in this field (when you initially configure your TeamStation System) to specify the computer name that will be used by the network.



**Note:** Do **not** use this field to change or enter a computer name after initial configuration. Instead, use the Windows NT network tools. The Computer Name field in AdminTools will be updated accordingly.

**Description:** Enter text here that describes this TeamStation System location. When this system connects to an Intel Business Video Conferencing System, the text in this field will be displayed at the far endpoint.

## ***Dialog Page for System Information (continued)***

### **System Administrator Section**

Use these fields to let TeamStation System users know how to contact you for assistance. The information you supply here will be displayed in two places:

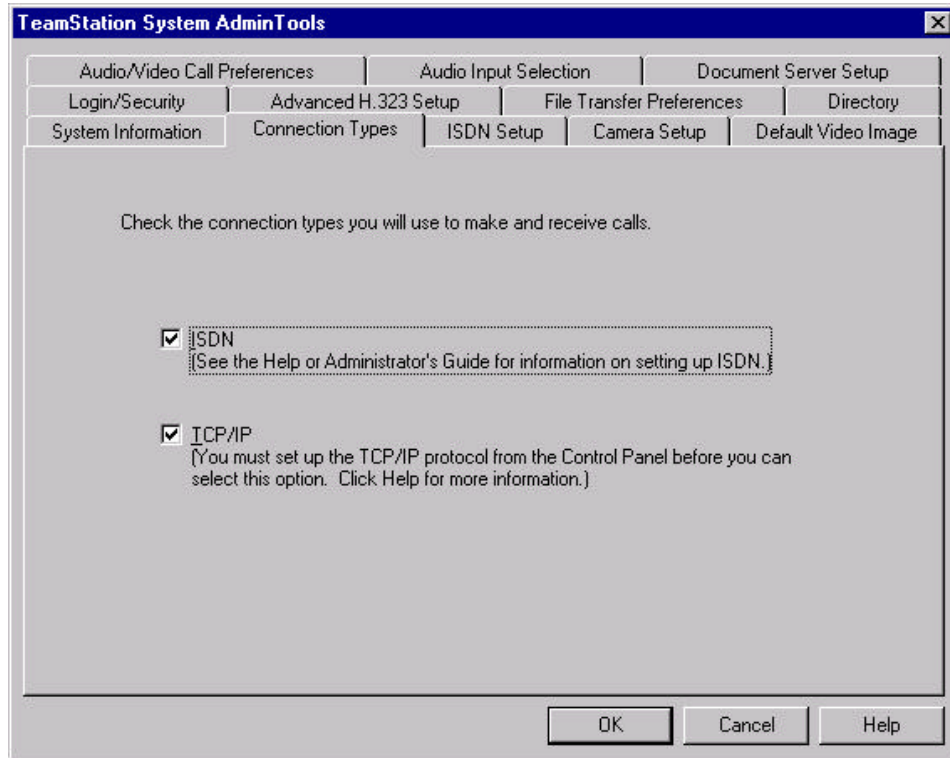
- In the System Information dialog, which TeamStation System users will see when they select System Information from the Video Options menu.
- In system Readiness dialogs, which are displayed when a sudden system problem or system deterioration occurs.

**Administrator Name:** Enter a name that you want to appear in the System Information and System Readiness dialogs.

**Contact Number:** Enter a number where TeamStation System users can call the TeamStation System administrator. The number will also appear in System Information and System Readiness dialogs.

## Dialog Page for Connection Types

Use this AdminTools dialog page to control the types of calls the system is able to make and receive.



Two connection types are available for TeamStation Systems: ISDN (using ISDN lines) and TCP/IP (using the LAN). Your system will make connections using either or both (at least one must be selected). However, each requires configuration, as explained below.

**ISDN:** Select the ISDN check box if an ISDN line is connected to the TeamStation System. Once ISDN is enabled in this dialog, select the AdminTools ISDN Setup page to complete ISDN configuration for your system. (If you are using this page for the first time, your page will display a Next button. Click it to further configure ISDN for your system.)



**Note:** Do not select ISDN if you plan to use an H.323 gateway to make ISDN connections.

**TCP/IP:** Select the TCP/IP check box if the TeamStation System has a LAN connection and if TCP/IP has been configured using Windows Control Panel > Network > Protocol. See Chapter 3 for further information about installing TCP/IP on this system.

## Dialog Page for ISDN Setup

If ISDN is enabled on the Connection Type page, you cannot make an ISDN connection until you enter the following information, which should be provided to you by your ISDN service provider.

**Administrators in Europe:** Please see the section “ISDN Information for Administrators in Europe” (page 39).

**ISDN Protocol (D-Channel):** Select the protocol and/or switch type associated with your ISDN line.

**First ISDN Number:** Enter your ISDN number. If your ISDN service provider supplied two numbers for your ISDN line, enter the first number here and enable the checkbox for a second number.

**First ISDN SPID:** Enter the Service Profile Identification Number (SPID) for this ISDN number. If you need a SPID, your ISDN provider should provide it to you.

**First Line Type:** Enter the line type for this ISDN number. Your ISDN provider should provide line type information associated with the ISDN line.

Options: Data/Voice, Data, Voice.

## ***Dialog Page for ISDN Setup (continued)***

**Line Types:** When you order ISDN service, your ISDN service provider associates a line type with each ISDN number you are assigned. There are three typical line types: Data, Data/Voice, and Voice. If your service provider assigned two ISDN numbers for your service, the two numbers can have different line types.

*Line Type for Conferencing:* If your ISDN number has the line type of Data or Data/Voice, that number can make video conferencing connections.

*Line Type for Telephone Calls:* If you want to use your TeamStation System to make normal telephone calls when it is not in a video conference, the ISDN number must have a line type of Voice or Data/Voice.

### **Click here if your service requires a second ISDN number for data or voice (telephone) calls**

The TeamStation System uses two ISDN (B) channels. Some phone company switches assign a different number to each channel. These channels act like independent phone lines for dialing purposes. The TeamStation software links them when it connects. If your phone company provided two phone numbers:

1. Select this check box.
2. Below the check box, enter the phone number, SPID (if provided), and indicate which Line Type is supported by the second number.

### **Second ISDN Number, SPID, and Line Type**

If you selected the above check box, enter this information. For explanations of these three fields, see above.

## **ISDN Information for Administrators in Europe**

**ISDN Protocol (D-Channel):** If you are setting up a TeamStation System in Europe, select **Euro-ISDN DSS-1** in the ISDN Protocol (D-Channel) field.

**Special Instructions for Four PBX Switches:** Is your TeamStation System connected to one of the following PBX switches?

- Alcatel
- Matra
- Hicom 100
- Philips

**Dialog Page for ISDN Setup (continued)**

If your TeamStation System is connected to one of these switches, you must complete an extra step in configuring your system for ISDN. (If you fail to take this extra step, it is possible that you will not be able to make outgoing calls.)

