

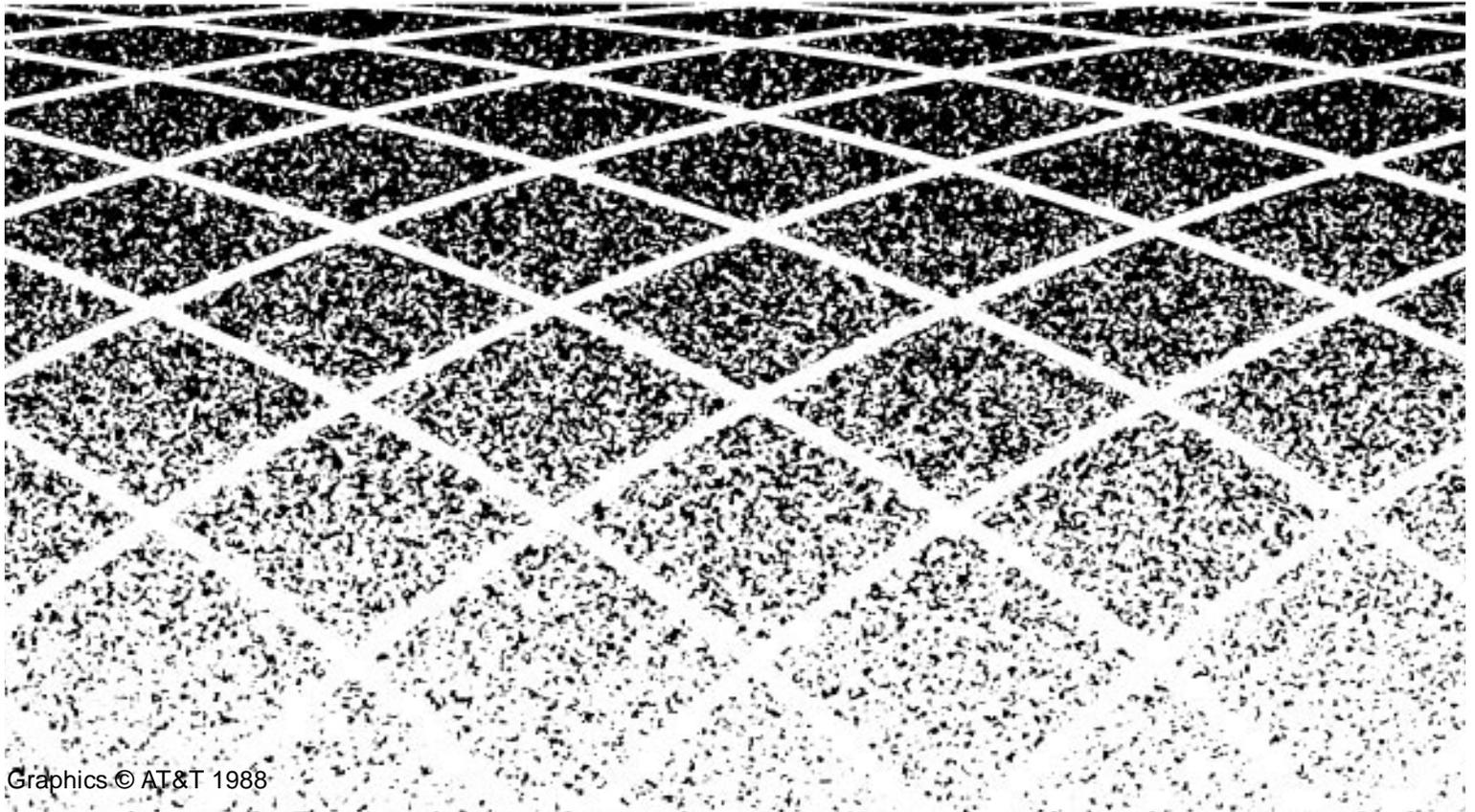


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Multi-Point Control Unit Conference Reservation System User's Manual



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About This Document

Purpose

This document provides information needed to understand and use the AT&T Conference Reservation System (CRS).

Intended Audiences

This document is designed for CRS administrators and reservations agents who initiate and/or maintain a CRS operation. Some functions require overlapping tasks for either the administrator or agent role.

The administrator is responsible for:

- Installing the CRS and customizing the CRS design and setup
- Providing and maintaining the working connection between the AT&T MultiPoint Control Unit (MCU) hardware and the AT&T CRS
- Creating CRS databases
- Maintaining such CRS operations as managing its databases, defaults, passwords, and backups

The reservations agent handles:

- All details involved in actually reserving a conference
- Adding and/or modifying information in the CRS databases for people, sites, companies, and conferences

Before installing the CRS or reserving a conference, you need to understand some details about efficient CRS system use. For useful guidelines about the CRS, read through the roadmap in Chapter 1, "READ THIS FIRST", and the introductory material in Chapter 2, "Introducing the AT&T CRS".

How To Use This Document

This manual is organized as follows:

- Chapter 1, "READ THIS FIRST" — Describes the AT&T CRS hardware (including optional configurations) and software requirements. It also provides:
 - Guidelines for determining hardware components that are needed for CRS and MCU connectivity
 - General notes for customers about software installation and system setup
 - A list of software prerequisites and requirements
 - A roadmap for following the procedures in this manual
- Chapter 2, "Introducing the AT&T CRS" — Provides information about the CRS:
 - System uses
 - Features (including those for video conferencing)
 - Administrator and reservations agent roles
 - Learning aids and CRS main window areas
 - Graphical explanations of procedure flow for database creation and management
- Chapter 3, "Performing CRS Administration" — Describes procedures for:
 - Performing CRS design and setup tasks
 - Performing MCU access and data link administration
 - Setting up and managing databases for CRS operation
 - Initializing and maintaining reservation system defaults and passwords
 - Performing backup, restore, and archive functions
- Chapter 4, "Reserving a Conference" — Provides procedures for reserving a multipoint, point-to-point, or rooms-only conference. Also describes how to accomplish conference verification, rescheduling, and confirmation notification.
- Appendix A, "CRS Menu Definitions" — Provides annotated definitions of the CRS menus.

- Appendix B, “Agent Script And Conference Guidelines” — Provides a script for the reservations agent to use with a convener to obtain conference-related details and to clarify and correct scheduling conflicts. This appendix also provides conference participants with guidelines for successful video conferencing.
- Appendix C, “Installing the AT&T CRS” — Provides detailed procedures for connecting the CRS to the MCU hardware and installing CRS software.
- Appendix D, “Optional Procedures” — Provides procedures for installing the fax modem and software, optimizing conventional memory when the fax option is used, administering electronic mail (email) if email is provisioned, and setting options for the Reminder Fax or Email features.
- Appendix E, “MCU Resources” — Provides information about MCU resources and procedures (within sample scenarios) for resolving those conflicts.

This manual also includes a Glossary and an Index.

Conventions Used

The following conventions are used in this manual to convey different types of information:

This typeface is used for references to titles of other documents, for reference to fields on an active window, and for emphasis within other typefaces.

This typeface represents command names or emphasizes keywords that clarify meaning in a sentence or call attention to a distinction.

Product Safety Labels

The following two icons are used to explain the safety labels used in this document:

 **WARNING:**

identifies information that is important to your safety.

 **CAUTION:**

indicates information that you need to prevent equipment damage and identify possible harm to software, loss of data, or service interruptions.

 **NOTE:**

identifies additional information pertinent to the text preceding it.

Navigation Quick Reference

The following conventions provide explanations to help you more easily navigate through the CRS windows. These conventions are used in procedures and illustrations throughout this manual.

Buttons and Keys

Text surrounded by a square box:

 indicates a command button to be selected in an active window.

Small capital letters:

CTRL **A** indicate a keyboard key.

Scrolling

Arrows or an underscored arrow surrounded by a square box:

    enables you to scroll through list item choices to select an item.

 enables you to open a drop-down box that lists item choices from which you can select.

Arrows or an underscored arrow in the conference-related windows:

-   on the **Scheduling Calendar** window enables you to move the time display until some free time is displayed for a given day.
-     on the **Multipoint Options** window enables you to select the type of call establishment for a site during a multipoint conference.
-     on the **MCU Advanced Options** window enables you to move sites between MCU1 and MCU2 if your system is set up to support two connected MCUs.

Related Documentation

Use this manual in conjunction with the following AT&T documents and information sources:

AT&T MultiPoint Control Unit System Description, 555-027-721 — Provides an introduction to the MCU, including descriptions of models, configurations, features, and facility requirements.

AT&T MultiPoint Control Unit Installation Quick Reference, 555-027-723 — Provides brief instructions on adding an AT&T MCU and components to enable video conferencing.

AT&T MultiPoint Control Unit Maintenance, 555-027-724 — Provides information about tests, alarms, and the actions needed to maintain an AT&T MCU.

AT&T MultiPoint Control Unit Reservations Agent Manual, 555-027-725 — Provides detailed instructions that an AT&T MCU reservations agent or telecommunications manager can use for scheduling and reserving conferences and troubleshooting using the AT&T MCU Scheduling Terminal.

AT&T MultiPoint Control Unit System Administration and Reports, 555-027-727 — Provides detailed instructions that an AT&T MCU administrator can use for system administration and report generation.

How to Comment on This Document

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Room 4K-361
200 Laurel Avenue
Middletown, NJ 07748-9972

READ THIS FIRST

1

Before You Begin

The information in this chapter provides:

- A description of the users of the Conference Reservation System (CRS)
- Descriptions of the hardware and software requirements for the AT&T CRS
- General notes for customers about software installation and system setup
- A list of prerequisites and requirements for CRS operation
- A roadmap for following the procedures in this manual

User Description

This document is designed for CRS administrators and reservation agents who initiate and/or maintain a CRS operation. Some functions require overlapping tasks for either the administrator or reservation agent role.

The administrator is responsible for:

- Installing the CRS and setting up the environment in which CRS is to run
- Providing and maintaining the working connection between the AT&T Multipoint Control Unit (MCU) hardware and the AT&T CRS
- Creating CRS databases
- Maintaining such CRS operations as managing its databases, defaults, passwords, and backups

Security Requirements

No computer system can be perfectly secure. Therefore, you should take reasonable precautions to protect your CRS. It should always be installed in a secure area or a room that can be locked when not attended. In addition, you should immediately set CRS logins with passwords after completing installation.

Hardware Requirements

Hardware requirements for single-user and multiuser CRS differ. The hardware requirements for each are described in the sections that follow.

Single-User CRS Hardware Requirements

The single-user CRS must be a dedicated system (for CRS use only) and contain the following hardware components:

- 486DX2/66 CPU with 8 MB or more of Random Access Memory (RAM).
- An ISA bus and a local bus. The local bus display must contain accelerated video, 1024X768 resolution (with large font size, if desired), and 16 colors or greater.
- The minimum recommended monitor display size is 17 inches or larger, but a 15-inch monitor can be used.
- A hard disk containing a high-speed drive with a local bus controller with a 120MB minimum.
- One 1.44MB 3.5-inch floppy disk drive.
- A Com1 serial port with a 25-pin connector, or a 9- to 25-pin adapter, if the Com1port is 9-pin.
- A bus mouse or a serial mouse connected to the Com2 serial port.
- Optional laser or laser quality printer on a parallel port, installed as the default printer.
- Optional (but recommended) tape or high capacity removable disk device and appropriate software for hard disk backup.
- An available slot for the fax if you intend to add the fax upgrade.

Multi-User CRS Hardware Requirements

The multi-user CRS hardware requirements are divided between server and client workstation types:

Server

- 90 MHz Pentium CPU with 32MB of RAM or more

- 300MB (or larger) Small Computer System Interface (SCSI) hard disk with PCI bus SCSI controller.
- One Compact Disk Read-Only Memory (CD-ROM) drive.
- One 1.44MB 3.5 inch floppy disk drive.
- A tape drive suitable for hard disk backup.
- Network interface board (if your system has local area network (LAN) clients).
- ChiliPORTS™ multiport interface board (for remote access service (RAS) option) Each ChiliPORTS board provides up to 16 ports. If more than 16 RAS ports are required, you will need a second ChiliPORTS board.
- One modem for each RAS port (28.8 baud is preferred, 14.4 is acceptable) that is compatible with the Windows for Workgroups Remote Access Service feature.
- One modem (COM1) for MCU download port (COM1 should be a 25-pin connector or have a 9-pin to 25-pin adapter).
- One fax/modem that is compatible with the zetafax software.
- A laser or laser quality printer (for shared printing).
- The local bus display must contain accelerated video, 1024X768 resolution (with large font size, if desired), and 16 colors or greater.
- The minimum recommended monitor display size is 17 inches or larger, but a 15-inch monitor can be used.

Local Area Network (LAN) Client

- The LAN client must meet the minimum single-user CRS hardware requirements. Also, it must contain a LAN interface that is approved and supported by Windows for Workgroups software.
- The LAN client must be able to access either a local or shared network printer.
- (Optional) WinFax software and Puredata Satisfaxtion modem for faxing directly from the client.

Remote Access Client

- The RAS client must meet the minimum single-user CRS hardware requirements. Also, it must contain a modem that is approved and supported by Windows for Workgroups software.
- (Optional) WinFax software and Puredata Satisfaxtion modem for faxing directly from the client.

Software Requirements

Software requirements for single- and multi-user CRS differs. The software requirements for each are described in the sections that follow.

Single-User CRS Software Requirements

The following are software requirements for single-user CRS operation.

- MS-DOS® 6.0 or higher.
- Microsoft® Windows™ 3.1 or higher (Windows for Workgroups version 3.11 is recommended).
- WinFax software.

Multi-User CRS Software Requirements

The multi-user CRS software requirements are divided between server and client workstation requirements:

Server

- Windows NT Server 3.5.
- System Query Language (SQL) Server (Multi-user version with enough licences to cover the maximum number of CRS users at six connections per user).
- Zetafax software that is configured for the proper number of clients.

Clients

- All clients require Windows for Workgroups version 3.11.
- MS-DOS® 6.0 or higher.
- All clients require network protocol software that is compatible with the protocol stack on the server (unless the clients are RAS clients).
- Zetafax or WinFax software.

Network

- Must be set up for network DDE and support NETBIOS.
- SQL server must be set up to support a sufficient number of user connections (six connections are required for each user).
- Must support network DDE, file sharing, and network pipes between clients and server.

Operational Requirements

- CRS requires **dedicated** operation on your single-user CRS or on your multi-user server. Other applications might interfere with CRS operation and, therefore, should not be running when CRS is being used.
- Check the Windows configuration on your terminal to be certain that your startup display mode is set for 1024x768 resolution with large fonts (and 256 colors, if applicable).

Memory Requirements

- When single-user CRS or the multi-user server is operational, a minimum of 512k conventional memory must remain **unused** out of the maximum of 640k of conventional main memory. If less than 512k is available, you must remove some Terminate and Stay Resident (TSR) software.

If you must remove software or reallocate space for existing software, refer to the DOS documentation for procedures.

⇒ NOTE:

If a fax/modem board and fax software is installed, refer to the procedures for optimizing conventional memory in Appendix D, "Optional Procedures: Fax Upgrade."

General Notes

New and current CRS customers should use the following information to maintain trouble-free use of the CRS.

Be certain to check with your installer if you have any questions about the following administration tasks that **must** be performed to support new features or enhancements in this version of your CRS.

CRS Installation and Administration

Follow the installation procedures outlined in Chapter 3 and Appendix C of this manual to install CRS for the first time. If a problem occurs with the operation of the installed software or the administration of the CRS, refer to the procedures again to reinstall and administer CRS. To complete the system setup, the installer and the administrator **must** follow the steps explained in the design and setup tasks in Chapter 3, "Performing CRS Administration"

If you are installing and administering a multi-user CRS system, you will also need to set up the server and install software on the server and each client.

You have several options in installation. You can select to not install some portions of the software and even install only a tutorial, which you can use as an introduction to CRS. Be sure to follow the procedures in this document for installing CRS or the CRS tutorial to have a working system when complete.

If the Fax Upgrade is Installed

1. Regardless of whether or not a fax is pre-installed or installed by the customer, refer to the procedures in Appendix D, "Optional Procedures", for installing the fax upgrade, ensuring memory optimization, controlling fax log files, enabling fax reminder options, and using fax features.
2. If the fax upgrade is installed with your CRS, you **must** disable the screen saver on your PC.

Upgrade or Reinstallation

CRS provides several upgrade options as described in Appendix C of this book. To perform any of the upgrades, follow these steps:

1. Verify that all the hardware and software requirements are met, as described in the beginning of this chapter.
2. Select the checkbox for appropriate, newly supported bandwidths in the following windows:
 - **Edit Endpoint** (for every endpoint)

- **Edit Conference Template** (create an appropriate template to support each new bandwidth)
- **Edit Site** (for every site in which a bandwidth change affects a MeetMe extension pool)

After an upgrade or reinstallation, if a site is to dial out to an MCU, you **must check every site** to be certain that an appropriate MeetMe extension pool is selected. Refer to the procedures in Chapter 3, "Performing CRS Administration", for information about administering numbers for an MCU (displayed in the *Video Numbers* area on the **Add Site** window). The procedures for adding a site explain how to view and select an appropriate MeetMe extension pool for the site to dial each MCU connected to the CRS.

3. Refer to the instructions for installing and upgrading CRS in Appendix C of this document.

Guidelines for Conveners and Conference Participants

For successful video conferencing to occur, it is recommended that you refer to the guidelines for video conferencing in Appendix B, "Agent Script And Conference Guidelines".

A Roadmap for Using This Manual

Table 1-1 lists the sequential CRS tasks, the chapter(s) that explains the task, and the person(s) responsible for performing the task.

Table 1-1. CRS Manual Roadmap: Administrator

Task	Location	Responsibility
Physically connecting the CRS to the MCU; installing the CRS software	Appendix C	Administrator*
Testing the MCU connection	Chapter 3	Administrator*
Customizing your CRS design and setup	Chapter 3	Administrator*
Checking MCU-CRS connectivity	Chapter 3	Administrator*
MCU link administration: linking MCU information to CRS	Chapter 3	Administrator*
Administer time zone templates	Chapter 3	Administrator
Administer partitions in a multi-user CRS	Chapter 3	Administrator*
Add MCUs to each partition of a multi-user CRS	Chapter 3	Administrator
Initializing passwords	Chapter 3	Administrator
Navigating through CRS windows	About This Document, Chapter 2, Appendix A	Administrator*
Setting up databases	Chapter 3	Administrator*
Viewing CRS database items	Chapter 3	Administrator
Viewing CRS reports	Chapter 3	Administrator
Managing people, site, and conference databases	Chapter 2, Chapter 3, Appendix A	Administrator*
Verifying conference scheduling	Chapter 4	Administrator*
Resolving scheduling conflicts	Chapter 4	Administrator
Backing up, restoring, and archiving databases	Chapter 3	Administrator
Exporting data	Chapter 3	Administrator
* An installer might perform part or all of a task during CRS system setup and thereafter the CRS administrator performs the task.		

Administrators and installers should use the checklist of tasks at the beginning of Chapter 3, "Performing CRS Administration" as a roadmap for creating the CRS design and setting up CRS operation before beginning any other administrator procedures.

Table 1-2 lists the sequential CRS tasks, the chapter(s) that explains the task, and the person(s) responsible for performing the task.

Table 1-2. CRS Manual Roadmap: Reservations Agent

Task	Location	Responsibility
Navigating through CRS windows	About This Document, Chapter 2, Appendix A	Reservations Agent*
Viewing CRS database items	Chapter 3	Reservations Agent
Viewing CRS reports	Chapter 3	Reservations Agent
Managing people, site, company, and conference databases	Chapter 2, Chapter 3, Appendix A	Reservations Agent*
Reserving a conference; verifying conference scheduling	Chapter 4	Reservations Agent
Resolving scheduling conflicts	Chapter 4	Reservations Agent
* An installer might perform part or all of a task during CRS system setup and thereafter the CRS reservation agent performs the task.		

Reservations agents and installers can refer to the procedures in Chapter 3, "Performing CRS Administration", for managing the CRS databases once they are created.

READ THIS FIRST

Overview

The AT&T CRS offers automated scheduling and reservation capabilities. This chapter provides:

- High-level overviews of CRS features and concepts
- Guidelines for learning CRS tasks
- Definitions and descriptions of the CRS categories and the databases in which they are stored (for example, MCU extensions, site, pool, etc.)

The CRS handles all room, point-to-point, and multipoint video conference reservation needs and enables you to:

- Automatically reserve the AT&T MCU for upcoming multipoint conferences
- Control up to two MCUs
- Print and fax conference confirmations
- Automatically fax a confirmation reminder before the conference begins
- Maintain a database of past, present, and future conferences
- Generate system reports

If you are an administrator, you can use CRS to add, edit, copy, and delete details in databases for Meet-Me numbers, pools, endpoint information, and video conference capabilities.

A reservations agent or administrator can:

- Review information about conveners and contact people, companies, sites, endpoints, and conferences
- Create a conference summary
- Generate reports

With CRS, you can easily ensure that all endpoints in a conference are compatible. You can manage site time conflicts, video details, port availability, MCU extension administration, and confirmation capabilities.

While scheduling a conference, you are automatically notified of any unavailable resources, allowing you to easily identify and correct scheduling discrepancies. Schedule conflicts are presented on a graphical conflict calendar. Based on your conference needs for sites, time, and date, the conflict calendar searches for the next available time for free resources. Once you complete scheduling, you receive an MCU report confirming your reserved video conference.

A Look at CRS Features

The following brief descriptions categorize CRS features and the new MCU integrated features supported by CRS:

CRS Features

New features with R3.0 of CRS are identified in the following list. The CRS features in alphabetical order are:

- **Audit Trail**

Gives you access to a history of tasks performed on the CRS, including conference additions, deletions, and edits.

- **Chargeback Information Storage**

Keeps database records of conferences for chargeback purposes.

- **Compatibility Checking**

Checks to ensure that only compatible endpoints are allowed to join a conference.

- **Comprehensive, Conference Information Databases**

Allows creation and maintenance of the following databases:

- People - Includes names, addresses, titles, company or department affiliation, and billing identification

- Sites - Includes name, associated audio numbers, video number(s) for the preferred MCU, contact person, company, endpoint, pool, time zone and daylight savings time information (if applicable), and room contents
 - Companies or departments - Includes name and address
 - Conference templates - Includes bandwidth and protocol information
 - Endpoints - Includes bandwidth and protocol information
 - MCU extensions - Includes MCU extensions and required dial strings. These extensions can be automatically uploaded from the MCU after an installation
 - MCU extension pools - Includes groups of MCU extensions with the same bandwidth and network access
 - MCUs - Includes identification and communications information about the MCUs connected to the CRS
 - Conferences - Includes information on conferences scheduled for today, the past, or the future (that can be printed, electronically mailed, or faxed, if those capabilities are implemented with the CRS installation)
 - CRS system defaults - Includes information on the active defaults for the CRS version
- **Comprehensive On-Line Help**

Provides context-sensitive help screens.
 - **Conference Template Creation**

Speeds up and simplifies the reservation process by allowing conference templates to be created to ensure full compatibility between endpoints in a conference.
 - **Control of MCU Reservations**

Informs the MCU(s) automatically about upcoming multipoint conferences.
 - **Data Export for Reports**

Allows the exporting of data in standard formats for inclusion in external reports on personal computers or workstations.
 - **External Sites (New with R3.0)**

External sites are a special category of endpoints that are provided permission to join a conference using a dial-in Meet-Me number. The advantage of these sites is that they are not checked for conference availability (site conflict checking is not done for these endpoints).

- **Fax Support for Conference Confirmation**

Allows the reservations agent to send an immediate confirmation by fax at reservation time and also automatically fax a reminder confirmation before the conference begins.

- **Flexible Configuration**

MCU and CRS configurations enable the CRS to be either co-located with the MCU or remotely located.

- **Flexible, Graphical Calendar Scheduling**

Provides fast conflict resolution through the use of a graphical calendar. The calendar simplifies the tasks of resolving resource, time, and date conflicts for conferences being scheduled.

- **Information Access Flexibility**

Provides easy access to the database of conference conveners and contacts including names, company names, addresses, phone numbers, and charge-back information.

- **MCU Partitioning (New with R3.0)**

A service provider feature that allows the CRS administrator to virtually partition an MCU so that it appears as more than one MCU. This feature could be used to divide an MCU resources between two or more companies.

- **Multi-User CRS (New with R3.0)**

Allows multiple CRS users to perform CRS tasks concurrently through local area network (LAN) or remote access server (RAS) clients tied to a central CRS server.

- **On-Line Tutorials for Agents and Administrators (Expanded with R3.0)**

From the help menu in the CRS main window, you can select to follow the on-line tutorial for either a reservation agent or administrator.

- **Recurring Meeting Support**

Allows flexible repetition of meetings on a daily, weekly, biweekly, or monthly basis.

- **Security Protection**

Offers password protection into the system and restricts access to administrator functions.

- **Search and Modify Capability**

Allows you to change conference reservation information before the conference begins, such as number of participants, end time, date, and notes.

- **Time Zone Management**

Allows control of domestic and international daylight savings and time zone offsets from the CRS time zone.

MCU Features Supported by the CRS

To support integrated MCU features that maintain a range of bandwidth and bonding capabilities for ports, CRS supports the MCU capabilities as described in the following sections.

Audio Add-On Conference Support (Expanded with R3.0)

Allows as many as six voice terminals or telephones to join a CRS multipoint conference as audio add-on endpoints.

Audio Mode Options (Expanded with R3.0)

Allows you select the audio mode that best suits your conference needs. By default, the MCU automatically chooses an audio mode that best supports the video ports in a conference.

Basic/Enhanced Service Flag (New with R3.0)

The MCU provides an extensive set of service options that some endpoints cannot support. CRS allows you to identify endpoints in the database that support the enhanced services for multimedia conferences.

Cascaded MCUs

Allows the CRS to manage the interconnection of two MCUs so that endpoints connected to each MCU can participate in a joint conference.

Dial-Out Conference Support

Allows the AT&T MCU to call endpoints to establish CRS conference connections on MCU models that support the Dial-Out feature.

Dynamic Resizing of a Conference (Expanded with R3.0)

Allows you to change conference details while the CRS conference is active if Dynamic Resizing is supported by the MCU model(s) connected to the CRS. This feature allows you to do the following while a conference is in progress:

- Shorten the conference.
- Lengthen the time of a conference if MCU resources are sufficient (for example, if ports and MCU extension numbers are available; that is, not allocated to another scheduled conference).
- Add or remove sites if the sites are available, and the MCU has available ports to support additional participants.
- Enable (turn on) Low-/High-Speed Interworking (but it cannot be turned off once it is turned on).
- Change a site to data-capable but not back again.

Data Collaboration (New with R3.0)

Some endpoints can be identified as data capable endpoints which means that they can share data in the conference with other data capable endpoints.

Dedicated Access (New with R3.0)

Dedicated Access allows endpoints to participate in multipoint conferences via non-signaled T1/E1 facilities. This is done by connecting the MCU either through a Digital Access Crosspoint System (DACS) multiplexer (MUX) or directly to the Px64 endpoints via DS1 facilities.

Direct Connect (New with R3.0)

Direct Connect allows an endpoint to connect directly to the MCU and to join in conferences on that MCU. Endpoint connections are via a Basic Rate Interface (BRI) or a Digital Communications Protocol (DCP) interface. In CRS, the dedicated access endpoint must be identified and must be assigned the MCU to which it is attached as preferred MCU.

Low-/High-Speed Interworking (New with R3.0)

Low-/High-Speed Interworking allows lower-speed endpoints to join higher-speed endpoints in an MCU conference as audio-only endpoints. CRS provides the option to allow or disallow this feature on a per-conference basis.

Multirate and BONDing Bandwidth Support (New with R3.0)

CRS allows you to identify site capabilities for multirate and BONDing bandwidths supported by the MCU.

Per-Conference Passwords (New with R3.0)

Conference conveners can request that all or just audio add-on endpoints be required to enter a password to join the conference. Use CRS when scheduling the conference to enter the required password requested by the convener and to identify the endpoints affected.

Universal Conference Control (New with R3.0)

This MCU feature allows a regular phone assigned as a UCC endpoint in a conference to perform some chair control functions in the conference. This can be used as an endpoint-independent method of controlling a conference. The allowed functions that a regular touch-tone set can perform are switching conference modes between broadcast and Voice Activated Switching (VAS), ending a conference, and dropping selected endpoints from the conference. UCC also provides rollcall and browse capabilities.

Understanding Video Conferencing Concepts

The AT&T MCU provides for multipoint video conferencing. The CRS provides the necessary scheduling and control interface that a reservation agent can learn quickly. Using either a multi-user or single-user CRS, a reservation agent can schedule a variety of multipoint conference types allowed on the MCU or point-to-point and rooms-only conferences that do not use the MCU. Figure 2-1 illustrates a possible conference scenario.

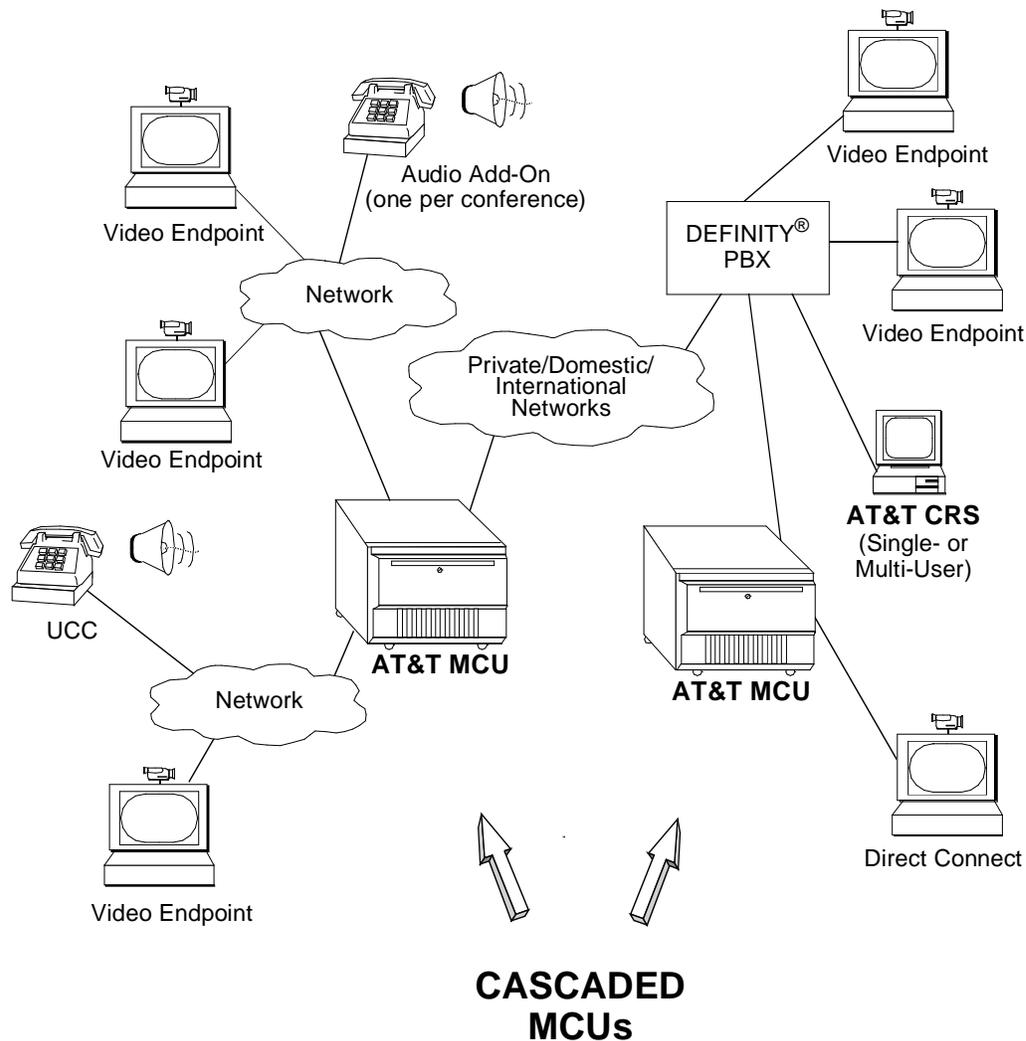


Figure 2-1. Multipoint Video Conference

In the example illustrated, a single-user CRS system is being used to schedule conferences over different networks between various endpoints. Two MCUs are shown cascaded to combine two conferences. A multi-user CRS system performs the same function in this scenario as does the single-user system illustrated here.

For your company to benefit from the efficiency of bringing so many conference participants together at once, endpoints should comply to International Telecommunications Union-Telecommunications (ITU-T) Px64 international standards that control the exchange of multimedia between sites.

Tips for Learning CRS

Visual aids and scenarios used in this manual help you understand and perform basic CRS tasks. In using the step-by-step procedures in this manual, you can simplify the learning process involved in scheduling a conference and resolving conflicts.

The CRS and MCU terms you learn on each window help you understand the various layers of CRS functions and what tasks are connected to your role. Each set of new terms displayed on a window helps you choose correct conference details. Review the glossary often for assistance with terms.

To display details about CRS information, you can display a CRS **view** and then highlight an entry in that view list, and request a view of details for editing, deleting, copying, or printing. In the case of a conference **view**, you can highlight an entry in a view and then request that a confirmation be sent for that conference. As they apply to a reservation agent's or administrator's tasks, views are explained in each chapter in this manual.

Highlighting an Entry and Selecting a Command

To display a window for editing, deleting, or copying information, you must first select a view.

1. To select a view, use one of the following procedures:
 - Select the desired icon in the main window.
 - Select the type of view list desired (in this example, **Company**) from **View** on the menu bar.

A view window is displayed, as illustrated in Figure 2-2.

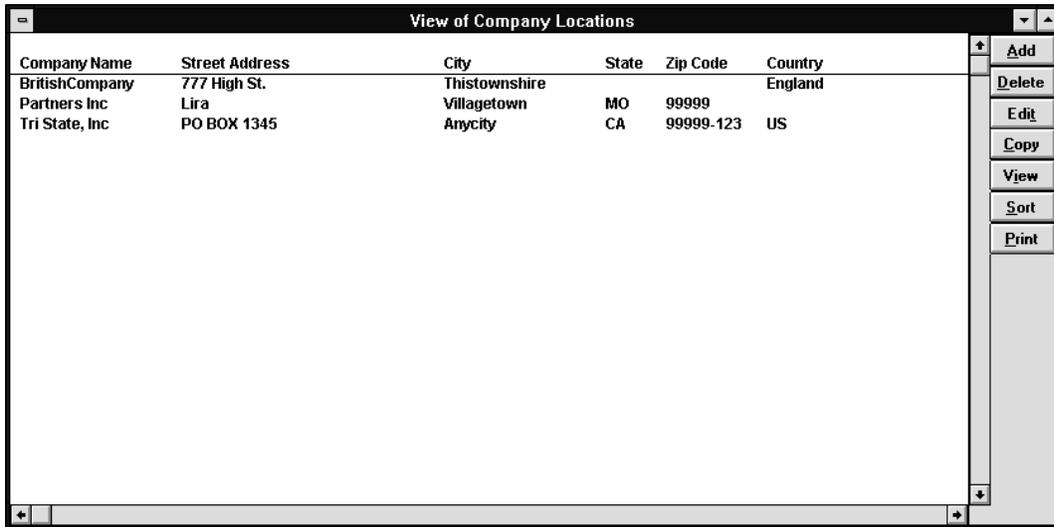


Figure 2-2. Display of a View Window

2. Highlight an entry in the view list (as illustrated in Figure 2-3).

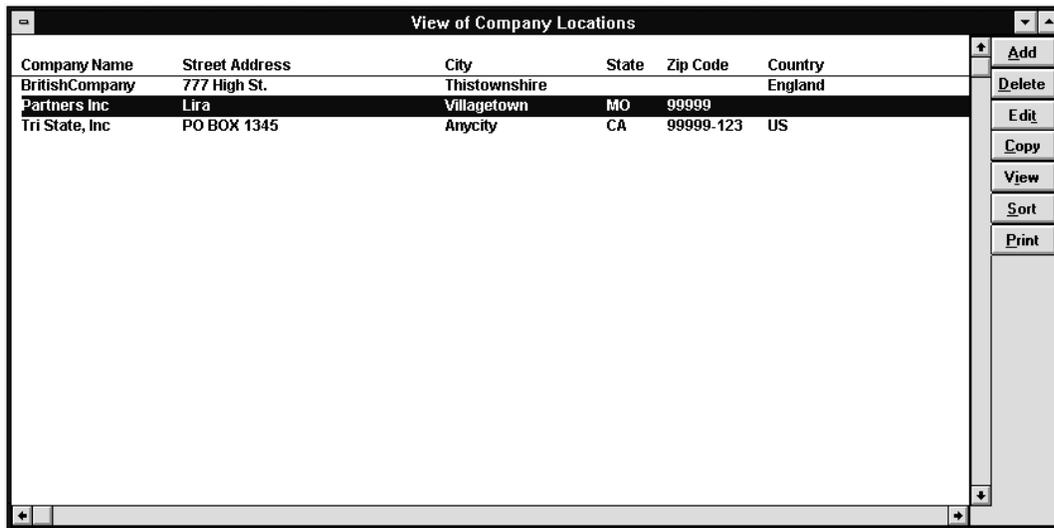


Figure 2-3. View with Highlighted Entry

3. Select the desired command on the right side of the view window.

A window is displayed on which you can complete the request.

⇒ NOTE:

If you double click on a highlighted entry in a view list, the **Edit** window for that entry is automatically displayed.

⇒ NOTE:

The command prompts you to confirm or cancel the deletion.

CRS Help

The CRS Help system is a complete on-line reference for CRS features, procedures, commands, defined terms, dialog and message boxes, and other aspects of CRS operation. The features are accessible through:

- A main Help index
- CRS system information displayed for your operating environment
- A multimedia CRS tutorial
- About Information that includes the CRS version number and the appropriate technical support number(s)
- Press to view CRS help

Other Learning Aids

Chapter 3, "Performing CRS Administration", begins with a checklist of CRS design tasks and a customer design scenario to help you:

- More quickly understand CRS naming conventions to use while you are customizing your CRS design
- Understand and implement the CRS setup tasks so that administrators, reservation agents, and conveners can communicate more effectively

The next section in this chapter:

- Illustrates the CRS main window (displaying a view for the administrator and another view for the reservations agent)
- Describes each main window area
- Lists the tasks that both the reservations agent and administrator can do from the CRS main window

Table 2-1. CRS Manual Roadmap: Administrator

Task	Location	Responsibility
Physically connecting the CRS to the MCU; installing the CRS software	Appendix C	Administrator*
Testing the MCU connection	Chapter 3	Administrator*
Customizing your CRS design and setup	Chapter 3	Administrator*
Checking MCU-CRS connectivity	Chapter 3	Administrator*
MCU link administration: linking MCU information to CRS	Chapter 3	Administrator*
Administer time zone templates	Chapter 3	Administrator
Administer partitions in a multi-user CRS	Chapter 3	Administrator*
Add MCUs to each partition of a multi-user CRS	Chapter 3	Administrator
Initializing passwords	Chapter 3	Administrator
Navigating through CRS windows	About This Document, Chapter 2, Appendix A	Administrator*
Setting up databases	Chapter 3	Administrator*
Viewing CRS database items	Chapter 3	Administrator
Viewing CRS reports	Chapter 3	Administrator
Managing people, site, and conference databases	Chapter 2, Chapter 3, Appendix A	Administrator*
Verifying conference scheduling	Chapter 4	Administrator*
Resolving scheduling conflicts	Chapter 4	Administrator
Backing up, restoring, and archiving databases	Chapter 3	Administrator
Exporting data	Chapter 3	Administrator
* An installer might perform part or all of a task during CRS system setup and thereafter the CRS administrator performs the task.		

Parts of the CRS Main Window

Figure 2-4 illustrates the CRS main window that is displayed when you log in as *admin*.

