

Cisco Unified JTAPI Test Tool User Guide



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Overview

The Cisco Unified JTAPI Test Tool is designed to aid in the development of CTI applications. It provides a convenient and flexible way for you to test and validate applications so that you can ensure that they operate properly. The Tool provides a wide variety of features for testing operations that range from basic calls to invoking advanced API methods.

The Tool is compatible with Cisco Unified Communications Manager 7.0.1 and above.

Beta Release Disclaimer

The Cisco Unified JTAPI Test Tool is designed to validate, troubleshoot, and aid in the development of CTI applications that complement Cisco Unified Communications Manager. This tool is currently in beta release and has not been tested or debugged for every scenario. Use of this tool should be limited to development, lab, or non-production systems. Care should be taken when running this tool on a production system during production hours.

Before You Begin

Download the ZIP file that contains the Cisco Unified JTAPI Test Tool files and expand the ZIP file into a folder on your local PC. The ZIP file is available at this location:

http://developer.cisco.com/web/jtapi/docs

In addition, make sure that Java 1.6 or later is installed on your PC. (To verify, open a command prompt and type **java –version**.) If necessary, download the current Java SE client.

Starting the Tool and Connecting to a Provider

To start the Cisco Unified JTAPI Test Tool, navigate to the folder on your PC in which you unzipped the files, and double-click **JTAPITestTool** Version.jar.

The Cisco Unified JTAPI Test Tool Initial window appears, as shown in Figure 1.

Cisco Unified Communications Manager JTAPI Test Tool



վելե
Cisco Unified Communications Manager
ITAPI Test Tool

	Connect to a New Provider	
Server*	172.19.242.79	
User*	inprov	
Password*		
Parameters		
	(*Required)	
	Connect	
🔲 Add Call O	bservers On All Addresses	
🔲 Register A	II Media Terminals	
Disclaimer: The validate, troubles applications that Manager. This to tested or debugge be limited to deve should be taken v during production	Cisco Unified JTAPI Test Tool is designed to hoot, and aid in the development of CTI complement Cisco Unified Communications ol is currently in DETA release and has not been d for every scenario. Usage of this tool should dopment, lako or non-production systems. Care when running this tool on a production system hours.	

Figure 1 Cisco Unified JTAPI Test Tool Initial Window

If you are starting the Tool for the first time, the fields in the Initial window are blank. When you start the Tool subsequently, it populates each field except the Password field with the information that was in the fields the last time that you clicked **Connect**.

To use the Tool to connect to a provider, follow these steps:

- **Step 1** In the Server field, enter the host name or the IP address of the Cisco Unified Communications Manager Provider to which you want to connect.
- **Step 2** In the User field, enter the UserID that is configured on Cisco Unified Communications Manager Provider for the application user.
- **Step 3** In the Password field, enter the password that is configured on Cisco Unified Communications Manager Provider for the application user.
- Step 4 (Optional) In the Parameters field, enter optional parameters of the providerString. To enter parameters, use the format argument=value. If you enter more than one parameter, separate each parameter with a comma (,). For example, enter InstanceID=100; CertStorePassphrase="name" when establishing a TLS connection.
- Step 5 (Optional) Check the Add Call Observers On All Addresses check box if you want to open call observers on all devices that are associated with the application user. (A terminal must be present in an application or end user control list.)
- Step 6 (Optional) Check the **Register All Media Terminals** check box to automatically register all media terminals that are associated with the user.
- Step 7 Click Connect to connect to the Provider.

The Cisco Unified JTAPI Test Tool Main window appears, as shown in Figure 2.



Cisco Unified Communications Manag	er JTAPI Test Tool	
ovider View Help		
Kwik-E-Mart D JIAPI		172.16.242.79 Ver. 7.1.0.39000-106
-KWIK Call		172.16.242.79 : (P1-inprov) (IN_SERVICE)
From		Call(s)
То		Ŷ─
View Events		► [m] +7878 ()
Call	Clear	► [@] 1500 {}
		► [@] 1501 {}
Kwik Conference		
Participants		
(Example: 2000, 3000, 4000) (Minimum	3)	
View Events		
Conference	Clear	
Kwik Redirect or Transfer		
From		• 🖓 2004)
То		► A 2020 (n1)
View Events		
Call	Clear	Call Events STerminal Events Address Events Strents
		CallID Event Current CallCurrent CallLast Redire Cause CallCtlCause Cisc

Figure 2 Cisco Unified JTAPI Test Tool Main Window

Main Window

The Cisco Unified JTAPI Test Tool Main window (shown in Figure 2) appears when you use the Tool to connect to a Provider. This window includes the Kwik-E-Mart tab on the left side, the Tree panel on the top right, and the Event panel on the bottom right. The following sections describe the Cisco Unified JTAPI Test Tool features and functions in detail.

