

Agilent OBSAI Protocol Tester

Installation Guide

Notices

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Printing History

Agilent Technologies, Inc. can issue revisions between the product releases to reflect the latest and correct information in the guide. Agilent Technologies, Inc. also reserves its right to not issue a new edition of the guide for every system release.

Manual Part Number

N5341-97000

Edition

First edition, July 2008

Printed in Germany

Agilent Technologies
Herrenberger Strasse 130
D-71034 Boeblingen, Germany

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Indicates warning or caution. If you see this symbol on a product, you must refer to the manuals for specific Warning or Caution information to avoid personal injury or damage to the product.



Frame or chassis ground terminal. Typically connects to the equipment's metal frame.



Indicates hazardous voltages and potential for electrical shock.



Indicates that antistatic precautions should be taken.



Indicates hot surface. Please do not touch.



Indicates laser radiation turned on.



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CE compliance marking to the EU Safety and EMC Directives.

ISM GRP-1A classification according to the international EMC standard.

ICES/NMB-001 compliance marking to the Canadian EMC standard.

Safety Summary

General Safety Precautions

The following general safety precautions must be observed during all phases of operation of this instrument. Failure to comply with these precautions or with specific warnings elsewhere in this manual violates safety standards of design, manufacture, and intended use of the instrument.

Agilent Technologies Inc. assumes no liability for the customer's failure to comply with these requirements.

Before operation, review the instrument and manual for safety markings and instructions. You must follow these to ensure safe operation and to maintain the instrument in safe condition.

General

This product is a Safety Class 1 instrument (provided with a protective earth terminal). The protective features of this product may be impaired if it is used in a manner not specified in the operation instructions.

All Light Emitting Diodes (LEDs) used in this product are Class 1 LEDs as per IEC 60825-1.

Environment Conditions

This instrument is intended for indoor use in an installation category II, pollution degree 2 environment. It is designed to operate at a maximum relative humidity of 95% and at altitudes of up to 2000 meters.

Refer to the specifications tables for the ac mains voltage requirements and ambient operating temperature range.

Before Applying Power

Verify that all safety precautions are taken. The power cable inlet of the instrument serves as a device to disconnect from the mains in case of hazard. The instrument must be positioned so that the operator can easily access the power cable inlet. When the instrument is rack mounted the rack must be provided with an easily accessible mains switch.

Ground the Instrument

To minimize shock hazard, the instrument chassis and cover must be connected to an electrical protective earth ground. The instrument must be connected to the ac power mains through a grounded power cable, with the ground wire firmly connected to an electrical ground (safety ground) at the power outlet. Any interruption of the protective (grounding) conductor or disconnection of the protective earth terminal will cause a potential shock hazard that could result in personal injury.

Do Not Operate in an Explosive Atmosphere


Do not operate the instrument in the presence of flammable gases or fumes.

Do Not Remove the Instrument Cover

Operating personnel must not remove instrument covers. Component replacement and internal adjustments must be made only by qualified personnel.

Instruments that appear damaged or defective should be made inoperative and secured against unintended operation until they can be repaired by qualified service personnel.

Environmental Information

	<p>This product complies with the WEEE Directive (2002/96/EC) marking requirements. The affixed label indicates that you must not discard this electrical/ electronic product in domestic household waste.</p> <p><i>Product Category: With reference to the equipment types in the WEEE Directive Annex I, this product is classed as a "Monitoring and Control instrumentation" product.</i></p> <p><i>Do not dispose in domestic household waste.</i></p> <p><i>To return unwanted products, contact your local Agilent office, or see www.agilent.com/environment/product/ for more information.</i></p>
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About this Guide

This guide briefly describes OBSAI Protocol Tester, and explains the tasks and functions required for setting up and starting OBSAI Protocol Tester.

Here is how this guide is organized:

Introduction

Provides a list of equipments supplied, and information on what hardware and software should already be there before you move ahead in this guide.

Setting Up the Hardware

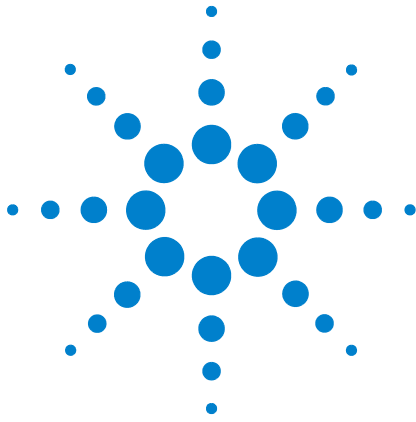
Provides information on how to assemble the OBSAI Protocol Tester hardware equipments.

