



SCUtils Management Pack for APC ATS Guide

Solution for Microsoft System Center 2012 Operations Manager

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1. Getting started

SCUtils Management Pack for APC ATS is an extension for Microsoft System Center 2012 Operations Manager to monitor APC ATS devices. The product is based on the 'powernet417.mib' MIB file.

APC is a trademark of the [Schneider Electric](#). All other trademarks are property of their respective owners.

2. Compatibility

SCUtils Management Pack for APC ATS has been designed and tested for the following versions of Microsoft System Center 2012 Operations Manager:

- Microsoft System Center 2012 Operations Manager R2.

The product might work with Microsoft System Center 2012 Operations Manager SP1, but it is not tested. If you intend to use **SCUtils Management Pack for APC ATS** in pre-R2 environments, please carefully evaluate the product in the testing environment.

Try before buy

SCUtils Management Pack for APC ATS has a unified installer for trial and full versions and can be obtained on <http://www.scutils.com> from the Downloads page. We highly recommend to evaluate the software in a testing lab before a deployment in the production environment.

The free 15-day trial version is fully functional and offers every feature of the product. Please become familiar with this guide before using **SCUtils Management Pack for APC ATS** and do not hesitate to contact us at support@scutils.com with any related questions. You are also more than welcome to our [YouTube channel](#) where you will find video tutorials for **SCUtils Management Pack for APC ATS** and our other products.

Feedback

Our team is always on the way of the improvement of our solutions. We highly appreciate every feedback from our customers. Please send us your thoughts, complains, and feature requests at support@scutils.com.

3. Requirements

All APC ATS devices must be discovered as network devices. Please refer to the [Operations Manager guide](#) to details.

4. Installation

Download the installation package **SCUtils Management Pack for APC ATS Setup.msi** from Downloads page of www.scutils.com. Copy the installation package to the Operations Manager management server.

Run **SCUtils Management Pack for APC ATS Setup.msi** file on the server.