- Finish AdminTools: Complete the TeamStation System AdminTools dialogs.
- Do not Restart Yet: If you are asked to restart your system, delay doing so until you disable the calling party number, as follows:
  1. Click Start > Settings > Control Panel.
  2. Double-click the Network icon.
  3. On the Adapters tab, highlight "ITK ix1-micro 3.0 Adapter", and then click Properties.
  4. Click Phone Numbers.
  5. Click Advanced.
  6. Click the "Calling Party Number Disable" box to select it, as shown below:

**Phone Number / Service Profile ID**

Phone Number 1: 01793654321 Data/Voice  
 SPID 1:  
 Additional Numbers: Use as primary number

Phone Number 2: Data/Voice  
 SPID 2: Report as phone number 1   
 Additional Numbers: Use as primary number

Calling Party Number Disable

Help  
 Phone number (Directory Number)

Normal << OK Cancel

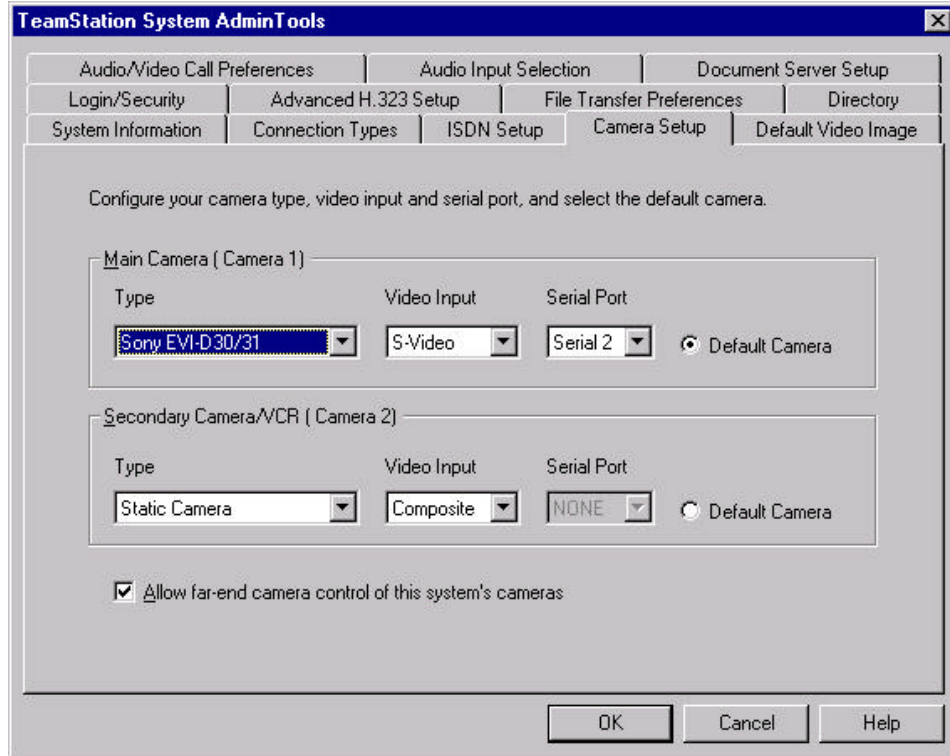
***Dialog Page for ISDN Setup (continued)***

**Getting More Information:** For more information about connectivity issues specific to Europe, access technical document 8188, which discusses PBX and country network issues. To find this document on the Internet:

1. Go to the Intel Customer Support site on the Internet at <http://support.intel.com/>.
2. Click Search at the top of the page.
3. In the keyword field, type “8188” and then click Search.

## Dialog Page for Camera Setup

Use this AdminTools page to configure your camera type (including VCR), serial port, and default camera.



**Video Inputs:** The TeamStation System ships with a motorized camera normally connected to the Camera 1 input. You can add a second camera or VCR to the Camera 2 input. (See “Adding a Second Camera or VCR” in Chapter 3 of this manual.)

**Power on first!** For the best video, before starting the TeamStation System software, we recommend that you first turn on any camera or VCR that will be used in a conference.

**On-screen controls:** Note that the TeamStation System only supports on-screen camera controls for the camera type that shipped with the TeamStation System. If you connect another motorized camera, you can use its hand-held remote control device to control it, but no on-screen controls will be present. For this reason, you should select “Static Camera” in the Camera Type field when you install a motorized camera other than the one supplied with the system.

**Dialog Page for Camera Setup (continued)****Main Camera Section**

The Main Camera by definition is the camera that is plugged into the Camera 1 connector at the back of the TeamStation System.

**Type:** Select the type of camera that is connected to the Camera 1 connector. (The TeamStation System ships with the Sony, which we recommend be connected as the Main Camera.)

Options: No Camera, Static Camera, Sony EVI-D30/EVI-D31.

**Video Input:** For the Sony camera, select S-Video. For other video inputs, consult the device's user guide to determine the input type.

Options: S-Video, Composite.

Here is what S-Video and Composite jacks look like.



Composite (RCA-type) jack



S-Video jack

**Serial Port:** If you have the Sony camera selected as the Camera Type, use this field to specify the serial port your camera control cable is connected to. The field is only enabled when you select the Sony camera. (Serial 2 is the factory setting.)

Options: NONE, Serial 1, Serial 2.

**Default Camera:** Select this option if you have more than one camera connected to the TeamStation System and you want the TeamStation software to display the video from the Main Camera at start up. Each time you end a call, the TeamStation System switches back to the default camera. (Note that users can switch between camera inputs by using the TeamStation System's Video Options menu from the main user interface.)

**Secondary Camera/VCR Section**

The Secondary Camera by definition is the camera (or VCR) that is plugged in to the Camera 2 connector at the back of the TeamStation System. (See "Adding Peripherals to the System" in Chapter 3 of this manual.)

**Type:** Select the type of camera that is connected to the Camera 2 connector. You can also connect a VCR to this input for playing back recorded video.

Options: No Camera and No VCR, Static Camera, VCR, Sony EVI-D30/EVI-D31.

**Video Input:** For the Sony camera, select S-Video. For other video inputs, consult the device's user guide to determine the input type.

Options: S-Video, Composite.

**Serial Port:** If you have the Sony camera selected as the Camera Type, specify the serial port that your camera control cable is connected to. The field is only enabled when you select the Sony camera.

Options: NONE, Serial 1, Serial 2.

### **Far-End Camera Control Section**

**Allow far-end camera control of this system's cameras:** Deselect this option if you want to restrict control of the camera to the near-end (local) conference site.

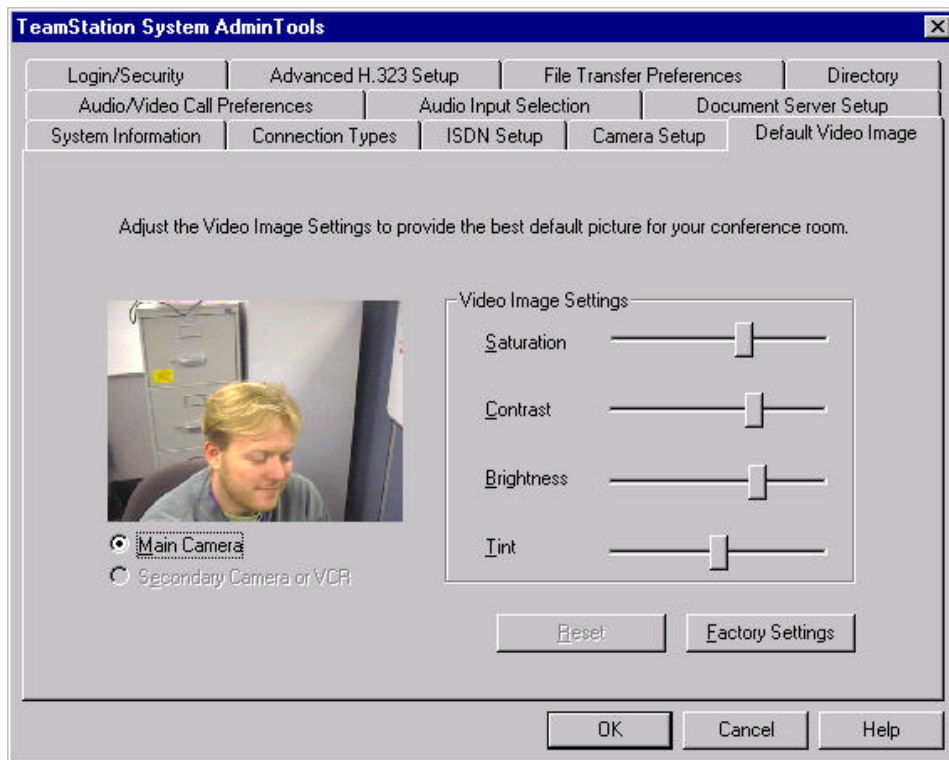
***Dialog Page for Camera Setup (continued)***

**Default Camera:** Select this option if you have more than one camera (or a camera and a VCR) connected to the TeamStation System and you want the TeamStation software to display the video from the Secondary Camera or VCR at start up. Each time you end a call, the TeamStation System switches back to the default camera. (Note that users can switch between camera inputs by using the TeamStation System's Video Options menu from the main user interface.)

