



CHAPTER 8

Using the Aironet System Tray Utility (ASTU)

This chapter explains how to use the Aironet System Tray Utility (ASTU) to access status information about your client adapter and perform basic tasks.

The following topics are covered in this chapter:

- [Overview of ASTU, page 8-2](#)
- [The ASTU Icon, page 8-2](#)
- [Tool Tip Window, page 8-3](#)
- [Pop-Up Menu, page 8-5](#)

Overview of ASTU

ASTU is an optional application that provides a small subset of the features available through ADU. Specifically, it enables you to access status information about your client adapter and perform basic tasks. ASTU is accessible from an icon in the Windows system tray, making it easily accessible and convenient to use. The ASTU icon appears only if a client adapter is installed into your computer and you did not disable ASTU during installation.

ASTU provides information and options in the following ways:

- In the appearance of the icon itself
- Through a tool tip window that appears when you hover the cursor over the icon
- Through a pop-up menu that appears when you right-click the icon
- Through a Connection Status window that appears when you double-click the icon

The ASTU Icon

The appearance of the ASTU icon indicates the connection status of your client adapter. ASTU reads the client adapter status and updates the icon every 1 to 5 seconds, depending on the value entered for the Refresh Interval on the Display Settings window. [Table 8-1](#) interprets the different appearances of the ASTU icon.



Note

Windows 2000 and XP may display their own wireless network connection status icon in the system tray. Cisco recommends that you turn off the Windows icon and use the ASTU icon to monitor your wireless connection.

Table 8-1 *Interpreting the ASTU Icon*







Icon	Description
	A white icon indicates that the client adapter's radio is disabled.
	A dark gray icon indicates that the client adapter is not associated to an access point (in infrastructure mode) or another client (in ad hoc mode).
	A light gray icon indicates that the client adapter is associated to an access point (in infrastructure mode) or another client (in ad hoc mode) but the user is not EAP authenticated.
	A green icon indicates that the client adapter is associated to an access point (in infrastructure mode) or another client (in ad hoc mode), the user is authenticated if the client adapter is configured for EAP authentication, and the signal strength is excellent or good.

Table 8-1 *Interpreting the ASTU Icon (continued)*

Icon	Description
	A yellow icon indicates that the client adapter is associated to an access point (in infrastructure mode) or another client (in ad hoc mode), the user is authenticated if the client adapter is configured for EAP authentication, and the signal strength is fair.
	A red icon indicates that the client adapter is associated to an access point (in infrastructure mode) or another client (in ad hoc mode), the user is authenticated if the client adapter is configured for EAP authentication, and the signal strength is poor.

Tool Tip Window

When you hover the cursor over the ASTU icon, the Tool Tip window appears (see [Figure 8-1](#)).

**Note**

If the client adapter's radio is disabled, a message appears instead of the Tool Tip window to inform you that the wireless network interface is disabled.

Figure 8-1 *Tool Tip Window*

Office Test AP 1 Associated Excellent 11.0 Mbps, 11b Cisco Aironet 802.11a/b/g Wireless Adapter #3 169.254.42.170	136214
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This window provides information on the current status of your client adapter. [Table 8-2](#) lists and describes each element of the Tool Tip window.

Table 8-2 *Tool Tip Window Elements*

Status Element	Description
Active profile	The network configuration (or profile) that your client adapter is currently using. Note If auto profile selection is enabled, the active profile does not appear until the client is associated to an access point.
SSID	The name of the network to which your client adapter is currently associated. Note When the client adapter is not associated and auto profile selection is disabled, this field shows the profile's SSID. When the client adapter is not associated and auto profile selection is enabled, this field is left blank. Note Refer to the SSID1 parameter in Table 5-2 for information on setting the client adapter's SSID.