Installing OBSAI Protocol Tester

Explains how to install the OBSAI Protocol Tester software.

Getting Started

Explains how to start and use OBSAI Protocol Tester.



1 Introduction

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This chapter provides a list of equipments supplied as part of standard shipment to customer, and information on what hardware and software should already be there before you move ahead in this guide.



Equipments Supplied

Agilent OBSAI Protocol Tester includes:

- N5341A Base Station Link Test Module
- N5340A Base Station Test Extension Module
- N2X Chassis (2-slot or 4-slot)
- The following cables:
 - RP1 cable
 - RP3 cable

Installation Requirements

Prior to starting the installation process, ensure that all the system requirements to install the software components of OBSAI Protocol Tester are in place.

In the following sections, you will learn about the requirements of the Controller and Client PCs.

Controller PC Requirements

- Windows XP (with Service Pack 2) operating system is installed.
- At least 1 GB RAM is installed.
- At least 500 MB free disk space is available on the C drive.
- One 100BaseT LAN interface is installed for connection to the N2X chassis.

Agilent recommends to install two 100BaseT LAN interfaces for concurrent access to the corporate network or other clients.

You can also use the USB network adapter as a second LAN interface.

1 Introduction



2 Setting Up the Hardware

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Once all the system requirements are in place, you need to start setting up the hardware for OBSAI Protocol Tester. This requires you to set up basic hardware, such as I/O modules, chassis, and controller PC.



Adjusting I/O Modules Inside the Chassis

To adjust I/O modules inside a chassis, you need to know how to attach as well as remove them to and from chassis.

Attaching an I/O module to the chassis

To attach an I/O module to the chassis:

- 1 Insert the I/O module inside the empty slot and push it to adjust it inside the empty slot.

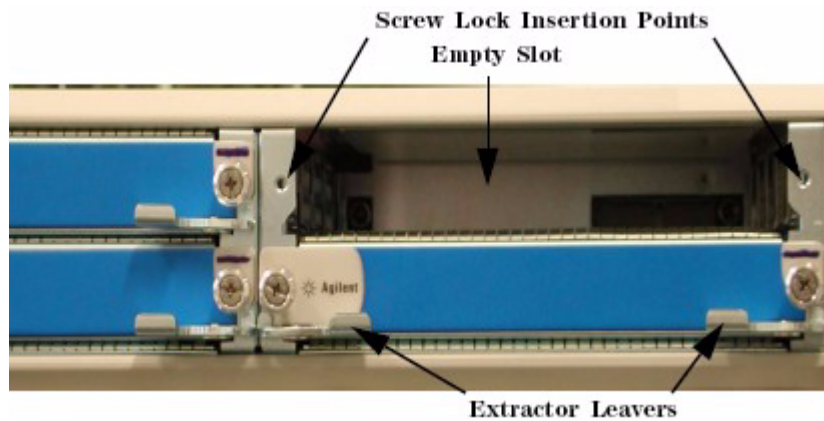


Figure 1 Chassis with an Empty Slot

- 2 Tighten the screw locks of the I/O module.
The I/O module is now attached to the chassis.

Removing an I/O module from the chassis

To remove an I/O module from the chassis:

- 1 Unscrew the screw locks.

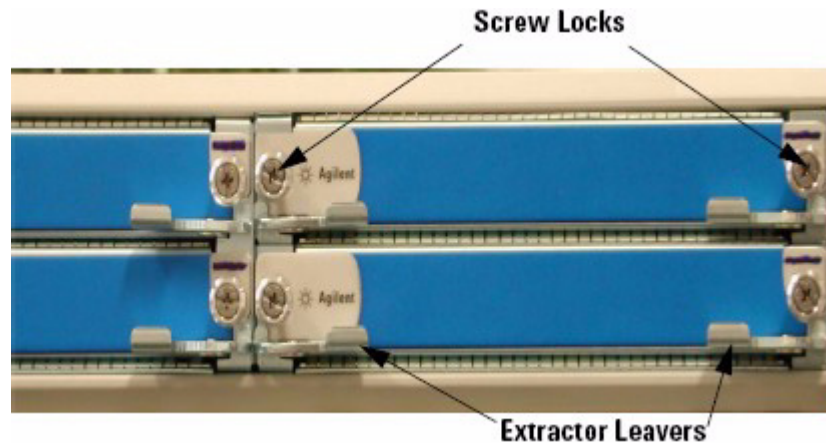


Figure 2 Screw locks on the Chassis

- 2 Pull the extractor levers outside the chassis.
- 3 Pull out the I/O module to remove it from the chassis.

