



Dell EMC Unity Automation PowerPacks

Dell EMC Unity Automation PowerPack version 100

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Chapter

1

Introduction

Overview

This manual describes how to use the automation policies and automation actions found in the *Dell EMC Unity Automation PowerPack*.

NOTE: This PowerPack is available with a ScienceLogic SL1 Standard solution. Contact your ScienceLogic Customer Success Manager or Customer Support to learn more.

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What is the Dell EMC Unity Automation PowerPack?

The *Dell EMC Unity Automation PowerPack* includes automation policies that:

- Enrich SL1 events for Dell EMC devices (for example, from the *Dell: EMC Unity PowerPack*) by automatically running diagnostic commands from the Unisphere REST API and adding the output to the SL1 event log or an associated incident.

The Dell EMC Unity Automation actions are executed on the SL1 All-In-One Appliance or Data Collector.

Installing the Dell EMC Unity Automation PowerPack

Before completing the steps in this manual, you must import and install the latest version of the *Dell EMC Unity Automation PowerPack*.

IMPORTANT: You must install the *Datacenter Automation Utilities PowerPack* before using the Dell EMC Unity Automation PowerPack.

NOTE: The *Dell EMC Unity Automation PowerPack* requires SL1 version 8.10.0 or later. For details on upgrading SL1, see the appropriate SL1 [Release Notes](#).

TIP: By default, installing a new version of a PowerPack overwrites all content from a previous version of that PowerPack that has already been installed on the target system. You can use the **Enable Selective PowerPack Field Protection** setting in the **Behavior Settings** page (System > Settings > Behavior) to prevent new PowerPacks from overwriting local changes for some commonly customized fields. (For more information, see the **System Administration** manual.)

IMPORTANT: The minimum required MySQL version is 5.6.0.

To download and install the PowerPack:

1. Search for and download the PowerPack from the **PowerPacks** page (Product Downloads > PowerPacks & SyncPacks) at the [ScienceLogic Support Site](#).
2. In SL1, go to the **PowerPacks** page (System > Manage > PowerPacks).
3. Click the **[Actions]** button and choose *Import PowerPack*. The **Import PowerPack** dialog box appears.
4. Click **[Browse]** and navigate to the PowerPack file from step 1.
5. Select the PowerPack file and click **[Import]**. The **PowerPack Installer** modal displays a list of the PowerPack contents.
6. Click **[Install]**. The PowerPack is added to the **PowerPacks** page.

NOTE: If you exit the **PowerPack Installer** modal without installing the imported PowerPack, the imported PowerPack will not appear in the **PowerPacks** page. However, the imported PowerPack will appear in the **Imported PowerPacks** modal. This page appears when you click the **[Actions]** menu and select *Install PowerPack*.

TIP: If you will have the *Dell EMC: Unity* PowerPack installed and are monitoring your Dell EMC devices, no other configuration is necessary. The automation policies in the *Dell EMC Unity Automation* PowerPack will run in response to aligned events.

Chapter

2

Dell EMC Unity Automation Policies

Overview

This chapter describes how to use the automation policies, automation actions, and custom action types found in the *Dell EMC Unity Automation PowerPack*.

This chapter covers the following topics:

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Standard Automation Policies

The *Dell EMC Unity Automation PowerPack* includes two standard automation policies, shown in the following figure. Each policy triggers an automation action that collects diagnostic data from the Unisphere REST API and adds the output to the SL1 event log or associated incident.

All of the standard automation policies are tied to included ScienceLogic SL1 events generated by the Dynamic Applications from the *Dell EMC: Unity PowerPack*.

The following table shows the standard automation policies, their aligned events, and the automation actions that runs in response to the events.

NOTE: The aligned events are included as part of this PowerPack and are not installed with the SL1 platform. You must install the PowerPack to obtain these events.

