



Dell EMC Unity Automations PowerPack

Version 101

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Chapter

1

Introduction to the Dell EMC Unity Automations PowerPack

Overview

This manual describes how to use the automation policies and run book actions found in the "Dell EMC Unity Automations" PowerPack.

IMPORTANT: Version 101 and later of the "Dell EMC Unity Automations" PowerPack includes updates for compatibility with Python 3. As a result, this version of the PowerPack runs only in a Python 3 execution environment.

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This chapter covers the following topics:

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What is the Dell EMC Unity Automations PowerPack?

The "Dell EMC Unity Automations" PowerPack includes automation policies that:

- Enrich Skylar One 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 Skylar One event log or an associated incident.

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

Installing the Dell EMC Unity Automations PowerPack

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

Also, the following PowerPacks are prerequisites:

- "Datacenter Automation Utilities" version 202 or later
- "Dell EMC Unity" PowerPack version 103 or later

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 section on [Global Settings](#).

NOTE: For details on upgrading Skylar One, see the relevant [Skylar One Platform Release Notes](#).

To download and install the PowerPack:

1. Search for and download the PowerPack from the **PowerPacks** page on the [ScienceLogic Support Site](#) (Skylar One > PowerPacks).
2. In Skylar One, 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 Automations" 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, run book actions, and custom action types found in the "Dell EMC Unity Automations" PowerPack.

This chapter covers the following topics:

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Standard Automation Policies

The "Dell EMC Unity Automations" PowerPack includes two standard run book automation policies. Each policy triggers a run book action that collects diagnostic data from the Unisphere REST API and adds the output to the Skylar One event log or associated incident.

All of the standard automation policies are tied to included Skylar One 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 run book actions that run in response to the events.

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

Automation Policy Name	Aligned Events	Run Book Action
Dell EMC Unity: LUN Diagnostics	• Dell EMC: Unity LUN Config health status is critical • Dell EMC: Unity LUN Config health status is degraded	• Dell EMC Unity LUN Info Collection • Dell EMC Unity: HTML Output Formatter
Dell EMC Unity: Storage Pool Diagnostics	• 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	• 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 run book actions triggered by the events.

Events												
Activity Mantone skylar one												
0 Critical 16 Major 4 Minor 3 Notice 0 Healthy 23 Events View All												
Type to search events												
	ORGANIZ...	SEVERI...	NAME	MESSAGE	AGE	TICKET...	C...	EVENT NO...	MASKED EVENTS	ACKNOWLEDGE	CLEAR	
✓	Network	Major	ec2-34-200-1	Device Failed Availability Check...	1 month 6	10...		+		✓ Acknowledge	✕ Clear	...
✓	Network	Minor	ec2-34-200-1	Network latency exceeded thre...	1 month 6	10...		+		✓ Acknowledge	✕ Clear	...
✓	VMware	Major	10.2.5.72	Example VMware Event	1 month 6	1		+		✓ Acknowledge	✕ Clear	...
✓	Windows	Major	Hyper-V Test	The 'Diagnostic Policy Service' s...	1 month 6	10...		+		✓ Acknowledge	✕ Clear	...
✓	Network	Major	ec2-3-93-10	Device Failed Availability Check...	1 month 5	10...		+	Masked	✓ Acknowledge	✕ Clear	...
✓	Windows	Major	Hyper-V Test	The % Disk Used for logical disk...	26 days 1'	25...		+		View Event		
✓	Windows	Major	Hyper-V Test	The % Disk Used for logical disk...	26 days 1'	25...		+		Edit Event Note		
✓	Linux Dev...	Major	CentOS-Test	CPU usage of 0.668387735616...	12 days 1'	36...		+		Create Ticket		
✓	Linux Dev...	Major	CentOS-Test	Example Linux CPU Event	11 days 6	1		+		View Automation Actions		
✓	System	Major	System	EM7 major event: E010: Config...	2 days 4 h	61...		+		View Event Policy		
✓	System	Major	Cyborgs Rest	Device Failed Availability Check...	2 days 3 h	615		+	Masked	Suppress Event for this Device		
✓	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 UploDa...	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** modal, include the automation policy that ran (shown at the top of the following figure), along with the run book 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]

RefreshGuide

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/fun/name:LUN 5.1?
 fields=id,health,name,type,tieringPolicy,defaultNode,currentNode,sizeTotal,sizeAllocated,dataReductionSizeSaved,dataReductionPercent,dataReductionRatio,perTierSizeUsed,isDataReductionEnabled

- snapCount: 0
- snapSizeAllocated: 0
- currentNode: 0
- name: LUN 5.1
- defaultNode: 0
- perTierSizeUsed: [0, 0, 2952790016]
- isThinEnabled: True
- snapSize: 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/fun/name:LUN 5.1?fields=id,health,name,type,tieringPolicy,defaultNode,currentNode,sizeTotal,sizeAllocated,dataReductionSizeSaved,dataReductionPercent,dataReductionRatio,perTierSizeUsed,isDataReductionEnabled', {'@base': 'https://10.2.5.120/api/instances/fun', '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, 'metadataSizeAllocated': 2684354560, 'storageResource': {'id': 'sv_4'}, 'pool': {'id': 'pool_1'}}}, None)]}]

To learn more about which commands are executed by default for a given run book 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 Automations" 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.