Table 8-2 Tool Tip Window Elements (continued)

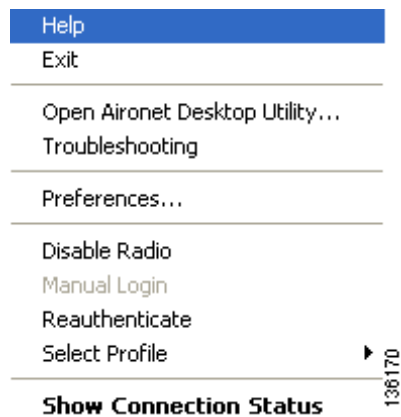
Status Element	Description														
Connection status	<p>The operational mode of your client adapter.</p> <p>Value: Not Associated, Associated, Authenticating, Authenticated, Authentication Failed, or Authentication Failed Retrying</p>														
	<table border="1"> <thead> <tr> <th>Connection Status</th> <th>Description</th> </tr> </thead> <tbody> <tr> <td>Not Associated</td> <td>The client adapter has not established a connection to an access point (in infrastructure mode) or another client (in ad hoc mode).</td> </tr> <tr> <td>Associated</td> <td>The client adapter has established a connection to an access point (in infrastructure mode) or another client (in ad hoc mode).</td> </tr> <tr> <td>Authenticating</td> <td>The client adapter is associated to an access point, and the EAP authentication process has begun but not yet succeeded.</td> </tr> <tr> <td>Authenticated</td> <td>The client adapter is associated to an access point, and the user is EAP authenticated.</td> </tr> <tr> <td>Authentication Failed</td> <td> <p>The client adapter is associated to an access point, but the user has failed to EAP authenticate.</p> <p>Note This status may appear very briefly or not at all as the authentication failure may result in the client adapter becoming disassociated, in which case the status reads <i>Not Associated</i>.</p> </td> </tr> <tr> <td>Authentication Failed Retrying</td> <td> <p>The client adapter is associated to an access point, the user has failed to EAP authenticate, but another authentication attempt is being made.</p> <p>Note This status may appear very briefly or not at all as the authentication failure may result in the client adapter becoming disassociated, in which case the status reads <i>Not Associated</i>.</p> </td> </tr> </tbody> </table>	Connection Status	Description	Not Associated	The client adapter has not established a connection to an access point (in infrastructure mode) or another client (in ad hoc mode).	Associated	The client adapter has established a connection to an access point (in infrastructure mode) or another client (in ad hoc mode).	Authenticating	The client adapter is associated to an access point, and the EAP authentication process has begun but not yet succeeded.	Authenticated	The client adapter is associated to an access point, and the user is EAP authenticated.	Authentication Failed	<p>The client adapter is associated to an access point, but the user has failed to EAP authenticate.</p> <p>Note This status may appear very briefly or not at all as the authentication failure may result in the client adapter becoming disassociated, in which case the status reads <i>Not Associated</i>.</p>	Authentication Failed Retrying	<p>The client adapter is associated to an access point, the user has failed to EAP authenticate, but another authentication attempt is being made.</p> <p>Note This status may appear very briefly or not at all as the authentication failure may result in the client adapter becoming disassociated, in which case the status reads <i>Not Associated</i>.</p>
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Table 8-2 *Tool Tip Window Elements (continued)*

Status Element	Description
Link quality	The client adapter's signal strength for all received packets. Value: Excellent, Good, Fair, Poor, or No Link
Link speed and 802.11 mode	The rate at which your client adapter is currently transmitting data packets and the 802.11 mode that your client adapter is currently using for communications. Link speed value: 1, 2, 5.5, 6, 9, 11, 12, 18, 24, 36, 48, or 54 Mbps 802.11 mode value: 11a, 11b, or 11g
Client adapter type	A description of your client adapter.
Client adapter IP address	The IP address of your client adapter.

Pop-Up Menu

When you right-click the ASTU icon, the ASTU pop-up menu appears (see [Figure 8-2](#)).

Figure 8-2 *ASTU Pop-Up Menu*

The following sections describe each ASTU pop-up menu option.



Note

If you used the Aironet System Tray Utility Preferences window or your system administrator used an administrative tool to deactivate certain ASTU menu options, these options do not appear in the menu and therefore cannot be selected.

Help

This option enables you to access the online help.

