

Remote Engineering and Operations (Carbon Copy)

Objectives

Upon completing these exercises, you will have an understanding of Remote Engineering and Operations behavior and will be able to

- Configure Windows NT Security for the GUS Server and GUS Client.
- Configure Carbon Copy 32 software in the GUS Server (the Host's computer).
- Install and configure Carbon Copy 32 Full Package software in the GUS Client (the Guest's computer).
- Operate Carbon Copy in a Remote Diagnostic (TAC) exercise and use its features.

Prerequisites

- Your partition sheet
- A TPS GUS configured as part of a TPS domain and an APP Node
- Honeywell TPS System Software CD-ROM

Introduction

In this course, computer pairs are assigned to two students. The computers have been configured with one as a GUS Workstation and the other as an APP Node. The Carbon Copy 32 GUS Server (Host's computer) component has already been installed with the installation of the Base GUS Software on the GUS Workstation.

- You will configure the GUS workstation as a GUS Server (Host's computer) by setting up Windows NT security and the Carbon Copy Host software so a Carbon Copy guest will have limited access to the server.
- You will install Carbon Copy 32 Full-Featured software on the APP Node so it will operate as a GUS Client (Guest's computer).
- You will then use the GUS Client to connect to the GUS Server and operate a Carbon Copy 32 link as a Guest and exercise its features.

Estimated Time to Complete: 1.25 hours

Procedures

Perform the following procedures on the GUS Workstation and APP Node.

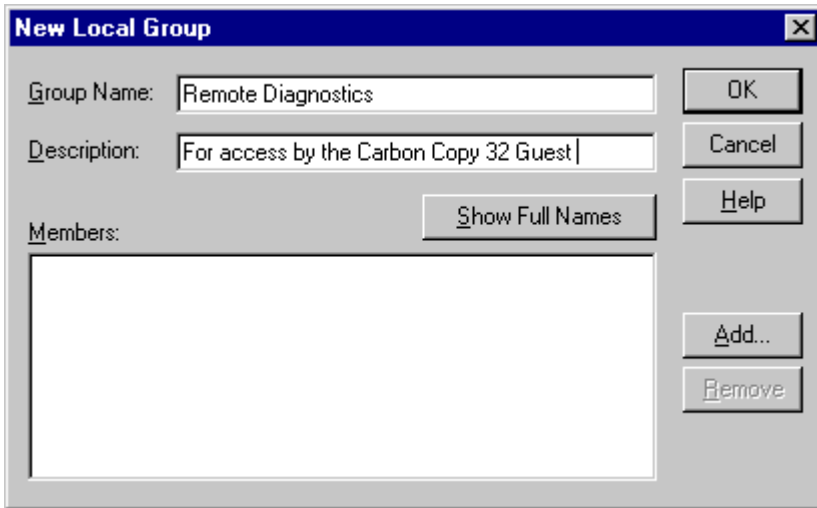
Configure a GUS Server

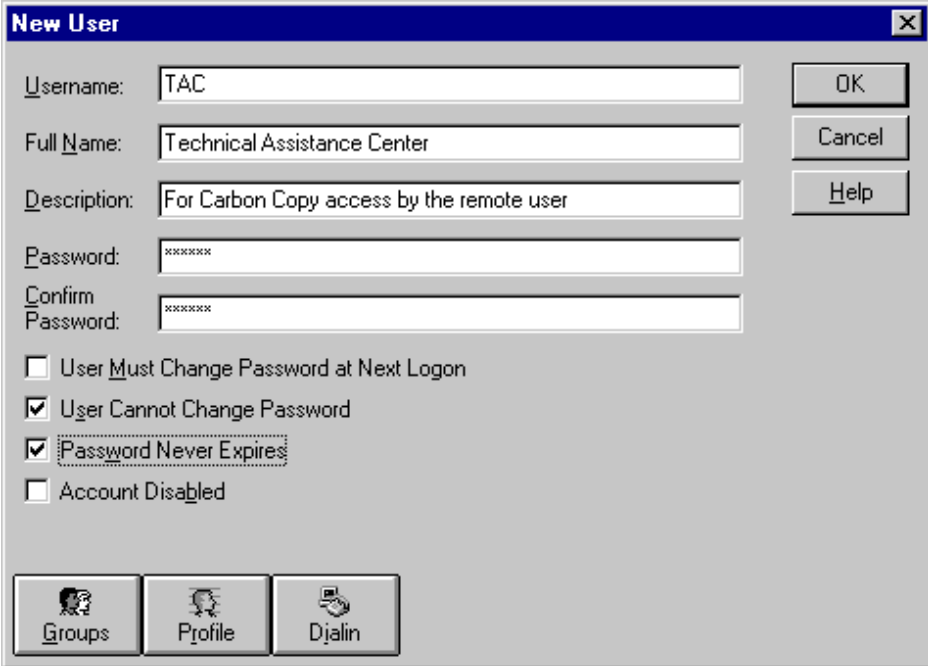
In this exercise, you will configure the GUS Server (GUS Workstation).

Setup the GUS Server (Host's) Windows NT Configuration

The Carbon Copy 32 Host (GUS Server) uses Windows NT security to authenticate a login from a Carbon Copy 32 Guest (the GUS Client).

New GUS Server user accounts can be created in the *User Manager* or one of the standard TPS user accounts (such as an Operator or Engineer account) can be used. For a lab example, we will configure an account for use in the Honeywell TAC scenario.

✓	Step	Action
Create a Remote Diagnostics Group and a Honeywell TAC User		
	1	Login to your GUS workstation as Administrator
	2	Start <i>User Manager</i> and Select the User>New Local Group menu.
	3	Create the following local group: Remote Diagnostics
	4	<p>Enter the following description: For access by the Carbon Copy 32 Guest</p> <p>The New Local Group dialog should look like this illustration.</p> 
	5	Click the OK button to close the New Local Group dialog.
	6	Create the following Local User: TAC
	7	Enter the Full Name: Technical Assistance Center
	8	Enter a clear Description: For Carbon Copy access by the remote user

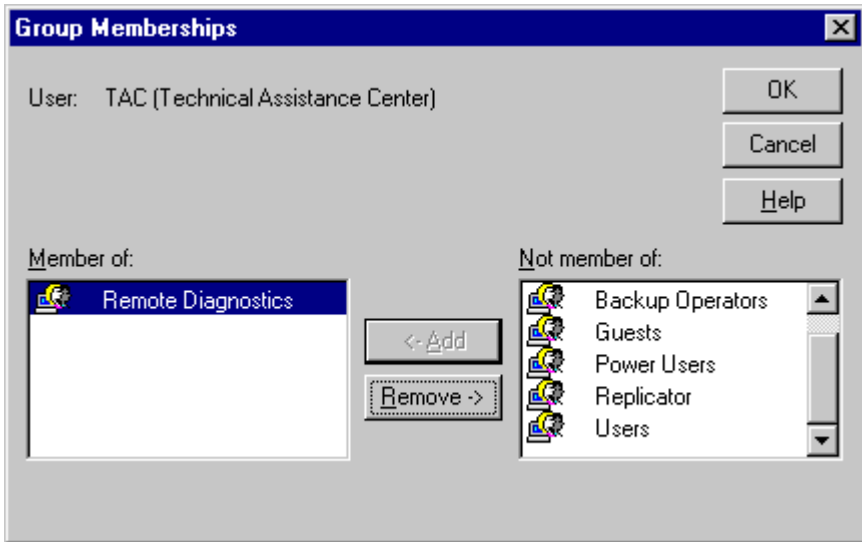
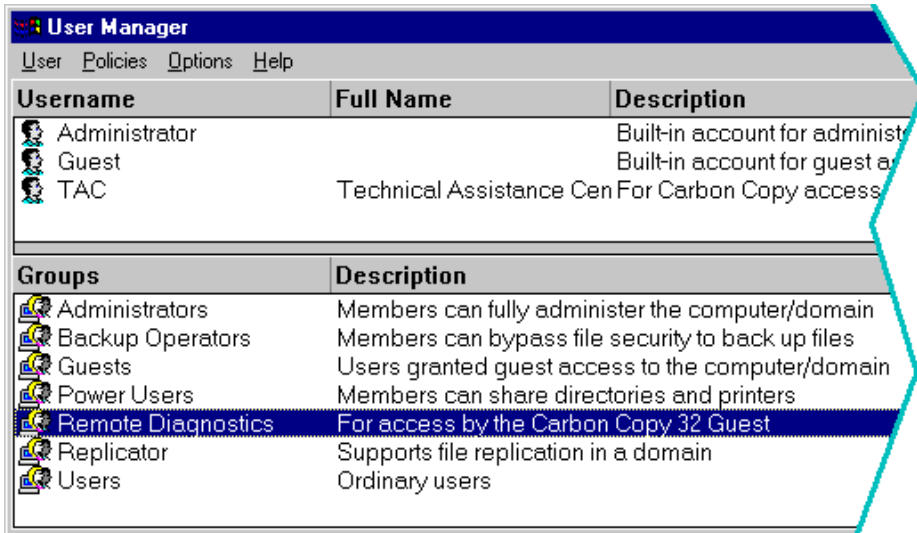
✓	Step	Action
	9	<p>Enter and confirm a Password for the TAC person to use (it is case-sensitive).</p> <p>Write your TAC password here for convenience: _____</p> <p>Leave all checkboxes unchecked except the following: Check the User Cannot Change Password box. Check the Password Never Expires box.</p> <p>The New User dialog should look like this illustration.</p> 

Configure Group Membership

This procedure removes a group containing “Users” from membership and adds the new **Remote Diagnostics** group.

Other groups not listed in these illustrations may have already been configured—leave them as they were configured. At this time, we are concerned with only the membership of the *Users group* and the *Remote Diagnostics group*.

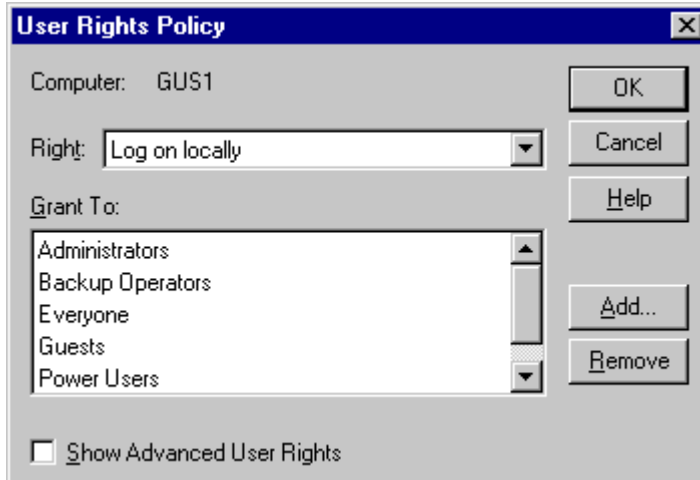
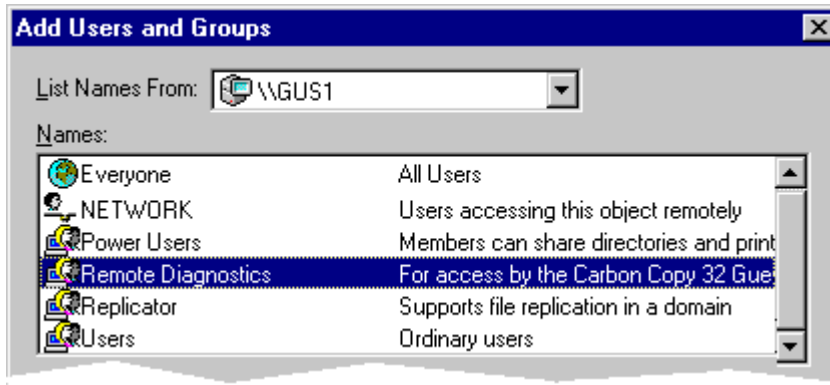
✓	Step	Action
	1	<p>Click the Groups button.</p> <p>Result: The Group Membership dialog opens. Go on to the next task.</p>
	2	<p>In the Group Membership dialog, check to see if Users is in the Member of list. If so, remove it by double-clicking it.</p>