Tree Panel

The Tree panel displays all current objects that are in the Provider. Information displays in a treelike format, with the provider at the top followed by calls and addresses that are within your control list. In the tree panel:

- Green items are in service and red items are out of service.
- To determine the meaning of an icon, hover your mouse pointer over the icon to display a pop-up tooltip.
- To expand an item so that you can see the items underneath it, click the Expand icon to its left:

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- To collapse an item, click the Collapse icon to its left:
- You can right-click items in the Tree panel to perform various functions and configure the display. The following sections describe these procedures.

Address(es)

By default, the Tree panel displays calls and addresses. You can expand addresses to display terminals, and you can also choose to display call observers and address observers. Figure 3 shows an expanded Address(es) list that displays terminals. (If the Tree panel displays the Terminal(s) list, you can right-click the Terminal(s) icon and choose **Flip** to display the Address(es) list.)



Figure 3 Address List with Terminals Displayed

To add observers on the Address(es) list, right-click the Address(es) item. A list of options appears, as shown in Figure 4.



Figure 4 Configuring the Address(es) List

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The options are:

- Flip—Changes the display to show the Terminal(s) list instead of Address(es) list.
- Add Call Observers—Adds call observers for all addresses, which allows you to observe any call on the list of addresses. When you choose this option, a new call observer node appears under each address, as shown in Figure 5. In addition, each address for which you added a call observer becomes active. You can observe and monitor calls that are made to and from these addresses. The Icons for each Address node that you control change to indicate the new state.



Figure 5 Address(es) List with Standard Call Observers Added

• Add Observers—Adds an address observer to each address that is in the control list. This setting allows you to monitor events that occur at each specific address. See Figure 6.



Figure 6 Address(es) List with Standard Address Observers Added



Terminal(s)

If you configure the Tree panel to display terminals, the window displays information similar to what is shown in Figure 7. You can also choose to display call observers and address observers, and to register media terminals. (If the Tree panel displays the Address(es) list, you can right-click the Address(es) icon and choose **Flip** to display the Terminal(s) list.)

172.16.242.79 : (P1-inprov) (IN_SERVICE)
– 🚺 Call(s)
🛉 個 Terminal(s)
► 😰 СТI1
► 😰 СТІ2
🗠 😰 СТІЗ
∽ 😰 СТІ4
← 🧐 RP
⊷ 🞯 RP2
🕶 🧐 RPG
← 🛅 SEP0002FD3BA527
← 🛅 SEP001AA11B7D38
← 個 SEP001AA11B7D3C
← 🛅 SEP002290038451
← [SEP0022900387DD

Figure 7 Terminal(s) List

To configure the display of the Terminal(s) list, right-click the Terminal(s) item. A list of options appears, as shown in Figure 8.



Figure 8 Configuring the Address(es) List

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The options are:

- Flip—Changes the display to show the Terminal(s) list instead of Address(es) list.
- Add Call Observers—Adds call observers for all addresses, which allows you to observe any call that is made on the control list of addresses. When you choose this option, a new call observer node appears under each address, as shown in Figure 6. In addition, each address to which you added a call observer becomes active. You can observe and monitor calls that are made to and from these addresses. The Icons for each Address node that you control change to indicate the new state.
- Add Observers—Adds an address observer to each address that is in the control list. This setting allows you to monitor events that happen at each specific address in addition to monitoring the calls.
- **Register Media Terminal**—Registers all media terminals that are within the control list. You must register a media terminal before you can use it. Registering a media terminal changes its icon to signify that it is active and in service, as shown in Figure 9.



Figure 9 Left: Unregistered Media Terminal; Right: Registered Media Terminal

Additional Functions

The Cisco Unified JTAPI Test Tool provides a variety of additional functions for the items in the Tree panel. The following sections describe these functions.

Address Functions

To access additional functions for an address in the Tree panel, right-click an address. A list of options appears, as shown in Figure 10.

🕈 🔝 Address(es)	
🕈 🕜 🔍 Add Observer 🔸	Standard Call Observer
՝ 📄 Set Auto Accept	Special Call Observer
🗢 💽 1500 {}	Standard Address Observer
🗢 💽 1501 {}	Special Address Observer
- 🔂 1600 {}	

Figure 10 Address Functions

The options are:

• Add Observer—Displays a sub-menu that provides the following options for adding a call observer or an address observer:



- **Standard Call Observer**—Adds a standard call observer to the address, if one has not been added already.
- **Special Call Observer**—Adds a specific call observer to this address. When you choose this option, a new tab for this observer and address appears in the Event panel.
- **Standard Address Observer**—Adds a standard address observer to the address node, if one has not already been added already.
- **Special Address Observer**—Adds a specific address observer to the address. When you choose this option, a new tab for this observer and address appears in the Event panel.
- Set Auto Accept—Causes all calls that are offered at CTIPorts or RP to be accepted by Cisco Unified Communications Manager. After you enable this option, an application does not need to accept a call.

