Script Administration

Check Script Routes

After you save a script, you should check that all routes referenced have valid labels for the routing clients and dialed numbers for which you have scheduled the script.

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Note   You must have saved the script to the Unified ICM database before you can check the routes.

For the Unified ICM to route calls through a script, you must have defined a routing label for each route referenced in the script. Each label is valid only for specific routing clients and, optionally, for specific dialed numbers.

To check script routes:

Procedure

Step 1   Start Check Routes from the Administration & Data Server group. The Check Routes window opens.

Step 2   Using the drop-down lists, choose the following:

• Name of the routing client to send calls through the script.

• Dialed number for the call to be sent through the script.

- The routing script name.

- The version number of the routing script. (The default is the active version.)

Step 3 To validate the route of a network transfer call target, check Use Network Transfer specify a routing client and a Dialed Number.

Step 4 Use the drop-down list to select Routes Used Directly by Script (the default) or Translation Route Used in Script. The routes referenced in the script appear in the left column. (If any of these routes do not have an associated label that is valid for the routing client and Dialed Number you have chosen, an error message appears in the Errors field.)

Note To see the configuration details for a translation route, select the route name and click **View Translation Route**. (This button becomes enabled after you choose a specific translation route.) The Translation Route dialog box opens.

Step 5 To see the specific peripheral targets associated with a route, select the route name in the left column. The associated peripheral targets appear in the center column.

The routes referenced in the script appear in the left column. If any of these routes does not have an associated label that is valid for the routing client and Dialed Number you have chosen, an error message appears in the Errors field at the bottom of the window.

Step 6 To see the specific labels associated with any of these peripheral targets, select the peripheral target. The associated peripheral targets appear in the right column.

Symbols might appear next to a label, explaining the following:

- The label is not valid for the specified routing client.

- The label is not valid for the specified Dialed Number.

Step 7 To check configuration information for a route or peripheral target, double-click a route or peripheral target name. Check Routes to display the configuration information for that route or peripheral target.

Note From the Peripheral Target dialog box, you can access information about the route by clicking the **Route** button.

Step 8 To correct any problems you find through Check Routes, make and save changes within the Script Editor or the Unified ICM Configuration Manager.

Step 9 To update the changes, click **Reload** in the Check Routes window. (If you have created a new version of the script, be sure to update the Version field.) Check Routes reads the latest version of scripts and configuration data from the local database.

Active Scripts

Although the Script Editor may contain several versions of a script, only one version of a particular script can be active at one time: This is the version that Unified ICM runs if the script is currently scheduled.

You can use one of three methods to set the active version of a script:

- Preferences

- Make Active Version command

• Script Explorer

Use Preferences to Set an Active Script

Procedure

Step 1 Within Script Editor, select **Options** > **Preferences**. The Script Editor Preferences dialog box opens.

Step 2 Optionally, select the **Automatically Make a Script Active When Saved** option.

• When you select this option, whenever you save a valid script, the Unified ICM makes that new version the active version.

• When you clear this check box, you must manually activate the script after saving it.

Use Script Make Active Version Command

Procedure

In an open script in edit mode, select **Script** > **Make Active Version** or click **Make Active Version**. The system makes the open script version the current active version.

View Enabled Scripts

After you save and schedule a script, it is considered enabled. Use the Enabled Scripts dialog box to examine all scripts currently enabled in the system.

To view all enabled routing and administrative scripts:

Procedure

Step 1 Within Script Editor, choose **Scripts** > **Enabled Scripts**. The Enabled Scripts dialog box opens listing all routing scripts that are scheduled for the current date and time.

The dialog box lists all call types and the script that is currently scheduled for each. The Call Count column lists the number of calls the script has processed.

Step 2 Optionally, use the Display Count From section of the dialog box to choose how to display the number of calls processed. Whichever option you choose, the counts are updated every 15 seconds. This allows you to see which scripts are currently handling calls.

Note	The Call Count values are associated with scripts, not necessarily with call types. If the script has been scheduled for more than one call type, the Call Count value includes all calls processed by the script regardless of call type.

Step 3 To see all administrative scripts scheduled for the current date and time, click the **Administrative Scripts** tab. This lists all administrative scripts.