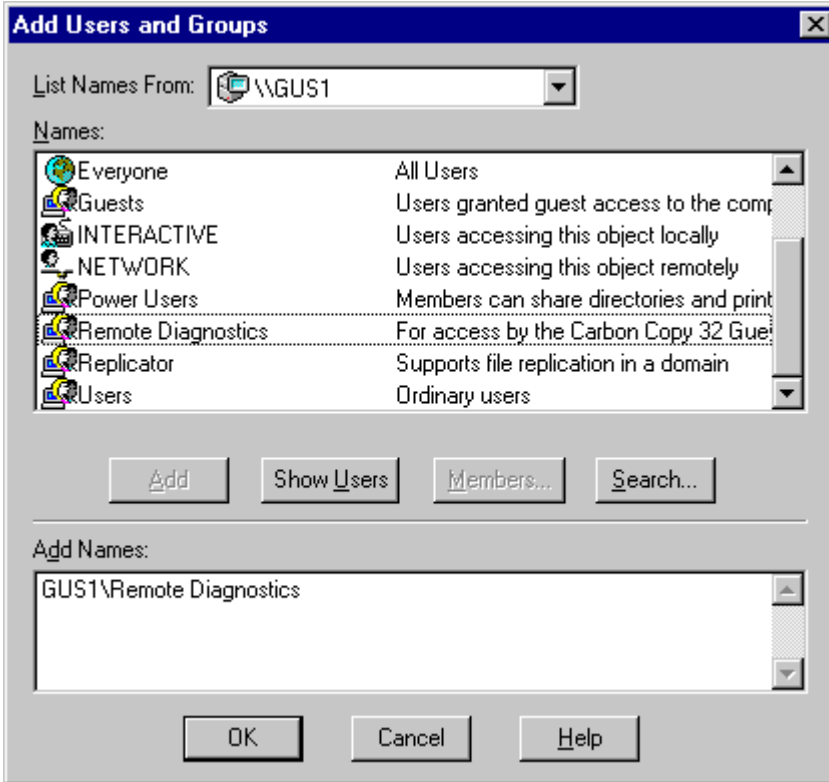
✓	Step	Action
	3	<p>Find the Remote Diagnostics group in the Not Member of list and double-click it.</p> <p>Result: Remote Diagnostics moves to the Member of list. The Group Membership dialog should look like this illustration.</p> 
	4	<p>Click the OK button to close the Group Memberships dialog.</p> <p>Result: The New User dialog remains.</p>
	5	<p>Click the OK button.</p> <p>Result: the <i>New User</i> dialog closes and the <i>User Manager</i> dialog remains. The <i>User Manager</i> dialog now contains a TAC user and a Remote Diagnostics group as shown below.</p> 
	6	<p>Go on to the next task.</p>

Configure GUS Server User Rights Policy

This procedure configures the “rights of” the members of our Remote Diagnostics group to log on locally *to this particular* GUS workstation. At present, we have configured only a Honeywell TAC user as a member of this group. At your site, you could make other groups (examples: Remote Maintenance, Remote Engineers, and Remote Operators), then give those groups the “rights” you want them to have.

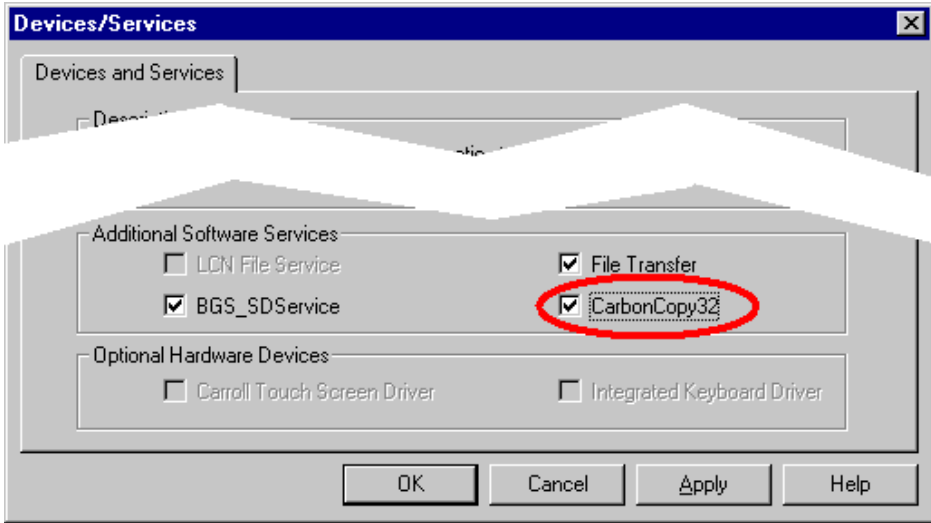
Notice the *User Manager* dialog is still open when you start this procedure.

✓	Step	Action
	1	<p>Select the Policies> User Rights menu.</p> <p>Result: The User Rights Policy dialog opens.</p>
		<p>From the Right pop-down list, select Log on Locally.</p> <p>Result: The dialog box looks something like this. Note the computer name of your GUS Server (your GUS workstation) is at the top.</p> 
	2	<p>Click the Add button. Result: The Add Users and Groups dialog opens.</p>
	3	<p>From the List Names From pop-down menu at the top of the dialog, select the computer name of the GUS Server (it is GUS1 in this example).</p> 
	4	<p>In the Names list, select the Remote Diagnostics group.</p>

✓	Step	Action
	5	<p>Click the Add button.</p> <p>Result: The Remote Diagnostics group is now listed as shown at the bottom of this graphic.</p> 
	6	<p>Click the OK button to close the Add Users and Groups dialog.</p> <p>RESULT: The User Rights Policy dialog is shown again.</p>
	7	Verify that the Remote Diagnostics group is now listed.
	8	Click the OK button to close the User Rights Policy dialog.
	9	Close the <i>User Manager</i> .

Verify Honeywell Configuration Starts the GUS as a Service

Here we verify that your Carbon Copy 32 software has been set to startup as a service.

✓	Step	Action
	1	From the Start>Programs>Honeywell TPS>Configuration Utility menu, open the Configuration Utility. Result: The Configuration Utility window opens.
	2	From the Configure menu, select Devices/Services . Result: The <i>Devices/Services</i> dialog opens.
	3	See if Carbon Copy is checked in the Additional Software Services area. If checked, click Cancel , exit Configuration Utility, and go on to the next task. If not checked, continue to Step 4. 
	4	Check the box as shown in the illustration above, then click OK and exit the Configuration Utility.
	5	Shutdown and Restart your computer.
	6	Logon as Administrator.
	7	Reload the Native Window with the GUS personality.

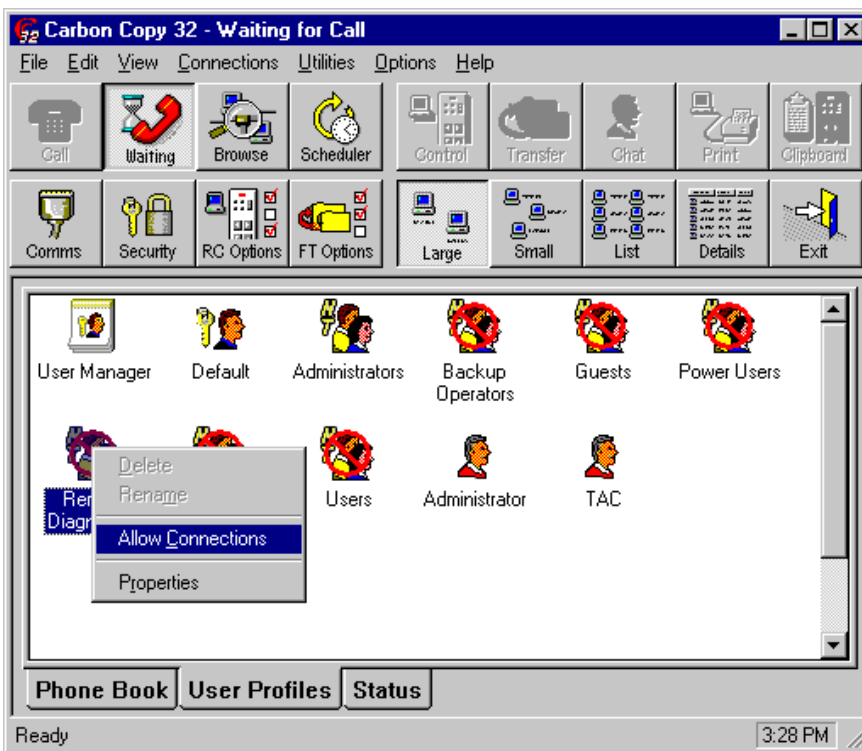
Setup Carbon Copy 32 for Use on the GUS Server (Host)

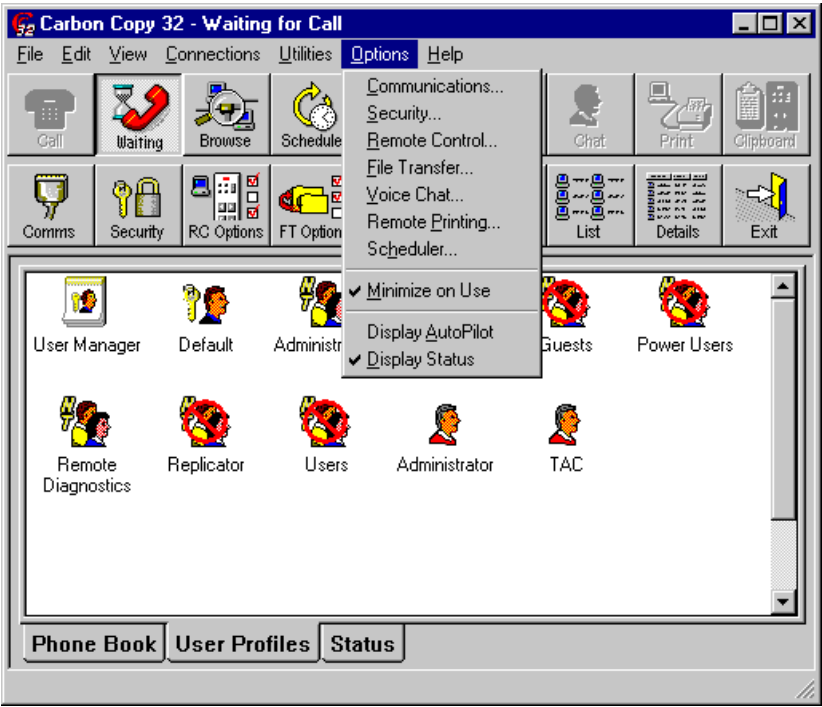
Carbon Copy has several features that can be set or restricted depending upon the way it will be used. The settings you will put in place here are intended to satisfy the requirements of this course and may be different in “real world” situations.

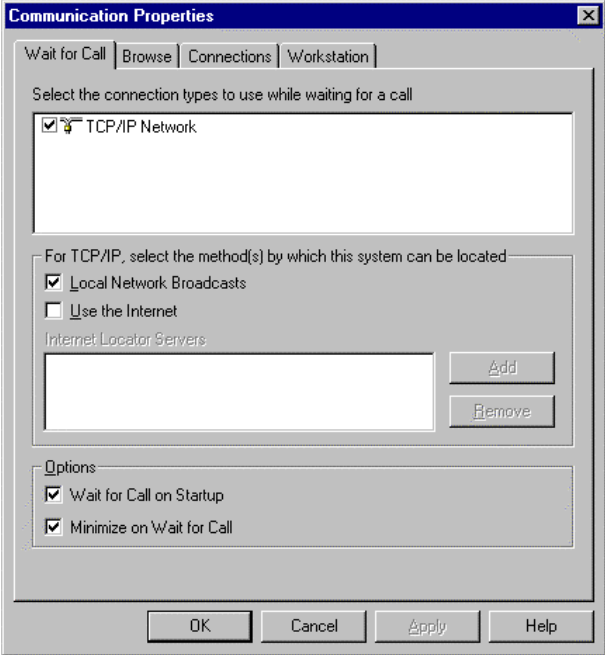
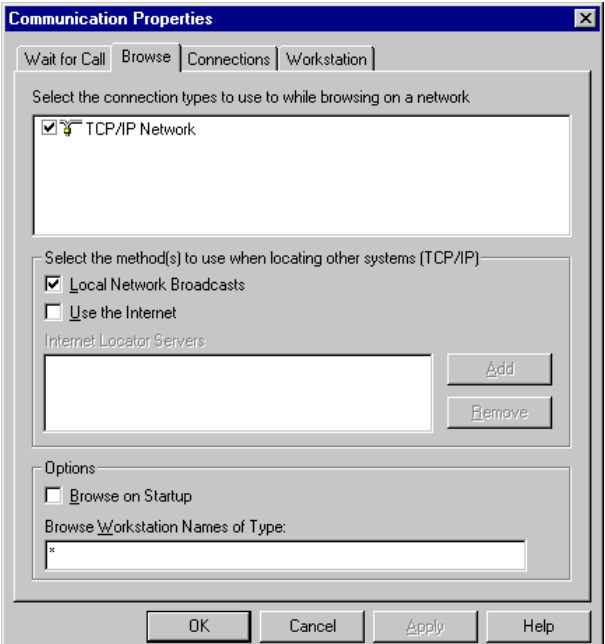
✓	Step	Action
	1	Start Carbon Copy from the Start>Programs>Carbon Copy32>Carbon Copy 32 menu. Result: The Carbon Copy control window (similar to that shown below) opens.
	2	Select Options→Security .
	3	Select the Logins tab.
	4	Select Require Logins , then select Use Native NT Security and click on OK .
	5	Click the User Profiles tab at the bottom of the window. Result: The User Profiles page shows all the Groups and Users configured on this GUS.