## Dialog Page for Default Video Image

Watch the video window on this AdminTools page and set default values for the video image controls. The values you set here are used as defaults for the main TeamStation System video image.

When the TeamStation System is first started, these default settings are used for the video image. Users can then adjust the Saturation, Contrast, and Brightness of a TeamStation System using the on-screen Video Image Settings (accessible from the Video Options menu). However, whenever users select the Reset button from the on-screen Video Image Settings, their video image is changed to match the default settings created here.



**Saturation:** Move the slider to control the intensity of the color.

**Contrast:** Move the slider to control the degree of difference between the lightest and darkest parts of the image.

**Brightness:** Move the slider to control the intensity of the image.

**Tint:** Move the slider to control the shades of color in the image. (Tint cannot be changed from the main user interface.)

**Camera Selection:** If you are using two cameras(or a camera and a VCR), the image controls can be set independently for each camera. Select a camera and set the controls for the best image. Select the second camera (or VCR) and set the controls again for the best image.

When users of the TeamStation System switch between cameras (or between camera and VCR), the TeamStation System remembers the control settings for each camera.

**Reset:** This option is not available until you move one of the image sliders. Click Reset to go back to the settings you started with.

**Factory Settings:** Click Factory Settings to return the image settings to their factory settings.

## Dialog Page for Advanced H.323 Setup

Use this AdminTools page to set up the system to use the H.323 protocol. You should do this only if you are certain that the other system(s) in the conference are H.323-compliant.

### H.323 Proxy Section

Use fields in this section if your network has a firewall and the TeamStation System will be making LAN TCP/IP calls to another H.323 endpoint outside the firewall. Note: Using an H.323 proxy requires a gatekeeper.

**Use H.323 Proxy for outgoing calls:** Select this check box if your TeamStation will be making LAN TCP/IP calls to an endpoint outside a firewall.

**Proxy Address:** Type the address of your H.323 proxy server. A typical format is proxy.company\_name.com.

**H.323 Proxy Exclusion:** Type the local domain names that should bypass the H.323 proxy. Use a semicolon (;) to separate domains if you need to specify more than one. Calls made to these addresses will connect directly without going through the H.323 proxy server.

## Dialog Page for Advanced H.323 Setup (continued)

### Directory Server (ILS) Section

This section lets you specify an Internet Locator Services (ILS) online address list, or directory, where your TeamStation System's name, email address, TCP/IP address, and ISDN number are advertised. Telephone numbers are not listed.



**Note:** Your ILS is inaccessible from outside your network if a firewall is part of your network configuration.

Each time you run the TeamStation System, it appears in the ILS directory. Other ILS users can look up your conference address or number quickly. When you exit from TeamStation System, your ILS entry is removed.



**Note:** The TeamStation System user interface does not itself support ILS directory browsing.

**Register my Information on a Directory Server:** Select this check box to store your name, email address, TCP/IP address, and ISDN number in an ILS address list on a directory server.

**Directory Server Name:** Type the name of the directory server that has the address list you want to use to advertise the TeamStation System address and number information throughout the network.

### H.323 Gateway Preferences Section

**Use H.323 Gateway for outgoing ISDN calls:** Select this check box if this TeamStation System does not have an ISDN line connected and you will be making H.320 ISDN calls through an H.323 gateway. If a gateway is used, regular ISDN video calls are disabled for your TeamStation System. For more information on gateways, see Chapter 3.

**Default Prefix:** When you make a LAN-endpoint-to-ISDN-endpoint call through a gateway, you must enter a gateway prefix in front of the phone number or address you are calling. This prefix determines which gateway the call should be routed through. The prefix you use depends on your gateway configuration. See your gateway administrator for this information.

Specifying your default gateway prefix here will cause the TeamStation System video call dialog to add the prefix to the address for outgoing video calls.

## ***Dialog Page for Advanced H.323 Setup (continued)***

### **H.323 Gatekeeper Preferences Section**

Gatekeepers allow the use of an alias and an extension. An alias is an alternate name that others can use to call this TeamStation System. An extension is an alternate number (typically a phone extension) that others can use to call this TeamStation System. Incoming H.323-H.320 (TCP/IP-ISDN) gateway calls require an assigned extension to route the incoming call to a particular conferencing system. (H.323-H.320 gateways cannot use aliases.) For more information on gatekeepers, see Chapter 3.

**Alias (H.323 ID):** Type the alias that defines your TeamStation System. An alias is any unique alphanumeric string such as:

room\_name@company\_name.com

Other character or numeric identifiers are acceptable. An alias can only be called from an H.323 system, whereas ISDN H.320 calls through gateways must use extensions.

**Extension (E.164 Address):** Type the extension that defines this TeamStation System. An extension is any unique numeric string (0-9, # and \*) such as the phone extension of the room. Other numeric identifiers are acceptable.



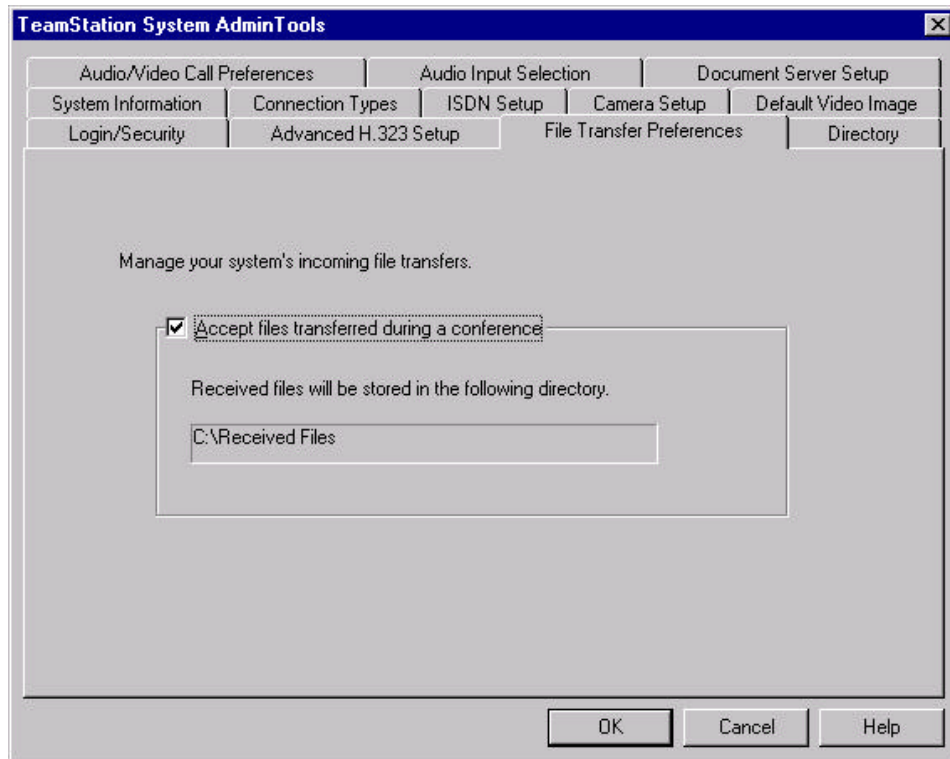
**CAUTION:** The alias and extension for a TeamStation System must be unique. If they are not, others may not be able to contact the system using your network. When duplicate aliases or extensions are encountered, the gatekeeper always resolves and directs the incoming call to the first of the duplicate aliases or extensions that logged on to the network.

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## Dialog Page for File Transfer Preferences

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The File Transfer Data Tool enables TeamStation System conference participants to transfer files to and receive files from others during a conference. You can enable or disable all incoming files using this AdminTools page.