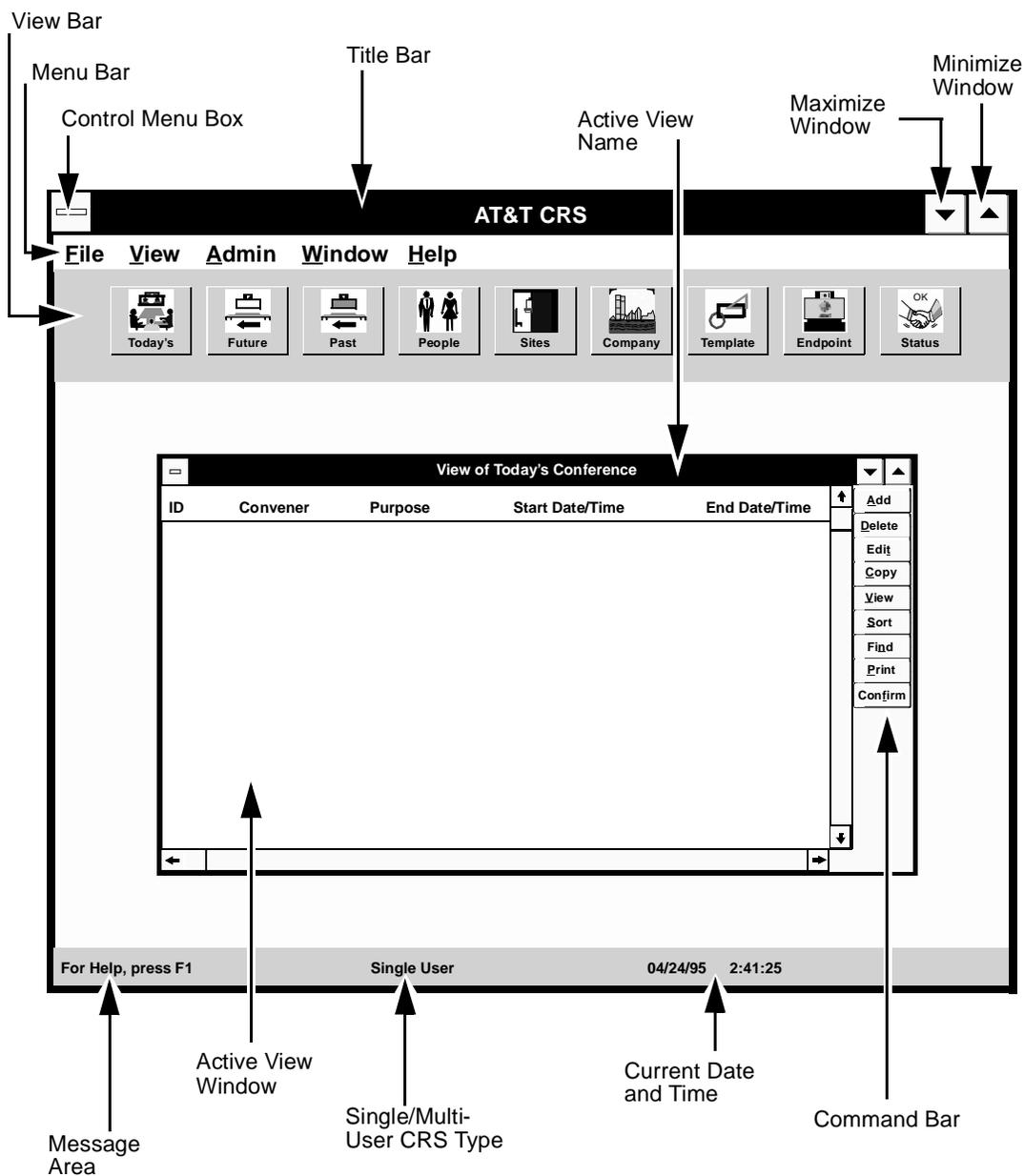


Figure 2-4. CRS Main Window: Administrator

Table 2-2 provides brief descriptions of the window areas, along with some additional terms and window definitions used throughout this manual.

Table 2-2. CRS Window Area Descriptions

Window Area	Description
Control Menu Box	Commands in the Control Box menu allow you to restore, move, size, maximize, minimize, close, and switch windows. The CRS control menu box is the box in the far upper-left corner of the application window. Press ALT+ SPACEBAR (or select the <input type="checkbox"/> with the mouse) to access the menu.
Menu Bar	The menu bar shows the available command menus and is located at the top of the window, just below the title bar. Select a menu with the mouse or press ALT followed by the underscored letter in the menu name.
View Bar	The view bar is a row of icons on the top of the main menu. By selecting an icon, you open the view. Note that views are also selectable from the View command on the command bar.
Title Bar	<p>The title bar shows the title or name of the window. A view's window title bar displays the view type and, in parentheses, the name of the view.</p> <p>The title bar is located at the top of the window, between the control menu box and the maximize and minimize icons, and is a different color or shade than the rest of the windows in the work area.</p>
View Type	A view type is the style of the view. Figure 2-4 illustrates "Today's Conferences" as the view type.
Active view name	<p>A view is a formatted display of database items. It consists of a category (the structure that holds data, such as Site) and a view type (such as Add). When you open a view, it becomes the active view.</p> <p>If more than one view is displayed, the active view is the topmost view and receives keyboard input. The active view's title bar is a different color or shade from the other windows in the work area.</p>
Message Area	The status bar message at the bottom of the window displays the name of the active view and/or a message about the operation you are performing.
Active View Window	The active window is the window in which you are currently working. The active window's title bar is a different color or shade from the other windows on the Windows desktop or in the work area.
Command Bar	The command bar is a column on the right side of each active window that display buttons for commonly used commands. Command buttons enable you to quickly select commands (like Add, Copy, View) with the mouse.

Main Window for Login by a Reservation Agent

Figure 2-5 illustrates the top part of the CRS main window displayed when you log in as *agent*.



Figure 2-5. CRS Main Window: Reservations Agent

The remaining areas in the reservation agent window are the same as the CRS main window for the administrator except for the **Admin** functions.

In a single-user CRS, the **Admin** functions are available only if you are logged on to CRS with the admin level login. On a multi-user CRS, **Admin** functions in partition global are only available if logged into the server with an admin level login. **Admin** functions in all other partitions are available only when you are logged into that partition with an admin level login in that partition.

CRS Command Bar and View Function

As mentioned, the CRS main windows differ slightly between administrator and reservations agent. However, the command bar is the same for both logins.

Table 2-3 and Table 2-4 describe the icons used in CRS main window displays. The command bar (located in a column to the right of the active view) provides a set of fixed buttons that enable you to use menu commands for the active report or detail window.

Table 2-3. Command Bar Icons Displayed on CRS Category Views

Command Icon	CRS Function
	Add item, allows you to add an item to the active view.
	Delete item, enables you to delete the active view of the selected item.
	Edit item, enables you to edit the active view of the selected item.
	Copy item, enables you to copy the active view of the selected item.
	View item, enables you to view the active view of the selected item.
	Sort item, enables you to sort the report being viewed.
	Find item, enables you to display a conference by specifying search details for entries in the active conference view.
	Print report, enables you to print the displayed report.
	Confirmation, enables you to request that the displayed confirmation be sent by fax or printed and mailed.

The CRS administrator and reservations agent roles overlap in some functions. For each role, only a few of the access permissions differ. For example, from the main menu view icons (illustrated in Figure 2-4), an administrator can view, add, edit, delete, and copy all of the categories.

A reservations agent can also view, add, edit, delete, and copy categories, except for the MCU-related administration design and setup tasks such as linking the CRS to the MCU. A reservations agent also cannot add a conference template or endpoint, archive past conferences, export data, or manage the fax log.

Table 2-4 illustrates the functions represented by the View icon on the CRS main window.

Table 2-4. CRS View Icons and Functions

View Icon	CRS Function
 Today's	Lists the conferences that span today (start or end today, or started yesterday and end today).
 Future	Lists the conferences that start after today.
 Past	Lists the conferences that end before today.
 People	Lists the contact people and conveners who can schedule conferences.
 Sites	Lists sites where conferences can be held. This list includes all the video and audio phone numbers.
 Company	Lists the company or department locations that can be connected to a convener or site.

Table 2-4. CRS View Icons and Functions — *Continued*

View Icon	CRS Function
	List the types of conferences (conference templates) that CRS uses to group compatible sites.
	Lists the audio and video equipment available at specific sites.
	Lists all the CRS-scheduled conferences that failed to download to the MCU.

Understanding the Databases

Each time you view a list of CRS items, you are viewing data stored in a database. Databases electronically store information that is organized into CRS categories (such as people, sites, or company locations), and can be displayed from the CRS main window. Also stored in the database are all the conferences and conference information you enter. With time, the database can become quite large with conferences that have already taken place but remain in the database. We recommend that you backup and archive the CRS database at least once a week to enhance system performance.

Before you can begin establishing databases and defaults, you must perform design tasks that enable you to decide what pools, endpoints, and MCU extension numbers are part of your reservation system. Refer to Chapter 3, “Performing CRS Administration”, for details about CRS design and setup tasks. If you are using a multi-user CRS that allows partitioning, you should partition the MCUs before creating the database. After the partitions are administered, you create a database for each partition.

The tasks that must be performed and the order in which they are performed depends on whether or not partitioning is to be used in your CRS.

Figure 2-6 illustrates the task “flow” for managing a CRS. The partitioning information, shown in the dashed box, is pertinent only to a multi-user CRS that has the partition option.

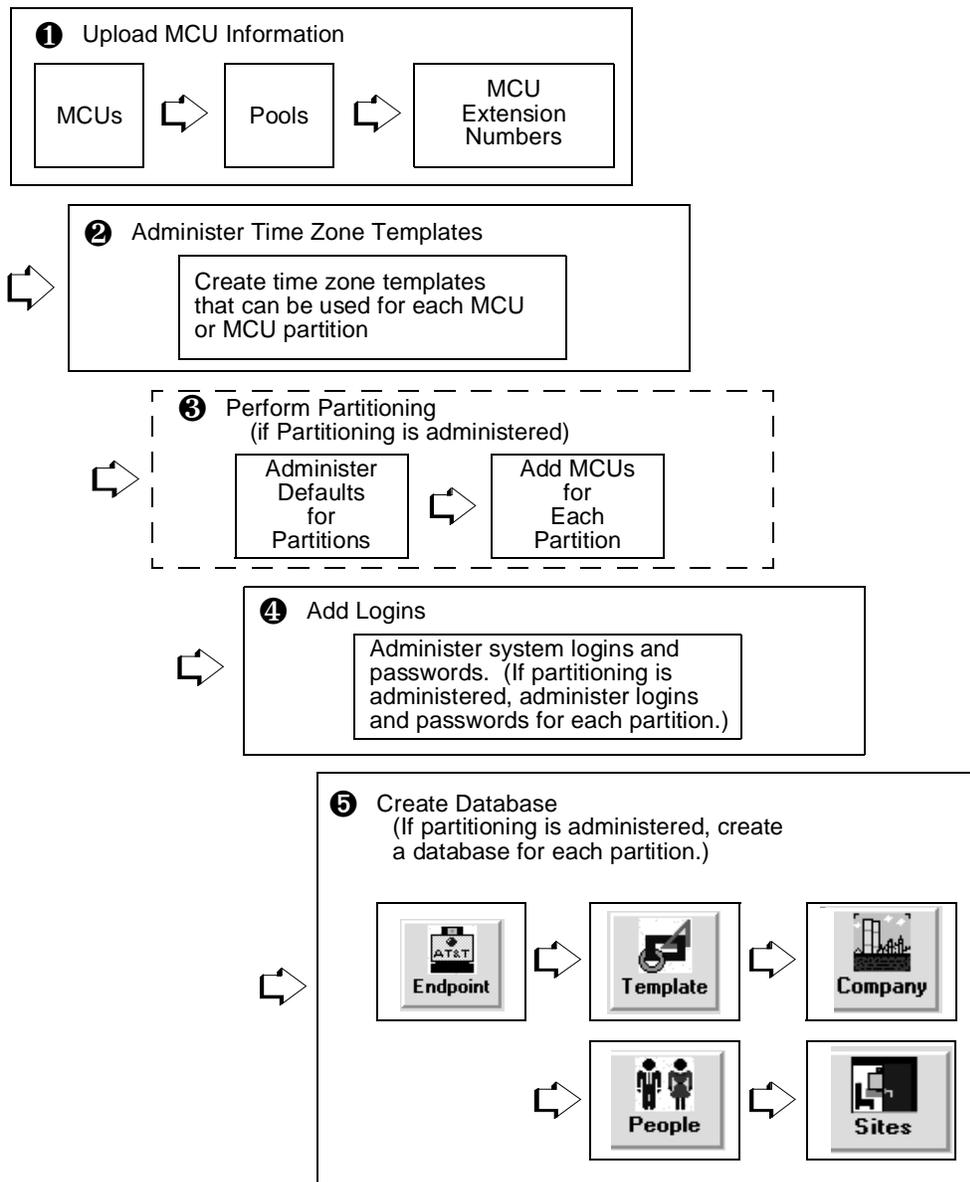


Figure 2-6. CRS Task Order

The tasks illustrated in blocks 1 through 4 are those performed by the administrator to customize the CRS:

- Use the upload utility to upload MCU extensions and create pools
- Administer time zone templates
- Create partitions (if partitioning is administered)

- Create logins and passwords (this is optional for single-user systems but is required for every partition in a multi-user system that has partitions administered)
- Create the database by creating endpoints, conference templates, companies, people, and sites

When you edit defaults for CRS multipoint conference scheduling, you must choose a default pool, conference template, and endpoint based on the databases already created.

The single-user CRS provides database backup and archive utilities within the CRS software. Multi-user CRS uses the Microsoft SQL database management tools to backup, repair, and archive the CRS database.

Since most administration tasks prohibit more than one user accessing the database, the CRS administrator in a multi-user CRS should make certain to disallow logging into CRS during administration. Refer to the installation procedures for multi-user CRS for details on blocking server access during administration periods. Administration tasks on the multi-user CRS server include database archive, repair, or backup, and administering partitions or network users.

Starting the CRS/Logging In

The CRS system administrator is responsible for creating CRS logins and passwords for the CRS users. The default logins, *admin* and *agent*, are provided with a new CRS and do not require passwords. It is recommended that the system administrator create assign passwords for those and other CRS logins for greater system security. A multi-user CRS requires additional logins for each agent and administrator on the system.

If you log out or exit CRS for any reason, use the following procedure to start CRS again.

1. Double click on the **AT&T-CRS** icon from the Startup group or the AT&T-CRS group.

The AT&T CRS Login window is displayed.

2. To log in, type a **Login ID** (such as *admin*) name.
3. Tab to **Password** and type in a password name of up to 10 alphanumeric characters.
4. If you are logging into a multi-user CRS with partitioning administered, select the partition you wish to log into.
5. Select to complete the login.

⇒ NOTE:

Whenever you log out of CRS, you secure the CRS program but do not stop it. When stopped on a single-user CRS, the CRS program cannot download scheduled conferences. Therefore, **do not exit the CRS** on a single-user system except when upgrading the CRS database or performing a database backup or restore. Similarly, the "MCU Link Manager" task must be running on the multiuser CRS server for the conference to be downloaded. For this to happen, the CRS program need not be running on the server.

Exiting the CRS/Logging Out

Logging out allows another user to log in to the CRS. Exiting stops the CRS programs that are executing on your computer. Exiting CRS is when the CRS program is stopped.

⇒ NOTE:

Whenever you log out of CRS, you secure the CRS program but do not stop it. When stopped on a single-user CRS, the CRS program cannot download scheduled conferences. Therefore, **do not exit the CRS** on a single-user system except when upgrading the CRS database or performing a database backup or restore. Similarly, the “MCU Link Manager” task must be running on the multiuser CRS server for the conference to be downloaded. For this to happen, the CRS program need not be running on the server.

To log out of the CRS:

1. Select **Log Out** from **File** on the menu bar.
2. If you wish to exit CRS (Not recommended if you are logged into a single-user CRS or multi-user CRS server, see the note at the start of this procedure for more details.):
 - a. Select from the AT&T CRS login window.
 - b. Select when prompted to confirm the exit from the CRS.

Performing CRS Administration

3

This chapter provides a set of tasks and procedures for designing and administering the CRS so that a reservations agent can begin reserving conferences. The first part of this chapter provides:

- A sequential checklist of CRS design and setup questions
- Procedures for linking one or two MCUs to the CRS, creating CRS databases, and managing CRS defaults
- A design task flow and a sample customer design scenario

The remainder of this chapter provides the specific procedures for administering the CRS.

Designing Your Video Network

For accurate CRS design, before administering one or two MCUs, the MCU administrator must determine the number of pools and the number of MCU extensions within each pool for each MCU. After the pools are designed and the number of extensions required by each pool is finalized, the MCU system administrator must administer the appropriate extensions on each MCU and, if necessary, purchase appropriate numbers from the network.

The roadmap in Chapter 1, "READ THIS FIRST", lists sequential high-level CRS tasks and responsibilities. Table 3-1 provides a more detailed checklist of CRS design tasks, followed by a flowchart of associated procedures for each design task, and Table 3-2, which is a detailed checklist of the CRS setup tasks.

The checklists in Table 3-1 and Table 3-2 do not specify distinct levels of responsibility for the design or setup tasks that are strictly for either the administrator or the installer. Depending on the complexity of your needs, your installer might assist you with CRS design and setup tasks.

Table 3-1. CRS Administrator Design Task Checklist

Design Task	Administrator Task/Procedures
1a. Have you linked the MCU(s) and identified MCU capabilities? Have you tested the CRS and MCU connection?	<ol style="list-style-type: none"> 1. Set up MCU - MCU documentation (see the "Related Documentation" section in the "About This Document" chapter) 2. Run Link Admin, Query MCU Parameters - Chapter 3 3. Run MCU Extension Utility - Chapter 3 4. Verify MCU connection - Chapter 3
2. Have you administered logins? (Required for multi-user CRS and recommended for single-user CRS.)	Administer Logins - Chapter 3
3. Have you enabled fax reminder options (if you have installed the fax option)?	Enable fax reminder options - Chapter 3, Chapter 4, and Appendix D
4. Have you created the time zone templates for time zones that different from the CRS time and for daylight savings time?	Add a time zone - Chapter 3
5. Have you partitioned the MCU(s) (if partitioning is administered)?	Administer Multi-User Partitions - Chapter 3
6. Have you edited the MCU or MCU partitions?	Edit the MCU - Chapter 3

Table 3-1. CRS Administrator Design Task Checklist — *Continued*

Design Task	Administrator Task/Procedures
7. Have you created your additional extension pools, if needed? Have you done so for each MCU?	(Check MCU extensions - MCU System administrator) Add a Pool, Add an MCU Extension number (for each MCU) - Chapter 3
8. Have you created your endpoint database?	Add an Endpoint - Chapter 3
9. Have you created a conference template with associated bandwidth and protocol?	Add a Conference Template - Chapter 3
10. Have you chosen your default pool, endpoint, and conference template for multipoint conferences?	Managing CRS Defaults - Chapter 3
11. Have you created your company or department database?	Add a Company - Chapter 3
12. Have you created your people database, with the associated company and billing information?	Add a Person - Chapter 3
13. Have you created your site database, with associated companies, people, endpoints, and pools?	Add a Site - Chapter 3

Table 3-2 illustrates the CRS setup tasks:

- Ensure that the CRS reliably reflects your required design
- Test essential CRS conference functions Prepare the CRS reservation agent for his or her responsibilities
- Prepare the CRS reservations agent for his or her responsibilities

Table 3-2. CRS Administrator Setup Task Checklist

Setup Task	Administrator Task/Procedures
1. Have you reserved a sample conference and tested a sample download of that conference to the MCU(s)?	Chapter 4r, Chapter 3, and MCU system administrator
2. Have you set up and tested the sending conference confirmation (printed or faxed)?	Completing Scheduling - Chapter 4
3. Have you provided the reservations agent and conveners with an easy-to-understand list defining: <ul style="list-style-type: none"> ■ Conference templates and their names (agents only) ■ MCU extension numbers (agents only) ■ Qualifying sites (and endpoints) and site names ■ Conference modes 	See "Summary for CRS Convener" at the end of Appendix B
4. Have you reviewed the reservations agent script with your reservations agent(s)?	Appendix B
5. Have you supplied your phone number, the technical support contact numbers (daytime), and the CRS User's Manual to your reservations agent?	Appendix B

CRS Customer Design Scenario

The sample customer scenario in Figure 3-1 illustrates how sites are created and how conference templates are used. The scenario in Figure 3-2 illustrates an example of how extension pools are administered.

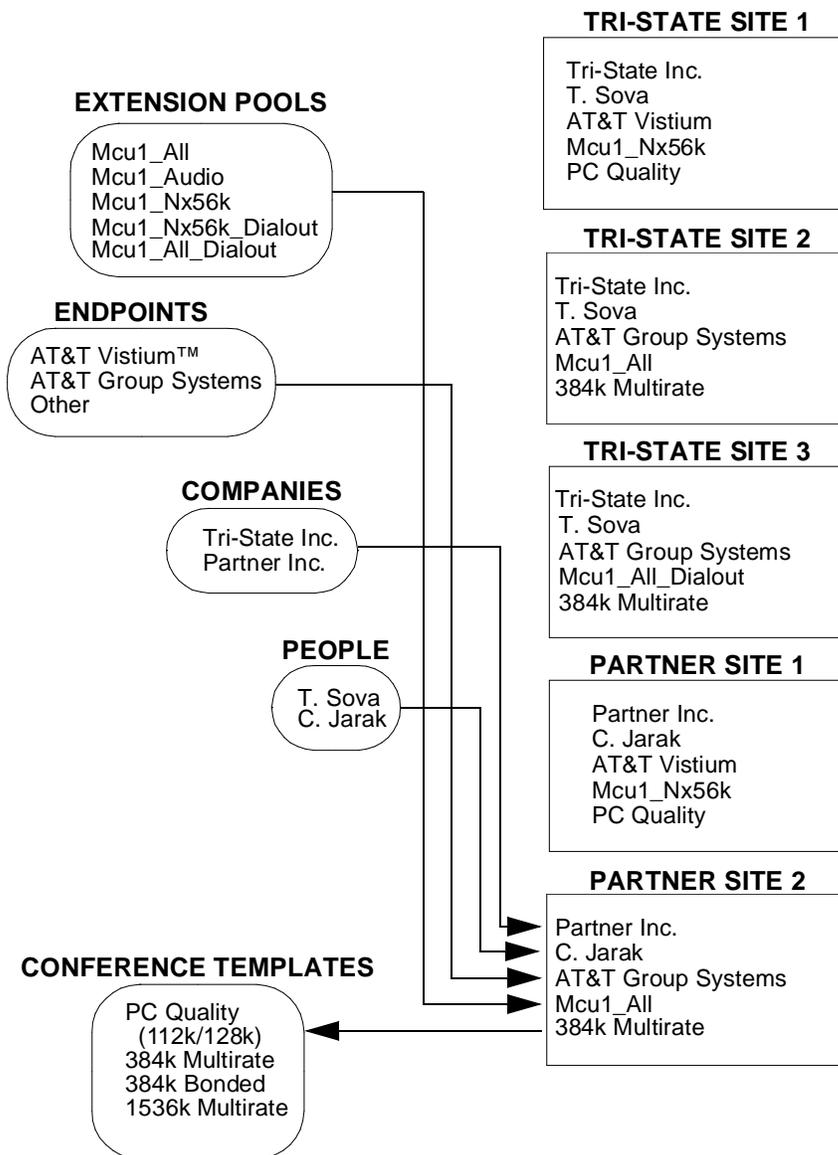


Figure 3-1. CRS Customer Design Scenario

Designing Sites

To design each site, these two companies established databases and selected details from each of the CRS database categories. As illustrated in Figure 3-1, the sites for Tri-State Inc. and Partner Inc. include a selection for a company, a contact person, an endpoint, a pool, and the site's video capability (defaults to the endpoint's capability). For example, the *Partner Site 2* site includes the following selections:

- The company is Partner Inc.
- The contact person is C. Jarak.
- The endpoint is an AT&T Group Systems.
- The pool, Mcu1_All, contains the 700 extensions supporting a wideband network access for all bandwidths supported by the MCU.

Selecting a Conference Template

Before scheduling a conference, it is necessary to add at least one conference template. Using the scenario in Figure 3-1, choosing a conference template results in the following qualifying sites (Table 3-3).

- Choosing the conference template *PC Quality* designates that all five sites are qualifying sites with 112/128k video capabilities.
- Choosing the conference template *384k Bandwidth* designates that *Tri-State Site2*, *Tri-State Site3*, and *Partner Site2* are qualifying sites with 384k wideband video capabilities.

Table 3-3. Selecting a Conference Template

Conference Template	Qualifying Sites
<i>PC Quality-112k/128k</i>	Tri-State Site1 Tri-State Site2 Tri-State Site3 Partner Site1 Partner Site2
<i>384k Multirate</i>	Tri-State Site2 Tri-State Site3 Partner Site2
<i>384k Bonded and 1536k Multirate</i>	No sites

Understanding Extension Pools

When you use the MCU Extension Utility, MCU extensions are uploaded from the MCU, and then each extension is identified within a predetermined pool that uses the same network access. Figure 3-2 illustrates how pools map to MCU extensions.

As illustrated, a predetermined pool groups and references one or more existing MCU extensions that use the same network access.

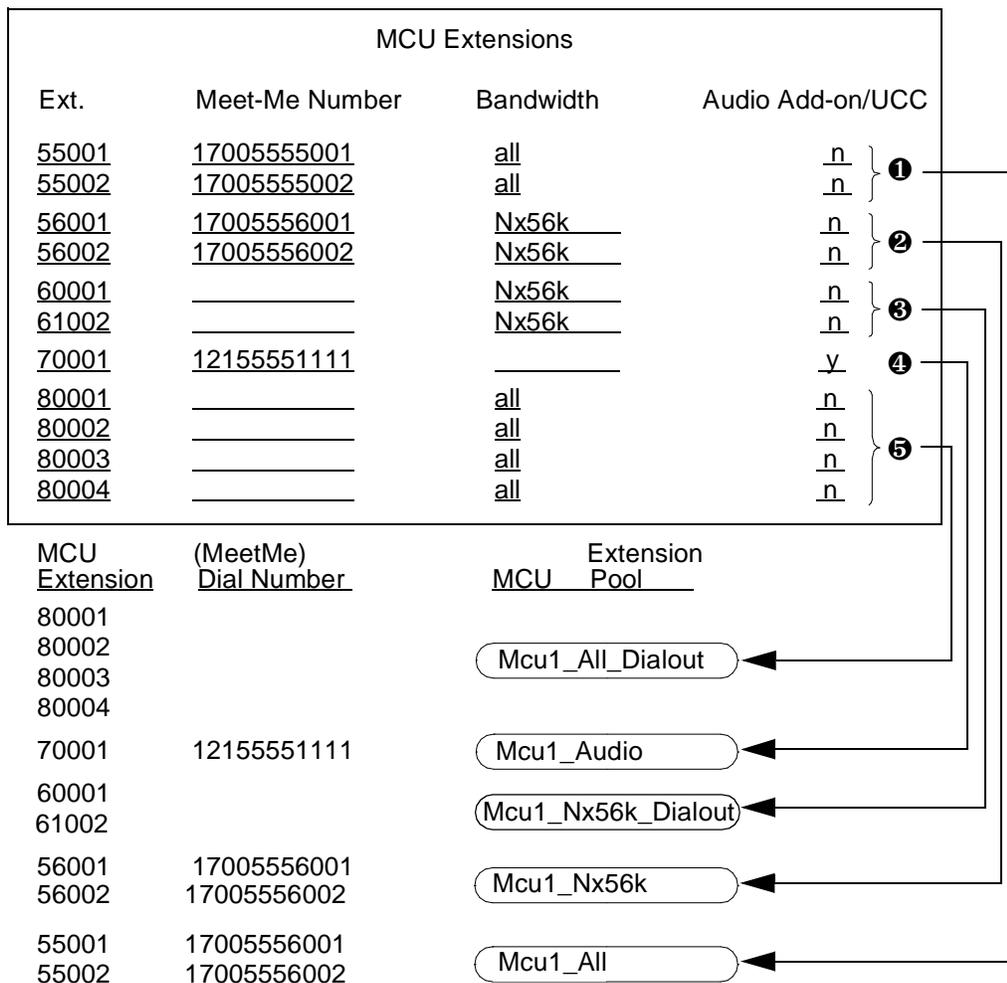


Figure 3-2. Understanding Extension Pools

As illustrated in the MCU extensions form at the top of Figure 3-2:

- Meet-Me Number in the MCU Extensions form is the same as the (MeetMe) Dial Number that you use to dial the MCU.
- The “Bandwidth” and “Audio Add-On” columns describe the bandwidth and network access for the pool including whether or not Audio Add-On and Universal Conference Control (UCC) are supported.

To help you understand the mapping of MCU extensions, the items followed by the circled number in Figure 3-2 correspond to the following numbered descriptions:

1. MCU extensions *55001* and *55002* have MeetMe numbers, support all bandwidths, and are not audio-only numbers, so CRS adds these numbers into the extension pool, **Mcu1_All**.
2. MCU extensions *56001* and *56002* have MeetMe numbers, support bandwidths that are multiples of 56k, and are not audio-only numbers, so the CRS adds these numbers into the pool, **Mcu1_Nx56k**.
3. MCU extensions *60001* and *60002* have no MeetMe numbers, support 56k bandwidths, and are not audio-only numbers, so CRS adds these numbers into the pool, **Mcu1_Nx56k_Dialout**.
4. MCU extension *70001* has a MeetMe number but supports no bandwidth, and is an audio-only or UCC number, so the CRS adds this number into the pool, **Mcu1_Audio**.
5. MCU extensions *80001* to *80004* have no MeetMe numbers, but support all bandwidths, and are not audio-only numbers, so CRS adds these numbers into the pool, **Mcu1_All_Dialout**.

Since the *80001* to *80004* pool is a dial-out pool for all bandwidths and there are no CRS dial numbers, these are the numbers for MCU1 to dial out to a site. The actual number that the MCU dials depends on the bandwidth that is required for the site that is selected for a conference.

⇒ NOTE:

If you have upgraded from an older version of CRS, it is recommended that you check each MCU extension to be sure that it is assigned to the most appropriate extension pool.

For details about how to assign appropriate extension pools, refer to the design scenario with its illustration of the mapping of the MCU extensions to a pool (illustrated in Figure 3-2) and to the sections in this chapter about adding MCU extensions and extension pools.

If there is a second MCU connected to the CRS, after you use the **MCU Extension Utility** to upload automatically the extension pools and add the MCU numbers to the CRS, you can use the same procedures to add pools for MCU2.

Understanding CRS Login Administration

On a single-user CRS, there are two levels of login permission: *admin* and *agent*. The agent level login allows the user all the reservations agent capabilities listed in the section “Intended Audiences” in the “About This Document” chapter. The admin level allows the user all the capabilities of the administrator.

A multi-user CRS has the same basic permission levels for each partition. Partition global provides the two levels for all partitions. Multi-user CRS also provides a restricted version of the agent level login. The admin level login can log in to any partition (including partition global) while an agent or restricted agent level can only log into partitions other than partition global. Table 3-4 provides a summary of permissions for each MCU partition login level in a multi-user CRS.

Table 3-4. MCU Partition Login Levels

Login Level	Allowed Tasks
<i>global admin</i> (a user logged in at the admin level in partition global)	Can view all MCU partitions at once, create new partitions, create new logins for any partition. Using this login, you can administer time zones, extensions, and extension pools. With root permissions, you can perform such database functions as archive and repair but you cannot schedule a conference for a partition without first logging in to that partition.
<i>partition admin</i> (a user logged in at the admin level in a partition other than partition global)	At this level, you can create agent logins within a particular partition and administer partition defaults. The partition root level can view time zones, extensions, extension pools, and all logins and passwords within the partition.
<i>partition agent</i> (a user logged in at the agent level in a partition other than partition global)	When logged into a partition at this level, you can perform all the tasks that an agent can perform.
<i>restricted partition agent</i> (a user logged in at a restricted agent level in a partition other than partition global)	This level provides all the agent functions with some restriction. Logged into a partition at this level, you can edit or delete only the conferences that you have added.

Login administration is required for a multi-user system and recommended for a single-user system.

Understanding MCU Partitions

If you are using a multi-user CRS system that is provisioned with the partitioning option, you can partition any MCU attached to your CRS system. Partitioning allows you to divide the resources of a single MCU into groupings that each appear as separate MCUs to reservations agents. When administering logins, you administer each partition as if it were a separate MCU so that, in effect, the task of MCU scheduling is divided among various reservations agents that do not have to share resources. One application for this could be for service providers who wish to divide their MCU between several companies.

The entire MCU is contained within one partition, referred to as partition global, and then that partition is subdivided into further partitions as required. Each MCU partition is given an integer designation. Partition global is a special case partition that provides access to all other partitions. Within partition global, depending on your login permissions, you can view all partitions or edit any partition settings. To review administrator and agent functions, see "Understanding CRS Login Administration" earlier in this chapter. All MCU partitions are in the same time zone as the CRS. If you delete a partition, all data related to that partition is deleted as well. The MCU should be re-partitioned each time the **MCU Query Parameters** is selected from the **Admin** menu.

Overview of Administration

Through the permission allowed with the admin level login, the CRS administrator is the only individual who has access to the hardware configuration data and the databases used for CRS administration.

The remainder of this chapter provides procedures for the following administrative tasks:

- Accessing and administering the MCU link
- Querying MCU parameters (to upload the MCU options)
- Uploading the MCU extensions and adding extension pools from the MCU(s)
- Enabling the reminder fax options, if the fax upgrade is installed (see Appendix D)
- Adding or changing MCU extensions and/or extension pools
- Editing reservation system defaults
- Adding CRS time zones
- Partitioning for Multi-User CRS
- Adding MCU(s)
- Administering CRS logins
- Editing the MCU(s) or partitions, to customize its use with CRS, as needed
- Setting up and managing CRS databases
- Viewing, backing up, restoring, and archiving CRS databases

Administering CRS Logins

Refer to the procedures in this section to add and delete CRS logins and set passwords.

Adding Logins

Only the administrator can add CRS logins.

1. Select **Logins** from the **View** menu.
2. Select from the View Logins command bar.
3. If the MCU is partitioned, you are prompted to select the partition in which to add the new login.
4. The Add Login form is displayed as illustrated in Figure 3-3.

The image shows a dialog box titled "Add Login". At the top, there are two buttons: "OK" and "Cancel". Below the buttons, the dialog is divided into three sections. The first section is labeled "Name:" and contains a single-line text input field. The second section is labeled "Password:" and contains a single-line text input field followed by a checkbox labeled "Admin". The third section is labeled "Permissions" and contains a list box with two items: "View All" and "Edit/Delete All", each preceded by an unchecked checkbox.

Figure 3-3. Add Login

5. Enter the login name and select the permissions information (including Admin to make this login the partition root).

6. Enter the email options for this login.
7. Select to save the login details. Select to close the window without saving.

Delete Logins

Only the administrator can delete CRS logins.

1. Select **Logins** from the **View** menu.
2. Select the login you wish to delete.
3. Select from the View Logins command bar.

Setting User Passwords

Only the administrator can change a CRS password.

⇒ NOTE:

The single-user version of CRS provides two levels of logins, *admin* and *agent*. The *admin* login can, by default, view, edit, and delete any conferences. The *agent* level can, by default, view, edit, and delete conferences added only by that login.

1. Select **Logins** from **View** on the menu bar, highlight and double click on a login item, or highlight a login item and select on the command bar.

The **Edit Login** window is displayed, as Figure 3-4 illustrates, so that you can change the password, permissions, or email information.

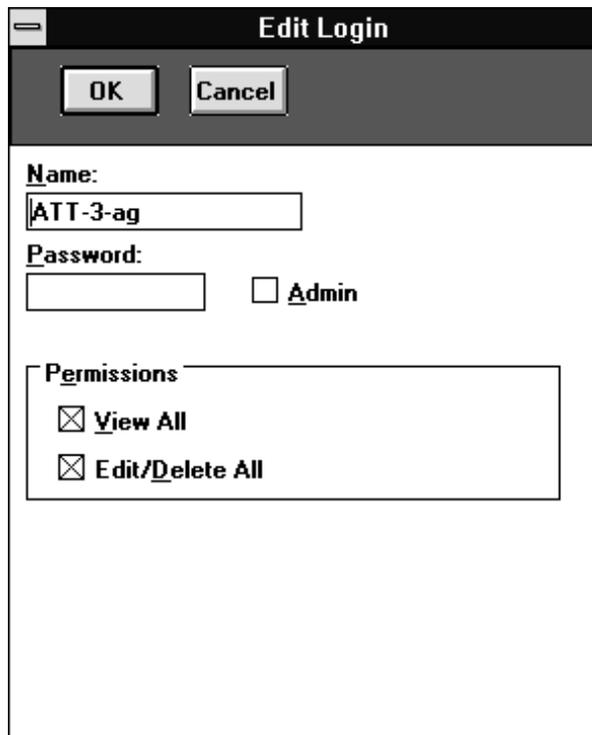


Figure 3-4. User Password Window

2. Tab to the Password and type in a new password of up to 10 alphanumeric characters.
3. If the login level is *admin*, check the Admin to enable use of the administrator functions and automatically select admin permissions in the **Permissions** box.
4. The **Permissions** box allows you to limit the permissions of this login. Select checkboxes as follows:
 - a. Select "View All" for this login to view conferences that are added by any other login.
 - b. Select "Edit/Delete All" for this login to be able to edit and delete conferences that are added by another login.
 - c. Deselect both for this login to be limited only to viewing and editing or deleting conferences that they add.
5. Select to save the login details. Select to close the window without saving.

Adding a Time Zone

Only the administrator can add a time zone and the corresponding daylight savings time, if applicable.

1. To add a local time reference:
 - Select **Time Zones** from **View** on the menu bar.
 - Select **Add** on the command bar.

The **Add Time Zone** window is displayed, as illustrated in Figure 3-5.

Add Time Zone

OK Cancel

Name

Time Zone Offset

Offset: 0 hours Behind CRS Time Ahead of CRS Time

DayLight Savings Increment

No DayLight Savings Increment

First Sunday in April to Last Sunday in October

Last Sunday in March to Last Sunday in September

Last Sunday in March to Last Sunday in October

Last Sunday in October to Last Sunday in March

Specific Date: Month: Day: to Month: Day:

Figure 3-5. Add a Time Zone Window

2. Select a time zone name.

You could indicate a name such as “CRS Local” or “MT and DST” to indicate that the time zone is Mountain Time (MT) and daylight savings

time is observed (DST). Or, you could indicate a name such as GMT + 2 and DST to mean the time zone is Greenwich Mean Time (GMT) plus (+) 2 hours and daylight savings time is observed.

3. Select the time zone offset from the CRS.

If the MCU or a site is in a different time zone from the CRS, select the amount of time (in hour increments) for the Time Zone Offset from CRS. This offset indicates the time difference from CRS if you schedule conferences with participants whose sites are in different time zones.

If the site and CRS are in the same time zone, the offset from CRS is 0 hours. If the site is one hour ahead of the CRS time, type an Offset of 1 and click on the button labeled *Ahead of CRS Time*. If the site is one hour behind the CRS time, type an Offset of 1 and click on the button labeled *Behind CRS Time*.

4. If your site is located in a region that observes daylight savings time, select from the Daylight Savings Offset list of standard rules for international daylight savings time or specify the month/day to apply and remove the increment.

In all areas where daylight savings time is observed, the changeover always occurs at 2:00AM in that time zone.

Figure 3-6 illustrates the daylight savings time increments and their meanings.

DayLight Savings Increment

- No DayLight Savings Increment** ← No Daylight Savings Observed
- First Sunday in April to Last Sunday in October** ← United States
- Last Sunday in March to Last Sunday in September** ← Europe
- Last Sunday in March to Last Sunday in October** ← United Kingdom
- Last Sunday in October to Last Sunday in March** ← Southern Hemisphere
- Specific Date: Month: Day: Month: Day:** ← China, other areas

Month: [] [] to Month: [] []
 Day: [] [] Day: [] []

Figure 3-6. Daylight Savings Time Increments

5. Select **OK** to add the local time reference. Select **Cancel** to close the window without saving.

Partitioning for Multi-User CRS

To administer partitions in the MCU, you must be logged into partition global with the *admin* login. Partition the MCU as follows.

1. Select **Defaults** from **View** on the menu bar.

⇒ NOTE:

CRS does not automatically check to verify that future conferences can still be scheduled in the new partition.

2. Select **Add** on the command bar.

The **Edit Defaults** form is displayed, as illustrated in Figure 3-7.

Figure 3-7. Edit Defaults Form

3. In the **Partition Name** field, enter a name for the partition you are creating.
4. Complete the remaining parameters for this partition.

5. Add logins for the partition as described in the “Add Logins” section earlier in this chapter.

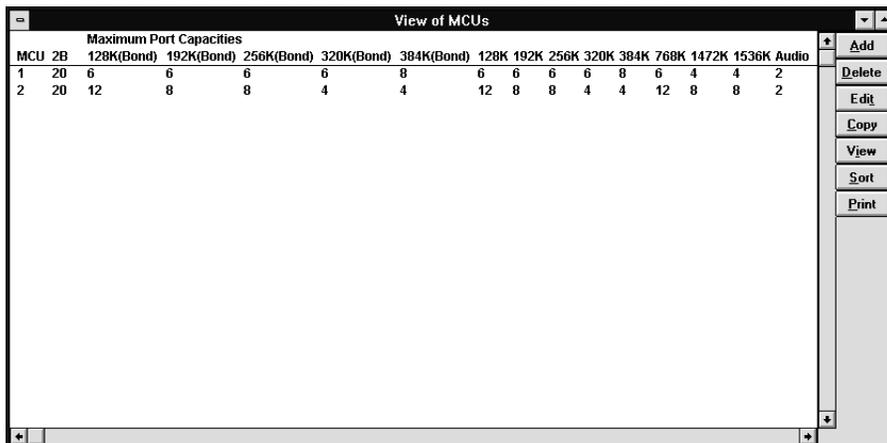
Adding an MCU

Only an administrator can add an MCU. Included in the view of an MCU are the maximum ports available that are uploaded when MCU information is uploaded.

