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Conference Reservation and Control System (CRCS) Release 6.0
Installation

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Installation Overview

CRCS/OpCenter and OpCenterSP can be set up as a single-user system on a dedicated PC connected to up to 2 Lucent Technologies MultiPoint Conferencing Units (MCU). The CRCS/OpCenter PC can run either Microsoft® Windows NT 4.0 or Microsoft Windows 95.

The connection between the CRCS/OpCenter or the OpCenterSP PC and the MCU can be local if the distance between the two is less than 5000 feet. The connection is considered remote if the distance is greater than 5000 feet. Also, if the CRCS/OpCenter or OpCenterSP PC is not connected to the TN754B or TN2224 on the MCU side, the connection is considered remote.

Follow the installation procedures outlined in this guide to set up and connect the CRCS/OpCenter or the OpCenterSP PC to the MCU. This manual also includes installation procedures for the fax option available with CRCS.

Upgrading from a Previous Release

Each new release of the CRCS/OpCenter program and the MCU offers additional features. If any endpoint already included in your previous release supports some or all of the new enhancements, you may need to update the bandwidth, protocols, and feature entries in the Conference Template, Endpoint, Site, and MCU databases.

Beginning with release 6.0, CRCS is backward compatible with the previous release MCU. The two MCUs controlled by CRCS do not need to be the same release. For example, MCU1 could be release 6.0 and MCU2 could be release 5.0.47.

> **NOTE:**
> If upgrading from a release earlier than CRCS 4.2, remove all reservation system items including link manager and command manager from the **StartUp** group prior to installation.

Upgrading a Single-User System

The first consideration before upgrading from an earlier release is to make sure your hardware and operating system meets the higher minimum requirements of the release of CRCS/OpCenter. See "Pre-Installation Requirements" for a list of the required hardware components, software, and operating system. Also make sure you have the list of logins and passwords as defined.

With the proper hardware installed, use the following upgrade procedure to load the new release of CRCS:

1. Before upgrading, you need to run the database repair program. To do so, click **Start**—**Programs**—**Lucent Technologies CRCS**—**Run Database Repair**. If there are any errors reported, click **Start**—**Programs**—**Accessories**—**System Tools**—**Scan Disk**.

2. Backup the database to external media such as floppy disk, zip disk, or tape. This database file named *crs.mdb* is located in the *dbase* subdirectory (where CRCS was previously installed). You can perform a **Start**—**Find** to locate the file or look in your CRCS directory under the dbase folder. It may be located on your main boot drive.

> **NOTE:**
> If you changed the name of the default directory or destination drive when you previously installed CRCS, copy the *crs.mdb* file to the dbase subdirectory of the new directory before installing CRCS and readministering the link. For example, if you name the directory *c:\crcs6x*, you would need to

create a subdirectory named *c:\crcs6x\dbase* and copy the *crs.mdb* file into it before installing CRCS.

3. From the MCU MT, perform an add login and change permissions to create the crcs login, password, and permissions (see *MCU Administration* for details).

4. Insert the CRCS CD-ROM and click **Start** on the Windows Taskbar.

⇒ **NOTE:**
Make sure no other applications are running, including fax programs.

5. Click **Run** and use the **Browse** button to locate the *setup.exe* file on the CD-ROM. Click **OK**.

6. Follow the program prompts (see "CRCS/OpCenter Software Installation" on page 15 for details) and when the installation is complete, choose to exit without the automatic reboot (the **No** option) and shutdown your PC.

7. Power off your PC.

8. Wait a few seconds and power on the PC.

9. Login to CRCS as an administrator.

10. From the **Admin** menu on the Main window, select **Query MCU Parameters** for each MCU (**1** and/or **2**).

11. Schedule a test conference to begin immediately, verify that the conference downloads to the MCU and record the CRCS ID #.

12. From the MCU MT, perform a list conference to verify the conference downloaded to the MCU. If the connection is established, the upgrade is complete. For remote connections only, continue to step 13.

13. For remote connections, you can administer when the link between CRCS and the MCU is connected. It can be connected full time (**permanent**), only when a conference data is being downloaded (**on-demand**), or during a specified hours in a day (**between**). From the CRCS PC, administer a connect time from the **Admin** menu on the Main window, select **Run Link Admin**.

14. From the MCU Link Administration window, click the **Connect Parameters** tab.

   - for the **on-demand** option, specify the time (in minutes) that the link should remain connected.

   - for the **between** option, specify the time range when the link will be connected. Also, for off-hours (those hours that fall outside the time range) specify the time (in minutes) that the link should remain connected when requested.
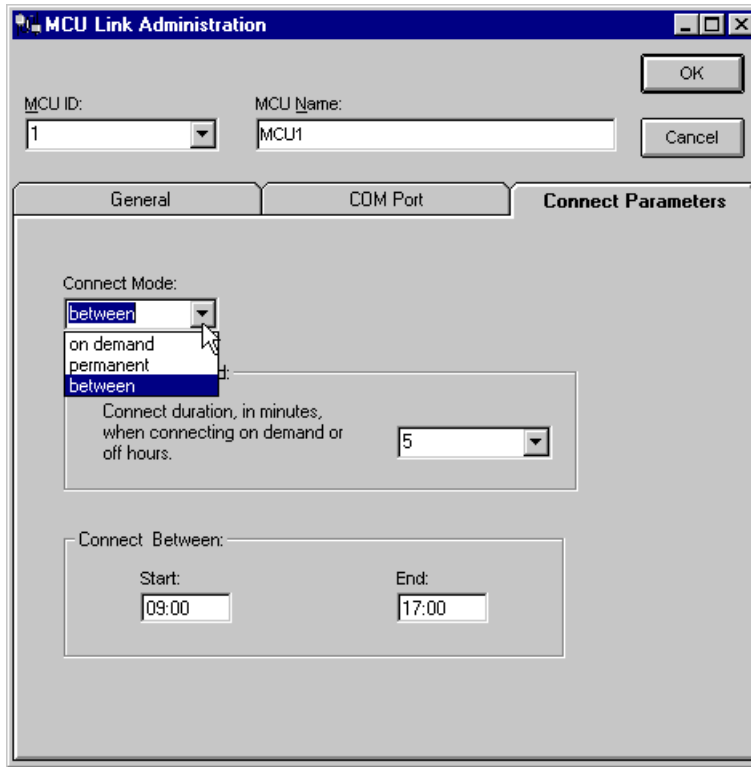
Figure 1. **MCU Link Administration window**

15. The upgrade process is complete and you can begin using CRCS/ OpCenter.

Pre-Installation Requirements

As a single-user dedicated system on a PC connected to one or two Lucent Technologies MultiPoint Conferencing Units (MCU), CRCS/OpCenter or OpCenterSP can be set up as either local or remote.

For a local connection, the distance between the PC and MCU must be less than 5000 feet. Distances beyond 5000 feet are considered remote. Also, if the PC is not connected to the TN754B or TN2223 on the MCU side, the connection is remote.

CRCS/OpCenter and OpCenterSP Checklist

Hardware Requirements

The system installed for single-user CRCS/OpCenter must be dedicated for CRCS/OpCenter use only. The following hardware components are required:

- 266 MHz Pentium II CPU with 64 MB RAM or greater recommended (minimum 100 MHz Pentium with 32 MB RAM)

- *1024 by 768 pixel* resolution, *256 color*, and *small fonts*

- One 17-inch monitor (minimum 15 inch)

- 2.5 GB hard disk with a high-speed drive and local bus controller (minimum 1.2 GB)

- One 1.44 MB 3.5 inch floppy disk drive

- One 6X CD-ROM drive (minimum 4X)

- A COM1 serial port with a 25-pin connector or a 9-to-25 pin adapter, if the COM1 port is 9 pin

- A bus mouse or a serial mouse connected to a COM serial port

- Optional laser or laser-quality printer connected to the LPT1 parallel port and installed as the default printer

- Optional (highly recommended) backup tape or high capacity removable disk device and appropriate software for the backup

- Slot for the fax hardware (optional)

Software Requirements

- Microsoft Windows 95 or Windows NT 4.0 workstation with Service Pack 4

Remote Configurations

For remote configurations where the MCU and CRCS/OpCenter or OpCenter SP are not collocated, modem pooling is used (see "Appendix A: Modem Pooling" on page 44). The modems must support a minimum of 9600 baud. Additional serial ports may be required which must support non-shared interrupts.

Login and Passwords

Be sure you know the following information:

- Login, password, dialed number and COM port for each MCU
- CRCS or OpCenterSP Serial Number
- Default administrator password and agent password
- PC login and password, if applicable

Fax Option

Refer to "Faxmodem Installation" on page 32 for hardware and software require-ments for the optional fax feature.

Configuring the PC

Regardless of whether the connection between the PC and the MCU is local or remote, you must supply the proper adapter to connect the COM1 port to the RS232 cable.

Configure your CRCS/OpCenter or OpCenterSP PC as follows:
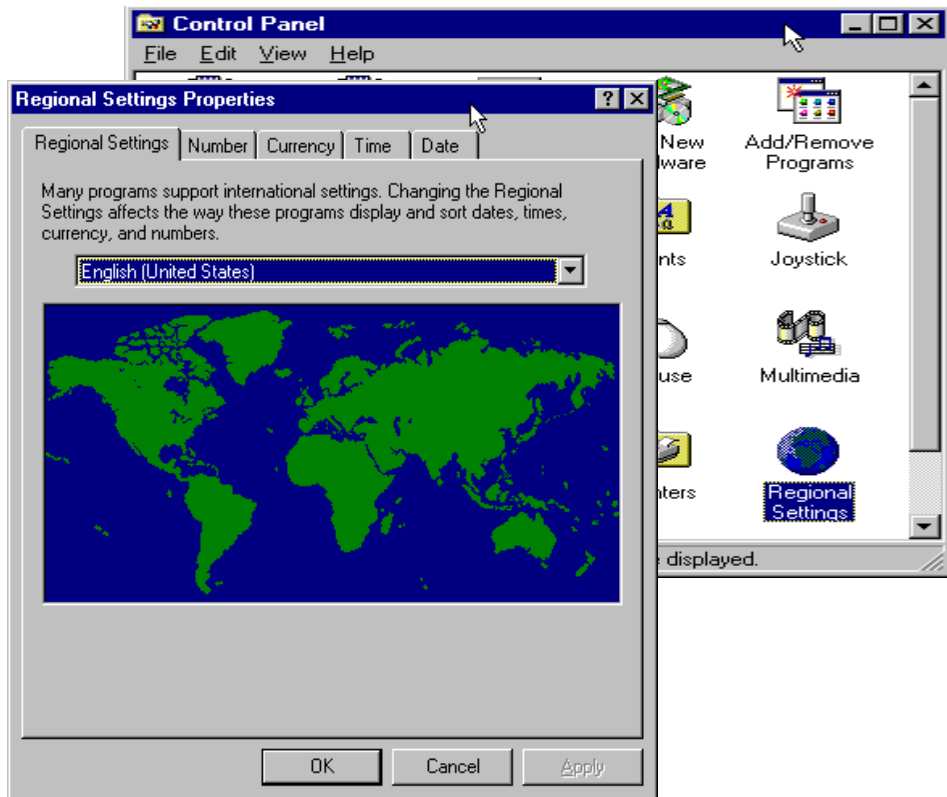
Figure 2. **Microsoft Windows Control Panel Settings**

1. With your PC powered on, select **Start**—**Settings**—**Control Panel**.

2. Perform each of the following steps:

   - select the **Regional Setting** and **Keyboard** to set both to English (United States)

   - set the **Display** by selecting **Settings** to **1024 by 768 pixels**, **256 color**, and **small fonts**