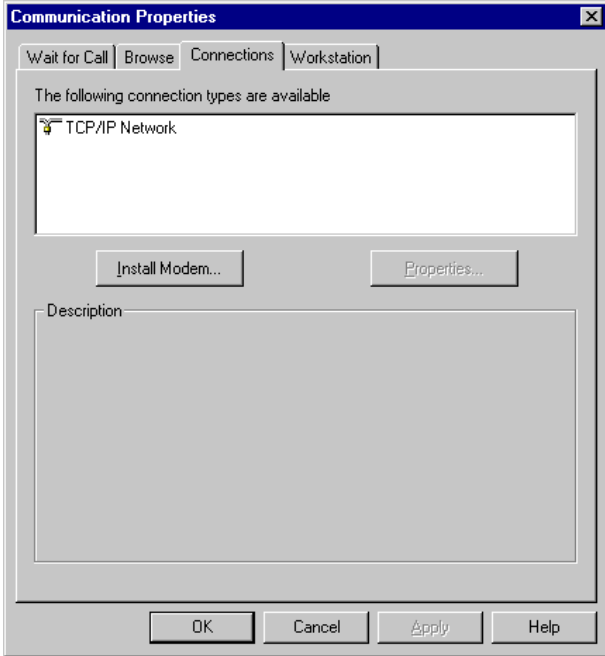
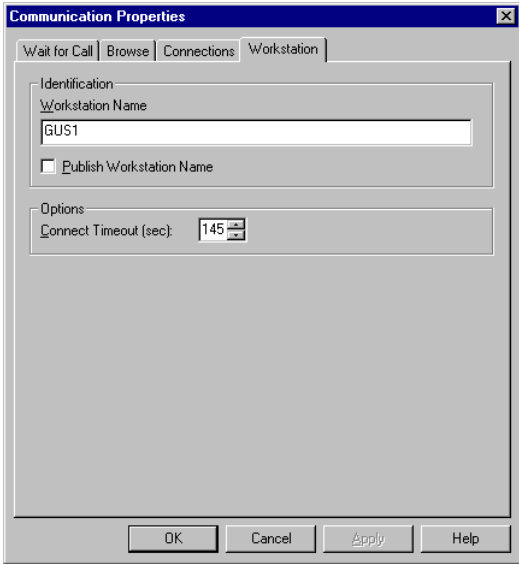
- 6 Right-click on the “Remote Diagnostics” icon, then select **Allow Connections**.


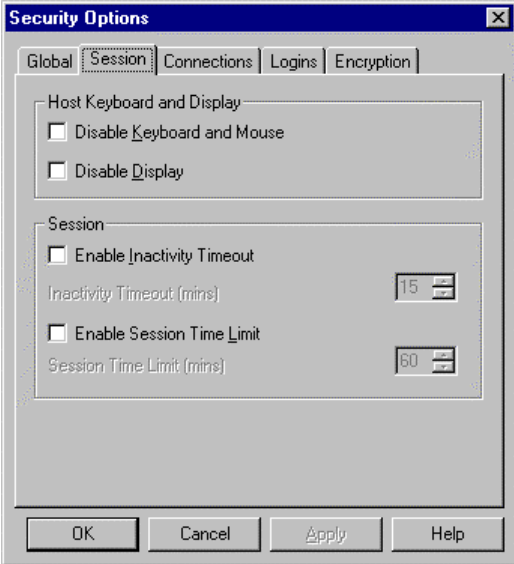
Result: The red “Don’t” circle and slash is removed so “Remote Diagnostics” is enabled, and the “TAC” (single user) icon is shown enabled.

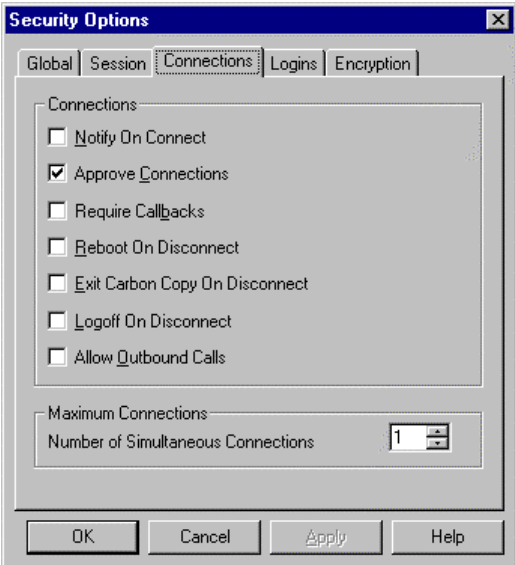
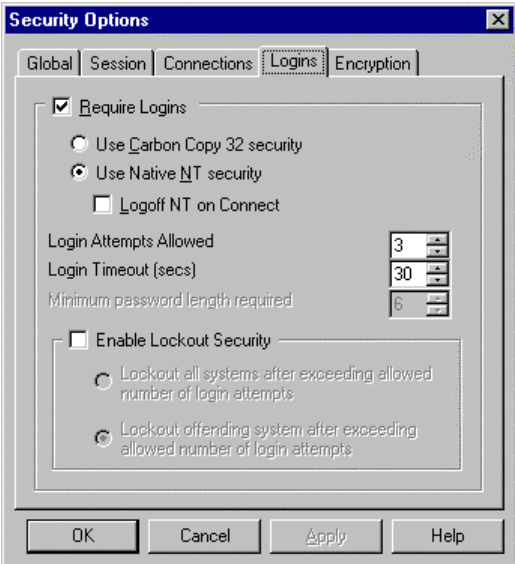


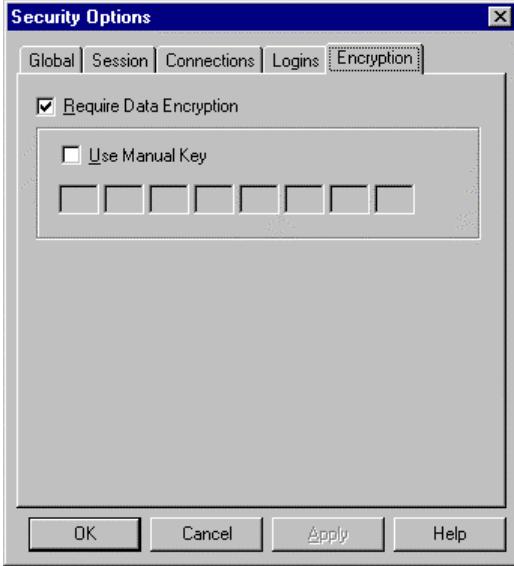
✓	Step	Action
	7	<p>In the steps to follow, you will confirm and change certain settings under the Options menu.</p>  <p>Setup Options>Communications</p>
	1	<p>Select Options → Communications.</p> <p>Result: A Communications Properties dialog box appears (see next step).</p>

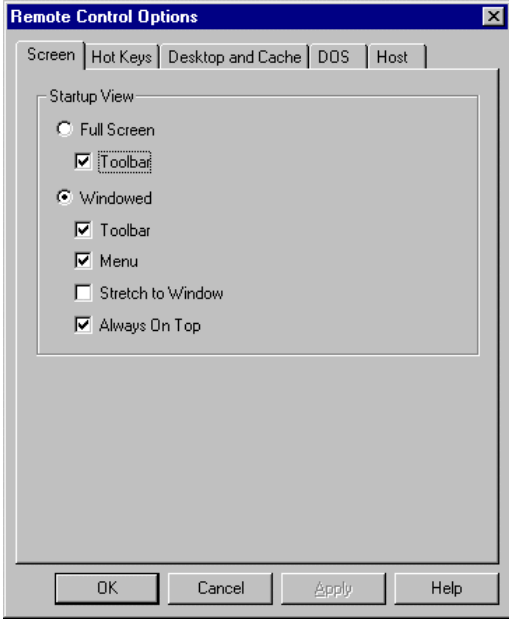
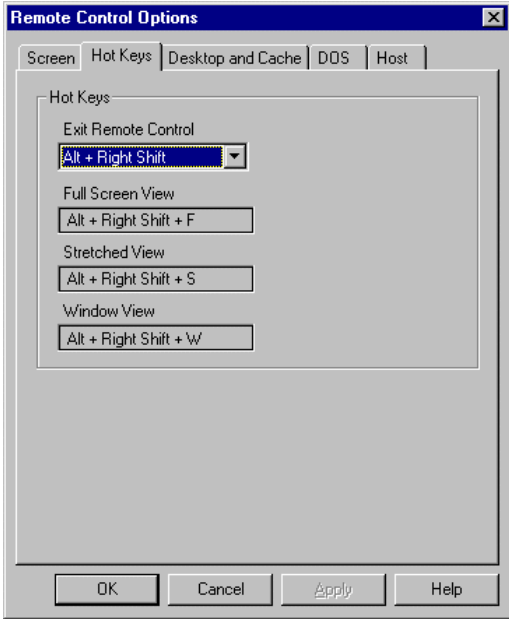
✓	Step	Action
	2	<p>Click the Wait for Call tab and set or clear the following checkmarks.</p> <p>Notice the GUS Server will wait for call on startup and minimize the Carbon Copy window when the GUS Server is waiting for a call.</p>  <p>(ccoptn03A.bmp)</p>
	3	<p>Click the Browse tab and view the options. Make sure that TCP/IP Network and Local Network Broadcasts are checked and that Browse on Startup is unchecked.</p>  <p>(ccoptn04.bmp)</p>

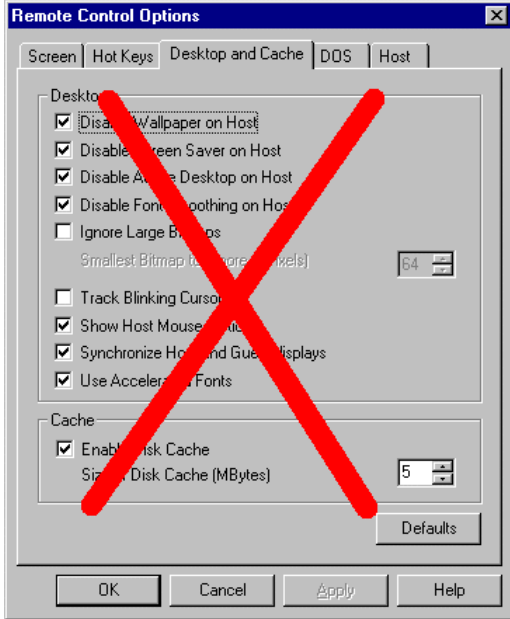
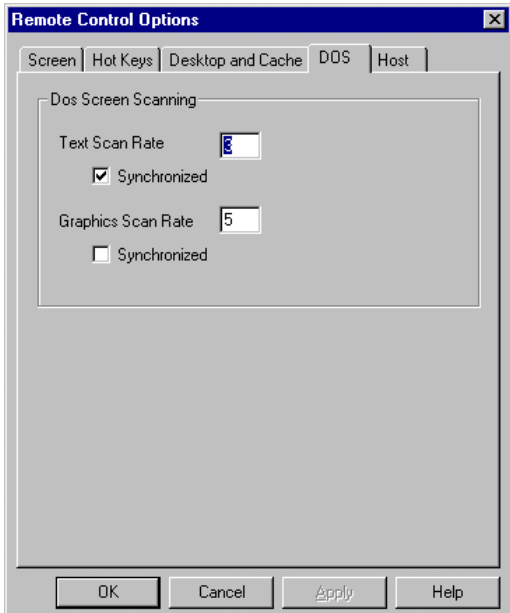
✓	Step	Action
	4	<p>Click the Connections tab. The TCP/IP Network is the protocol we are using.</p>  <p>(ccoptn05.bmp)</p>
	5	<p>Click the Workstation tab and verify YOUR workstation name is correct.</p> <p>Uncheck Publish Workstation Name.</p> <p>The Connect Timeout is immaterial.</p>  <p>(comm01.bmp)</p>
	6	Click the OK button to close the Communication Properties dialog box.
Setup Options>Security		
	1	From the Options menu, select Security . Result: a dialog box appears (see next step).