Schedule Administrative Script

To schedule an administrative script:

Procedure

Step 1 Within Script Editor, choose **Script** > **Administrative Manager**. The Administrative Manager dialog box opens, listing any administrative scripts that are currently scheduled.

Step 2 Click **Add**. The Add Administrative Schedule dialog box appears, opening at the Script tab.

Step 3 Select the script you want to schedule and click the **Period** tab.

Step 4 Specify when you want the script to be active:

a) In the Date Range, Recurrence Pattern, and Duration sections, specify the range of times when this script may run.

b) In the Frequency section, specify how often the script should run during the specified time range.

Step 5 Optionally, click the **Description** tab and add a descriptive text about this schedule.

Step 6 Click **OK** to submit the schedule and return to the Administration Manager.

Step 7 Click **OK** to save your changes to the Unified ICM database and close the Administrative Manager.

Note	• The first execution occurs at the start time of the schedule.
	• The last execution occurs before or at the end time of the schedule.
	• The timing of script execution might not be exact. Typically, scripts run within a few seconds after the scheduled time. The last script execution might occur slightly after the scheduled end time.

Script Monitoring

After you save a routing or administrative script, you can observe how it runs. Watching routing requests moving through a script in real-time helps ensure that the routing script is operating as expected.

When you monitor a script, that is, view the script in Monitor mode, labels appear on each connection in the script.

Note A script can have a maximum of 900 monitored labels. If a script exceeds that limit some of the real-time monitors stop working. In this case, you see periodic messages in the Router log and Event report that the script exceeds the monitor limit. If you edit a script that is over the limit, a warning displays when you attempt to save the script.

Monitor Labels

Most monitor labels display the raw number and percentage of route requests that have passed through the connection since the start of the monitoring period.

Each target set also lists the number and percentage of calls routed to each of the targets in that set. Each statistic is updated automatically as new real-time data become available about every 15 seconds.

When you edit a script, position nodes so that there is enough space for the monitor labels to display. (Because you cannot make any changes to a script while in Monitor mode, you cannot rearrange the nodes at that time, unless you have enabled Quick Edit from Monitor mode as described in the following section). Use the **Script > Display Monitor Labels** command while in edit mode to display blank monitor labels on each connection of the script.

Enable Quick Edit from Monitor Mode

To enable Quick Edit from Monitor mode:

Procedure

	Command or Action	**Purpose**
Step 1	From the Options menu, choose **Preferences**.	
Step 2	Check **Allow quick edit from monitor mode**.	
Step 3	Click **OK**.	

What to do next

You can now perform quick edits when monitoring a script.

List of Monitor Labels

The following nodes have monitor labels that appear beside them while the scripts are monitored.

- Wait

- Queue

- Precision Queue

- Translation Route to VRU

- DB Lookup

- Gateway

- ICM Gateway

- Queue to Agent

- Collect Data (displays only the Abort meter).

- Menu (displays only the Abort meter).

- Play (displays only the Abort meter).

- Run External Script (Displays In Progress and Abort meter).

The monitor labels can display two or more of the following meters:

- InQueue meter - Displays the number of calls in thequeue.

- InProgress meter - Displays the number of calls in progress in the node.

- Abort meter - Displays the number of calls aborted.

- Routed meter - Displays the number of calls that are routed to the Precision Queue.

The InProgress meter appears in the top row of all the monitor labels for all the listed nodes, except the Queue and Precision Queue nodes. The top row of the Queue node monitor label displays the InQueue meter and the top row of the Precision Queue monitor label displays the Routed meter.

The following meters are applicable only for Queue to Skill Group and Precision Queue node

- Picked by another Skill Group/Precision Queue meter - Displays the number of non-voice task requests that are picked from a Skill Groups/Precision Queue other than the targets specified in the node.

- Pulled by another Skill Group/Precision Queue meter - Displays the number of non-voice task requests that are pulled from a Skill Groups/Precision Queue other than the targets specified in the node.

The following meters are applicable only for the Pick/Pull node.

- Pick meter - Displays the number of non-voice task pick requests that were successfull.

- Pull meter - Displays the number of non-voice task pull requests that were successfull.

- Pick error meter - Displays the number of non-voice task pick requests that failed.

- Pull error meter - Displays the number of non-voice task pull requests that failed.

Note Since **Picked by another Skill Group/Precision Queue and Pulled by another Skill Group/Precision Queue** meters are specific to non-voice task routing, these are not populated in case of voice call routing.