.
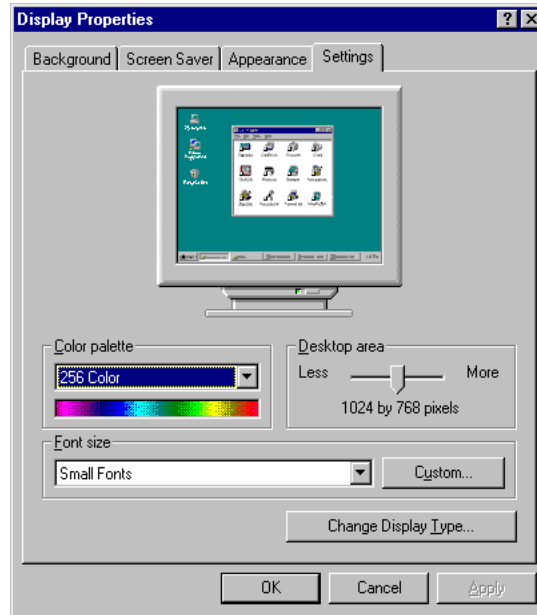
Figure 3. **Display Properties Window**

- select **Modem** and use the Modem Installation wizard to set the modem COM ports. Click **Add** then **Don't detect my modem**. Under **Manufacturers**, choose **Standard Modem Types**. Under **Models**, select **Standard 9600 bps Modem**. Choose the appropriate COM port: **Communications Port (COM 1)** for the MCU 1 connection and **COM2** for the MCU 2 connection.
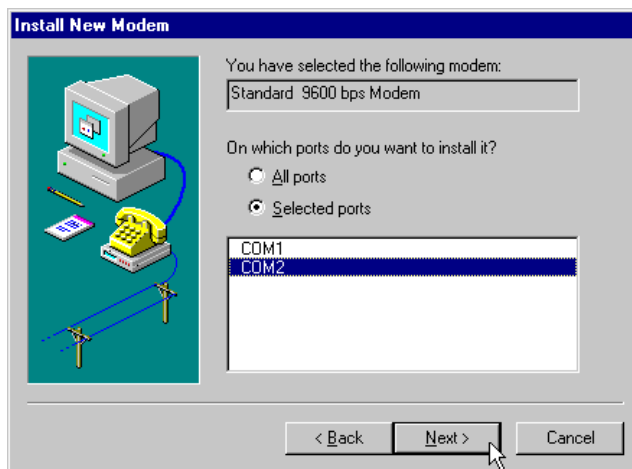
Figure 4. **Install New Modem Wizard—Selecting the COM Port**

Connecting the PC to the MCU

This procedure establishes the connection between the CRCS/OpCenter PC and the data module or modem. For information about connecting the data module or modem to the MCU, see the *MCU Installation and Test* manual. To connect the PC using the standard serial ports to the modem or data module, follow these steps:

Local Connection to MCU

The following hardware is required for a local MCU connection:

- 8400B data module (supplied)

⇒ **NOTE:**
7400B data module is supported from previous releases

- M25B cable (not supplied)
- 9-pin-to-25 pin RS232 adapter (not supplied)

Figure 5. **Local Connection to the MCU**

Remote Connection to MCU

When the PC is located remotely from the MCU, the MCU's modem pooling capability is ideal for connecting the data link needed to support CRCS/OpCenter. With modem pooling, Hayes-compatible analog modems are used at the PC to connect over the PTSN to the MCU. The MCU implements an external 7400A data module combined with a 3800 modem running 9600 bps to provide conversion resources needed to route the analog voice calls from the CRCS to the digital Netcon channels in the MCU.

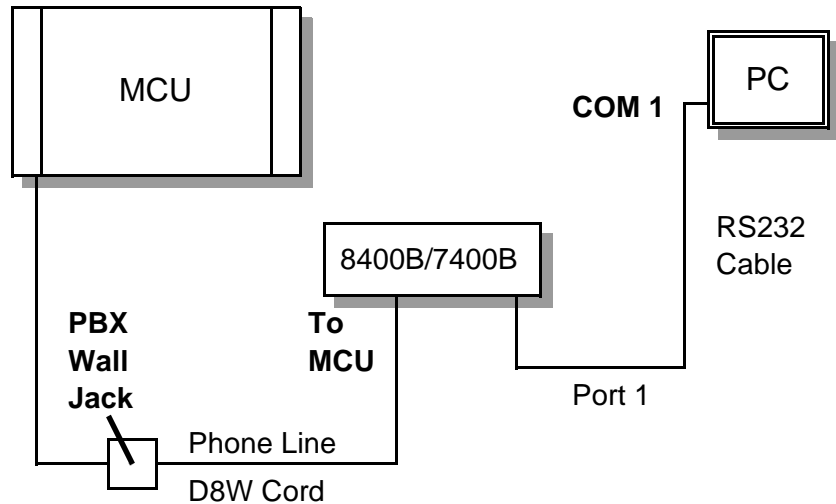There are two types of conversion resources for modem pooling. The first type, an integrated conversion resource, is a circuit pack which emulates a Trunk Data Module connected to a 212A-type modem. The MCU does not support the integrated modem solution.

The second type, a combined conversion resource, is a separate Trunk Data Module and modem administered as a unit. The Trunk Data Module component of the conversion resource may be either a Modular Trunk Data Module (MTDM) or a 7400A data module. The module connects to a digital port using Digital Communications Protocol (DCP); the 3800 modem connects to an analog port on the TN746B.

The MCU supports the Combined Modem Pooling Solution for use in remote connectivity between the MCU and the CRCS module whenever these components are not collocated. See "Appendix A: Modem Pooling" for further installation details.

Connection Procedure

1. Connect the COM1 port to the 8400B/7400B data module with an appropriate adapter, if necessary, and an M25B (EIA-232-D) cord or equivalent. If using modem pooling, use an analog modem instead.

2. Use an RS232 cable (M25B) with a 25-pin female connector for the CRCS PC or server and a 25-pin male connector for the analog modem (remote connection) or data module (local connection).

3. If your supplied cable does not have the appropriate gender connectors, use a gender changer to make the adjustments.

4. PC ports are usually labeled with the port number and type (serial or parallel), if not see your PC user manual for proper labeling. If the first serial port is a 9-pin connector, connect a 9-pin-to-25-pin RS232 adapter (you supply).
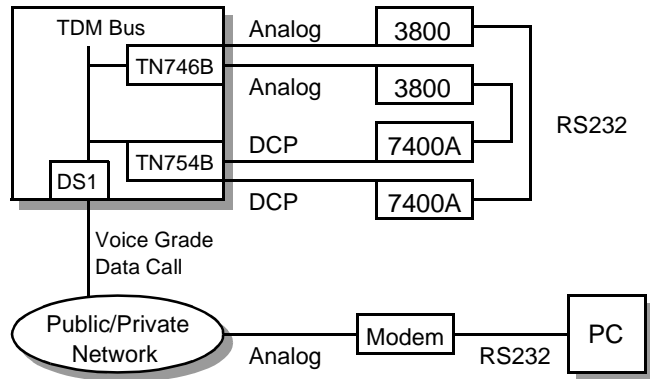
Figure 6. **Remote CRCS Connection to MCU (Modem Pooling)**

5. Connect the female end of the RS232 cable to the male end of either an adapter or the CRCS PC first serial port.

6. Connect the male end of the RS232 cable to the female 25-pin RS232 connector on the analog modem (remote connection) or data module (local connection).
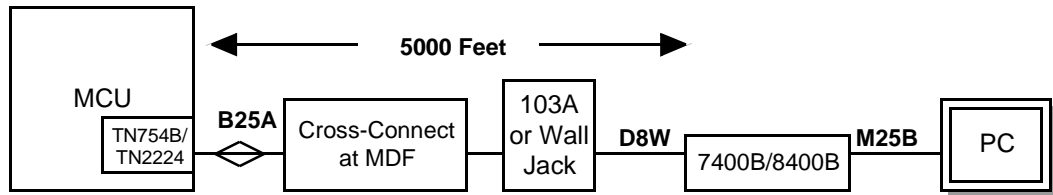
Figure 7. **Connecting the MCU to the CRCS PC**

7. If you are using the 8400B data module (TN2224 required), go to step 8. If you are using the 7400B data module, verify or change the following dip switch settings:

   ■ For a standalone data-only 7400B data module, set dip switch #1 to ON (UP), if no phone is connected. All other dip switches should be set to the OFF position (DOWN);

   ■ If you are using a phone on a 7400B data module, set all dip switches to the OFF position (DOWN).

8. Continue with "Checking the Modem Settings" on page 12.

Checking the Modem Settings

The last step before loading the CRCS program requires that you configure and check the modem connection to the MCU.

1. From Microsoft Windows, select **Start—Programs—Accessories— HyperTerminal**.

2. From the HyperTerminal window, click the **Hypertrm.exe** icon.
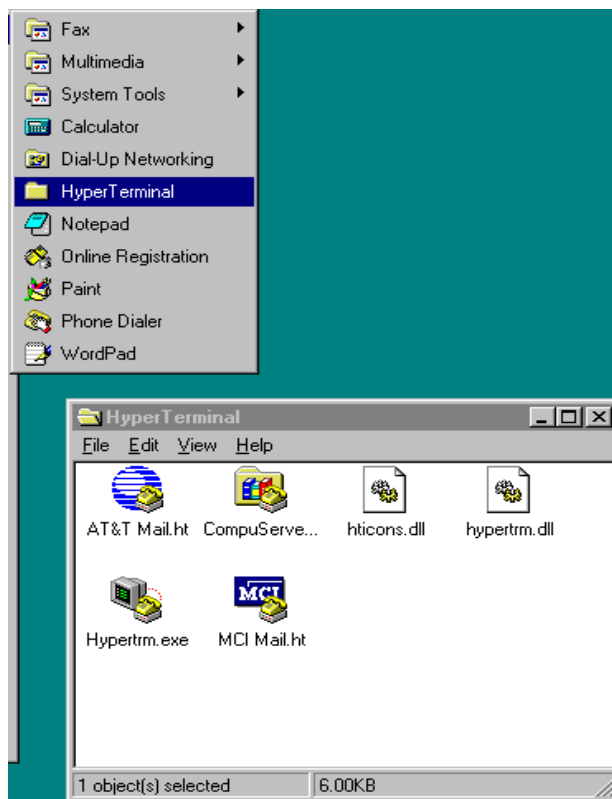
Figure 8. **HyperTerminal Window Setting**

3. Enter **Test** in the *Name* field of the Connection Description window and select the first icon as shown. Click the **OK** button.

4. Click on **Connect Using** and select **Direct to COM1**.

5. Choose the following settings:

   - Connector=Com1

   - Baud Rate=9600

   - Data Bits=8

   - Stop Bits=1

   - Parity=None

   - Flow Control=None

6. Click the **OK** button to save the changes. If you are using the 8400B data module, continue to step 7. For the 7400B data module, skip to step 10.