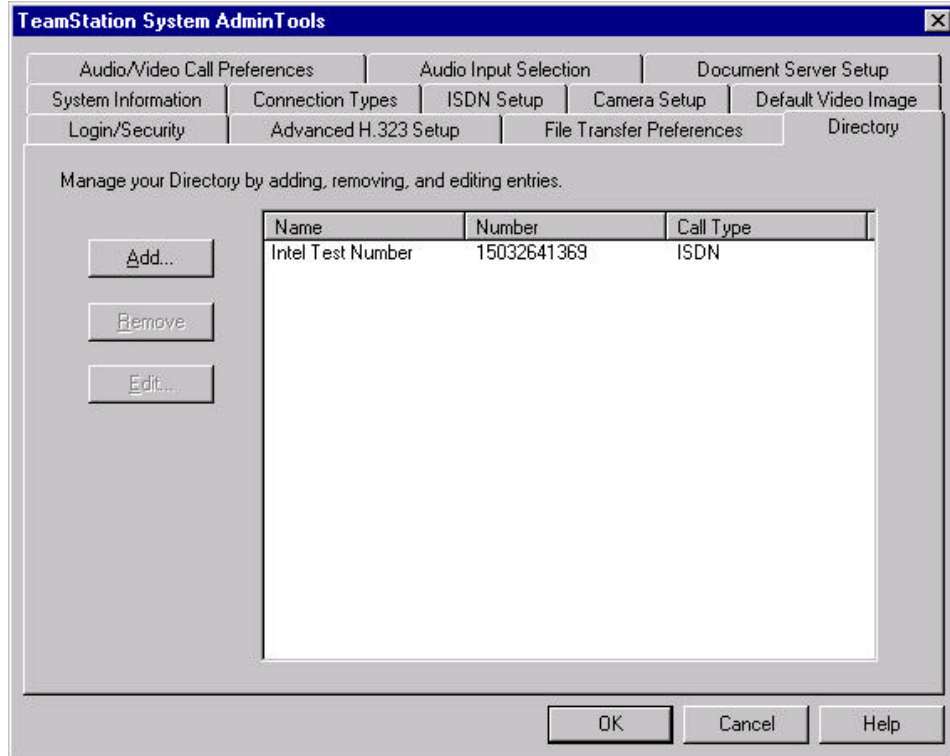


**Accept files transferred during a conference:** Select this check box if you want the TeamStation System to be able to receive files during a conference. If this option is not checked, file transfers are **not accepted** by the TeamStation System.

**Received files will be stored in the following directory:** The dialog page displays C:\Received Files as the directory where any incoming file transfers will be stored. You can view the files in the Received Files directory by clicking the Meeting Documents icon displayed at the top of the Start menu.

## Dialog page for Directory

Use this AdminTools page to manage (add, remove, edit) the numbers that are stored for use by the TeamStation System.



This Directory page in AdminTools is the only direct way to access the Directory. TeamStation System users at the end of a call can add a number that was dialed, but to type in a list of numbers, remove numbers, or edit numbers, you must use this page.

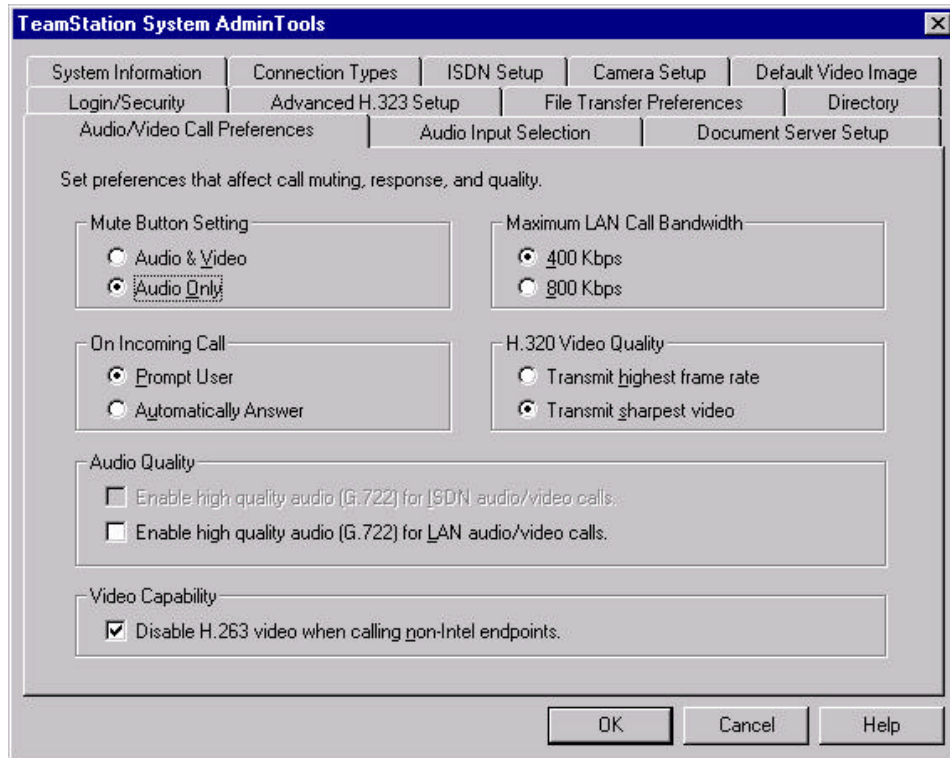
**Add:** Click the Add button to display the Add Directory Entry dialog. Use the dialog to add new ISDN, LAN, and telephone numbers to the Directory.

**Remove:** Click the Remove button to delete Directory entries. When you select a number in the Directory, this button becomes active.

**Edit:** Click the Edit button when you want to change a Directory entry. When you select a number in the Directory, this button becomes active.

## Dialog Page for Audio/Video Call Preferences

Use this AdminTools page to control the preferences for your calls.



### Mute Button Setting Section

Muting turns off the audio or the audio and video sent to other systems. This section controls the action when the Mute button is clicked on the TeamStation System main user interface. Audio will always be muted; you can choose whether the video image will be turned off as well.

**Audio & Video:** Select this to mute both audio and video when a user clicks the Mute button on the TeamStation System display.

**Audio Only:** Select this to mute only audio when a user clicks the Mute button on the TeamStation System display. This is the default selection.

### On Incoming Calls Section

With this section you can control whether the TeamStation System automatically answers incoming calls or asks users whether they want to answer each incoming call. To have the system immediately answer all incoming calls, select “Automatically Answer.”

**Dialog Page for Audio/Video Call Preferences (continued)**

**Prompt User:** Click this if you want to let users choose to accept the call or not. With this selected, the TeamStation System displays the Receive Call dialog box and continues ringing until the call is answered or cancelled. Depending on the type of system being called, the dialog may give information about the calling system.

**Automatically Answer:** Click if you want the system to ring once and then answer the call automatically.



**CAUTION:** Keep in mind that if you enable Automatically Answer, the TeamStation System can receive and accept a call in an empty room or during a meeting that is not expecting an incoming call.

**Maximum LAN Call Bandwidth Section**

**400 Kbps:** Click to use the default bandwidth for LAN calls.

**800 Kbps:** Click to use 800 Kbps to improve video performance (increased frame rate) at the expense of increased LAN traffic.

**H.320 Video Quality Section**

**Transmit highest frame rate:** TeamStation System will choose to send higher frame rate (up to 30 frames per second) over sharper video.

**Transmit sharpest video:** TeamStation System will choose to send sharper video over higher frame rate.

**Audio Quality Section**

**Enable high quality audio (G.722) for ISDN audio/video calls:** This field is for future use and is not functional at this time.

**Enable high quality audio (G.722) for LAN audio/video calls:** Select to improve audio for LAN audio/video calls. This causes a small reduction in video quality. This is the default setting.