Exit

This option closes ADU and ASTU.



Note

To reactivate ADU, double-click the **Aironet Desktop Utility** icon on your computer desktop. To reactivate ASTU, choose the **Enable Tray Icon** option from the ADU Action drop-down menu.

Open Aironet Desktop Utility

This option activates ADU.

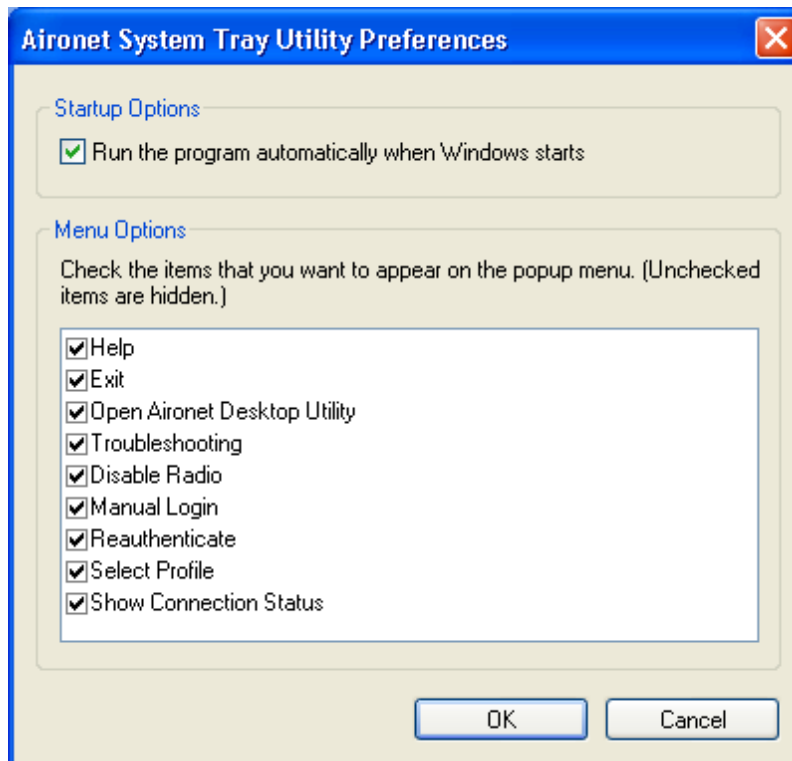
Troubleshooting

This option activates the troubleshooting utility, which enables you to identify and resolve configuration and association problems with your client adapter. Refer to the [“Using the Cisco Aironet Troubleshooting Utility” section on page 10-3](#) for detailed instructions on using this utility.

Preferences

When you choose this option, the Aironet System Tray Utility Preferences window appears (see [Figure 8-3](#)).

Figure 8-3 Aironet System Tray Utility Preferences Window



This window enables you to determine when ADU and ASTU run and to choose the options that appear on the ASTU pop-up menu. Follow these steps to make your selections.

Step 1 If you want ASTU to run automatically when Windows starts, make sure the **Run the program automatically when Windows starts** check box is checked. Otherwise, uncheck this check box.



Note If you do not choose this option and later want to run ASTU, you must choose the **Enable Tray Icon** option from the Action drop-down menu in ADU.

Step 2 In the Menu Options portion of the window, make sure the check boxes of all the options that you want to appear in the ASTU pop-up menu are checked. Any options that are not checked will not be included in the menu.



Note The Preferences option cannot be deselected. It always appears in the ASTU pop-up menu.

Step 3 Click **OK** to save your changes.

Enable/Disable Radio

This option enables you to disable or enable the client adapter's radio. Disabling the radio prevents the adapter from transmitting RF energy. You might want to disable the client adapter's radio in the following situations:

- You are not transmitting data and want to conserve battery power.
- You are using a laptop on an airplane, hospital, or any other location where radio transmission is not allowed and want to prevent the adapter's transmissions from potentially interfering with the operation of certain devices.