7. Type **ats24=001** to set the data module for standalone operation without a telephone.

8. Remove power from the 8400B data module for 5 seconds.

9. Reconnect power to the 8400B data module. The red LED comes on steady.

10. Type **at** and press Enter. The **OK** prompt appears. Type **atdt** and the dial number you recorded earlier. Press Enter. The login prompt appears.
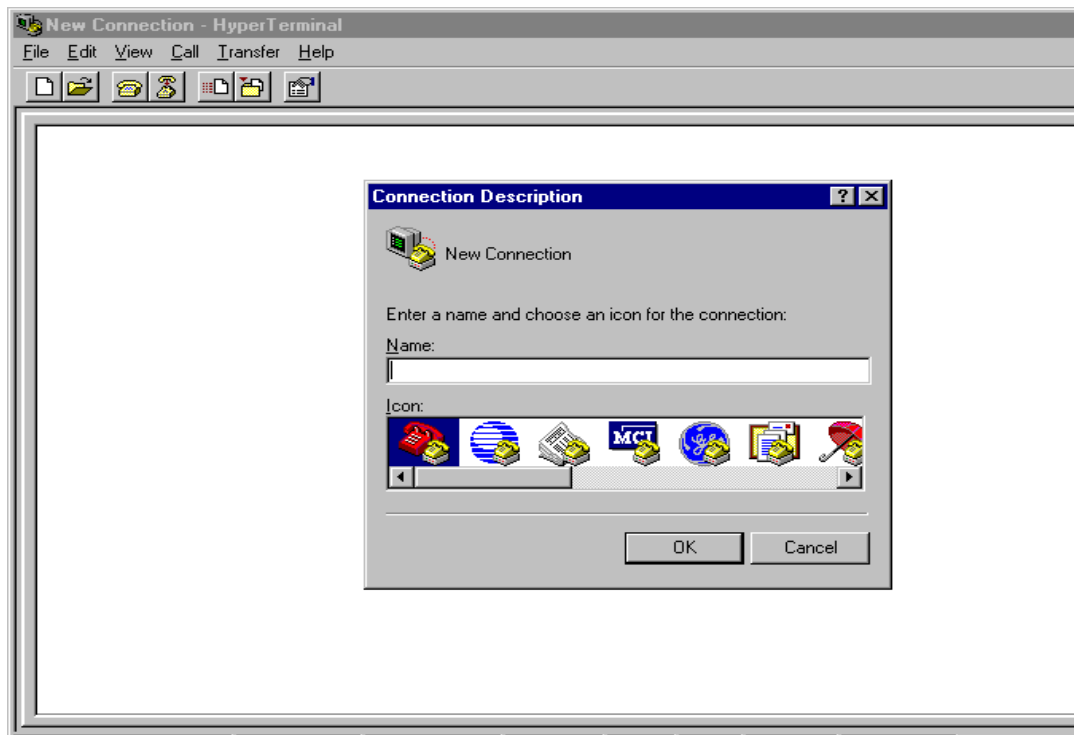
Figure 9. **Connection Description Window**

11. When the login for the MCU displays, enter the login and password assigned by the technical center during installation to verify that you have a working CRCS to MCU link.

12. Type **logoff** and exit hyperterminal. Repeat this procedure to test COM2 if you are controlling a second MCU.

> **NOTE:**
> If the MCU login does not display, verify that the MCU recognizes that CRCS is active (from the MT check the *Scheduler Adjunct* field on the customer-options form. It must be set to **y**).

13. Continue to "CRCS/OpCenter Software Installation" on page 15 to load the CRCS/OpCenter program.

CRCS/OpCenter Software Installation

> **NOTE:**
> If your system encounters a conflict with another application while running setup, make sure all other Windows applications are closed before proceeding.

1. Complete the PC connections by connecting the power cord and plug, inserting the mouse cord in an available COM port or installing the bus mouse, and turning on the power.
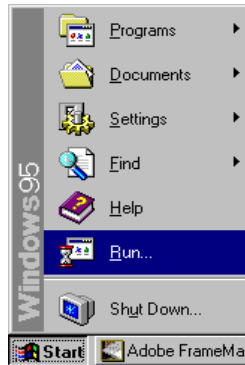
Figure 10. **Loading the CRCS/OpCenter Software**

2. Insert the CRCS CD-ROM.

3. From the Windows desktop, click **Start**—**Run...**.

4. From the Run window, click the **Browse** button to locate the CRCS CD-ROM setup program or type the letter assigned to the CD-ROM driver followed by a colon (:), a backslash (\), and the word **setup.exe**. For example: **g:\setup.exe** would be the entry if the CRCS CD-ROM was inserted in drive g. Click **OK**.
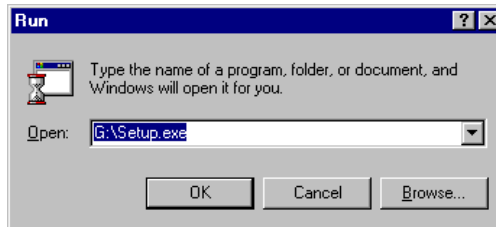
Figure 11. **CRCS Setup—Entering the Location of the CRCS CD-ROM**

5. When the CRCS/OpCenter setup wizard window appears, click **Next**.

6. When the product identification window appears, enter your name, company, and CRCS serial number. Click **Next**.

7. From the Select Components window, select to install **Conference Scheduler** and the **ODBC** drivers. Click **Next**.
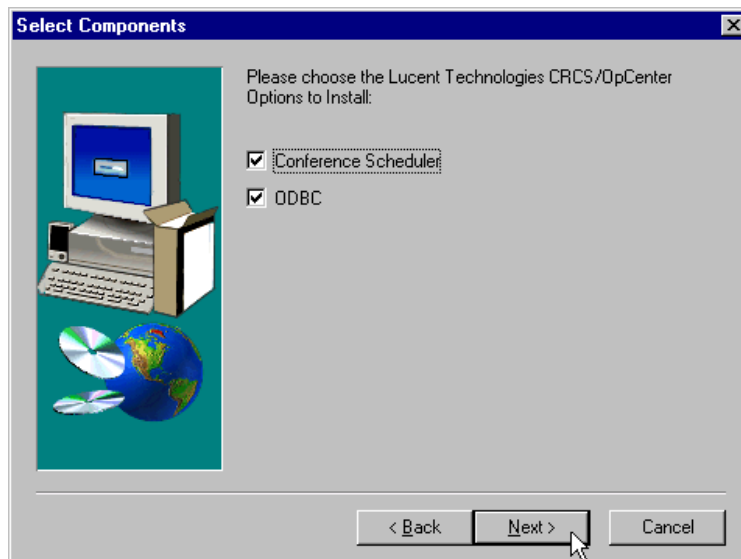
Figure 12. **CRCS Setup—Select Components**

8. From the Choose Destination Location window, CRCS offers install to a path called **c:\program files\lucent\crcs**. If there is no directory by that name, the setup wizard will create one for you. You can also change the destination drive by replacing **c:** with the appropriate drive letter. Click **Next**.
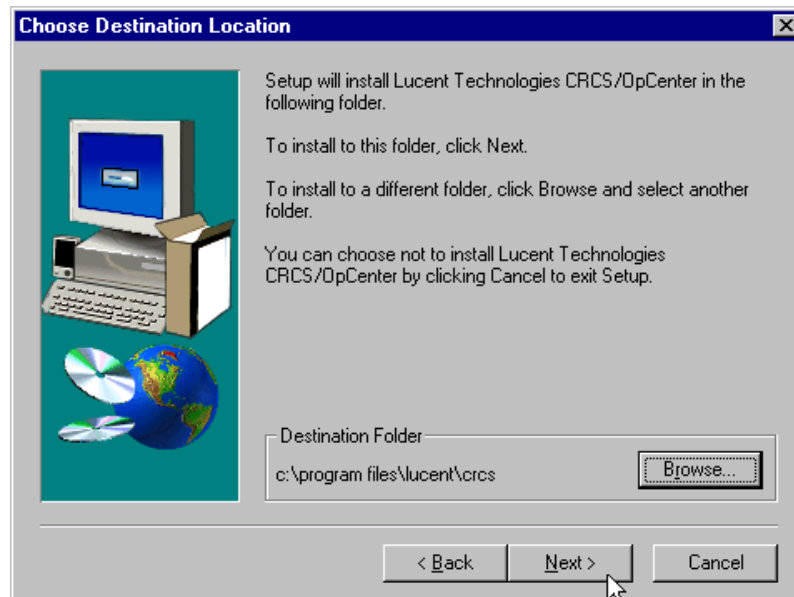
Figure 13. **CRCS Setup—Destination Location**

9. From the Start Copying Files window, the setup wizard displays the selected components to be copied. Click **Next**.
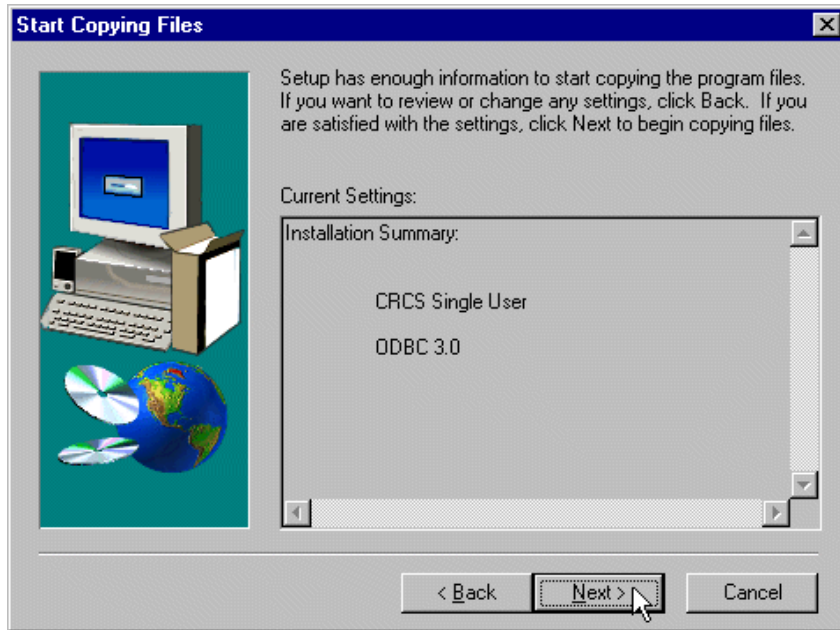
Figure 14. **CRCS Setup—Copying Files**

10. The copying process begins. When the installation process is complete, select to reboot your PC then click **Finish**.

Figure 15. **CRCS Setup—Restart PC**

Testing CRCS

The following procedure allows an administrator to enter minimum data to test CRCS and the MCU connection. Refer to the online help for details on building and maintaining the database.

Logging In to CRCS

Although CRCS continues to run even when no one is logged on, you must log in to add, change, or otherwise work with conference data or databases. CRCS login names and their associated passwords are assigned by the system administrator. The default logins, **admin** and **agent**, also have default passwords (available from your Lucent representative) associated with them. If you choose to keep the login names **admin** and **agent**, be sure to change the default passwords for both of them for security reasons. However, any additional logins you add do not require a password.

1. If the Login window is not already displayed, select **Start**—**Lucent Technologies CRCS**—**Conference Scheduler**.

2. From the CRCS Login window, click **Login**.

3. Enter your login name and password.

4. Click **OK**.

⇒ **NOTE:**
Logging out of the CRCS program is not the same as exiting the program. CRCS must run on the single-user PC in order to download scheduled conferences and perform other scheduled tasks. The CRCS program runs even when no one is logged in. Therefore, do not exit the program except when upgrading the CRCS database or performing a database backup or restore. To log out, from the main window, select **File**—**Log Out**.

Setting the Time Zone

1. Login as an administrator.

2. The time zone where the CRCS PC is located is **Local**. If the CRCS controls an MCU that is not geographically located in the same time zone, you must perform the following steps; otherwise skip to step 3:

   ■ Select **Time Zone Template** from the **View** menu.

   ■ From the Time Zone Template View window, click [+] .