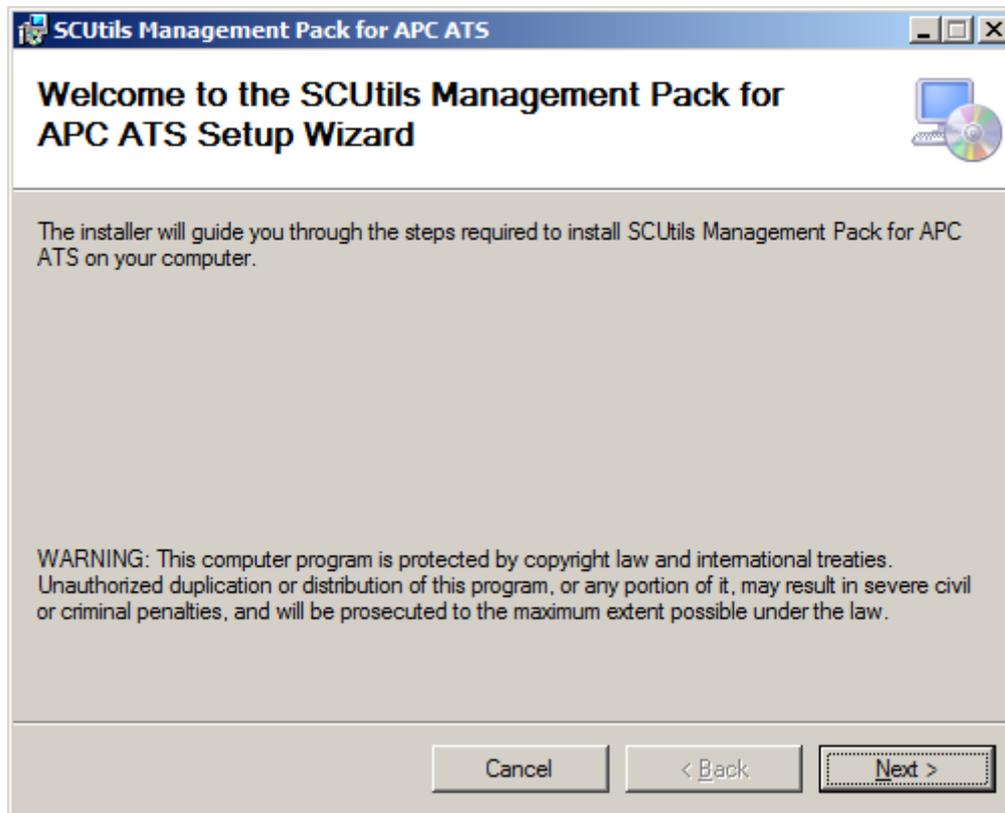


Fig.1 Installing

Follow the installation wizard steps (Fig.1). On the **Select Installation Folder** page you can change the location in which **SCUtils Management Pack for APC ATS** will be installed.

After the successful installation, the installation folder will be opened automatically.

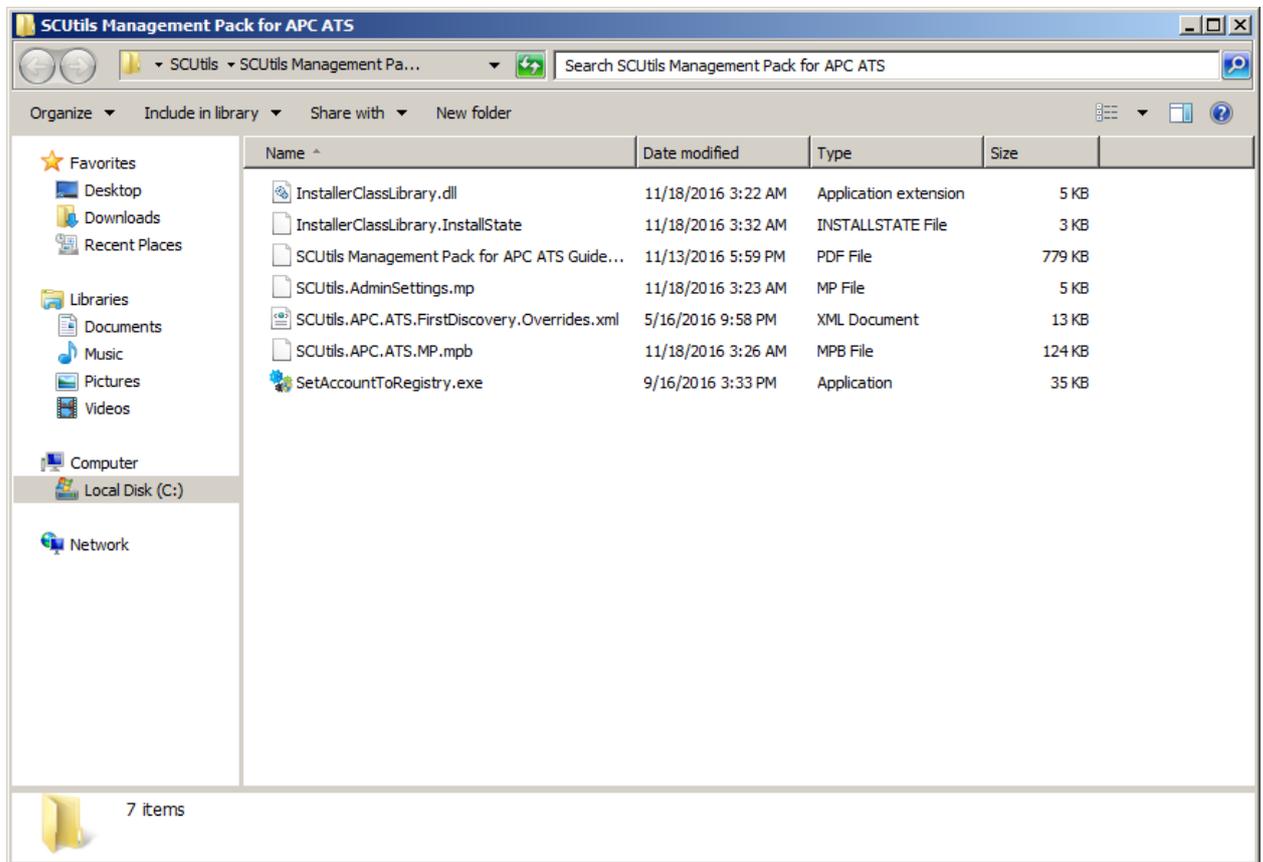


Fig. 2 Installation folder

To install the management packs:

1. Log on to the computer that hosts the **Operations Manager console** using an account that administrative rights in the Operations Manager.
2. In the Operations Manager console, select **Administration**.
3. In the **Administration** pane, select **Management Packs**.
4. In the **Tasks** pane, under **Actions**, click **Import Management Packs**.
5. In the **Select Management Packs** box, click on **Add** button, select **Add from disk**, in the **Online Catalog Connection** dialog select **No**.
6. In the **Select Management Packs to Import** box, point to the location of **SCUtils Management Pack for APC ATS** installation folder (the default path is 'C:\Program Files\SCUtils\SCUtils Management Pack for APC ATS').
7. In the list of files, select the management packs **SCUtils.AdminSettings.mp** (might be already presented if you have deployed our other products) and **SCUtils.APC.ATS.MP.mpb**, and then click **Open**.
8. In the window **Import Management Packs**, click **Install**.

After the installation you have to activate your copy of the software. There are two ways to activate the product: online (recommended) and offline.

Using with gateway servers

If you plan to use Operations Manager gateway server as members of a resource pool to monitor APC ATS devices, you have to perform the following actions in this manner:

1. Install the **Operations Manager console** on **each gateway server** that is a member of a resource pool for monitoring APC ATS devices.
2. Adjust a firewall if a gateway server and its management server are separated by the firewall.

3. Specify the **credentials** for an account that will be used to connect to a management server of the gateway. This action has to be performed on **each gateway server** that is a member of a resource pool for monitoring APC ATS devices.

If the gateway server and management server are separated by a firewall, you have to adjust the firewall to open the following ports in both directions between the gateway server and its management server:

1. TCP 5723
2. TCP 5724

Please refer to the [Microsoft article](#) to find an additional information about ports used by Operations Manager servers.

If you have already specified the **credentials** on gateway servers for **other SCUtils products**, you don't need to repeat the procedure. If not, you need to set the credentials for the connectivity.

To specify the credentials:

1. Prepare an account that is a member of **Operations Manager Read-Only Operators** group.
2. Copy **SetAccountToRegistry.exe** from the installation folder (the default path is 'C:\Program Files\SCUtils\ SCUtils Management Pack for APC ATS') to **each gateway server** that is a member of a resource pool for monitoring APC ATS devices.
3. Run **SetAccountToRegistry.exe** using a local administrator account.
4. Fill in all the required fields.
5. Click on **Test** button.
6. If the connectivity test has succeeded, click on **Save** button (the password will be encrypted before saving). Otherwise, reenter the information and try to test again.
7. Repeat the procedure on **each gateway server** that is a member of a resource pool for monitoring APC ATS devices.

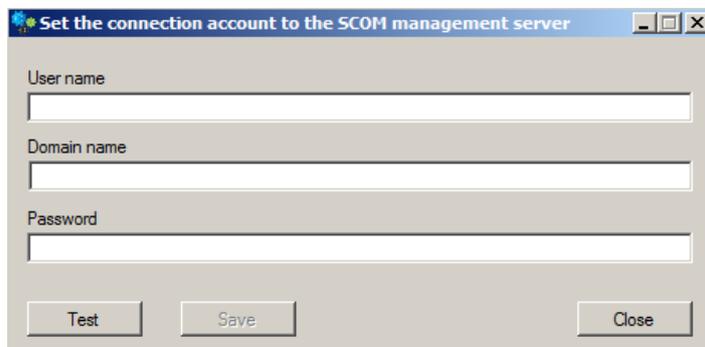


Fig. 3 SetAccountToRegistry dialog.

Online activation

Run the Operations Manager console under an Operations Manager administrative account on the computer connected to internet. Open **SCUtils Management Pack for APC ATS Activation** to activate the copy of the product:

1. In the Operations Manager console, select **Administration**.
2. In the **Administration** pane, expand **SCUtils Settings**.
3. In the **SCUtils Products Activation** view, click **SCUtils Management Pack for APC ATS Activation**.
4. In the **Tasks** pane, under **SCUtils Management Pack for APC ATS Activation Tasks**, click **Activate**.
5. **Run Task - Activate** window will be opened (Fig.4).