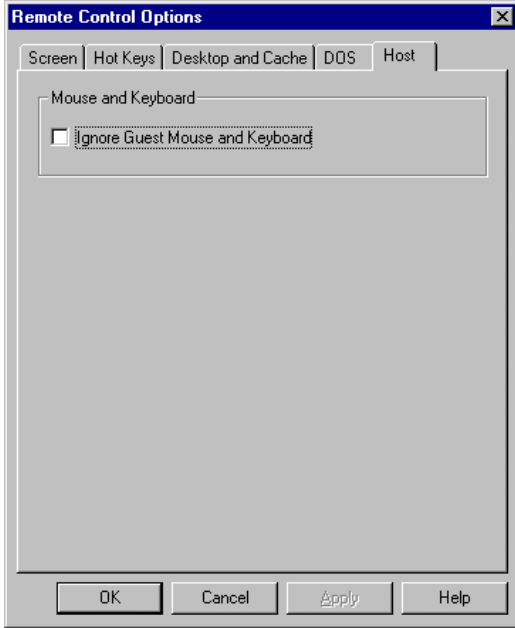
✓	Step	Action
	2	<p>Click the Global tab.</p> <p>Enter a simple password like "1111" in the Security Password box.</p> <p>Write your Security Password here for your convenience: _____</p> <p>Set or clear the following checkmarks.</p> <p>Be prepared to enter the Security Password when viewing or changing Security options in the future.</p>  <p>(ccoptn07.bmp)</p>
	3	<p>Click the Session tab and clear the following checkmarks.</p> <p>Notice you had to enter the security password from the previous step.</p>  <p>(ccoptn08.bmp)</p>

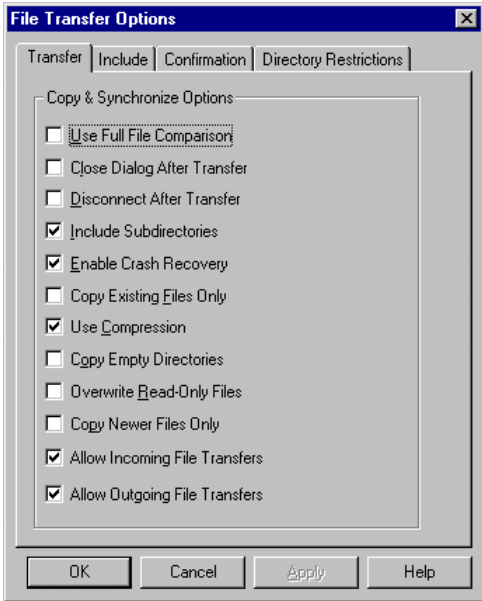
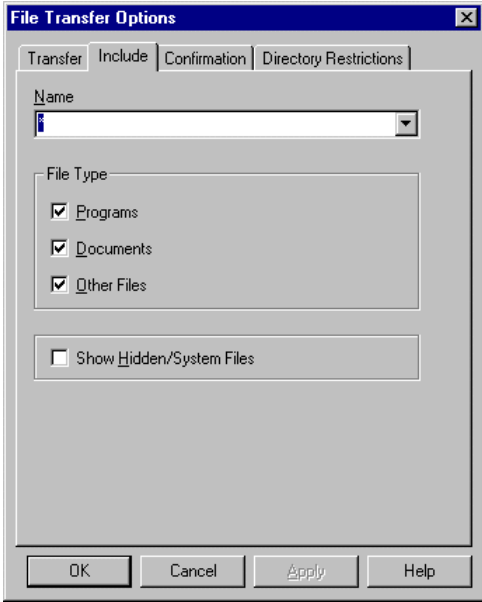
✓	Step	Action
	4	<p>Click the Connections tab and set or clear the following checkmarks.</p> <p>As setup here, a guest must be approved when he connects and outbound calls are not allowed from the GUS Server.</p> <p>Set the Number of Simultaneous Connections to 1.</p>  <p>(ccoptn09A.bmp)</p>
	5	<p>Click the Logins tab and set or clear the following checkmarks.</p> <p>Set the Use Native NT security radio button (a Honeywell recommendation).</p> <p>Set Login Attempts Allowed to 3 and Login Timeout to 30 seconds.</p>  <p>(ccoptn10.bmp)</p>

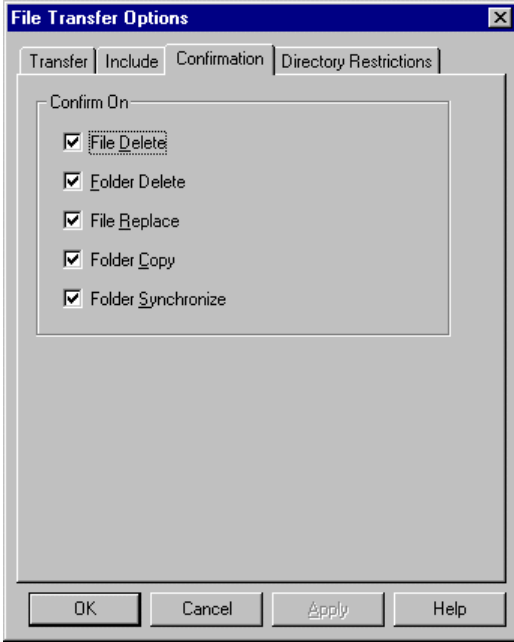
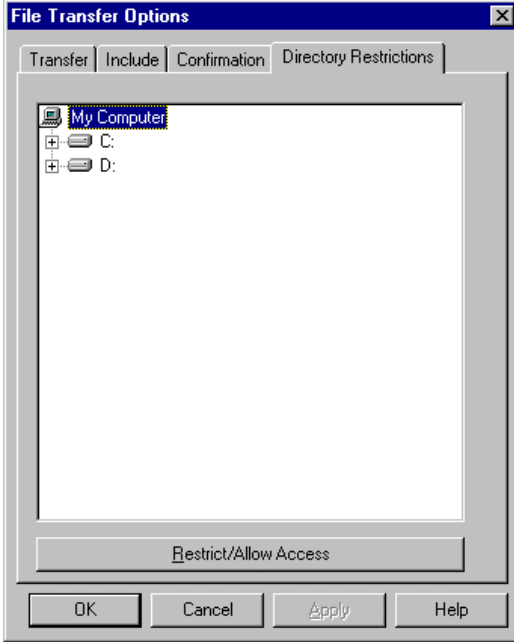
✓	Step	Action
	6	<p>Click the Encryption tab and set or clear the following checkmarks.</p> <p>Honeywell recommends encryption. This prevents an intruder on a LAN, Internet connection, or Phone Line from viewing or copying your data.</p>  <p>(ccoptn11.bmp)</p>
	7	Click the OK button to close the Security Options dialog box.
	8	<p>You may encounter a <i>Security</i> dialog box that reads like this:</p> <p>“You have set Carbon Copy to use native NT security. ... Exit and restart...”</p> <p>If you do encounter it, click OK and restart your computer. After logging in again, return to this page and continue with Setup Options>Remote Control.</p>
Setup Options>Remote Control		
	1	<p>From the Options menu, select Remote Control.</p> <p>Result: a dialog box appears (see next step).</p>

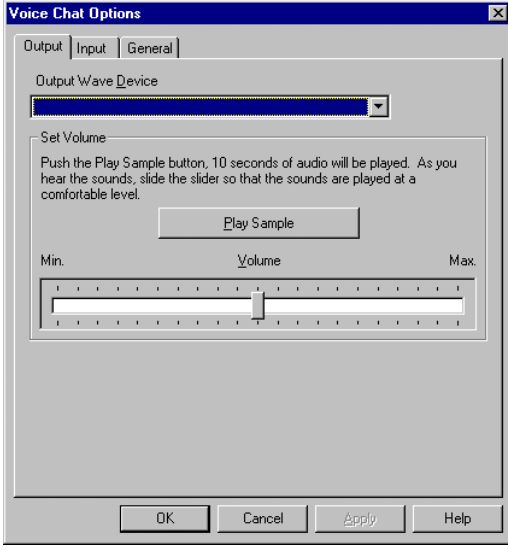
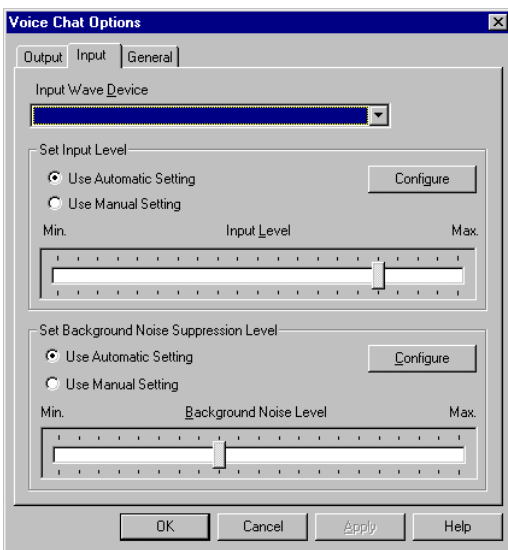
✓	Step	Action
	2	<p>Click the Screen tab and set or clear the following checkmarks and radio button. These settings make sure you start up Carbon Copy Remote Control with a windowed view.</p> <p>You will always have a Carbon Copy toolbar and menu on your windowed view and the window is always on top of other windows on your screen.</p> <p>If you switch to full-screen view, a floating Carbon Copy toolbar will be present.</p>  <p>(ccoptn12.bmp)</p>
	3	<p>Click the Hot Keys tab. This selects the hot keys you can use to alter Carbon Copy's window size and view. Keep these settings as shown.</p>  <p>(ccoptn13.bmp)</p>

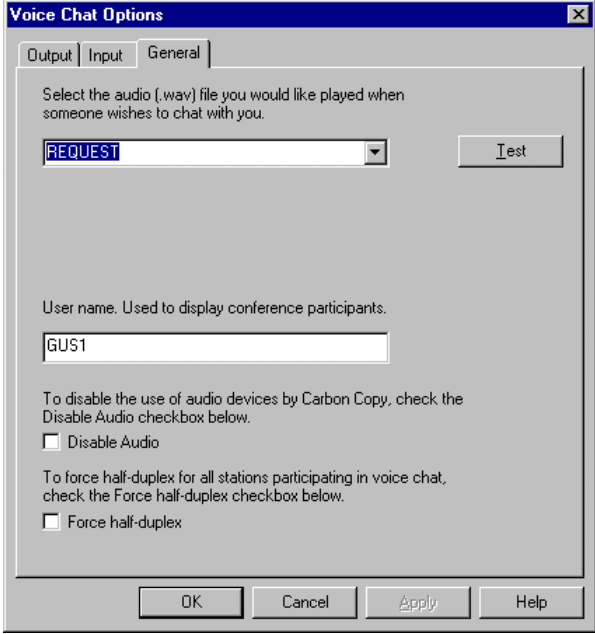
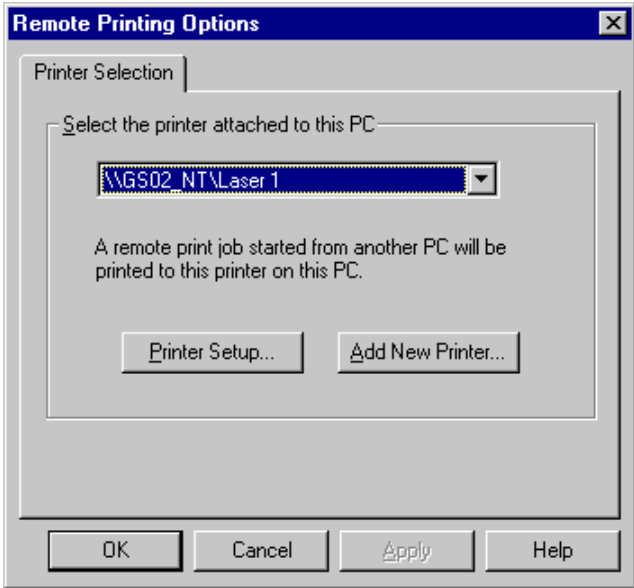
✓	Step	Action
	4	<p>Skip setting the Desktop and Cache tab because we have not allowed the Host to make outbound calls on the Security Options>Connections tab.</p> <p>For that reason, these settings make sense only on the GUS Client.</p>  <p>(ccoptn14N.bmp)</p>
	5	<p>Click the DOS tab and use these default settings.</p> <p>These settings tell Carbon Copy how to handle a DOS window.</p>  <p>(ccoptn15.bmp)</p>

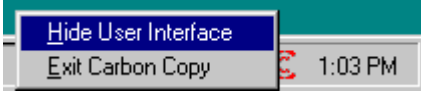
✓	Step	Action
	6	<p>Click the Host tab and clear the following checkmark.</p> <p>NOTICE: THIS IS NOT THE WAY THE HOST TAB IS SET WHEN TAC IS REALLY CALLING! WE HAVE CLEARED THE CHECKMARK HERE TO ENABLE THE GUEST TO PERFORM THIS LAB EXERCISE.</p> <p>You would check Ignore Guest Mouse and Keyboard if, for instance, Honeywell TAC were the calling guest. In this way, TAC could offer suggestions by using Carbon Copy's "Chat" feature but COULD NOT make any changes that might affect the customer's display or process.</p>  <p>(ccoptn16.bmp)</p>
	7	Click the OK button to close the Remote Control Options dialog box.
Setup Options>File Transfer		
	1	<p>From the Options menu, select File Transfer.</p> <p>Result: a dialog box appears (see next step).</p>

✓	Step	Action
	2	<p>Click the Transfer tab and set or clear the following checkmarks.</p> <p>These settings allow the guest to transfer files to and from the host computer. You would change these settings if, for instance, a host doesn't want files copied by a guest.</p>  <p>(ccoptn17.bmp)</p>
	3	<p>Click the Include tab and set or clear the following checkmarks.</p> <p>You would change these settings if, for instance, a host doesn't want certain <i>types</i> of files copied by the guest.</p>  <p>(ccoptn18.bmp)</p>