**Video Capability Section**

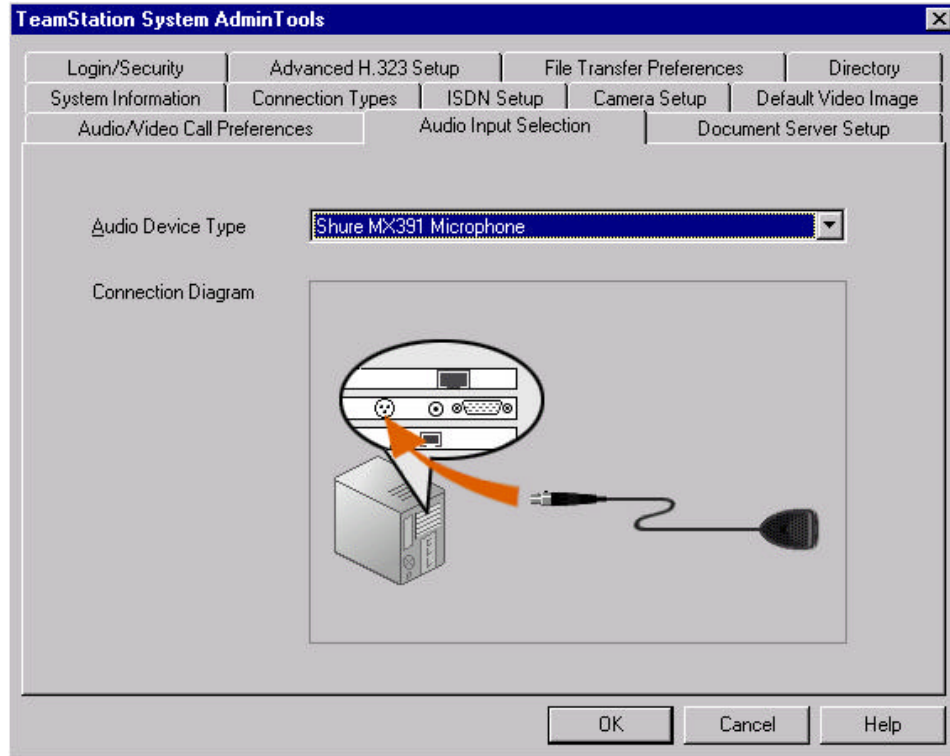
**Disable H.263 video when calling non-Intel endpoints:** Leave this box unchecked to enable H.263 capabilities for all ISDN conferences. This is the default setting.

If you have trouble making ISDN connections to non-Intel conferencing systems, check this box. If you check the box, the TeamStation System:

- Restricts the use of H.263 to conferencing between Intel systems.
- Uses the H.261 protocol (an earlier video protocol) with non-Intel systems.

## Dialog Page for Audio Input Selection

Use this AdminTools page to select an audio input for your TeamStation System.



**Audio Device Type:** By default the microphone that ships with the TeamStation System is selected. The TeamStation System uses its built-in Acoustic Echo Cancellation (AEC) capability with this microphone to operate in most conference rooms. If you want to use another audio source for conferencing, select the appropriate device type and install the device as shown in the associated connection diagram.

Options: Shure\* MX390/MX391 Microphone, Line Level Device with AEC, Line Level Device without AEC

**What is Acoustic Echo Cancellation (AEC)?** Acoustic echo cancellation is a signal processing method that attempts to remove objectionable echoes from an audio input signal. For example, conference microphones can pick up audio echoes from the conferencing system speakers. Without AEC, people at the remote endpoint in a conference will hear a delayed replica of their own voices every time they speak.

**When is AEC needed?** AEC is needed when audio is in an "open" environment, because echoes from the conference audio speakers enter the conference microphone. In a closed environment (such as when a conference member uses a headset that isolates the microphone from the speakers), echo cancellation is not needed.

The TeamStation System has AEC processing that is activated if you use a "passive" open audio device. It is turned off if you use an "active" open audio device with its own built-in AEC capability.

### **What is the difference between active and passive open audio devices?**

*Passive open audio devices.* These devices contain no special echo cancellation hardware and must use the TeamStation System AEC processing. Example: a microphone mixer and amplified multimedia speakers.

*Active open audio devices.* These devices have acoustic echo cancellation built in. They do not require TeamStation System AEC processing to operate correctly.

### **Which option should I choose?**

- If you want to use a setting that operates well in many conference rooms with the supplied microphone, select "Shure MX391 Microphone" (the factory default setting).
- If you want to use your own audio source that has built-in AEC (so that you do not need the TeamStation System's AEC capability), select "Line Level Device with AEC." Note that your source must provide line level outputs (not mic level outputs) to interface properly with the TeamStation System.
- If you want to use your own audio source and you want to use it with the TeamStation System's AEC capability, select "Line Level Device without AEC." Note that your source must provide line level outputs (not mic level outputs) to interface properly with the TeamStation System.

**Web information:** See the Intel Team Station System Web site for information on audio input devices for TeamStation System:  
<http://www.intel.com/proshare/conferencing/deploy/periph.htm>

## Dialog Page for Document Server Setup

Each TeamStation System ships with Document Server software. When Document Server is enabled on a TeamStation System using the Document Server Setup page in AdminTools, people can access the Document Server Web address (URL) with a browser from their desktop systems. They can store files on Document Server for later retrieval and display in a conference. (See Chapter 5 for information about Document Server).

If multiple TeamStation Systems are on the same LAN, each can run its own Document Server or multiple TeamStation Systems can share one Document Server. But, we recommend that only one Document Server be enabled on a LAN, so that you only have to give users one Document Server address and only have to ensure that one TeamStation System is always up and running.

If you want this TeamStation System to use another system's Document Server, use this Document Server Setup dialog page to disable the local Document Server and specify the URL of the Document Server that is to be associated with this TeamStation.

**TeamStation System AdminTools**

System Information | Connection Types | ISDN Setup | Camera Setup | Default Video Image  
 Login/Security | Advanced H.323 Setup | File Transfer Preferences | Directory  
 Audio/Video Call Preferences | Audio Input Selection | Document Server Setup

Configure this system for Intel TeamStation Document Server access.

Document Server not used.  
 Document Server resides on ANOTHER TeamStation System or web server.  
 Specify the IP Address or DNS name.  
  
 Document Server resides on THIS TeamStation System.

---

Users can access the Document Server at this URL path.

OK Cancel Help

### ***Dialog Page for Document Server Setup (continued)***

**Document Server not used:** Select this if a Document Server won't be used with this TeamStation System (for instance, if this TeamStation System has no TCP/IP LAN access).

**Document Server resides on ANOTHER TeamStation System or web server:** Select this if you want users of this TeamStation System to use a Document Server running on another TeamStation System. Specify the IP address or DNS name of the other Document Server system (for example, 123.123.123.123 or host.company.com).



**Note:** To display the LAN address of a TeamStation System, start the TeamStation System. Then select System Information from the Video Options menu.

**Document Server resides on THIS TeamStation System:** Select this if you want Document Server to run on this system. This and other systems can then access shared Document Server documents stored on this TeamStation System.

**Users can access Document Server at this URL path:** When you have associated this TeamStation System with a Document Server by your selection of one of the two options immediately above, this address is filled in automatically. Give this URL to people who will use Document Server with this TeamStation System. They can use the URL with their Internet browsers to open the Document Server Web page where they can create and access an account. They can store documents in their accounts for use during an upcoming meeting.

## Dialog Page for Login/Security

TeamStation System administrators can use Windows NT User Manager to create security profiles for users. This AdminTools page provides an alternative for you to create a default TeamStation System user. The TeamStation System has a standard user profile that you can use to simplify user login. (This profile has the same permissions as the standard Windows NT Users group, plus our profile additions needed to secure the key TeamStation System files.)



**Note:** The *Quick Reference Card* supplied with the TeamStation System has a place for you to display login information for users of the TeamStation System.