To add an MCU:

1. Select **MCUs** from **View** on the menu bar.

The **View of MCUs** window is displayed, as illustrated in Figure 3-8.



The screenshot shows a window titled "View of MCUs". It contains a table with columns for MCU ID, 2B, and various port capacities. A command bar on the right side of the table includes buttons for Add, Delete, Edit, Copy, View, Sort, and Print.

View of MCUs															
Maximum Port Capacities															
MCU	2B	128K(Bond)	192K(Bond)	256K(Bond)	320K(Bond)	384K(Bond)	128K	192K	256K	320K	384K	768K	1472K	1536K	Audio
1	20	6	6	6	6	8	6	6	6	6	8	6	4	4	2
2	20	12	8	8	4	4	12	8	8	4	4	12	8	8	2

Figure 3-8. MCU View Window

2. Select **Add** from the command bar on the right side of the list.

The **Add MCU** window is displayed, as illustrated in Figure 3-9.

Figure 3-9. Add MCU Window

3. Add the MCU ID number (must be either 1 or 2).
4. If you are administering an MCU partition, enter the MCU ID, port capacities, and features for the partition you are administering.

⇒ NOTE:

The port capacities for all partitions combined (excluding partition global) must not exceed the total ports represented in partition global.

5. At the bottom of the screen, note the MCU model and release and select the Meet-Me extension pool for cascading. For additional information on these fields, see the “Edit MCU Window Details” table later in this chapter.
6. Select to add the MCU. Select to close the window without saving.

Linking the MCU to Your CRS

When you install, reinstall, or upgrade CRS software, you must link the MCU and the CRS by running MCU link administration.

1. Select **Run Link Admin** from **Admin** on the menu bar.

The **MCU Link Administration** window is displayed, as illustrated in Figure 3-10, for selecting the hardware information required to link the MCU to your CRS.

The information required for administering the MCU link includes selecting the MCU identification number, login, password, dial string, and communications port parameters.

The screenshot shows a window titled "MCU Link Administration" with a "Save" and "Cancel" button at the top. The window is divided into three main sections. The first section contains fields for "MCU ID" (value: 1), "Login" (value: cust), and "Password" (value: *****). Below these is a "Dial String" field with the value "5556134". The second section contains "Baud Rate" (radio buttons for 1200, 2400, 4800, and selected 9600) and "Flow Control" (radio buttons for Yes and selected No). Below these are "Parity" (radio buttons for selected None, Even, and Odd), "Character Size" (radio buttons for 7 and selected 8), and "Stop Bits" (radio buttons for selected 1 and 2). The third section contains "Com1 Parameters" (radio buttons for RS232, selected Hayes, and Disable) with a note "Com 1 Parameters are common to all MCUs", and a "Hayes Modem Initialization String" field with the value "ATEE1V1X4Q0&C1&D2S7-255S0=0".

Figure 3-10. MCU Link Administration Window

As illustrated, the **MCU Link Administration** window is divided into three sections:

- MCU ID information
- Communications port parameters
- Communications port type information

You must repeat the following procedures for each MCU that you link to the CRS. Refer to the MCU *customer options* form for more details.

Use Table 3-5 to fill in the appropriate fields for linking the MCU and the CRS and customizing your MCU/CRS configuration.

Table 3-5. MCU Link Administration Information

Field	Description/Procedure
MCU ID	Automatically displays 1 or 2.
Login	When MCU options are uploaded, a login is provided that allows CRS to perform MCU reservation-related administration (<i>cust</i> or <i>rcust</i>). CRS, in turn, has additional logins to control CRS access. Any alphanumeric characters are allowed in CRS login names but only an admin level login may add logins to CRS. Uppercase letters will be saved as lowercase. An error message is displayed if a non-alphanumeric character is selected.
Password	When MCU options are uploaded, a password is provided. To add or change a password, type any alphanumeric characters. Uppercase letters will be saved as lowercase. An error message is displayed if a non-alphanumeric character is selected.
Dial String	Type any alphanumeric characters. Uppercase letters will be saved as lowercase. An error message is displayed if a non-alphanumeric character (including backspace) is selected. Type "direct" for direct use of RS-232 for Com1 parameters. If the connection to the MCU is not a direct connection, type the dial number (for example, 555-6134, as illustrated in Figure 3-10).
Baud Rate	Select from the following available link speeds: 1200, 2400, 4800, 9600. Default = 9600.
Flow Control	Select Yes (system provides flow control) or No (no flow control). Default = No.
Parity	Select None, Even, or Odd. Default = None.
Character Size	Select 7 or 8. Default = 8.
Stop Bits	Select 1 or 2. Default = 1.
Com1 Parameters	Select a port configuration type: RS232, Hayes or Disabled. RS232 = data module. Hayes = Hayes-compatible modem. If Hayes is chosen, the Hayes Modem Initialization String field becomes active. Disabled = Com1 port disabled. Default = Hayes.
Hayes Modem Initialization String	Automatically-provided Hayes setup string: 'ATEE1V1X4Q0&C1&D2S7=255S0=0\0'.

After changing any necessary fields, select to store the link administration information. Select to close the window without saving.

Administering MCU Capabilities: A Sample View

Once the MCU(s) is linked to the CRS, the MCU options must be uploaded, the MCU(s) customized, and the MCU/CRS link tested.

Query MCU Parameters

1. To upload MCU options for MCU 1, select **Query Parameters** for MCU1 from Admin on the menu bar. The parameters are automatically uploaded and can be displayed on the View MCU window.

If MCU 2 is also connected to the CRS, also select **Query Parameters** for MCU 2 from Admin on the menu bar to upload the options for MCU 2.

2. If the MCU was partitioned, the system administrator must re-partition the MCU. See "Partitioning for Multi-User CRS" earlier in this chapter.

Using the MCU Extension Utility



CAUTION:

*If you are going to use the MCU Extension Utility **after you have upgraded or reinstalled** the CRS, before you use that utility, be certain that all MCU dialout extensions that you currently have administered in the MCU contain **NO** dial number. CRS cannot be running when you are using this utility.*

To determine the best routing and the dial string for each site on each MCU, the selection of a pool is required for administering a site. After installation completes successfully, select the **MCU Extension Utility** to automatically upload MCU extensions and create five predetermined CRS extension pools.

To use the MCU extension utility, do the following.

1. Exit the CRS. (Select **Log Out** from **File** on the menu bar, then press , and confirm your exit from the CRS.)



NOTE:

On a multi-user CRS, do **not** exit the CRS link manager.

2. Figure 3-11 illustrates the window for requesting that the extension pools be created and the MCU extensions be uploaded.

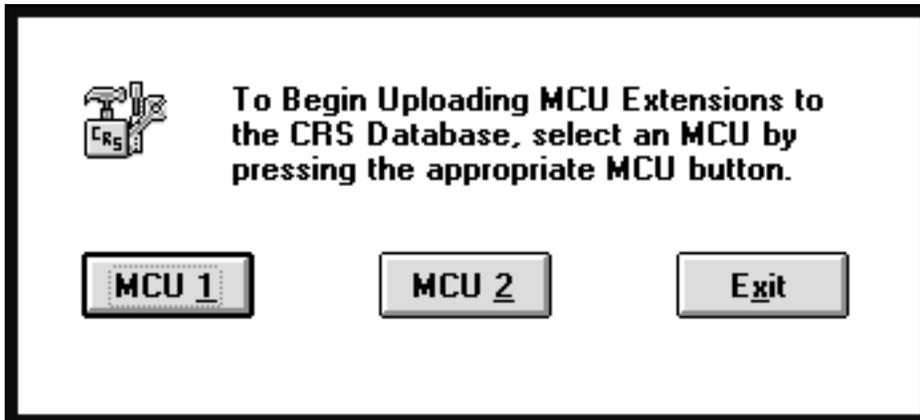


Figure 3-11. The MCU Extension Utility Window

Edit MCU Options

⇒ NOTE:

This step follows the use of the MCU Extension Utility, which required you to log out of CRS.

You can view and customize MCU information after you link an MCU to the CRS and upload the MCU options for each MCU connected to the CRS. To edit the options for an MCU:

1. Log into the CRS as *admin*.
2. Select **MCUs** from **View** on the menu bar to view the MCU(s).
3. Highlight the MCU entry in the MCU view list.
4. Select on the command bar.

The **Edit MCU** window is displayed, as illustrated in Figure 3-12.

Edit MCU

OK
Cancel

MCU ID: **Time Zone Template:** Cascade Bandwidths

Maximum MultiRate Capacities

128K: <input type="text" value="24"/>	192K: <input type="text" value="20"/>	256K: <input type="text" value="16"/>	320K: <input type="text" value="12"/>	384K: <input type="text" value="12"/>
768K: <input type="text" value="8"/>	1472K: <input type="text" value="4"/>	1536K: <input type="text" value="4"/>		

Maximum Bonded Port Capacities

128K: <input type="text" value="24"/>	192K: <input type="text" value="20"/>	256K: <input type="text" value="12"/>	320K: <input type="text" value="12"/>	384K: <input type="text" value="12"/>
---------------------------------------	---------------------------------------	---------------------------------------	---------------------------------------	---------------------------------------

Maximum Miscellaneous Capacities

2B: <input type="text" value="32"/>	MCS/MLP: <input type="text" value="4"/>	Audio Add On: <input type="text" value="4"/>	UCC: <input type="text" value="4"/>
BRI Direct Connect: <input type="text" value="0"/>	DCP Direct Connect: <input type="text" value="0"/>		

Features

<input checked="" type="checkbox"/> Advanced Control	<input checked="" type="checkbox"/> Cascading	<input checked="" type="checkbox"/> Dynamic Resizing	<input checked="" type="checkbox"/> SP1
<input type="checkbox"/> User Control	<input checked="" type="checkbox"/> Dial Out	<input checked="" type="checkbox"/> Tones	

Model:

MCU Release:

MeetMe Extension Pool: ↓

Figure 3-12. Edit MCU Window

Table 3-6 provides descriptions of the MCU details on the **Edit MCU** window.

Table 3-6. Edit MCU Window Details

Field	Description/Procedure
MCU ID	Automatically displays 1 or 2.
Time Zone Template	Select a name that reflects: <ul style="list-style-type: none"> ■ The time zone offset from the CRS, if the MCU or the site is in a different time zone from the CRS. ■ Daylight savings time, if the site follows daylight savings time.
Cascade Bandwidths	Select this to edit the cascade bandwidths. In this area, you can specify the bandwidths and network access types available for the link in a conference involving this MCU when it uses cascading.
Maximum Multirate Port Capacities	The port capacities are uploaded from the MCU to indicate the maximum number of ports that the MCU model can support for ports with various multirate bandwidths. If you are administering an MCU partition, enter the number of multirate ports for the partition. CRS verifies that the total ports for all partitions does not exceed the MCU total for those ports.
Maximum Bonded Port Capacities	The port capacities are uploaded from the MCU to indicate the maximum number of ports that the MCU model can support for ports with various BONDed bandwidths. If you are administering an MCU partition, enter the number of BONDed ports for the partition. CRS verifies that the total ports for all partitions does not exceed the MCU total for those ports.
Maximum Miscellaneous Capacities	The port capacities are uploaded from the MCU to indicate the maximum number of ports for 2B, Multipoint Communication Service (MCS)/Multilayer Protocol (MLP), audio add-on, Universal Conference Control (UCC), BRI Direct Connect, and DCP Direct Connect. If you are administering an MCU partition, enter the number of ports for the partition. CRS verifies that the total ports for all partitions does not exceed the MCU total for those ports.

Table 3-6. Edit MCU Window Details — Continued

Features	<p>The following controls for basic MCU features are uploaded from the MCU, if the feature is supported by the MCU model:</p> <ul style="list-style-type: none"> — Advanced Control— allows the conference to be set for presentation and broadcast with autoscan. — User Control—allows a video conference to use chair control. — Cascading—allows a video conference to bridge two MCUs. — Dial Out—allows the MCU to dial an endpoint to establish a connection for a video conference call. — Dynamic Resizing—allows the number of conference participants to be changed during a video conference and allows the conference duration to be changed as well. — Tones—allows the MCU to sound tones when a participant enters or leaves a video conference, and allows for a pre-set warning that a video conference is about to end. <p>If you are administering an MCU partition, deselect the features you do not want the partition to have.</p>
Model	The MCU model name is uploaded.
MCU Release	The MCU software release number is uploaded.
MeetMe Extension Pool	Select the MeetMe Extension pool that the MCU uses as the default.

5. Select the Time Zone Template.
6. Select to view or edit the cascade bandwidth information.
7. Select a MeetMe Extension Pool that the MCU uses as the default extension pool.
8. Select . Select to close the window without saving.



CAUTION:

*Except for selecting the local time reference and MeetMe extension pool, it is recommended that you do **not** change any of the MCU options.*

Consult your MCU system administrator if you want to modify the options once they are uploaded.

Once you have supplied the necessary capabilities for the MCU(s), your CRS and MCU connection is completed. After you verify that the MCU connection is working, you can begin creating the CRS databases.

Verifying the MCU Connection

After you select **Query MCU Parameters** for **MCU1** or **MCU2** from **Admin** on the menu bar, the MCU data is retrieved from that MCU, verifying the CRS-MCU connection.

If you query the MCU in a partitioned CRS, the port capacities may change and you will need to re-partition the MCU.

If you cannot retrieve MCU parameters, (an error message is displayed when you select **Query MCU Parameters** from **View** on the menu bar), you should check the connections, the dial number, and Com1 parameters. In this situation, use the following procedure to verify the MCU connection:

1. Before closing the **MCU Link Administration** window, record the *Dial String*.
2. From the appropriate Windows Program Manager Accessories Group, select the **Terminal** icon.
3. Select **Settings-Communications**.
4. The Communications window is displayed, from which you can check that the settings are as follows: Connector=COM1, Baud Rate=9600, Data Bits=8, Stop Bits=1, Parity=None, and Flow Control=Xon/Xoff.
5. Change any settings that are not correctly set, and select to save these MCU defaults.
6. Select **Phone-Dial** (or use Hayes dialing: *atdt...*) and type the dial number that you recorded from the **MCU Link Administration** window.
7. Select . (At this point, the PC calls the MCU over the same connection used by CRS.)
8. The login for the MCU is displayed, verifying that you have a working MCU-CRS link.
9. To disconnect the CRS-MCU link and the modem connection, select **Phone-Hang Up**.
10. If the MCU login is not displayed (or if you still cannot use **Query MCU Parameters** from **Admin** on the menu bar), consult your technical support representative who can verify that the MCU recognizes that CRS is active (verify that the *External Reservation Sys* field on the **customer-options** form on the MCU is set to **y**).
11. If you queried a partitioned MCU you may need to re-partition it to reset the proper port capacities for each partition. See "Partitioning for Multi-User CRS" earlier in this chapter.

Creating and Managing CRS Databases

You have now established a working link for the CRS and MCU and have customized the use of the CRS. To be sure you have followed the checklist, verify that you have **already** performed the following tasks:

- Partitioned the MCU (if you are administering a multi-user CRS with partitioning provisioned)
- Set the user password
- Added the local time reference
- Added the MCU
- Performed link administration
- Queried the MCU Parameters (for options for each MCU or MCU partition connected to the CRS)
- Edited the MCU(s)
- Verified the MCU connection and tested the MCU link connectivity

If you are unfamiliar with the design and setup tasks, refer to the checklist at the beginning of this chapter **before** proceeding with the creation of the databases and the editing of the CRS defaults.

The administrator creates the CRS databases in the following order:

- Extension Pools
- MCU Extensions
- Endpoints
- Conference Templates
- (Edit) CRS system defaults
- Companies
- People
- Sites

The following sections provide procedures for creating databases for the CRS categories and for accessing an existing database entry to edit information, delete the entry, or copy the entry to create a similar new entry.

Adding an Extension Pool

An extension pool is a group of MCU extension numbers that have common properties such as network access and pool type (including bandwidth). Five pools are created at installation time when MCU extensions are uploaded from the MCU to the CRS (refer to the procedures for using the **MCU Extension Utility** in this chapter).

If there is one MCU connected to the CRS, the pools that are created during the uploading of extensions are:

Mcu1_Audio, Mcu1_Nx56k, Mcu1_Nx56k_Dialout, Mcu1_All, and Mcu1_All_Dialout

If a second MCU is connected to the CRS, the pools that are automatically created are:

Mcu2_Audio, Mcu2_Nx56k, Mcu2_Nx56k_Dialout, Mcu2_All, and Mcu2_All_Dialout

If the design of your CRS requires the addition of any additional pools, only the administrator can add a pool (see the “Administering MCU Capabilities: A Sample View” section at the beginning of this chapter for details about how pools are designed and administered).

1. To add an extension pool:
 - Select **Extension Pools** from **View** on the menu bar.
 - Select on the command bar

The **Add Extension Pool** window is displayed, as illustrated in Figure 3-13.

Figure 3-13. Add an Extension Pool

2. Type a pool name of up to 25 alphanumeric characters (including spaces), keeping in mind that the pool name helps you recognize the attributes of the numbers in that pool.

For example, using the pool name **Mcu1_All** groups all MCU extension numbers that can dial in to an MCU for access to a 384k conference. **Mcu1_All_Dialout** can be used to designate a group of all MCU extension numbers that the MCU uses to dial out to sites.

⇒ NOTE:

Remember that you are going to connect a pool to a site only if the pool contains MCU extension numbers that have the same bandwidth and network access as the endpoint for that site.

⇒ NOTE:

Refer to the design tasks checklist and task flow details at the beginning of this chapter for details about when additional pools must be administered for MCU extension numbers. One such time is when you have some endpoints that are on a local extension and you want to create a pool for those endpoints.

3. Select the MCU number (1 or 2) to which the extension pool belongs.
4. Select the capability (Pool Type) that the extension pool supports:
 - *Nx56k MeetMe* is used for the conference participants to dial into the MCU for conferences with bandwidths in multiples of 56k (112k, 168k, 224k, 280k, 336k, or BONDED).

- *All Bandwidth MeetMe* is used for the conference participants to dial in to the MCU for all supported bandwidths.
 - *Nx56k DialOut* is used for the MCU to dial out to conference endpoints and must be capable of supporting bandwidths that are multiples of 56k (112k, 168k, 224k, 280k, 336k, or BONDED in multiples of 56k).
 - *All Bandwidth DialOut* is used for the MCU to dial out to conference endpoints and must be capable of supporting all bandwidths.
 - *Audio Only* is used for a phone-only conference participant to dial in to the MCU to join a multipoint conference. This is also used for a UCC endpoint to dial in to the conference.
5. Select to add the pool. Select to close the window without saving.

Adding an MCU Extension Number

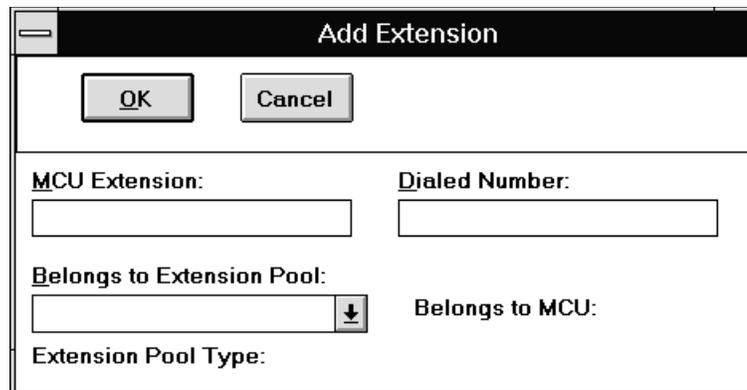
Only the administrator can add an MCU extension number. Each entry contains an extension number, a dialed number (a 700 number, an internal number, a local number, or a number with area code), and network preference (pool).

To use valid MCU extension numbers, you must refer to the MCU extension numbers administered on the MCU (provided by the MCU System administrator). When CRS is installed, the MCU extensions are loaded from the MCU and grouped into five pools.

If you need to add an extension once the initial extension list is loaded from the MCU, you must check with the MCU system administrator for an updated list of the new numbers added to the MCU since the CRS installation. From this most current MCU list, you can type the correct numbers on the following **Add Extension** window.

1. To add an MCU extension number:
 - Select **MCU Extensions** from **View** on the menu bar.
 - Select **Add** on the command bar.

The **Add Extension** window is displayed, as illustrated in Figure 3-14.



The screenshot shows a dialog box titled "Add Extension". At the top, there are two buttons: "OK" and "Cancel". Below the buttons, there are four input fields arranged in two columns. The left column contains "MCU Extension:" followed by a text box, "Belongs to Extension Pool:" followed by a dropdown menu with a downward arrow, and "Extension Pool Type:". The right column contains "Dialed Number:" followed by a text box, and "Belongs to MCU:".

Figure 3-14. Add an MCU Extension

2. Fill in the MCU Extension.



NOTE:

An extension number for an MCU should only be in one pool. However, if there are two MCUs connected to the CRS, you can assign an extension to a pool on both MCUs.

3. The Dialed Number is automatically displayed from the MCU extension list that is uploaded at installation time.

If the number is incorrect, or you are adding a new MCU extension, refer to the **MCU Extension** form provided by the MCU system administrator.

Type the number listed in the *Meet-Me Number* field on that MCU form.

4. Select to open the drop-down box for Belongs to Extension Pool and select the pool for your MCU extension number.

As mentioned, there are five pools for each MCU connected to the CRS, which enable you to create an extension assigned to MCU1 and MCU2, as follows:

- *Mcu1_Audio, Mcu1_Nx56k, Mcu1_Nx56k_Dialout, Mcu1_All, and Mcu1_All_Dialout*

If a second MCU is connected to the CRS, the pools that are automatically created are:

- *Mcu2_Audio, Mcu2_Nx56k, Mcu2_Nx56k_Dialout, Mcu2_All, and Mcu2_All_Dialout*

Check the **list-mcu extension** form or consult your MCU system administrator for information about assigning the extensions to the appropriate pools. The design scenario previously provided in this chapter illustrates how the MCU list maps to the CRS extensions (see Figure 3-2).

When you select the pool, the MCU number is displayed in the area that follows Belongs to MCU and the bandwidth for the pool is displayed in the area that follows Extension Pool Type.

5. Select to add the MCU extension number. Select to close the window without saving.

Adding an Endpoint

Only the administrator can add an endpoint.

1. To add an endpoint:
 - Select **Endpoint Templates** from **View** on the menu bar.
 - Select **Add** on the command bar.

The **Add Endpoint** window is displayed, as illustrated in Figure 3-15.

Add Endpoint

OK Cancel

Name:

Supported Bandwidths

112K	<input type="checkbox"/>
128K	<input type="checkbox"/>
168K	<input type="checkbox"/>
192K	<input type="checkbox"/>
224K	<input type="checkbox"/>
256K	<input type="checkbox"/>
280K	<input type="checkbox"/>
320K	<input type="checkbox"/>
336K	<input type="checkbox"/>
384K	<input type="checkbox"/>
768K	<input type="checkbox"/>
1472K	<input type="checkbox"/>
1536K	<input type="checkbox"/>

Supported Protocols

Px64

SG3

CTX

Additional Audio Capabilities

G.722 (7 Khz)

G.728 (LD-CELP)

Password Capable

Enhanced Service

Data Capable

Figure 3-15. Add an Endpoint

2. Type an endpoint name of up to 25 alphanumeric characters (including spaces) that indicates the capabilities for your endpoint. For example, the name could be **AT&T Group Systems** or **AT&T Vistium**.
3. Select the bandwidth rates that your endpoint supports from the Supported Bandwidths list.
4. Select the protocol(s) that your endpoint supports from the Supported Protocols list (for example, the multipoint standard H.320, or non-multipoint proprietary standard SG3).

The AT&T endpoints support the H.320 protocol for multipoint conferences. The CTX and SG3 protocols are used for point-to-point conference reservation capabilities.

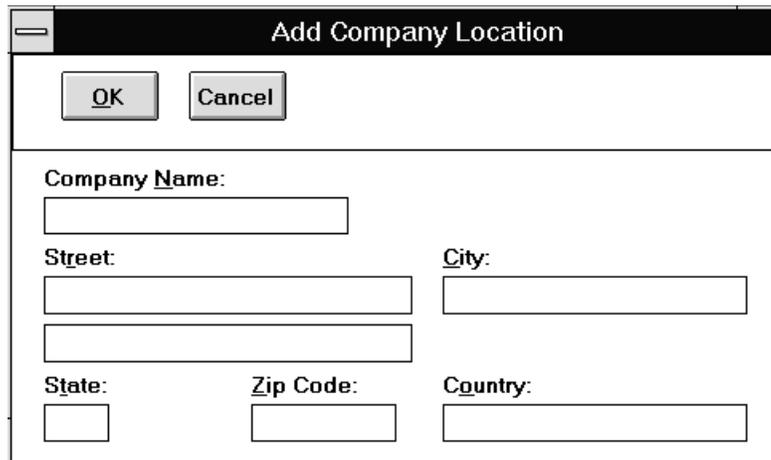
5. Select the audio capabilities (in addition to G.711) that the endpoint supports in the Additional Audio Capabilities list.
6. Select the capabilities this endpoint has for Password, Enhanced Service, and Data.
7. Select to add the endpoint. Select to close the window without saving.

Adding a Company Location

Administrators and reservations agents can add a company (or department) location.

1. To add a company location do one of the following:
 - Select the **Company** icon on the CRS main window and select **Add** on the command bar.
 - Select **Company** from **View** on the menu bar and select **Add** on the command bar.

The **Add Company Location** window is displayed, as illustrated in Figure 3-16.



The screenshot shows a dialog box titled "Add Company Location". At the top, there are "OK" and "Cancel" buttons. Below them, the form contains the following fields:

- Company Name:** A single text input field.
- Street:** Two stacked text input fields.
- City:** A single text input field.
- State:** A single text input field.
- Zip Code:** A single text input field.
- Country:** A single text input field.

Figure 3-16. Add a Company Location

2. Type in the company name and address.

For example, the company locations for the scenario in this chapter are *Partner Inc.* for the main headquarters and *Tri-State Inc.* for the other location.

3. Select **OK** to add the company. Select **Cancel** to close the window without saving.

Adding a Person

Administrators and reservations agents can add a person.

1. To add a person (that is, conveners and/or contacts), do one of the following:
 - Select the **People** icon on the CRS main window and select **Add** on the command bar.
 - Select **People** from **View** on the menu bar and select **Add** on the command bar.

The **Add Person** window is displayed, as illustrated in Figure 3-17.

The screenshot shows a dialog box titled "Add Person". At the top, there are "OK" and "Cancel" buttons. Below them are several input fields arranged in two columns. The first row has "Title:" with a dropdown arrow, "First Name:" with a text box, and "Last Name:" with a text box. The second row has "Job Title:" with a text box and "Phone Number:" with a text box. The third row has "Fax Number:" with a text box and "Billing ID:" with a text box. The fourth row has "Company:" with a dropdown arrow and "Room:" with a text box. At the bottom is a "Notes:" field with a text area and a vertical scrollbar. Below the text area, it says "(CR/LF = Ctrl Enter)".

Figure 3-17. Add a Person

2. Select the person's title.
3. Type the person's first and last names.
4. Type the phone and fax numbers. Fax numbers are required if the person being added is a convener who is to receive a fax notification for scheduled conferences.

5. Type in a billing identification number of up to 15 characters. The Billing ID field value is downloaded to the MCU.
6. Click on the list box for Company and select the company location to which the person belongs.
7. If needed, type text notes in the Notes area (up to 253 characters, including carriage returns and spaces, are allowed).
8. Select to add the person. Select to close the window without saving.

Adding a Site

Administrators and reservations agents can add a site. Sites include not only the location, contact person, company (department), and phone numbers, but also the endpoint and bandwidth(s) that the site can support.

Administering sites requires that the person adding the site have a list of:

- The type(s) of equipment in the room
 - The bandwidths supported by the video equipment
 - The seating capacity in the room (required for scheduling a room(s)-only conference)
 - The list of phone numbers (audio, speakerphone, fax, and video) from the technicians who set up the conference capabilities for that location.
1. To add site data, do one of the following:
 - Select the **Site** icon on the CRS main window and select on the command bar.
 - Select **Site** from **View** on the menu bar and select on the command bar.

The **Add Site** window is displayed, as illustrated in Figure 3-18.

Add Site

OK Cancel

Site Name:

Room Capacity:

Company Location:

Time Zone Template:

Contact Person:

Room Contains

- Board
- Overhead Proj
- Document Camera
- Slide Projector
- TV/VCR
- Fax

Audio

Room Phone Number:

Speakerphone Number:

Fax Phone Number:

Video Phone Numbers

Supported Bandwidths

Notes: (CR/LF = Ctrl Enter)

Figure 3-18. Add a Site

This window contains the following areas:

- Identification attributes
- Non-video numbers and equipment in the room
- Video Numbers details
- Bandwidth details
- Notes

Identification Attributes

Figure 3-19 illustrates the identification area of the **Add Site** window.

Site <u>N</u> ame:	Room Capacity:
<input type="text"/>	<input type="text" value="0"/>
Com <u>p</u> any Location:	Time <u>Z</u> one Template:
<input type="text"/> ↓	<input type="text" value="CRS Local"/> ↓
Contact <u>P</u> erson:	
<input type="text"/> ↓	

Figure 3-19. Identification Area for a Site

1. Type a unique Site name of up to 25 alphanumeric characters (including spaces). Duplicate sites are not allowed in the CRS database.
2. Click on the Company Location list box to select a company.
3. Click on the Contact Person list box to select a contact person.
4. Room capacity is defaulted to 0, but you can type the exact capacity that the site accommodates. This capacity is used to select sites for a rooms only conference.
5. Click on the Time Zone Template list box to select a time zone template name that reflects:
 - The time zone offset from the CRS, if the site is in a different time zone from the CRS
 - Daylight savings time, if the site follows daylight savings time

Typically, the time zone is set to CRS Local.

Non-video Numbers and Room Contents (Equipment)

Figure 3-20 illustrates the non-video numbers and room contents (equipment) area of the site window.

Audio

Room Phone Number:

Speakerphone Number:

Fax Phone Number:

Room Contains

- B**oard
- O**verhead Proj
- D**ocument Camera
- S**lide Projector
- T**V/VCR
- F**ax

Figure 3-20. Non-video Numbers and Room Contents (Equipment)

6. You can type up to two different audio phone numbers (one for a room phone and one for a speakerphone).
7. Type in the fax number for the site (room), if a fax exists in the room.
8. You can store a list of the conference equipment that your site contains by clicking the to the left of the equipment name.
9. If needed, type text notes in the Notes area (up to 253 characters, including carriage returns and spaces, are allowed).

Video Numbers

10. Figure 3-21 illustrates the video numbers dialog window that is displayed when you select from the Add Site form.

Figure 3-21. Video Numbers

11. Select Preferred MCU or no MCU for this site.
12. If the site is a Dedicated Access site, select Dedicated.

⇒ NOTE:

A dedicated access selection places the following constraints on other selections in this window:

- A preferred MCU must be selected.
- If the Dedicated Access uses the multirate bandwidths, a Wideband site number entry is required.
- If the Dedicated Access is with 2-channels (2B), entries must be provided for both first and second fields of the preferred MCU.
- Do not enter a Meet-Me number for the Dedicated Access site.
- Dedicated Access sites cannot use BONDing.

13. If the site is an external site (or guest site), select External Site.

 **NOTE:**

External sites can only have a Meet-Me number and can only be used in multipoint conferences. The MCU uses site numbers to implement the Dial-Out feature.

14. If the site uses the multirate bandwidths, enter only a Wideband Site Number in the **From MCU1**, **From MCU2**, and **From Another Site** areas.
15. If the site uses bonding, type only the 1st 56k/64k Site Number for the **From MCU1**, **From MCU2**, and **From Another Site** areas.
16. If the site uses 2B bandwidths but is not a Dedicated Access site, do the following:
 - a. Type both the First 56K/64K Site Number and Second 56K/64K Site Number for MCU1 to dial out to the site. Each 1B channel has a 56/64K phone number.
 - b. Type the Wideband Site Number for MCU1 to dial out to the site. One field is needed for the Wideband Site Number.
 - c. Select an extension pool from the MeetMe Extension Pool list that contains numbers to use for dialing into MCU1.

You can select only one extension pool per site. If you have administered CRS defaults, a default pool is already displayed in the field. If no extension pool is listed, or you wish to change the pool, open the list box and select a pool.

- d. Type both the First 56K/64K Site Number and Second 56K/64K Site Number for MCU2 to dial out to the site.

Each 1B channel has a 56/64K phone number.
- e. Type the Wideband Site Number for MCU2 to dial out to the site.

One field is needed for the Wideband Site Number.
- f. Select an extension pool from the MeetMe Extension Pool list that contains numbers to use for dialing into MCU2.

You can select only one extension pool per site. If you have administered CRS defaults, a default pool is already displayed in the field. If no extension pool is listed, or you wish to change the pool, open the list box and select a pool.

- g. Type both the First 56K/64K Site Number and Second 56K/64K Site Number for the other site in a point-to-point conference to dial out to this site.

Each 1B channel has a 56/64K phone number.

- h. Type the Wideband Site Number for the other site in a point-to-point conference to dial out to this site.

One field is needed for the Wideband Site Number.

- 17. Select to add the numbers and extension pools. Select to close the window without saving.

Bandwidth and Endpoint

Figure 3-22 illustrates the site bandwidth form that is displayed when you select from the Add Site form.

The dialog box titled "Supported Site Bandwidths" contains the following elements:

- Buttons: and
- Endpoint: A dropdown menu with a downward arrow.
- Checkbox: Data Capable
- Table: A table with three columns: MultiRate, Bonded, and 2B. The rows list various bandwidth values from 112K to 1536K.

Supported Bandwidths	MultiRate:	Bonded:	2B:
112K	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
128K	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
168K	<input type="checkbox"/>	<input type="checkbox"/>	
192K	<input type="checkbox"/>	<input type="checkbox"/>	
224K	<input type="checkbox"/>	<input type="checkbox"/>	
256K	<input type="checkbox"/>	<input type="checkbox"/>	
280K	<input type="checkbox"/>	<input type="checkbox"/>	
320K	<input type="checkbox"/>	<input type="checkbox"/>	
336K	<input type="checkbox"/>	<input type="checkbox"/>	
384K	<input type="checkbox"/>	<input type="checkbox"/>	
768K	<input type="checkbox"/>		
1472K	<input type="checkbox"/>		
1536K	<input type="checkbox"/>		

Figure 3-22. Bandwidth, Endpoint, and Notes

- 18. Select one endpoint for the site from the Endpoint list that contains compatible endpoints.

Supported bandwidths are automatically checked in Bandwidth Supported for the bandwidth that you select.

If you have BONDing enabled for BONDing bandwidths on an endpoint, when you select that endpoint, the Bonded is automatically checked. The same is true for multirate ports when multirate is enabled.

You can select only one endpoint per site. If you have administered CRS defaults (see Figure 3-24), a default endpoint is already displayed in the field. If no endpoint is listed, or you wish to change the endpoint, open the list box and select an endpoint.

19. Select to accept the bandwidth information. Select to close the window without saving.
20. At the Add Site window, select to add the site. Select to close the window without saving.

Adding a Conference Template

Only the administrator can add a conference template.

1. To add a conference template, do one of the following:
 - Select the **Template** icon on the CRS main window and select on the command bar.
 - Select **Template** from **View** on the menu bar and select on the command bar.

The **Add Conference Template** window is displayed, as illustrated in Figure 3-23.

Add Conference Template

OK Cancel

Template Name:
[]

Supported Bandwidth

- 112K
- 112K-2B
- 128K
- 128K-2B
- 112/128K-2B
- 168K
- 192K
- 224K
- 256K
- 280K
- 320K
- 336K
- 384K
- 768K
- 1472K
- 1536K

Supported Protocol

- P_x64
- S_G3
- C_TX

Figure 3-23. Add Conference Template

2. Type a template name of up to 25 alphanumeric characters (including spaces) that indicates the bandwidth and protocol it uses. For example, the name could be **PC Quality** or **384k Bandwidth**.
3. Select the bandwidth rates for the conference template from the Supported Bandwidth list.

 **NOTE:**

Selecting a bandwidth that supports BONDing (112k-384k (non-2B)) enables BONDing in the conference. Selecting 112/128K enables rate adaptation in the conference.

4. Select the protocol for the conference template from the Supported Protocols list (for example, the multipoint standard H.320, or non-multipoint proprietary standard SG3).
5. Select to add the conference template. Select to close the window without saving.

Managing the CRS Defaults

Only the administrator can manage the CRS conference defaults. Only **one** set of defaults should be created for the CRS or for each partition of a partitioned multi-user CRS. Default values entered in this window affect other CRS defaults.

1. To administer the conference defaults, select **Defaults** from **View** on the menu bar.
2. Highlight an entry in the view and select **Edit**.

The **Edit Defaults** window is displayed; Figure 3-24 is a single-user CRS example.



NOTE:

In partition global of a multi-user CRS, there are also selections for identifying the partition name and provisioning the fax reminder option on a per-partition basis. In partitions other than partition global, the fax provisioning option is not administrable and the **CRS's Time Zone Template** field is not displayed.

Figure 3-24. Display CRS Defaults

The databases that you have created provide information for the Defaults database. The **Edit Defaults** window enables you to customize some of the default selections for sites and the MCU(s).

Table 3-7 describes each field value, its correspondence to other CRS defaults, and where the CRS default is displayed.

Table 3-7. CRS Conference Defaults

Field	Description/Procedure
Partition Name (Multi-User CRS in Partition Global)	If logged into partition global of a multi-user CRS, this field allows you to name the selected partition. Enter the alphanumeric identifier for the partition.
Fax Provisioned (Multi-User CRS in Partition Global)	If logged into partition global of a multi-user CRS, this option allows you to provision fax reminders on a per-partition basis. If you provision fax reminders for a given partition, the admin level login for that partition can enable fax reminders in that partition.
Scan Interval	Type a default number from 10 to 240. This interval value is automatically displayed on the Multipoint Options window and indicates the interval for scanning each endpoint in broadcast mode conferences.
Entry/Exit and Warning Tones	Check these boxes to indicate that conference participants can hear these tones during a conference, if the endpoints at the conference sites support the tones. Checking these boxes results in this checked field being displayed on the Multipoint Options window.
Fax Reminders	Check this box, if the reminder fax option is enabled, to indicate that a fax reminder should be sent a programmable number of days before the conference. (See Appendix D, "Optional Procedures": "Installing the Fax Upgrade," for details about enabling the reminder fax options.)
Data	Check this box to specify that data sharing is enabled by default for all multipoint conferences.
Video Tips	Check this box to include tips for successful video conferences in conference confirmation reports.
UCC Tips	Check this box to include UCC instructions with conference confirmation reports for conferences using UCC.
Site's Time Zone Template	Select a time zone template name to be used for sites.
CRS's Time Zone Template (Multi-User CRS in Partition Global, Multi-User CRS Without Partitions, or Single-User CRS)	Select a time zone template name that reflects: <ul style="list-style-type: none"> — The time zone offset from the CRS, if the MCU or a site is in a different time zone from the CRS. The default offset is 0. — Daylight savings time, if the site follows daylight savings time. <p>The default CRS template name, displayed on the Add Site window, is CRS Local. If a multi-user CRS is partitioned, this choice is available only in partition global.</p>
CRS Contact	Select the appropriate default CRS contact for conferences. If the MCU is partitioned, select a CRS contact for this partition.