   ■ From the Add Time Zone Template window, enter a name for the time zone where the MCU is geographically located. Typically, you would enter the common name for the time zone such as Eastern, Mountain, or Central.
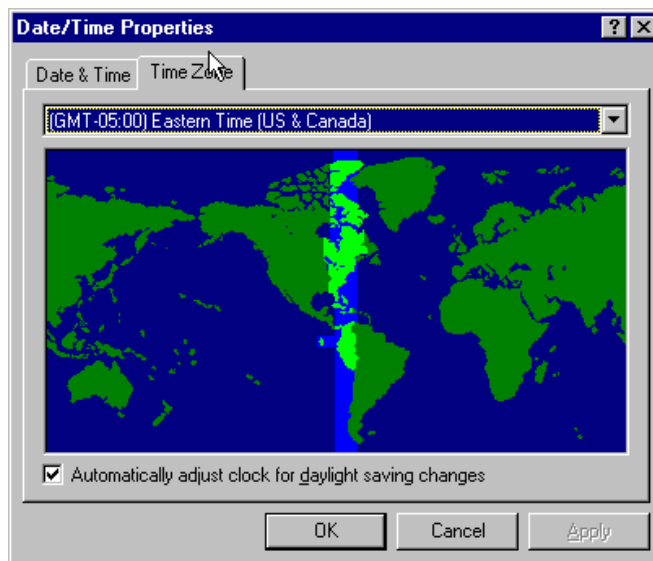
Figure 16. **Selecting the Time Zone**

   ■ In the *Time Zone Offset* section, enter the amount of time in hours that the **Local** time (where the CRCS PC is located) is ahead or behind the time where the MCU is located. For example, if the CRCS PC is in New Jersey and the MCU is in California, the *Offset* is **3** hours *Behind CRCS Time.*

   ■ Under the Daylight Savings Increment, specify if the time zone where the MCU is located follows Daylight Savings time changes and if so, the dates when Daylight Savings starts and ends.

   ■ Click **OK** to save the new time zone setting.

> ⇒ **NOTE:**
> To synchronize the internal PC clock, select **Control Panel**—**Date/Time**—
> **Time Zone** and check the box to automatically adjust clock for daylight
> savings changes, if appropriate.

Figure 17. **CRCS Setup—Adding a Time Zone**

Adding the MCU

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

2. From the View MCUs window, select ⊞ .

3. From the Add MCU window, enter **1** or **2** in the *MCU ID* field.

4. If the MCU is located in a different time zone than the CRCS PC, click the
   down arrow to select the *Time Zone Template* from the drop down menu.

5. The remaining fields can be completed later. Click **OK**.

Establishing the Communications Link

After you have added the MCU, run the link administration program to establish the connection between the MCU and the CRCS PC.
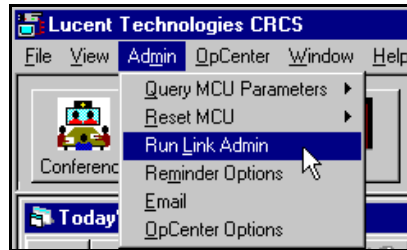
Figure 18. **CRCS Database Setup—Run Link Administration**

1. From the **Ad<u>m</u>in** menu, select **Run <u>L</u>ink Admin**.

2. From the MCU Link Administration window, select the MCU (**1** or **2**) from the drop-down menu that you added in "Adding the MCU" to establish the communications link between that MCU and the CRCS PC.
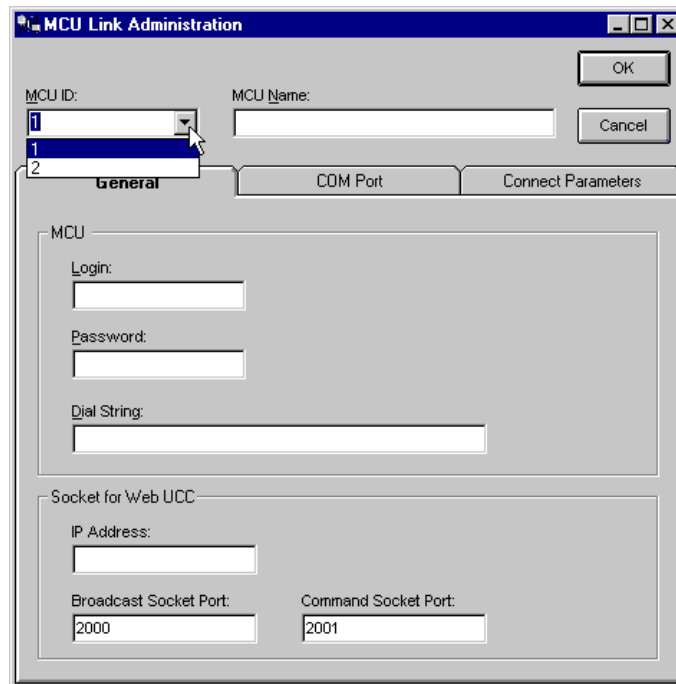
Figure 19. **CRCS Database Setup—MCU Status Link Administration**

3. Enter a descriptive name for the MCU. This name should help identify which MCU is being referred to such as *Denver 1* or *LA 2*.

4. Click the COM Port tab and check for the following settings:

   - <u>B</u>aud Rate=**9600**

   - <u>P</u>arity=**None**

   - <u>C</u>haracter Size=**8**

   - <u>S</u>top Bits=**1**

   - Communication Port=**Com <u>1</u>** or **Com <u>2</u>**.
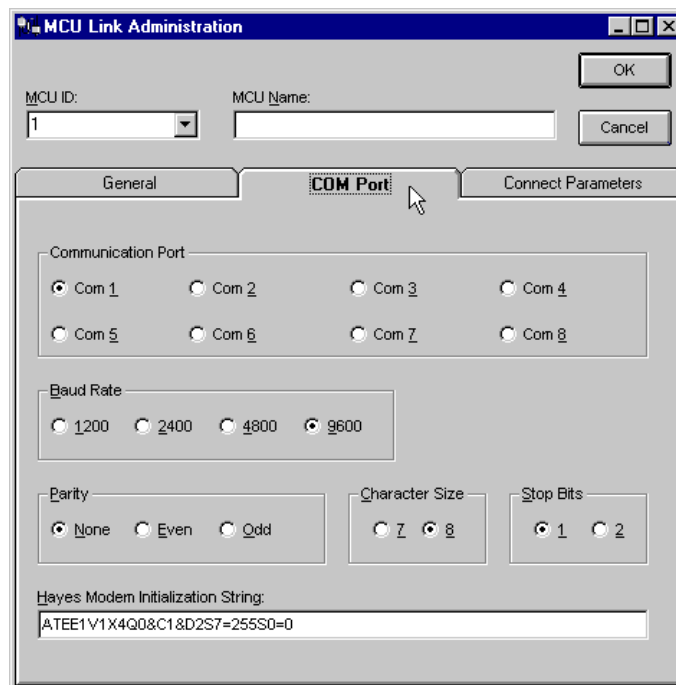
Figure 20. **MCU Link Administration Window (COM Port Tab)**

⇒ NOTE:
> Previous releases of CRCS required a different Hayes modem initialization string than the current release. This string supports the new 8400B data module available for this release; if you are upgrading from a previous release and have 7400B data module, it will ignore the additional register setting in the new string.

5. Under the Connect Parameters tab, the connection between the MCU and CRCS PC is defaulted to **Permanent**. Leave this setting for testing purposes.

6. Click **OK** after the settings are made.

Uploading MCU Options

After the connection has been established between the MCU and the PC, you need to query the MCU to send its parameters and option settings to the CRCS program.

- From the **Admin** menu on the Main window, select **Query MCU Parameters** for **MCU1** or **MCU2**. The parameters are uploaded.

Running the MCU Extension Utility Program

1. Run the extension utility by clicking **Start**—**Programs**—**Lucent Technologies**—**Extension Utility**.

2. Select the MCU (**MCU1** or **MCU2)**.

3. Wait for the MCU to display that the MCU extensions have been retrieved.

Adding an Endpoint

1. Login to CRCS.

2. From the main window, click (or select **Endpoint Template** from the **View** menu).

3. From the View Endpoint window, notice that the **Endpoint1** model endpoint is already listed. To add another make or model endpoint, click .

4. From the Add Endpoint window, under the *Name* field, enter a unique name to identify a make/model of an endpoint. If possible, choose an endpoint that the majority of conferees are using. The name you enter is arbitrary; it can be a combination of the endpoint manufacturer's name, model number, and release or just a word that is meaningful to you.

5. Under *Supported Bandwidths*, select each of the bandwidths the endpoint supports (more than one can be selected). For testing, you may leave some or all of the remaining fields empty and edit them later.
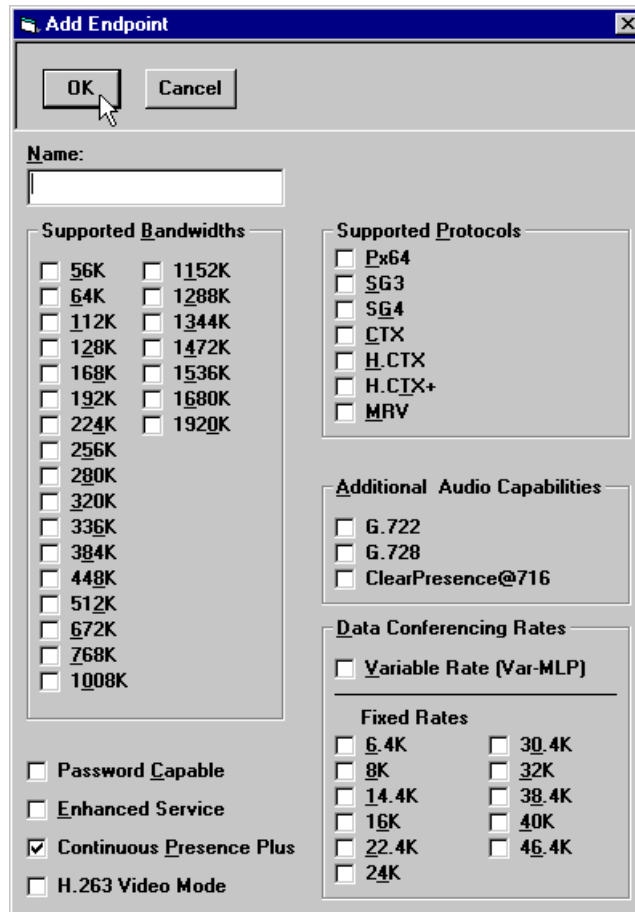
Figure 21. **Add Endpoint Window**

6. Click the **OK** button to add the new endpoint to the Endpoint Database.

Adding a Conference Template

1. From the main window, click [Template icon] (or select **Template** from the **View** menu).

2. From the View Conference Template window, notice there is a conference template **2x56=112 2B**. To add another conference template, click [+].