✓	Step	Action
	4	<p>Click the Confirmation tab and set the following checkmarks.</p> <p>When checked, any attempt to delete, replace, copy, or synchronize files or folders would require confirmation.</p>  <p>(ccoptn19.bmp)</p>
	5	<p>Click the Directory Restrictions tab and note the drives that can be used. This picture will change depending on the number of drives on your computer. As shown here, the guest will have access to all drives on this GUS.</p>  <p>(ccoptn20.bmp)</p>
	6	<p>Click the OK button to close the File Transfer Options dialog box.</p>

✓	Step	Action
Setup Options>Voice Chat		
	1	From the Options menu, select Voice Chat . Result: a dialog box appears. The Voice Chat option switches to “text” chat if sound hardware and software (including microphones) aren’t available on both computers.
	2	<p>Click the Output tab and view the options. These settings will not affect the Text Chat we will be using in this lab, but this is the tab to select if you want to set up voice output.</p>  <p>(ccoptn21.bmp)</p>
	3	<p>Click the Input tab and view the options. These settings will not affect the Text Chat we will be using in this lab, but this is the tab to select if you want to set up voice input.</p>  <p>(ccoptn22.bmp)</p>

✓	Step	Action
	4	<p>Click the General tab and view the options. These settings will not affect the Text Chat we will be using in this lab, but this is the tab used to indicate “audio request” when the guest wants to voice chat.</p> <p>You can also disable audio or force half-duplex voice communication (which uses less bandwidth because only one user can speak at a time).</p>  <p>(ccoptn23.bmp)</p>
	5	Click the OK button to close the Voice Chat Options dialog box.
Setup Options>Remote Printing and Options>Scheduler		
	1	<p>From the Options menu, select Remote Printing and view the options. In this lab, we will not be printing remotely.</p>  <p>(ccoptn26.bmp)</p>

✓	Step	Action
	2	Click the Cancel button to close the <i>Printing Options</i> dialog box.
	3	Skip the Scheduler option because Honeywell does not recommend using it and does not support it.
	4	<p>Click on the Carbon Copy Tray Icon and select Hide User Interface.</p>  <p>Result: Carbon Copy closes its resources and simply waits for a call.</p> <p>CAUTION: If you close or Exit Carbon Copy, it will <i>SHUTDOWN</i> its service so only an Administrator can restart it.</p>

Configure a GUS Client




In this exercise, you will configure your APP Node as a Remote Client. A Honeywell TAC expert (called a Guest on a distant computer) would normally use a computer installed like this to call a customer's GUS Server (the Host's computer).

Notice: Please note the APP Node isn't normally used as a GUS Client. We are loading this Carbon Copy 32 software this way so we can use your APP Node as a client just for this lab.

Install Carbon Copy 32 Full Featured Software

To simplify this lab, we will connect using the LAN currently connected between your GUS Server (the GUS Workstation) and your GUS Client (the APP Node).

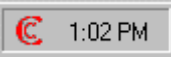
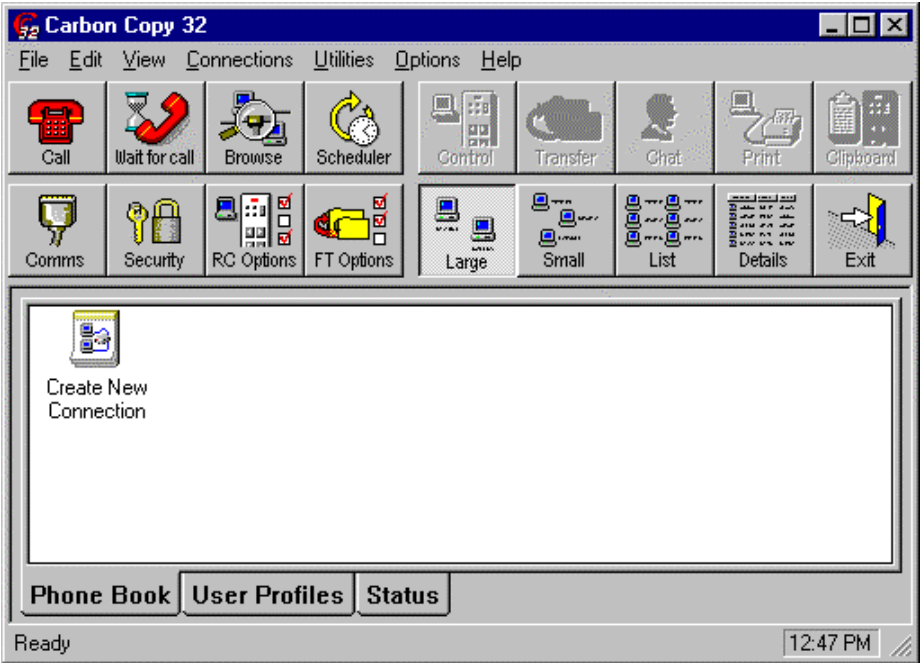
Carbon Copy 32 software (the Host version) was installed automatically when Base GUS software was installed on the GUS Server (the GUS workstation). We must now install the Carbon Copy 32 Full Featured software which will act as a GUS Client.

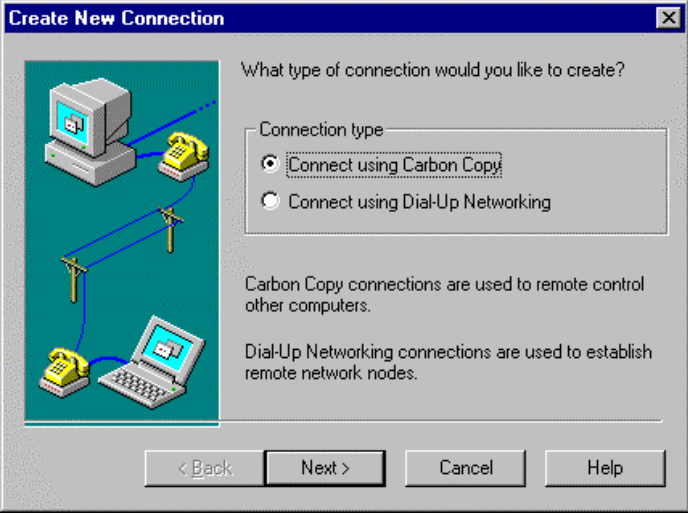
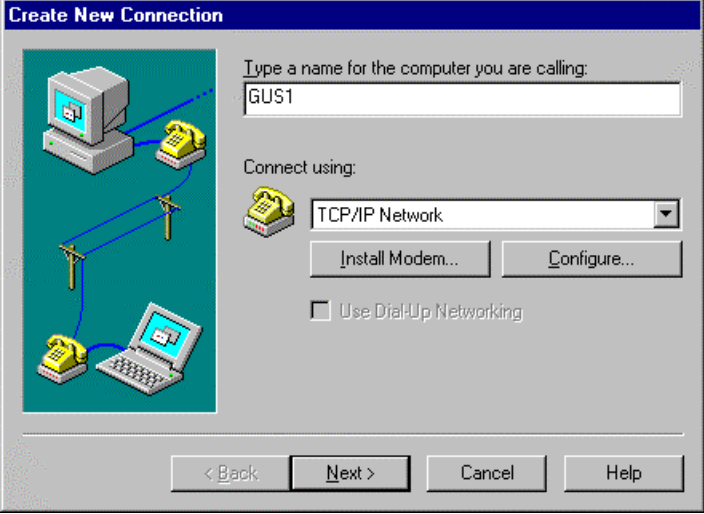
✓	Step	Action
Install Carbon Copy 32 Full Featured Software		
	1	Logon to your APP node as Domain Administrator.
	2	Look in the task bar tray (right hand side of the task bar) for the  icon. If it is not there, go on to the next step. If it is there, click on the  icon and select Exit Carbon Copy . The  icon should disappear from the tray.
	3	Insert the TPS Sys Software CD-ROM.
	4	Select TPS System .
	5	When the <i>Welcome</i> dialog displays, read the details and if you agree select the Next button.
	6	Accept the software license agreement terms by selecting the Next button. The <i>User Information</i> dialog is displayed.
	7	Read the Third-Party Software Compatibility Policy and select the Next button.
	8	If this dialog has been used before, the information will be filled in. If not, enter the Name , Company , License No. , and Authorization No. information from your partition sheet and then select the Next button.
	9	When the License No. and Authorization No. have been validated, the <i>Package Selection</i> dialog displays with a list of the available licensed packages. Select the following package: Carbon Copy
	10	Click the Install Package button.

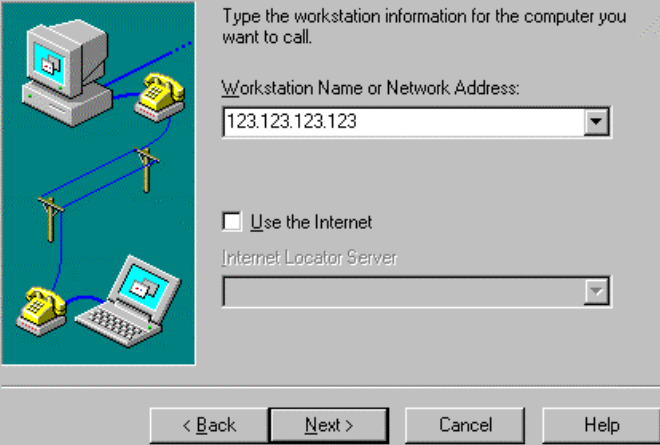
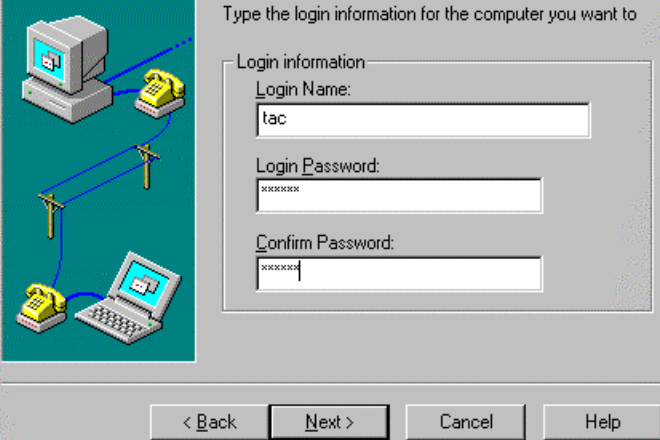
✓	Step	Action
	11	On this dialog, do the following: Select the Carbon Copy 32 Full Package . When these options are selected, click the OK button.
	12	On the <i>Carbon Copy 32</i> dialog, enter the following: Name: Honeywell User User: Honeywell IAC then click the OK button.
	13	When asked to view the README.TXT file, click the No button.
	14	On the <i>Carbon Copy 32</i> dialog, check the directory path. It should be: C:\Program Files\Carbon Copy 32 Correct the path if wrong. If the path is correct, click the OK button.
	15	On the <i>Carbon Copy 32</i> dialog under <i>Installation Options</i> , check the Carbon Copy 32 option, then click the OK button. Note: You might also want the Online User's Guide at your plant but it isn't required here. If you choose the guide, you must have Adobe Acrobat Reader installed to read and to print it.
	16	If a setup dialog box asks if you want to replace an old Carbon Copy 32 Configuration file with the defaults, select Yes .
	17	If a setup dialog box asks if you want to replace an old Carbon Copy 32 Security file with the defaults, select Yes .
	18	Now a progress bar runs indicating that the Carbon Copy 32 files are loading. If the installation is successful, two dialog boxes appear: An Instructions dialog reports "Setup is now complete." A Setup dialog reports that "you must restart your computer." Click the Yes button to restart the computer.
	19	Remove the CD-ROM immediately after the previous step.
	20	Wait a minute or two for the computer to restart.