Adjust Monitor Label Location

To adjust the Monitor Label Location:

Procedure

Step 1 In the Properties dialog box of a node within Script Editor, click the Labels tab.

Step 2 Specify the following:

a) Label position (Slider): Choose if you want the connection labels to appear close to the node (Origin), close to the targeted node (Destination), or half way in-between (Center).

b) Display monitor labels (check box): If you select this check box, then when the Script Editor is in Monitor mode, labels display for each connection from the node. If you clear the check box, no labels display for connections from the node.

Step 3 Click **OK** to apply changes and to close the **Select Properties** dialog box.

Access Monitor Mode

Within Script Editor, do one of the following:

- Choose **File** > **Open** to access the Open dialog box and choose the Monitor option from the **Open Mode** drop-down list.

- Within an open script in the Script Editor workspace, choose **Script > Monitor** Script or click **Monitor Script** in the toolbar.

- Within the Enabled Scripts dialog box, choose the **Monitor radio button** in the Open Script in Mode section and click **Open**.

What to do next

The script displays in Monitor mode in the Script Editor workspace.

Set Monitor Mode Options

To set Monitor mode options:

Procedure

Step 1 In Script Editor, do one of the following:

- Choose **Script > Monitor Options**.

- Click **Monitor** on the status bar. A drop-down list appears.

Step 2 Choose one of the following options:

- Start of Day. Initial monitor values are totals since midnight. New values are added to these totals every 15 seconds.

- Starting Now. Initial monitor values are all zeros. New values are added to these totals every 15 seconds.

• For Each Interval. Initial monitor values are the values reported for the most recent 15-second interval. New values are added to these numbers every 15 seconds.

• Percentages for Each Node. The percentages for each connection from a node are calculated by dividing the number of executions that passed though the connection by the number of executions that entered the node. All connections coming from each node add up to 100%.

• Percentages for Entire Script. The percentages for each connection are calculated by dividing the number of executions that passed through that connection by the total number of executions handled by the script.

View Real-Time Data

In viewing the number of contacts that pass through each branch of the script, you can also view real-time data about activity at the contact centers, including statistics for each skill group, service, call type, or scheduled target referenced in the script.

For more information about the real-time data, see the descriptions of the Service Real Time and Skill Group Real Time tables in the *Database Schema Handbook for Cisco Unified Contact Center Enterprise* at https://www.cisco.com/c/en/us/support/customer-collaboration/unified-contact-center-enterprise/products-technical-reference-list.html.

To view real-time service, skill group, or precision queue data:

Procedure

Step 1 While in Monitor mode in Script Editor, choose **Script > Display Real-Time Data**.

The Real-Time Data window appears. By default, the Real-Time Data window displays data about the Services referenced in the current script. (Scroll to the right to see additional columns.) The values in the screen are updated continuously as new real-time data arrives at the Administration & Data Server.

Note When an External Authorization server is used with Internet Script Editor, you can only select from the list of available Call Types or Precision Queues as identified by the Authorization server.

Step 2 To display information about skill groups or scheduled targets, rather than services, change the value in the field in the upper-left corner of the Real-Time Data window. The window contents automatically change to show skill group data.

Step 3 When finished, click **Close**.

View Dynamic Real-Time Data

You can view dynamic call types, dynamic precision queues, or dynamic skill groups.

Procedure

Step 1 While in Monitor Mode in Script Editor, open an active script and choose **Script** > **Display Real-Time Data**. The **Real-Time Data** window appears.

Step 2 To display dynamic call types, dynamic precision queues, or dynamic skill groups from the drop-down list, choose **Call Type**, **Precision Queue**, or **Skill Group** in the upper-left corner.

Step 3 Click **Add Dynamic**.
The **Select Dynamic Call Type Objects**, **Select Dynamic Precision Queue Objects**, or **Select Dynamic Skill Group Objects** dialog box appears, depending on your list choice.

Step 4 In the **Available dynamic objects** list, select the objects to monitor and then click **Add**.
You can monitor up to 20 dynamic call types, up to 20 dynamic precision queues, or up to 20 skill groups. You cannot monitor dynamic call types, dynamic precision queues, and dynamic skill groups in the same Real-Time Data window.