Automation Policy Name	Aligned Events	Automation Action
Dell EMC Unity: LUN Diagnostics	<ul style="list-style-type: none"> Dell EMC: Unity LUN Config health status is critical Dell EMC: Unity LUN Config health status is degraded 	<ul style="list-style-type: none"> Dell EMC Unity LUN Info Collection Dell EMC Unity: HTML Output Formatter
Dell EMC Unity: Storage Pool Diagnostics	<ul style="list-style-type: none"> Dell EMC: Unity Storage Pool Capacity usage has exceeded initial threshold Dell EMC: Unity Storage Pool Config health status is critical Dell EMC: Unity Storage Pool Capacity usage has exceeded major threshold Dell EMC: Unity Storage Pool Config health status is degraded Dell EMC: Unity Storage Pool Capacity usage has exceeded minor threshold 	<ul style="list-style-type: none"> Dell EMC Unity Storage Pool Info Collection Dell EMC Unity: HTML Output Formatter

The following figure shows a file system usage threshold exceeded event with major criticality on the **Events** page. Click the **[Actions]** button (☰) for an event, and select *View Automation Actions* to see the automation actions triggered by the events.

The screenshot shows the ScienceLogic Events console. At the top, there are filters for event severity: 0 Critical, 16 Major, 4 Minor, 3 Notice, and 0 Healthy. A search bar is present with the text 'Type to search events'. The main table lists events with columns for ORGANIZ., SEVERITY, NAME, MESSAGE, AGE, TICKET, C., EVENT NO., MASKED EVENTS, ACKNOWLEDGE, and CLEAR. A context menu is open over the event 'ec2-3-93-10: Device Failed Availability Check...', showing options: View Event, Edit Event Note, Create Ticket, View Automation Actions (highlighted with a red box), View Event Policy, and Suppress Event for this Device.

ORGANIZ.	SEVERITY	NAME	MESSAGE	AGE	TICKET	C.	EVENT NO.	MASKED EVENTS	ACKNOWLEDGE	CLEAR
Network	Major	ec2-34-200-5	Device Failed Availability Check...	1 month	€	10...	+		✓ Acknowledge	✗ Clear
Network	Minor	ec2-34-200-5	Network latency exceeded thre...	1 month	€	10...	+		✓ Acknowledge	✗ Clear
VMware	Major	10.2.5.72	Example VMware Event	1 month	€	1	+		✓ Acknowledge	✗ Clear
Windows	Major	Hyper-V Test	The 'Diagnostic Policy Service' s...	1 month	€	10...	+		✓ Acknowledge	✗ Clear
Network	Major	ec2-3-93-10	Device Failed Availability Check...	1 month	€	10...	+	Masked	✓ Acknowledge	✗ Clear
Windows	Major	Hyper-V Test	The % Disk Used for logical disk...	26 days	1'	25...	+		✓ Acknowledge	✗ Clear
Windows	Major	Hyper-V Test	The % Disk Used for logical disk...	26 days	1'	25...	+		✓ Acknowledge	✗ Clear
Linux Dev...	Major	CentOS-Test	CPU usage of 0.668387735616...	12 days	1'	36...	+		✓ Acknowledge	✗ Clear
Linux Dev...	Major	CentOS-Test	Example Linux CPU Event	11 days	6	1	+		✓ Acknowledge	✗ Clear
System	Major	System	EM7 major event: E010: Config...	2 days	4 h	61...	+		✓ Acknowledge	✗ Clear
System	Major	Cyborgs Rest	Device Failed Availability Check...	2 days	3 h	615	+	Masked	✓ Acknowledge	✗ Clear
System	Major	LUN 5.1	Unity LUN health status is degr...	2 days	3 h	30...	+		✓ Acknowledge	✗ Clear
System	Major	LUN1	Unity LUN health status is degr...	2 days	3 h	30...	+		✓ Acknowledge	✗ Clear
System	Major	bl-db	DRBD: This node is not UpToDa...	2 days	3 h	615	+	Masked	✓ Acknowledge	✗ Clear
Windows	Notice	Hyper-V Test	Microsoft: Hyper-V Percent Virt...	2 days	3 h	615	+		✓ Acknowledge	✗ Clear

The results shown for this event, in the Event Actions Log, include the automation policy that ran (shown at the top of the following figure), along with the automation actions (commands) that ran. Results for each command are also displayed. The following figure shows an example of this output.