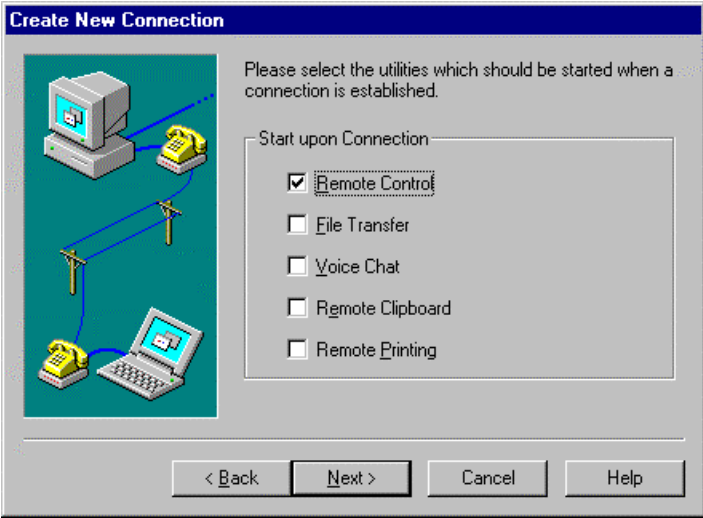
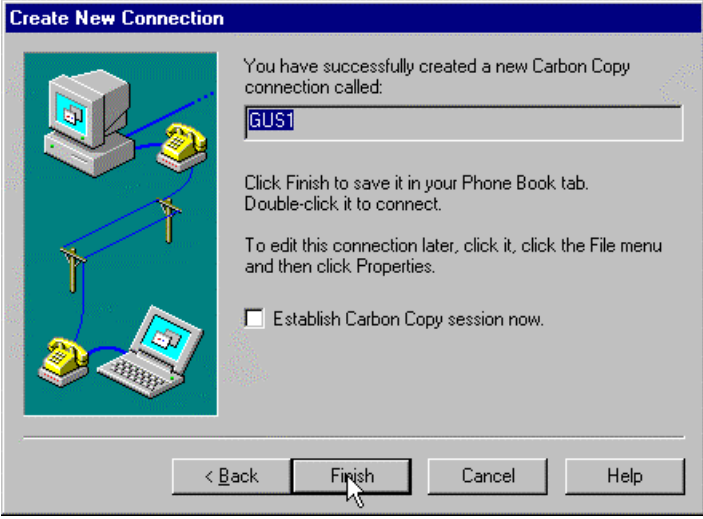
Connecting Carbon Copy 32 to a GUS Workstation


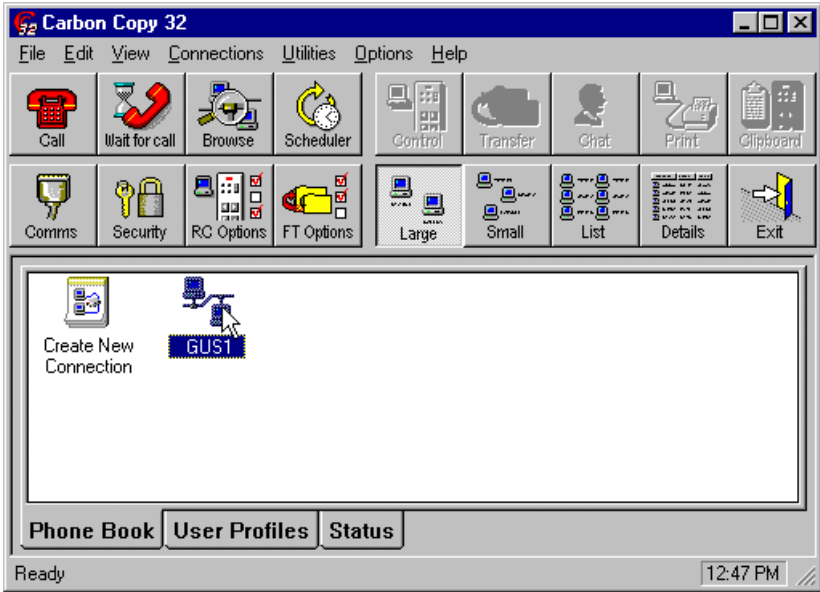
In this exercise, you will be a guest on your APP Node computer (the GUS Client) connecting to and operating your GUS workstation (the GUS Server) while using the functions of Carbon Copy 32.

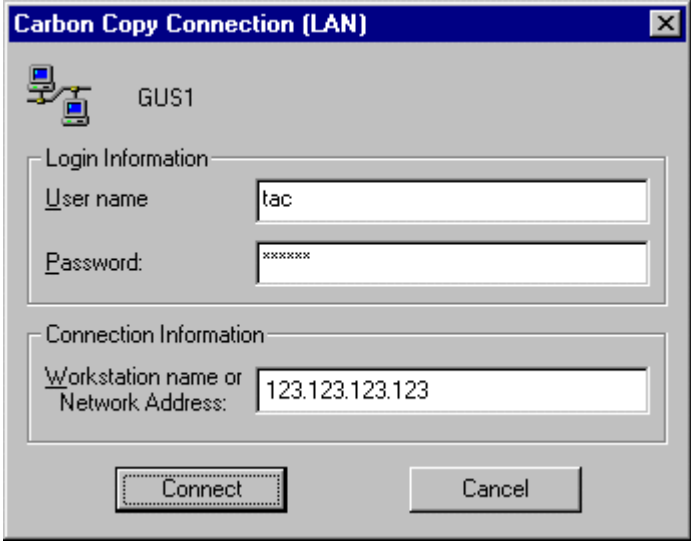
✓	Step	Action
	1	Logon to your APP node as Domain Administrator.
	2	<p>If the Tray icon  is present in the lower right corner, start Carbon Copy from it.</p> <p>If not present, use the Start>Programs>Carbon Copy32>Carbon Copy 32 menu to start Carbon Copy.</p> <p>Result: The Carbon Copy control window opens.</p> 
Create a New Connection (from the “guest’s” APP Node to the “host’s” GUS)		
	1	Make sure the Phone Book tab is selected.
	2	<p>Double-click the Create New Connection icon.</p> <p>Result: The Create New Connection dialog box opens.</p>

✓	Step	Action
	3	 <p>Make sure the Connect using Carbon Copy radio button is selected.</p> <p>Click the Next button.</p> <p>Result: Another Create New Connection dialog box opens.</p>
	4	 <p>From your partition sheet, enter the GUS computer name under “Type...” In this example, the host’s computer name is GUS1. This name is simply something you can use to identify the host’s computer; it doesn’t <i>have to be</i> the computer name but, it should be relatively short because it will be used to label the icon in the Phone Book dialog page.</p> <p>Under “Connect using:” choose TCP/IP Network. You won’t be using a modem.</p> <p>Click the Next button.</p> <p>Result: The next Create New Connection dialog box opens.</p>

✓	Step	Action
	5	<div data-bbox="430 254 1128 766">  <p>From your partition sheet, determine the GUS's IP Address and enter it under "Workstation..." In this example, 123.123.123.123 is the IP Address (it has four fields separated by periods; each field contains one to three digits).</p> <p>Under "Use the Internet" make sure the checkmark is unchecked.</p> <p>Click the Next button. Result: The next Create New Connection dialog box opens.</p> </div>
	6	<div data-bbox="430 1041 1128 1549">  <p>From page 3, Step 9 of <i>Setup the GUS Server (Host's) Windows NT Configuration</i>, copy the Login Name (tac) and Login Password (TAC Password) you chose and enter them in the appropriate boxes.</p> <p>In this example, the Login Name is tac and the password is six characters (the password is entered twice to help prevent entry errors).</p> <p>Click the Next button. Result: The next Create New Connection dialog box opens.</p> </div>

✓	Step	Action
	7	<div><p>This dialog box determines the Carbon Copy functions that start when the connection is first established.</p><p>Make sure only Remote Control is checked. By doing this, when Carbon Copy starts, you will see a window with only the host's computer screen on it.</p><p>Click the Next button. Result: The next Create New Connection dialog box opens.</p></div>
	8	<div><p>This dialog box confirms that Carbon Copy has found the host's computer and has put the information in your Phone Book.</p><p>Do not check the Establish Carbon Copy session... at this time. This is useful if you want the session to start as soon as you finish this setup.</p><p>Click the Finish button.</p><p>Result: The Carbon Copy control window opens.</p></div>

✓	Step	Action
Make Sure the GUS is Waiting for Your Call		
	1	<p>When we setup the GUS Server in this lab, we hid the Carbon Copy 32 interface and left it in the "Wait for Call" mode. Under these conditions, you will not have to do anything when making the call (below) as a guest. The GUS Server should jump into action and inform the host of your call as soon as you connect. However, sometimes the network will take a long time making the first connection. Please give the computers a minute or so to get connected.</p> <p>In some situations, you (the guest) would either make a phone call or send e-mail establishing a time when you and the host would make this connection.</p> <p>If you were not nearby (like a Honeywell TAC guest), you would also obtain the host's Network Address, Login Name, and Login Password during this call.</p>
	2	<p>While talking to the host, make sure he/she opens the Carbon Copy 32 window and clicks (depresses) the "Wait for call" button or that Carbon Copy 32 has been minimized and is waiting for a call as we did.</p> 
Making the Call		
	1	 <p>Now, double-click on the calling party's icon (shown here as GUS1) in the Phone Book.</p> <p>Result: The Carbon Copy Connection dialog box opens.</p>

✓	Step	Action
	2	<div data-bbox="428 252 1114 789">The image shows a Windows-style dialog box titled "Carbon Copy Connection (LAN)". At the top left is a small icon of two computers connected by a cable, followed by the text "GUS1". Below this is a section titled "Login Information" containing two text input fields: "User name" with the text "tac" and "Password:" with masked characters "xxxxxxx". Below the login section is a section titled "Connection Information" containing one text input field: "Workstation name or Network Address:" with the text "123.123.123.123". At the bottom of the dialog are two buttons: "Connect" and "Cancel". A small file path "(cc_conct.bmp)" is visible at the bottom right of the dialog box.</div> <p>The User Name and Password that were given to you by the host is displayed on the <i>Carbon Copy Connection</i> dialog. If this were not a new connection, you would have to enter the name and password to prove who you are.</p> <p>Make sure the Network Address shown is correct, then click Connect.</p>
	3	<p>Carbon Copy sends a message to the host stating that "tac" requests access. If access is denied, you are informed.</p> <p>If the connection is approved, the Carbon Copy splash screen is displayed, followed by a window showing your host's computer screen.</p>

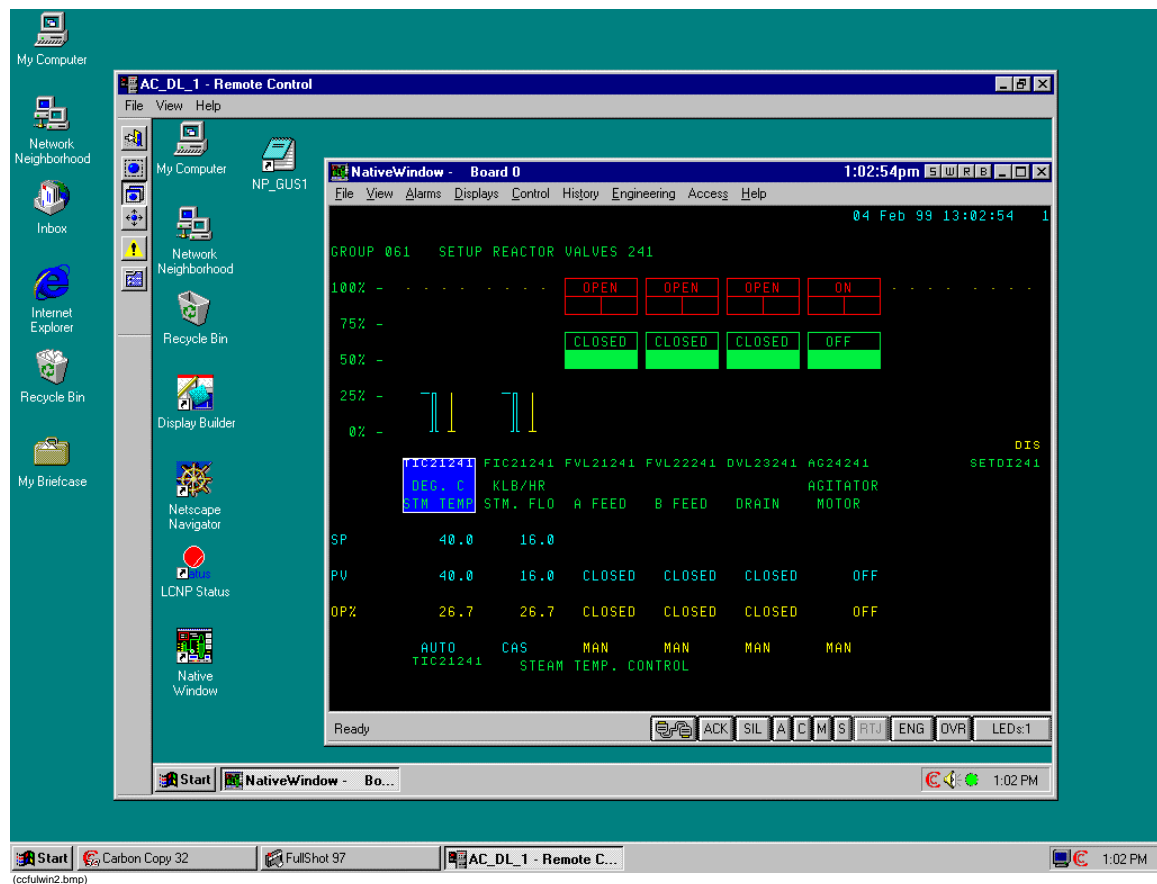
Operating Carbon Copy 32 Software

Using the GUS Server with Carbon Copy 32 from the GUS Client

This brief exercise introduces you to the operation of Carbon Copy 32. You will experiment with the four main functions of Carbon Copy 32 and will learn how to “hang up” your call.