When the radio is enabled, it periodically sends out probes even if it is not associated to an access point (in infrastructure mode) or another client (in ad hoc mode), as required by the 802.11 specification. Therefore, it is important to disable it around devices that are susceptible to RF interference.



Note If the client adapter's radio is disabled, your client adapter is not associated, and a message appears when you hover the cursor over the ASTU icon to inform you that the wireless network interface is disabled.



Note If your client adapter's radio is disabled before your computer enters standby or hibernate mode or before you reboot the computer, the radio remains disabled when the computer resumes. You must enable the radio to resume operation.

If the radio is enabled, choose **Disable Radio** to disable the radio.

If the radio is disabled, choose **Enable Radio** to enable the radio.

Manual Login

This option enables you to manually invoke the authentication process for a profile that is configured to use a manually prompted LEAP or EAP-FAST username and password. When you choose this option, the Enter Wireless Network Password window appears. Enter your LEAP or EAP-FAST credentials and click **OK**. The LEAP or EAP-FAST Authentication Status window appears, and the authentication process begins.


Note

Refer to [Chapter 5](#) for information on setting a manual LEAP or EAP-FAST profile and [Chapter 6](#) for details on the authentication process.

Reauthenticate

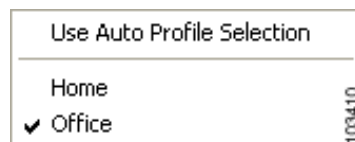
This option forces your client adapter to try to reauthenticate using the username and password of the current profile. It is available for all EAP-enabled profiles. When you choose this option, the authentication process begins.

If your client adapter is unable to authenticate using the specified username and password, you may be prompted to re-enter them. If you click **Cancel**, a message appears indicating that the current profile will be disabled until you choose the Reauthenticate option, reboot your computer, or eject and reinsert the client adapter.

Select Profile

This option enables you to select the active profile for your client adapter. When you choose this option, a profiles submenu appears (see [Figure 8-4](#)).

Figure 8-4 Profiles Submenu



From this menu, you can choose between the following options:

- **Use Auto Profile Selection**—Causes the client adapter's driver to automatically select a profile from the list of profiles that were set up in ADU to be included in auto profile selection.

If the client adapter loses association for more than 10 seconds (or for more than the time specified by the LEAP/EAP-FAST authentication timeout value on the LEAP/EAP-FAST Settings window if LEAP/EAP-FAST is enabled), the driver switches automatically to another profile that is included in auto profile selection. The adapter will not switch profiles as long as it remains associated or reassociates within 10 seconds (or within the time specified by the LEAP/EAP-FAST authentication timeout value). To force the client adapter to associate to a different access point (in infrastructure mode) or another client (in ad hoc mode), you must select a new profile.


Note

This option is available only if two or more profiles are included in auto profile selection.

**Note**

Login scripts are not reliable if you use auto profile selection with LEAP or EAP-FAST. If you authenticate and achieve full network connectivity before or at the same time as you log into the computer, the login scripts will run. However, if you authenticate and achieve full network connectivity after you log into the computer, the login scripts will not run.

- **A specific profile**—When you select a profile from the list of available profiles, the client adapter attempts to establish a connection to an access point (in infrastructure mode) or another client (in ad hoc mode) using the parameters that were configured for that profile.