Event Actions Log | For Event [23422] Refresh Guide

2020-07-24 20:10:19
Automation Policy Dell EMC Unity: LUN Diagnostics action Dell EMC Unity: HTML Output Formatter ran Successfully
Message: CustomActionType (437) executed without incident
Result: `u"`

Response from `https://10.2.5.120/api/instances/lun/name:LUN 5.1?`
`fields=id,health,name,type,tieringPolicy,defaultNode,currentNode,sizeTotal,sizeAllocated,sizeAllocated,dataReductionSizeSaved,dataReductionPercent,dataReductionRatio,perTierSizeUsed,isDataReductionEnabled`

- snapCount: 0
- snapsSizeAllocated: 0
- currentNode: 0
- name: LUN 5.1
- defaultNode: 0
- perTierSizeUsed: [0, 0, 2952790016]
- isThinEnabled: True
- snapsSize: 0
- isSnapSchedulePaused: False
- sizeTotal: 107374182400
- health: 5. Descriptions:
 - ALRT_VOL_OK: The LUN is operating normally. No action is required.
- isReplicationDestination: False
- tieringPolicy: 0
- metadataSize: 4294967296
- storageResource: {u'id': u'sv_4'}
- metadataSizeAllocated: 2684354560
- wwn: 60:06:01:60:C7:27:B8:24:B0:B4:28:5B:B8:F6:F4:A9
- type: 2
- id: sv_4
- pool: {u'id': u'pool_1'}
- sizeAllocated: 0

"

2020-07-24 20:10:09
Automation Policy Dell EMC Unity: LUN Diagnostics action Dell EMC Unity: LUN Info Collection ran Successfully
Message: CustomActionType (438) executed without incident
Result: `{command_list_out: [(u https://10.2.5.120/api/instances/lun/name:LUN 5.1?`

`fields=id,health,name,type,tieringPolicy,defaultNode,currentNode,sizeTotal,sizeAllocated,sizeAllocated,dataReductionSizeSaved,dataReductionPercent,dataReductionRatio,perTierSizeUsed,isDataReductionEnabled`
`u")@base="https://10.2.5.120/api/instances/lun",updated="2020-07-24T20:08:51.021Z",links:[{"rel":"self","href":"/sv_4"}],content":{"id":"sv_4","type":2,"tieringPolicy":0,"defaultNode":0,"currentNode":0,"health":{"value":5,"descriptionIds":["ALRT_VOL_OK"],"descriptions":["The LUN is operating normally. No action is required."],"name":"LUN 5.1","sizeTotal":107374182400,"sizeAllocated":0,"perTierSizeUsed":[0,0,2952790016],"isThinEnabled":true,"wwn":"60:06:01:60:C7:27:B8:24:B0:B4:28:5B:B8:F6:F4:A9","isReplicationDestination":false,"isSnapSchedulePaused":false,"metadataSize":4294967296,"metadataSizeAll`
`[0,0,2952790016],"isThinEnabled":true,"wwn":"60:06:01:60:C7:27:B8:24:B0:B4:28:5B:B8:F6:F4:A9","isReplicationDestination":false,"isSnapSchedulePaused":false,"metadataSize":4294967296,"metadataSizeAll`
`[{"id":"sv_4"},"pool":{"id":"pool_1"}]}; None]]`

To learn more about which commands are executed by default for a given automation action, see [Customizing Actions](#).

TIP: Although you can edit the automation policies described in this section, it is a best practice to use "Save As" to create a new automation policy, rather than to customize the standard automation policies.

Chapter

3

Configuring Device Credentials

Overview

This chapter describes how to configure the credentials required by the automation actions in the *Dell EMC Unity Automation PowerPack*.

NOTE: If you already have the *Dell EMC: Unity PowerPack* installed and monitoring your Dell EMC devices, you do not need to configure an additional credential.

This chapter covers the following topics:

[Editing the Credential](#) 11


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Editing the Credential

If you do not have the *Dell EMC: Unity* PowerPack installed and configured, follow the steps for installation in the *Monitoring Dell EMC Unity* manual.

Once you have the *Dell EMC: Unity* PowerPack installed, you must edit the SOAP/XML credential that allows the Dynamic Applications in the *Dell EMC Unity Automation* PowerPack to use the Unisphere REST API.