Viewing the Remote Computer Screen

This illustration is similar to the screen view you have of the host’s computer screen.









In this example, we know it is the host’s screen because he renamed his Notepad icon to NP_GUS1 and he had his Native Window open.

Notice you and the host both have control over the screen. Also notice there is a delay (called “lag time”) between mouse movement and display of the cursor. We don’t recommend that both host and guest use the mouse and keyboard at the same time. If your activity **requires** that you both use the controls, try “time sharing” their use to minimize human-interface and computer resource problems.

Also notice there may be color differences between the GUS Server screen and the screen displayed by Carbon Copy in the window on your screen. This is because only 256 colors are used by Carbon Copy.

Carbon Copy 32 Tools

Notice the six tools in the upper left corner of the window displayed by Carbon Copy. They are described in the table below.

Tool	Description	Hot-Key Combination
	Exit Remote Control	ALT+Right Shift
	Full Screen View (when in this view, a detached toolbar consisting of these tools will be displayed)	ALT+Right Shift+F
	Windowed View	ALT+Right Shift+W
	Stretch to Window	ALT+Right Shift+S
	Send CTRL+ALT+DEL to Host	
	Display Remote Control Options Property Page	

Practice: Use the various screen and window views (Full Screen, Windowed, and Stretch) to see how they affect your display. Also try the corresponding Hot Key combinations if you wish. FOR OBVIOUS REASONS, DON'T TRY THE OTHER THREE CONTROLS.

Drawing and Saving a PCT File on the Remote Computer

Practice this exercise.

✓	Step	Action
	1	First, at the GUS, display the Native Window and ensure it is loaded. If it is not, load it.
	2	<p>On your Remote Control window of the host's screen, open GUS Display Builder and draw a simple object.</p> <p>Notice you can do anything on the remote computer you could do on the GUS locally. You could even add scripting and run the display if you wished.</p> <p>Also notice the "lag time" between moving your mouse and the object following it. This is normal because Carbon Copy must send the necessary information across the link and reconstruct the screen at the other end. Actually, the lag time is very short here because you are using a high-speed LAN. If you were using a modem, the lag time would be MUCH greater.</p>
	3	<p>Save the object on the host's computer. For example, save it as My Rectangle.PCT and be sure you remember the pathname to the file.</p> <p>By default, the pathname is C:\Program Files\Honeywell\Tps\Gus\.</p>
	4	After you have saved the file, close the Gus Display Builder, then minimize the Remote Control window so you can see the Carbon Copy control window behind it.

Using Other Functions from the Client

If you have the proper privileges, you can

- view and/or physically control the remote computer,
- copy files (using FTP) to and from the remote computer,
- “chat” (by talking or typing) with the remote computer user, and
- use the clipboard on the remote computer.

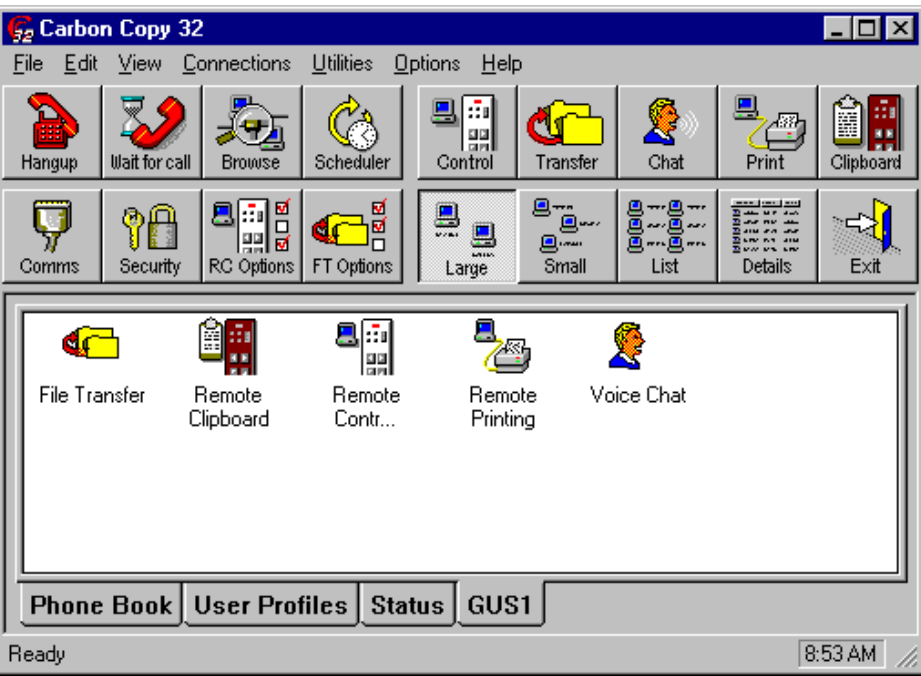
In the exercises to follow, you will copy a file from the remote computer to your computer and exchange messages with the host using the chat function. Finally you will “hang up” the connection to save computer resources.

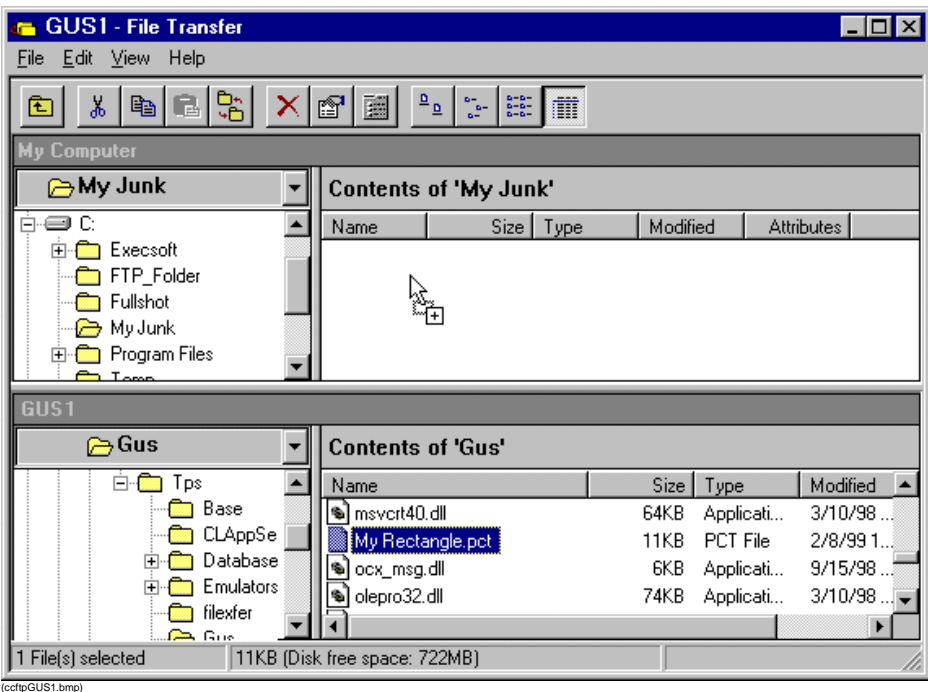
FTP-ing your PCT File from the Host’s Computer to Your Computer

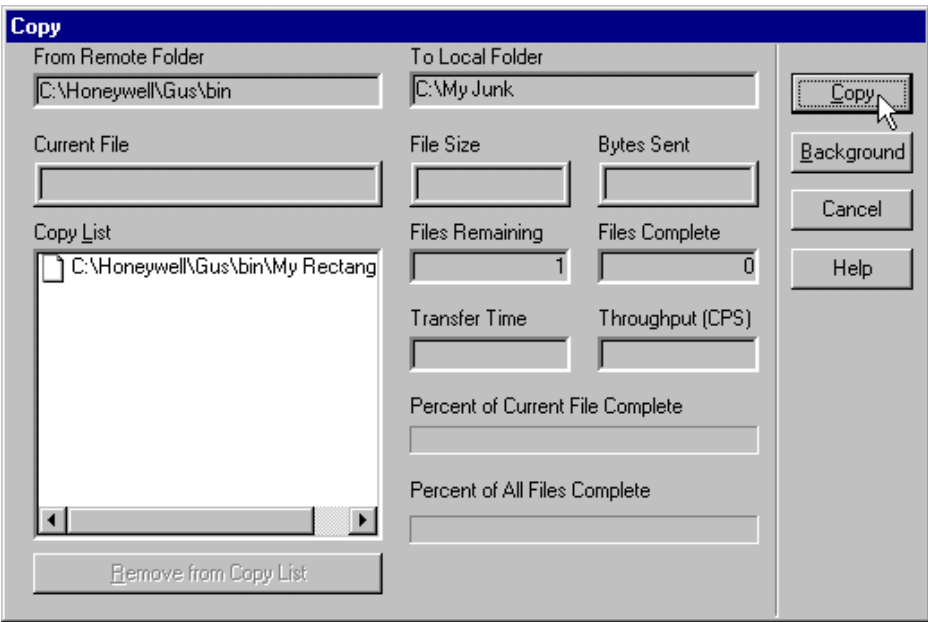
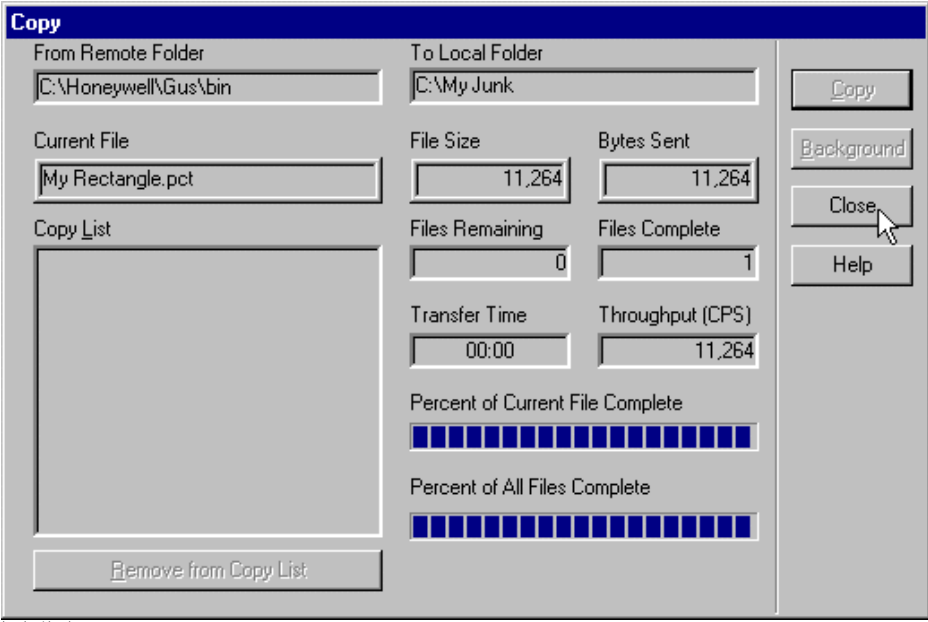
“FTP” stands for “File Transfer Protocol.” It represents the “rules” for transferring large files between computers over a WAN or LAN.

Before you start this procedure, make sure you have a folder on your computer where you can save a file. You may either use your “Student” folder or create a folder named “My Junk” as we did in the example.

✓	Step	Action
	1	Make sure your Remote Computer window has been minimized so you can use the Carbon Copy control window in the following steps.
	2	Make sure the Carbon Copy control window is at the tab named for your connection. In the example in the following step, that tab is GUS1 .