The screenshot shows the 'TeamStation System AdminTools' window with the 'Login/Security' tab selected. The window title bar includes 'TeamStation System AdminTools' and a close button. The tab bar contains: Audio/Video Call Preferences, Audio Input Selection, Document Server Setup, System Information, Connection Types, ISDN Setup, Camera Setup, Default Video Image, Login/Security (selected), Advanced H.323 Setup, File Transfer Preferences, and Directory. The main area contains the text: 'User login provides limited access to the Window NT system and TeamStation System.' Below this is a group box with the following options:

- Use TeamStation System User Login
- User name:
- Password:
- Inform user of above login information

At the bottom right are buttons for 'OK', 'Cancel', and 'Help'.

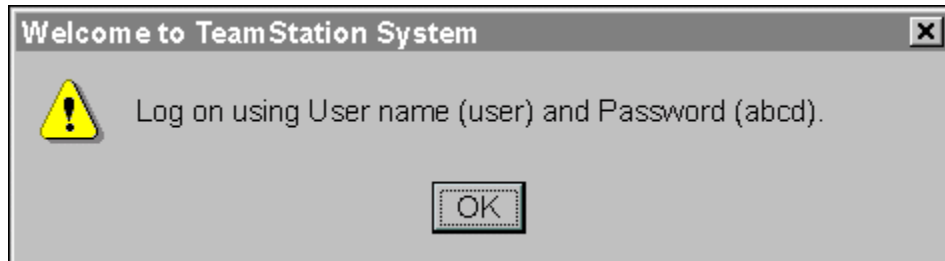
**Use TeamStation System User Login:** Click the check box if you want to use the standard TeamStation System user security profile.

**User name:** Type the Windows NT User ID that will be used for logging into the TeamStation System. (The default User ID is “user”.)

**Password:** Type a password that your users must enter. The default password is a carriage return (Enter key).

***Dialog Page for Login/Security (continued)***

**Inform user of above login information:** Select if you want a message box that displays the above User name and password when a user begins the login process on the TeamStation System. The dialog will appear when users enter Ctrl + Alt + Delete in response to the Windows NT login dialog. For example:



## Chapter 5

# TeamStation Document Server

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The Intel TeamStation System is designed to extend beyond videoconferencing, to enable electronic meetings that are rich in data, as well as voice and video. A key feature of the system, when connected to the LAN, is easier electronic access to the documents needed in meetings.

Floppy disks have too little capacity, network operating system logins can be confusing to the non-technical users, and administrators use time mapping new users and systems to the correct network drive, which, on a large enterprise system, sometimes can prove difficult. In the face of this, users resort to email or the fax machine to get their documents where they need to be.

In addition, easy electronic access to the documents is also important for in-room presentations.

The TeamStation Document Server provides easy access to documents to be used in a meeting/video conference. Included on every TeamStation System, Document Server provides an easy and secure web interface for storage and retrieval of electronic documents. At the desktop, users copy files that will be used in the meeting onto Document Server. In the TeamStation room, the files can be accessed before or during the conference.

**Supported browsers:** Document Server is qualified for use with Microsoft Internet Explorer\* versions 3.02 and 4.0, and Netscape Navigator\* versions 3.0 and 4.0. Other browsers may not work with Document Server.

### Using Document Server

**Presentation and Conferencing:** The Intel TeamStation System is a combination presentation and conferencing system. Use it to present slides and documents in your conference room. If you are connected to others in a conference, you can share slides or documents with those at the far conference endpoints. Document Server is included with TeamStation Systems to make it easy to retrieve slides and documents for display.

**Why Document Server is Needed:** If you want to display slides or documents in a conference, you must have access to the files. But standard methods for getting files to the presentation/conferencing system have drawbacks:

- **Diskettes:** Diskettes often have too little capacity and users forget them.
- **Network drives:** Having users store their files on network drives means that they must be able to log in to the drives from the presentation/conferencing system. But network operating system logins can be confusing to non-technical users. And administrators will have to continue to give time to mapping the room system to drives accessible to new users.

Document Server solves these problems by providing an easy and secure Web interface for storage and retrieval of electronic documents.

**Overview of Document Server Usage:** At their desktops, those who will be making presentations copy their documents to Document Server via a Web browser. When they get to your TeamStation System room, their documents are accessible with Document Server.

- For an in-room presentation, they access and display the documents that are stored on Document Server using a browser available on the TeamStation System.
- For sharing in a video conference, from the TeamStation System interface, they add documents from Document Server to the “Documents to Share” window in the Preload Wizard, and then click the Share button to display and share a particular document.

## Guidelines for Using Document Server

### *Initial Setup*

1. **Enable a Document Server (Administrator Task):** After a TeamStation System is initially configured, the system administrator should use the Document Server Setup page in the AdminTools (see Chapter 4) to activate the local Document Server or to affiliate the system with another system's Document Server.
2. **Distribute Document Server URL (Administrator Task):** An important task for the TeamStation System administrator or meeting coordinator is sending the URL for Document Server to conference presenters. (The URL is shown on the Document Server Setup page in the TeamStation System AdminTools.)

3. **Ensure Applications are Installed (Administrator Task):** Another ongoing task for the administrator is to determine the programs (applications) conference presenters will need. Install any programs that are not already available on the TeamStation System. For example, if presenters want to display Microsoft PowerPoint\* slides, the PowerPoint program must be installed on the TeamStation System hard drive.

### *Before a Conference or Meeting*

1. **Display Document Server Web Site (Presenter Task):** From their desktops, presenters start their Web browsers and use the Document Server URL to display the Document Server Web site.
2. **Add Documents to Document Server Account (Presenter Task):** New users click the New User button and create a Document Server account (they enter a User Name and a Password, if a password is desired). After the User Name and Password ( if any) are typed in, the user can browse the desktop hard drive and/or network drives to select documents that will be used in the meeting. These documents are copied to Document Server. To ensure security, the browser should then be closed.



**Note for administrators:** Files copied to a Document Server account are stored on the Document Server system in a user directory under the following directory (where XXX is an arbitrary set of characters):

C:\Apache\WWWRoot\DocumentServer\UsersXXX

The user directory name is created using the User Name of the Document Server account.

### *In the Meeting Room: For an In-Room Presentation*

1. **Launch a Browser:** There is a Document Server shortcut in the Start menu. Selecting it launches the active Internet browser and displays the Document Server home page. (The TeamStation System ships with the Microsoft Internet Explorer browser installed.)
  - ▶ **Administrator Task:** So that browser users can return easily to Document Server, ensure that the Document Server URL is saved in the browser Favorites or Bookmarks list.
2. **Display document list:** Enter User Name and Password (if any).
3. **Select and display document:** Select a document for presentation. Depending on the document type, the document will be displayed either in the browser window or in its associated application.
4. **Close the browser or application.** Note that a copy of the document may still reside in the browser's cache.

*In the Conference Room: For Sharing in a Conference*

- **Preload Documents:** If time permits before the conference begins, the documents that are to be shared should be loaded for sharing during the conference. To accomplish this, select the Preload Documents button on the TeamStation System interface. This starts the Preload Wizard.
  1. **Add Local Documents:** If any documents have been copied to the TeamStation System hard drive or if any documents are available from a floppy drive, the first page of the wizard lets you preload them.
  2. **Add Document Server Documents:** On the next wizard page (the Document Server page), the presenter selects the Access button and types the User Name and Password (if any). From the document list, the presenter can add Document Server documents for the presentation.
  3. **Preview Documents:** The wizard lets the presenter preview any documents.
- **Add Documents After the Conference Connection:** If time does not permit preloading documents before the conference begins, the documents that are to be shared can be added after the conference starts. To add documents, select “Add Documents” on the left side of the TeamStation System window.
  1. **Add Local Documents:** If any documents have been copied to the TeamStation System hard drive or if any documents are available from a floppy drive, the first Add Documents dialog lets you add them.
  2. **Add Document Server Documents:** On the next screen, the presenter selects the Access button and types the User Name and Password (if any). From the file window, the presenter can add Document Server documents for the presentation.