To configure the SOAP/XML credential to access the Unisphere REST API:

1. Go to the **Credential Management** page (System > Manage > Credentials).
2. Locate the credential you created following the steps in the *Monitoring Dell EMC Unity* manual, and then click its wrench icon (). The **Edit SOAP/XML Credential** page appears:
3. Change the value in the **Method** field to *GET*.
4. Click **[Save]**.
5. When the confirmation message appears, click **[OK]**.

For more information about configuring credentials in SL1, see the *Discovery and Credentials* manual .

Creating and Customizing Automation Policies

Overview

This chapter describes how to create automation policies using the automation actions in the *Dell EMC Unity Automation PowerPack*.

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Prerequisites

Before you create an automation policy using the automation actions in the *Dell EMC Unity Automation PowerPack*, you must determine:

- Which set of commands you want to run on a monitored device when an event occurs. There are two automation actions in the PowerPack.
- What event criteria you want to use to determine when the automation actions will trigger, or the set of rules that an event must match before the automation is executed. This can include matching only specific event policies, event severity, associated devices, and so on. For a description of all the options that are available in Automation Policies, see the *Run Book Automation* manual.

Creating an Automation Policy

To create an automation policy that uses the automation actions in the *Dell EMC Unity Automation PowerPack*, perform the following steps:

1. Go to the **Automation Policy Manager** page (Registry > Run Book > Automation).
2. Click **[Create]**. The **Automation Policy Editor** page appears.
3. Complete the following required fields:
 - **Policy Name**. Enter a name for the automation policy.
 - **Policy Type**. Select whether the automation policy will match events that are active, match when events are cleared, or run on a scheduled basis. Typically, you would select *Active Events* in this field.
 - **Policy State**. Specifies whether the policy will be evaluated against the events in the system. If you want this policy to begin matching events immediately, select *Enabled*.
 - **Policy Priority**. Specifies whether the policy is high-priority or default priority. These options determine how the policy is queued.
 - **Organization**. Select one or more organizations to associate with the automation policy. The automation policy will execute only for devices in the selected organizations (that also match the other criteria in the policy). To configure a policy to execute for all organizations, select *System* without specifying individual devices to align to.
 - **Aligned Actions**. This field includes the actions from the *Dell EMC Unity Automation PowerPack*. To add an action to the **Aligned Actions** field, select the action in the **Available Actions** field and click the right arrow (>>). To re-order the actions in the **Aligned Actions** field, select an action and use the up arrow or down arrow buttons to change that action's position in the sequence.

NOTE: You must have at least two Aligned Actions: one that runs the automation action and one that provides the output format. The action providing the output format is the "Dell EMC Unity: HTML Output Formatter" action, which is included in this PowerPack.

4. Optionally, supply values in the other fields on this page to refine when the automation will trigger.


5. Click **[Save]**.

NOTE: You can also modify one of the automation policies included with this PowerPack. Best practice is to use the **[Save As]** option to create a new, renamed automation policy, instead of customizing the standard automation policies. For more information, see [Customizing an Automation Policy](#).

NOTE: If you modify one of the included automation policies and save it with the original name, the customizations in that policy will be overwritten when you upgrade the PowerPack unless you remove the association between the automation policy and the PowerPack before upgrading.

Customizing an Automation Policy

To customize an automation policy:

1. Go to the **Automation Policy Manager** page (Registry > Run Book > Automation).
2. Search for the *Dell EMC Unity Automation* automation policy you want to edit and click the wrench icon () for that policy. The **Automation Policy Editor** page appears:
3. Complete the following fields as needed:
 - **Policy Name.** Type a new name for the automation policy to avoid overwriting the default policy.
 - **Policy Type.** Select whether the automation policy will match events that are active, match when events are cleared, or run on a scheduled basis. Typically, you would select *Active Events* in this field.
 - **Policy State.** Specifies whether the policy will be evaluated against the events in the system. If you want this policy to begin matching events immediately, select *Enabled*.
 - **Policy Priority.** Specifies whether the policy is high-priority or default priority. These options determine how the policy is queued.
 - **Organization.** Select the organization that will use this policy.
 - **Aligned Actions.** This field includes the actions from the *Dell EMC Unity Automation* PowerPack. To add an action to the **Aligned Actions** field, select the action in the **Available Actions** field and click the right arrow (>>). To re-order the actions in the **Aligned Actions** field, select an action and use the up arrow or down arrow buttons to change that action's position in the sequence.