Table 3-7. CRS Conference Defaults — *Continued*

Field	Description/Procedure
Conference Mode	<p>Default is set to <i>Voice-Activated</i> (the current speaker to be the broadcasting endpoint and to see the last broadcaster who spoke).</p> <p>To change the default conference mode displayed on the Multipoint Options window, select either of the following:</p> <ul style="list-style-type: none"> ■ <i>Presentation</i> [a single endpoint (presenter) to broadcast to all other endpoints, with the broadcaster's endpoint set to voice-activated]. Participants see just the presenter. ■ <i>Broadcast</i> (a single endpoint to broadcast audio and video to all other endpoints, but to receive only video from each endpoint in turn). The broadcasting site sees each other site in rotation during the conference. The rotation is at the rate you entered in the Scan Interval field. ■ <i>Chair Control</i> (the chairperson selects which endpoint video is broadcast to all the other endpoints). Each participant can hear audio from any other participant and a participant can acquire the control and initiate a broadcast. To use chair control, the controlling endpoint must be a H.320 chair control capable endpoint.
Conference Type	<p>Default is set to Multipoint. Point-to-point and Room Only do not use the MCU. The selected setting is the default displayed on the Add Conference window.</p>
Conference Audio Mode	<p>Select the audio mode to be used by default in conferences. Selecting automatic allows the MCU to select the optimum audio mode for the conference at the time of the conference.</p>

Table 3-7. CRS Conference Defaults — Continued

Field	Description/Procedure
Endpoint	Click on the <input type="button" value="↓"/> to select the default endpoint to be displayed on the Add Site window.
Conference Template	Click on the <input type="button" value="↓"/> to select the default conference template to be displayed on the Add Conference window.
MeetMe Extension Pool	Click on the <input type="button" value="↓"/> and select the default extension pool for a site to dial out to MCU1 (or MCU2, if your system is capable of cascading to another AT&T MCU).
Preferred MCU	Select the Preferred MCU (MCU 1 or 2) or select No MCUs preferred.
Conference Notes	<p>If needed, type generic company or department text notes in the Notes area. Up to 253 characters are allowed.</p> <p>Figure 3-24 illustrates how you can set up a default information list of general topics that can be edited for notes. These topics can be used by conveners and reservation agents to supply such specific conference-related information as food requirements, contacts for notifying participants if a conference is canceled, or special meeting needs (such as videos, viewgraphs, slides, or awards for use during the conference).</p>

3. Select to save the defaults. Select to close the window without saving.

Managing the CRS Databases

The remainder of this chapter provides procedures for the following CRS database management tasks:

- Repairing a Database
- Backing up a database (maintaining a log)
- Restoring a database
- Archiving a database
- Exporting database information

The procedures to follow depend on whether you have a single- or multi-user CRS.

Repairing a Database (Single-User CRS)

Only the administrator can repair a CRS database. Although the CRS automatically repairs the database daily (at 3:20 AM), you might need to perform a repair to recover from errors, or you might want to compress data to free disk space.

To repair the CRS database, select **Repair Database** from **File** on the menu bar.

The repair occurs immediately and is completed when the hour glass icon in Windows disappears.

Backing Up a CRS Database (Single-User CRS)

Only the administrator should back up a CRS database. You should perform a routine backup of your entire database **a minimum of once a week** as a safeguard against losing data.

You also must back up your database before performing an upgrade, reinstallation, or un-install of any CRS version.



CAUTION:

*To preserve all the conference and database information that you or the reservations agent enters after each backup, it is recommended that you keep a log **and** request that the reservations agent keep a log of the CRS work that should be related to the administrator.*

The reservations agent should print a set of conference confirmations and appropriate preview reports if any database is changed, and you should print reports for information you might change, such as the MCU extensions. These logs ensure that you are retaining a detailed history of your work on the CRS until you perform the next backup of the CRS database.

To perform a backup of the CRS:

1. Exit CRS. (Select **Log Out** from **File** on the menu bar, then press , and confirm your exit from the CRS.)
2. Select the Windows backup utility (MWBACKUP) from the Applications group.
3. Select **Open Setup** from **File** on the menu bar.
4. Select the directory *att_crs\ibase*.
5. Select the file *crs.set*. This file defines the CRS files to be backed up.

Start the backup and follow the procedures.

Restoring a Database (Single-User CRS)

Only the administrator can restore a CRS database. If you have encountered system problems (such as database corruption or PC hardware problems with the CRS), you might be prompted by messages or experience abnormal system behavior. In this situation, you should restore the last backup set of CRS files.

To restore a CRS database:

1. Exit CRS. (Select **Log Out** from **File** on the menu bar, then press , and confirm your exit from the CRS.)
2. Select the Windows backup utility (MWBACKUP) from the Applications group.
3. Select .
4. Select **Retrieve** from **Catalog** on the menu bar.

The **Retrieve Catalog** window is displayed.

5. Select .
6. When prompted, insert the last diskette from the latest backup set.
Select .
7. Select **All** from **File** on the menu bar to select all the files from the catalog that can be retrieved.
Select .
8. Start the restore and follow the procedures for inserting the diskettes from the backup set.
Select .
9. When you are prompted, insert the next diskette from the backup set.

The restore continues, and you are prompted to insert the diskettes that

contain files from the catalog that has been specified.

Continue to insert the diskettes that are requested, and select until the restore completes.

A message is displayed that your restore has completed successfully.

10. Select and select to exit the backup utility.
11. Restart CRS and manually add all the data that has been entered in CRS since the last backup.

Archiving a CRS Database (Single-User CRS)

Only the administrator can archive a CRS database. Before you archive a database, you must create a backup copy of your current database.

⇒ NOTE:

When the database is archived, all the old conferences are removed from the database and that old information cannot be accessed again.

1. To archive the CRS databases, select **Archive Database** from **File** on the menu bar.

The Archive Database window is displayed, as illustrated in Figure 3-25.

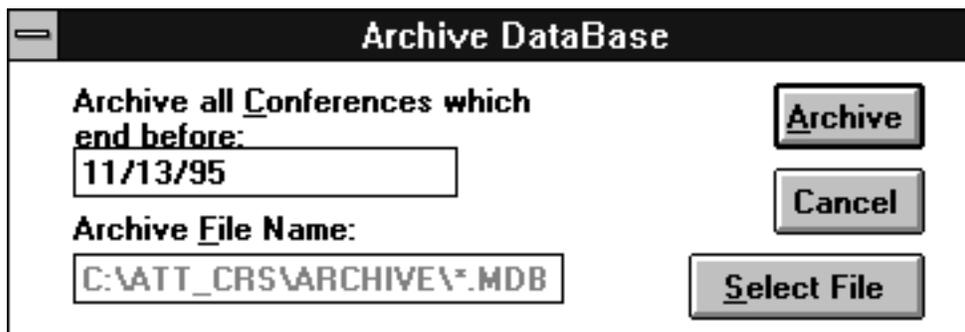


Figure 3-25. Archive Database Window

2. Replace today's date with a date that designates the time range for the archive to end (that is, a range for conferences that were scheduled *after* the last archive and *before* the end date you enter).
3. Select to choose a location and format for the database archive.

4. Select .

When the archive completes, the archived database information (that is, the information for conferences that ended before the selected date) is no longer available when you log in to CRS.

Backing Up a CRS Database by a Schedule (Multi-User CRS)

Only the administrator should back up the CRS database. Using this procedure, you can schedule backups to be performed automatically or you can perform an immediate backup. To administer a scheduled backup of the CRS database, do the following:

1. Make certain no other users are logged on during the time that you will be performing the backup. See the installation instructions in Appendix C for details about disallowing login for administration tasks.
2. At the server, select **SQL Administration**.
3. Select to connect the SQL server.
4. Select the **DB** icon.
5. If the CRS database (CRS_DATABASE) is listed, highlight it. If it is not listed, select **Add Event** from the **Manage** menu.
6. Select the CRS database from the **Database** field drop down list in the **Scheduled Backup** window (Figure 3-26).

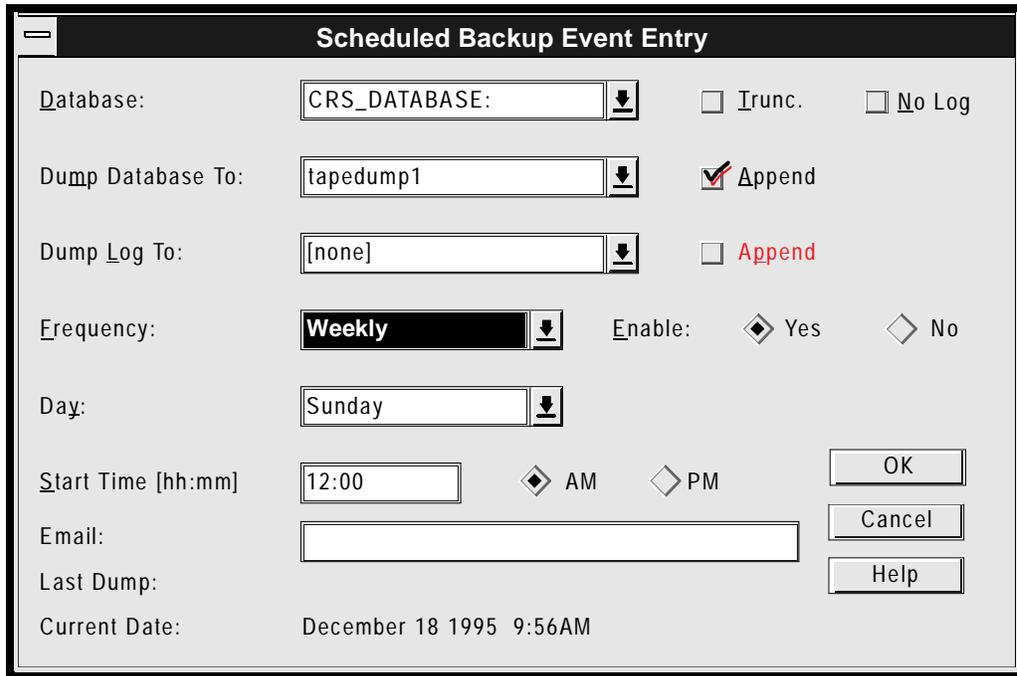


Figure 3-26. SQL Scheduled Backup Entry Window

7. Select the tape for the **Dump Database To** field.
8. Select the **Append** checkbox to the right of the **Dump Database To** field.
9. Select the frequency (**Weekly** is recommended).
10. Select the day and time backup is to be done.
11. Select .

Backing Up a CRS Database Immediately (Multi-User CRS)

Only the administrator should back up the CRS database. Using this procedure, you can schedule backups to be performed automatically or you can perform an immediate backup. To administer an unscheduled (immediate) backup of the CRS database, do the following:

1. Make certain no other users are logged on during the time that you will be performing the backup.
2. At the server, select **SQL Administration**.
3. Select to connect the SQL server.
4. Select the **DB** icon.

5. Select **Backup/Restore** from the **Manage** menu and **Backup/Restore...** from the Backup/Restore submenu. The Backup/Restore Database window is displayed. (See Figure 3-27.)

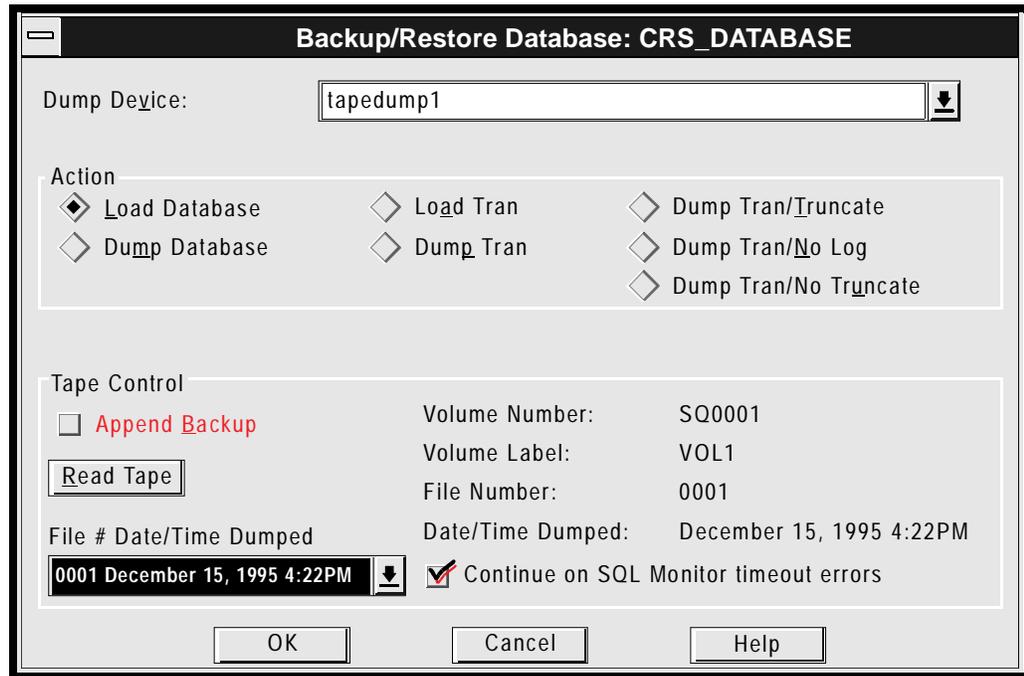


Figure 3-27. SQL Backup/Restore Window

6. Select the tape for the dump.
7. Select **Dump Database** in the **Action** area.
8. Select **Append Backup** in the **Tape Control** area.
9. Select **OK**.

Restoring a Database (Multi-User CRS)

Only the administrator should back up the CRS database. Using this procedure, you can schedule backups to be performed automatically or you can perform an immediate backup. To administer an unscheduled (immediate) backup of the CRS database, do the following:

1. Make certain no other users are logged on during the time that you will be performing the backup.
2. At the server, select **SQL Administration**.
3. Select **Connect** to connect the SQL server.

4. Select the **DB** icon.
5. Select **Backup/Restore** from the **Manage** menu and **Backup/Restore...** from the Backup/Restore submenu. The Backup/Restore Database window is displayed. (See Figure 3-27.)
6. Select the tape from which to restore.
7. Select **Load Database** in the **Action** area.
8. Select in the **Tape Control** area.
9. Select the database to restore from the **Dump Date** field.
10. Select .

Using Export for Chargeback

Only the administrator can export CRS data. Exported data can be used in other software applications that provide charge-back information with the following caveats:

- With the export, data on sites reflects the state of the conference at the **end** of the conference.
- If you are capturing changes in a conference (such as adding or deleting sites while the conference is active), it is recommended that you use the notes area to record site changes during the conference and to add notes that also reference the MCU conference data record number (CDR) for details.

An export enables you to copy data from items in the active database or archive file to an external file.

1. Select **Export** from **File** on the menu bar.

The **Export Data** window is displayed, as illustrated in Figure 3-28.

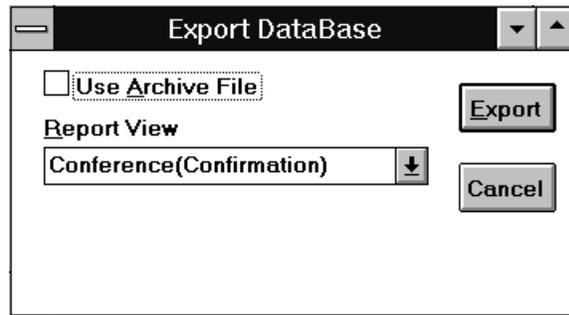


Figure 3-28. Export Database Window

2. Click on if the exported data is to be taken from a file that is archived.
3. Click on to select the type of **Report View** to be exported (in this example, it is a conference confirmation), as illustrated in Figure 3-29.

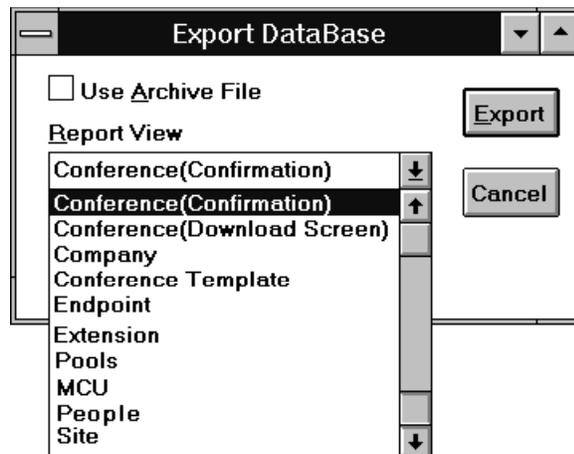


Figure 3-29. Export Type of Report

4. Select to start the export process.

A **Preview Report - Export** window is displayed (similar to the **Preview Report - Confirmation** window displayed in Figure 4-10).

5. Select the  icon at the bottom of the window.

The **Export** window is displayed (as illustrated in Figure 3-30).

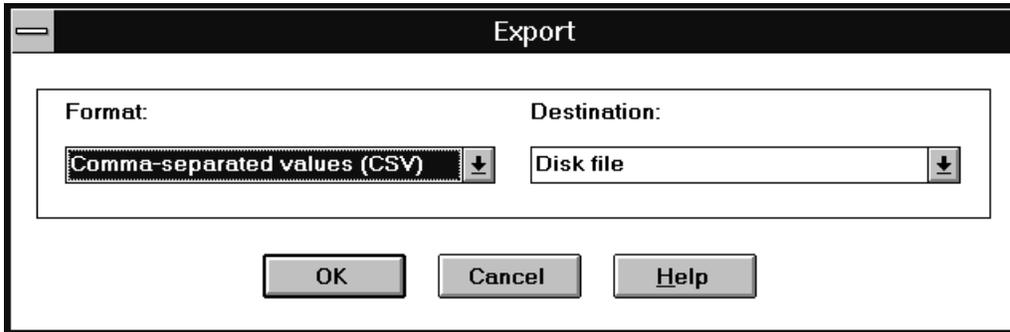


Figure 3-30. Export Type of Format

6. Select an export format and destination file. The *Comma-separated values (CSV)* is the most useful for export, because its output displays all of the data as one line per endpoint per conference. The possible formats are:
 - Character-separated values
 - Comma-separated values (CSV)
 - Crystal Reports (RPT)
 - Data Interchange Format (DIF)
 - Excel 2.1, 3.0, or 4.0 (XLS)
 - Lotus 1-2-3 WK1, WK3, or WKS
 - Quattro Pro 5.0 (WB1)
 - Record style (columns of values)
 - Rich Text Format
 - Tab-separated text or values
 - Text
 - Word for DOS document
 - Word for Windows document
 - WordPerfect document
7. Select to finish the export. Select to close the window without completing the export.
8. Select the number and date format to use in the export file and then select .

Editing/Modifying Data

This section provides procedures for editing and modifying company, conference, MCU extension, people, and site data. If the MCU is partitioned, data is modified only in the partition you are in (except in the case of partition global).

Company Data

Administrators and reservations agents can edit company or department location data. In all cases, the entry to be edited must be highlighted in a view to display the appropriate **Edit** window.

1. To edit company or department location information, use one of the following procedures to display the **Edit** window:
 - Select the **Company** icon on the CRS main window, highlight the company item to be edited, and select on the command bar.
 - Select **Company** from **View** on the menu bar, highlight the company item to be edited, and select on the command bar.

The **Edit Company Location** window is displayed, enabling you to change all information related to that company or department.

2. Select when your editing is complete. Select to cancel the editing without saving changes.

Conference Data

Administrators and reservations agents can edit conference data. Up to 15 minutes before the conference begins, any conference data can be changed. Once a conference begins, you can:

- Extend or shorten the end time of the conference.
- End the conference immediately.
- Delete or add conference sites if the MCU connected to your CRS supports Dynamic Resizing.

1. To edit a conference, use one of the following procedures to display the **Edit** window:
 - Select the **Today's** or **Future** icon from the view bar on the CRS main window, highlight the conference to be edited, and select from the command bar.
 - Select **Conference** from **View** on the menu bar, highlight the conference to be edited, and select from the command bar.

The **Edit Conference** window is displayed, enabling you to change any of the conference data (except the conference ID) before the conference begins.

2. To end the conference immediately, select .

The **Status** window is displayed, as illustrated in Figure 3-31.

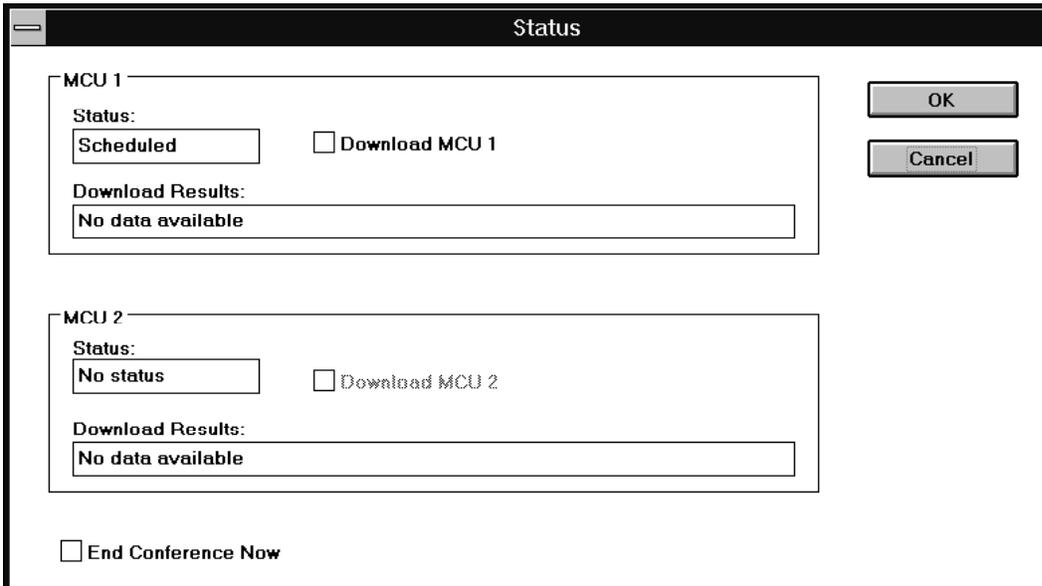


Figure 3-31. CRS Status Window

3. Select the labeled End Conference Now to end the conference immediately.

⇒ NOTE:

You can also use this window to manually download a conference immediately by checking the appropriate checkbox next to the MCU on which that conference is scheduled.

4. Select to return to the **Edit Conference** window.
5. Select when your editing is complete. Select to cancel the editing without saving changes.

MCU Extension Numbers

Only the administrator of a single-user CRS or the partition global administrator of a multi-user CRS can edit an MCU extension number.

1. To edit an MCU extension number, select the MCU extension number list from the **MCU Extension** from **View** on the menu bar, highlight the extension item to be edited, and select on the command bar.

The **Edit Extension** window is displayed, enabling you to change MCU extension information, except the MCU extension number.

2. Select when your editing is complete. Select to cancel the editing without saving changes.

People Data

Administrators and reservations agents can edit people data.

1. To edit information about a convener and/or contact person, use one of the following procedures to display the **Edit** window:
 - Select the **People** icon on the CRS main window, highlight the person item to be edited, and select on the command bar.
 - Select **People** from **View** on the menu bar, highlight the person item to be edited, and select on the command bar.

The **Edit Person** window is displayed, enabling you to change information related to that person, except the person's name.

2. Select when your editing is complete. Select to cancel the editing without saving changes.

Site Data

Administrators and reservations agents can edit site data.

1. To edit information about a site, use one of the following procedures to display the **Edit** window:
 - Select the **Site** icon on the CRS main window, highlight the site item to be edited, and select on the command bar.
 - Select **Site** from **View** on the menu bar, highlight the site item to be edited, and select on the command bar.

The **Edit Site** window is displayed, enabling you to change information related to that site, except the site name.



CAUTION:

Be careful when editing a site. If you change the bandwidth fields, you might invalidate this site's use in a future conference. Also, the site might no longer

be able to participate in a conference for which it has been scheduled. To prevent future site conflicts, when you try to save a site with any changed field, a CRS message box is displayed. The message box warns you that the change you made to the field might result in future conference conflicts.

To correct potential conflicts, check all the future conferences in which this site is a participant and modify them accordingly (refer to Chapter 2 and Chapter 4 for procedures for using the command for quickly locating conferences to changed fields).

2. Select when your editing is complete. Select to cancel the editing without saving changes.

Deleting Data

This section provides procedures for deleting company, conference, conference template, endpoint, people, and site data. A company or department location is usually connected to a site or person. If you try to delete that company location, CRS displays a message box explaining that since the company location is being used for at least one site or person, it cannot be deleted. To delete that company or department location, you need to delete or change all sites or persons that refer to it.

In all cases, the entry to be deleted must be highlighted in a view to generate a prompt for deleting the appropriate entry.

Company Data

1. To delete a company or department location, use one of the following procedures to begin the deletion:
 - Select the **Company** icon on the CRS main window, highlight the company to be deleted, and select on the command bar.
 - Select **Company** from **View** on the menu bar, highlight the company item to be deleted, and select on the command bar.A prompt window is displayed.
2. Select to confirm the deletion. Select to cancel the deletion.

Conference Data

The administrator or reservation agent can delete conference data. You can only delete past conferences if you archive those conferences.

1. To delete conference data, use one of the following procedures to begin the deletion:

- Select the **Today's Conference** icon or the **Future Conference** icon on the CRS main window, highlight the conference to be deleted, and select on the command bar.
- Select **Today's Conference** or **Future Conference** from **View** on the menu bar, highlight the conference item to be deleted, and select on the command bar.

A prompt window is displayed.

2. Select to confirm the deletion. Select to cancel the deletion.

Conference Templates

Only the administrator can delete a conference template. To delete a conference template, you need to delete or change all conferences that use that template.

1. To delete a conference template, use one of the following procedures to begin the deletion:
 - Select the **Conference Template** icon on the CRS main window, highlight the conference template to be deleted, and select on the command bar.
 - Select **Conference Template** from **View** on the menu bar, highlight the conference template to be deleted, and select on the command bar.

A prompt window is displayed.

2. Select to confirm the deletion. Select to cancel the deletion.

Endpoint Data

Only the administrator can delete an endpoint. To delete an endpoint, you need to delete all conferences that use that endpoint.

1. To delete an endpoint:
 - Select **Endpoint** from **View** on the menu bar.
 - Highlight the endpoint to be deleted.
 - Select on the command bar.

A prompt window is displayed.

2. Select to confirm the deletion. Select to cancel the deletion.

MCU Extension Numbers

Only the administrator of a single-user CRS or the partition global administrator or a multi-user CRS can delete a MCU extension number. You cannot delete any MCU extension number connected to a conference. If you try to delete that MCU

extension number, a CRS message is displayed explaining that since the number is used in at least one conference, you cannot delete it.

To delete that number, first delete all conferences (past, present, and future) in which it participates. (If the MCU extension number participated in past conferences, you cannot delete that number until all past conferences containing that number are archived.)

1. To delete an MCU extension number:
 - Select **MCU Extensions** from **View** on the menu bar.
 - Highlight the number to be deleted.
 - Select on the command bar.

A prompt window is displayed.

2. Select to confirm the deletion. Select to cancel the deletion.

People Data

An administrator or a reservation agent can delete a person. You cannot delete any person that is connected to a conference or site. If you try to delete that person, a CRS message is displayed explaining that since the person data is in use in a conference or a site, you cannot delete it.

Before you delete that person, you must:

- Delete or change all conferences (present or future) that refer to that person.
- Archive all past conferences containing that person, if that person participated in any past conference(s).
- Replace that person's name in each site that uses that person as the site contact person.

1. To delete a person, use one of the following procedures to begin the deletion:
 - Select the **People** icon on the CRS main menu, highlight the person to be deleted, and select on the command bar.
 - Select **People** from **View** on the menu bar, highlight the person to be deleted, and select on the command bar.

A prompt window is displayed.

2. Select to confirm the deletion. Select to cancel the deletion.

Extension Pool Data

Only the administrator of a single-user CRS or the partition global administrator or a multi-user CRS can delete an extension pool. You cannot delete any extension pool that has MCU extensions or is connected to a site. If you try to delete that pool, a CRS message is displayed explaining that since the pool is used in at least one conference or site, you cannot delete it.

Before you delete that extension pool, you must:

- Delete all the extensions that belong to the extension pool you want to delete, and add those extensions to a different extension pool, if necessary.
- Delete or change all conferences (present or future) that the extension pool participated in.
- Archive all past conferences containing that extension pool, if that pool participated in any past conference(s).
- Replace that extension pool with another pool in each site that uses that pool as the MeetMe extension pool for one or more MCUs.

1. To delete an extension pool:

- Select **Pool** from **View** on the menu bar.
- Highlight the pool to be deleted.
- Select on the command bar.

A prompt window is displayed.

2. Select to confirm the deletion. Select to cancel the deletion.

Site Data

An administrator or a reservation agent can delete a site. If you try to delete a site that is used in a conference, a CRS message is displayed explaining that since the site is used in at least one conference, you cannot delete it.

To delete the site, first delete all the conferences it participates in. (If the site participated in past conferences, you will not be able to delete that site until all past conferences containing that site are archived.)

1. To delete a site, use one of the following procedures to begin the deletion:

- Select the **Sites** icon on the CRS main menu, highlight the site to be deleted, and select on the command bar.
- Select **Site** from **View** on the menu bar, highlight the site to be deleted, and select on the command bar.

A prompt window is displayed.

2. Select to confirm the deletion. Select to cancel the deletion.

Copying Data

The following section provides procedures for copying company, conference, people, and site data. In all cases, the entry to be copied must be highlighted in a view to display the appropriate **Copy** window. In a multi-user CRS, you can copy only within a single partition and not between partitions.

Company Data

An administrator or a reservations agent can copy company data.

1. To copy company information:
 - Select the **Company** icon on the CRS main menu, highlight the company item to be copied, and select on the command bar.
 - Select **Company** from **View** on the menu bar, highlight the company item to be copied, and select on the command bar.

The **Copy Company** window is displayed. Copying displays a new company location item with all fields copied except the Company Name field, which is blank.

2. Since duplicate company location names are not allowed in the CRS database, type a unique location name and change other information as necessary.
3. Select to complete the copy. Select to cancel the copy.

Conference Data

An administrator or a reservations agent can copy conference data.

1. To copy conference data:
 - Select a conference from a **Today's**, **Past**, or **Future** conference report, highlight the conference item to be copied, and select on the command bar.
 - Select **Conference** from **View** on the menu bar, highlight the conference item to be copied, and select on the command bar.

The **Copy Conference** window is displayed with a new conference ID number.

2. Change information on the window, as necessary.
3. Select to complete the copy. Select to cancel the copy.

People Data

An administrator or a reservations agent can copy people data.

1. To copy people information:
 - Select the **People** icon on the CRS main menu, highlight the person item to be copied, and select on the command bar.
 - Select **People** from **View** on the menu bar, highlight the person item to be copied, and select on the command bar.

The **Copy Person** window is displayed. Copying displays a new person item with all fields copied, except the first and last name fields.

2. Since duplicate names are not allowed in the CRS database, type a unique person's name and change other information as necessary.
3. Select to complete the copy. Select to cancel the copy.

Site Data

An administrator or a reservations agent can copy site data.

1. To copy site information:
 - Select the **Site** icon on the CRS main menu, highlight the site to be copied, and select on the command bar.
 - Select **Site** from **View** on the menu bar, highlight the site to be copied, and select on the command bar.

The **Copy Site** window is displayed. Copying displays a new site item with all fields copied, except the site name field.

2. Since duplicate site names are not allowed in the CRS database, type a unique site name and change other information as necessary.
3. Select to complete the copy. Select to cancel the copy.

Time Zone Template Data

An administrator can copy time zone template data.

1. To copy time zone template information:
 - Select **Time Zone Templates** from **Admin** on the menu bar, highlight the time zone template to be copied, and select on the command bar.

The **Copy Site** window is displayed. Copying displays a new time zone template item with all fields copied, except the time zone template name field.

2. Since duplicate time zone template names are not allowed in the CRS database, type a unique name and change other information as necessary.
3. Select to complete the copy. Select to cancel the copy.

Reserving a Conference

4

Since all of the CRS databases have now been created, you can now reserve a conference. This chapter provides step-by-step procedures for reserving a multipoint, point-to-point, or room(s)-only conference.

Use the following procedures with the scripts provided in Appendix B, "Agent Script And Conference Guidelines": "Your Conversation With a Convener," to clarify the most efficient way to obtain the conference information from the convener.

To schedule a conference, use the following reservation tasks:

1. Begin the reservation process from the CRS main window: select **Add** on the command bar on a conference window and fill in a few conference details.
2. Make the reservation and allow CRS to check for conflicts and prompt you about how to complete scheduling.
3. Resolve scheduling conflicts if any sites are unavailable (or if any ports or pools are unavailable, if a multipoint conference is being scheduled).

If the CRS is connected to a fax, request an automatic reminder fax confirmation to be sent before the conference begins.

4. Complete scheduling.
5. Review the confirmation report.

If correct, send an immediate confirmation printed report. If the CRS is connected to a fax, send an immediate confirmation by fax.

Adding a Multipoint Conference

The addition of a conference requires that a conference report window (**Today's**, **Future**, or **Past**) is the **active** window displayed on the CRS main window.

1. To add a conference, select **Add** from the command bar on the **View** window.

The **Add Conference** window is displayed, as illustrated in Figure 4-1.

The screenshot shows the 'Add Conference' window with the following sections:

- Convener:** A dropdown menu.
- Billing ID:** A text input field.
- Meeting Purpose:** A text input field.
- Reservation Type:** Radio buttons for **Multipoint** (selected), **Point-to-Point**, and **Room Reservation**.
- Conference Template:** A dropdown menu.
- Low Speed/Higher Speed Interworking**
- Qualifying Sites:** A list of sites including Partners Inc, Partners Inc Fast, Partners Inc Med, Tri State Fast, Tri State Works 1, TnState Medium, [Audio Add-on 1] through [Audio Add-on 6], and [UCC].
- Selected Sites:** An empty box for selecting sites from the list.
- Conference Times:** Fields for **Start Date:** 11/10/95, **Start Time:**, **End Date:** 11/10/95, and **End Time:**. Includes **Find** and **Find Again ...** buttons.
- Repeat:** A dropdown menu set to **None**.
- Calendar:** A calendar for **11/10/95** showing hours from 8 AM to 5 PM.
- MCU Resource Availability:** A bar chart showing resource availability for the selected date and time.
- Site Availability:** A bar chart showing site availability for the selected date and time.
- Buttons:** **OK**, **Cancel**, **Status ...**, **Notes ...**, **Fax Reminder**, **MCU Options**, **Site Detail**, **Multipoint Options**, and **Site Options**.

Figure 4-1. Add Conference Window

As illustrated in Figure 4-1, this window contains the following areas:

- ID area (conference, billing, purpose and reservation type)
- Template/Sites area
- Conference Times area
- Calendar area
- Command button for scheduling and access to notes

- Command buttons for access to MCU options, site details, and multipoint options such as conference mode. For detailed procedures about the MCU resource options, refer to Appendix E, “MCU Resources”.

ID Area

The ID area illustrated in Figure 4-2 is the first area in which you select conference information.

Convener:
 

Billing ID:

Meeting Purpose:

Reservation Type

Multipoint

Point-to-Point

Room Reservation

Figure 4-2. ID Area

1. Select  to view the **Convener** selection list and click on the desired convener name, or type the first letter of a convener’s last name. The name you select is displayed.
2. **Billing ID** information is used by the MCU in its call detail reports for multipoint conferences. If the alphanumeric billing ID is part of the convener data, it is automatically displayed in **Billing ID**.

To change the ID, move the cursor to that box and change the alphanumeric string. When the conference scheduling completes, the billing ID is automatically downloaded to the MCU.

 **NOTE:**

A billing ID change applies only to this conference. To permanently change the billing ID, you must edit the People window for the convener used in this conference.

3. Type in a brief description of the meeting's purpose in the **Meeting Purpose** area.
4. Select the **Multipoint** reservation type. (Refer to the end of this chapter for details about scheduling point-to-point and room(s)-only conferences.)

Refer to the CRS defaults information in Chapter 3, "Performing CRS Administration", for details about selecting the default conference type.

Template/Sites Area

As illustrated in Figure 4-3, this area consists of:

- Conference template
- The sites selection area

The screenshot shows a software interface for selecting a conference template and sites. At the top, there is a label "Conference Template:" followed by a dropdown menu displaying "384T empl" and a downward arrow icon. Below this is a checkbox labeled "Low Speed/Higher Speed Interworking" which is currently unchecked. The interface is divided into two main sections: "Qualifying Sites:" on the left and "Selected Sites:" on the right. The "Qualifying Sites:" list includes: "DedicatedPartner", "Fast Partner Inc", "Med Partner Inc", "Partner Inc", "Slow Partner Inc", "Tri-State 2", "Tri-State Site 1", "[Audio Add-on 1]", "[Audio Add-on 2]", "[Audio Add-on 3]", "[Audio Add-on 4]", "[Audio Add-on 5]", "[Audio Add-on 6]", and "[UCC]". Between the two lists are four navigation buttons: a right arrow (>), a double right arrow (>>), a left arrow (<), and a double left arrow (<<). The "Selected Sites:" area is currently empty.

Figure 4-3. Template/Site Area

1. The **Conference Template** displays the default template. When you select a template, compatible sites associated with that template (that is, a group of sites with the same capabilities) are displayed on the qualifying sites list

and can be scheduled.

If you select **Low-/High-Speed Interworking**, any low-speed endpoints that you subsequently add to the conference are added as audio-only endpoints and do not have dial-out capability. Also, if you select **Low-/High-Speed Interworking** after selecting some sites, the sites with low-speed endpoints are added as audio-only sites when the conference starts. If you deselect **Low-/High-Speed Interworking** after you have added low-speed sites to the selected sites list, the low speed sites will be removed from the selected sites list and disqualified (greyed out) in the qualifying sites list.

Sites not compatible with the template are greyed out and cannot be scheduled. For example, the qualifying sites illustrated in Figure 4-3 are those capable of supporting 384k bandwidth video.

2. To change the conference template, click  once to choose an appropriate template.

Refer to the CRS defaults information in Chapter 3, "Performing CRS Administration", for details about setting up a default conference template.

3. The Qualifying Sites area displays a list of potential qualifying sites for your multipoint conference.

To choose qualifying sites and move those sites to the **Selected Sites** area of the conference window, perform the following steps:

- Click on a site to highlight that site. You can click on multiple sites by clicking separately on each site to highlight more than one site.
- Click on  (or double click on a highlighted site) to move the highlighted site(s) to the **Selected Sites** box.

To move all sites (those that are darkened, not greyed out) from the **Qualifying Sites** area to the **Selected Sites** area, click on .

Any moved site is redisplayed in the **Selected Sites** area.

To change one or more site selections, perform the following steps:

- Click on the site you want to remove from the **Selected Sites** list. You can click on multiple sites by clicking separately on each site to highlight more than one site. Click on  (or double click on one or more highlighted sites) to move the highlighted site(s) back to the **Qualifying Sites** area.
- To move all selected sites back, click on .

Any site removed from the **Selected Sites** area is redisplayed in the **Qualifying Sites** area.

Conference Times Area

As illustrated in Figure 4-4, the **Conference Times** area consists of:

- Start and end dates and times
- A calendar for navigating start date only
- The and buttons
- Recurring conference information

The screenshot shows a window titled "Conference Times". On the left, there are four input fields: "Start Date:" with "11/10/95", "Start Time:" (empty), "End Date:" with "11/10/95", and "End Time:" (empty). Below these are two buttons: "Find" and "Find Again ...". At the bottom left is a "Repeat" dropdown menu set to "None". On the right is a calendar for "1995" and "November". The calendar shows days of the week (Su, Mo, Tu, We, Th, Fr, Sa) and dates from 1 to 30. Below the calendar is the text "Start Date Selection".

Figure 4-4. Date/Time Area

1. **Start Date** and **End Date** automatically display today's date. To change the date, type a **Start Date** or select a date from the date calendar by scrolling the month and/or the year and then clicking on the day.

If the conference that you are scheduling ends on a different date from the **Start Date**, type an **End Date**.

2. Type in the start time or tab to the **Start Time** box and type in the time, including *am* or *pm*.
3. Type in the start time or tab to the **End Time** box and type in the time, including *am* or *pm*.

If you tab out of or click on **End Time** (as illustrated in Figure 4-5), a default time is automatically displayed that is an hour after the **Start Time** that you typed in.

Conference Times

Start Date: 11/10/95 Start Time: 10:00 AM

End Date: 11/10/95 End Time: 12:00 PM

Find Find Again ...

1995
November

Su	Mo	Tu	We	Th	Fr	Sa
			1	2	3	4
5	6	7	8	9	10	11
12	13	14	15	16	17	18
19	20	21	22	23	24	25
26	27	28	29	30		

Start Date Selection

Repeat **Bi-weekly** for 6 occurrences

Figure 4-5. Date/Time Area Completed

NOTE:

The alternative to typing in the **Start Time** and the **End Time** is to use the time usage bar, which is explained in this chapter in the section about the **Scheduling Calendar** grid area.

Find and **Find Again** are explained in this chapter under the section about resolving schedule conflicts.

4. If you are scheduling a conference that is to occur more than once:
 - Click on to select one of the following *Repeat* options:

Daily, Weekly, Bi-weekly, Monthly by day, or Monthly by date
 - As soon as you select one of the *Repeat* options, a box appears for selecting the number of *Times* for the conference to reoccur. Type the total number of conferences that are to be scheduled.

Some examples of recurring meeting selections are:

- *Daily for 8 Days* = a meeting that repeats daily for 8 days
- *Weekly for 4 Weeks* = a meeting that repeats weekly for 4 weeks
- *Bi-weekly for 6 occurrences* = a meeting that repeats every other week for 6 times
- *Monthly by day for 12 Months* = a meeting that repeats once a month for 12 months, on the same day of the week each month (for example, the second Monday)
- *Monthly by date for 7 Months* = a meeting that repeats once a month for 7 months on the same date each month

5. Select to save the notes.

When the conference scheduling completes successfully, these notes appear in the conference confirmation report. Select to cancel the notes without saving and return to the **Add Conference** window.