Once you have removed the I/O module from the chassis, hold it by the front panel and metal case, and place it on a hard and flat surface.

WARNING

Do not directly touch any component on the I/O module. It may be hot.

CAUTION

Components on the I/O module are sensitive to the static electricity. Therefore, take necessary anti-static precautions, such as wear a grounded wrist strap, to minimize the possibility of electrostatic damage. Also, you should not operate a chassis with empty slots. Fill empty slots with blanking plates to ensure correct operation on the chassis.

Setting up the N5341A module

Once you have adjusted the modules inside the chassis, set up the N5341A module.

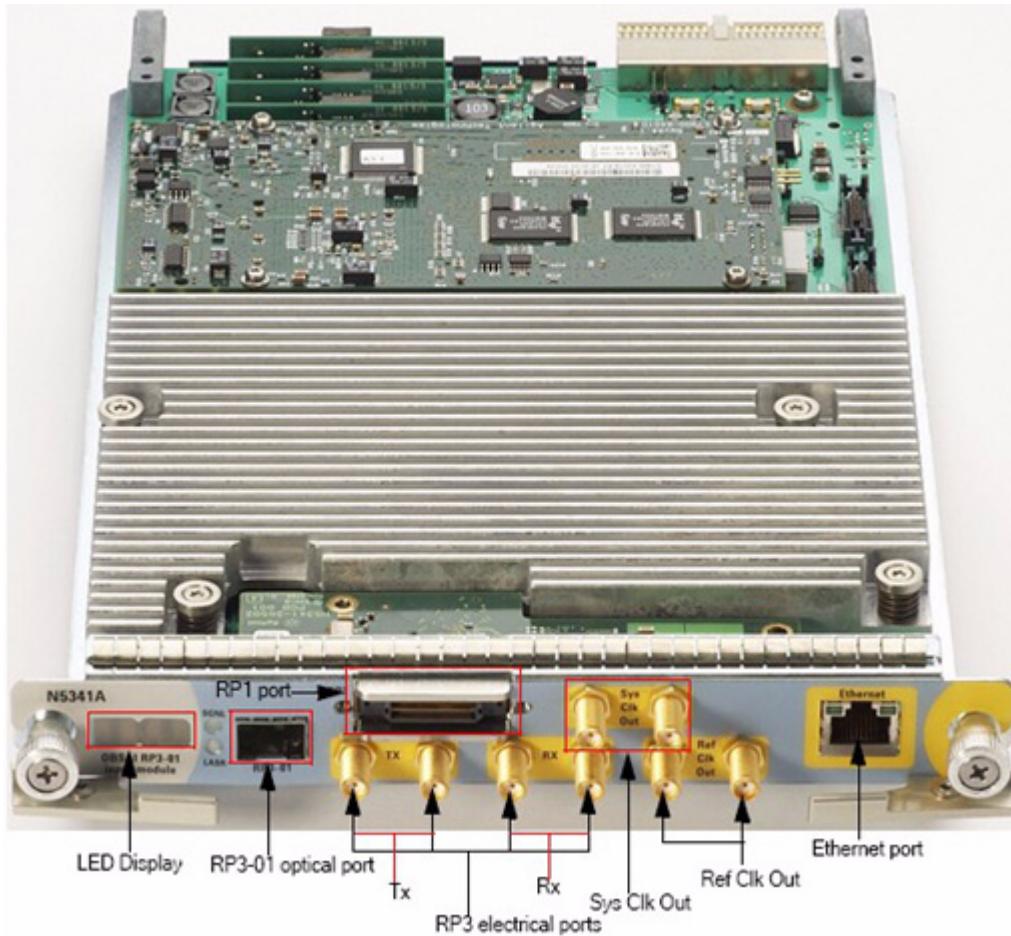


Figure 3 N5341A module

To set the N5341A module

- **For RP3-01 connection:** First, ensure that SFP is inserted into the RP3-01 optical port. Then, connect the one end of the optical fibre cable to the RP3-01 optical port, and the other end to device under test (DUT).
- **For RP3 connection:** Connect the electrical Tx port of DUT to the Rx ports of the N5341A module.