3. When the Add Conference Template window appears, enter a descriptive name for your conference template in the **Template Name** field and select the supported bandwidth and protocol. The template name should relate to the bandwidth and protocol being assigned to it. For example, **768K_Px64** would be an acceptable name for a supported bandwidth of **768K** with the **Px64** protocol.
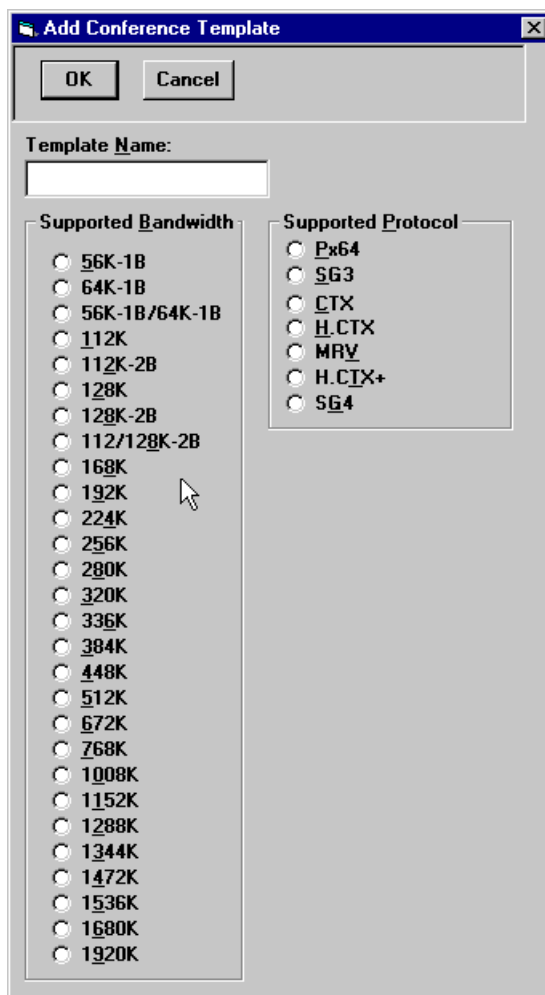
Figure 22. **Add Conference Template Window**

4. Click **OK** to add the conference template.

Adding a Company

1. From the main window, click [Company icon] (or select **Company** from the **View** menu).

2. From the View Company window, notice there is already a fictional name entered (**COMPANY XYZ**). To enter a new company, click [+].

3. When the Add Company window appears, enter the *Company Name* and address. Again for the purposes of testing, the address is optional at this time.
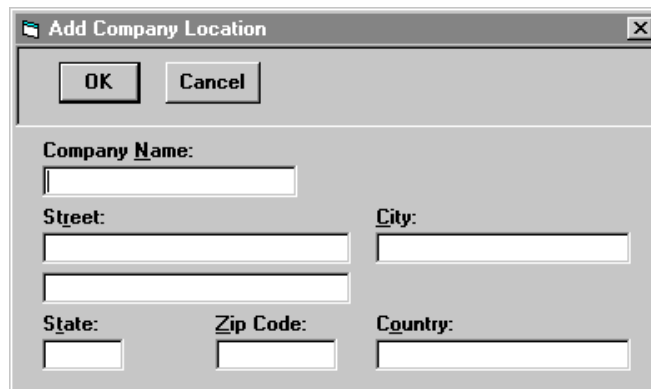
Figure 23. **Adding a Company**

Adding a Person

1. From the main window, click [People icon] (or select **People** from the **View** menu).

2. From the View People window, notice there is already a fictional name entered (**MCU Customer**). To enter a person, click [+].

3. When the Add Person window appears, enter the person's name under *Convener's Name* and choose the associated *Company Name*. Again for the purposes of testing you do not have to complete the remaining fields at this time

4. Click **OK** to add the person..
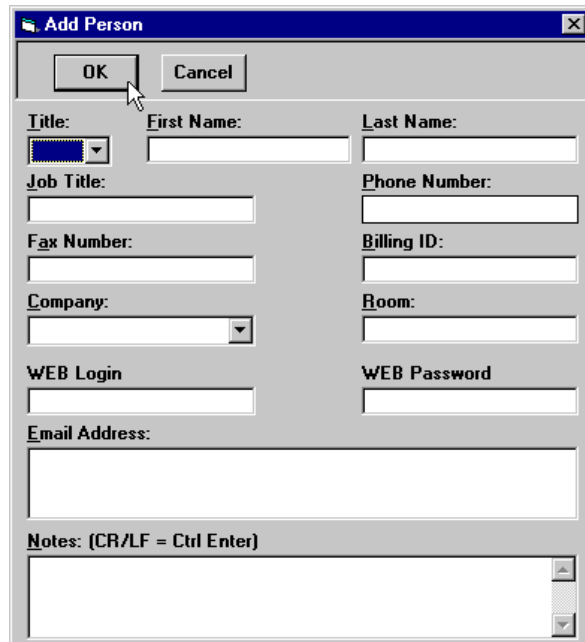
Figure 24. **Add Person Window**

Adding a Site

1. From the main window, click [Site icon] on the main window (or select **Site** from the **View** menu).

2. From the View Sites window, notice there is a listing for **External-1**. You can use that site for testing or click [+] to add one of your own.

3. When the Add Site window appears, enter a unique name for a site you want to add. Duplicate site names are not permitted.
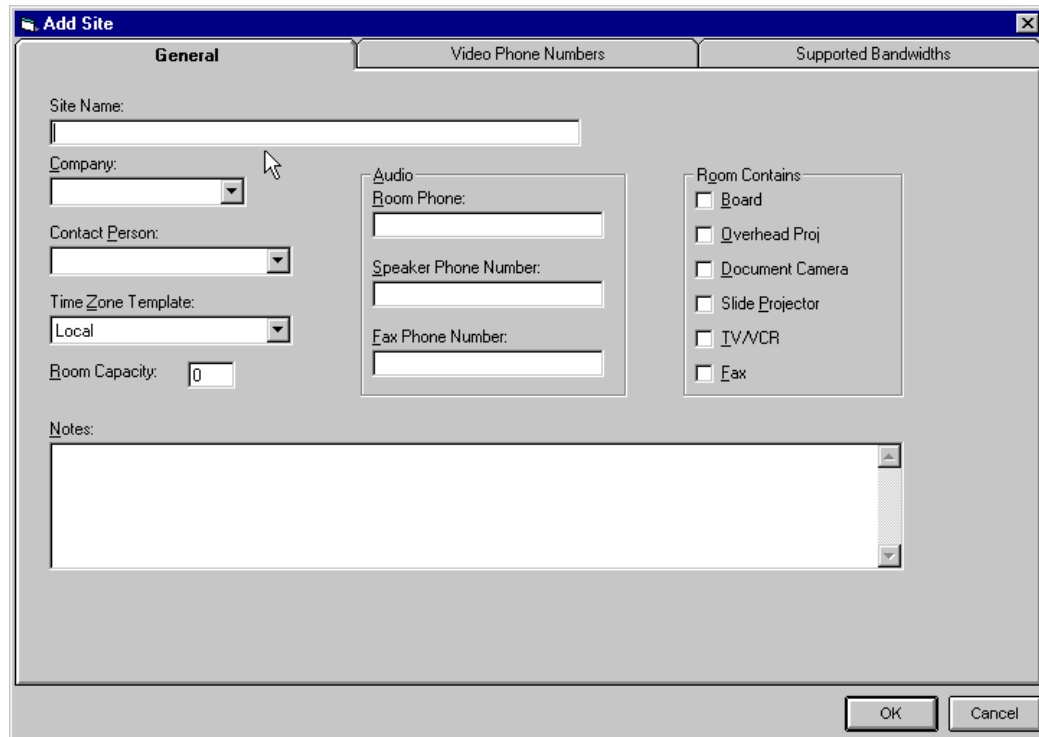
Figure 25. **Add Site Window (General Tab)**

4. Click the **Video Phone Numbers** tab and enter the relevant information.

➡ NOTE:

If adding an external site, select a Meet-Me Extension Pool but do not assign a dialout number to it. Dialout numbers for external sites are assigned through the Site Options window when a conference is scheduled.

5. Click the **Supported Bandwidths** tab. From the drop-down menu, choose **Endpoint1**, the default, or another endpoint you added. If you chose **Endpoint1** make sure **2B 112K** is selected on the *Supported Bandwidths* window.

6. Click **OK** to add the site to the Site database.

Editing Defaults

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

2. From the View Defaults window, click 🖌 .

3. From the Edit Defaults window, be sure to select the correct time zone under *CRCSs Time Zone Template* and MCU **1** as the *Preferred MCU*.

Adding a Test Conference

1. To test CRCS, click 🖥 then select the **Today's Conference** from the drop-down menu.

2. From the View Today's Conferences window, click ➕ .

3. From the Add Conference window, complete the **General** tab window by selecting the following items:

   - a convener

   - multipoint conference type

   - conference template or select **Preferred Rates** under *Speed Matching*

   - start (current time for an immediate conference) and end time

4. Highlight **External-1** (or the site you added), **Audio Add-on 1**, and **UCC** (if available) on the *Qualifying Sites* column and use the right arrow to move them to the *Selected Sites* column.

5. Click **OK** to submit the conference.

6. On the MCU MT, perform a **list conference** to see if the conference appears.

Testing OpCenter

To test the OpCenter connection, follow these steps:

1. If the Login window is not already displayed, select **Start**—**Lucent Technologies CRCS**—**Conference Scheduler**.

2. From the CRCS Login window, click **Login**.

3. Enter your login name and password.

4. Click **OK**.

5. Schedule a test conference to begin immediately and make sure that it downloads to the MCU.

6. From the **OpCenter** menu on the Main window, select **Show**.

7. Choose **MCU1** or **MCU 2** from the drop-down menu (whichever MCU is hosting the scheduled conference).

8. From the MCU Status Board, check to see if the conference appears.

9. *Right* click on the conference to display the pop-up menu.

10. Select **Details** to display the Conference Details window.

11. Confirm the test conference settings, bandwidth, convener, sites, etc.

12. Close the Conference Details window and MCU Status Board by clicking the **x** on the right side of the title bar.
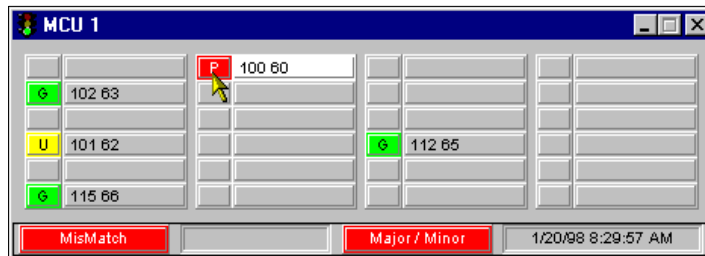
Figure 26. **Testing OpCenter—MCU Status Board**

Faxmodem Installation

To use CRCS fax options, one or more faxmodems must be properly installed and configured. The type of faxmodem recommended by Lucent Technologies depends on operating system used for CRCS—Microsoft Windows 95 or Microsoft NT 4.0.

When installing a faxmodem on a CRCS PC that manages two MCUs, connect to COM3 or COM4. This requires either an internal modem or an external modem

Windows 95

The following faxmodem recommendations are for Microsoft Windows 95 systems:

- US Robotics Sportster 33.6 Faxmodem (internal or external)
- Puredata SatisFAXtion 400/400e Faxmodem (only recommended for upgrades of CRCS)

Windows NT 4.0

The following faxmodem recommendations are for Microsoft Windows NT 4.0 systems:

- US Robotics Sportster 33.6 Faxmodem (internal or external)
- Zoom Faxmodem VFX28.8 (only recommended for upgrades of CRCS)
- Multitech MT1932ZDX (only recommended for upgrades of CRCS)

⇒ NOTE:
Lucent Technologies recommends the US Robotics Sportster 33.6 Faxmodem for all new CRCS installations regardless of platform. However, if you have one of the other faxmodems installed from a previous release of CRCS, you may use it with CRCS 6.0. Follow the instructions in the previous *CRCS Installation* manual for instructions on installing the Puredata SatisFAXtion faxmodem. For all the other modems, follow the manufacturer's instructions to install.

Installing WinFax PRO 8.0

If you are upgrading from an earlier release of CRCS that uses WinFax PRO 7.5, CRCS 6.0 will also support that software version and the faxmodems installed according to the instructions found in the *CRCS Installation* manual that came with your previous release.

> ➡ **NOTE:**
> WinFax 7.5 is only compatible with Microsoft Windows 95 platforms; use WinFax 8.0 if installing on a Microsoft Windows NT 4.0 workstation.