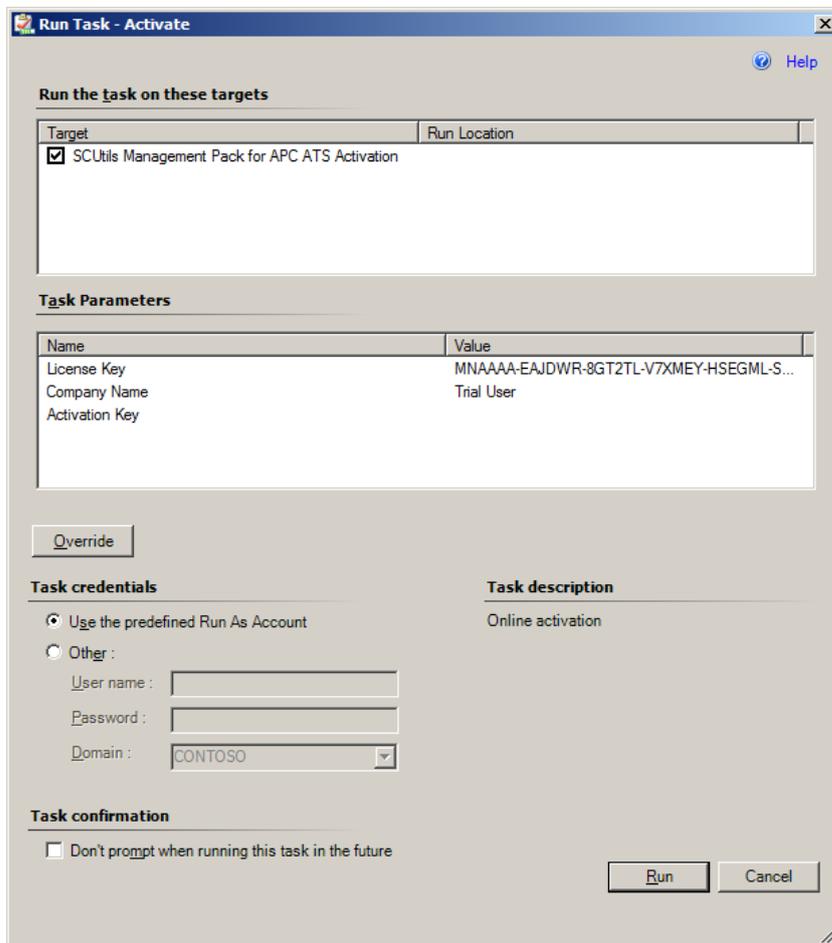


Fig.4 SCUtils Management Pack for APC ATS Activation

If you want to evaluate the product, simply click on **Run** button.

If you want to activate a full version, click on **Override** button, then define new values for **CompanyName** and **LicenseKey** (exactly as in the license), then click on **Run** button.

If the management server haven't finished the deployment of the management pack's resources, you could receive errors or the task will stay in a scheduled state. In this case, just wait for 2-5 minutes and run the **Activate** task again.

If you have any issues with the activation process or are not able to use the online activation, please send your **Unique ID** at support@scutils.com and we will provide you with an offline **Activation Key**. To get the **Unique ID** of your environment, use **Get a Unique ID for an offline activation** task.

Offline activation

If you prefer to activate offline or for some reasons you are not able to use the online activation, send your **Unique ID** at support@scutils.com and specify what activation type you need (trial or full) and we will provide you with offline **Activation Key**.

After you receive the Activation Key, use **Override** button fill out **CompanyName**, **LicenseKey**, and **ActivationKey** (of just **ActivationKey** for a trial activation), then click on **Run** button.

5. Uninstallation

To uninstall **SCUtils Management Pack for APC ATS** log in the Operations Manager management server where the product was installed. Open **Control Panel**, click on **Uninstall a program**, select **SCUtils Management Pack for APC ATS**, and click on **Uninstall**.

Open Operations Manager 2012 console, go to **Administration -> Management Packs**. Select **SCUtils Management Pack for APC ATS** and click on **Delete** task. If required, delete all depending management packs as well. If you don't have any other SCUtils products, you can also delete **SCUtils Base Settings Library** management pack.