Command Buttons Area

The three buttons on the right side of the **Add Conference** window enable you to confirm or cancel the conference you are scheduling or add notes about the conference, as follows:

- checks and verifies scheduling.
- cancels the conference currently being scheduled without saving.
- displays the results of sending CRS conference information to the MCU.

See Chapter 3, "Performing CRS Administration", for details about using the Status feature to determine necessary changes in conference data.

See Appendix E, "MCU Resources", to understand the meaning of the status messages.

- displays the **Conference Notes** window on which you can type notes relating to the conference you are scheduling. To add notes about the conference being scheduled, select . The **Conference Notes** window is displayed, as illustrated in Figure 4-6.

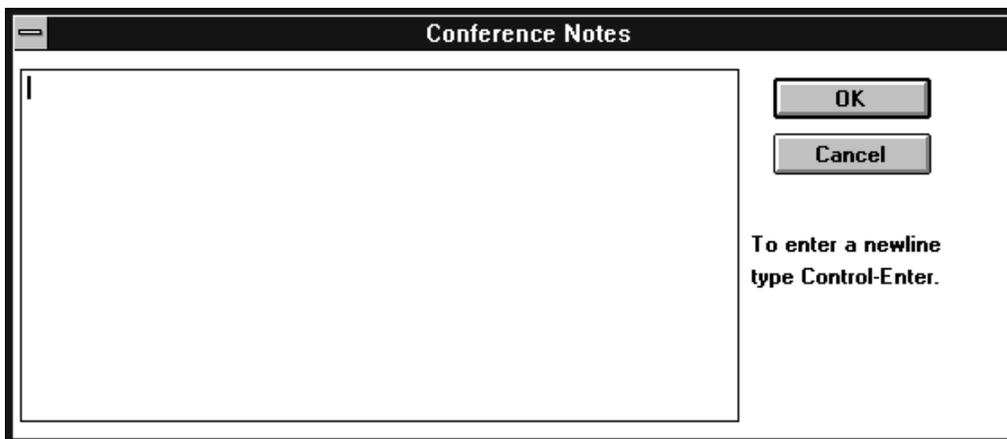


Figure 4-6. CRS Conference Notes

Conference notes appear in the confirmation report. Conference notes can be edited at any time. Type up to 253 characters of information, with spaces, that the convener wishes to provide to the conference participants.

Refer to the CRS defaults information in Chapter 3, "Performing CRS Administration" for details about setting up topics for default conference notes.

If default topics are provided, when the reservation agent and convener are discussing conference details, the convener can provide:

- Appropriate details about any topic already in the Notes
- Any additional information that is specific to that conference

⇒ NOTE:

Pressing **Enter** alone is interpreted the same as selecting . Return characters are automatically entered at the right margin. To insert a "hard return" character within the notes, press **Control-Enter**.

Activating Fax Reminders

You can check the Fax Reminders to indicate that you want a reminder fax sent for the conference **if** the following steps have occurred:

- The fax upgrade is installed on your CRS
- You have enabled fax for use on the MCU
- You have enabled the reminder fax options

⇒ NOTE:

If the fax reminder is greyed out and you wish to send a reminder fax, use the following steps to reenable the feature. Only the admin level login can enable the fax reminders option.

1. To enable the reminder fax options, select **Reminder Fax Options** from **Admin** on the menu bar.
2. Refer to Appendix D, "Optional Procedures": Installing the Fax Upgrade," for details about how to select:
 - The number of days prior to the scheduled start time for the conference that the fax is to be sent
 - The time of day after which the fax should be sent

Enable Data Sharing

To perform data sharing in a conference, all the endpoints involved must be data capable. To enable data sharing within the conference, do the following:

1. Select and check the **Data Sharing** box on the **Site Options** form.
2. Select and check the **Data Sharing** box on the **Multipoint Options** form.
3. G.728 is the required audio mode for conferences that use data sharing. Set the audio mode on the **Multipoint Options** form to either **Automatic** or **G.728**.

Making the Reservation

1. Once you have entered the following items for conference, CRS attempts to schedule available conference resources and save that conference in the database if you have provided the following data:
 - A convener
 - Valid dates and times
 - A minimum of qualifying sites for the type of conference being scheduled (one or more qualifying sites for a room(s)-only conference, two sites for a point-to-point conference, or one or more sites for a multipoint conference)



NOTE:

You can check available resources without actually scheduling them by trying different selections on the scheduling window.

2. When you have completed navigating, as needed, through the **Scheduling Calendar** grid and the **Conference Times** areas.

Select to check details and complete scheduling successfully.

3. If all necessary resources are available, when you select , reservation scheduling completes and a **Multipoint Confirmation** window is automatically displayed, as illustrated in Figure 4-7.

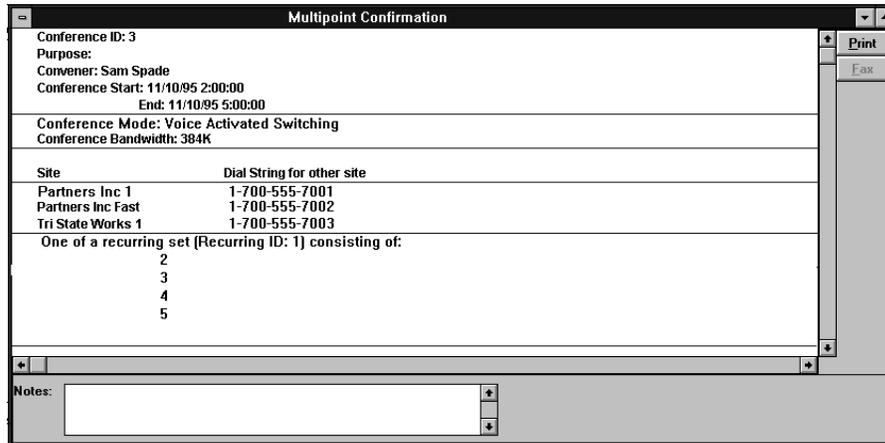


Figure 4-7. Multipoint Confirmation Window

4. To print or fax the conference, select **Print** or **Fax** (click on the appropriate button on the right side of the window).

The print or fax is sent immediately.

⇒ NOTE:

You can send a confirmation by fax **only** to the convener whose name appears on the **Multipoint Confirmation** window.

In this example, Chris Jarak would receive the confirmation and would then be responsible for distributing it to the conference participants.

The next section provides details about viewing and using reports.

Reports

This section explains both the **Confirmation Report** that is displayed when conference scheduling successfully completes and the tasks you can accomplish at this point in the reservation process. In addition, this section provides instructions for viewing and interpreting **Audit Trail** reports.

Viewing a Confirmation Report

You can display a report of the confirmation for the conference.

1. From a conference view window, highlight the conference report to be viewed so that you can print or fax it, as illustrated in Figure 4-8.

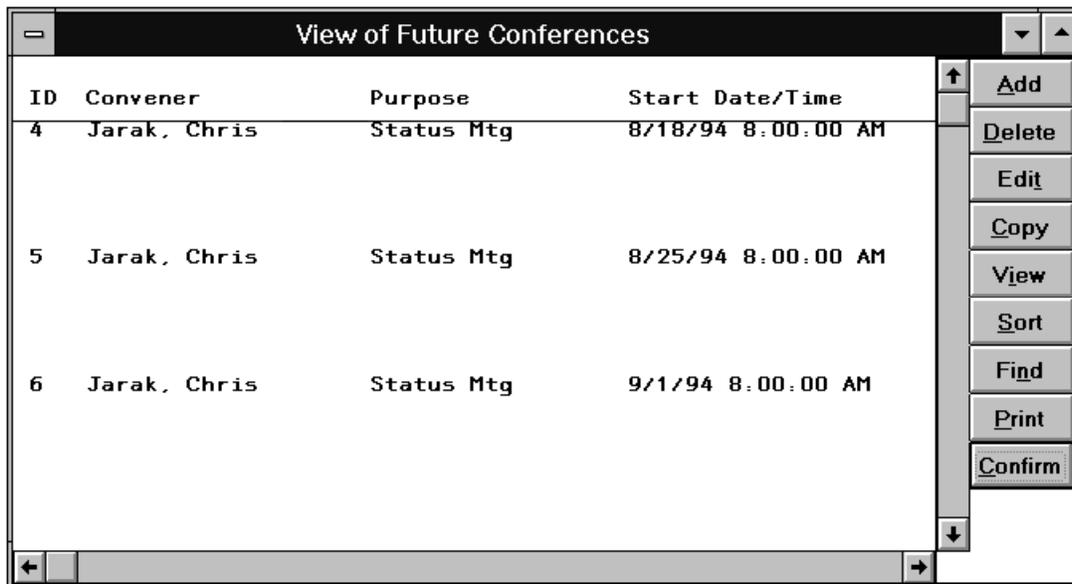


Figure 4-8. View Conference Window

2. Select **Print**.

A report window is displayed, as illustrated in Figure 4-9.

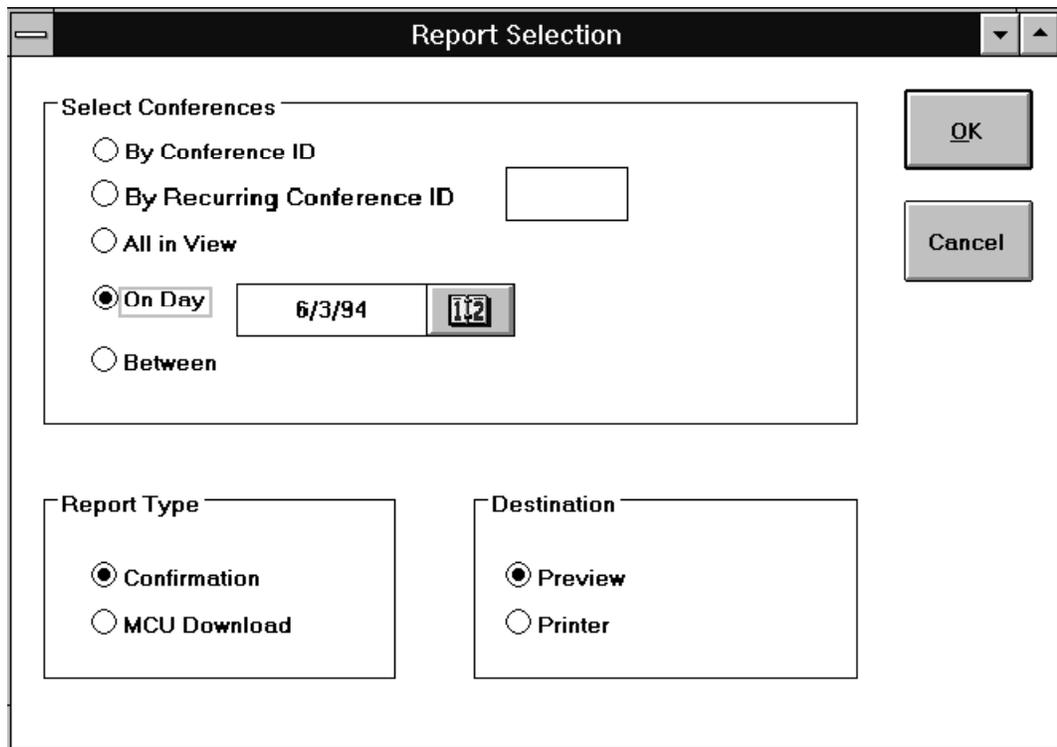


Figure 4-9. Confirmation Report Window

3. Select .

A confirmation report window is automatically displayed from which you can view, print, or export conference report information.

Using a Confirmation Report

As illustrated in Figure 4-10, the confirmation window provides a preview of the summary report for the conferences you have scheduled. From this window, you can perform any of the following tasks:

- Resize the report (so that you can display smaller lists that can be printed or faxed, if the convener is to receive a set of confirmations)
- Print the confirmation
- View previous confirmation reports
- Export confirmation information into external reports

Audit Trail Report

The Audit Trail allows you to view and print the log containing records for when conferences were added, edited (changed), or deleted by a CRS agent. This window provides keyed information that provides a history of conference additions, changes, and deletions. To access the audit trail report, do the following:

1. Select Audit Trail from the View menu.

The view audit trail window, Figure 4-11., is displayed.



NOTE:

In a multi-user CRS that has partitions, this window includes a column that identifies the partition.

ID	Convener	Start Date/Time	Agent	Date/Time
25	Milto Milo	1/10/96 10:00:00 AM	max	5/15/95 2:45:37 PM
25	Milto Milo	1/10/96 10:00:00 AM	max	5/15/95 3:00:54 PM
26	Chris Jarak	1/10/96 1:00:00 PM	max	5/15/95 2:47:33 PM
27	Sam Spade	12/27/95 1:45:00 PM	max	5/15/95 2:49:27 PM
28	Sam Spade	12/28/95 10:00:00 AM	max	5/15/95 2:51:15 PM
28	Sam Spade	12/28/95 10:00:00 AM	max	5/15/95 2:51:33 PM

Figure 4-11. View Audit Trail Window

2. To sort the view, do the following:
 - a. Select . The sort window is displayed as shown in Figure 4-12..

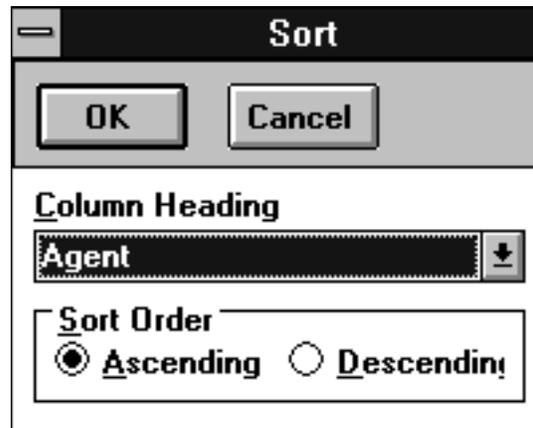


Figure 4-12. Audit Trail Sort Window

- b. Select the heading by which you wish to sort the log from the column heading drop down menu and select **OK**.
 3. To search for a particular log entry, do the following:
 - a. Select **Find**. The find window is displayed as shown in Figure 4-13..

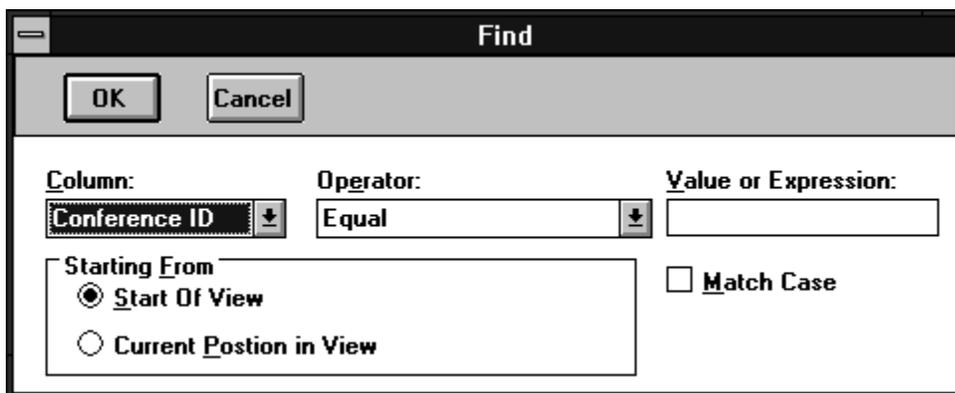


Figure 4-13. Audit Trail Find Window

- b. Select the column data to compare from the column drop down menu.
 - c. Select the comparison operator from the operator drop down menu.

- d. Enter the value to be compared against.
 - e. If you wish, select a different starting position for the search and whether or not to match case in string searches.
 - f. Select . Only log entries that match your search criteria are displayed.
4. To print the log, select and do the following. (Figure 4-14 illustrates the audit trail print window.)

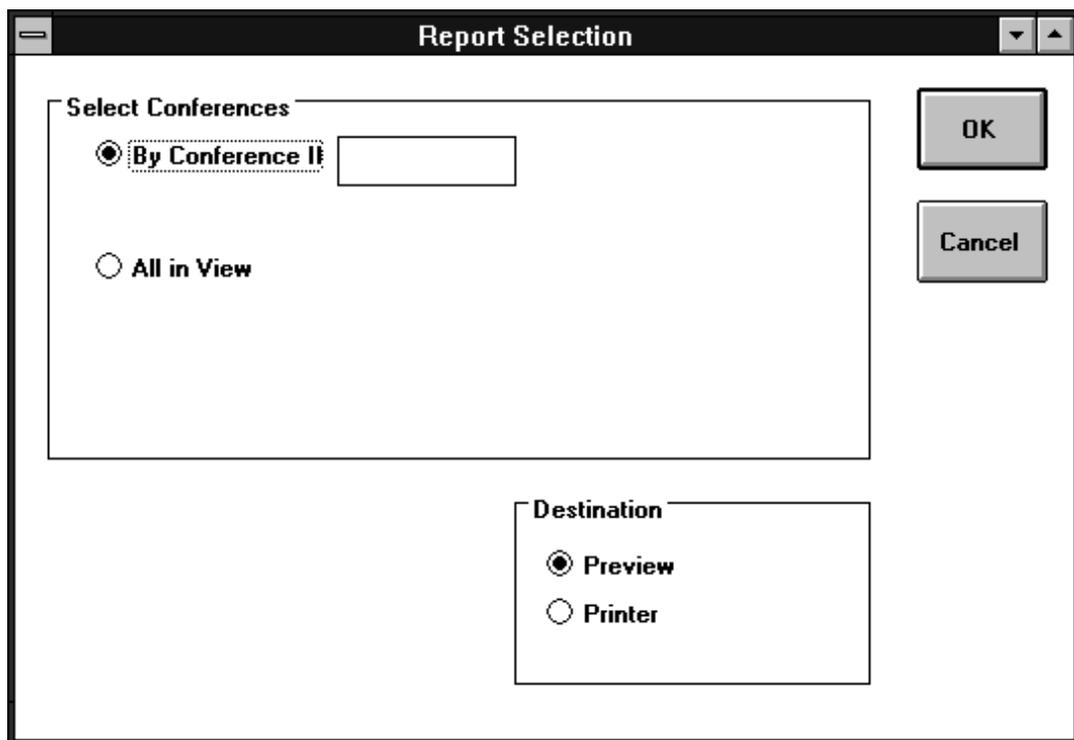


Figure 4-14. Audit Trail Print Window

- a. Enter the conference ID or select **All in View** for all the conferences shown in the view.
- b. Select whether to print on the screen (**Preview**) or on the printer.
- c. Select . The report is printed or displayed on the screen.

Usage Reports

The usage reports are a set of reports that allow you to view summaries of facility usage by category.

1. Select **Usage Reports** from the **View** menu. The Usage Reports window is displayed as illustrated in Figure 4-15.

The screenshot shows a window titled "AT&T CRS Usage Report Generator". At the top, there are two buttons: "Generate Report" and "Cancel". Below these are four main sections, each with a title and a list of radio button options:

- Report Type**:
 - Conference List
 - Usage Summary by Site
 - Usage Summary by Billing ID
 - Usage Summary by Convener
 - MCU Port Usage Detail Graph
 - MCU Port Usage High-Low Graph
- Sort By**:
 - Conference Start Time
 - Conference IC
 - Convener
 - Conference Type
 - Billing ID
 - Conference Purpose
- Date Range**:
 - Today
 - Yesterday
 - Tomorrow
 - Past
 - Future
 - Between
- Report Destination**:
 - Preview
 - Printer

Figure 4-15. Usage Reports Window

2. Select the report type and sort criteria (if applicable).
3. Select the Date Range and Report Destination.
4. If you selected **Between** for the Data Range, calendar icons appear so that you can identify the from and to dates by clicking on the calendar icons and selecting from the pop-up calendar window, which is shown in Figure 4-16.



Figure 4-16. Popup Calendar

5. Select to send the report to the display or printer. The figures that follow illustrate examples for each of the report types.

AT&T CRS Usage Report

AT&T CRS - LIST OF FUTURE CONFERENCES

ID	Convener	Type	Start Date/Time	End Date/Time	Bandwidth	Purpose	Billing ID	Status	Sites
7	Sam Spade	MURP1	5/27/95 1:00 PM	5/27/95 3:00 PM	384K		IQ567	Scheduled	Partners Inc Medium, Tri State Fax, TriState Medium
16	Milo Milo	MURP1	5/30/95 12:00 PM	5/30/95 2:00 PM	768K	PayDay!!!!!!		Scheduled	Tri State Fax
8	Sam Spade	MURP1	6/24/95 1:00 PM	6/24/95 3:00 PM	384K		IQ567	Scheduled	Partners Inc Medium, Tri State Fax, TriState Medium
17	Milo Milo	MURP1	6/30/95 12:00 PM	6/30/95 2:00 PM	768K	PayDay!!!!!!		Scheduled	Tri State Fax
9	Sam Spade	MURP1	7/29/95 1:00 PM	7/29/95 3:00 PM	384K		IQ567	Scheduled	Partners Inc Medium, Tri State Fax, TriState Medium
18	Milo Milo	MURP1	7/30/95 12:00 PM	7/30/95 2:00 PM	768K	PayDay!!!!!!		Scheduled	Tri State Fax
10	Sam Spade	MURP1	8/26/95 1:00 PM	8/26/95 3:00 PM	384K		IQ567	Scheduled	Partners Inc Medium, Tri State Fax, TriState Medium
19	Milo Milo	MURP1	8/30/95 12:00 PM	8/30/95 2:00 PM	768K	PayDay!!!!!!		Scheduled	Tri State Fax
11	Sam Spade	MURP1	8/30/95 1:00 PM	8/30/95 3:00 PM	384K		IQ567	Scheduled	Partners Inc Medium, Tri State Fax, TriState Medium
12	Sam Spade	MURP1	10/28/95 1:00 PM	10/28/95 3:00 PM	384K		IQ567	Scheduled	Partners Inc Medium, Tri State Fax, TriState Medium
20	Milo Milo	MURP1	10/30/95 12:00 PM	10/30/95 2:00 PM	768K	PayDay!!!!!!		Scheduled	Tri State Fax
1	Sam Spade	Pk-to-P1	11/10/95 9:00 AM	11/10/95 10:00 AM	384K		IQ567	Scheduled	Partners Inc Medium, Tri State Fax
3	Sam Spade	Pk-to-P1	11/10/95 2:00 PM	11/10/95 5:00 PM	384K		IQ567	Scheduled	Partners Inc Fax, Tri State Works 1
2	Sam Spade	Pk-to-P1	11/15/95 9:00 AM	11/15/95 10:00 AM	384K		IQ567	Scheduled	Partners Inc Medium, TriState Medium
13	Sam Spade	MURP1	11/25/95 1:00 PM	11/25/95 3:00 PM	384K		IQ567	Scheduled	Partners Inc Medium, Tri State Fax, TriState Medium
21	Milo Milo	MURP1	11/30/95 12:00 PM	11/30/95 2:00 PM	768K	PayDay!!!!!!		Scheduled	Tri State Fax
27	Sam Spade	MURP1	12/27/95 1:45 PM	12/27/95 4:00 PM	224K		IQ567	Scheduled	Partners Inc Medium, Tri State Works 1, TriState Medium
14	Sam Spade	MURP1	12/30/95 1:00 PM	12/30/95 3:00 PM	384K		IQ567	Scheduled	Partners Inc Medium, Tri State Fax, TriState Medium

5/16/95 Page 1

1 of 2 47 of 48 Total: 48 100% Close

Figure 4-17. Conference List Report

The screenshot shows a window titled "AT&T CRS Usage Report". Inside the window, there is a report titled "AT&T CRS SITE USAGE SUMMARY REPORT: PAST CONFERENCES (All times are in hours)". The report contains a table with two columns: "MultiPoint" and "Total". The data rows are:

	MultiPoint	Total
Partners Inc Fast	5.00	5.00
Partners Inc Medium	4.00	4.00
Tri State Fast	7.00	7.00
Tri State Worker 1	3.00	3.00
TriState Medium	4.00	4.00
Total	23.00	23.00

At the bottom of the window, there is a status bar with navigation icons, "1 of 1", "Cancel", "Close", "10 of 10", "Total:10", and "100%".

Figure 4-18. Usage Summary by Site Report

The screenshot shows a window titled "AT&T CRS Usage Report". Inside the window, there is a table titled "USAGE SUMMARY REPORT BY BILLING ID:" and "FUTURE CONFERENCES (All times are in hours)". The table has three columns: "MultiPoint", "Point-to-Point", and "Total". The data is as follows:

	MultiPoint	Point-to-Point	Total
ABCEDEF300	24.00	0.00	24.00
10567	2.00	0.00	2.00
10567	54.75	10.00	64.75
Total	80.75	10.00	90.75

At the bottom of the window, there is a status bar with the text "47 of 48 Total:48 100%".

Figure 4-19. Usage Summary by Billing ID

The screenshot shows a window titled "AT&T CRS Usage Report". Inside the window, the text reads "AT&T CRS USAGE SUMMARY REPORT BY CONVENER: FUTURE CONFERENCES (All times are in hours)". Below this is a table with three columns: "MultiPoint", "Point-to-Point", and "Total". The rows list individuals: Jarak, Chris; Milo, Milo; Spade, Sam; and a "Total" row. The values are: Jarak, Chris (2.00, 0.00, 2.00); Milo, Milo (24.00, 0.00, 24.00); Spade, Sam (54.75, 10.00, 64.75); Total (80.75, 10.00, 90.75). The window has a standard Mac OS-style title bar and a toolbar at the bottom with icons for navigation and window management.

	MultiPoint	Point-to-Point	Total
Jarak, Chris	2.00	0.00	2.00
Milo, Milo	24.00	0.00	24.00
Spade, Sam	54.75	10.00	64.75
Total	80.75	10.00	90.75

Figure 4-20. Usage Summary by Convener

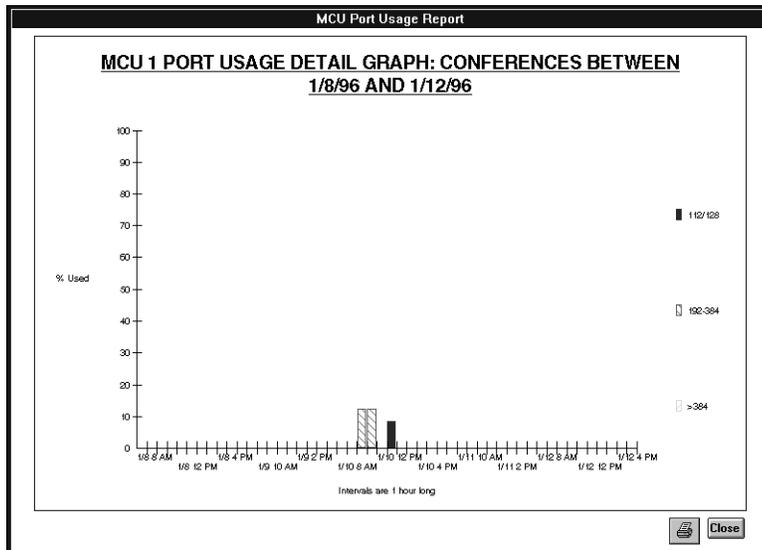


Figure 4-21. MCU Port Usage Detail Graph

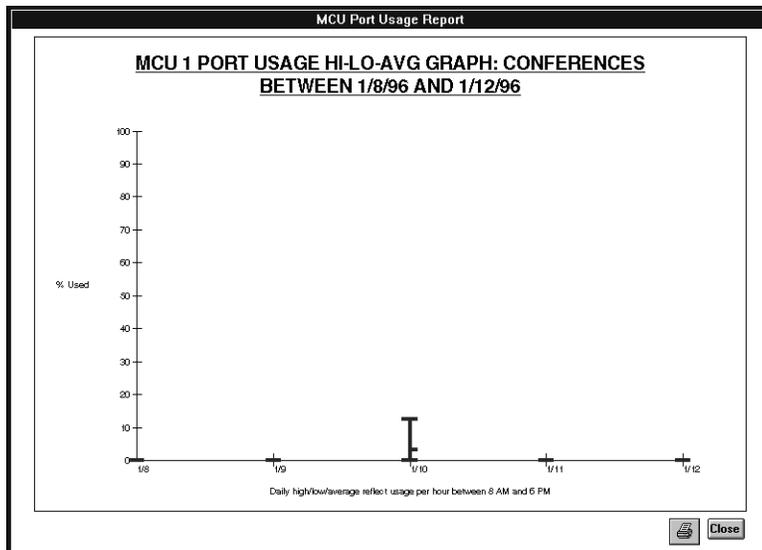


Figure 4-22. MCU Port Usage High-Low Graph

Resolving Schedule Conflicts: Resource Availability

Conflicts associated with scheduling your conference are highlighted, or you are prompted so that you can identify the conflicts. CRS provides several ways to resolve these conflicts easily. There are three types of scheduling conflicts:

- One or more **sites** are busy during the time you are trying to schedule (indicated in the site availability bar).
- There are not enough **MCU ports** available (indicated in the MCU resource availability bar).
- There are not enough MCU extension numbers available (indicated in the MCU resource availability bar). If this type of scheduling conflict exists, it also could be due to one of the following reasons:
 - All of the MCU extension numbers from one of the pools selected are already scheduled to be used during your proposed time.
 - Your MCU does not contain enough MCU extension numbers for the size of the conference you are trying to schedule.

Although you can view details about MCU extension pool shortages, consult with your CRS administrator for details about MCU extension numbers and extension pools.

To know which sites are causing the conflicts, select on the **Add Conference** window. From the **MCU Options** window, you can also see the site distribution between the MCUs if there are two MCUs being reserved for the conference.

To know whether the MCU is short on ports or extensions:

1. Record the times when the MCU resources are busy (red is visible in the time blocks that are busy on the summary bar for (MCU) Resource Availability).
2. Select to view port availability and pool shortages.



NOTE:

Procedures for resolving MCU resource conflicts are explained in Appendix E, "MCU Resources".

If the reservation request results in a conflict, you are always provided with:

- Access to a summary details for each of the unavailable resources (as illustrated in Figure 4-23).
- Access to a scheduling calendar grid displaying the participant's sites and the times that those sites are scheduled as well as conflicting times for the sites for that day (Figure 4-26).

Figure 4-23 illustrates a summary grid of site details and the times that sites are in use.

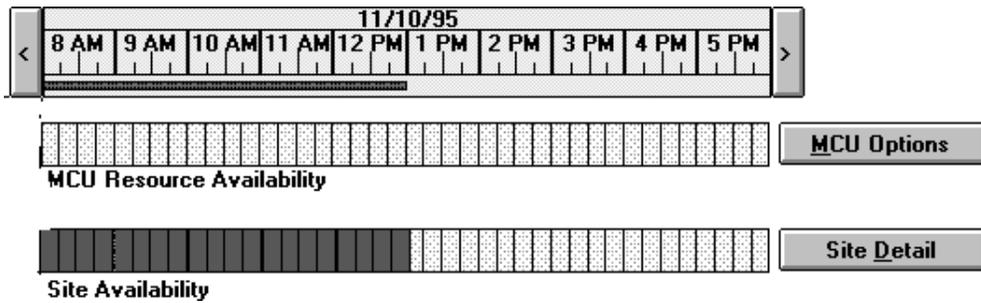


Figure 4-23. Add Conference Window Displaying Scheduling Conflict

The **Scheduling Calendar** display contains two areas:

- Top area (A date, a scrollable time row, and a time usage bar)
- Middle area (Resource and site availability summary bars)

Figure 4-23 also illustrates two buttons: and . These buttons are located to the right of the two summary rows that provide access to conflict details.

Table 4-1 describes the **Scheduling Calendar** areas.

Table 4-1. Scheduling Calendar Area

Area	Description
Today's Date	Displays today's date in the calendar when the scheduling calendar is first displayed.
Date and Time Row	The scrollable, 24-hour <i>time-interval</i> row is divided into 15-minute intervals. Only 10 hours are displayed at a time.
Time Usage Bar	Below the time-interval row is a display area for a small color bar that indicates the amount of time that you specified for your conference. To designate the Start Time , click on the bar. A small color bar is displayed. Drag the right side of the small color bar until it lines up with the desired End Time . After you specify a time, you can check in the Start Time and End Time boxes at the top of the window to verify the times you selected.
Resource Summary	This area contains two summary rows for resource availability and a grid for the site availability. Once you specify a start and end time, one or both of the summary rows reflect the resource availability or unavailability, as follows: <ul style="list-style-type: none"> ■ The first row is labeled MCU Resource Availability. The cells in this row turn red if a port shortage exists in that time slot. ■ The second row is labeled for Site Availability. The cells in this row turn red if a site conflict exists in that time slot.
Site grid	Refer to the section, "Changing Site Selection: Removing a Site" for details about displaying the grid and then resolving site conflicts.

When the **Add Conference** window displays site details, you can see the list of unavailable resources and view the times when these resources are busy. The Scheduling Calendar display provides the ability to:

- Change to an available time slot (click on a new start time and drag the bar to the new end time)
- Limit the time search for available times (use and in the **Conference Times** area)

- Change the conference date (navigate dates on the internal calendar in the **Conference Times** area)
- Change site usage (remove a selected site from the Selected Sites area on the **Add Conference** window)
- Use   on the scrollable time row to move the time display until some free time is displayed for that day.

It is then recommended that you click on the time usage bar to designate a new **Start Time** and drag the small color bar to the desired **End Time**. You can also type a new **Start Time** and/or **End Time** in the **Conference Times** area.

You can also change the start date (use   to move to another date and select a time on that new date).

Resolving Time and/or Date Conflicts

When you are trying to resolve a scheduling conflict, you can use one or more of the following methods for resolving conflicts:

- Change the conference time
- Change the conference duration
- Automatically limit a search by specifying dates and times
- Change the conference date using the calendar
- Change site selection
- Change MCU resource use

Changing the Conference Time

1. Just below the quarter-hour time-interval row are two summary rows for resource availability (for the MCU and all sites).

Figure 4-23 illustrates that at least one site is *busy* from 8:00 AM-1:00 PM but *free* later in the day, so you could select 1:00-2:00 PM.

2. To change the conference time, click on the beginning of the small color time usage bar so that the beginning of the time lines up with the correct **Start Time** and then drag the small bar so that the end of the bar lines up with the **End Time**.

The existing **Start/End** times in the **Conference Times** area are immediately updated with the new time, and the grid display shows free time blocks for the sites (the color is green).

If the grid display shows that the sites you require for the conference (that

is, the selected sites) are busy during the entire time displayed, you can change the time, as follows:

- Use   to scroll the time-interval row at the top of the grid by hour intervals until some free time is displayed.
- Use the navigation keys on the internal calendar in the **Conference Times** area to view a different day.
- When the date is correct, click and drag the time usage bar, as needed, until the time displayed shows no conflicts for the selected sites.

Changing the Conference Duration

A duration change can help a convener who requires that a conference be held on a certain date, but can accept a shorter conference length.

When you use the grid, the **Start Time** and/or **End Time** at the top of your **Scheduling Calendar** automatically redisplay with the updated time.

Searching Automatically

In the **Conference Times** area are the **Find** and **Find Next** buttons.  searches for the next available time when all sites are available and provides you with the ability to set the boundary times for the search.

 continues the use of the options specified with .

1. Select .

The **Find Options** window is displayed, as illustrated in Figure 4-24.



Figure 4-24. Find Available Time Search Options

2. To check for available time, type start and end times (including am and pm) in the boxes labeled Start conference... and End conference..., respectively).

To include weekends in the search, check . (The search default is Monday-Friday 8AM-5PM, if weekends are not included.)

3. Select .
4. If is successful, it inserts the first time found.

If you want another time, select to display the next available time.

⇒ NOTE:

Conferences selected using the or options cannot exceed 23 hours, 45 minutes in length.

Changing the Conference Date

As illustrated in Figure 4-25, the calendar enables you to navigate through calendar dates to change the date of your conference.

The screenshot shows a dialog box titled "Conference Times". It contains several input fields and buttons:

- Start Date:** A text box containing "01/10/96".
- Start Time:** An empty text box.
- End Date:** A text box containing "01/10/96".
- End Time:** An empty text box.
- Buttons:** "Find" and "Find Again ...".
- Calendar:** A calendar for January 1996. The year "1996" and month "January" are shown at the top with navigation arrows. The calendar grid shows days of the week (Su, Mo, Tu, We, Th, Fr, Sa) and dates from 1 to 31. The date "10" is highlighted.
- Repeat:** A dropdown menu set to "None".

Figure 4-25. Internal Calendar Use for Changing Date

The calendar is used to change the start date that is displayed in the **Scheduling Calendar**.

The calendar provides a way for you to change the **Start Date**. You can use ◀ or ▶ on the top of the internal calendar to change a date to a new month and/or year, and click on the desired day in the calendar day area to select another day.

Each time you select a new date on the calendar, the **Start Date** and **End Date** in the **Conference Times** area automatically displays the newly selected date, and the time usage bar also automatically adjusts to the new date.

Changing Site Selection: Removing a Site

If there are one or more site conflicts, the convener might agree to have you remove the conflicting site(s) from the conference, add non conflicting sites, or change the time of the conference.

If one or more site conflicts exists, select on the **Add Conference** window.

As Figure 4-26 illustrates, the site grid displays scrollable time slots to the right of the selected conference sites. The grid includes the *time-interval* row that shows the date and quarter-hour time blocks (that is, time blocks of 15 minutes each).

The cells associated with the busy site's time slot fill with green to indicate that it is busy during that time. In this example, conflicts exist from 9:00 AM to 10:00 AM.

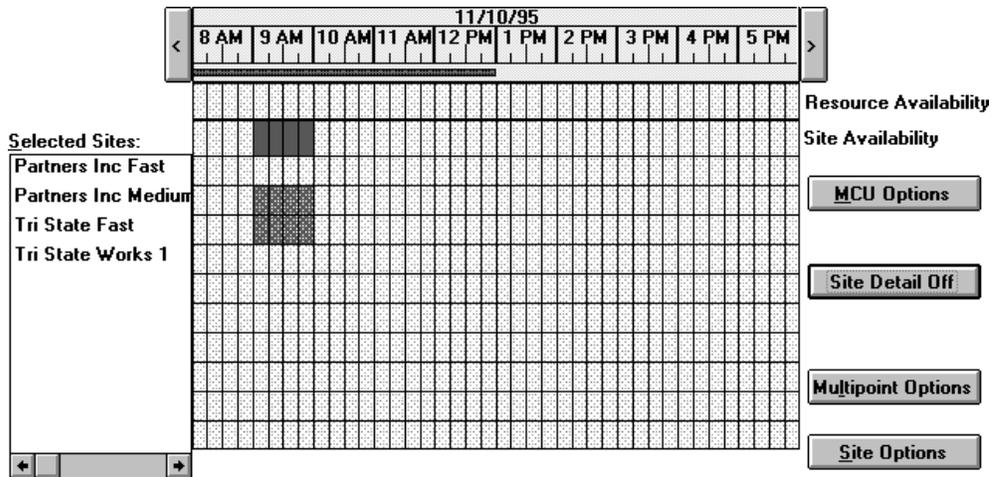


Figure 4-26. Scheduling Calendar Grid with Busy Sites

To remove the conflicting site:

- Move the site(s) causing the conflict from the **Selected Sites** area back to the **Qualifying Sites** area.
- Select to check if the conference scheduling can complete.

If the site summary bar reflects no conflicts (that is, there is no red area displayed on the summary row), the conference scheduling completes.

Making Changes in MCU Resources

If you have conflicts with MCU resources, refer to Appendix E, "MCU Resources", for details about resolving those conflicts.

Adding a Point-to-Point or Room(s)-Only Conference

The addition of a point-to-point conference requires that a conference report window (**Today's**, **Future**, or **Past**) is the active window displayed on the CRS main window.

To add a point-to-point or room(s)-only conference, select from the command bar on the **View** window for Today's conference.

The **Add Conference** window is displayed.

Point-to-Point Conference Window Display

Tab to the Reservation Type and select the *Point-to-Point* button. Figure 4-27 illustrates the **Add Conference** window used to schedule a point-to-point conference.

The screenshot shows a software window titled "Add Conference". It has several input fields and sections:

- Convener:** A text field with a dropdown arrow.
- Billing ID:** A text field.
- Meeting Purpose:** A text field.
- Reservation Type:** Three radio buttons: "Multipoint", "Point-to-Point" (selected), and "Room Reservation".
- Conference Template:** A text field with a dropdown arrow.
- Conference Times:** A section with "Start Date" and "End Date" both set to "11/10/95". It includes a date picker for "1995" and "November", and a calendar grid showing the month of November. There are "Find" and "Find Again ..." buttons. A "Repeat" dropdown is set to "None".
- Site Selection:** A "Qualifying Sites" list on the left includes "Partners Inc", "Partners Inc Fast", "Partners Inc Med", "Tri State Fast", "Tri State Works 1", "TriState Medium", and several "Audio Add-on" items. A "Selected Sites" area is empty. A "Site Availability" section shows a grid of site availability for "11/10/95" from 8 AM to 5 PM.
- Buttons:** "OK", "Cancel", "Status ...", "Notes ...", "MCU Options", "Site Detail", "Multipoint Options", and "Site Options".