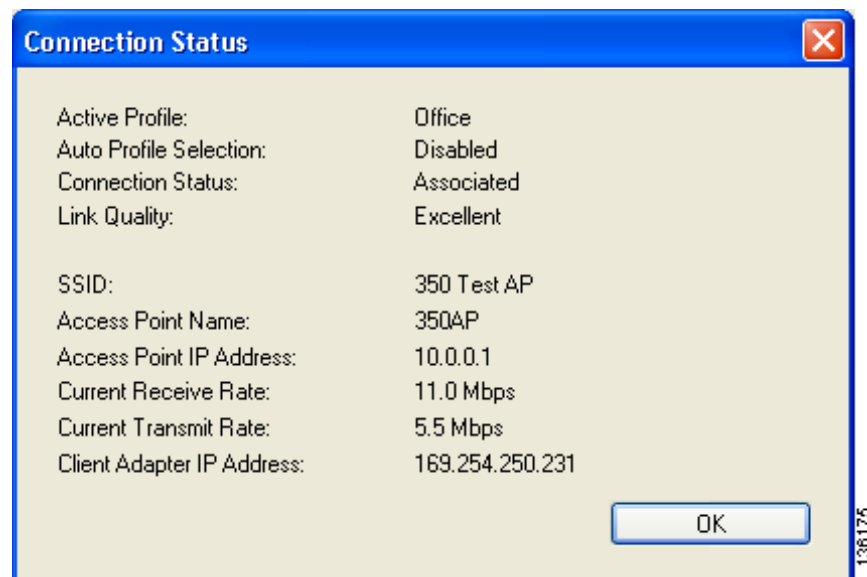
If the client adapter cannot associate to the access point (or other client) or loses association while using the selected profile, the adapter does not attempt to associate using another profile. To get it to associate, you must select a different profile or select Use Auto Profile Selection.

Simply click the desired profile to select it. A check mark appears beside the profile, and the client adapter attempts to establish a connection using the selected profile.

Show Connection Status

When you choose this option, the Connection Status window appears (see [Figure 8-5](#)).

Figure 8-5 Connection Status Window



This window provides information on the current status of your client adapter. [Table 8-3](#) interprets each element of the Connection Status window.

**Note**

You can also access the Connection Status window by double-clicking the ASTU icon.

Table 8-3 Connection Status Window Elements

Status Element	Description	
Active Profile	The network configuration (or profile) that your client adapter is currently using.	
Auto Profile Selection	Indicates whether your client adapter is using auto profile selection. Value: Enabled or Disabled	
Connection Status	The operational mode of your client adapter. Value: Not Associated, Associated, Authenticating, Authenticated, Authentication Failed, or Authentication Failed Retrying	
	Connection Status	Description
	Not Associated	The client adapter has not established a connection to an access point (in infrastructure mode) or another client (in ad hoc mode).
	Associated	The client adapter has established a connection to an access point (in infrastructure mode) or another client (in ad hoc mode).
	Authenticating	The client adapter is associated to an access point, and the EAP authentication process has begun but not yet succeeded.
	Authenticated	The client adapter is associated to an access point, and the user is EAP authenticated.
	Authentication Failed	The client adapter is associated to an access point, but the user has failed to EAP authenticate. Note This status may appear very briefly or not at all as the authentication failure may result in the client adapter becoming disassociated, in which case the status reads <i>Not Associated</i> .
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Table 8-3 Connection Status Window Elements (continued)

Status Element	Description
Link Quality	The client adapter's signal strength for all received packets. Value: Excellent, Good, Fair, Poor, or No Link
SSID	The name of the network to which your client adapter is currently associated. Note Refer to the SSID1 parameter in Table 5-2 for information on setting the client adapter's SSID.
Access Point Name	The name of the access point to which your client adapter is associated. It is shown only if the client adapter is in infrastructure mode, the access point was configured with a name, and Aironet Extensions are enabled (on access points running Cisco IOS Release 12.2(4)JA or later). Note This field shows up to 15 characters although the name of the access point may be longer.
Access Point IP Address	The IP address of the access point to which your client adapter is associated. It is shown only if the client adapter is in infrastructure mode, the access point was configured with an IP address, and Aironet Extensions are enabled (on access points running Cisco IOS Release 12.2(4)JA or later). Note If Aironet Extensions are disabled, the IP address of the associated access point is shown as 0.0.0.0.
Current Receive Rate	The rate at which your client adapter is currently receiving data packets. Value: 1, 2, 5.5, 6, 9, 11, 12, 18, 24, 36, 48, or 54 Mbps
Current Transmit Rate	The rate at which your client adapter is currently transmitting data packets. Value: 1, 2, 5.5, 6, 9, 11, 12, 18, 24, 36, 48, or 54 Mbps
Client Adapter IP Address	The IP address of your client adapter.