- **For RP1 connection:** Do the following:
 - When you are using N5341A as a Base Station with CCM, connect the RP1 receiver port of DUT to the *sync burst out* port of the RP1 cable, and connect the RP1 cable to the RP1 port. The reference clock of 30.72 MHz will be available on *Sys Clk Out*.
 - When you are using N5341A as an RF module, connect the *sync burst* and *system clock* from DUT to the *sync burst in* and *sys clk in* of the RP1 cable, and connect the RP1 cable to the RP1 port.
- **For Ethernet connection:** Connect the LAN cable to the ethernet port of the module to provide ethernet functionality on the RP3-01 port.

Ensure that the ethernet connection is configured at 10/100 Mbps.

This completes the hardware setup for the N5341A module.

Connecting a Chassis to the Controller PC

After setting up the module, you can connect the chassis to the Controller PC. For this, you can refer to the following arrangements, as applicable:

- **No LAN interface available:** In this situation, you can use the USB network adapter to connect the Controller PC to the master chassis.

The advantage of this arrangement is that you can set up a test environment easily at different places. For example, you can use a mobile instrument, such as laptop, as Controller PC and connect it directly to the chassis.

- **Single LAN interface available:** In this situation, you can:
 - Connect the chassis to the Controller PC through the private LAN.
 - Use the USB network adapter, which comes with OBSAI Protocol Tester, as a second LAN interface.

The advantage of this arrangement is that you can access the Controller PC from anywhere within the corporate LAN. For example, multiple Client PCs can access the Controller PC through the corporate LAN.

NOTE

The two-slot chassis and the four-slot chassis have the same connector assembly at the rear.

To connect the master chassis to the Controller PC

- Connect the MDI-X port of the chassis to the Controller PC using the standard LAN cable.
- Or, connect the MDI-X port of the chassis to the USB network adapter using the standard LAN cable.

NOTE

Do not connect the USB cable of the USB network adapter with the Controller PC until installation wizard prompts you for it.



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Once you have set up the hardware, you can start installing the software components that come with the installation CD.



Configuring the Controller PC

You need to configure the Controller PC to enable communication between the Controller and Client PCs for data interchange.

In order to configure the Controller PC, you need to set up the FTP service.

NOTE

You do not have to configure the Client PC if you have planned to install both the Controller and Client software on a single PC.

Setting Up the FTP

On the Controller PC, you need to install and enable the FTP service to download firmware for various test modules. For this requirement, OBSAI Protocol Tester provides a third-party FTP server named WARftp.

Remember the following about WARftp while installing OBSAI Protocol Tester:

- WARftp is automatically installed and configured while installing OBSAI Protocol Tester.
- WARftp is installed only when the default FTP service is not installed on the Controller PC.
- Do not install WARftp prior to installing OBSAI Protocol Tester.
- Uninstall WARftp if it is already installed, as it halts the installation of OBSAI Protocol Tester.

NOTE

WARftp restricts many organizations, such as government organizations, from using it. For more information on using WARftp, please refer to www.warftp.org. Also, please refer to the license notes to find out if you can use WARftp.

If you are not allowed to use WARftp, you can use the FTP server that comes with the Windows operating system. In Windows, FTP is a part of Internet Information Services (IIS).

NOTE

If IIS is already installed on the Controller PC, then skip to the next section.

In this section, you will learn:

- [“To Install FTP”](#)

- “To Enable FTP

To Install FTP

- 1 Click **Start > Settings > Control Panel**.

The Control Panel window appears.

- 2 Double-click the **Add/Remove Programs** icon.

The Add/Remove Programs window appears.

- 3 Click the **Add/Remove Windows Components** button.

The Windows Components Wizard dialog box appears.

- 4 Select the **Internet Information Services (IIS)** check box in the Components list box.

- 5 Click **Details**.

The Internet Information Services (IIS) dialog box appears.

- 6 Select the **File Transfer Protocol (FTP) Server** check box in the Sub components of Internet Information Services (IIS) list box.

This automatically selects the **Common Files** and **Internet Information Services Snap-In** check boxes.