6. Using SCUtils Management Pack for APC ATS

Once you complete the activation process, you can start using **SCUtils Management Pack for APC ATS**.

Discovery APC ATS devices

After the successful activation the discovery process will start. The default interval for discoveries is set to **86400** seconds. It allows to discover all APC ATS instances within 1 or 2 days. You can use override to specify shorter intervals to speed up the process. The installation folder includes a management pack named **SCUtils.APC.ATS.FirstDiscovery.Overrides.xml**. You could import it to set the intervals for all discoveries to 700 seconds (around 12 minutes). When the discovery is over, please don't forget to delete this management pack (**Overrides for SCUtils Management Pack for APC ATS**). Please refer to the [Operations Manager guide](#) to details.

To change the scope in the Object Discoveries view in the Authoring Pane, please filter objects by 'APC ATS'.

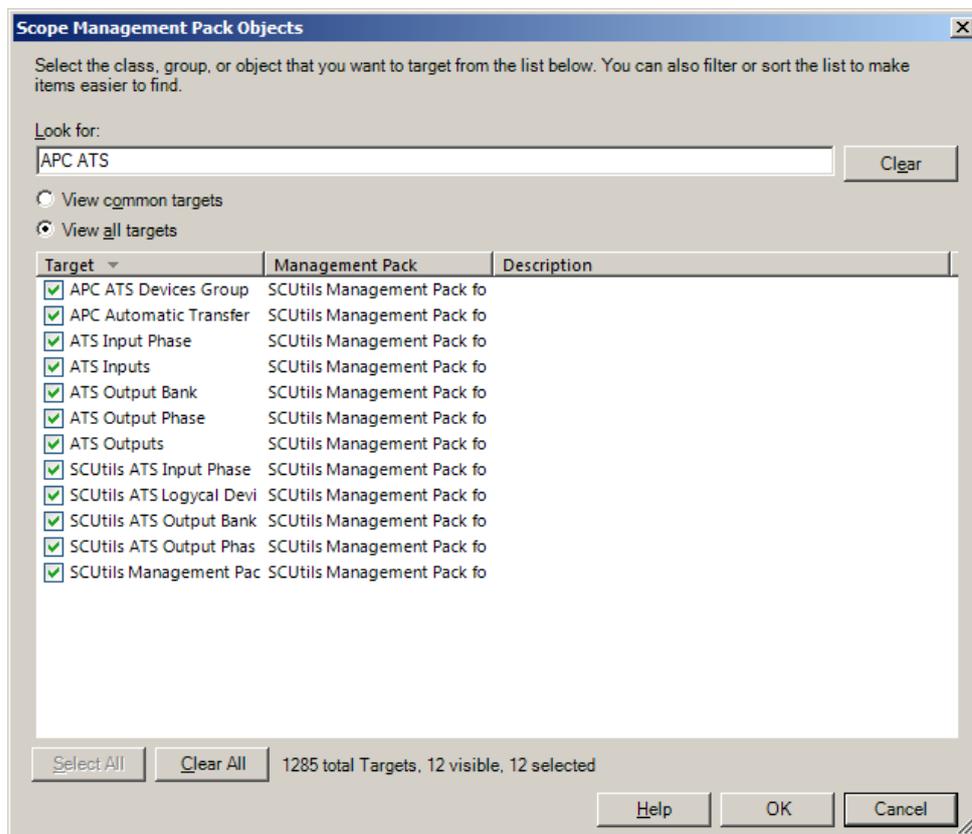


Fig. 5 Changing the scope in Object Discoveries

Monitors

SCUtils Management Pack for APC ATS uses monitors to control the state of APC ATS's components.

All monitors are enabled by default. Please use overrides to disable any monitor if required.