Terminal Functions

To access additional functions for a terminal in the Tree panel, right-click a terminal. A list of options appears, as shown in Figure 11.



Figure 11 Terminal Functions

- Add Observer—Displays a sub-menu that provides the following options for adding a call observer or an address observer:
 - **Standard Call Observer**—Adds a standard call observer to the terminal, if one has not been added already.
 - **Special Call Observer**—Adds a specific call observer to the terminal. When you choose this option, a new tab for this observer and terminal appears in the Event panel.
 - Standard Address Observer—Adds a standard terminal observer to the terminal, if one has not been added already.
 - **Special Address Observer**—Adds a specific terminal observer to the terminal. When you choose this option, a new tab for this observer and address appears in the Event panel.
 - Media Terminal Observer— Adds a media observer to the terminal. When you choose this option, a new tab for this observer and address appears in the Event panel. If the terminal is dynamically registered, a media terminal observer must be added.
- Set Terminal Event Filter—Displays the Event Filter menu, as shown in Figure 12. This menu lets you set a variety of filters for terminal events. To set one or more filters, click the checkbox next to each filter that you want, or click Select All to choose all filters, then click OK. To clear filters, click Cancel then click OK.

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Figure 12 Terminal Event Filters

- Unpark—Unparks a parked connection..
- Terminal Control—Displays a window that you can use to send XML objects to a device.
- **Register**—Causes an application to register a media terminal for use later. This function provides a simple way to register a terminal because it uses the default object for registering. More advanced options for registering media terminals (CTI ports and route points) are available in the JTAPI tab. If the terminal is dynamically registered, a media terminal observer must be added.

Removing or Renaming an Observer

You can remove a standard call observer, and remove or rename a special call observer.

To remove a standard call observer, right-click it then click **Remove**. See Figure 13.





Figure 13 Removing a Standard Call Observer

To remove or rename a special call observer, right-click it. The Remove and Rename options appear, as shown in Figure 14.



Figure 14 Removing or Renaming a Special Call Observer

To remove the special call observer, click **Remove**. To rename the special call observer, click **Rename**. The Rename Observer dialog box appears, as shown in Figure 15. Type a name for the observer, then click **OK**.

Rename	Observer 🔀
?	Please Enter a New Name for the Observer
	OK Cancel

Figure 15 Rename Observer Dialog Box

Call(s)

The Cisco Unified JTAPI Test Tool provides a variety of functions that you can perform with the calls that are listed in the Tree panel.

General Call Functions

Right-click the general Call(s) node to display a list of functions, as shown in Figure 16.



Figure 16 General Call(s) Node Functions

The options are:

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• Create Call—Creates a new call in the IDLE state, as shown in Figure 17.



Figure 17 New Idle Call

• Delete/Drop Call—Drops all calls that are listed.

Idle Call Functions

Right-click an idle call to display a list of functions, as shown in Figure 18.

👇 🚺 Call(s)	
L [] 10084/1 [] (IDLE	-
	🕚 Delete Call
Audress(es)	ᠿ Connect
	\rm Consult

Figure 18 Idle Call Functions

The functions for idle calls are:

- Delete Call—Deletes the call and removes it from the Tree panel.
- **Connect**—Makes the call an ACTIVE call. When you choose this option, the Connect dialog box appears, as shown in Figure 19. Enter a source address and a destination address for the call, separated with a space or a comma, then click **OK**.

Connect	
?	Source Address, Destination Address OK Cancel
- ÷- 🕻	11021/1 [2002 2003] (ACTIVE)
0-	🔤 19109724/1 [2002 - INTERNAL] (ESTABLISHED)
9-	🔤 19109725/1 [2003 - INTERNAL] (ALERTING)
	🗆 💿 SEP003094C3EF86 (RINGING)



• **Consult**—Allows a call in IDLE state to consult with another call in anticipation of a transfer or a conference. When you choose this option, the Consult dialog box appears, as shown

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in Figure 20. Enter the address of a terminal connection and a destination address for the call, separated with a space or a comma, then click **OK**.

Consult	×
?	Address of Terminal Connection, Destination Address OK Cancel

Figure 20 Consult Dialog Box

Active Call Functions

Right-click an active call to display a list of functions, as shown in Figure 21.