- 7 Click **OK**.

This saves the changes you made and closes the Internet Information Services (IIS) dialog box.

- 8 Click **Next** to install IIS.

- 9 Click **Finish** to complete the installation process.

To Enable FTP

- 1 Click **Start > Settings > Control Panel**.

The Control Panel window appears.

- 2 Double-click the **Administrative Tools** icon.

The **Administrative Tools** window appears.

- 3 Double-click the **Services** icon.

The **Services** window appears.

- 4 Select the **FTP Publishing Service** service from the Name column.

- 5 Select **Action > Start** to enable FTP.

Installing OBSAI Protocol Tester

Once you have prepared the system for installation, you can start installing OBSAI Protocol Tester on it. There are two ways to install OBSAI Protocol Tester. One is to install without using the USB network adapter, and the other is to install using the USB network adapter.

In this section, you will learn:

- [“Installing OBSAI Protocol Tester without the USB Network Adapter](#)
- [“Installing OBSAI Protocol Tester with the USB Network Adapter](#)
- [“Uninstalling the USB Network Adapter](#)

NOTE

Before moving to the next section, uninstall the N2X software if it is installed on the Controller PC.

Installing OBSAI Protocol Tester without the USB Network Adapter

To install OBSAI Protocol Tester without the USB Network Adapter:

- 1 Insert the installation CD in the CD drive.

The installation page appears.

NOTE

If the installation page does not appear automatically, do the following:

- 1 Access the CD drive using Windows Explorer.
- 2 Browse to the **SystemProtocolTester** folder.
- 3 Double-click the **Setup.exe** file.

Running Setup.exe takes you to the message box that is otherwise displayed when you click Run in Step 4, or to the License Agreement screen that is otherwise displayed when you click Next in Step 6, whichever is applicable.

- 2 Click **Installation**.

The Install System Protocol Tester Software page appears.

- 3 Click the **System Protocol Tester** hyperlink.

The File Download - Security Warning dialog box appears. This dialog box prompts if you want to run or save the Setup.exe file.

- 4 Click **Run**.

If legacy components are installed on your computer, then a message box appears and prompts you to remove them.

To remove legacy components, do the following:

- a Click **Yes**. The uninstallation process starts. Once this process ends, the Uninstall Complete screen of the wizard appears.
- b Click **Finish**.

This takes you back to the Install System Protocol Tester Software page.

- 5 Repeat Steps 3 and 4.

This time, the welcome screen of the installation wizard appears.

- 6 Click **Next**.

The License Agreement screen appears.

- 7 Select **I accept the terms of the license agreement**.

- 8 Click **Next**.

The Setup Type screen appears. This screen prompts you to select the setup type that best suits your need.

- 9 Select one of the following options:

- a **Client (GUI only)**: Select if you want to install only the Client software on your PC.
- b **Controller + Client (Full)**: Select if you want to install both the Controller and Client software on your PC.

- 10 Click **Next**.

The Ready to Install the Program screen appears.

- 11 Click **Install**.

This installs System Protocol Tester, and displays the next screen of the wizard.

- 12 Clear the **View Readme.txt** check box if you do not want to view the `Readme.txt` file.

- 13 Clear the **Run USB network adapter Config Helper** check box.

- 14 Click **Next**.

The InstallShield Wizard Complete screen appears.

- 15 Click **Finish**.

This completes the System Protocol Tester installation.

Installing OBSAI Protocol Tester with the USB Network Adapter

To install OBSAI Protocol Tester with the USB Network Adapter:

- 1 Repeat steps 1 to 12 from the previous section.
- 2 Select the **Run USB network adapter Config Helper** check box.

3 Click Next.

A message box appears that prompts you to attach the USB network adapter to the Controller PC.

4 Attach the USB network adapter to the Controller PC.

5 Click Yes.

A message box, displaying the USB network adapter and DHCP settings, appears.

6 Click Yes.

A message box, displaying the *Settings successfully modified* message, appears.

7 Click OK.

The InstallShield Wizard Complete screen appears. This screen prompts you to restart your computer.

8 Select Yes, I want to restart my computer now.

9 Click Finish.

NOTE

If you are using the USB network adapter, and has already used the Config Helper tool to configure the LAN interface and DHCP, jump to [Chapter 4, Getting Started](#) on page 29.