*After the Conference*

- **Update Document Server Account with Changed Documents:** Document Server documents that were changed during the conference are stored in a local directory on the TeamStation System. Users will probably want to update their Document Server accounts with these documents so that they can later copy them from Document Server to their desktop system. To update a Document Server account at the end of the meeting, do the following:
  1. **Start browser:** Use the Start menu or desktop icon to start a Web browser.

2. **Access Account:** From the browser Favorites or Bookmarks menu, link to Document Server. Enter User Name and Password.
3. **Browse to C:\Document Server Files.**
4. **Add files.** Replace files in the account with the updated files from the meeting.

Now the user can access the same account from the desktop and copy the updated files from Document Server.

- **Remove Document Server Documents that Were Shared:** Any Document Server documents that were shared during the conference are stored in a local directory on the TeamStation System. Delete these documents to prevent others from using them and to prevent the buildup of unwanted files on the hard drive. A shortcut in the Start menu provides easy access to the directory: Start > Meeting Documents > Document Server Files.

## Administering Document Server

This section contains instructions for maintaining TeamStation System Document Server directories and user accounts.

### Removing a User Account

User accounts exist as directories under the following directory (where XXX is an arbitrary set of characters):

C:\Apache\WWWRoot\DocumentServer\UsersXXX

The user directory name is created using the User Name of the account. To remove a user account, simply delete the user directory.

### Resetting a User Account Password

The user account password is stored in the user directory as an encrypted file named `_USERINFO_`. Since the file is encrypted, the password cannot be determined. Delete the password file and tell the user that the password is no longer set. To create a new password, the user should:

1. Open the Document Server “Access Your Account” (Home) Page with a browser.
2. Enter the User Name but do not enter a Password.
3. Select the Change Password button.

For user directory information, refer to Removing a User Account.

## **Document Uploads Continually Fail**

If document uploads continually return error messages to the users, the Apache service should be restarted.

## **Slow Response Time**

If the Apache server response time to Document Server requests becomes noticeably long, the Apache server should be restarted. (This applies to slow response to requests from a Web browser as well as from the TeamStation System Preload wizard.)

## **Running out of Server Disk Space**

There is no automatic deletion of user documents from Document Server. If disk space gets low, ask users to remove unneeded documents from their Document Server accounts using the Remove buttons on their Document List page. If this does not free enough space, you can delete the files from the user directories manually.

## **Emptying the Cache Directory**

If a file upload fails, a temporary file may be left undeleted in the directory "`\Apache\WWWroot\DocumentServer\Cache`". You should periodically check this directory for stranded files, and delete any files that are more than a day old.

## **Maintaining Document Server Security**

The "`\Apache`" directory tree should be accessible only by the Administrators, Creator Owner, and System groups. By default, TeamStation Systems are set up with such directory restrictions. This prevents user files from being accessed by unauthorized TeamStation System users. Access by Administrators is necessary to allow them to perform maintenance on Document Server.

## **Apache HTTP Server Installation**

Document Server is a CGI extension to the Apache HTTP server. The Apache HTTP Server is installed as a Windows NT service. The Apache service can be stopped or started at any time from the Control Panel Services dialog.

To uninstall or install the Apache service on a TeamStation System:

- 1. Launch the AdminTools** from the Start menu.
- 2. Select the Document Server Setup tab.**

**3. Uninstall:** Select either of these options:

- Document Server not used
- Document Server resides on ANOTHER TeamStation System or Web server

**Install:** Select this option: Document Server resides on THIS TeamStation System.

For more information about the Apache HTTP Server, visit this Web site:

<http://www.apache.org>

### **Restarting the Apache HTTP Server**

The easiest way to restart the Apache server is to reboot the TeamStation System where Document Server is installed. You can also use the Control Panel Services dialog to stop and then start the Apache service.

### **Enabling Document Server on More than One TeamStation System**

If Document Server activity begins to significantly degrade the TeamStation System's performance, you can enable Document Server on more than one TeamStation System. If you do so, you must inform users which Document Server URL to use for conferences with each TeamStation System. (You can only use documents stored on a Document Server that is affiliated with the conference TeamStation System. To see—or change—the affiliation of a Document Server with a particular TeamStation System, go to the Document Server Setup page in that system's AdminTools dialog. See Chapter 4.)



# Appendix A

## Installation and Configuration Notes

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Here is information that supplements instructions on the installation poster:  
Setting up the Intel TeamStation System.

### Step 1–Unpack

As you unpack the shipping containers, some of the packages have numbered labels on them. These packages contain all the parts, cables, etc., that are to be used in the step with the corresponding number shown on the installation poster. Get all the packages together for each step.

(After the installation is complete, there will be extra cables; these are for connecting optional peripherals. Store them for future use.)

After unpacking the boxes, place the personal computer where it will be used. Some users place the system on a cart to move from room to room.

See the following Web site for information about a recommended rollabout cart:

<http://www.intel.com/proshare/conferencing/products/teamdata.htm>



**Note:** You will need an ISDN connection, a network connection, or both in each room where you intend to use the system. The TeamStation System must be reconfigured using AdminTools each time it is connected to a different line.

### Placement of the TeamStation System in a Conference Room

- **Security:** If security is a concern, place the monitor so that it is not visible from the door or windows.
- **Sound:** Provide sound-absorbent material (walls, furniture) where possible to reduce echoes. This also usually serves as a good background for the video.
- **Reflections:** Consider where the whiteboard or any other shiny surfaces are located. Glare can cause silhouetting, which causes the camera to send a signal of reduced quality, making the video image hard to see. Also consider the furniture; avoid chromed or otherwise shiny pieces.
- **Lighting:** Lighting is important for producing the best video image; consider installing “2-stage” fluorescent lighting.

## Step 2—Set up the Computer and Monitor

In this step, you make most of the connections for the computer, including the wireless keyboard/mouse, monitor (video and audio), network, and ISDN line. (Don't forget the power.)

If you are using the system with a PBX (private business exchange) in North America, use the termination resistor supplied with the system. Using your ISDN cables to connect the resistor, make sure that the computer-to-resistor cable is no longer than 18 inches. The resistor-to-ISDN cable can be up to 15 feet long. See the installation poster for an illustration.

If you are using the ISDN line directly (no PBX), use an NT-1 box in North America (not supplied with the system) on the ISDN line.

## Step 3—Set up the Camera

- **Lens Cover:** Make sure you remove the plastic lens cover.
- **Velcro\*:** Use the Velcro tape in the camera box to attach the camera securely to the monitor.

## Step 4—Set up the Audio

### Microphone Placement Recommendations

- **Distance from Speakers:** Placing the microphone too close to the multimedia speakers (less than two feet) can result in decreased performance.
- **Place Equidistant from Presenters:** Place the microphone in the center of the area where presenters will be located during conferences.
- **Avoid Noise Sources:** Improve audio quality by locating the microphone away from sources of noise, such as PC or monitor-cooling fans.
- **Cable Safety:** When you place the microphone cable, ensure that no one will trip over it.

## Step 5—Gather ISDN Information

Collect the information from your ISDN service provider. You'll need to know your ISDN number(s), the switch type, type of provisioning (data, voice, or data/voice), and possibly the Service Profile Identifier (SPID)<sup>1</sup>.

It also is helpful to get the numbers of the system(s) that you know you'll be calling. You can enter these during the configuration of the system.

## Step 6—Power On and Configure Windows NT

In this step you configure the system by adding user accounts and passwords. (See page 15 for more information.)

## Step 7—Configure the Intel TeamStation System

In this step, use the AdminTools to enter identity, location, and connection information. This is where you enter the information that you gathered from your ISDN service provider.

If you know of numbers that you will be calling, you can enter them into the TeamStation System Directory during this step. You can also use AdminTools later to add Directory entries.