After you install the "Dell EMC: Unity" PowerPack, you must edit the SOAP/XML credential that allows the Dynamic Applications in the "Dell EMC Unity Automations" 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 Skylar One, see the *Discovery and Credentials* manual .

Chapter

4

Creating and Customizing Automation Policies

Overview

This chapter describes how to create automation policies using the run book actions in the "Dell EMC Unity Automations" PowerPack.

This chapter covers the following topics:

<i>Prerequisites</i>	13
<i>Creating an Automation Policy</i>	13
<i>Customizing an Automation Policy</i>	14

Prerequisites

Before you create an automation policy using the run book actions in the "Dell EMC Unity Automations" PowerPack, you must determine:

- Which set of commands you want to run on a monitored device when an event occurs. There are two run book actions in the PowerPack.
- What event criteria you want to use to determine when the run book 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 run book actions in the "Dell EMC Unity Automations" 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 Automations* 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 run book 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 Automations" 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 Automations" 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 run book 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 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 Automations" 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 Run Book Actions

Overview

This manual describes how to customize the run book actions embedded in the "Dell EMC Unity Automations" PowerPack to create run book 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. The **Action Policy Editor** modal appears.
3. 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 Automations" 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. Input parameters must be defined as a JSON structure, even if only one parameter is defined.
4. 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 run book actions

The "Dell EMC Unity Automations" PowerPack includes two run book 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.

Policy Editor | Editing Action [438]
Reset

Action Name
Dell EMC Unity LUN Info Collection

Action State
[Enabled]

Description
Collects information about the Dell EMC Unity LUN associated with the event

Organization
[System]

Action Type
Make an HTTP Request (1.0)

Execution Environment
[HTTP Action Type]

Action Run Context
[Collector]

Input Parameters

```

{
  "credential_id":0,
  "dynapp_guid":"450D92AE6AB752B3C094929529C4F0AA",
  "relative_url":"instances/lun/name:%X?
fields=id,health,name,type,tieringPolicy,defaultNode,currentNode,sizeTotal,sizeAllocated,sizeAllo
cated,dataReductionSizeSaved,dataReductionPercent,dataReductionRatio,perTierSizeUsed,isDataReduct
ionEnabled,storageResource,pool,isReplicationDestination,snapSchedule,isSnapSchedulePaused,ioLimi
tPolicy,metadataSize,metadataSizeAllocated,snapsSize,snapsSizeAllocated,hostAccess,snapCount,isTh
inEnabled,wwn",
  "payload":""
}

```

Save Save As

The following run book actions that use the "Make an HTTP Request" action type are included in the "Dell EMC Unity Automations" 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 Run Book 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, 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,

Action Name	Description	Relative URL
		nonBaseSizeSubscribed,metadataSizeUsed,snapSizeUsed,nonBaseSizeUsed,type,isAllFlash"

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

Creating a New Dell EMC Unity Run Book Action

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

The run book 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 <code>credential_id</code> parameter is 0, the <code>dynapp_guid</code> parameter is used to determine the credential to use.
dynapp_guid	string	If the <code>credential_id</code> 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: Run Book Variables](#).

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 Skylar One 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 ().

This appendix covers the following topics:

This chapter covers the following topics:

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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
%a	Entity	IP address
%F	Dynamic Alert	Alert ID for a Dynamic Application Alert
%g	Asset	Asset serial
%h	Asset	Device ID associated with the asset
%I (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 the value that matches the Identifier Pattern field in the event definition.
%i (lowercase "eye")	Asset	Asset Location
%K	Asset	Asset Floor
%k	Asset	Asset Room
%L	Dynamic Alert	Value returned by the label variable in a Dynamic Application Alert.
%m	Automation	Automation policy note
%N	Action	Automation action name
%n	Automation	Automation policy name
%P	Asset	Asset plate
%p	Asset	Asset panel
%Q	Asset	Asset punch
%q	Asset	Asset zone

Variable	Source	Description
%T	Dynamic Alert	Value returned by the Threshold function in a Dynamic Application Alert.
%U	Asset	Asset rack
%u	Asset	Asset shelf
%v	Asset	Asset tag
%W	Asset	Asset make
%w	Asset	Asset model
%V	Dynamic Alert	Value returned by the Result function in a Dynamic Application Alert.
_%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.
_%service_investigator_url	Entity	The URL of the Business Service Investigator page for the event that triggered the automation (for run book actions that run against events aligned with business services).
%1 (one)	Event	Entity type. Possible values are: • 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: • 9. News feed

Variable	Source	Description
		Possible values for devices are: • 1. CPU • 2. Disk • 3. File System • 4. Memory • 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	Event severity (1-5), for compatibility with previous versions of Skylar One. 1=critical, 2=major, 3=minor, 4=notify, 5=healthy. NOTE: When referring to an event, %7 represents severity (for previous versions of Skylar One). When referring to a ticket, %7 represents the subject line of an email used to create a ticket.
%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

Variable	Source	Description
%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
%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 Skylar One system
%7	Ticket	Subject of email used to create a ticket. If you specify this variable in a ticket template, Skylar One will use the subject line of the email in the ticket description or note text when Skylar One 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 Skylar One).
%t	Ticket	Ticket ID
%J	Ticket	Description field from the Skylar One ticket.

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