Uninstalling the USB Network Adapter

Once you have used the USB network adapter in the installation process, you can remove it. However, doing this does not releases the IP address assigned to the USB network adapter. Therefore, any attempts to use that port displays an error, which prompts that the IP address is already assigned to a device. To avoid this situation, uninstall the USB network adapter before physically removing it from the computer.

To uninstall the USB network adapter

1 Right-click the My Computer icon.

2 Select Manage from right-click menu.

The Computer Management window appears ([Figure 4](#)).

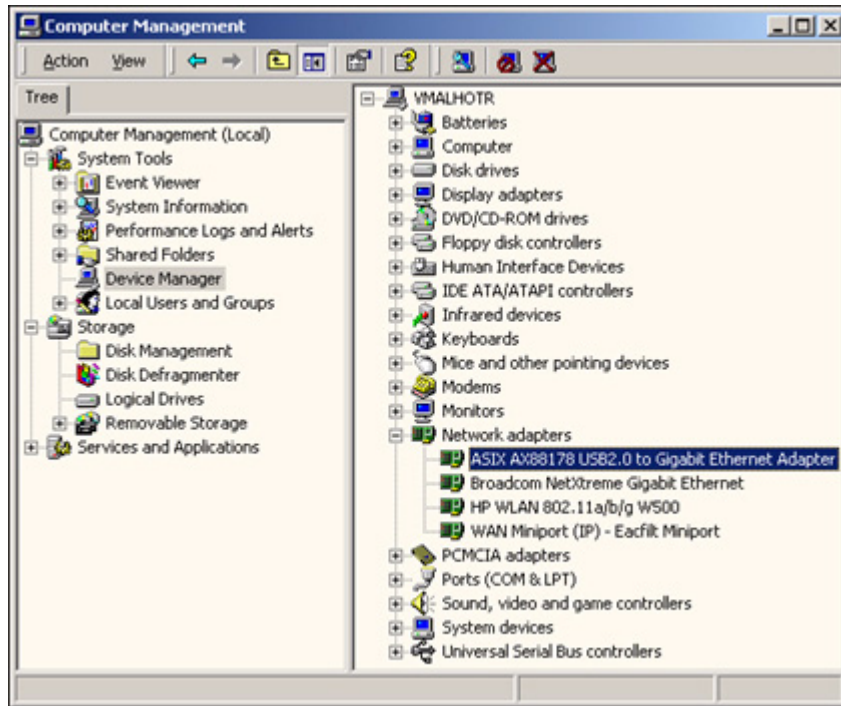


Figure 4 Computer Management window

- 3 Click the **System Tools > Device Manager** icon under the Tree tab.

This displays an expandable list of options in the right panel of the Computer Management window.

- 4 Expand the **Network adapters** icon.

A list of network adapters attached to your computer is displayed.

- 5 Right-click the option that represents the USB network adapter.

- 6 Select **Uninstall** from the context menu.

The Confirm Device Removal message box appears ([Figure 5](#)).

3 Installing OBSAI Protocol Tester



Figure 5 Confirm Device Removal message box

7 Click **OK**.

This uninstalls the USB network adapter. You can now remove the USB network adapter from the computer and assign its IP address to some other device.

Setting Up the DHCP Service

DHCP is a communication protocol that lets network administrators centrally manage and automate the assignment of IP addresses in a computer network. DHCP lets a network administrator supervise and distribute IP addresses from a central point and automatically sends a new IP address when a computer is plugged into a different place in the network.

The DHCP server installed with System Protocol Tester does not use the standard DHCP port. Rather, it uses the following special ports to avoid any interference with the DHCP server running within your corporate LAN:

- **7901:** This port is used to listen to the requests sent from a serial I/O module.
- **7902:** This port is used to listen to the responses/answers sent from the Controller PC.

Setting up the DHCP service for System Protocol Tester requires you to configure the LAN card and configure the DHCP service.

Configuring the LAN interface

You need to configure the LAN card on the Controller PC to establish a private LAN connection between the Controller PC and the chassis.

To configure the LAN interface

- 1 Click **Start > Settings > Control Panel**.

The Control Panel window appears.

- 2 Double-click the **Network and Dial-up Connections** icon.

The Network and Dial-up Connections window appears.

- 3 Select the icon that represents LAN card for private network.

- 4 Click **File > Properties**.

The Properties dialog box for the selected LAN card appears.

- 5 Click the **General** tab.

