CONNECTWISE

Device Library

Overview

The following information walks you through the steps for managing your collection templates. Topics include how to navigate the device library, various SNMP solutions available and how to use collection and detection templates.

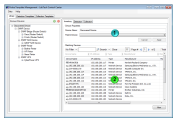
In this article, learn how to:

Navigate the Device Library

The Device Library displays all known devices in the device library, as well as the detection and collection templates that are associated to these devices. These allow for the addition or modification of devices, detection rules and collection rules and will be further explained in the following sections.

The Inventory tab of the Library is comprised of two sections: Device Properties and Matching Devices.

1	The Device Properties section is for the addition of new devices or the modification of existing devices.
2	The Matching Devices section shows all devices that have a characteristic of the currently selected device in the library tree. This can be used to find all of the network devices (for all locations) that are of a particular type.



Add/Edit Devices

To add or modify a device, follow these steps:

Important: Modifying the device hierarchy can result in broken detection and collection sequences. Great care must be taken when altering devices. If modifications need to be made, highlight it from the Known Devices section and make the appropriate changes in the Devices Properties and click Apply.

1. From the Control Center, select **Automation** > **Templates** > **Probe Templates**.
2. Click on the **Add**
   button. This will clear any existing information from the **Device Properties** section to provide you with a blank form.
3. Enter the name of the new device (e.g., HP LaserJet 1320) in the **Device Name** field.
4. Select the parent of the new device (e.g., HP Printer) from the **Parent Device** drop-down

5. Click **Apply**. The new device will immediately display in the **Known Devices** as shown by the following example.

Delete Devices from the Library

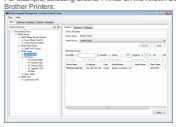
Warning: Deleting devices can result in broken detection and collection sequences. Great care must be taken when deleting devices. It is NOT recommended to remove known devices.

1. To delete a known device, highlight it and click the **Delete**
   button. You will be prompted to confirm the removal. It is **NOT** recommended to remove known devices.
2. Click **Yes** to continue with the removal or **No** to cancel the removal.

Identify Similar Devices on a Network

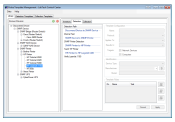
The Matching Devices section of the Inventory tab in the Library will show all devices that have the same characteristics based on what is selected from the Known Devices tree. This is useful for finding all network devices (for all locations) that are of a particular type.

For example, selecting Brother Printer on the Known Devices tree will show all devices that are known to be Brother Printers:

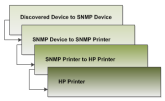


View Detection Path of Selected Device

The Detection tab of the Library shows the detection path for the currently selected device in the Known Devices navigation tree. This section of the document will explain the detection process using templates and how they are configured. Detection templates can be added, modified or deleted from this tab; however, they will be discussed in Use Detection Templates.

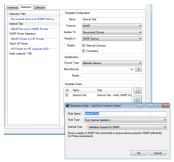


In the above example, the selected device is the HP LaserJet 1160. The detection path for this device is as follows:



Below each path, the templates that are used for the progression through the detection process are shown (e.g., Internal Test, SNMP Printer Detection, Test if HP Printer, etc.).

Note: It is possible for a path to have more than one template. Only one template has to succeed for the detection system to advance to the next device.
The following screens illustrate how the Internal Test template is configured:

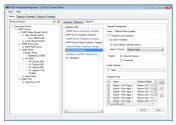


Value	Description
Template Configuration	
Name	The name of the template (e.g., Internal Test).
Protocol	The protocol the template uses. This will always be SNMP.
Applies to	The device type that the template applies to (e.g., Discovered Device).
Results in	The result to make the unit if the template succeeds (e.g., SNMP Device).
Network Devices	If checked, the template will be applied to network devices.
Computers	If checked, the template will be used by agents trying to self-collect. Any templates that have this box checked will be downloaded to all agent machines, so it is imperative to only check templates that apply to self-collection.
Identification	
The Identification section allows the template to identify the device for reporting purposes.	
Device Type	Assigning a value to Device Type will assign that value to the device when the template succeeds. If this field is left blank, then the Device Type remains unaffected.
Manufacturer	Assigning a value to Manufacturer will assign that value to the device when the template succeeds. If this field is left blank, then the Manufacturer remains unaffected.
Model	Assigning a value to Model will assign that value to the device when the template succeeds. If this field is left blank, then the Model remains unaffected.
Template Rules	
Detection Rules	Each template has one or more detection rules. Rules can be modified or additional rules added. The On checkmark indicates it is an active rule. Clicking on the Edit Selected Rule icon will open

Value	Description
	the Detection Rule configuration screen as shown by the following screen.
Rule Name	The name you are assigning to the rule. The name should be descriptive. In our example, the name is Internal Test indicating this rule is for an internal test.
Rule Type	There are several rule types available and all rules in a template have to pass for the template to be considered successful and to transition to the resulting device: • Match Regular Expression: The device is queried for the specified OID and the OID is compared to a regular expression. For the rule to pass the OID must exist and the resulting value must match the regular expression. • Run Internal Validation: Runs a probe internal query that checks a particular OID or group of OIDs. –Validates support for SNMPs: Runs a variety of SNMP Get commands to ensure device supports SNMP sufficiently for Probe requirements. • Verify OID Exists: The template queries the device for a particular OID. If the device responds to the OID (e.g., the OID is in it is MIB), then the rule will pass. • Verify OID Does Not Exist: The template queries the device for a particular OID. If the device does not respond to the OID (e.g., the OID is not in its MIB), then the rule will pass.