NOTE: You must have at least two Aligned Actions: one that runs the automation action and one that provides the output format. The action providing the output format is the "Dell EMC Unity: HTML Output Formatter" action, which is included in this PowerPack.

4. Optionally, supply values in the other fields on the **Automation Policy Editor** page to refine when the automation will trigger.
5. Click **[Save As]**.

Removing an Automation Policy from a PowerPack

After you have customized a policy from a *Dell EMC Unity Automation PowerPack*, you might want to remove that policy from that PowerPack to prevent your changes from being overwritten if you update the PowerPack later. If you have the license key with author's privileges for a PowerPack or if you have owner or administrator privileges with your license key, you can remove content from a PowerPack.

To remove content from a PowerPack:

1. Go to the **PowerPack Manager** page (System > Manage > PowerPacks).
2. Find the *Dell EMC Unity Automation* PowerPack. Click its wrench icon ().
3. In the **PowerPack Properties** page, in the navigation bar on the left side, click **Run Book Policies**.
4. In the **Embedded Run Book Policies** pane, locate the policy you updated, and click the bomb icon () for that policy. The policy will be removed from the PowerPack and will now appear in the bottom pane.

Chapter

5

Customizing Dell EMC Unity Actions

Overview

This manual describes how to customize the automation actions embedded in the *Dell EMC Unity Automation* PowerPack to create automation actions to meet your organization's specific requirements.

For more information about creating automation policies using custom action types, see [Creating and Customizing Automation Policies](#).

This chapter covers the following topics:

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Creating a Custom Action Policy

To create a custom action policy using:

1. Navigate to the **Action Policy Manager** page (Registry > Run Book > Actions).
2. In the **Action Policy Manager** page, click the **[Create]** button.
3. The **Action Policy Editor** modal appears.
4. In the **Action Policy Editor** page, supply a value in each field.
 - **Action Name**. Specify the name for the action policy.
 - **Action State**. Specifies whether the policy can be executed by an automation policy (enabled) or cannot be executed (disabled).
 - **Description**. Allows you to enter a detailed description of the action.
 - **Organization**. Organization to associate with the action policy.
 - **Action Type**. Type of action that will be executed. The *Dell EMC Unity Automation PowerPack* uses the HTTP Action Type.
 - **Execution Environment**. Select from the list of available Execution Environments. The default execution environment is *System*.
 - **Action Run Context**. Select *Database* or *Collector* as the context in which the action policy will run.
 - **Input Parameters**. A JSON structure that specifies each input parameter. Each parameter definition includes its name, data type, and whether the input is optional or required.

NOTE: Input parameters must be defined as a JSON structure, even if only one parameter is defined.

5. Click **[Save]**. If you are modifying an existing action policy, click **[Save As]**. Supply a new value in the **Action Name** field, and save the current action policy, including any edits, as a new policy.

Customizing Automation Actions

The *Dell EMC Unity Automation PowerPack* includes two automation actions that request diagnostic information or remediate an issue. You can specify the host and the options in a JSON structure that you enter in the **Input Parameters** field in the **Action Policy Editor** modal.

The following automation actions that use the "Make an HTTP Request" action type are included in the *Dell EMC Unity Automation PowerPack*. Compare the commands run with the example in the image above. For more information about input parameter fields, see the table in [Creating a New Dell EMC Unity Automation Action](#).