Figure 4-27. Add a Point-to-Point Conference

To schedule a point-to-point conference, use the procedures provided at the beginning of this chapter to fill in the following four conference information areas:

- ID Area
- Template/Sites Area
- Conference Times Area
- Command Area for scheduling and access to notes

Room(s)-Only Conference Window Display

Tab to the Reservation Type and select the *Room(s)-Only* button.

Figure 4-28 illustrates the **Add Conference** window used to schedule a room(s)-only conference.

The screenshot shows the 'Add Conference' window with the following elements:

- Convener:** A text field with a dropdown arrow.
- Billing ID:** A text field.
- Meeting Purpose:** A text field.
- Reservation Type:** Radio buttons for Multipoint, Point-to-Point, and Room Reservation (selected).
- Capacity:** A text field.
- Low Speed/Higher Speed Interworking:** A checkbox.
- Conference Times:** Fields for Start Date (11/10/95), End Date (11/10/95), Start Time, and End Time. Includes 'Find' and 'Find Again...' buttons.
- Calendar:** A calendar for November 1995 with 'Start Date Selection' text below it.
- Repeat:** A dropdown menu set to 'None'.
- Buttons:** OK, Cancel, Status..., Notes..., and Fax Reminder (checkbox).
- Qualifying Sites:** A list including Partners Inc, Tri State Fast, Tri State Works 1, TriState Medium, and several Audio Add-on options.
- Selected Sites:** An empty list box.
- Site Availability:** A grid for 11/10/95 from 8 AM to 5 PM.
- Options:** MCU Options, Site Detail, Multipoint Options, and Site Options buttons.

Figure 4-28. Add a Room(s)- Only Conference

To schedule a room(s)-only conference, use the procedures provided at the beginning of this chapter to fill in the following four conference information areas:

- ID Area
- Room capacity
- Conference Times Area
- Command Area for scheduling and access to notes

⇒ NOTE:

For a room(s)-only conference, the conference template is replaced by an area in which you type the room capacity.

When you type a capacity number, the sites (rooms) shown can accommodate the capacity entered, plus a number of extra people. Then when you click on the **Qualifying Sites** area, the darkened sites are those that match the room capacity you selected.

For example, if you were to type *5* and click on the **Qualifying Sites** area, the qualifying sites that darken would be those that could accommodate 5 to 15 people. If you were to type *10*, the qualifying sites that darken would be those that could accommodate 10 to 20 people.

Recurring Conferences

When you select **OK**, if recurring conference information has been entered, CRS begins checking to see if the recurring conferences can be scheduled on the proposed dates, and the **Recurring Conferences** window is displayed, as illustrated in Figure 4-29.

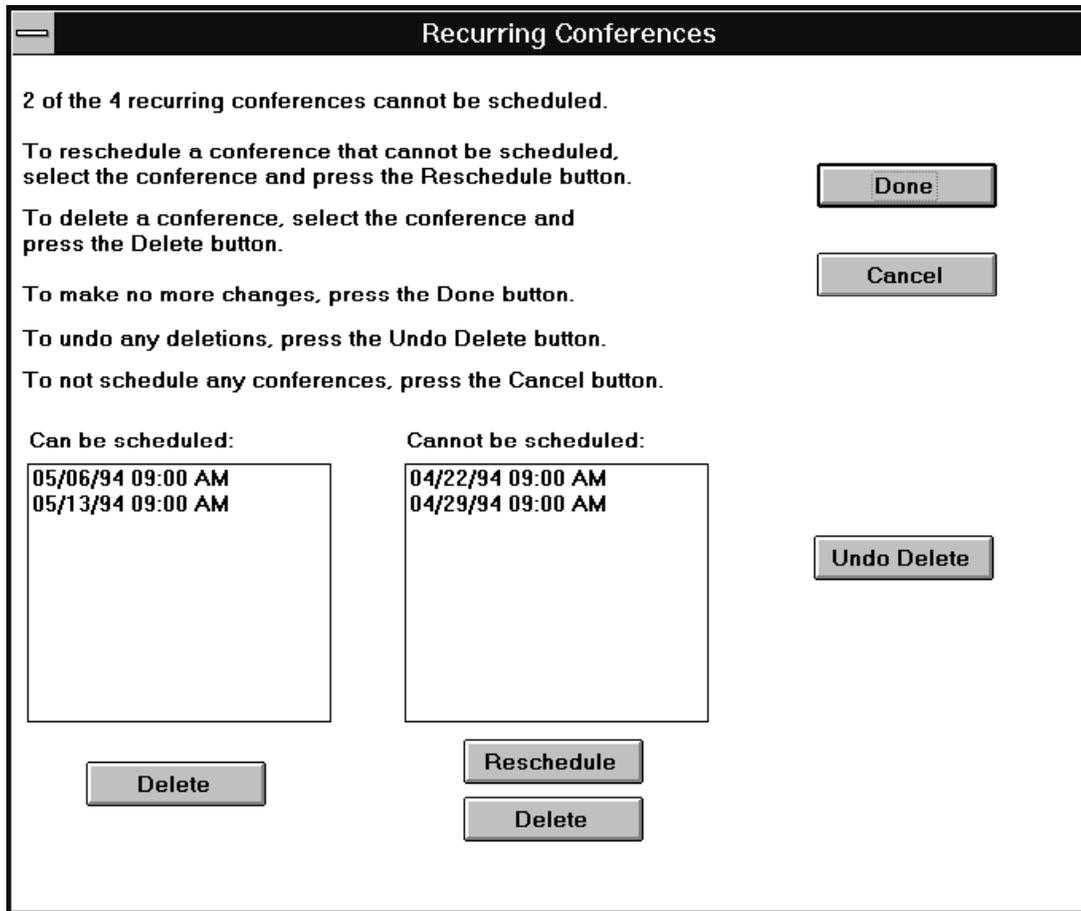


Figure 4-29. Recurring Conference Window

The **Recurring Conferences** window displays the following information about the recurring conferences:

- The top line of the window lists the number of conferences that cannot be scheduled.
- The two list boxes contain the start dates and start times of each conference. The box labeled **Cannot Be Scheduled** displays the dates and times of the conferences that cannot be scheduled.

⇒ NOTE:

You might suggest to the convener, if many of the proposed recurring conferences cannot be scheduled, that he or she choose a different date or time for the recurring conferences.

The following four procedures are available for resolving conflicts in recurring conferences:

1. Select to accept the list of conferences that can be scheduled (that is, only those in the **Can Be Scheduled** list).
2. To reschedule a conference, first highlight the conference in the **Cannot Be Scheduled** list, and select to return to the **Add Conference** window and change the sites, date and/or time for the conference.
3. Highlight a conference entry and select to delete a conference from either of the lists.
4. Select to undo a conference deletion from either of the lists.

If you choose to reschedule recurring conferences that cannot be scheduled, proceed by performing the following steps:

1. Use the **Scheduling Calendar** grid in the same way as you would for any nonrecurring conference.

When you close the Scheduling Calendar and have successfully scheduled the conference, the **Recurring Conferences** window is redisplayed. If you selected a nonconflicting time in the **Scheduling Calendar** grid for the conference, the conference is removed from the **Cannot Be Scheduled** list and is inserted and highlighted in the **Can Be Scheduled** list.

2. Continue selecting conferences from the **Cannot Be Scheduled** list until the list is empty or you are satisfied with the set of conferences you can schedule.
3. Select to save the set of recurring conferences in the **Can Be Scheduled** list.
4. If you want to delete any of the conferences that are to recur, highlight the conference you want to delete and select .
5. After you have scheduled a set of recurring conferences, you can make changes or delete any member of the set in the same way as you would for a nonrecurring conference.

 **NOTE:**

There is no way to make changes or delete the recurring conferences as a set; you must work with each one individually.

When the **Scheduling Calendar** grid displays time slots available for all sites select .

You can navigate repeatedly through the **Scheduling Calendar** grid to update details and continue to select until the scheduling completes successfully.

Site Options

The site options form allows you to view and control several parameters related to sites. To view or change site options for any of the sites listed in the conference, select **Site Options** from the add conference window. The site options window is illustrated in Figure 4-30.

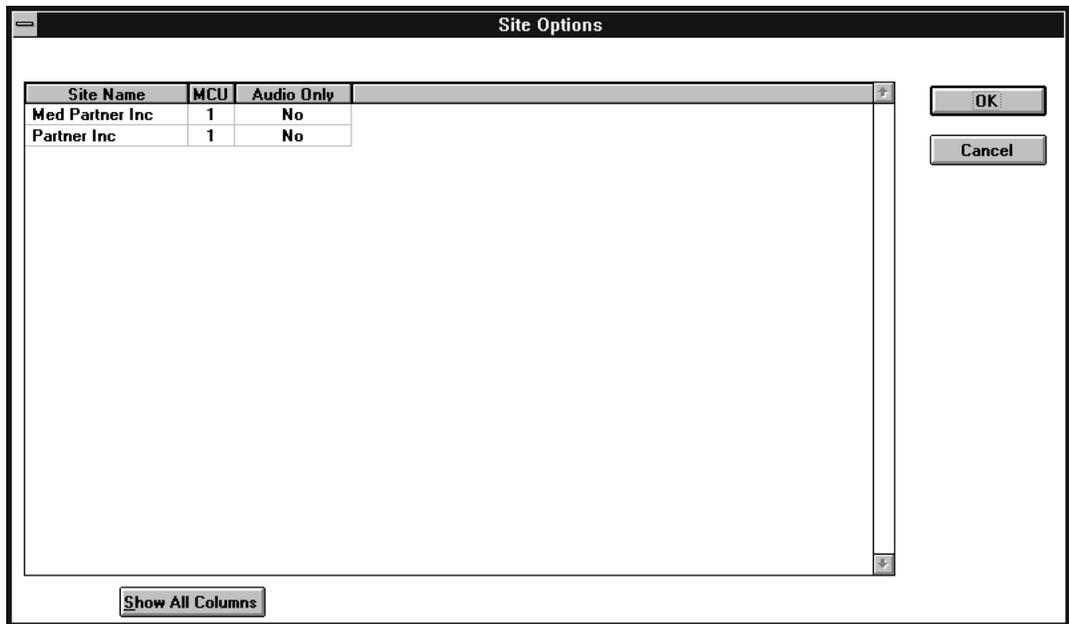


Figure 4-30. Site Options Window

Site parameters for preferred MCU and Audio Only are shown for each of the sites selected in the add conference window. Some of the columns appear only if the related parameters are enabled. Select **Show All Columns** to see more parameters as shown in Figure 4-31.

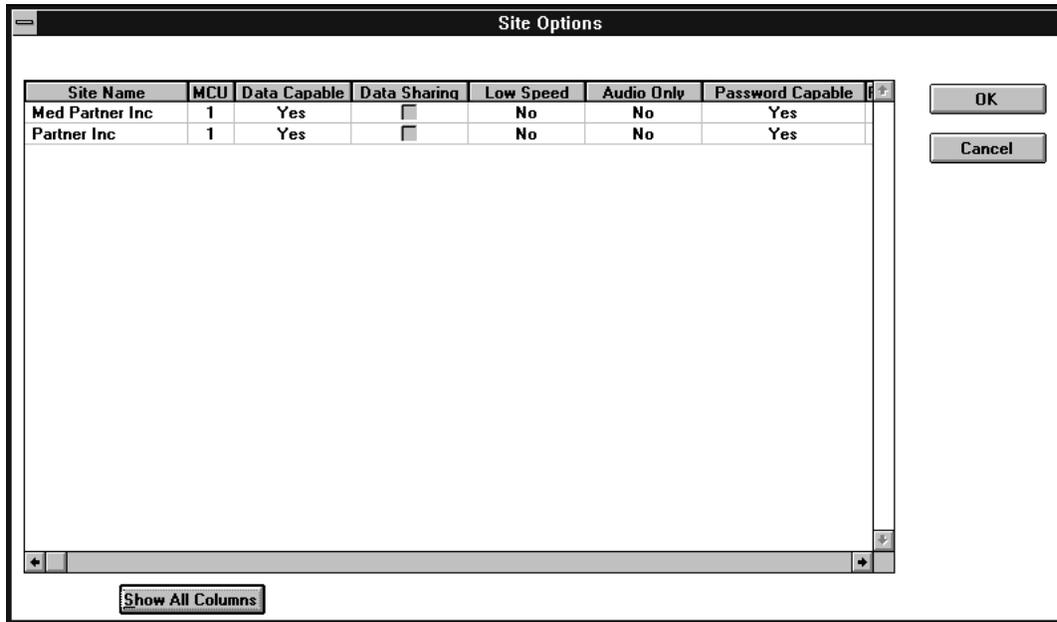


Figure 4-31. Detailed Site Options Window

You can toggle site options such as Data Sharing and Passwords from this window by clicking on the box in the parameter column for that site.

CRS Menu Definitions



This appendix defines CRS command menu functions as illustrated on the CRS main window in Figure D-32.



Figure D-32. CRS Main Window: Menu Bar

As illustrated, the CRS menu bar provides access to the **File**, **View**, **Window**, and **Help** functions.

CRS menu options differ depending on your login (for example, the *admin* level main menu includes the **Admin** function on the menu bar). To help clarify the functions defined in this appendix:

- Menus are labelled as *Agent Only* or *Admin Only* menus, as necessary.
- Menus that are the same for both login levels are not labeled.

File Menu

File	
Repair Database	■ Repair and compress CRS databases (not applicable to Multi-User CRS)
Archive Database	■ Archive and remove current CRS database
Export	■ Move data into or out of CRS in ASCII, dBASE, or DIF formats
Fax Log	■ Display send fax log
Send Quick Fax	■ Display a window for sending a test fax
Print Setup	■ Define paper layouts
Log Out	■ Log out of CRS

Figure D-33.File Menu: *Admin Only*

File	
Fax Log	■ Display send fax log
Send Quick Fax	■ Display a window for sending a test fax
Print Setup	■ Define paper layouts
Log Out	■ Log out of CRS

Figure D-34.File Menu: *Agent Only*

View Menu

View	
Today's Conferences	
<u>F</u> uture Conferences	■ Display a list of today's conferences
<u>P</u> ast Conferences	■ Display a list of future conferences
<u>P</u> eople	■ Display a list of past conferences
<u>S</u> ites	■ Display a list of conveners/contacts
<u>C</u> ompany	■ Display a list of sites (rooms)
<u>C</u> onference Templates	■ Display a list of Companies
<u>E</u> ndpoint Templates	■ Display a list of Conference Templates
<u>A</u> udit Trail	■ Display a list of Endpoint Templates
<u>U</u> sage Reports	■ Display the conference audit trail
	■ Provides Access to a group of facility usage summary reports
<u>M</u> CU Extensions	■ Display a list of MCU extensions
<u>M</u> CU's	■ Display a list of MCUs
<u>E</u> xtension Pools	■ Display a list of extension pools
<u>D</u> efaults	■ Display a list of CRS system defaults
<u>T</u> ime <u>Z</u> ones	■ Display the time zone offset (in hours) from the CRS time, and a list of increments for daylight savings time
<u>L</u> ogins	■ Display a list of user names, passwords, and login status

Figure D-35. View Menu: *Admin Only*

View	
Today's Conferences	
<u>F</u> uture Conferences	■ Display a list of today's conferences
<u>P</u> ast Conferences	■ Display a list of future conferences
<u>P</u> eople	■ Display a list of past conferences
<u>S</u> ites	■ Display a list of conveners/contacts
<u>C</u> ompany	■ Display a list of sites (rooms)
<u>C</u> onference Templates	■ Display a list of Companies
<u>E</u> ndpoint Templates	■ Display a list of Conference Templates
<u>A</u> udit Trail	■ Display a list of Endpoint Templates
<u>U</u> sage Reports	■ Display the conference audit trail
	■ Provides Access to a group of facility usage summary reports

Figure D-36. View Menu: *Agent Only*

Admin Menu

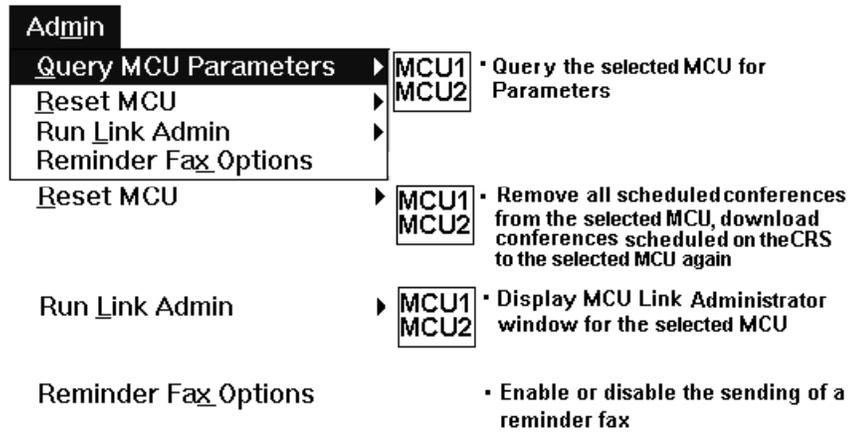


Figure D-37.Admin Menu

Window Menu

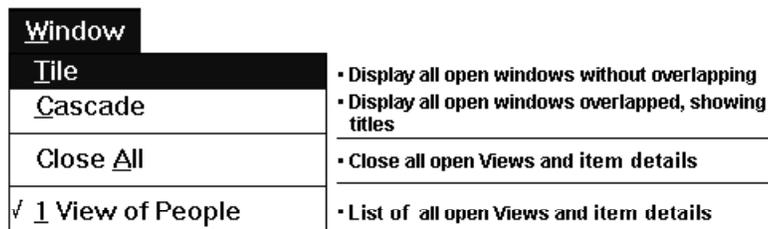


Figure D-38.Window Menu

Help Menu

<u>H</u> elp	
<u>I</u> ndex	Shift + F1
<u>S</u> ystem Information...	
<u>T</u> utorial	
<u>A</u> bout...	

- Display the Help contents
- Display system configuration information
- Use the CRS tutorial

- Display information about this version of CRS and your registration number

Figure D-39.Help Menu

Agent Script And Conference Guidelines

B

This appendix provides:

- A reservations agent script, which is designed as a flow of **suggested questions** to ensure that the reservations agent and the convener have a quick and efficient conversation.
- Video-conferencing guidelines for conference participants.

Before You Start

One of the administrator's setup tasks is to provide you and the conveners with easy-to-understand descriptions of the following CRS items:

- Names of the **conference templates**, with the meaning of the template and its use.
- A list of location (**site**) names (listed by the capabilities they support). Descriptions of the **conference modes** that your company and/or department supports.
- The meaning and use of **MCU extension pools**.
- The method(s) for conveners to receive conference confirmations to send them to participants.

To help you explain the CRS reservation terminology to conveners as you are reserving a conference, refer to the "Summary for CRS Convener" in this appendix and the glossary, if necessary.

Scheduling Script

Setting Up for a Call

Be sure that you are displaying a **View** window for conferences scheduled for today, the future, or the past.

To display a conference view, double click on one of the first three icons on the View bar (**Today's**, **Future**, or **Past**).

Accessing the Appropriate Reservation Window

As you begin speaking with a convener, ask if the conference being scheduled is similar to any conference he or she has previously scheduled (that is, the new conference is a similar type of conference, requires similar sites to be selected, and requires selection of other options, such as similar time, resource, or multipoint options).

If there are similarities in the conference details, highlight the similar conference item(s) on the appropriate conference view, and select **Copy** instead of **Add**.

The **Copy Conference** window is displayed with similar details already supplied.

Entering Reservation Details

1. Select **Add** (or **Copy**).

When the **Add Conference** window is displayed, ask the following questions.

2. ***Who is the convener for the conference?***

Select the convener.

3. ***Which type of conference do you want: multipoint, point-to-point, or room(s)-only?***

Select the reservation type.

4. ***Which type of conference template do you want?***

Choose an appropriate conference template. If needed, explain how conference templates identify capabilities that apply to the sites that can be used for either a video or a room(s)-only conference.

If the convener requests a room(s)-only conference, ask for the desired capacity for the room.

5. Which sites are going to be used for the conference?’

As the convener names each site to be selected, move that site from the Qualifying Sites area to the Selected Sites area.

6. Do you have a date and time in mind, or do you know how long the conference will last?

If the convener only states the duration (for example, three hours), determine what is the earliest time that the convener would like the conference to start.

Choose the start and end dates by typing those dates, or select the date from the calendar in the Conference Times area of the window.

Type in the time, using am and/or pm, as needed. You can also use the mouse to click on the start time in the scheduling calendar and drag the line to the end time (refer to Chapter 4, “Reserving a Conference”, for detailed procedures on using the scheduling calendar grid).

7. Do you have special conference requirements?

As needed and if the MCU supports the features, check if the convener requires such additional information as an audio add-on number, special notes to be sent to the participants in the confirmation, or that a specific MCU dial out to one or more of the participating sites.

If needed, explain conference modes (for example, how presentation, broadcast, or chair control mode can be set up to affect what participants see and hear). See Appendix C, “Installing the AT&T CRS”, for details about changing conference mode.

You can ask if conference participants require notes about special seating, food, etc. If needed, you can type up to 253 characters of notes, with spaces.

⇒ NOTE:

If the fax upgrade is installed and enabled on your CRS, you can ask the convener:

Would you like a reminder of this conference faxed to you (n) days before the conference?

If yes, check the Fax Reminder on the **Add Conference** window.

8. The system is setting up your conference.

As you say this, select .

A confirmation window is displayed if your conference is scheduled. If there is a conflict, refer to Chapter 4, "Reserving a Conference", for suggested questions.

You can ask the convener, for example, if the time can be changed and what actions you can take to resolve the conflict. When scheduling completes successfully and a confirmation report is displayed, your next question is:

9. Do you want me to read back the confirmation information for the conference you have reserved, or do you want me to mail or fax you this confirmation?

If the convener says "Yes," while referring to the displayed confirmation window, say:

The conference convened by (say 'you' or convener name)

will start (say 'today' or 'on give date')

at (give time)

and end (say 'today' or 'on give date') **at** (give time) **at the following sites** (give site names),

and using the following numbers (give numbers).

If the convener requests a mailed confirmation, say:

10. Thank you. You will receive a printed confirmation. Please distribute this confirmation information to the participants.

Select **Print** on the confirmation window.

If the convener requests a faxed confirmation, say:

11. Thank you. You will receive a faxed confirmation. Please distribute this confirmation information to the participants.

Select **Fax** on the confirmation window.

12. If you have any changes to the conference(s), please let me know up to 30 minutes before the conference begins.

If there is Dynamic Resizing available on the MCU, tell the convener that he or she can make changes even after the conference begins.

Close the confirmation window and all other active windows.

Summary for CRS Convener

Table D-2 might be similar to the summary that your CRS administrator has already supplied to you and the conveners, providing:

- Definitions for the following reservation terminology
- Names that your company or department uses for CRS reservations

If you or the conveners do **not** have a summary, consult your administrator to obtain an appropriate list of CRS reservation-related definitions and company or department details.

Table D-2. Summary for CRS Conveners

Definition	Your Company's Name(s)
<p>Conference Template - a name for a group of compatible video capabilities that are associated with certain sites.</p> <p>For a room(s)-only conference, the room capacity is the only necessary conference information.</p>	<p>_____</p> <p>_____</p> <p>_____</p>
<p>Qualifying Sites - locations with compatible endpoint equipment or room contents.</p> <p>Compatible endpoints have the same speeds for video and use the same protocols so that they produce the same video quality when they are connected to one another.</p>	<p>_____</p> <p>_____</p> <p>_____</p>
<p>Conference Modes - how the speaker(s) and participants see video and hear sound from various sites during a conference.</p> <p>For <i>Broadcast with autoscan</i> mode, a speaker sees a site for a fixed period of time (then the next site, then the next), while participants only see and hear the speaker.</p> <p>For <i>Presentation</i> mode, the presenter or any participant who speaks is heard by all sites, but only the presenter is seen during the entire conference.</p> <p>For <i>Voice-Activated Switching</i> mode, each person who speaks is seen by all other sites, so that when a new speaker begins talking, he or she is seen by the other participants.</p> <p>For <i>Chair Control</i> mode, the chairperson selects which site is being viewed by all other sites.</p>	<p>_____</p> <p>_____</p> <p>_____</p> <p>_____</p>

Guidelines For Successful Video Conferencing

Since the components of each endpoint in a video conference affect the video and audio quality of that conference, audio performance in video conferences can vary widely between systems and between sites. The following guidelines clarify the performance issues that affect users regardless of what type of endpoint they use to participate. With any video conference, expect some delay as the sound and video is sent between participants.

While Setting Up a Multipoint Video Conference

Plan the setup of your room so that you:

- Configure your endpoint as recommended by the manufacturer.
- Provide adequate separation (that is, greater than 24 inches) between the endpoint microphone and the TV speakers.
- Include any participant who joins a video conference as an audio-only participant in the CRS sites being reserved (so that an audio port on the MCU is reserved). If an audio-only participant joins a video conference through an endpoint rather than through an MCU audio port, the audio quality of that conference is degraded.
- Eliminate or reduce background noises (such as air conditioner blowers and computer fans) as much as possible.
- Make certain to turn off the internal microphone on your system, if you are using any external microphone(s).
- When you are participating from a site whose endpoint is a desktop video system, use a handset, if available, to improve audio performance.

Once a Video Conference Begins

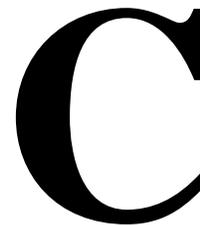
It is recommended that video conferences for two or more parties be planned with the following details in mind:

- A participant joining a conference experiences a delay before audio and video begins. When a participant disconnects (hangs up), there is also a delay before the audio and video stop.
- If you are the **first party** to connect to the conference, you will see only yourself. Then, if tones are active on your MCU, you will hear a tone that indicates each time a new participant is joining the call.
- The use of the mute button on your control panel is usually unnecessary because voice-activated switching allows each speaker to be seen and heard in turn.

However, if audio performance is affected by participants speaking simultaneously from numerous sites, each site can press the mute button, and then when a site that is muted wishes to speak, that site can turn on the audio again.

- When trying to determine which site is adding noise or echo to a video conference, use a process of sequentially muting each endpoint. You have identified a site causing noise or an echo when you mute a site and the noise or echo stops. Once identified, that site should remain muted until it is necessary for a participant at that site to speak.
- A meeting moderator should control the flow of the meeting to ensure that each participant is heard by the other participants.
- For broadcasts or presentations, the presenter and the person who introduces the presenter are usually the only speakers. If questions are taken from the audience, the question should always be repeated by the presenter before he or she answers.

Installing the AT&T CRS



CRS installation involves the following basic procedures:

- Single-user or multi-user CRS hardware installation
- Multi-user CRS server, local area network (LAN) client, and remote access service (RAS) client setup
- Single-user or multi-user software installation

Hardware Installation

The CRS requires that your PC system or network server and clients are set up for 1024x768 resolution within Windows. Once these requirements are met, two types of connections are possible for CRS (or CRS server) to MCU connectivity: local and remote.

A local connection consists of a CRS terminal or server and local printer that are located less than 50 feet from the MCU and the MCU System Terminal.

⇒ NOTE:

Since the MCU connection for a multi-user server or single-user PC is essentially the same, both are referred to as the *CRS terminal* in this appendix.

If the distance between the MCU and the CRS terminal and local printer is greater than 50 feet within a building, or if the MCU is connected to the CRS externally through a network, a remote connection is needed. Also, any terminal that is not connected to the TERM connector on the back of the MCU is considered remote.

Regardless of the type of connection, you are required to supply the proper adapter to connect the CRS Com1 port to the RS-232 cable.

To connect the CRS to the local MCU, you must use a 7400B PLUS data module and an M25B cable (both included with the MCU), along with an appropriate 9-pin to 25-pin RS232 adapter (that you must supply).

Figure C-1 illustrates a typical CRS configuration using a 7400B PLUS data module.

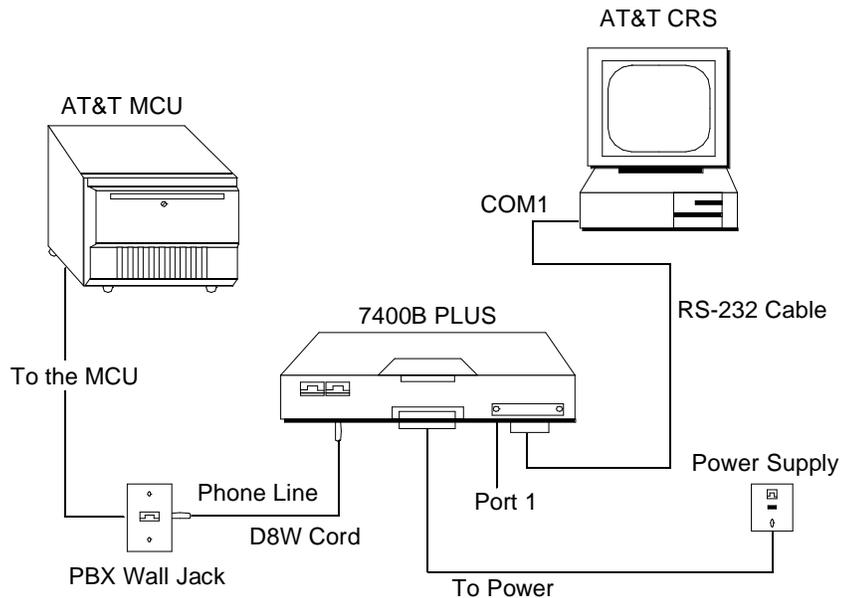


Figure C-1. CRS-MCU Local Configuration Example

A CRS configuration that requires a remote MCU connection is connected to a Hayes®-compatible modem, such as a 7400B PLUS data module or another digital modem.

Consult your account representative for details about MCU and CRS configurations with *remote* connections, regardless of whether or not those connections use DEFINITY PBX.

Site-Specific Connections: Cabling Details

A number of possible specific configurations can be used for dial-up connections to the MCU, including connections over the public telephone network or a private network.

Figure C-2 illustrates site-specific connections using a 103A or wall jack and a cross-connect field, cabling, and hardware connectivity used for a typical configuration.

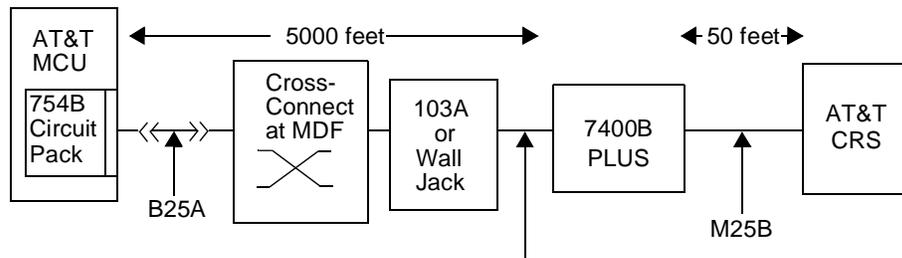


Figure C-2. Detailed Cabling: 7400B PLUS Data Module Configuration

Establishing PC Hardware Connections

This section provides a step-by-step procedure for establishing connections between the CRS terminal and the data module or modem. (Procedures for connecting the data module or modem to the MCU are provided in the *AT&T MultiPoint Control Unit Installation Quick Reference*.)

Refer to Figure C-1 through Figure C-3 when you use this procedure. To connect the CRS terminal (using the standard serial ports) to the modem or module:

1. Connect the Com1 port to the 7400B data module (or another digital Hayes-compatible modem) with an appropriate adapter, if necessary, and an M25B (EIA-232-D) cord or equivalent.
2. Use an RS-232 cable (M25B) with a 25-pin female connector for the CRS terminal and a 25-pin male connector for the module or modem, as illustrated in Figure C-3.

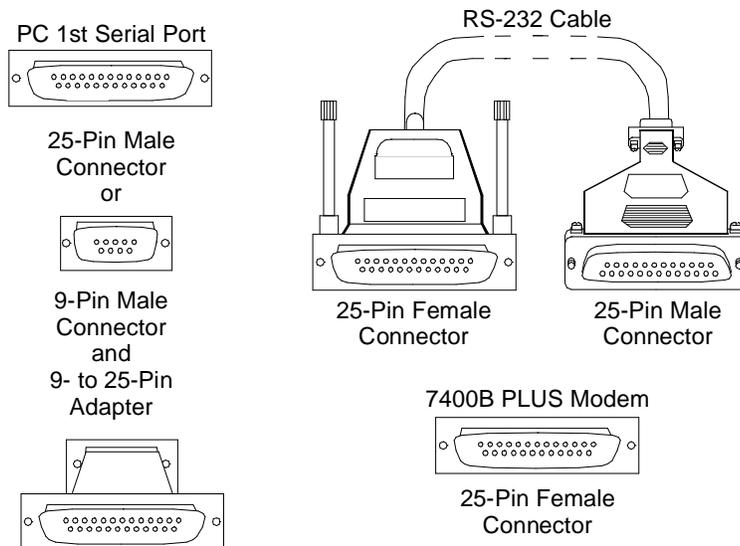


Figure C-3. PC Hardware Connections

3. If your supplied cable does not have the appropriate gender connectors, use a gender changer to make the correct cable configuration. Determine if the connector on the first serial port of the CRS terminal is a 25-pin or 9-pin connector, using the illustration in Figure C-3.
 - CRS terminal ports are usually labeled with the port number and type (serial or parallel). If your CRS terminal ports are not labeled, refer to the PC User's Manual to determine port use.
 - If the first serial port is a 9-pin connector, connect a 9-pin to 25-pin RS-232 adapter (that you must supply).
4. Connect the female end of the RS-232 cable to the male end of either the connector or the CRS terminal's first serial port.
5. Connect the male end of the RS-232 cable to the female 25-pin RS-232 connector on the modem or module.
6. Remove the cover to unplug the modem.
7. Verify or change the following 7400B data module dip-switch settings:
 - If you are using a stand-alone data-only 7400B data module, change dip switch #1 to ON, if no phone is connected. All other dip switches should be left in the DOWN position.
 - If you are using a voice-and-data 7400B data module, all dip switches should be left in the DOWN or OFF position.

The physical connection between the CRS terminal and the modem or module is now complete. You can now install the CRS software and link the MCU and the

CRS. Refer to the link administration procedures in Chapter 3, "Performing CRS Administration".

Single-User CRS Software Installation

To install single-user CRS software on a PC for the first time:

1. If you already have a copy of CRS on your PC, follow the instructions in the section, "Upgrading or Reinstalling a Single-User CRS", in this appendix instead of continuing here.
2. Complete the PC connections:
 - Connect the power cord and plug in the power.
 - Connect the mouse to the Com2 port (with appropriate adapter, if necessary), or install the bus mouse.
 - Turn on the PC on which you will install CRS.
3. If Windows does not automatically start when you turn on the PC, start Windows (by typing *win* at the *c:* prompt).
4. Close all other Windows applications, except the Program Manager.
5. Insert the first CRS diskette into the disk drive and select **Run** from the **File** menu on the Program Manager menu bar.
6. In the Run window, type the letter of the drive in which you placed the first CRS diskette, followed by a colon, a backslash, and the word *setup* (for example, *a:\setup*) into the Command Line field in the Run window.
7. Select .

A window is displayed prompting you for the CRS serial number.

8. Enter the CRS serial number and select .

The **AT&T CRS Installer** window is displayed, as illustrated in Figure C-4.



Figure C-4. AT&T CRS Installer Window

As illustrated, the window shows that the directory that the setup program uses is `C:\ATT_CRS`. This Program Directory holds the CRS program needed for proper execution.

9. Select to perform an install in the directory specified.

⇒ NOTE:

As installation continues, messages appear in the **AT&T CRS Setup** window describing the progress of the installation. When you are prompted, remove the current diskette from the disk drive, insert the next diskette, and select . Single-user CRS installation does not require all the disks.

If you are installing CRS for the first time, you must also install the ODBC drivers when prompted. In all subsequent installs you can skip the ODBC driver installation. You will also be prompted for whether or not to install the CRS agent and administrator tutorials.

10. After the installation completes, you are prompted with procedures to update your **config.sys** and your **autoexec.bat** environment files.

Figure C-5 illustrates the **autoexec.bat** prompt.



Figure C-5. autoexec.bat File Example

11. Select Yes to automatically update your **autoexec.bat** file and create a backup file.

Figure C-6 illustrates the **config.sys** prompt.

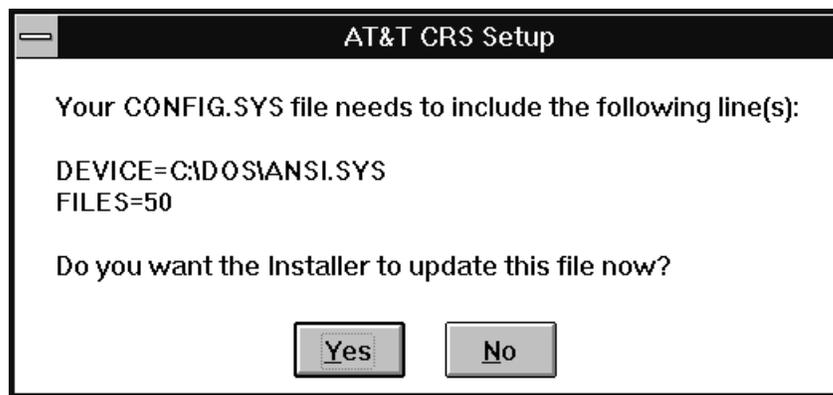


Figure C-6. config.sys File Example

Select Yes to automatically update your **config.sys** file.



CAUTION:

If you select No for either the **config.sys** or the **autoexec.bat** prompts, you must add the required lines to the respective files manually **before** you restart your PC.

12. When the message appears that your installation has completed successfully, select and remove the last CRS setup diskette from the disk drive.
13. Now reset your PC, and you are ready to start CRS.

Installing the Single-User CRS Fax Modem and Software

Refer to "Optional Procedures" on page D-1 for information about fax installation and setup for the SatisFAXtion® Modem/400 and the WinFax™ PRO software version 4.0.

Multi-User CRS Software Installation

Multi-user CRS consist of a series of software modules that run in a traditional server/client scheme. This allows MCU conferences to be scheduled from a number of LAN clients or dial-up clients. Clients are networked to the server using an MS Enterprise Data Network.

The Server portion consists of the following modules:

- **Database Server.** Physical data resides in this module. The database server in CRS is the MS-SQL Server. This server is modified via stored procedures to communicate with CRS clients through ODBC. The physical mechanism to support data exchange between CRS clients and the SQL Server are MS-named pipes transported over the network fabric. The SQL Server depends on Windows NT to provide user login security.
- **MCU Server.** This software module physically downloads conference data to two MCUs. Clients communicate with the MCU Server using MS Network DDE, which is a NETBIOS service. To cross routers or bridges, you must consult network protocol documentation for instructions to modify network software to support these services.
- **Global Scheduler/Reminder Server.** This software module downloads Dedicated conferences and Fax Reminders. Clients do not communicate with this server. The server uses timers to query periodically the Database Server for tasks to be performed.
- **CRS Server.** This software module supports the CRS user interface on the server. It must be used to administer the MCU link information, archive the database, and perform as an agent interface. It is recommended that the CRS Server not be used by agents to schedule conferences; rather, it should be used to perform CRS administrative functions.
- **Fax Server.** This software module is the focal point for fax activity in the CRS Multiuser architecture. Clients communicate with the Fax Server via MS file sharing.

The CRS clients consist of the following software components:

- **CRS Client.** This software module supports the user interface for conference scheduling.
- **Fax Client.** This software module supports local or remote faxing of conference data.

To install CRS multiuser software for the first time, you should complete the following general steps:

- Install the required hardware (including the network interface card).
- Install and configure the Windows NT server software.
- Install and configure the ChiliPORTS board and software for RAS clients.
- Administer network options.
- Install and configure the SQL software.
- Install the multiuser CRS software on the server.
- Install and configure the Zetafax fax/modem.
- Install network files on client workstations.
- Administer network options at each client workstation.
- Install multiuser CRS software on each client.

A *domain* is a logical collection of *machines* and *users* on a physical network. Network configuration consists of creating the CRS domain and adding/configuring each machine and user in that domain.

Checkout Before Installing CRS on the Client or Server

Before installing CRS on either the client or server you must do the following.

- Use the **File Manager/Disk/Connect Network Drive** menu item to verify file sharing between the client and server. Refer to the WFW documentation.
- Use the **Network/Chat** program item to verify Network DDE between the client and server. Packages such as "DDE SPY" can be used to investigate problems.
- Temporarily install the SQL Windows client package on the client to verify connectivity to the SQL server. Follow the SQL documentation in investigating network problems.