View Collection Patch of Selected Device

The Collection tab of the Library shows the collection path for the currently selected device in the Known Devices navigation tree. This section of the document will explain the collection process using templates and how they are configured. Collection templates can be added, modified or deleted from this tab; however, they will be discussed in Use Collection Templates.



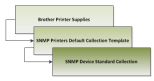
Similar to the Detection tab, the Collection tab shows all collection templates that apply to the currently selected device. Each template has one or more template rules and each rule corresponds to the collection of one or more OID values for every network device that matches the selected library item.

Collection templates can be designated as a sub-procedure. This allows them to be called from other templates, minimizing the need for duplication collections. For example, suppose all HP Model 5000 printers have five OID values that are worth retrieving. In this case, you could create a single template to collect the five values and then

reference that template in all templates that apply to HP 5000 printers. Templates can only be sub-procedures or top-level templates (nesting templates is not allowed).

Collection is performed for the most specific known device first, and then the probe keeps repeating until it gets to the top-level device. For example, in the above image, the Brother Printer Supplies template runs first followed by the SNMP Printers Default Collection Template and then finally the SNMP Device Standard Collection.

In the above example, the selected device is the Brother HL-2170W printer. The collection path for this device is as follows:



Stop Collecting Data

To stop collecting for a device after the current template, select the Stop collection after this device checkbox.

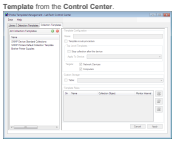
Store Collection Data

Templates can be configured to store data to a custom table. To enable custom storage, select the Custom Storage Table checkbox on the Library tab of the Probe Templates and select the table from the database. The table must already exist in the database and the table name must begin with ProbeCustom. Each step is explained below. This option should only be used by the more advanced users.

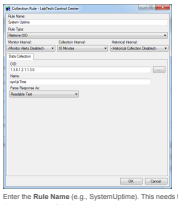
1. The first step is to create the table in the database. Use SQLyog or similar to create a table. The table should begin with probecustom followed by the name of the collection template. For this example, probecustom_systemsuptime. If you would like to keep historical data, create a second table titled h_probecustom_%name% (e.g., h_probecustom_systemsuptime) and select the **PK?** checkbox in the **LastUpdate** column.

2. At a minimum, two columns are necessary in the custom table: DeviceID (integer, primary key, not null) and the second column should be named the same as the **Rule Name** in **Template Rules** (**Detection** tab in **Probe Templates**).
   Note: A single collection template can have a single rule as indicated in the above image or multiple rules. For each rule, create another column in the custom table named the same as the **Rule Name**. Multiple collection templates can be saved to the same custom table as long as the table is specified in the collection template **Name** field and the **Rule Names** in the collection template match the column names in the table.
3. Once the table has been created, select **Automation** > **Templates** > **Probe Templates** > **Collection**

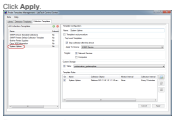
Template from the **Control Center**.



4. Click on the **Add**
   button to add a new custom template. This will enable the **Template Configuration** section of the screen.
5. Enter the name of custom collection template in the **Name** field (e.g., SystemUptime).
6. Make the following changes:
   1. Select **SNMP Device** from the **Apply to Device** drop-down.
   2. Select the **Network Devices** checkbox.
   3. Make sure the **Template is sub-procedure**, **Stop collection after this device** and **Computers** fields are not selected.
7. Select the **Custom Storage Table** checkbox and select the table you created from the drop-down.
8. In the **Template Rules** section, click on the **Add New Rule**
   button.



9. Enter the **Rule Name** (e.g., SystemUptime). This needs to match the name you used in the custom table.
10. Select **Retrieve OID** from the **Rule Type** drop-down.
11. Leave the **Monitor Interval** at the default of **<Monitor Alerts Disabled>**.
12. Select **10 Minutes** from the **Collection Interval** drop-down.
13. Leave the **Historical Interval** at the default of **<No Historical Collection>**.
14. In the **Data Collection** section, click on the **Ellipsis**
    button and select the appropriate OID from the MIB tree (e.g., sysUpTime).
15. Select **Readable Text** from the **Parse Response As** drop-down.
16. Click **OK**. This will return you to the collection template.
17. Click Apply



18. Ensure that your collection template now appears in the list of collection templates.
19. Refresh the custom probe table (e.g., probecustom_systemuptime) and verify that is populated with data for

the DeviceID and the other columns you created based on the **Name(s)** of your **Template Rules** (e.g., SystemUptime). This may take a few moments.