1. Install your faxmodem according to manufacturer instructions and connect to COM2.

> ➡ **NOTE:**
> If CRCS is managing two MCUs, install the faxmodem on COM3 or COM4. This requires either an internal modem or installation of a serial card to use an external modem.

2. Close all programs and insert the WinFax PRO 8.0 CD-ROM into your CRCS PC.

3. If AutoPlay is enabled, the program loads automatically. Otherwise, run **setup**.

4. Select the **INSTALL WINFAX PRO** option.

5. Select **INSTALL NOW**.

6. Read the licensing agreement and click **Next**.

7. Read the Introduction screen and click **Next**.

8. From the *WinFax PRO Setup - User Information* window, enter your name and company and click **Next**.

9. From the *WinFax PRO Setup - Installation Type* window, select **Typical Installation** and click **Next**.
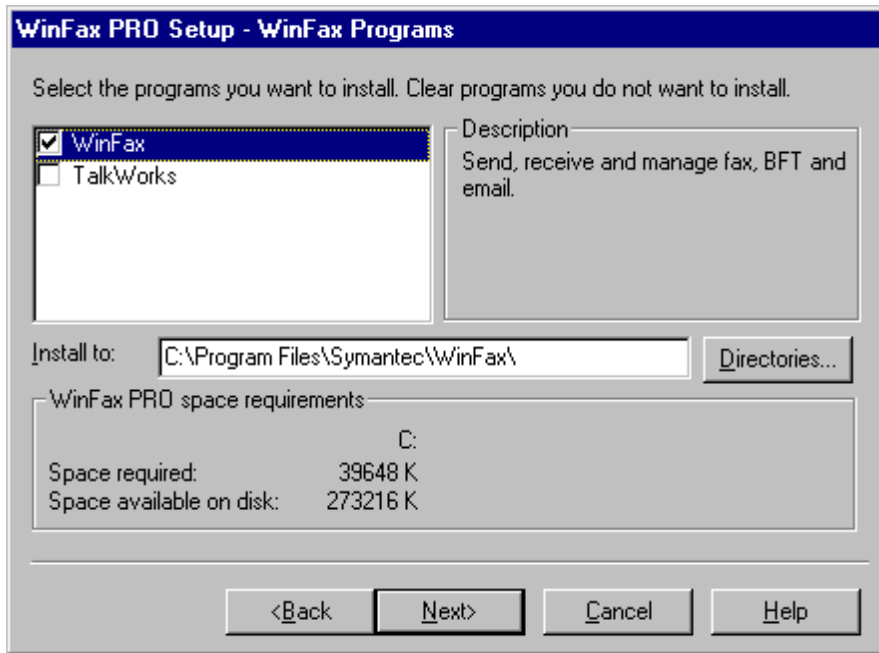
Figure 27. **Setting Up WinFax PRO**

10. From the *WinFax PRO Setup - WinFax Program* window, clear the **Talk-Works** component but keep **WinFax** checked. Change the installation directory as desired and click **Next**

.
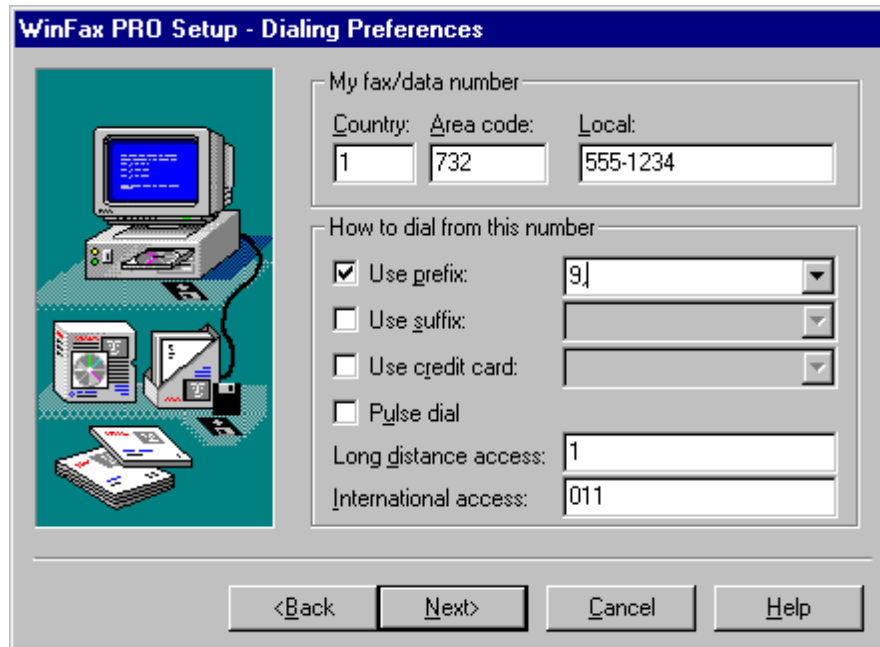
Figure 28. **WinFax PRO Setup—Dialing Preferences**

11. From *WinFax PRO Setup - Dialing Preferences* window, enter the fax and phone information. If you need to dial a number to reach an outside line, enter it in the **Use prefix** edit box. When complete, click **Next**.

12. From the *WinFax PRO Setup - Modems* window, select the modem that you installed from the section *Installing a Modem* and click **Next**.

13. From the *WinFax PRO Setup* window, make sure that the modem is connected and power is on then click **Next**. The program will check that your modem is installed properly.

14. After the installer verifies your modem is working, click **Next**.

⇒ **NOTE:**
If you have a previous version of WinFax already installed, the installer will notify you that it is installing over the previous version. Follow the instructions provided on screen.

15. From the *WinFax PRO Setup - Install Microsoft Exchange* window, CRCS 6.0 does not require Microsoft Exchange. Click **Next**.
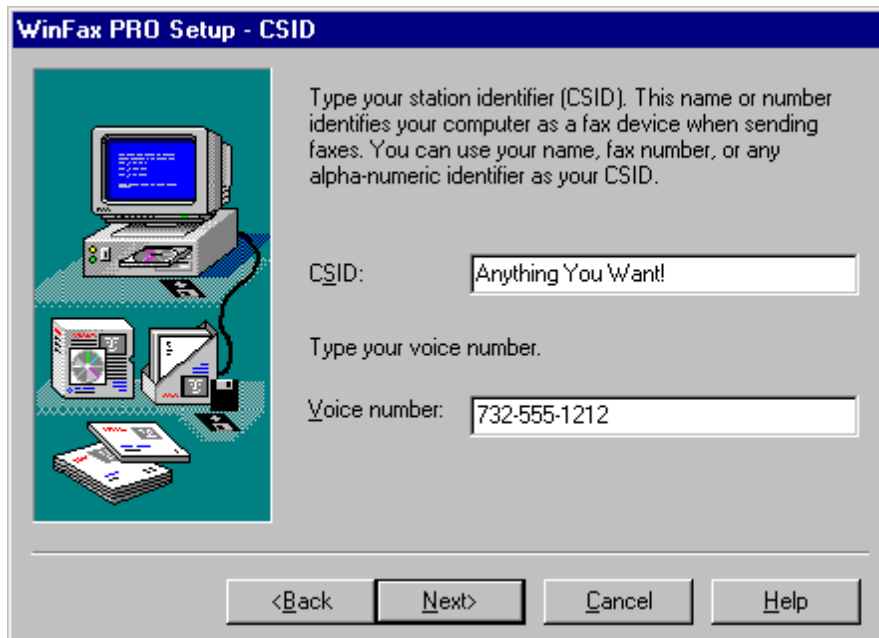
Figure 29. **WinFax PRO Setup—CSID**

16. From *WinFax PRO Setup - CSID* window, enter any combination of text and numbers for the Class ID (CSID). Enter your voice phone number in the *Voice number* field and click **Next**.

17. From the *WinFax PRO Setup - Default Printer* window, select **No** and click **Next**.

18. For Windows NT 4.0 installations only: From the *WinFax PRO Setup - NT Service* window, enter the password for the account that was used to log on and click **Next**.

19. From *WinFax PRO Setup - Program Group* window, the new program group is listed as it will appear in the start bar and click **Next**.

20. If you want to register WinFax PRO online, from the *WinFax PRO Setup - Online Registration* window, select **Yes**. If not, select **No**.

21. The finish screen appears. Click on **Finish** and the installer will put WinFax PRO onto the CRCS PC.

22. If you selected **Yes** to register WinFax online, the installer will prompt for information and then attempt to send it over the modem.

23. When prompted to restart the computer, select **restart**.

24. For Windows NT installations, log on as the same user.

Saving Faxes with WinFax Log Files

WinFax PRO saves faxes you send, even when they are not successfully transmitted. A list of sent faxes appears in the WinFax Send Log. If you no longer need copies, periodically delete them to free up the disk space. You can also set WinFax PRO to automatically delete old faxes for you as follows:

1. Start WinFax PRO and choose **Setup** then **Program**.

2. Click the **Log** button on the Program Setup window.

3. From the Log Setup window, check the **Enable** item under **Automatic Event Deletion**.

4. Choose **All Events**.

5. Enter a number in the *Age by* box (the number represents how old in days the faxes are being deleted). For example, enter **7** to delete all faxes that are at over a week old (8 days). The deletion occurs automatically when you start WinFax.

6. Under **Delete**, choose **Events and Pages**.

7. Select **OK** on the Log Setup and Program Setup windows.

Setting Up Reminder Faxes

The reminder fax option for CRCS gives you the ability to send reminder faxes to conveners. CRCS also controls when those faxes are transmitted. An admin level login is required to administer this option if it is provisioned.

1. Log into CRCS.

2. From the **Admin** menu on the Main window, select **Reminder Fax Options**. (If this option is dimmed it is not provisioned for your CRCS).

3. Click on **Enable the sending of reminder faxes for Convener**. To disable this feature, click **Disable**.

4. Type or scroll to a value between **1** and **14** to set the number of days before a conference begins that the reminder should be sent.

5. Type or scroll to a time the fax reminder should be sent to the recipient (convener). The line below this setting confirms the date and time selected.

⇒ **NOTE:**
Sending fax reminders consumes a substantial portion of CRCS resources. Try to have faxes transmitted during a time when CRCS is not needed for other activities (late evening/early morning). It is best not to use CRCS for making reservations while fax reminders are being sent.

6. Select **OK** to save the fax reminder settings.

OpCenterSP Installation

➡ **NOTE:**

If your system encounters a conflict with another application while running setup, make sure all other Windows applications are closed before proceeding. If no other program is running when a conflict is reported, remove OpCenterSP and related programs, including Link Manager, from your Windows **Startup** group and reboot your PC before trying setup again.

1. Setup your OpCenterSP PC as described under "Pre-Installation Requirements" on page 5 and configure the PC according to "Configuring the PC" on page 7.

2. Complete the OpCenterSP PC to MCU connections as described in "Connecting the PC to the MCU" on page 9 by connecting the power cord and plug, inserting the mouse cord in an available COM port or installing the bus mouse, and turning on the power.
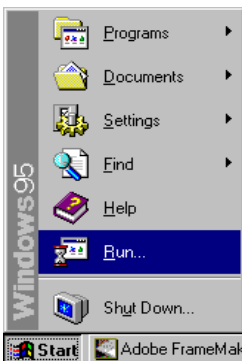
Figure 30. **Loading OpCenterSP Software**

3. Insert the CRCS CD-ROM.

4. From the Windows desktop, click **Start**—**Run...**.

5. From the Run window, click **Browse** to locate the CRCS CD-ROM setup program or type the letter assigned to the CD-ROM driver followed by a colon (:), a backslash (\), and the word **setup.exe**. For example: **g:\setup.exe** would be the entry if the CRCS CD-ROM was inserted in drive g. Click **OK**.
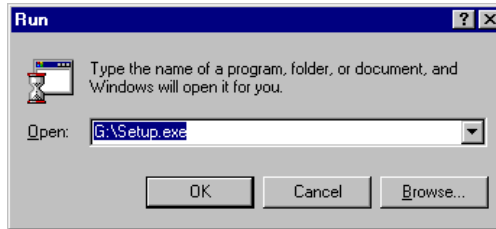
Figure 31. **Entering the Location of the CRCS CD-ROM**

6. When the OpCenterSP setup wizard window appears, click **Next**.

7. When the product identification window appears, enter your name, company, and OpCenterSP serial number. Click **Next**.