## Step 8—Make a Video Call

In this step, you call the Intel test number. If all has been done correctly, you will have full video and audio.



**Caution:** Your TeamStation System is supplied with Internet Explorer 3.02 installed. Do **not** install other versions of Internet Explorer. Installing other versions can cause problems with the system video drivers and with NetMeeting\* settings.

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<sup>1</sup> SPIDs are not needed in Europe



# Appendix B

## License and Warranty

### INTEL SOFTWARE LICENSE AGREEMENT

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# Index

## A

- accounts
  - Document Server, 65
  - logon, 14user, 15
- Acoustic Echo Cancellation (AEC), 55
- Acrobat, 10, 13
- adapter, camera, 23
- Admin Tools
  - running, 34
  - starting, 34
- administering
  - Document Server, 65
  - the system, 13
- administrator
  - account, 14
  - Name, 36
  - tasks, 7
- Administrator's Guide, 2
- AdminTools, 2, 8, 33
- Adobe Acrobat, 10, 13
- Advanced H.323 Setup, AdminTools dialog page, 18,48
- AEC, 55
- alias, 50
- Apache server, 66
- audio, problems, 30
- Audio Input Selection, AdminTools dialog page, 55
- Audio Quality, 54
- Audio/Video Call Preferences, AdminTools dialog page, 53
- Automatic Answer, 54

## B

- batteries, 11
- browser setup, 9
- browsers, supported, 61

## C

- call bandwidth, LAN, 54
- camera, 1
  - adapter, 23
  - default, 24, 43
  - problems, 30
  - second, 23
- camera control, Serial Port, 43
- Camera Setup, AdminTools dialog page, 42
- Camera Type, 43
- cart, 69
- composite video, 25
- Composite-to-S-Video Adapter, 26
- Computer Name, 35
- configuration, ISDN, 16

- Configuration Notes, 69
- Connecting a VCR for Playback, 24
- Connection Types, AdminTools dialog page, 37
- Contact Number, 36
- Contrast, 46
- Customer Support, 4
  - Web site, 29

## D

- Data, line type, 39
- Data/Voice, line type, 39
- default camera, 24, 43
- Default Video Image, AdminTools dialog page, 46
- delete
  - documents, 10
  - files, 10
- Description, computer, 35
- dialing properties, 17
- dialog pages, AdminTools, 34
- Directory, 9
  - AdminTools dialog page, 52
- Directory Server, 49
- document retrieval, 2
- Document Server, 2, 61
  - administering, 65
  - enabling, 57
  - guidelines for using, 62
  - multiple, 57, 67
  - troubleshooting, 65
  - using, 61
- Document Server Setup, 8
  - AdminTools dialog page, 57
- document storage, 2
- documentation, 2
- documents
  - delete, 10
  - preloading, 64

## E

- echo cancellation, 1
- enabling TCP/IP, 8
- extension, 50

## F

- File Transfer Preferences, 8
  - AdminTools dialog page, 51
- files, deleting, 10
- frame rate, 54

## G

- G.722 audio, 54
- gatekeepers, 19
  - alias, 50
  - extension, 50
- gateway, H.323 preferences, 49
- gateways, 17
  - prefix, 49
- guidelines for using Document Server, 62

## H

- H.261 protocol, 54
- H.263 video, disabling, 54
- H.320, 1
  - video quality, 54
- H.323, 1
  - Gatekeeper Preferences, 50
  - gatekeepers, 20
  - Gateway Preferences, 49
  - protocol, 48
  - proxy, 48
- Hardware Warranty, 74
- Help, 2, 14
- highest frame rate, 54

## I

- ILS, 49
- infrared path, 29
- installation, system, 7
- Installation and Configuration Notes, 7, 69
- Integrated Services Digital Network, 16
- Intel Customer Support, 4
- Intel TeamStation Manager, 3, 22
- Internet browser, 9
- Internet Explorer, 61
- Internet Locator Services, 49
- ISDN, 1
  - configuration, 16
  - connection type, 37
  - dialing properties, 17
  - Number, 38
  - problems, 29
  - Protocol, 38
  - Setup, AdminTools dialog page, 38
  - SPID, 38

## K

- keyboard, 1
  - problems, 29

## L

- LAN, 1
  - call bandwidth, 54
- LANDesk Virus Protect, 21

- lens cover, 70
- License, 73
- Line Type, 38
- login message box, 60
- Login/security, 8
  - AdminTools dialog page, 59
  - page, 15
- logon accounts, 14

## M

- Main Camera, 43
- maintenance, 10
  - Document Server, 11
  - hard drive, 10
- Manager, 3, 22
- Maximum LAN Call Bandwidth, 54
- MCU, 10
- microphone, 55, 70
- Microsoft Internet Explorer, 61
- monitor, 1
- mouse, 1
- Multipoint Control Unit, 10
- Mute button, 9
  - setting, 53
- muting, 53

## N

- Navigator, 61
- NetMeeting, 1
- Netscape Navigator, 61
- NTSC Television Standard, 24

## O

- On Incoming Call setting, 53
- online Help, 14
- On-screen controls, 42
- optimizing the system, 8

## P

- pages, AdminTools, 34
- PAL Television Standard, 24
- password, 14, 59
  - Document Server, 65
- PBX switches, 38, 39
- Pentium® II processor, 1
- performance monitoring, 21
- periodic maintenance, 10
- poster, 2, 7
  - prefix, gateway, 49
- preload documents, 64
- private business exchange (PBX), 70

problems  
 audio, 30  
 camera, 30  
 ISDN, 29  
 video, 30  
 prompt to answer, 54  
 protocol  
 H.261, 54  
 H.323, 48  
 providing user information, 13  
 proxy, H.323, 48

## Q

Quick Reference Card, 3, 10, 13

## R

Readiness capability, 2, 21  
 Readme file, 7  
 received files, 11  
 Received Files directory, 51  
 recovering the system, 31  
 reflections, 69  
 remote control, interference, 29  
 Restore Instructions, 3  
 restoring the system, 31  
 room layout, 7  
 running Admin Tools, 34

## S

Saturation, 46  
 SECAM Television Standard, 24  
 second camera, 23  
 Secondary Camera, 43  
 Security Guidelines, 20  
 security profiles, 59  
 Windows NT, 15  
 Serial Port  
 camera control, 43  
 Sony camera, 43  
 Service Profile Identification, 38  
 sharpest video, 54  
 slow  
 conference performance, 11  
 response time, 66  
 sound, 69  
 SPID, 38  
 starting, AdminTools, 34  
 Supported browsers, 61  
 S-Video, 25  
 switches, 38  
 system administration, 13  
 System Administrator Name, 36  
 System Information, AdminTools dialog page, 35  
 system recovery, 31

## T

tabs, AdminTools, 34  
 tasks, administrator, 7  
 TCP/IP, 8  
 connection type, 37  
 support, 18  
 TeamStation Manager, 22  
 Telephone Not Configured message, 29  
 television as monitor, 28  
 trackball, 1  
 transmit  
 highest frame rate, 54  
 sharpest video, 54  
 troubleshooting, 29  
 Document Server, 65  
 Type, camera, 43

## U

URL, Document Server, 57  
 user  
 accounts, 15  
 applications, 9  
 information, 13  
 interface, 1  
 Login, 59  
 Manager, Windows NT, 59  
 name, 14, 59  
 User Quick Guide, 3, 10, 13  
 using Document Server, 61

## V

VCR, 23, , 24, 43  
 audio, 26  
 Velcro tape, 70  
 video  
 capability, 54  
 image, 46  
 input, camera, 43  
 inputs, 42  
 problems, 30  
 quality, ISDN, 54  
 virus protection, 9, 21  
 voice, line type, 39  
 volume, audio, 30

## W

Warranty, 73  
 Web  
 address, data sheet, 3  
 browser, 2  
 server, 1  
 site, Customer Support, 29  
 Windows NT\* 4.0 workstation, 1