🕹 🖗 33206/1 [2002 2001] (ACTIVI	E)
- 🚾 Address(es)	👆 Drop Call
	🔖 Transfer
	🐼 Monitor

Figure 21 Active Call Functions

The functions for active calls are:

- Drop Call—Drops the call and removes it from the Tree panel.
- **Transfer**—Transfers a call to a designated address. When you choose this function, the Transfer dialog box appears, as shown in Figure 22. To transfer a call, enter the address to transfer it to, then click **OK**. Figures 23 and 24 show the results of a transfer.

Note: There may be several terminal connections per connection. In addition, the Tree panel displays the terminal physical device that is associated with a TerminalConnection.

Tensfer		
?	Transfer To 2004	
	OK Cancel	

Figure 22 Transfer Dialog Box





Figure 23 Connections Corresponding to a Call, Including Connection ID and Address Associated with the Connection and the State





• **Monitor**—Allows you to monitor a call from a designated address. When you choose this function, the Monitor dialog box appears, as shown in Figure 25. To monitor a call, enter the address from which to monitor, then click **OK**. A new call is created and added.

Monitor		
?	Monitor From	
	OK Cancel	

Figure 25 Monitor Dialog Box

Connection(s)

The Cisco Unified JTAPI Test Tool provides a variety of functions that you can perform with the connections that are listed in the Tree panel. Right-click a connection node to display a list of functions, as shown in Figure 26.





Figure 26 Connection Functions

The functions are:

- Park—Parks the call.
- **Disconnect**—Drops the connection from a call.
- **Redirect**—Redirects the connection to a designated address.

TerminalConnection(s)

You can place a device that is associated with a terminal connection on hold and take it off hold. To place a device on hold, right-click it and choose **Hold**. To take a device off hold, right-click the held device and choose **Unhold**. See figure 27.



Figure 27 Top: Putting a Device on Hold; Bottom: Taking a Device Off Hold

Provider

The Cisco Unified JTAPI Test Tool provides a variety of functions that you can perform for the provider that is displayed in the Tree panel. Right-click the provider to display a list of functions, as shown in Figure 28.



172.16.242.79 : (P1-inprov) (IN_8	-	Destart
– 🕻 Call(s)		Shutdown
🕶 💼 Address(es)		Add Observer
		Register Features

Figure 28 Provider Menu

- Restart—Restarts the provider.
- Shutdown Shuts down the provider.
- Add Observer—Adds a provider observer to the provider.
- Register Features—Registers to receive a call park event.

Parking Calls/Retrieving Parked Calls

If an ACTIVE call is available, you can right-click a connection then choose **Park**. If parking is enabled on Cisco Unified Communications Manager, the connection parks at a parking address where it waits to be unparked up by a specific terminal. The park address is assigned by Cisco Unified Communications Manager. The call is updated with the park address and the address of the parked call.

To unpark a call, right-click a terminal in the Tree panel and choose **Unpark**. Enter the parking address of the call than you want to unpark then click **OK**.

Figure 29 shows a parked call. Figures 30, 31, and 32 illustrate unparking a call.



Figure 29 A Parked Call with the Parking DN of 9999

r- 🔂 2003 {}	
- 🔚 SEP003094C3EF8	- and Observer
– 🔍 Standard Call Obs	Set Terminal Event Filter
► <u>ត</u> ि 2004 {}	👶 Unpark
► 🔂 2020 {}	🛅 Send Data

Figure 30 Selecting a Terminal from which to Unpark

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Unpark		×
?	Enter The Park DN 9999	
	OK Cancel	

Figure 31 Entering the Parking DN of the Call to Unpark



Figure 32 Call Unparked from 2003

Kwik-E-Mart Tab

The Kwik-E-Mart tab lets you perform a variety of general call functions. Figure 33 illustrates this tab.



Kwik-E-Mart DTAPI	
-Kwik Call	
From	
То	
View Events	
Call	Clear
-Kwik Conference	
Participants	
(Example: 2000, 3000, 4000) (Mi	inimum 3)
View Events	
Conference	Clear
-Kwik Redirect or Transfer	
From	
То	
View Events	
Call	Clear

Figure 33 Kwik-E-Mart Tab

The Kwik-E-Mart tab includes the following areas:

- Kwik Call area—Allows you to easily make call. This area includes these options:
 - From field—Enter the source address for a call.
 - To field—Enter the destination address for a call.
 - View Events check box—Check to cause events for the call to display in a new Event window.
 - **Call** button—Click to initiate the call.
 - Clear button—Click to clear all entries in the Kwik Call area.

You do net need to add observers in the Tree panel to use the Kwik Call function. This function adds observers automatically.

- Kwik Conference area—Allows you to establish a conference call. This area includes these options:
 - Participants field—Enter the addresses of the participants that you want to include in the conference. Separate each address with a space or a comma.