Installing the Required Multi-User CRS Hardware

Refer to the requirements listed in the “Multi-User CRS Hardware Requirements” section in Chapter 1, “READ THIS FIRST”, for details on multi-user hardware requirements. Follow the documentation that came with your hardware for installation.

Installing and Configuring the Windows NT Server Software

WINDOWS NT must be installed as the “Primary Domain” controller for the user domain of CRS clients.

NOTE:

Refer to the WINDOWS NT documentation for a definition of the terms “Primary Domain” and “Domain.”

For this installation, the Domain is named “CRS.” All protocols provided in WINDOWS NT (including TCP/IP, NETBUI and IPX/SPX Compatible Transport) should be installed. The domain for each protocol should be “CRS.” Follow WINDOWS NT install documentation for the rest of the installation.

In addition, do the following:

1. Use the Administrator tool, **User Manager**, to add a user login for each CRS client. The client logins should be given a default non-changing login. Also, use the **User Policy** menu item to make each login trusted (that is, necessary to connect to SQL Server). The machine name for each client must also be added to the CRS domain using the **Server Manager** program item.
2. Use the **Control Panel/Service Program Item** to start all services necessary for network protocols.
3. Start Network DDE Services. (All services started manually should be tagged for automatic startup.)

Configuring the RAS Interfaces

If you are going to use RAS clients in your system, you need to install and configure the ChiliPORTS interface board for CRS RAS clients. To install and configure the ChiliPORTS interface, refer to the ChiliPORTS board documentation and do the following to properly setup the ChiliPORTS board:

1. Select **Control Panel** from the **Main** program group.
2. Select the **Network** program item.
3. Select the adapter card settings, choose **other** as the adapter card type, and select .

4. Insert the ChiliPORTS setup floppy and select **OK**. Refer to the ChiliPORTS documentation to complete the setup as follows:

 **NOTE:**

The Windows NT CD should still be in the CD drive.

- a. Choose the type of ChiliPORTS card you installed.
 - b. From the COM port and I/O address drop down list, select the first COM port and I/O address for the first RAS port in your system. (In CRS, COM1 and COM2 are used for the MCU link and fax ports so COM3 is typically the first RAS port.)
 - c. Set the port usage to an appropriate setting for your network. (Most CRS installations set their port usage for **Receive calls only**.)
 - d. For each RAS port, choose service access for the **Entire Network** and IPX for the **Entire Network**.
 - e. Do not enter a TCP/IP address for RAS ports.
 - f. Administer each RAS port.
5. Exit the ChiliPORTS administration and reboot.
 6. Login to the server as administrator and continue with "Administering Network Options" in Appendix C.

Administering Network Options

Administer network options for each client by following the Microsoft Windows NT network documentation and the following:

1. Select **Network Client Administration** from the **Network Administrator** program group.
2. Add the **WINS** and **Simple TCP/IP Services**. (If you wish, you can add **FTP Server Support** as well.)
3. Make a shared directory to contain all the files that client workstations require to log into the network. Remember the name of the shared directory for completing the client installation later.
4. Select **Control Panel->Services** from the **Main** program group.
5. Set the **Network DDE** and **Network DDE DSDM** services to automatic and then start them.

 **NOTE:**

CRS requires these services to start automatically when the server reboots.

6. For each client workstation or user, do the following:
7. Use the **Server Manager** from the **Administrator Tools** group to add machines (client workstations) to the CRS domain.

8. Use the **User Manager** from the **Administrator Tools** group to add users to the CRS domain.

⇒ NOTE:

The client name, logins, and passwords entered here must match those used in the client setup.

9. Use the **Hours** option in the **User Manager** to disallow login during times for server administration tasks. See “Understanding the Databases” in Chapter 2 for details concerning administration tasks on a multi-user CRS.
10. Continue with the next section.

Installing and Configuring the SQL Software

⇒ NOTE:

Refer to the “Microsoft SQL Server for Windows NT Configuration Guide” for installation instructions.

Use the following parameters in a new installation. (Refer to Installation Worksheet #1 in the guide).

1. Pre-installation checklist:
 - a. Verify that the server meets the configuration requirements. (See the “Microsoft SQL Server for Windows NT Configuration Guide.”)
 - b. Back up the master installation disks.
2. Remote server information (for remote installations only). (This is not used for multiuser CRS.)
3. Installation paths (SQL Server root drive and directory):
Drive: **C** Directory: **\SQL**
4. Master database device Drive: **C** Directory:
\SQL\DATA\MASTRER.DAT; Size in MB: **15 MB**
5. Character set: choose **850, Multilingual**.
6. Sort Order: choose **Binary Order**.
7. Tranact-SQL scripts: choose **all**.
8. Network support: choose only **named pipes**.
9. Startup options: choose **Auto Start SQL Server at boot time** only.

Refer to the Server Options Worksheet in the Configuration Guide:

1. Root directory: **C:\SQL**.
2. Master database device path: **C:\SQL\DATA\MASTER.DAT**.
3. Erroring path: **C:\SQL\LOG\ERRORLOG**.
4. Also, choose the following:

- a. **Auto start server at boot time**
 - b. **Boost SQL server priority**
 - c. **Windows NT event logging**
 - d. **SQL PerfMon**—choose **Direct Response Mode**
5. Parameters (startup options): **-dC:\SQL\DATA\MASTER.DAT** and **-eC:\SQL\LOG\ERRORLOG**.
 6. Tape Support: choose **Wait Indefinitely**.

Refer to the Security Options Worksheet in the Configuration Guide:

1. Login Security Mode: choose **Windows NT Integrated**
2. Default Login: **guest**
3. Default Domain: **CRS**
4. Hostname: choose default
5. Audit Level: choose both **Successful Logins** and **Failed Logins**
6. Map _: choose **domain separator**
7. Map #: choose **hyphen(-)**
8. Map \$: choose **space**

Install the Multiuser CRS Software on the Server

To install multiuser CRS software on the server for the first time, do the following:

1. Insert the first CRS diskette into the disk drive and run the setup program on the disk. For instance, if you are running windows, select **Run** from the **File** menu on the Program Manager menu bar and enter: `a:\setup`.
2. When prompted for the CRS serial number, enter the CRS serial number and select .
3. When prompted for whether or not you are installing CRS on the server, select .
4. At the directory window, type in the directory where CRS files are to be stored and select .

The provisioning information, number of users, and fax type are displayed as shown in Figure C-7.

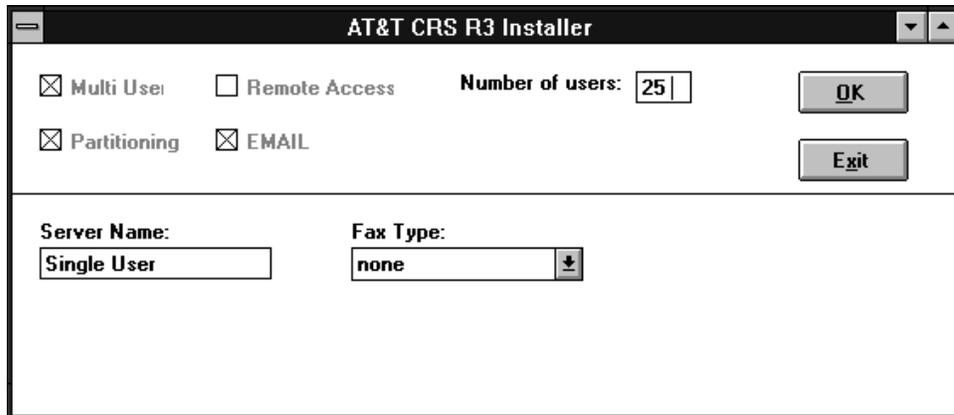


Figure C-7. Multi-User Install Options Window

5. Select the allowed options (not greyed out) for the provisioning you want (Partitioning).
6. Enter the number of simultaneous CRS users that should be allowed.

⇒ NOTE:

The **Number of Users** field is automatically populated with the maximum number allowed with your license.

7. Enter the name of the server in the **Server Name** field.
8. Select the fax type (none or Zetafax) from the **Fax Type** drop down menu.
9. Select to accept the parameters and complete installation or select to abandon your changes and continue installation with the default settings.
10. Select to perform an install using the directory specified.

⇒ NOTE:

As installation continues, messages appear in the **AT&T CRS Setup** window describing the progress of the installation. When you are prompted, remove the current diskette from the disk drive, insert the next diskette, and select . The installation may not require all the CRS installation disks.

11. When the message appears that your installation has completed successfully, select and remove the last CRS setup diskette from the disk drive.
12. Reboot the server.

⇒ NOTE:

Login is automatic after CRS and ODBC drivers have been installed on your system.

13. Continue with the procedures in the next section.

Setting up the CRS Multi-User Database

This section contains instructions for setting up the CRS multi-user database.

Creating the “CRS” Devices

1. Using the **SQL Administrator** program item, connect the install SQL server. (Refer to the “MS SQL Administrators’ Guide.”)
2. Use the **Device/Create** menu item and create two devices for CRS: “CRS” and “CRS Log.” The size of each device should be at least 50MB. (The size varies depending on the user configuration. Adjust the device size upwards, if required.).

Creating the CRS_DATABASE Database

1. Using the **SQL Administrator** program item, connect the SQL server. (Refer to the “MS SQL Administrators Guide.”)
2. Use the **Database/Create** menu item and create a database for CRS. The database name should be “CRS_DATABASE.” Also, create two devices: “DataDevice CRS” and “LOGDevice CRSlog.” Each device should be at least 50MB.

Initializing the CRS Database

1. Using the **ISQL/w** program item in the SQL Server for Windows NT, connect the SQL server. (Refer to the “MS SQL Administrators Guide.”)
2. Load and execute the script **crs.sql** located in the **att_crs\dbase** directory. This script creates a clean multiuser database.
3. Start up CRS and begin creation of data in the database.

Registering ODBC for the Database

1. Use the **NT ODBC Administration** program item in the control panel to register the CRS SQL database. The DSN should be **CRS R3.0 Database**; the server should be **local host**; the database name should be **CRS_DATABASE**; the login name should be **sa**; and the password should be null.
2. Make sure this data set is registered with the 32-bit SQL driver. (See “NT Help” for specific help information.)

Installing and Configuring the Zetafax Fax/Modem

Refer to "Optional Procedures" on page D-1 to install and configure the Zetafax fax/modem board and software.

Setting Up the Client

Install each client as follows:

1. Install Windows for Workgroups (WFW) 3.11 and the appropriate networking protocol. Follow the instructions provided with MS WFW and the networking protocol software for the installation. The user name and the machine name used in the installation should match the corresponding names administered on the server for this client.
2. Upon successful setup, go to the **Control Panel/Network** Program Item and try to log into the "CRS" Domain. Use Startup and check the item for "Enterprise Networking." The Domain should be "CRS." Verify that File Sharing and Network DDE are enabled using the Network Setup Program Item.
3. After you successfully install WFW 3.11, install the WFW and networking updates from the NT Server. These updates are accessed on the server by selecting the **Network Client Administrator** icon in the **Network Administration** program group. You may use this utility to set up a disk share on the NT (or to create floppy disks) that can be used by the clients to update the WFW and Microsoft TCP/IP on the client.

Installing Network Files on Client Workstations

Before a client workstation can login to the CRS server, the workstation must have the files contained in the shared directory you created during Windows NT installation. Copy the required files for each client from the shared directory on the server to a directory by the same name on the client workstation. All clients require the files in the **WFWUPDATE** subdirectory. All TCP/IP clients require the files in the **TCP32WFWDISK1** subdirectory.

Administering Network Options on Each Client Workstation

Administer client workstation network options as followings:

1. If you are installing CRS on a LAN client, do the following:
 - a. If your clients and server are not all on the same subnet, install a TCP/IP package (such as Microsoft TCP/IP 3.11a or later).
 - b. Verify that you are able to connect network drivers on the server.

- c. Select the Network icon in the Control Panel and set the client computer name. This name must match the name you gave this workstation on the server.
 - d. Set the workgroup name to a group that is to be shared by all CRS users. (Typically, "CRS.")
 - e. Set the default login name to the same name you gave the client workstation.
 - f. Select Startup and the following options:
 - Log on at startup.
 - Enable Network DDE.
 - Under **Options for Enterprise Networking**, select **Log On to Windows NT or LAN Manager Domain**.
 - Set the domain name to the workgroup name and select OK.
 - g. Proceed to next section.
2. If you are installing CRS on a RAS client, do the following:
- a. Add a RAS phone book entry for the CRS. The entry must be named "CRS" and contain the phone number for the CRS NT server.
 - b. Select the Network icon in the Control Panel and set the client computer name. (For example, you might wish to name all the RAS clients in sequence, such as "CRSRAS1," "CRSRAS2," ... "CRSRASn.")
 - c. Set the workgroup name to a group that is to be shared by all CRS users. (Typically, "CRS.")
 - d. Set the default login name to the same name you gave the client workstation.
 - e. Select Startup and the following options:
 - Log on at startup.
 - Enable Network DDE.
 - Under **Options for Enterprise Networking**, select **Log On to Windows NT or LAN Manager Domain**.
 - Set the domain name to the workgroup name and select OK.
 - f. Verify that the CRS server has been setup and the RAS dial-up logins have been added.
 - g. Test the RAS connection to the NT server by selecting the Remote Access icon in the Network program group and entering the login information when prompted.

- h. If you were able to login successfully, use the File Manager to mount any drives that have been shared on the server.
- i. Continue with “Installing the Multi-User CRS Software on Each Client Workstation” on page C-18.

Installing the Multi-User CRS Software on Each Client Workstation

If you already have a copy of CRS on the client, follow the instructions in the section, “Upgrading or Reinstalling a Single-User CRS”, in this appendix instead of continuing here. To install the CRS software on a client workstation (RAS or LAN) for the first time, do the following:

1. If Windows does not automatically start when you turn on the workstation, start Windows (by typing *win* at the *c:* prompt).
2. Close all other Windows applications, except the Program Manager.
3. Insert the first CRS diskette into the disk drive and select **Run** from the **File** menu on the Program Manager menu bar.
4. In the Run window, type the letter of the drive in which you placed the first CRS diskette, followed by a colon, a backslash, and the word *setup* (for example, *a:\setup*) into the Command Line field in the Run window.
5. Select .

A window is displayed prompting you for the CRS serial number.

6. Enter the CRS serial number and select .
7. When prompted for whether or not you are installing CRS on the server, select .
8. When prompted for whether or not you are using this client in a dial up connection, select if you are installing on a RAS client, if you are installing on a LAN client.
9. At the directory window, type in the directory where CRS files are to be stored and select .

The provisioning information, number of users, and fax type are displayed as shown in Figure C-8 for a LAN client and as in Figure C-9 for a RAS client.

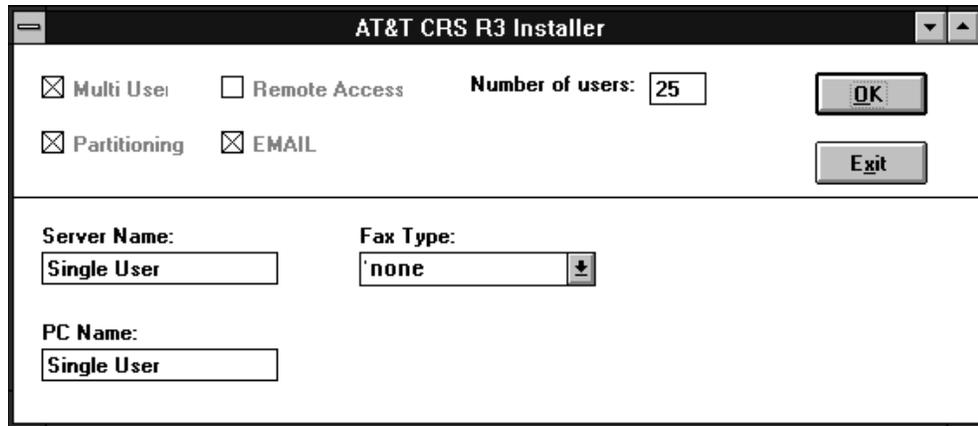


Figure C-8. Multi-User Install Options Window for a LAN Client

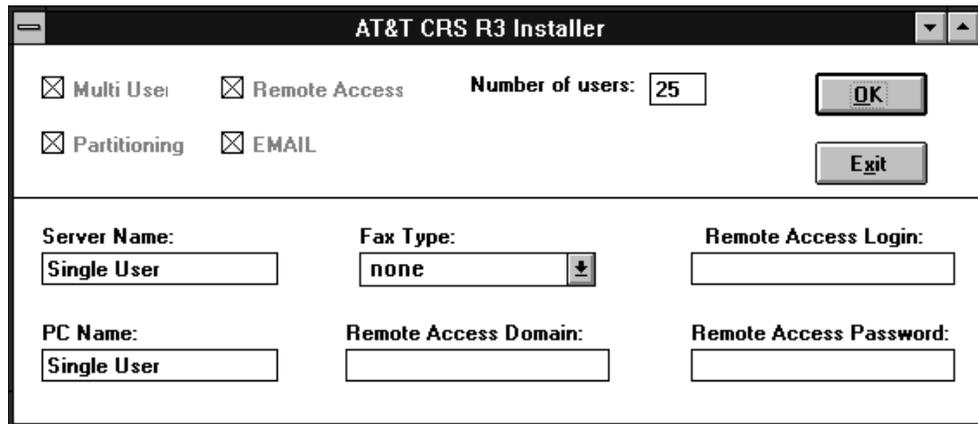


Figure C-9. Multi-User Install Options Window for a RAS Client

10. Select the allowed options (not greyed out) for the provisioning you want (Partitioning).
11. Enter the number of simultaneous CRS users that should be allowed.

⇒ NOTE:

The **Number of Users** field is automatically populated with the maximum number allowed with you license.

12. Enter the **Server Name** and **PC Name** and select the fax type (WinFax or Zetafax) from the **Fax Type** drop down menu.

13. If you are on a RAS client, enter the **Remote Access Domain, Login, and Password**.
14. Select .
15. When installation is complete, you are prompted for whether or not to update your autoexec.bat and config.sys files. Select to automatically update those files.

 **NOTE:**

If you select for either of these file updates, you must manually update those files with the lines shown in the prompts before using CRS.

16. If you are on a RAS client, start CRS and do the following:
 - a. At the window for connecting to the server, select .
 - b. At the login window, enter your RAS dial up login, password, and domain.
 - c. When you exit the login form, CRS dial up and login continues.

Upgrading or Reinstalling the CRS

Before you upgrade CRS from version 2.0 to single-user 3.0 or single-user 3.0 to multi-user 3.0, perform the following tasks:

1. Check the Windows Task List to be sure that no CRS tasks are running. If CRS tasks are running, delete them from the list.
2. Back up your CRS database (refer to Chapter 3, "Performing CRS Administration", for detailed procedures for backing up your database).

Upgrading or Reinstalling a Single-User CRS

This procedure assumes that the older 2.0 or 1.1 version of the CRS database (filename: **crs.mdb**) is in the **DBASE** subdirectory of the CRS directory. To re-install or upgrade a single-user 2.0 or 1.1 CRS to 3.0 CRS, use the following procedure:

1. Insert the first CRS diskette into a diskette drive and select **Run** from the File menu on the Program Manager menu bar. Type the letter of the drive in which you placed the first CRS diskette, followed by a colon, a backslash, and the word *setup* (for example, *a:\setup*) into the command line field in the Run window.
2. Select .

The **AT&T CRS Setup** window is displayed. (See Figure C-4).

3. Select to begin reinstallation.

A window is displayed for confirming the reinstallation or upgrade.

4. Select .

⇒ NOTE:

The installation proceeds and prompts you, as needed. Refer to “Single-User CRS Software Installation” in this appendix for help in entering fields when prompted.

5. A message indicates when CRS installation is completed. Select when you see this message.

You have now completed your software upgrade or reinstallation.

The installation package for the CRS 3.0 automatically upgrades the CRS 2.0 or 1.1 database to the 3.0 format.

Upgrading From CRS 3.0/2.0/1.1 Standalone to CRS 3.0 Multiuser

On the STANDALONE CRS system, access the **File Manager**. Then copy the **crs.mdb** file to a floppy disk. This file is located in the **C:\ATT_CRS\DATABASE** directory.

The following steps require that the **CRS Database Setup Utility** program item be executed. Please ensure that the **Link Manager**, **Reminder**, and **Zeta Fax** program items are terminated (not running). These items can be stopped by using the Windows **CONTROL** + **ESC** key sequence to bring up the current task list. In each of the following steps, select the specified option, specify the source and/or destination datafile or SQL dataset, and press to execute the option.

1. Using the **Backup/Restore** option, copy the CRS database from the floppy disk to a temporary datafile on the server.
2. Use the **Upgrade Prior Single-User Release to Current Single-User Release** option and upgrade the temporary datafile to the CRS 3.x level. On an initial setup of a multi-user system, follow the directions in the “Setting up the CRS Multiuser Database” section.
3. Use the **Copy Data** option to copy data from the temporary datafile to the CRS SQL database (CRS R3.0 Database).

Upgrading From R3.0 Multiuser CRS to Partitioning

The following steps require that the **CRS Database Setup Utility** program item be executed. Please ensure that the **Link Manager**, **Reminder**, and **Zeta Fax** program items are terminated (not running). These items can be stopped by using the Windows **CONTROL** + **ESC** sequence to bring up the current task list. In each of the following steps, select the specified option, specify the source and/or destination datafile or SQL dataset, and press to execute the option.

1. Using the **Partition Upgrade** option, partition the CRS SQL database (CRS R3.0 Database).



WARNING:

Once partitioned, data cannot be unpartitioned.

2. The program now asks the user to supply a name for the first partition. Enter this name into the appropriate space. All appropriate data is placed into this partition. The login records are copied into both the "Global" and first partitions. The MCU record is likewise copied.
3. Using the **CRS** program item, add additional partitions, as necessary.
4. Check the partitioning of the MCU between partitions.

Upgrading the Database After the Initial Setup

The following step requires that the **CRS Database Setup Utility** program item be executed. Please ensure that the **Link Manager**, **Reminder**, and **Zeta Fax** program items are terminated (not running). These items can be stopped by using the Windows **(CONTROL) + (ESC)** sequence to bring up the current task list. For the following step, select the specified option, specify the source and/or destination datafile or SQL dataset, and press **Execute** to execute the option.

1. Use the **Upgrade Prior Multiuser Release to Current Multiuser Release** option to upgrade the CRS SQL Database (CRS R3.0 Database).

Other Options Available in the CRS Database Setup Utility Program

Repair Database. This option is used only with MS Access databases. It can be used to repair the floppy disk copy of a Standalone CRS 1.1/2.0/3.0 database before upgrading to multi-user.

⇒ NOTE:

This option does not work with SQL databases. To repair an SQL database, consult the MS SQL product documentation.

Compact Database. This option is used only with MS Access databases. It can be used to compact the floppy disk copy of a Standalone CRS 1.1/2.0/3.0 database before upgrading to multi-user.

⇒ NOTE:

This option does not work with SQL databases. To compact a SQL database, consult the MS SQL product documentation.

Delete Archive. This option is used only with the CRS SQL database. It is used to remove archived and deleted records from the SQL database.



WARNING:

Once data is removed, it is lost and cannot be restored.

To delete the SQL archive, do the following:

1. Select the **Delete Archive** option.
2. Specify the CRS SQL database (CRS R3.0 Database).
3. Press .

CRS Service. Before running CRS from a client PC, and to ensure proper downloading of multipoint conference reservations to the MCU, place the MCU Link Manager into the startup group. It is also recommended that you place the Zetafax server into the startup group.

Remote Access. The Remote Access Service provided on Windows NT 3.5 allows remote PCs to dial into the NT via a modem and join the NT network. Therefore, this service enables a flexible positioning of client workstations. Since the connection to the NT network is limited by the speed of the modem, the performance of a Remote Access client is not as fast as that of a LAN-based client.

To use the Remote Access feature with CRS, your CRS software must be licensed for Remote access. Also, additional hardware on the NT Server and at the client is required, as is additional software. (See the next section.)

Remote Access-Server. A multipoint board compatible with the Windows NT 3.5 Remote Access Service is required for multiple RAS clients. (You may be able to use COM2 if you want only one RAS client and are not using the ZetaFax software. ZetaFax uses COM2 for its modem, and COM1 is reserved for the MCU interface.)

The ChilliPorts/RAS board has been tested and is recommended. It is available as an 8- or 16-port board and can be obtained from the following address:

Consensus
1301 Pat Booker Road
Universal City, TX 78148
(905) 940-2900

Modems compatible with the Windows NT RAS service are also required. Check the NT documentation or call Microsoft at 800 426-9400 for the latest list. The US Robotics Sportster V.34 28.8 modem or the AT&T Dataport modem are recommended.

Remote Access-Client. To install a CRS Remote Access client, first ensure that the NT server side for the Remote Access Service is set up. Then complete the following steps:

1. Install a modem on the WFW RAS hardware compatibility list. Consult with the manufacturer of the modem to obtain the latest software updates for WFW for the modem. (For example, the US Robotics Sportster V.34 modem requires a custom modem.inf file.)
2. Install the RAS add-ons for WFW. In the Network program group, run the **Remote Access** icon. You are then prompted to insert disks 7 and 8 of your WFW install disks.
3. Add a RAS phone book entry for CRS. The directory entry **MUST** be named "CRS," and it must contain the phone number for the CRS NT server.
4. Select the **Network** icon in the Control Panel.
5. Assign a logical name to the computer. For example, name the RAS clients "CRSDIAL1," "CRSDIAL2," etc.
6. Set the **Workgroup** to a group to be shared by all CRS users, such as "CRS." To keep things simple, set the default login name to the same name that you assigned to your computer ("CRSDIAL1").
7. Select Startup . Select these **Startup** Options:
 - a. Log on at startup.
 - b. Enable Network DDE.
 - c. Under the **Options for Enterprise Networking**, select Log On to Windows NT or LAN Manager Domain and set the Domain Name to your workgroup name.
8. Verify that the CRS NT 3.5 server has been set up and that the RAS dial-up logins have been set up.
9. Test the RAS connection to the NT Server by running the **Remote Access** icon in the **Network** program group. You will be prompted to enter the RAS dial-in login, password, and domain. If you successfully connect, you should be able to use the File Manager to mount any drives that have been shared on the NT server.
10. Install CRS.
11. Start CRS. When you see the "Connect to CRS server" window, select **change login**. On the login form, set your RAS dial-up login, password and domain. When you exit this form, CRS should dial and connect to the NT server. CRS will then start.

Multiuser Fax. With multi-user CRS, fax confirmation reports and reminder faxes are sent from a fax modem installed on the CRS (NT) server. The ZetaFax software package runs on the server to control the fax modem.

ZetaFax software is also installed on each client workstation. This allows the client workstations to send fax confirmation reports from the shared fax modem on the NT.

If desired, a client can choose to install and use the WinFax 4.0 package on the client instead of ZetaFax to send confirmation reports. With this configuration, the fax reminders continue to be sent by ZetaFax on the CRS server, but the WinFax-equipped client can send immediate confirmation reports directly from the client's fax card.

Winfax. To use WinFax on the client in a multi-user environment, you will be following the same procedure as if you were installing the fax option on a single-user CRS. Therefore, the following is required:

- PureData (formerly Intel) Satisfaxion 400 internal fax modem
- Analog telephone line for the modem
- WinFax 4.0 (follow the instructions in the user manual for this installation)
- Also, if you are using the **WinFax** option, be sure to disable Windows screen savers. Screen savers interfere with the operation of WinFax. Refer to the "WinFax Setup Guide" for more information.



NOTE:

Intel has sold the Satisfaxion product line to PureData Corp. The contact number is 905 731-6444.

ZetaFax

ZetaFax is used only with the multi-user CRS configuration. To order ZetaFax, use the following address:

Equisys Limited
Butlers Wharf Commercial Centre
45 Curlew Street
London, SE1 2BR UK

The telephone number from outside the US is 071-403-2227 (from the US dial: 011 44 71 403 2227).

ZetaFax offers a 5-user license and an unlimited-user license. Be sure to count all your workstations and to include the server when determining the proper license to buy. Also, you must specify that you want the API-ENABLED version of the software. This software version is required for reminder faxes.

ZetaFax has a two-step registration process that must be completed before the software can be installed. Therefore, order ZetaFax well in advance of when you will need it. Further, if you are ordering from the US, shipping times will naturally be longer than those from domestic sources.

The fax modem installed on the NT server must be one on the ZetaFax compatibility list. Contact ZetaFax for the complete list and the accompanying recommendations. The following fax modems are recommended:

- Zoom VFX 28.8
- MultiTech 1932 ZDX

Optional Procedures

D

This appendix includes information for the following:

- Installation and setup of the fax/modem and the WinFax® PRO software for a single user CRS
- Installation and setup of the fax/modem and Zetafax software for a multi-user CRS

Single-User CRS Fax/Modem Installation and Setup



CAUTION:

*If you are installing the fax/modem and software yourself on your own PC, **before** you continue, consult with your account representative concerning the responsibility for troubleshooting.*

Be sure to have an installed analog telephone line available for the fax connection.

To use the fax feature in a single-user CRS system, you must install the fax modem, accompanying configurations software, and the WinFax PRO software.



NOTE:

Even though the fax/modem can be used for transmitting and receiving data, it should be used only for transmitting faxes when installed in the CRS. Do not set up or use the modem capabilities or attempt to receive faxes after installing the fax capabilities, because CRS uses **only** the fax capabilities of the device and uses it **exclusively** to send conference confirmation faxes.

In addition to this procedure, refer to the documentation that came with your fax/modem and your PC to setup fax/modem and PC options.

Installing a Single-User CRS Fax/Modem Board

To install the single-user fax/modem and associated software, do the following.

1. Disable any screen savers that you might be using (see the WinFax PRO Setup Guide for details).



WARNING:

Comply with all antistatic and safety instructions found in your PC and fax/modem board documentation. Failure to comply could result in electrical shock or damage to your PC or fax/modem.

2. Turn your PC off, unplug the AC power cord, and remove the PC cover.
3. Remove the fax/modem from its box and insert it in an open slot and replace the PC cover.
4. Connect the phone cord to the line jack on the PC and to the wall jack for the dedicated analog line as illustrated in Figure D-40.

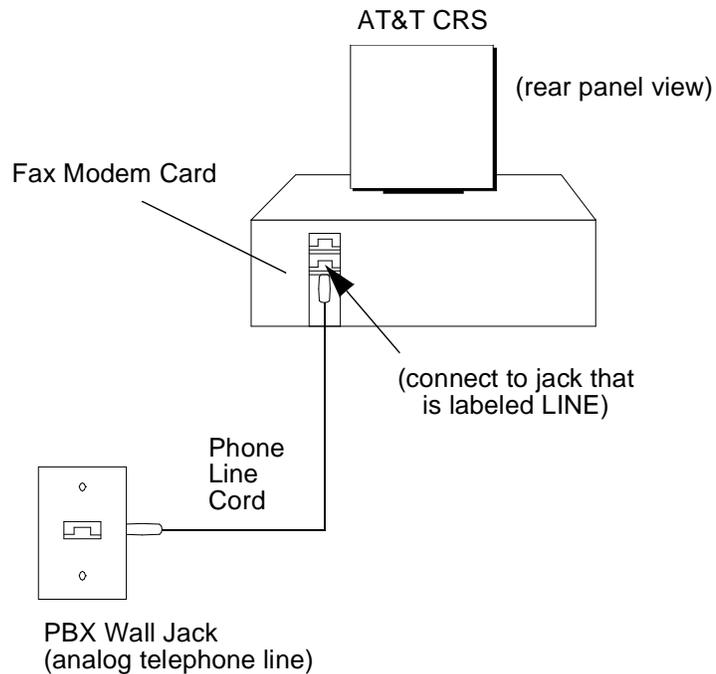


Figure D-40. Single-User CRS with a Fax/Modem Connection

5. Reinsert the AC power plug and turn the PC on.
6. Continue with the section that follows to configure your fax/modem.

Configuring the Single-User Fax/Modem Board

If you have completed the fax/modem board hardware installation in the previous section, configure the fax/modem board as follows:

1. If windows is automatically started when the PC rebooted, exit windows.
2. Insert *Disk 1* of the two disks labeled "Intel SatisFAXtion Software" in the disk drive.
3. At the DOS prompt, type the letter of the drive in which you placed the disk, followed by a colon, a backslash, and the word `setup` (for example: `a:\setup`). Press return.
4. At the splash screen, press any key to continue.
5. Select "Continue."
The **SatisFAXtion Setup** menu is displayed.
6. At the prompt, select **Copy SatisFAXtion Software**.
7. At the prompt, choose to copy the files from drive A to `C:\FAX`.

8. Press **F10** to begin the copy process.
9. When prompted to do so, remove the first disk, insert the second, and select **Yes** to continue.
10. When the menu is displayed, select **First time Setup**.
11. Enter a name (can be the company's or an appropriate individual's or your own) and the fax number.
12. Press **F10**.
13. Press any key to continue through five verification windows.

 **NOTE:**

In the verification process the installation software automatically chooses physical and memory locations and interrupt request values for the fax/modem. Typically, it chooses COM3, 3E8-3EF, and IRQ4 for these settings. It is critical that the modem **not** be set to COM1 since the CRS uses the COM1 port to communicate with the MCU.

14. If you wish to change some options, use the **Advanced Setup** menu to alter them as follows:
 - a. Select **Setup hardware** to change the following:
 - **Modem I/O, interrupt to OFF**
 - The fax/modem I/O address if it conflicts with other devices in your PC. (Typically, the software chooses the Fax I/O address and interrupt to be 310-31F and IRQ10, respectively.)
 - b. Select **Setup Technical Software Options** to change the following:
 - The length of time that the fax/modem waits for an answer from the party it is calling
 - The number of times the fax/modem retries to deliver a fax
 - The fax /modem speaker volume
15. Select **Exit Setup** from the menu.
16. Press **ENTER** and select **Yes**.
17. When prompted, select **Update** to allow the setup software to automatically add the appropriate lines to your `autoexec.bat` and `config.sys` files.
18. When the installation software exits, remove the disk from the disk drive.
19. Follow the directions to reboot your PC and continue with the next section to install the WinFax PRO software.

Installing the WinFax PRO Software for a Single-User CRS

If you have completed the fax/modem board installation and configuration in the previous sections, install the WinFax PRO software on a single-user CRS as follows:

⇒ NOTE:

You might find it helpful to follow along in the documentation that came with your WinFax software in addition to or instead of this procedure.

1. If windows is not started, start windows. (At the DOS prompt, type: `win` and press `(RETURN)`.)
2. Insert Disk 1 of the three WinFax PRO disks.
3. From the **File** menu in the Program Manager, select **Run**.
4. In the **Run** window, type the letter of the drive in which you placed the disk, followed by a colon, a backslash, and the word `setup` (for example: `a:\setup`). Press `(RETURN)`.
5. At the **WinFax PRO Setup** screen, enter your name, company name, and registration number.
6. Select **Continue**.
7. When prompted to confirm the setup information you have entered and you are sure it is accurate, select **Continue**.
8. At the **WinFax PRO** menu, select **Complete Installation**.
9. Enter `C:\WINFAX` as the installation directory and select **Continue**.
10. At the window that shows application macros that can be installed, select **Continue**.
11. The WinFax setup software automatically searches for your fax modem and will find **Intel CAS** for the *Modem type* and **Intel Corp-SatisFAXtion Modem/400** for the *Description*.
12. Select **Continue**.
13. When prompted, select **Continue** to install the Delrina® Fax Broadcast feature.
14. When prompted for each new disk, insert the next disk in sequence and select **Continue**.
15. When installation is complete, you are prompted for whether or not to make WinFax PRO your default printer. Select **No**.
16. If a message box concerning installed macro files is displayed, select "OK."
17. When the **User Setup** window is displayed, you can enter the following settings:
 - Your name, company name, and telephone number(s)

- An outside access dial code for outgoing calls from your location in the Dial Prefix field. The digit(s) in the Dial Prefix field are prepended to every telephone number dial string given to the fax/modem. For example, suppose you want to prepend each telephone number dialed from the fax/modem with the digit "9" and the letter "w" for "wait." Then, if you dial 5551222, the fax/modem automatically dials 9 first, then waits for an outside dial tone and dials 5551222. Keep in mind that this prefix will be prepended to **all** calls made through your fax/modem. See the next section for details on the dial prefix.
 - Enter your area code for the Dial Setup field.
18. Select **OK**.
 19. When prompted for whether or not you want to select on-line registration, select .
 20. Select **Enter** at the prompt to complete the program setup.
 21. When the setup is complete, exit windows.
 22. Remove the last setup disk from the disk drive and refer to the "Optimizing Conventional Memory Use for Single-User CRS" section later in this appendix.

Dial Prefix Entry Details

There are two methods you may choose for calls dialed through your fax/modem. The first method is to set a dial prefix that should be prepended to **every** dial string your fax/modem sends out. That means that anytime you select a number to be dialed from the database, the number will be prepended with the dial prefix. If some numbers should not be prepended with a dial prefix, then do not enter the set the dial prefix. Instead, use the second method, which is to include any necessary dial prefix information in the database entry for each number. Each method is described in the sections that follow.

NOTE:

The dial prefix of "9w" used in these descriptions is only an example. Other prefixes can be used as required for your phone system.

Method 1, Specify the Dial Prefix at Setup

Enter the dial prefix at the WinFax PRO setup screen and make all entries in the database without the prefix (be sure to remember the "1" digit for long distance

numbers). Specify all internal numbers in the database as if they were external numbers. Refer to Table D-1.

Table D-1. Dialing When Dial Prefix (“9w”) is Specified

Number in Database	Description	WinFax Dials
5551212	Call to an external location in the same area code	9w5551212
16175551212	Call to an external location in a different area code	9w16175551212
9507000	Call to a local extension specified as an external call	9w9507000
9507001	Call to a local extension specified as an external call	9w9507001

Method 2, Specify the Dial Prefix in Each Database Entry

Rather than have the dial prefix specified in every dial string the fax/modem sends, you need enter only for the numbers where needed right in the CRS database entry as shown in Table D-1.

Table D-2. Dialing When Dial Prefix is Specified as Needed in the Database

Number in Database	Description	WinFax Dials
9w5551212	Call to an external location in the same area code	9w5551212
9w16175551212	Call to an external location in a different area code	9w16175551212
7000	Call to a local extension specified as an external call	7000
7001	Call to a local extension specified as an external call	7001

Optimizing Conventional Memory Use for Single-User CRS

To ensure that sufficient conventional memory in your PC is available for use by CRS, run the DOS utility *memmaker*. This is mandatory if you have installed the fax option.

1. At the DOS prompt, type "memmaker" and press `(ENTER)`.
2. When prompted, select "Custom Setup."
3. Answer "no" when asked if your programs require EMS memory.
4. In the "Advanced Options" section, answer "yes" to all of the options.
5. When asked about each driver, answer "yes" to include all of them in the optimization process except for ANSI.SYS and CASMGR.EXE.
6. After memmaker completes, edit your "config.sys" file as follows:
 - a. Make certain the ANSI.SYS driver is **not** loaded to high memory. If there is the line:

```
DEVICEHIGH /L ... C:\DOS\ANSI.SYS
```

change it to:

```
DEVICE=C:\DOS\ANSI.SYS.
```
 - b. Make certain the SATISFAX.SYS driver is loaded to high memory. If there is a line:

```
DEVICE=C:\FAX\SATISFAX.SYS IOADDR=...
```

change it to:

```
DEVICEHIGH=C:\FAX\SATISFAX.SYS IOADDR=...
```
 - c. Make certain the FILES variable is set to 50. The *config.sys* file should contain the following line:

```
FILES=50
```
7. Edit the *autoexec.bat* file as follows:
 - a. Make certain the CASMGR.EXE program is not loaded to high memory. If there is the line:

```
LH /L ... C:\FAX\CASMGR.EXE C:\FAX\CASMGR.CFG
```

change it to:

```
C:\FAX\CASMGR.EXE C:\FAX\CASMGR.CFG
```
 - b. Make certain the FAXTSR.EXE program is not invoked. If there is the line:

```
C:\FAX\FAXTSR.EXE
```

delete it.
8. Exit windows and reboot your PC. Run the DOS command **mem** to verify that at least 512K of conventional memory is free.
9. Send a test fax using WinFax PRO. Refer to the *WinFax User's Guide* for details on sending a test fax. Refer to Chapter 4 for sending a fax from CRS.
10. Refer to the following sections to use WinFax PRO log files and set reminder fax options.

Using the WinFax Log Files

WinFax PRO will save faxes that you have sent, even if they were unsuccessful. You can see a list of these faxes in the WinFax Send Log. If you no longer need copies, you should periodically delete these old faxes so that they do not consume disk space. If you prefer, you can administer WinFax to automatically delete old faxes as follows:

1. Start WinFax PRO and choose **Setup** then **Program**.
2. Press the **Log** button on the **Program Setup** window.
3. On the **Log Setup** window, check the **Enable** item under **Automatic Event Deletion**.
4. Choose the **All Events** item.
5. Enter 7 in the **Age by:** box.