Action Name	Description	Relative URL
Dell EMC Unity LUN Info Collection	Collects information about the Dell EMC Unity LUN associated with the event	"instances/lun/name:%X?fields=id,health,name,type, tieringPolicy,defaultNode,currentNode,sizeTotal, sizeAllocated,sizeAllocated,dataReductionSizeSaved, dataReductionPercent,dataReductionRatio,perTierSizeUsed,

Action Name	Description	Relative URL
		isDataReductionEnabled,storageResource,pool, isReplicationDestination,snapSchedule,isSnapSchedulePaused, ioLimitPolicy,metadataSize,metadataSizeAllocated, snapsSize,snapsSizeAllocated,hostAccess,snapCount, isThinEnabled,wwn"
Dell EMC Unity Storage Pool Info Collection	Collects information about the Dell EMC Unity LUN associated with the event	"instances/pool/name:%X?fields=id,health,name, description,raidType,sizeFree,sizeTotal,sizeUsed, dataReductionSizeSaved,dataReductionPercent, dataReductionRatio,sizeSubscribed,tiers,creationTime, isEmpty,isHarvestEnabled,harvestState, isSnapHarvestEnabled,metadataSizeSubscribed, nonBaseSizeSubscribed,metadataSizeUsed,snapSizeUsed, nonBaseSizeUsed,type,isAllFlash"

TIP: For more information about substitution variables, see [Appendix A](#).

Creating a New Dell EMC Unity Automation Action

You can create a new automation action or use the existing automation actions in the PowerPack as a template by using the **[Save As]** option.

The automation actions accept the following parameters in JSON:

Parameter	Input type	Description
credential_id	integer	The ID of a SOAP/XML credential to use to make the HTTP request. The URL, method, authentication parameters, headers, timeout, and proxy settings from the credential are used to build the request. If the credential_id parameter is 0, the dynapp_guid parameter is used to determine the credential to use.
dynapp_guid	string	If the credential_id parameter is 0, the SOAP/XML credential used to make the HTTP request is the credential aligned to the Dynamic Application with this GUID on the triggering device. If this Dynamic Application is not aligned to the triggering device, the credential aligned to the Dynamic Application with this GUID on the root device of the triggering device is used.
relative_url	string	This string is appended to the end of the URL in the credential before making the request. Substitution characters can be used in this parameter.
payload	string	If the credential specifies a POST request, this parameter is sent in the body of the request. Substitution characters can be used in this parameter.

Using Substitution Values. The commands input can contain substitution values that match the keys in EM7_VALUES.

TIP: For more information about substitution variables, see [Appendix A](#).

For a description of all options that are available in Automation Policies, see the *Run Book Automation* manual.

Appendix



A

Run Book Variables

Overview

This appendix defines the different variables you can use when creating an action policy.

Use the following menu options to navigate the SL1 user interface:

- To view a pop-out list of menu options, click the menu icon ().
- To view a page containing all of the menu options, click the Advanced menu icon ().

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Run Book Variables

You can include variables when creating an action policy. These variables are listed in the table below.

- In an action policy of type **Send an Email Notification**, you can include one or more of these variables in the fields **Email Subject** and **Email Body**.
- In an action policy of type **Send an SNMP Trap**, you can include one or more of these variables in the **Trap OID** field, **Varbind OID** field, and the **Varbind Value** field.
- In an action policy of type **Create a New Ticket**, you can include one or more of these variables in the **Description** field or the **Note** field of the related Ticket Template.
- In an action policy of type **Send an SNMP Set**, you can include one or more of these variables in the **SNMP OID** field and the **SNMP Value** field.
- In an action policy of type **Run A Snippet**, you can access variables from the global dictionary **EM7_VALUES**.
- In a policy of type **Execute an SQL Query**, you can include one or more of these variables in the **SQL Query** field.

Variable	Source	Description
%A	Account	Username
%N	Action	Automation action name
%g	Asset	Asset serial
%h	Asset	Device ID associated with the asset
%i (lowercase "eye")	Asset	Asset Location
%k	Asset	Asset Room
%K	Asset	Asset Floor
%P	Asset	Asset plate
%p	Asset	Asset panel
%q	Asset	Asset zone
%Q	Asset	Asset punch
%U	Asset	Asset rack
%u	Asset	Asset shelf
%v	Asset	Asset tag
%w	Asset	Asset model
%W	Asset	Asset make
%m	Automation	Automation policy note
%n	Automation	Automation policy name
%F	Dynamic Alert	Alert ID for a Dynamic Application Alert
%l (uppercase "eye")	Dynamic Alert	For events with a source of "dynamic", this variable contains the index value from SNMP. For events with a source of "syslog" or "trap", this variable contains