8. From the Select Component window, select to install **OpCenter** and **ODBC** drivers. Click **Next**.
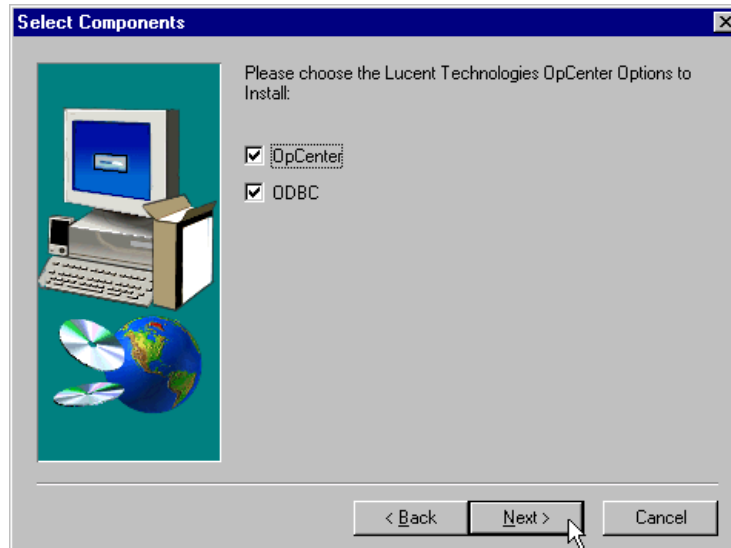
Figure 32. **OpCenterSP Setup—Select Components**

9. From the Choose Destination Location window, OpCenterSP offers install to a path called **c:\program files\lucent\opcenter**. If there is no directory by that name, it will create one for you. You can also change the destination drive by replacing **c:** with the appropriate drive letter. Click **Next**.
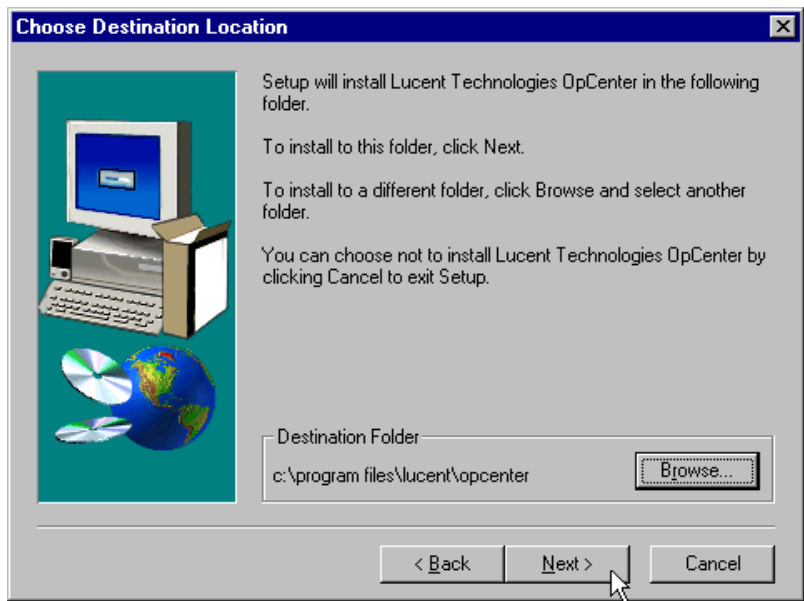
Figure 33. **OpCenterSP Setup—Choose Destination Location**

10. From the Start Copying Files window, the setup wizard displays the selected components to be copied. Click **Next**.
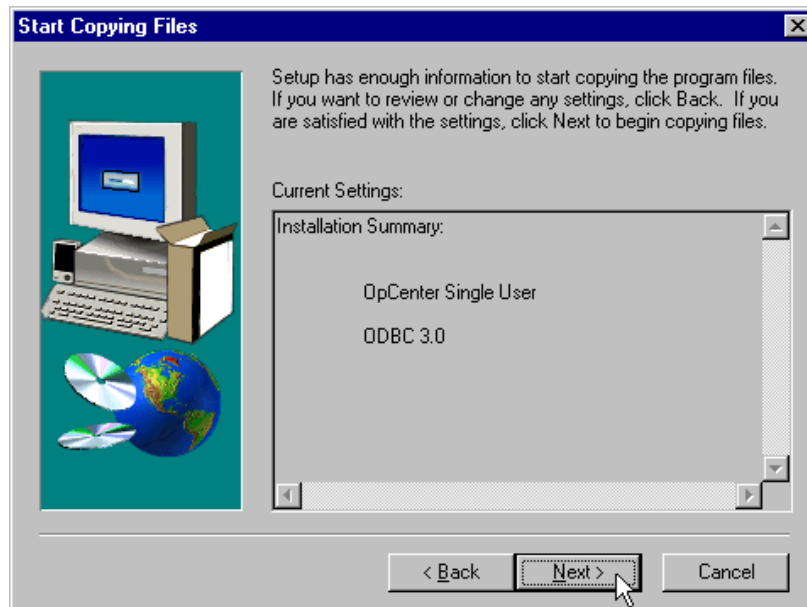
Figure 34. **OpCenterSP Setup—Copying Files**

11. The copying process begins.

12. When the installation process is complete, select to reboot your PC then click **Finish**.

Figure 35. **OpCenterSP Setup—Restart PC**

Testing OpCenterSP

OpCenterSP login names and their associated passwords are assigned by the system administrator. The default logins, **admin** and **agent**, also have default passwords (available from your Lucent representative) associated with them. If you choose to keep the login names **admin** and **agent**, be sure to change the default passwords for both of them for security reasons. However, any additional logins you add do not require a password.

1. If the Login window is not already displayed, select **Start**—**Lucent Technologies OpCenter**—**OpCenter**.

2. From the OpCenterSP Login window, click **Login**.

3. Enter your login name and password.

4. Click **OK**.

5. From the Link Administration window, set up each MCU.
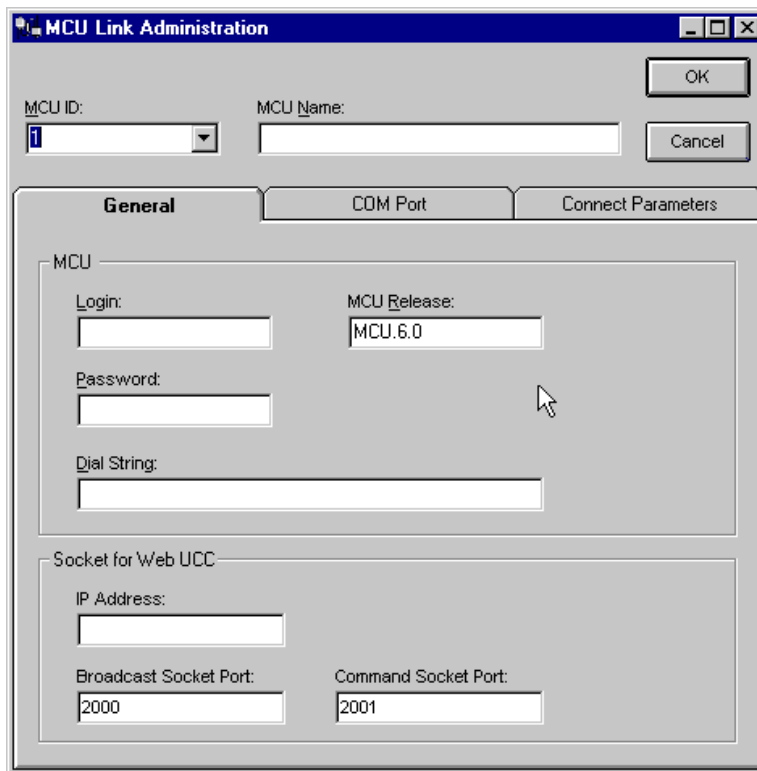
Figure 36. **MCU Link Administration Window**

6. Click **OK** and the **MCU1** and/or **MCU 2** Status Boards will appear.

7. To test the OpCenterSP link, try entering a dedicated conference on the MCU MT and watch the appropriate MCU Status Board for an update regarding the test conference.
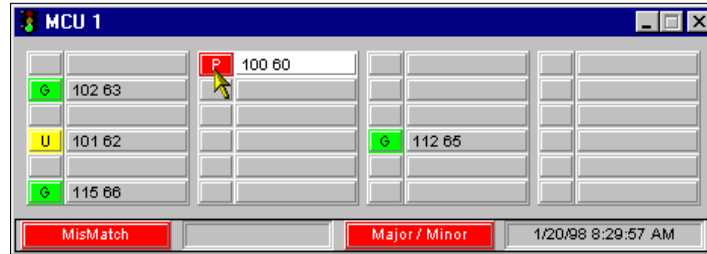
Figure 37. **Testing OpCenterSP—MCU Status Board**

Appendix A: Modem Pooling

Administering Modem Pool Groups

The commands in the following table are used to access the Modem Pool Groups form:

Table 1. **Modem Pool Groups Command**

Action	Object	Qualifier
add	modem-pool num	1 to maximum
change	modem-pool num	1 to maximum
display	modem-pool num	1 to maximum, print or schedule
list	modem-pool num	print or remove
remove	modem-pool num	1 to maximum

Qualifier "maximum" is the maximum number available in your system configuration.

To change information associated with modem pool groups, follow these steps:

1. From the MCU MT, at the command prompt enter **change modem-pool num**.

2. Verify the screen displays the Modem Pool Groups form.

3. Use TAB and RETURN to advance to the fields you want to change.

4. Submit the form.

5. To verify the form, enter **display modem-pool** *num*.

```
display modem-pool 1
                              MODEM POOL GROUP

                   Group Number: 1                       Group Type: combined
                     Modem Name: REMOTE             Hold Time(min): 5
                 Time Delay(sec): 0                      Direction: two-way
  Answer Supervision Timeout(sec): 0

          Speed: 9600               Duplex: full    Synchronization: async

PORT PAIR ASSIGNMENTS
    Analog  Digital      Analog Digital      Analog Digital      Analog Digital
1: 01A1001  01A0901   9:              17:              25:
2:                    10:              18:              26:
3:                    11:              19:              27:
4:                    12:              20:              28:
5:                    13:              21:              29:
6:                    14:              22:              30:
7:                    15:              23:              31:
8:                    16:              24:              32:



Command:
```

Figure 38. **Display Modem-Pool Screen**

The following list describes the fields on the Modem Pool Groups form:

- Group Number: This display-only field appears whenever the form is accessed via **add** or **change** administration command.

- Group Type: Enter **combined**.

- Hold Time (min): Enter the maximum number of minutes (**1** through **99**) that a conversion resource in the group may be held while a call waits either in a queue or reserved after Data Call Preindication. Default is **5**.