- 6 Select the **Internet Protocol (TCP/IP)** check box in the **Components checked are used by this connection** list box.

- 7 Click **Properties**.

The Internet Protocol (TCP/IP) dialog box appears.

- 8 Select **Use the following IP address**.

- 9 Type in the following information in the **IP address**, **Subnet mask**, and **Default gateway** text boxes.

IP address: 10.0.0.1

Subnet mask: 255.0.0.0

- 10 Click **OK**.
- 11 Click **OK**.

Configuring DHCP

To configure DHCP, you need to update the DHCP configuration file (`dhcpd.conf`), restart the DHCP service, and update the DHCP registry file (`dhcpd.reg`) and the system registry.

In this section, you will learn to:

- “To update the DHCP configuration file
- “To restart the DHCP service
- “To update the DHCP registry file and the system registry

To update the DHCP configuration file

- 1 Go to the `c:\dhcpdnt` directory.
- 2 Open the `dhcpd.conf` file in a text editor.
- 3 Modify the subnet, netmask, and range dynamic-bootp parameters, as desired.
- 4 Save the `dhcpd.conf` file.
- 5 Close the `dhcpd.conf` file.

NOTE

Before you move to the next section, ensure that the controller PC is connected with the chassis.

To restart the DHCP service

- 1 Click **Start - Settings - Control Panel**.
The Control Panel window appears.
- 2 Double-click the **Administrative Tools** icon.
The Administrative Tools window appears.
- 3 Double-click the **Services** icon.
The Services window appears.

- 4 Select **dhcpcdNT** under the **Name** column.
- 5 Click **Action > Restart**.

This assigns IP addresses to the serial I/O modules according to the new settings.

To update the DHCP registry file and the system registry

- 1 Go to the `c:\dhcpcdnt` directory.
- 2 Open the `dhcpcd.reg` file in a text editor.
- 3 Modify the `Interface.0` parameter with the IP address of the LAN card that is connected to serial I/O modules.

The address you specify here should be within the subnet and is used as the DHCP server.

- 4 Save the `dhcpcd.reg` file.
- 5 Close the `dhcpcd.reg` file.
- 6 Double-click the `dhcpcd.reg` file in Windows Explorer.

The Registry Editor dialog box appears asking if you want to update the system registry using the `dhcpcd.reg` file.

- 7 Click **Yes**.

The Registry Editor message box displays prompting that the system registry has been successfully updated.

- 8 Click **OK**.

Updating the DHCP configuration file to use MAC address

If you do not want to use DHCP, then you can use MAC addresses of the serial I/O modules to assign them their IP addresses. For this, you need to update the DHCP configuration file in order to prepare it for using MAC addresses of the serial I/O modules.

To update the DHCP configuration file for using MAC addresses

- 1 Go to the `c:\dhcpcdnt` directory.
- 2 Open the `dhcpcd.conf` file in a text editor.
- 3 Comment out the following statements:

```
boot-unknown-clients true;
range dynamic-bootp <range of ip addresses for modules>;
```

To comment out these statements, insert the `#` symbol in the beginning.

Commenting these statements disables the automatic configuration of the IP addresses.

- 4 Uncomment the following function for each serial I/O module:

```
#host <hostname for module>{  
# hardware ethernet <MAC address of the module>;  
# fixed-address <ip address to be assigned to this  
module>;  
#}
```

- 5 Replace the *<hostname for module>* parameter with the name of the serial I/O module.
- 6 Replace the *<MAC address of the module>* parameter with the MAC address of the serial I/O module.

You can find the MAC address of the serial I/O module on its label.

- 7 Replace the *<ip address to be assigned to this module>* parameter with the IP address of the serial I/O module.

The IP address of the serial I/O module should be within the defined subnet.

- 8 Save the `dhcpd.conf` file.
- 9 Restart the DHCP service.

For information on restarting the DHCP service, refer to [“To restart the DHCP service”](#) on page 26.

- 10 Reboot the serial I/O modules.

The new IP addresses are assigned to the serial I/O modules.



4 Getting Started

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This chapter provides information on how to power up the system, and the start and join a new OBSAI session.



Starting an OBSAI Session

After installing OBSAI Protocol Tester, find out if it is starting fine.

The following procedure tells you about how to power up the system and start a new session.

In this section, you will learn:

- [To power up the system](#)
- [To start a new session](#)

To power up the system

- 1 Power up the Controller PC.