Step 5 Click **OK**.
The selected dynamic objects appear in the **Real-Time Data** window. Data for the selected objects appear when the data next refreshes.

Change Real-Time Data Configuration

To change the real-time data configuration:

Procedure

Step 1 Click **Configure** in the real-time data window or choose **Script > Configure Real-Time Data**. The Configure real-time data dialog box opens.Use this dialog box to add new columns, remove existing columns, reorder the columns, or change the column labels.

Step 2 Choose a Routing target type (Service, Scheduled Target, or Skill groups). This updates the other fields:

- The Real-Time Columns list contains all the real-time columns available in the database for the target type.

- The Routing Target Columns list contains the columns to appear in the Real-Time Data window.

- If you select a column in the Routing Target Columns list, the heading for that column appears in the Column Header field.

Step 3 Use the Add and Remove buttons to move columns between the lists. Use the Move buttons to change the order of the selected columns. (To change back to the default column order, click **Default Columns**.)

Step 4 Optionally, to edit a Routing Target Columns heading, make changes within the Column Header field. (To change back to the default header, highlight the Routing Target Column name and click the Default Header button.)

Step 5 Optionally, select the **Short Headers**/ **Long Headers** radio buttons to change between the full and abbreviated forms of the default column headers. The abbreviated forms are typically three to four letters. (For example, AHT is used for Average Handle Time.)

Step 6 To save the changes, click **OK**. The settings apply to the current and future Script Editor sessions.

View Router Logs

You can view CallRouter log messages to determine how contacts are routed and to see any errors the Unified ICM encounters in processing routing requests.

You start the Router Log Viewer from the Administration & Data Server group. The Router Log Viewer window opens.

The top field of the Router Log Viewer window displays information about each call the Unified ICM routes, including:

- The time that routing request was received

- The Dialed Number (DN), or script selector, and the caller's billing telephone number (ANI)

- Any Caller-Entered Digits (CED)

- The label that Unified ICM returned to the routing client

The bottom field of the window displays any errors that the Unified ICM encounters in routing calls, including:

- The time the error occurred

- Text describing the error

Export a Script

To export a script:

Procedure

Step 1   Choose **File > Export Script**. The Export Script dialog box opens with the name of the current script and version number in the File name field.

Step 2   Optionally, change the file name. You cannot change the file type; you can only save the script in .ICMS format.

Step 3   Click **Save**. If the file name already exists, the system prompts you to confirm the save.

Step 4   If prompted, click **OK**.

Note   ICM Scripts, which are created on newer versions of the ICM Script editor, will be unable to import the newer scripts into the older ICM versions.

Import a Script

To import a script:

Procedure

Step 1   Choose **File > Import Script**. The Select Script to Import dialog box opens.

Step 2   Choose a file name with an Unified ICM Script extension (.ICMS) and click **Open**. The Script Editor performs automapping and the following happens:

- If all imported objects were successfully auto-mapped, a message window appears prompting you to review the mappings. Click **OK** to access the Object Mapping dialog box.

- If some imported objects were not successfully auto-mapped, the partially mapped script is opened as a new script in Import mode and the Object Mapping dialog box appears, with all unmapped objects labeled

   - - Unmapped - -. The Object Mapping dialog box contains three columns:

   - Object Types. The type of the imported object.

   - Imported Object. The name of the imported object.

   - Mapped To. What this imported object will be mapped to.

Step 3   Click an Imported Object value. The Mapped To column's drop-down list shows all the valid objects on the target system. (The Script Editor window also highlights the script nodes that refer to this object.)

Step 4   Optionally, choose an object from the Mapped To drop-down list on the target system that you want to map the imported object to.

   Note   Choose an object from the Mapped To drop-down list on the target system that you want to map the imported object to.

Step 5   When the mapping is complete, click **Apply** and Finish.

Note   ICM Scripts, which are created on newer versions of the ICM Script editor, will be unable to import the newer scripts into the older ICM versions.

Modify Script Version and Schedule System Information

To modify script version and schedule system information:

Procedure

Step 1   Within the Unified ICM Configuration Manager, choose **Tools > Miscellaneous Tools > System Information**. The System Information window opens.

Step 2   Enter the Minimum Script Schedule Time.

Step 3   Set the number of script versions to be retained in the Retain Script Versions field.

Step 4   Click **Save** to apply your changes.