- View Events check box—Check to cause events for the call to display in a new Event window.
- **Conference** button—Click to initiate the conference.
- Clear button—Click to clear all entries in the Kwik Conference area.
- Kwik Redirect or Transfer area—Allows you to easily redirect a call from one address to another. This area includes these options:
 - From field—Enter the source address for a call.
 - To field—Enter the destination address for a call.
 - View Events check box—Check to cause events for the redirect to display in a new Event window.
 - Call button—Click to initiate the redirect.
 - Clear button—Click to clear all entries in the Kwik Redirect or Transfer area.

JTAPI Tab

The JTAPI tab provides features that allow you to execute JTAPI functions for the connected Provider. This panel accepts arguments from the Tree panel and lets you use Cisco JTAPI application programming interface (API) methods to perform operations on these arguments. To access the Command panel, click the JTAPI tab to the right of the in the Kwik-E-Mart tab. When the JTAPI tab first appears, it is blank, as shown in Figure 34.



Kwik-E-Mart JTAPI	
Method List	
Argument List	
•	
Add Argument	
Invoke Method	

Figure 34 JTAPI Tab

To use the JTAPI tab, drag an object from the Tree panel to large pane in the Method List area. When you start a drag operation, a box appears next to the mouse pointer, which indicates that you are performing this operation on the highlighted object. See Figure 35.





Figure 35 Mouse Pointer when Dragging an Object to the JTAPI Tab

After you complete a drag operation, the Text pane in the Method List area populates with the JTAPI methods that are available for you to use. Methods appear in alphabetical order and each includes its arguments and argument names. The text field that appears above the list of methods displays the current object. See figure 36.

Caller Object: Address : 1500	
cancelForwarding()	
clearCallConnections()	
getAddressCallInfo(Terminal)	=
getAddressCapabilities(Terminal)	
getAutoAcceptStatus(Terminal)	_
getAutoAnswerStatus(Terminal)	
getCallObservers()	
getCapabilities()	
getConnections()	
getDoNotDisturb()	
aetFilter()	_

Figure 36 Method List Area after Dragging an Object

Using Methods

To use a method that appears in the Method List, click the method to select it. When you select a method, its required argument types, if any, appear in the order that they are required in the field at the top of the Argument List area. Figure 37 shows an example for the setMessageSummary method. The next expected argument type appears in green type. If the arguments extend beyond one line in the field, use the arrow buttons to scroll through the field.



Caller Ub	ject: Address	: 1500		
etEilter(Cisc	arocoocarrenae oAddrEvEilter)	<i>n=</i>)		
etForwardi	oriCallControlEor	warding[])		
etMessame?	ummary(String, b	oolean, boolean.	int, int, boolear	a, int, int, boo
etMessage ^o	ummary(boolean.	boolean, int, int	boolean, int, in	t, boolean, int
etMessage'	(aiting) String desti	ination, boolean	enable)	.,
setMessage)	/aiting/boolean en	able)		
etRingerSta	tus(int status)			-
4				
aument Lis	t			
String hoole	n hoolean int int	hoolean int int h	oolean int int h	oolean int int 👛
ouring, boole	in, boolean, in, in,	boolean, int, int, b	oolean, int, int, int, b	ooican, ini, ini 🗸
4				•
· ·				
CiscoAddre	s.APPLICATION_		ECORDING	
			Add	l Argument 👘

Figure 37 Arguments List Area with Required Arguments for the Selected Method

To designate the arguments for the method that you select, follow these guidelines:

- Enter the expected argument that appears in green type in the field at the top of the Argument List area.
- If an argument expects an object such as a terminal, drag the object from the Tree panel to the large pane in the Argument List area.

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- The drop-down list under the Arguments List provides a list of definitions for certain arguments. You can choose a definition for the highlighted argument.
- If an argument requires a Boolean entry, an integer, or text, enter the information in the field that appears near the bottom of the Argument List area then click **Add Argument**. (Enter a Boolean true or false value as text.)

Figure 38 shows the Argument List area with the first required argument (Terminal) entered for a method. Notice that the next required argument (Address) appears in green type.

rominal, marcoo	 -
ferminal : SEP0002FD3BA527	
	•
•	

Figure 38 Argument List Area with an Argument Entered

To execute a method, make sure that you have entered all required arguments, then click **Invoke Method**, which appears at the bottom of the JTAPI tab. You can also execute a method by double-clicking it in the Method List area. By default, if a method includes "is" or "get" in its name, a pop-up window displays the information that is retrieved. See figure 39 for an example.

If you right-click in the Method list area, a pop-up list of options lets you configure this display as follows:

- Show "Get"/"Is" Only—Check this check box to display returned information for "get" and "is" methods. Uncheck this check box if you do not want to see this information
- Show for All Methods—Check this check box to display returned information for all methods that return a value.