Powering up the Controller PC starts the *AgtResourceManager* service. This service keeps track of the chassis connected to the Controller PC.

- 2 Power up the Ethernet switch or hub if you have connected the chassis through an Ethernet switch or hub.
- 3 Power up the chassis connected to the Controller PC.

You can power up the chassis using the power switch, which is at the front of each chassis.

Powering up the chassis also boots the I/O modules installed in it.

- 4 View the matrix display of the I/O module.

After booting, the I/O module displays its number along with a trail of pixel snake around the border of the display area.

To start a new session

- 1 Invoke the Tcl command prompt.
- 2 Load the `AgtClient` package into the Tcl interpreter.

To do this, use the following Tcl command:

```
package require AgtClient
```

- 3 Press the ENTER key on the keyboard to load the `AgtClient` package, which has the entire OBSAI api.

The following output is displayed:

```
0.2
```

This connects the Tcl shell to the OBSAI system. The 0.2 value is the version of the `AgtClient` package.

- 4 Specify the following command to start a new *OBSAI exerciser* session:

```
AgtInvoke AgtTestSession OpenSession ObsaiExerciser
AGT_SESSION_ONLINE
```

In the above command:

- **AgtInvoke** is the primary API command used to interact with OBSAI Protocol Tester. Its syntax is *AgtInvoke* <object> <method> <params>. Where, <object> is an object in the OBSAI system, <method> is one of the many actions that you can perform on <object>, and <params> are the parameters required/returned by <method>.
- **AgtTestSession** is an interface that provides methods to open and close an OBSAI session.
- **OpenSession** is a method used to create a new session. This method takes <sessionType> and <sessionMode> parameters, and returns <sessionHandle> parameter.
- **ObsaiExerciser** is a <sessionType> parameter.
- **AGT_SESSION_ONLINE** is a <sessionMode> parameter.

5 Specify the following command to add a port to the session:

```
AgtInvoke AgtPortSelector AddPort 101 1
```

This command creates a new session, and returns you the unique session id, such as 1.

In the above command:

- **AgtPortSelector** is an interface that provides methods to reserve ports for the current test session. As ports are added, modules are locked for exclusive use by the session.
- **AddPort** is a method used to add a port to the current session. It takes <moduleNum> and <portNum>, and returns <portHandle>.
- **101** is a module number.
- **1** is a port number.

6 Specify the following to join the session you just created:

```
AgtInvoke AgtConnect 1
```

Where,

- **1** is the unique session id returned to you in Step 5.

Using OBSAI API - Example

Once you have created and joined a session, you can start to use the OBSAI api.

In this section, you will learn:

- [Creating a trigger on RP1 range and type](#)

Creating a trigger on RP1 range and type

Consider that you want to trigger when one of the following condition is true:

- When RP1 range is between 1000 and 2000
- When RP1 type is AGT_OBSAI_RP1_TYPE_RP3_FDD or AGT_OBSAI_RP1_TYPE_CDMA_2000

In the following, use case:

- PORT = Port Id returned by the AddPort method
- LINK_MAP = 1 (assuming to use only one link)

To create a trigger on RP1 range and type

- 1 Set the trigger properties, as shown below:

```
AgtInvoke AgtObsaiExerciser SetRP1TriggerProperties PORT  
LINK_MAP 1000 0 2000 0 AGT_OBSAI_RP1_TYPE_RP3_FDD |  
AGT_OBSAI_RP1_TYPE_CDMA_2000 0
```

The above statement sets the range for RP1 between 1000 and 2000, and also sets RP1 type to AGT_OBSAI_RP1_TYPE_RP3_FDD and AGT_OBSAI_RP1_TYPE_CDMA_2000.

- 2 Specify which property to use for trigger from the above statement:

```
AgtInvoke AgtObsaiExerciser TriggerControl PORT LINK_MAP  
AGT_OBSAI_TRIG_CTL_RP1_RANGE |  
AGT_OBSAI_TRIG_CTL_RP1_TYPE
```

- 3 Start capturing on Rx side:

```
AgtInvoke AgtObsaiExerciser RxControl PORT  
AGT_OBSAI_RX_CONTROL_START_CAPTURE
```

As a consequence of above statement, *OBSAI exerciser* triggers when the trigger condition is true.

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Printed in Germany July 2008