- Modem Name: Enter a 1 to 6 alphanumeric character string to indicate the name of the modem pool (preferably "ResCen" for ResCenter and "OpCen" for OpCenter).

```
add modem-pool 1                                        Page   1 of   1
                            MODEM POOL GROUP

                    Group Number: 1              Group Type: combined
                    Modem Name: REMOTE          Hold Time(min): 5
                 Time Delay(sec): 0             Direction: two-way
    Answer Supervision Timeout(sec): 0

            Speed: 9600            Duplex: full   Synchronization: async

PORT PAIR ASSIGNMENTS
      Analog  Digital       Analog Digital      Analog Digital        Analog Digital
1: 1a1001   1a0901    9: _____ _____  17: _____ _____   25: _____ _____
2: _____  _____  10: _____ _____  18: _____ _____   26: _____ _____
3: _____  _____  11: _____ _____  19: _____ _____   27: _____ _____
4: _____  _____  12: _____ _____  20: _____ _____   28: _____ _____
5: _____  _____  13: _____ _____  21: _____ _____   29: _____ _____
6: _____  _____  14: _____ _____  22: _____ _____   30: _____ _____
7: _____  _____  15: _____ _____  23: _____ _____   31: _____ _____
8: _____  _____  16: _____ _____  24: _____ _____   32: _____ _____
```

Figure 39. **Add Modem-Pool Screen**

The following fields may be assigned for the Combined Modem Pooling solution:

- Speed: Enter one, two, or three communication speeds in bits per second of the conversion resources in the group. Speeds include **LOW**, **0** to **300** blind sampled, **300**, **1200**, **2400**, **4800**, **9600**, or **19200**. Separate entries with more than one speed with slashes (for example, **300/1200/2400**, which indicates a maximum of three running speeds). For CRCS connectivity, enter **9600**. Default is **LOW/300/1200**.

- Duplex: Enter **full** or **half** to indicate the duplex mode of the conversion resources in the group. For CRCS connectivity, enter **full**. Default is **full**.

- Synchronization: Enter **sync** or **async** to indicate the synchronization mode of the conversion resources in the group. For CRCS connectivity, enter **asynch**. Default is **async**.

The Port Pair Assignments area contains the following field:

- Analog Digital: Enter the port numbers of the modem/TDM pair in a conversion resource. Two port entries are required. Include seven characters for each entry. Use the following values

Table 2. **Port Assignments**

Character Position	Meaning	Value
1-2	cabinet number	01 through 03
3	carrier	A through E
4-5	slot number	01 through 20
6-7	circuit number	01 through 32

3800 Series Modem Installation

3810

The 3810 modem should be installed in permissive mode. Insert a 4-conductor modular plug into the jack labeled DIAL/LEASED (3820). The following table shows the 3810 option settings for 9600 bps:

Table 3. **3800 Series Modem Installation**

Activ (Operating)	Option	Selection	AT Command
DTE_Interface	Asynch/Sync Mode	Async	AT&M..
	Async DTE Rate	9600	AT..
	Asyn #Data Bits	8	AT..
	Asyn Parity Bit	None	AT..
	Asyn #Stop Bits	1	AT..
	DTR Action	Stndrd_RS232	AT&D..
	DSR Control	Stndrd_RS232	AT&S..
	RTS Action	Ignore	AT&R..
	CTS Control	Forced_On	AT\D..
	RTS/CTS Delay	0 msec	S26=0
	LSD Control	Stndrd_RS232	AT&C..
	Tx Clock Source	Internal	AT&X..
	Bakup_TXC1k_Src	Internal	
	CT111_Rate Cntl	Disable	S61=0
	DTE_Rate=VF	Disable	S90=0

Table 3. **3800 Series Modem Installation** — *Continued*

Activ (Operating)	Option	Selection	AT Command
DTE_Dialer	DTE Dialer Type	AT	AT&M..
	AT Escape Char	128	S2=128
	Escape GuardTime	1000 msec	S12=50
	BreakForceEscape	Disable	AT\K..
	CommandCharEcho	Disable	ATE..
	CarriageRtn Char	13	S3=13
	Backspace Char	8	S5=8
	Linefeed Char	10	S4=10
	Result Codes	Enable	ATQ..
	ExtendResltCode	Use_DTE_Rate	ATX..
	ResultCode Form	Numbers (2)	ATV..
	V25bis Coding	ASCII	S62=0
	V25bis IdleFill	Mark	S63=0
	V25b NewLineChr	CR+LF	S64=0
	AT Cmnd Mode	Normal	S84=0

Table 3. **3800 Series Modem Installation** — *Continued*

Activ (Operating)	Option	Selection	AT Command
Line_Dialer	AutoAnswerRing#	1	S0=1
	Dialer Type	Tone	ATT ATP
	DialTone Detect	Enable	ATX..
	Blind Dial Pause	2 sec	S6=2
	BusyTone Detect	Enable	ATX..
	BusyTone Pause Time	2 sec	S8=2
	NoAnswer Timout	45 sec	S7=45
	Fast Disconnect	Disable	S85=0
	Line Crnt Disc	Enab (>8 msec)	S65=0
	Long Space Disc	Disable	ATY..
	No Carrier Disc	2000 msec	S10=20
	No Data Disc	Disable	AT\T..
	NoDataDiscTrig	TXD and RXD	S80=0
	MakeBusyVia DTR	Disable	S69=0
	MI/MIC Dialing	Disable	S83=0
Dial_Line	Dial Line Rate	9600	S41=3
	V32bis Automode	Enable	S78=0
	V32bis Autorate	Enable	S76=0
	Dial Tx Level	Permissv (-9)	AT&I/&J
	V22b Guard Tone	Disable	AT&G..
	V32bis Train	Long	S43=0
	FallFwdDelay	Disable	

Table 3. **3800 Series Modem Installation** — *Continued*

Activ (Operating)	Option	Selection	AT Command
Leased_Line	Leased Mode	Disable	AT&L..
	LeasedLine Rate	19200 (V32t)	S44=18
	V32bis Autorate	Enable	S82=0
	Leased TX Level	0 dBm	S45=0
	BdLn Auto Orig	Disable	S46-0
	Rate Auto Orig	Disable	S36=0
	Auto Redial	Dir 1	S37=0
	AutoDialStandby	Disable	S47=0
	CarrierOn Level	-43dBm	S48=0
	V29 TrainOnData	Disable	S92=0
	FallFwdDelay	Disable	
V42/MNP/Buffer	Err Contrl Mode	V42/MNPorBfr	AT\N..
	V42bis Compress	Enable	AT"H..
	MNP5 Compress	Disable	AT%C..
	EC Negotiat Bfr	Disable	AT\C..
	EC Fallbck Char	13	AT%A..
	Flw Cntl of DTE	CTS_to_DTE	AT\Q..
	Flw Cntl of Mdm	Disable	AT\Q..
	XON/XOFF Psthru	Disable	AT\X..
	Mdm/Mdm FlowCtl	Disable	AT\G..
	Break Buffr Ctl	Keep_Data	AT\K..
	Send Break Cntl	Data_First	AT\K..
	TXBuffDiscDelay	10 sec	S49=10
	RXBuffDiscDelay	Disable	S39=0
	Max Frame Size	256	AT\A..
	ARQ Window Size	Auto Adjust	S89=0
	CellularEnhance	Disable	S91-0

Table 3. **3800 Series Modem Installation** — *Continued*

Activ (Operating)	Option	Selection	AT Command
Test	DTE RL (CT140)	Disable	S51=0
	DTE LL (CT141)	Disable	S52=0
	Test Timeout	Disable	S18=0
	Rcv Remote Loop	Enable	AT&T..
	V54 Address	Disable	S53=0
	V54 Device Type	Peripheral	S54=0
Misc	StrapsWhenDisc	No_Change	S88=0
	Speaker Control	OnUntilCarr	ATM..
	Speaker Volume	Medium	ATL..
	Access frm Remt	Enable	S55=0
	Dir#1_Callback	Disable	S67=0

If you begin with the Async_Dial Factory default option settings, then the AT commands and Diagnostic Control Panel LCD command sequences to option the options are as shown in the following list:

- Clear options/registers to factory default: &F0 (Configure/Factory)

- DTR call control is enabled: &D2 (Configure/Edit/DTE Interface)

- DSR tracks data set ready: &S1 (Configure/Edit/DTE Interface)

- Numeric form (2) of result codes is enabled: V2 (Configure/Edit/DTE Dialer)

- Extended Result Codes set to Use_DTE_Rate: X7 (Configure/Edit/DTE Dialer)

- Long space disconnect is disabled: Y0 (Configure/Edit/Line Dialer)

- MNP5 Compress is disabled: %C0 (Configure/Edit/V42/MNP/Buffer)

- Dial Line Rate is set to 9600 bps: S41=3 (Configure/Edit/Dial Line)

- Disable the AT Escape Char option: S2=128 (Configure/Edit/DTE Dialer)

- Command echo is disabled: E0 (Configure/Edit/DTE Dialer)

- Store option/register changes to Active(Save): &W0 (Configure/Save)

The recommended order of execution of AT commands if executed one at a time is as listed above due to the loss of command echo towards the bottom of the list. Alternatively, the single command "AT&F0 &D2 &S1 V2 X7 Y0 %C0 S41=3 S2=128 E0 &W0" can be executed.

When the 7400A data module is optioned for more than one speed it is necessary to set the modems' ExtendResltCode to "Use_DTE_Rate." One would suspect that the modems' DialTone Detect and BusyTone could be "Disable" in a modem pooling application, but using the AT command "X7" to set the ExtendResltCode to "Use_DTE_Rate" automatically enables DialTone and BusyTone Detect. That is why they are optioned as enabled here (as well as being the factory default).

To run at speeds other than 19200 bps the DTE Rate and Dial Line Rate should be changed. Note that the AT prefix determines the asynchronous DTE Rate (as well as the Number of Data Bits, Parity, and Number of Stop Bits). The corresponding LCD command sequence for DTE Rate is under Configure/Edit/DTE Interface. The AT command for Dial Line Rate is "s41=r," where **r** is the new rate. The corresponding LCD command sequence for Dial Line Rate is under Configure/Edit/Dial Line. The 3800 series modems have large buffers and perform speed conversions well.

Administrators may want to disable the AT Escape Char option. This prevents users from changing straps. This option is disabled by setting AT Escape Char to 128. The default value is 43 (i.e., a + sign).

3820

The 3820s should be installed in permissive mode. Insert a 4-conductor modular plug into the jack labeled DIAL/LEASED (3820). Option settings with equivalent AT command and Diagnostic Control Panel LCD command sequences are as provided for 3810 above.

3830

The command "at i1" displays the firmware revision number and "at i19" displays the revision number. The 3830s should be installed by inserting a 4-conductor modular plug into the jack labeled LINE. Option settings by AT commands are as provided for the 3810 above. To verify the modem settings on a 3830 since the modem does not have an LCD display panel, use the following commands:

- AT&V0 to view active (operating) configuration options
- AT&V1 to view active (saved) configuration options

7400A Data Module Installation

The 7400A data module should be installed for DTE operation by placing the EIA connector board in its slot so that DTE reads from the front.

In a single standalone DTE operation only AT-command modems may be used, therefore the AT control option should be set to ON. Option settings are shown on the following list:

It is required that 9600 speed be ON for modem pooling for CRCS.

- 300 speed = ON
- 1200 speed = ON
- 2400 speed = ON
- 4800 speed = ON
- 9600 speed = ON
- 19200 speed =ON
- AT CONTROL = ON
- CI LEAD = OFF
- CI2 LEAD = OFF
- CH LEAD = OFF
- CH2 LEAD = OFF
- LL LEAD = OFF
- REMOTE LOOP = GRANT
- RL LEAD = OFF
- SIGLS DISC = ON
- TM LEAD = OFF