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🕌 isRestricted()	
isRestricted	
false	

Figure 39 Information Retrieved from a Function

Argument Area Options

Right-clicking in the text pane in the Argument List area lets you access the Replace With and Insert functions, as shown in Figure 40.

Replace With	From Tree
Insert 🔹 🕨	From Fields
	From Text
	Toggle True/False
	l k
Replace With]
Replace With Insert	Insert 'True'
Replace With Insert	Insert 'True' Insert 'False'
Replace With Insert	Insert 'True' Insert 'False' Insert 'CiscoMediaCapability[]'
Replace With Insert	Insert 'True' Insert 'False' Insert 'CiscoMediaCapability[]' Insert 'Obiect[]'
Replace With Insert	Insert 'True' Insert 'False' Insert 'CiscoMediaCapability[]' Insert 'Object[]'
Replace With Insert	Insert 'True' Insert 'False' Insert 'CiscoMediaCapability[]' Insert 'Object[]' Insert 'null'

Figure 40 Replace With and Insert Functions in the Argument Area



The Replace With function lets you replace an argument with an argument of the same type. To replace and argument, left-click it to highlight it, then right-click it and choose one of the following options:

- **Replace With > From Tree**—Replaces the selected argument with a selected object in the Tree panel. Click the replacement object (of the same type as argument to be replaced) in the Tree panel before you choose this option.
- **Replace With > From Fields**—Replaces the selected argument with an item in the dropdown list that appears below the Text pane in the Argument area.
- **Replace With > From Text**—Replaces the selected argument with text that you first enter in the text field at the bottom of the Argument List area.
- **Replace With > Toggle True/False**—Replaces a selected Boolean value with its opposite value.

The Insert function lets you add arguments to the method that is highlighted in green in the field at the top of the Argument List area. Examples of arguments that you can insert include Boolean true/false values and a CiscoMediaCapability.

To insert an argument, right-click the Text pane in the Argument List area, then choose one of the following options:

- Insert > Insert 'True'—Inserts a Boolean True value.
- Insert > Insert 'False'—Inserts a Boolean false value.
- Insert > 'CiscoMediaCapability[]'—Displays a window that lets you insert a CiscoMediaCapability Array for an appropriate argument (see Figure 41). The top pane in this window displays a list of available CiscoMediaCapability constructors and the bottom displays is a list of currently added objects. This window also includes these buttons:
 - **Copy**—Adds the selected CiscoMediaCapability object from the top pane to the end of the list in the bottom pane. If values are required, the Tool prompts you for the values. (See the Cisco JTAPI API documentation for additional information about required values.)
 - **Clear**—Removes all items from the bottom pane.
 - Add—Adds the items in the list of CiscoMediaCapability objects as an array in the text pane in the Argument List area.



20 20		
CiscoG711MediaC CiscoG711MediaC CiscoG723MediaC CiscoG723MediaC CiscoG729MediaC	apability(int) apability() apability(int,int) apability() apability(int,int)	
Сору	Clear	Add
constructor into the 'Clear' - Clear the fo 'Add' - add the sele from below to the A Array	box below orm cted constructors rgument List as an	

Figure 41 Window for Inserting CiscoMediaCapability[] Object

- Insert > 'Object[]'—Displays a window that lets you insert an array of objects for an appropriate argument (see Figure 42). You can drag objects from the Tree panel into the top pane of this window as needed. This window also includes these options:
 - Integer—Choose this option to add an array of integer objects.
 - **String**—Choose this option to add an array of string objects. Enter the string in the text field at the bottom of the window
 - **Insert** Adds the objects in this window as an array in the text pane in the Argument List area. All objects must be of the same type.
 - Clear—Removes all items from the bottom pane.



s - I X				
Current Argument: CallControlForwarding[]				
O Integer O String				
Insert Clear				

Figure 42 Window for Inserting an Array of Objects

- Insert > 'Null'—Inserts a null object.
- Insert > 'CallControlFwd[]'— Displays a window that lets you insert an array of CallControlForwarding objects (see Figure 43). This includes these items:
 - Top pane—Displays the constructors that you can use and their parameters.
 - Destination field—Enter the destination number for forwarded calls.
 - Caller field—Not used in this release.
 - Drop-down list—Choose the type of call forwarding activity.
 - Internal Calls? check box— Not used in this release.
 - **Copy button**—Create a new instance of the selected constructor type with the designated values.
 - Clear button—Removes all items from the bottom pane.
 - **Remove button**—Removes the selected added instance from the bottom pane.
 - **Insert button**—Adds the instances in the bottom pane as an array of CallControlForwarding objects in the text pane in the Argument List area.