✓	Step	Action
	3	 <p>Notice the five icons in the control window. The third icon represents Remote Control, the function you have been using to view and use the remote computer screen.</p>
	4	<p>Double-click on File Transfer. Result: Carbon Copy's File Transfer window opens.</p> <p>In addition to Remote Control, you have now opened a second Carbon Copy function called "File Transfer."</p>

✓	Step	Action
	5	 <p>The File Transfer window looks something like this. The top windows represent the guest's computer. The bottom windows represent the host's computer you are viewing.</p> <p>Select the PCT file you saved on the host's computer (example: My Rectangle.PCT)</p>
	6	<p>Click and hold onto the file icon shown in the window representing the host's computer and drag your cursor up to your computer's folder where you want to save it (example: My Junk folder).</p> <p>Release your mouse button when the cursor is positioned over the folder representing your computer.</p> <p>Result: A Copy dialog box appears.</p>

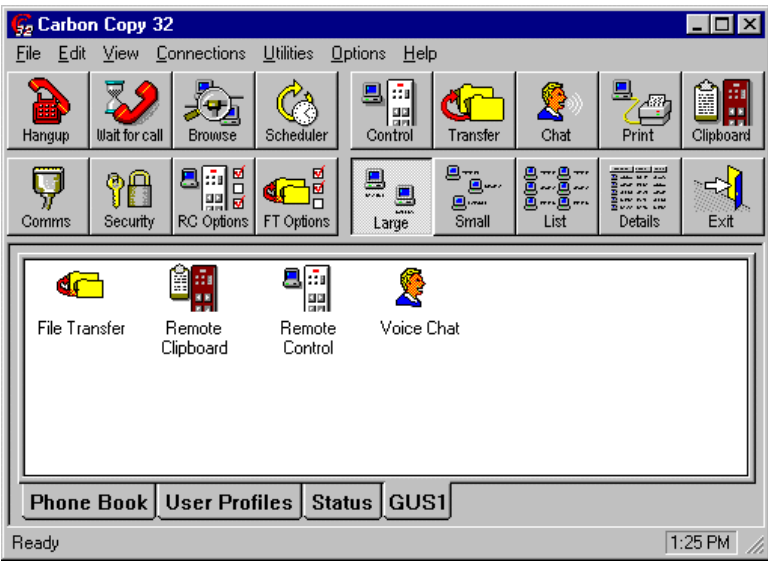

✓	Step	Action
	7	 <p>(ccother3.bmp)</p> <p>Check the entries to make sure you are transferring the correct file, then click the Copy button. Result: The Copy dialog box changes.</p>
	8	 <p>(ccother4.bmp)</p> <p>The Copy function now “downloads” the file, displaying a set of progress bars as it works. When finished, it informs you by showing the number of “Files Complete” and the progress bars fully extended.</p> <p>Notice you can FTP (move) more than one file at a time. The “Percent of All Files Complete” progress bar informs you when all files are downloaded.</p> <p>NOTE: If you get “Access Denied”, check to see if the file you’re transferring is still open in the display builder.</p>

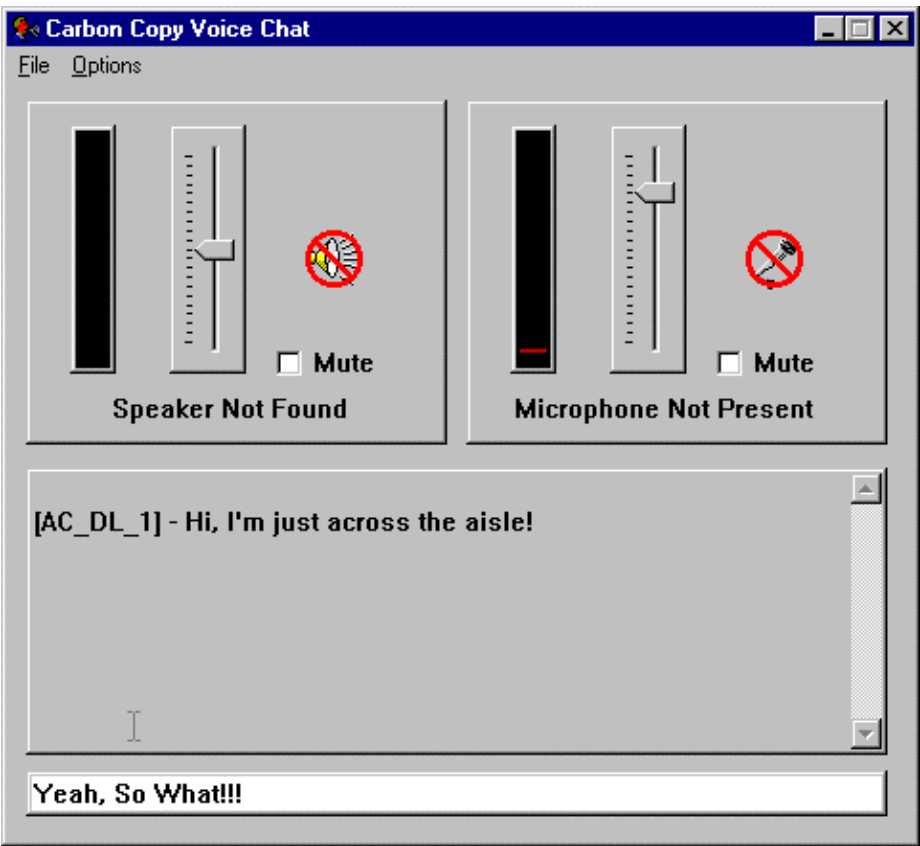
✓	Step	Action
	9	When all FTP tasks are completed, click the Close button. Result: The Copy dialog box closes, leaving the File Transfer window opened.
	10	When you have finished copying files, close the File Transfer window.

Notice: You should know that you can upload files in the same way as you downloaded them here—just reverse the process in Steps 5 and 6 so the files move from your computer to the host's computer.

“Chatting” with the Host on the Remote Computer

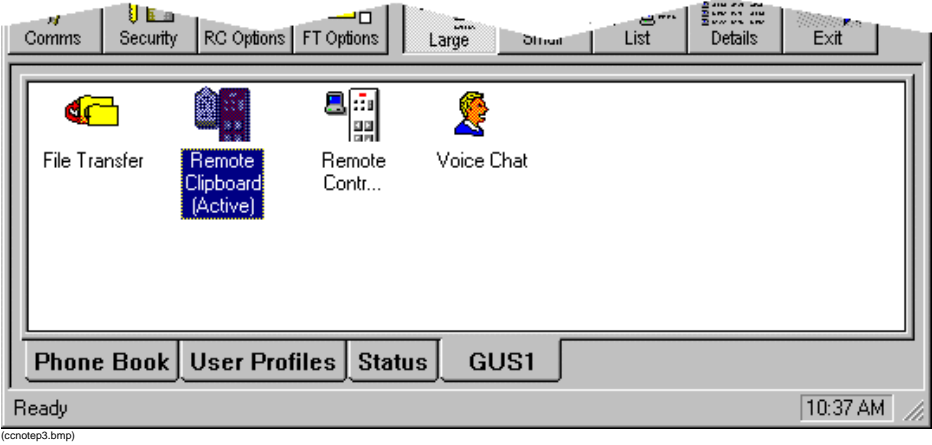
You can setup a “chat” so that you and the remote user can converse. The chat can be either by voice (simultaneously occurring with the remote screen display) or by text (using less bandwidth). Since some PCs may not be sound-capable, we show you the “text chat” method here.


✓	Step	Action
	1	<p>Make sure your Carbon Copy control window is set at the tab named for your connection. In this example, that tab is GUS1.</p>  <p>(ccotr_GUS1.bmp)</p>
	2	<p>Double-click on Voice Chat.</p> <p>Result: This Voice Chat dialog box opens. While this Voice Chat dialog box is displayed, Carbon Copy will tell the host that you want to join the chat.</p>  <p>(chatjoin.bmp)</p>
	3	<p>If the host wishes to ignore the request, you will have to click the Cancel button and terminate the chat attempt now.</p> <p>We assume the host types a greeting, so continue.</p>

✓	Step	Action
	4	 <p>(ccother7.bmp)</p> <p>When the connection is made, Carbon Copy checks to see if microphones and speakers are present. If they aren't, the "text chat" mode is invoked.</p> <p>When the host types a response followed by Enter, the Carbon Copy Voice Chat dialog box opens in a separate window from the remote screen (as shown here) and displays his/her message, "Hi, I'm just across the aisle!"</p> <p>You type your response in the white space at the bottom of that window, "Yeah, So What!!!" and press Enter.</p> <p>The conversation continues with each user typing a line at a time and pressing Enter. All communication is displayed for both parties to see.</p>
	5	<p>When the conversation is finished, one user should close the Voice Chat window.</p> <p>At that time, Carbon Copy will also close the Voice Chat window on the other computer.</p>

Using your Clipboard with the Remote Computer

As a guest on a remote computer, you can “share” the remote computer’s clipboard with the clipboard on your computer. Here is an exercise to try.

✓	Step	Action
	1	Make sure the Carbon Copy control window is at the tab named for your connection. In the example in the following step, that tab is GUS1 .
	2	 <p>Double-click on the Remote Clipboard icon.</p> <p>Result: The text “(Active)” is added to the Remote Clipboard icon.</p>
	3	At the GUS, open Notepad and enter a line of text.
	4	<p>Highlight the line of text you just typed and select Edit→Copy.</p> <p>Result: Carbon Copy <i>may</i> present a dialog box asking if you want to share clipboards.</p>
	5	If it appears, click Yes to the dialog box. Otherwise, continue to the next step.

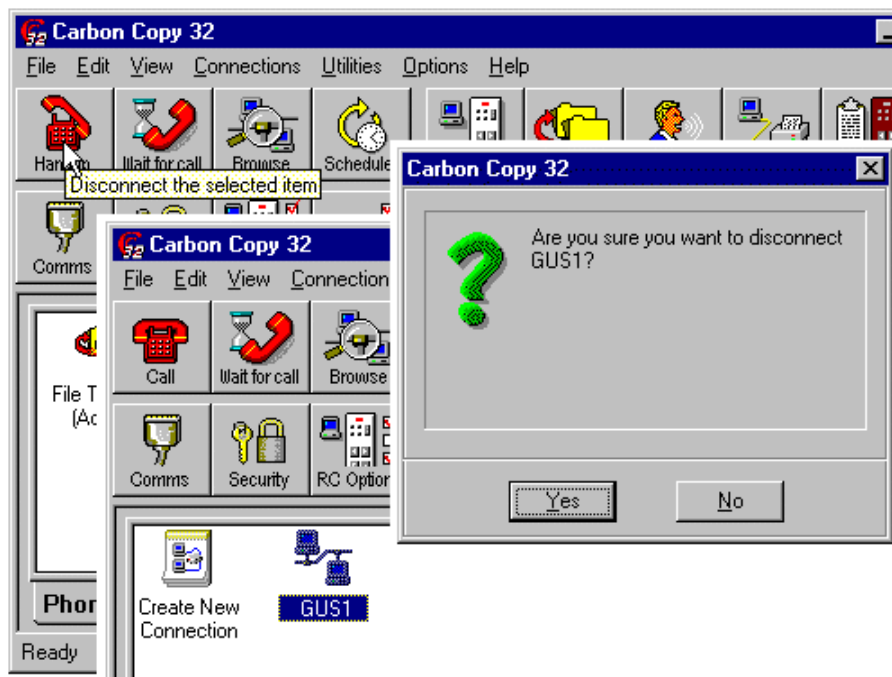
✓	Step	Action
	6	<p>Now, open Notepad on the APP Node and use Notepad's Edit>Paste command.</p> <p>Result: The text you entered on the remote computer's Notepad and copied to the Remote Clipboard is placed into a Notepad document on your computer.</p>  <p>(ccnotep4.bmp)</p>
	7	<p>Minimize the remote control window then, while viewing the Carbon Copy control window, double click the Remote Clipboard icon to deselect and close it.</p>

A Final Word about Remote Engineering and Operations Operation


It's very easy to leave one or more of the four functions of Carbon Copy open indefinitely by minimizing Carbon Copy's control window.

This is somewhat similar to not hanging up a phone after you are through with it. By doing so, you are depleting some of the resources of your computer and the remote computer to which it is attached.

Here is the suggested way to make sure all functions "hang up" yet Carbon Copy is still active to connect again, if needed.

✓	Step	Action
	1	<p>With the Carbon Copy control window at the tab named for your connection, click on the Hangup icon in the upper left corner.</p> <p>Result: a dialog box asks, "Are you sure you want to disconnect...?"</p>  <p>The screenshot shows the Carbon Copy 32 application window. The 'Hangup' icon (a red telephone handset) is highlighted with a mouse cursor. A tooltip reads 'Disconnect the selected item'. A dialog box titled 'Carbon Copy 32' is open, displaying a large green question mark and the text 'Are you sure you want to disconnect GUS1?'. The dialog has 'Yes' and 'No' buttons at the bottom.</p>
	2	<p>Click the Yes button.</p> <p>Result: In a short time, the tab named for your connection will disappear and an icon representing that connection will show on the Phone Book tab. Also notice the Hangup icon has changed to a Call icon with the phone shown back on-hook.</p>
	3	<p>Now, minimize or close the Carbon Copy control window. It is now inactive, but it can wait for another connection from your partner or another Carbon Copy site.</p>

Update the Emergency Repair Disk (ERD) for the App

✓	Step	Action
	1	At the App node, logon as the domain Administrator.
	2	Select Start → Run .
	3	Enter rdisk /s and press Enter . A Saving Configuration progress bar will appear, then a creation verification message will appear.
	4	Click the Yes button to verify. A floppy insertion message will appear.
	5	Insert the existing ERD into the A drive.
	6	Click the OK button. A Formatting Disk progress bar will appear as the ERD format is taking place. A Copying Configuration Files progress bar will appear as the configuration files are being copied to the ERD. A security precaution message will appear.
	7	Click the OK button.
	8	Remove the diskette from the drive and label it follows: NT ERD – XXXXX Where XXXXX is the name of your computer.  ATTENTION: The diskette may only be used to recover NT on the node which was used to create the ERD diskette.
	9	Store the NT ERD in a secure location where it can be retrieved if necessary.