Variable	Source	Description
		the value that matches the <i>Identifier Pattern</i> field in the event definition.
%T	Dynamic Alert	Value returned by the Threshold function in a Dynamic Application Alert.
%V	Dynamic Alert	Value returned by the Result function in a Dynamic Application Alert.
%L	Dynamic Alert	Value returned by the label variable in a Dynamic Application Alert.
%a	Entity	IP address
_%category_id	Entity	Device category ID associated with the entity in the event.
_%category_name	Entity	Device category name associated with the entity in the event.
_%class_id	Entity	Device class ID associated with the entity in the event.
_%class_name	Entity	Device class description associated with the entity in the event.
_%parent_id	Entity	For component devices, the device ID of the parent device.
_%parent_name	Entity	For component devices, the name of the parent device.
_%root_id	Entity	For component devices, the device ID of the root device.
_%root_name	Entity	For component devices, the name of the root device.
%1 (one)	Event	Entity type. Possible values are: <ul style="list-style-type: none"> • 0. Organization • 1. Device • 2. Asset • 4. IP Network • 5. Interface • 6. Vendor • 7. Account • 8. Virtual Interface • 9. Device Group • 10. IT Service • 11. Ticket
%2	Event	Sub-entity type. Possible values for organizations are: <ul style="list-style-type: none"> • 9. News feed Possible values for devices are: <ul style="list-style-type: none"> • 1. CPU • 2. Disk • 3. File System • 4. Memory

Variable	Source	Description
		<ul style="list-style-type: none"> • 5. Swap • 6. Component • 7. Interface • 9. Process • 10. Port • 11. Service • 12. Content • 13. Email
%4	Event	Text string of the user name that cleared the event.
%5	Event	Date/time when event was deleted.
%6	Event	Date/time when event became active.
%7	Event	<p>Event severity (1-5), for compatibility with previous versions of SL1. 1=critical, 2=major, 3=minor, 4=notify, 5=healthy.</p> <div style="border: 1px solid black; padding: 5px; margin-top: 10px;"> <p>NOTE: When referring to an event, %7 represents severity (for previous versions of SL1). When referring to a ticket, %7 represents the subject line of an email used to create a ticket.</p> </div>
%c	Event	Event counter
%d	Event	Date/time when last event occurred.
%D	Event	Date/time of first event occurrence.
%e	Event	Event ID
%H	Event	URL link to event
%M	Event	Event message
%s	Event	severity (0 - 4). 0=healthy, 1=notify, 2=minor, 3=major, 4=critical.
%S	Event	Severity (HEALTHY - CRITICAL)
\$_user_note	Event	Current note about the event that is displayed on the Events page.
%x	Event	Entity ID
%X	Event	Entity name
%y	Event	Sub-entity ID
%Y	Event	Sub-entity name
%Z	Event	Event source (Syslog - Group)
%z	Event	Event source (1 - 8)
\$_ext_ticket_ref	Event	For events associated with an external Ticket ID, this variable contains the external Ticket ID.
%3	Event Policy	Event policy ID
%E	Event Policy	External ID from event policy

Variable	Source	Description
%f	Event Policy	Specifies whether event is stateful, that is, has an associated event that will clear the current event. 1 (one)=stateful; 0 (zero)=not stateful.
%G	Event Policy	External Category
%R	Event Policy	Event policy cause/action text
_%_event_policy_name	Event Policy	Name of the event policy that triggered the event.
%B	Organization	Organization billing ID
%b	Organization	Impacted organization
%C	Organization	Organization CRM ID
%o (lowercase "oh")	Organization	Organization ID
%O (uppercase "oh")	Organization	Organization name
%r	System	Unique ID / name for the current SL1 system
%7	Ticket	Subject of email used to create a ticket. If you specify this variable in a ticket template, SL1 will use the subject line of the email in the ticket description or note text when SL1 creates the ticket. NOTE: When referring to a ticket, %7 represents the subject line of an Email used to create a ticket. When referring to an event, %7 represents severity (for previous versions of SL1).
%t	Ticket	Ticket ID
%J	Ticket	Description field from the SL1 ticket.

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