§ 🗌 🗖 🔀						
CallControlForwarding(String destAddress) CallControlForwarding(String destAddress, int type) CallControlForwarding(String destAddress, int type, boolean inter CallControlForwarding(String destAddress, int type, String caller)						
Destination Caller FOWARD_ON_BUSY Internal Calls?						
Copy Clear Remove Insert						

Figure 43 Window for Inserting an Array of CallControlForward objects

Event Panel

If you add observers of any type, the tabs in the Event panel display event information when you perform activities.

Figure 44 shows an example of the Event panel in the default "table" view. In this view, the display identifies each event type by a specific color.



🔼 Call E	vents 🛛 🕙 Terminal Events 🖉 🕙 Addres	ss Events	S Provider Events	🖲 Ca 💶 🕨
CallID	Event	CurrCurr.	La Cause	Cal
11015/1	CallActiveEvent :	1603 1602	2 null CAUSE_NEW_C	ALL No Ca🔺
11015/1	ConnCreatedEvent : Address: 1602	1603 1602	2 null CAUSE_NORMA	L No Ca
11015/1	ConnConnectedEvent : Address: 1602	1603 1602	2 null CAUSE_NORMA	L No Ca
11015/1	CallCtlConnInitiatedEv : Address: 1602	1603 1602	2 null CAUSE_NORMA	L CAUS
11015/1	TermConnCreatedEvent : Terminal: CTI3	1603 1602	2 null Other: 0	No Ca
11015/1	TermConnActiveEvent : Terminal: CTI3	1603 1602	2 null CAUSE_NORMA	L No Ca
11015/1	CallCtlTermConnTalkingEv: Terminal: CTI3	1603 1602	2 null CAUSE_NORMA	L CAUS
11015/1	CallCtlConnDialingEv : Address: 1602	1603 1602	2 null CAUSE_NORMA	L CAUS
11015/1	TermConnCreatedEvent : Terminal: CTI2	1603 1602	2 null Other: 0	No Ca
11015/1	TermConnPassiveEvent : Terminal: CTI2	1603 1602	2 null CAUSE_NORMA	L No Ca
11015/1	CallCtITermConnInUseEv : Terminal: CTI2	1603 1602	2 null CAUSE_NORMA	L CAUS
11015/1	CallCtlConnEstablishedEv: Address: 1602	1603 1602	2 null CAUSE_NORMA	L CAUS
•				

Figure 44 Event Panel in "Table" View

You can choose the desired tab in the Event panel to view the information that you need. To close a tab, right-click the tab and choose **Close**.

The columns in each tab resize automatically to fit the information that they contain. You can manually resize a column by dragging the right or left edge of its column heading. You can reposition a columen by dragging its column heading.

To access options for the Event panel, right-click anywhere in the event display pane and choose **Show Options**. The Options area appears, as shown in Figure 45. To close the Options area, right-click in the event display pane or in the Options area and choose **Hide Options**.

CallID: VISIBLE		Queue Count Ta	Queue?	
Event: VISIBLE Current Called: VISIBLE		Hide	Next Events	Text?
Current Calling: WSIBLE	•	Unhide	Clear Panel	Clear Queue?

Figure 45 Options Area in the Event Panel

The Options area includes these items:

- Column list—Appears at the left of the Options area. When the Event panel is in "Table" view, this list indicates whether a column appears on the tab that is currently displayed. Indications are VISIBLE and NOT VISIBLE. To hide a column, click its name in the list then click the Hide button. To display a hidden column, click its name in the list then click the Unhide button.
- Queue? check box—Queues events in the order that they occur. When you check this check box, events do not display in the Event panel. Instead, they are stored in a buffer. To display all events in the buffer, uncheck the Queue? check box. To display only the next event in the buffer, click the Next Events button.



- Next Events button—When the Queue? check box is checked, displays the next event in the buffer.
- Clear Panel button—Removes all events that are displayed in the Event panel.
- Clear Queue? check box—If you check this check box, any items that are in the buffer as a result of checking the Queue? check box are removed when you click the Clear Panel button.
- **Text?** button—Changes the display in the Event panel to "Text" view (see Figure 46). This view uses the same color scheme as the "Table" view. In addition, each pack of events is indicated by its header, which is highlighted in bright green. When you click this button, it toggles to **Table**. Click the **Table** button to change the events display to "Table" view.