NOTE:

A 7 in this field causes all events older than 7 days to be deleted from the WinFax PRO log whenever WinFax starts.

6. Under **Delete**, choose **Events and Pages**.
7. Select on the **Log Setup** and **Program Setup** windows.

Multi-User CRS Fax/Modem Installation and Setup

Be sure to have an installed analog telephone line available for the fax connection.

To use the fax feature in a multi-user CRS system, you must have installed and configured a fax/modem board that is compatible with your network on the com2 port of your CRS server. See Chapter 1 for minimum hardware and software requirements. To complete the multi-user fax/modem installation, you must install and configure the Zetafax software that CRS uses for the fax reminder option.

⇒ NOTE:

In addition to this procedure, refer to the documentation that came with your fax/modem and your network components to set up fax/modem and server/client options.

Installing the Zetafax Software for Multi-User CRS

When you have completed the fax/modem board installation and configuration, install the Zetafax software on the multi-user CRS server and clients as follows:

⇒ NOTE:

You might find it helpful to follow along in the documentation that came with your Zetafax software in addition to or instead of this procedure.

1. Log into your server as administrator.
2. Insert the Zetafax installation Disk 1.
3. From the **File** menu in the Program Manager, select **Run**.
4. In the **Run** window, type the letter of the drive in which you placed the disk, followed by a colon, a backslash, and the word `install` (for example: `a:\install`). Press **RETURN**.
5. Select **Install Zetafax Server** if not already selected. Select .
6. Set the base directory to `C:\ZFAX` and select .
7. When prompted, insert Disk 2 of the Zetafax installation disks and select .

⇒ NOTE:

Your installation may not require all the Zetafax disks. Only insert disks as prompted by the installation program.

8. At the prompt for changing startup files, select and when the changes are completed.

9. At the license display, enter the licensing information as it appears on the Zetafax box and select .
10. At the licensing confirmation window, select .
11. At the user configuration window, add users as desired and select .

 **NOTE:**

It is easiest to enter users using their workstation names.

12. At the device configuration window, add devices and configuration values as desired and select .

 **NOTE:**

In the new device window, select only devices from the drop down list. In the device options window, make sure the **User to receive incoming faxes** option is disabled and that DTMF tone dialing is selected. Also enter an appropriate dial prefix and fax number (see “Dial Prefix Entry Details” earlier in this chapter).

13. In the windows program manager, select the Zetafax icon (if it is not already open).
14. Copy the **Zetafax Server** program item to the **Startup** group.
15. Make the Zetafax directory shareable from the server. (At the file manager window, select **Share As** from the **Disk** menu and enter the shared directory information.)
16. Perform the Zetafax installation on all clients as described in the next section, “Zetafax Installation on a Client Workstation.”
17. On the server, select the **Zetafax Setup** from the Zetafax program group.
18. Select **Change Server Settings** and .
19. Scroll and select **Auto Submit** from the **Category** list.
20. Set the auto submit directory to `c:\att_crs\zsubmit`.
21. Set the scan frequency to two minutes (120 seconds).
22. Select the default user account from the **Default user** drop down list.
23. Select the checkbox for **Delete successful messages** and select .
24. Select to quit setup.
25. Send a test fax using Zetafax. Refer to the *Zetafax User's Guide* for details on sending a test fax. Refer to Chapter 4 for sending a fax from CRS.

Zetafax Installation on a Client Workstation

For each workstation in your CRS, do the following:

1. If the workstation is a RAS client, dial in and connect to the CRS server.
2. At the file manager window, connect the network drive from the **Disk** menu and select the server Zetafax shared directory.
3. Select Run from the File menu and enter `D:\SYSTEM\WKSETUP.EXE` with *D* being the disk for the server Zetafax shared directory and select .
4. Select to accept the workstation installation with standard settings.
5. Select to accept the default directory for the Zetafax files. If you are installing on an RAS client, do not put Zetafax into your "startup" group.
6. Select when the installation is complete.
7. Change the default login for the workstation to one of those administered for Zetafax on the server. Ideally, this is the same as the workstation name.
8. If this is the last client workstation on which you are installing Zetafax at this time, return to the server installation procedure at the step where it referred you to this procedure.

Setting Reminder Fax Options

The reminder fax option gives CRS the capability to send reminder faxes and controls when those faxes are sent. Only an admin level login is allowed to enable the reminder fax option. If fax reminders are not provisioned for your installation, then you cannot enable fax reminders without having them provisioned first. See your account representative for details. In a multi-user CRS, the Reminder Fax Options can only be changed at the server.

1. Select **Reminder Fax Options** from **Admin** on the menu bar. The reminder fax options window is displayed as illustrated in Figure D-41.

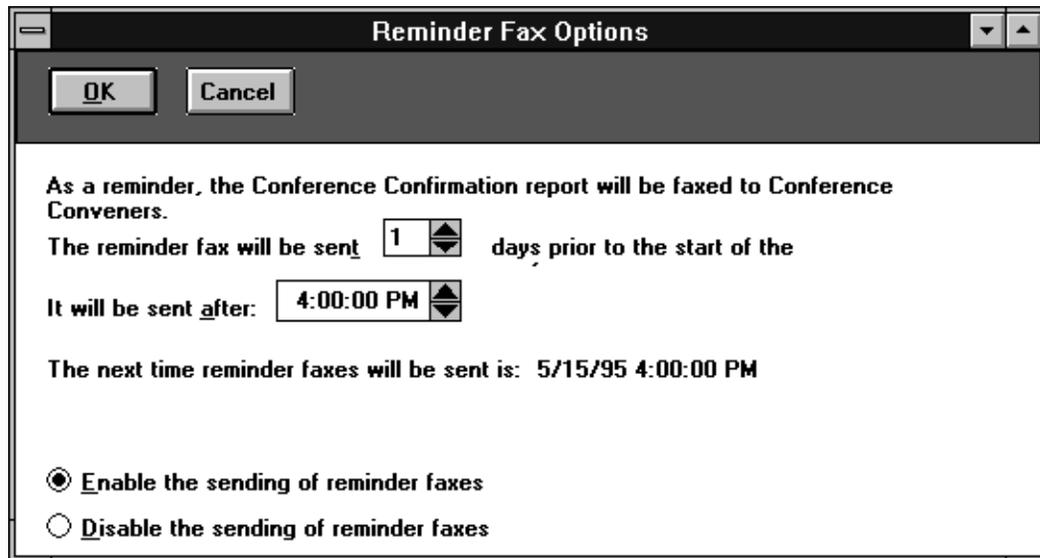


Figure D-41. Reminder Fax Options Window



CAUTION:

You can enable or disable fax reminders. If you disable faxes while they are being sent, the faxing stops after the queues in the fax software are cleared.

2. Select the button for **Enable the sending of reminder faxes**.
3. Type or scroll to a value between 1 and 14 inclusive to indicate the number of days before the conference start that the reminder should be sent.
4. Type or scroll to a time after which the conference reminder should be sent. The line below the time of day indicates when the next reminder faxes will be sent.



NOTE:

Sending fax reminders consumes a substantial portion of CRS resources. Therefore, try to have faxes sent during a time when CRS is not needed for other activities. For the Single User CRS especially, it is best that the reservations agent does not use CRS at all while reminders are being sent.

5. Select to save the fax reminder options. Select to close the window without saving.

Fax Options

In a multi-user CRS, fax confirmation reports and reminder faxes are sent from a fax modem installed in the CRS server. The Zetafax software runs on the server to control the fax modem. Zetafax software on each client workstation allows each client to send fax confirmation using the shared fax on the server.

If a client workstation user (agent or admin login) desires to use the local client fax modem to send a confirmation report, they may do so through the client WinFax software instead of Zetafax. Reminder faxes are always sent using Zetafax through the shared server fax modem. To install the WinFax software and fax modem on a client workstation, follow the procedures outlined for a single-user fax modem installation on page D-2.

MCU Resources



The CRS access to MCU resources enables you to:

- Ensure the most efficient use of advanced performance features so that conflicts relating to the MCU are quickly identified and easily resolved
- Select the appropriate connections for multipoint conference calls during call establishment
- Verify or request that CRS conference information is downloaded to the MCU

This appendix provides information about the following MCU resources and procedures for resolving conflicts involving those resources:

1. Cascading and conflicts due to cascading
2. Port availability conflicts
3. Pool shortages
4. Exceptions to automatic download of conferences to the MCU and the use of the **Status** window to check and correct the MCU download problems

The following sample scenarios provide solutions for typical customer problems with MCU resources.

Scenario #1 - Multipoint Options

If the convener requests a multipoint conference, once all the details are provided, you might wish to view the options set for the conference. To view these options, select the **Multipoint Options** button.

The **Multipoint Options** window is displayed, as illustrated in Figure E-1.

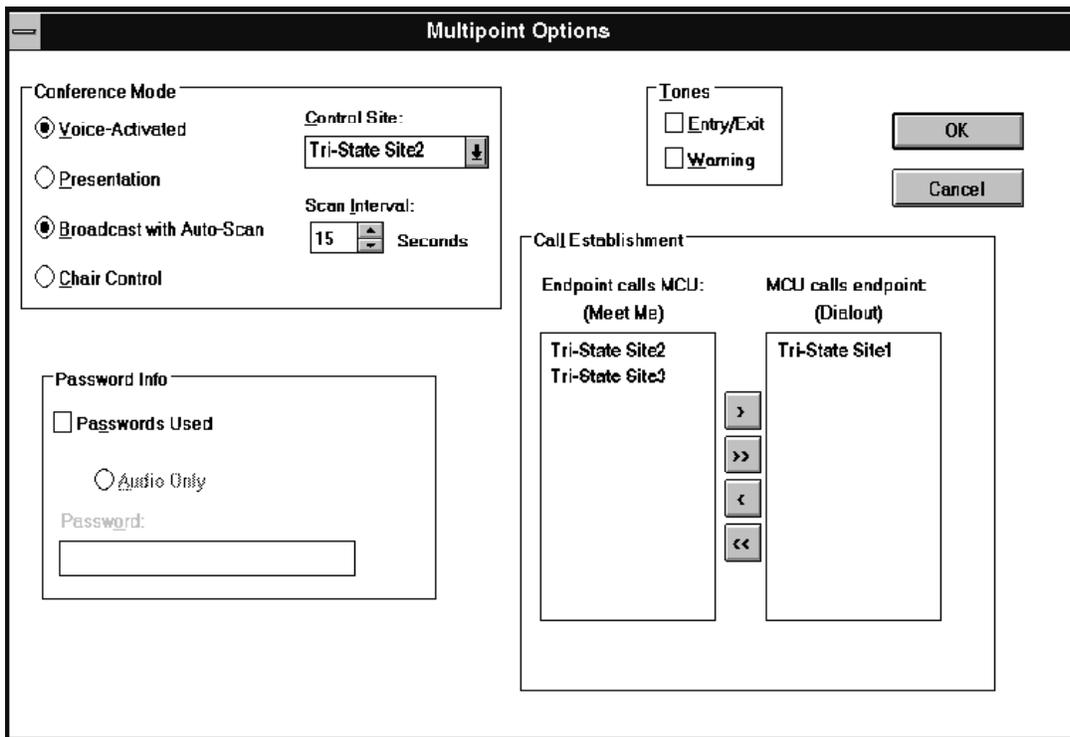


Figure E-1. Multipoint Options Window

If you are displaying the **Multipoint Options** window for the first time, a number of the following areas illustrated in Figure E-1 are blank:

- Within the **Conference Mode** area is the *Control Site* box. The *Control Site* is blank when you are adding a conference (and only filled in if you display this window when you are copying a conference in which the *Control Site* was previously selected).
- The **Password Info** area is blank, since there are no defaults that exist for CRS.

The following multipoint options can be changed, if needed:

- **Conference Mode** — to designate type of mode and, if needed, a control site and scan interval. There is no default for the control site.

To select a *Control Site*, select the button for voice-activated switching or presentation mode on the **Multipoint Options** window, and then select a *Control Site*.

Select *Chair Control* mode if you wish the chair person to select which site is being viewed by all other sites.

- **Tones** — to activate a sound when conference participants join or leave a conference, and to provide a “warning” that the conference ends in a certain amount of time.
- **Password Information** — to establish security for the use of a system password for the Agent. There is no default password information.

1. To add a password, click on the labelled Passwords Used.

2. Type an alphanumeric password in the Password area.

Select the button for Audio Only if the password you are providing is to be active *only* for audio only conference participants.

- **Call Establishment** — to verify which endpoints dial in to the MCU and which endpoints the MCU dials out to. The default for call establishment is that all sites are listed in the **Endpoint calls MCU (MeetMe)** area.

In this scenario, the convener requests that the **Conference Mode** is *Broadcast with Auto-Scan* and that the **Control Site** should be *Tri-State Site2*.

As also illustrated in this scenario, the CRS lists *Tri-State Site2* and *Tri-State Site3* in the **Endpoint calls MCU (MeetMe)** area, which means that these two endpoints establish the call by dialing in to the MCU. *Tri-State Site1* is listed in the **MCU calls endpoint (Dialout)** area, which means that the MCU dials *Tri-State Site1* to establish the call.

When the conference begins, the presenter broadcasts from *Tri-State Site2*.

NOTE:

See Chapter 3, “Performing CRS Administration”, for details about displaying MCU capabilities if your MCU supports dynamic resizing.

If the dynamic resizing capability is supported and selected as a default for the MCU, you can add or remove sites and/or cascaded links during the conference.

Cascading

A video conference can use cascading if the AT&T MCU is connected to either another AT&T MCU or to an external MCU across a local area network or a wide area network like an international ISDN network.

When you select **Show Site Detail** from the **Add Conference** window, the following options are available (as illustrated in Figure E-2).

No Cascading

No Cascading is selected only if sites for a conference are connected to one MCU and you have not purchased or activated cascading.

The screenshot shows a window titled "MCU Advanced Options (1 MCU)". It contains several sections:

- Available MCU Port Resources:** Video Ports: -1, Bonding Ports: 12, Audio Ports: 12.
- Extension Pool Shortages:** An empty rectangular box.
- Cascading Options:** No Cascading, Cascade to External MCU.
- External Cascading Parameters:**
 - Call Establishment:** External MCU will be called, External MCU will call.
 - Dialout Number #1:** [Empty text box]
 - Dialout Number #2:** [Empty text box]
 - Extension Pool to Call:** [Dropdown menu]
 - Connection Type:** Bonded, Px64.
 - External MCU will be primary.
- Buttons:** OK, Cancel.

Figure E-2. MCU Advanced Options Window

Figure E-2 displays a **Video Ports** area containing a -1, which indicates that, in order to be scheduled, this conference needs one more port to be available.

To resolve this conflict, you can remove one of the sites from the conference (see Chapter 4, "Reserving a Conference", for details about removing a selected site).

Cascading: Two Controlled MCUs

If cascading is active between two controlled MCUs, the button labelled **Between MCU 1 and MCU 2** is automatically selected in the **Cascading Options** area, as illustrated in Figure E-3.

The screenshot shows the "MCU Advanced Options" window. It is divided into several sections:

- Available MCU Port Resources:** A table showing resources for MCU 1 and MCU 2.

	MCU 1	MCU 2
Video Ports:	12	12
Bonding Ports:	1	4
Audio Ports:	12	12
- Extension Pool Shortages:** Two empty boxes labeled "MCU 1" and "MCU 2".
- MCU 1 Sites:** A list containing "Partner Site1", "Tri-State Site1", and "[Cascade Out]".
- MCU 2 Sites:** A list containing "Tri-State Site2", "Tri-State Site3", and "[Cascade In]".
- Cascading Options:** Three radio buttons:
 - No Cascading
 - Between MCU 1 and MCU 2
 - Between MCU 1 or 2 and external MCU
- External Cascading Parameters:**
 - Call Establishment:**
 - External MCU will be called. Includes input fields for "Dialout Number #1:" and "Dialout Number #2:".
 - External MCU will call. Includes a dropdown menu for "Extension Pool to Call:".
 - Connection Type:**
 - Bunded
 - Px64
 - External MCU will be primary

Buttons for "OK" and "Cancel" are located on the right side of the window.

Figure E-3. MCU Advanced Options Window with Cascading

Cascading: Controlled and External MCU(s)

If all sites for a conference are connected to the AT&T MCU and you select ***Between MCU 1 or 2 and external MCU***, the options for selecting how calls are placed become active, as illustrated in Figure E-4.

The screenshot shows the 'MCU Advanced Options' window. It is divided into several sections:

- Available MCU Port Resources:** A table with columns for MCU 1 and MCU 2. Rows include Video Ports (12), Bonding Ports (1 for MCU 1, 4 for MCU 2), and Audio Ports (12).
- Extension Pool Shortages:** Two empty boxes labeled MCU 1 and MCU 2.
- MCU 1 Sites:** A list containing 'Partner Site1', 'Tri-State Site1', 'Tri-State Site2', and 'Tri-State Site3'. Below the list are four arrow buttons: '>', '>>', '<', and '<<'. The text '[Cascade Out]' is at the bottom of the list.
- MCU 2 Sites:** A list containing '[Cascade In]'.
- Cascading Options:** Three radio buttons: 'No Cascading', 'Between MCU 1 and MCU 2', and 'Between MCU 1 or 2 and external MCU' (which is selected).
- External Cascading Parameters:** A box containing:
 - Call Establishment:** Three radio buttons: 'External MCU will be called' (selected), 'External MCU will call', and 'External MCU will be primary'.
 - Dialout Number #1:** A text box containing '17005551111'.
 - Dialout Number #2:** An empty text box.
 - Extension Pool to Call:** A dropdown menu.
 - Connection Type:** Two radio buttons: 'Bonded' and 'Px64'.

OK and Cancel buttons are located on the right side of the window.

Figure E-4. MCU Advanced Options Window with External Cascading

You cannot split sites across AT&T MCUs if external cascading is active. As illustrated, all the sites are located in the **MCU 1 Sites** area.

As also illustrated, ***Dialout Number #1*** is listed for the MCU to call out to the external MCU.

The External Cascading Parameter box located in the **Cascading Options** area provides the following Call Establishment options:

- External MCU will be called provides the Dialout number(s) if the AT&T MCU(s) dial out to the external MCU (two Dialout numbers might be used for 2B calls).

- External MCU will call provides the (MeetMe) Extension Pool to Call, if the external MCU is dialing in to establish the call.
- Connection Type allows you to select:
 - Bonded, if the call is being established for a 336k or 384k bonded connection
 - Px64, if the call is being established for a 384k wideband connection.
- To designate that the External MCU is the primary MCU for the call establishment, click on the .

Scenario #2 - Port Availability Conflicts

The Resource Availability summary row on the **Add Conference** window displays a darker shade in the Resource Availability row when there is no available port, as illustrated in Figure E-5.

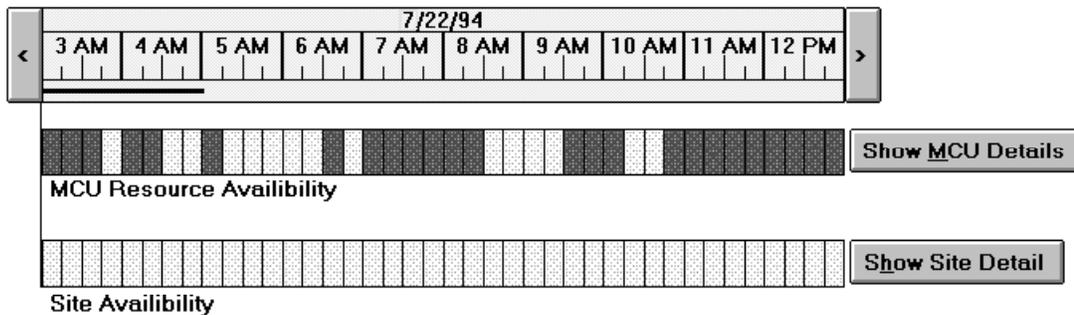


Figure E-5. MCU Port Availability with Conflict

1. Select [Show Site Detail](#) to display the **MCU Advanced Options** window.

Figure E-6 illustrates the **MCU Resources** area of the window.

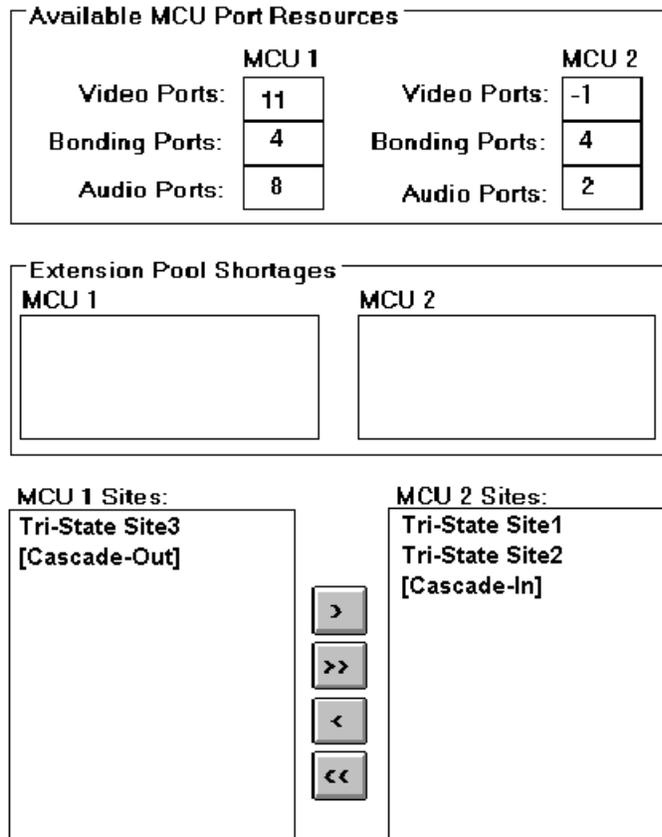


Figure E-6. MCU Resources Showing a Port Conflict

As illustrated, the box labelled **Available MCU Port Resources** shows the number -1 in the **Video Ports for MCU 2** box, which means that, for this conference, there is one less available port than selected sites.

- Use to move any site (in this example, *Tri-State Site2* is moved) to the list of MCU 1 sites.

Note that the **Video Ports for MCU 2** box is immediately updated so that it shows that 0 video ports are now available (see Figure E-7).

Available MCU Port Resources			
	MCU 1		MCU 2
Video Ports:	10	Video Ports:	0
Bonding Ports:	4	Bonding Ports:	4
Audio Ports:	8	Audio Ports:	2

Extension Pool Shortages	
MCU 1	MCU 2
<div style="border: 1px solid black; height: 40px; width: 100%;"></div>	<div style="border: 1px solid black; height: 40px; width: 100%;"></div>

MCU 1 Sites:	MCU 2 Sites:
Tri-State Site2 Tri-State Site3 [Cascade-Out]	Tri-State Site1 [Cascade-In]

Figure E-7. MCU Details Showing All Video Ports Available

- Select . When the **Add Multipoint Conference** window is re-displayed, select to complete conference scheduling.

Scenario #3 - Extension Pool Shortage Conflicts

This scenario illustrates that there is a shortage of MeetMe extensions for the sites to dial in to the MCU if **Mcu2_Nx56k** pool is used.

1. Select to view the shortages for each MCU, if there are cascaded MCUs.

The **MCU Details** window is displayed, as illustrated in Figure E-8.

Available MCU Port Resources		
	MCU 1	MCU 2
Video Ports:	10	0
Bonding Ports:	4	4
Audio Ports:	8	2

Extension Pool Shortages	
MCU 1	MCU 2
	Mcu2_Nx56k

MCU 1 Sites:	MCU 2 Sites:
Tri-State Site2 Tri-State Site3 [Cascade-Out]	Tri-State Site1 [Cascade-In]

Figure E-8. MCU Details Showing Extension Pool Shortage

2. You must check with the MCU system administrator to acquire the correct number of MCU extensions and then reflect those numbers in the appropriate extension pool.

3. Once you have purchased a sufficient number of additional extensions and assigned them to the appropriate extension pool, you can enter the same conference details as you were originally trying to schedule when the conflict occurred.
4. If you check the **MCU Advanced Options** again, as illustrated in Figure E-9, the Extension Pool Shortages box is displayed with no shortages indicated.

Available MCU Port Resources			
	MCU 1		MCU 2
Video Ports:	10	Video Ports:	0
Bonding Ports:	4	Bonding Ports:	4
Audio Ports:	8	Audio Ports:	2

Extension Pool Shortages	
MCU 1	MCU 2

MCU 1 Sites: Tri-State Site2 Tri-State Site3 [Cascade-Out]	> >> < <<	MCU 2 Sites: Tri-State Site1 [Cascade-In]
--	--------------------	--

Figure E-9. MCU Advanced Options Showing No Pool Shortages

5. Select .

The **Add Conference** window is re-displayed.

6. Select to complete conference scheduling.

Scenario #4 - MCU Download Exceptions

After a conference is scheduled, you can check to make certain that the recent conferences are downloaded to the MCU.

1. Select the **Today's**, **Future**, or **Past** icon from the menu bar.
2. Highlight the conference to be checked.
3. Select .

The **Edit Conference** window is displayed.

4. Select .

The **Status** window is displayed, as illustrated in Figure E-10.

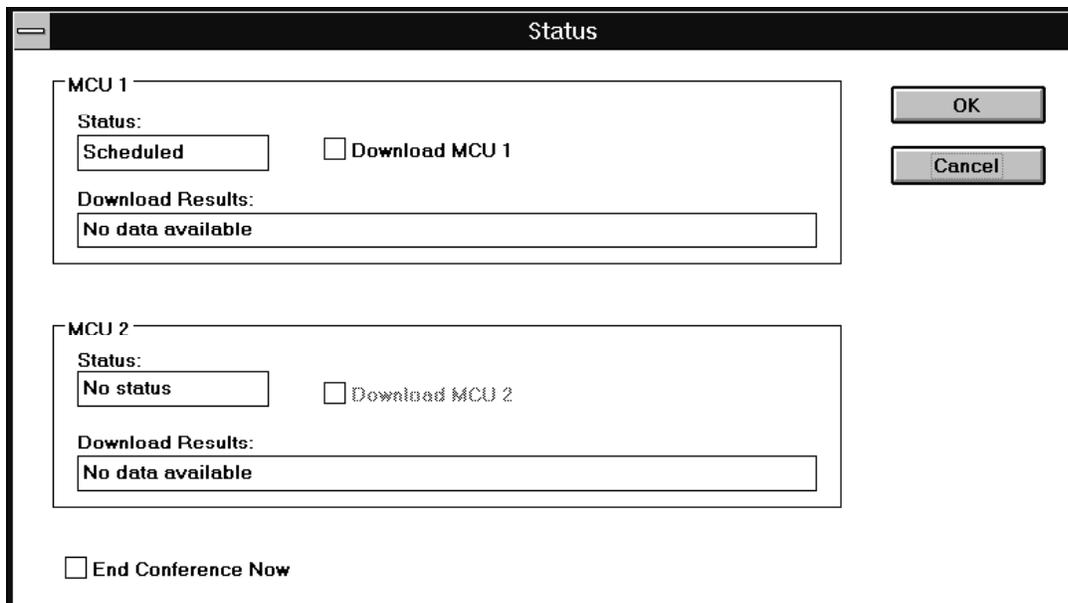


Figure E-10. Status Window

5. The status of the MCU should be "downloaded."

If it is not "downloaded," select the checkbox to the right of the status (the box labelled Download MCU1 or Download MCU2) in order to download the conference to the correct MCU. The following status words and their meanings appear in the boxes below MCU1 or MCU2:

- **Scheduled** — The conference information is in the CRS database.
- **Downloaded** — The conference information is in the CRS database and is downloaded to the MCU.
- **Error** — The download to the MCU did not occur. In this situation, check with the CRS administrator.

As illustrated in Figure E-10, when the status is **Error**, download results are displayed in the box below the status word, providing the reason for the download failure. Error messages include:

- "Failure to connect to the MCU"
- "No data available"

The message displayed in this box is the MCU SAT (administrator terminal) error message.

6. Select .

The **Edit Conference** window is re-displayed.

7. Select to exit the **Edit Conference** window.

Glossary

A

active view

The currently displayed view. If more than one view is displayed, the active view is the view whose title bar is a different color or shade than all the other windows. On the Window menu, the active view is indicated by a check mark next to the active view's name, as displayed in the title bar of the view's window.

active window

The selected window with which you are currently working. The active window appears in front (or on top) of all the other windows on your desktop or application work area. Its title bar is a different color from the other windows. All keystrokes and commands that you type affect the active window.

administrator

See CRS administrator.

agent

See CRS reservation agent.

audio add-on

The MCU feature that allows one audio-only participant to join an MCU Px64 conference.

audio port

The port used for an audio add-on party to join a conference. *See also* port.

auto control

The MCU feature that offers voice-activated switching conference mode.

advanced control

The MCU feature that offers presentation and broadcast with autoscan conference modes.

B

bandwidth

A transfer rate or range of frequencies for an amount of data moving from one point to another. In relation to video bandwidth rates, the more free bandwidth for video, the better the picture quality transmitted. The MCU port capacity provides for 112/128k (2B-channel 56k/64k), 384k (H0), and 1-channel bandwidths of 768k, 1472k, and 1536k rates. The 336k and 384k bandwidths are also available through the bonding feature of most MCU models.

bandwidth on demand

An MCU feature that allows the AT&T MCU to establish conferences at bandwidths greater than 128k without the use of ISDN-PRI and Wideband channels.

bonded bandwidth

A number that indicates whether or not bonding resources should be allocated for cascading CRS conferences between MCUs that use 336k and/or 384k bandwidths.

bonding

See bandwidth on demand.

bonding ports

The number of parties that can be in a CRS conference that uses a bonded bandwidth of 336k or 384k.

broadcaster

The broadcasting site in a video conference using the broadcast with autoscan mode. broadcast with autoscan mode.

broadcast with autoscan mode

A conference mode where one endpoint's video, audio and data are broadcast to all other confer-ees. The broadcaster views the other locations one after another for a fixed duration of time. The broadcaster is constantly viewed by all other locations.

C

cascading

An MCU feature that allows one MCU conference to connect to a conference on another MCU.

chair control mode

A conference mode in which one site controls which endpoints are added and/or dropped during a conference.

check box

A box that enables you to select an option. When you select an option that has a check box, the check box is filled with an "X." Otherwise the box is empty. When check boxes appear in groups, you can select as many or as few of the boxes as you want (that is, check box options are not mutually exclusive).

client

A CRS workstation that is attached either through a LAN connection or RAS connection to the multi-user CRS server computer.

color template

A definition that tells CRS what field values to use when color coding such areas as the Scheduling Calendar legend.

command bar

The row of buttons on the right side of an active window. You must have a mouse to use the command bar.

conference status

The status of a conference, that is, whether or not it is successfully downloaded to a specified MCU (MCU1 or MCU2).

Conference Reservation System (CRS)

Software for a PC (using the Windows operating system) that allows entry and storage of conference-related information (including billing). Multipoint conferences are downloaded to the MCU for actual completion. Other types of conferences that can be reserved are point-to-point and rooms-only.

conference template

A means of achieving a grouping of compatible sites by the bandwidth and protocol they support.

control menu box

The box in the far upper-left corner of the window, on the same level as the window's title bar. Commands in this standard Windows menu allow you to restore, move, size, maximize, minimize, close, and switch windows.

control site

Applies to a video conference using the presentation or broadcast mode. The presenter or broadcaster is the control site chosen during conference scheduling. *See also* presenter.

convener

A person who requests the reservation agent to schedule a conference and notifies conference participants of the conference information.

CRS

See Conference Reservation System.

CRS conference

A conference that has been scheduled using the CRS.

CRS administrator

The person responsible for providing the CRS/MCU link, installing the CRS software, and maintaining the defaults, passwords, backups, and archiving of files. The administrator adds databases, and can view, edit, copy, and/or delete items from databases.

CRS reservation agent

A CRS user who has permission to view a CRS database and to add, edit, and delete data in that database.

D

database

A set of categories for the views that define the information that is stored in the CRS.

dedicated access

An MCU feature that allows endpoints to participate in conferences over non-signaled T1/E1 facilities.

dial-in (MeetMe)

A method for connecting sites and endpoints in a conference by having the endpoints dial the MCU.

dial-out

A method for connecting sites and endpoints in a conference by having the MCU dial specified endpoints.

dialog box

A display of a command's options and parameters that enables you to review and change them.

direct connect

The MCU feature that allows an endpoint to connect directly to the MCU. An endpoint that is connected in this way should be assigned the MCU to which it is connected as its preferred MCU.

drop down box

A box displaying the currently selected item in a list. The entire list is displayed only when you select the down arrow button at the right of the box. You can then select a new item or select the arrow button again to hide the list.

DX

An MCU model that features up to 20 ports and the automatic conference mode.

dynamic resizing

An MCU model that features the ability to add or delete conference participants while a conference is active.

E

edit box

Any rectangle on an item detail form or dialog box that accepts text typed from the keyboard, pasted from the Windows Clipboard, or written using a stylus. Date, name, telephone number, Meet-Me number, text, and time type fields use edit boxes on item detail windows.

EIA-232-D

An industry standard for physical computer hardware connections made through a plug-in 25-pin port. *See also* ITU-T.

encoding

Changing video and/or audio signals into digital form for more efficient and accurate transmission (movement) from one entity to another. *See also* LD-CELP and PCM.

endpoint

A video unit such as a camera, PC, video recorder, speakers, and other equipment used for transmitting multimedia (voice, audio, full-motion video, and graphics) during a CRS multipoint conference. The video capabilities of an endpoint can be linked to a specific site.

entry tone

A tone that alerts conference participants already on a conference that another participant has joined in.

EX

An MCU model that features up to 28 ports, notification tones, and automatic and advanced conference modes.

exit tone

A tone that alerts conference participants that a participant has left the conference.

export

The ability to extract data in a preselected format from a CRS database into an external file.

extension pool

A group of MCU extension numbers that have common properties such as network access and bandwidth. Pools map to extensions administered on the MCU and are uploaded to the CRS during CRS administration.

F

FX

An MCU model that features up to 28 ports and automatic and advanced conference modes.

G

G.711

See PCM.

G.728

See LD-CELP.

global partition

See partition.

H

H0

A 1-channel 384k bandwidth conference call.

H.320

Also referred to as Px64. The industry standard for multipoint conferencing, adopted by the ITU-T. This standard includes some of the other H-series standards governing the definition of multimedia equipment and equipment transmission (movement of data) capabilities and methods. See *also* Px64 and ITU-T.

H-series

See H.320 and Px64.

I

International Telecommunications Union-Telecommunications (ITU-T)

An international group established in 1990 to develop and approve industry standards that allow audio/video endpoints to communicate with each other. Formerly referred to as Consultative Committee for International Telephone and Telegraph (CCITT).

L

LAN

Local area network (LAN) is used in this document to refer to a client that is connected to a multi-user CRS server via a LAN. See also *RAS*.

LD-CELP

Also referred to as G.728. An industry-standard means of encoding audio so a smaller portion of bandwidth is allocated to audio. This limited audio allocation results in greater bandwidth for video, thus improving video quality. See *also* ITU-T.

list box

A box on a window that shows a column of available choices, with scroll bars provided if there are more choices than can fit in the box displayed. Usually, you highlight one of the entries in the list. Some list boxes allow you to highlight multiple entries.

login

The identification process for opening a shared database. The Administrator decides the required password for using specific databases.

login ID

A keyword assigned by the administrator that enables a user to access CRS.

login password

A password that can be customized and linked to a user's login. The user must give a valid login ID and login password before the user can open a shared database that requires a login password.

M

menu bar

An area located at the top of the CRS main window, just below the title bar, that displays the available command menus. The menus available from the CRS menu bar are: File, View, Window, Help, and for administrators, Admin.

MCU

See MultiPoint Control Unit.

MCU extension number

A number that a convener and/or conference participant dials to join a multipoint video conference.

Meet-Me

See dial-in.

multimedia

The use of a variety of media, including audio, full-motion video, data, and graphics.

multipoint video conferencing

A technique of combining video, audio, and data from two or more endpoints onto a single video conference call using the AT&T MCU.

MultiPoint Control Unit

AT&T conferencing equipment with several model types that provide high-quality multimedia conferencing. The MCU provides multimedia conferencing with other endpoints that communicate via point-to-point or ITU-T Px64 standards. *See also* DX, EX, FX, Px64, and ITU-T.

multi-user CRS

A CRS that is designed so that its database can be shared by multiple reservation agents. It consists of a properly configured server, client workstations, required network software, and multi-user CRS software.

N

notification tones

The entry, exit, and warning tones available with some MCU models.

Nx56k

Designates an extension pool type used to identify 2B or bonded dial-out or cascaded connections.

P

partition

The method used to logically subdivide the MCU into manageable sections within a multi-user CRS database. One partition, called "global," contains all the other partitions.

password

CRS supports a password that controls access to the CRS shared database.

PCM

See Pulse Code Modulation.

point-to-point conference

A conference involving two sites whose video endpoints are directly connected through a network service without using the MCU.

pool

See extension pool.

port

A logical entity where the video call terminates on the AT&T MCU. *See also* bonding ports.

port capacity

The maximum number of ports that can be used simultaneously for CRS conferences. CRS advanced options indicate the available capacity for video ports, bonding ports, and audio ports.

preferred MCU

Identifies an MCU as the MCU that an endpoint must use when connecting for conferences. This feature allows you to specify a particular MCU for an endpoint if there is more than one to which it could connect. An example of using this identification is if you want to assign all endpoints in a geographical area to an MCU that is located in that area to save on tolls. *See also* direct connect.

presenter

The broadcasting site in a video conference using the presentation mode.

presentation mode

A conference mode in which an endpoint's video is constantly broadcast to other locations, but the audio portion of the broadcast switches according to who is speaking. The site, referred to as the presenter, is the one whose video is shown to other locations. Any participant can be a speaker. The presenter is the control site chosen during scheduling.

protocol

Set of international industry-standards governing the exchange of data between two entities.

Pulse Code Modulation

Also referred to as G.711. An industry-standard means of encoding audio that uses less bandwidth for video than LD-CELP so the picture quality is not as good as LD-CELP. PCM-MU specifies U.S. domestic standards and PCM-A specifies European standards. *See also* ITU-T.

Px64

An industry standard adopted by the ITU-T, also referred to as the H-series, that allows audio/video endpoints that comply with the multimedia standards to communicate with each other. *See also* H.320 and ITU-T.

R

RAS

Remote access server (RAS) is a modem connection that is configured to be a client in a multi-user CRS.

recurring meeting

A meeting that occurs more than one time in a definite pattern (for example, every third Tuesday).

reminder fax

A confirmation report faxed to a convener at a scheduled time before the convener's conference begins.

room(s)-only conference

A conference using one or more sites without video.

RS-232

See EIA-232-D.

S

scroll bars

Control mechanism on a window that enables you to view information that is longer or wider than the current window size. If present, they are located at the right side and bottom of the window.

server

The NT server in a multi-user CRS network.

single-user CRS

Is a CRS that is designed to be used by only one reservation agent or administrator at a time. It consists of a properly configured dedicated personal computer and single-user CRS software.

site

A location that contains the proper endpoint capabilities (that is, a location with video equipment—such as a camera, video recorder, PC, speakers, VCRs, etc.—that is set up to provide multimedia).

SG3

A proprietary protocol for data exchange during a video conference. *See also* protocol.

status bar

A bar located at the bottom of the CRS main window. It can display: a brief description of the currently highlighted menu command; a description of the view icon at which the mouse is currently pointing; operational messages; and a count of the number of items from the active category displayed by the active view.

T

time zone template

A method of indicating the time, in hours, that a site's time is either ahead of or behind the CRS time. Also allows the daylight savings time to be set. Time zone templates are associated with sites so that international time is supported, as needed.

title bar

The part of the CRS main window located at the top of the window between the control menu box and the maximize and minimize icons. The title bar name reflects the type of object(s) displayed in the window, as well as the CRS command function, if applicable (for example, View of Today's Conference). The title bar of the active window is a different color or shade than the rest of the windows on the desktop.

V

video algorithm

A mathematical formula used during compression or decompression of video.

video conference

A conference that uses multimedia. A conference of only two parties is referred to as a point-to-point conference.

video endpoint

A video unit, with camera, video recorder, speakers, and other equipment required for multimedia conferencing. *See also* endpoint and multimedia.

video port

See port.

view

A collection of information that shares a common structure. For example, the People view displays information about a person's name, company, phone number, etc.

voice-activated switching mode

A conference mode in which the video image of the person speaking is seen by all other participants. The speaker sees the video image of the previous speaker. When a new speaker begins talking, the video switches to the new speaker.

W

work area

The part of the CRS main window where all views, dialog boxes, and message boxes appear.

warning tone

A tone that sounds when only 10 minutes remain in a reserved conference.

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+60260, D-12

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