der View Help							
din 172. ⁻	19.242.79 Ver. 7.1.0.39000-106						
	vents 🔄 Terminal Events 🔄 Address Events 🔄 Provide	er Events					
CallID	Event	Current	CurrLa	ist	Cause	CallCtlCause	CiscoCause
11025/1	CallCtlConnDisconnectedEv: Address: 2002	Unknown	2003 20	102 C	AUSE_NORMAL	CAUSE_CONFERENCE	CAUSE_NOERROR
11024/1	CiscoTermConnSelectChangedEv : Terminal: SEP003094C3E9B8	Unknown	2003-20	102 C	AUSE_NORMAL	No CallCtlCause	CAUSE_INVALIDIECONTENTS
11024/1	CallCtITermConnTalkingEv : Terminal: SEP003094C3E9B8	Unknown	2003 20	102 C	AUSE_NORMAL	CAUSE_CONFERENCE	CAUSE_NOERROR
11025/1	CiscoCallChangedEv:	Unknown	2003-20	102 C	other: 207	No CallCtlCause	Other: 207
11024/1	ConnCreatedEvent : Address: 2003	Unknown	2003 20	102 C	AUSE_NORMAL	No CallCtlCause	CAUSE_NORMALUNSPECIFIED
11024/1	ConnConnectedEvent : Address: 2003	Unknown	2003 20	102 C	AUSE_NORMAL	No CallCtlCause	CAUSE_NORMALUNSPECIFIED
11024/1	CallCtlConnEstablishedEv: Address: 2003	Unknown	2003-20	102 C	AUSE_NORMAL	CAUSE_CONFERENCE	CAUSE_NORMALUNSPECIFIED
11024/1	TermConnCreatedEvent : Terminal: SEP003094C3EF86	Unknown	2003 20	102 C	Other: 31	No CallCtlCause	CAUSE_INVALIDIECONTENTS
11024/1	TermConnActiveEvent : Terminal: SEP003094C3EF86	Unknown	2003 20	102 C	AUSE_NORMAL	No CallCtlCause	CAUSE_NORMALUNSPECIFIED
11024/1	CallCtITermConnTalkingEv: Terminal: SEP003094C3EF86	Unknown	2003 20	102 C	AUSE_NORMAL	CAUSE_CONFERENCE	CAUSE_NORMALUNSPECIFIED
11025/1	TermConnDroppedEv : Terminal: SEP003094C3EF86	Unknown	2003-20	102 C	AUSE_NORMAL	No CallCtlCause	Other: 500
11025/1	CallCtlTermConnDroppedEv: Terminal: SEP003094C3EF86	Unknown	2003-20	102 C	AUSE_NORMAL	CAUSE_CONFERENCE	Other: 500
11025/1	ConnDisconnectedEvent : Address: 2003	Unknown	2003 20	102 C	AUSE_NORMAL	No CallCtlCause	Other: 500
11025/1	CallCtlConnDisconnectedEv: Address: 2003	Unknown	2003-20	102 C	AUSE_NORMAL	CAUSE_CONFERENCE	Other: 500
11025/1	CallInvalidEvent:	Unknown	2003-20	102 C	AUSE_NORMAL	No CallCtlCause	Other: 500
11025/1	CallObservationEndedEv: (P1-inprov) GCID=(1,11025)->INVALID	Unknown	2003-20	102 C	AUSE_NORMAL	No CallCtlCause	CAUSE_NOERROR
11024/1	CiscoConferenceEndEv:	Unknown	2003-20	102 C	AUSE_NORMAL	No CallCtlCause	CAUSE_CTIPRECEDENCEOUTO
11024/1	CiscoTermConnSelectChangedEv: Terminal: SEP003094C3E9B8	Unknown	2003-20	102 C	AUSE_NORMAL	No CallCtlCause	CAUSE_INVALIDIECONTENTS
11024/1	CiscoTermConnSelectChangedEv: Terminal: SEP003094C3E9B8	Unknown	2003-20	102 C	AUSE_NORMAL	No CallCtlCause	CAUSE_INVALIDIECONTENTS
4							

Figure 46 Event Panel in "Text" View

Cisco Unified JTAPI Test Tool Menus

The Cisco Unified JTAPI Test Tool incudes the following menus in the menu bar at the top of the Main window:

- **Provider**—Contains the **New Provider** option, which connects to another Provider. A new provider appears as a new tab in the Tree panel.
- View—Contains options for showing or hiding all observers that you have set in the Tree panel. Choose View > Observers > Hide Observers to hide all observers in the Tree area. Choose View > Observers > Show Observers to display all observers. Hiding observers does not remove them.
- **Help**—Contains the **About** option, which displays the version of the Cisco Unified JTAPI Test Tool that you are using.



Cisco Unified JTAPI Test Tool Icons

The following table describes the icons that you might see in the Cisco Unified JTAPI Test Tool windows.

Icon	Meaning
	Address—in service
	Address—out of service
	Address list
C	Call
Œ	Call list
	Route address—in service
	Route address—out of service
	Route terminal—in service
8	Route terminal—out of service
8	Media terminal—in service
8	Media terminal—out of service
	Terminal list
	TerminalConnection
	Terminal—out of service
	Terminal
	Connection
	Call observer
	Special call observer
	Provider—in service
	Provider—out of service