Monitor	Description
Communication status	This monitor returns the current communication status of the Automatic Transfer Switch.
Current source of power	The current source of power. SourceA=1, SourceB=2
Current redundancy state of the ATS	This monitor returns the current redundancy state of the ATS
Output current state of the ATS	This monitor returns the output current state of the ATS

Monitor	Description
5V power supply	This monitor returns the present state of the ATS 5V power supply
24V power supply for Source A	This monitor returns the present state of the ATS 24V power supply for Source A
24V power supply for Source B	This monitor returns the present state of the ATS 24V power supply for Source B
12V power supply	This monitor returns the present state of the ATS 12V power supply
-12V power supply	This monitor returns the present state of the ATS -12V power supply
Status of the ATS	This monitor returns the status of the ATS.
State of the ATS front panel	This monitor returns the present state of the ATS front panel
Status of the Source A	This monitor returns the status of the Source A
Status of the Source B	This monitor returns the status of the Source B
Status of the phase synch	This monitor returns the status of the phase synch
Output voltage status	This monitor returns the output voltage status
Status of display board hardware	This monitor returns the status of display board hardware
Phase load state	Getting this OID will return the phase load state
Bank load state	Getting this OID will return the Bank load state

Informative rules

The table below presents all informative rules of **SCUtils Management Pack for APC ATS**.

Rule	Description
Input Voltage Rule	The current input voltage in VAC, or -1 if it's unsupported by this Source.
Input Current Rule	The input current in amperes, or -1 if it's unsupported by this Source.
Input Power Rule	The input power in Watts, or -1 if it's unsupported by this Source.
Output Voltage Rule	The output voltage in VAC, or -1 if it's unsupported by this ATS
Output Current Rule	The output current in 0.1 amperes drawn by the load on the ATS, or -1 if it's unsupported by this ATS.
Output Load Rule	The output load in VA, or -1 if it's unsupported by this ATS
Output Percent Load Rule	The percentage of the ATS load capacity in VA at redundancy @ (n + x) presently being used on this output phase, or -1 if it's unsupported by this ATS.
Output Power Rule	The output power in Watts, or -1 if it's unsupported by this ATS.
Output Percent Power Rule	The percentage of the ATS power capacity in Watts at redundancy @ (n + x) presently being used on this output phase, or -1 if it's unsupported by this ATS.
Bank Output Current Rule	This rule returns the bank current measured in tenths of Amps.
Bank Output Voltage Rule	The output voltage in VAC, or -1 if it's unsupported by this ATS.
Bank Load Rule	The output load, on the bank represented by OID <code>atsOutputBank</code> , in VA, or -1 if it's unsupported by this ATS.

Rule	Description
Bank Percent Load Rule	The percentage of the ATS load capacity in VA at redundancy @ (n + x) presently being used on this bank, represented by OID atsOutputBank. Returns (-1) if unsupported.
Bank Power Rule	The output power in Watts on the bank represented by OID atsOutputBank or -1 if it's unsupported by this ATS.
Bank Percent Power Rule	The percentage of the ATS power capacity in Watts at redundancy @ (n + x) presently being used on this bank, represented by OID atsOutputBank, or 1 if it's unsupported by this ATS.

Using SNMP traps

SCUtils Management Pack for APC ATS supports monitoring with SNMP traps.

Please make sure that SNNMP Trap service is not running on the management servers belong to resource pools used for network monitoring.

Name	Description	Status	Startu...	Log On As
Routing and Remot...	Offers rout...	Disabled	Disabled	Local System
SNMP Trap	Receives tr...	Disabled	Disabled	Local Service
SQL Server Browser	Provides S...	Disabled	Disabled	Local Service
SSDP Discovery	Discovers ...	Disabled	Disabled	Local Service
UPnP Device Host	Allows UPn...	Disabled	Disabled	Local Service
Application Experie...	Processes ...	Manual	Manual	Local System
Application Identity	Determines...	Manual	Manual	Local Service

Fig. 6 Inactive SNMP Trap service

Then set up APC ATS devices to send SNMP traps to specific events using **IP address** or **hostname** of the **management server** from the network monitoring resource pool.

Specify **SNMP v1**, if required.

Specify the **same community string** as in a discovery rule for that APC ATS device.

Please refer to manuals of your APC ATS device or SNMP/web network management card for details.

The management pack contains of 35 rules for traps. For each rule you can specify your own **Priority** and **Severity** level using **overrides**. Please refer to the [Operations Manager guide](#) to details.

The name of trap alert rule starts with 'ATS Alert trap Rule'.

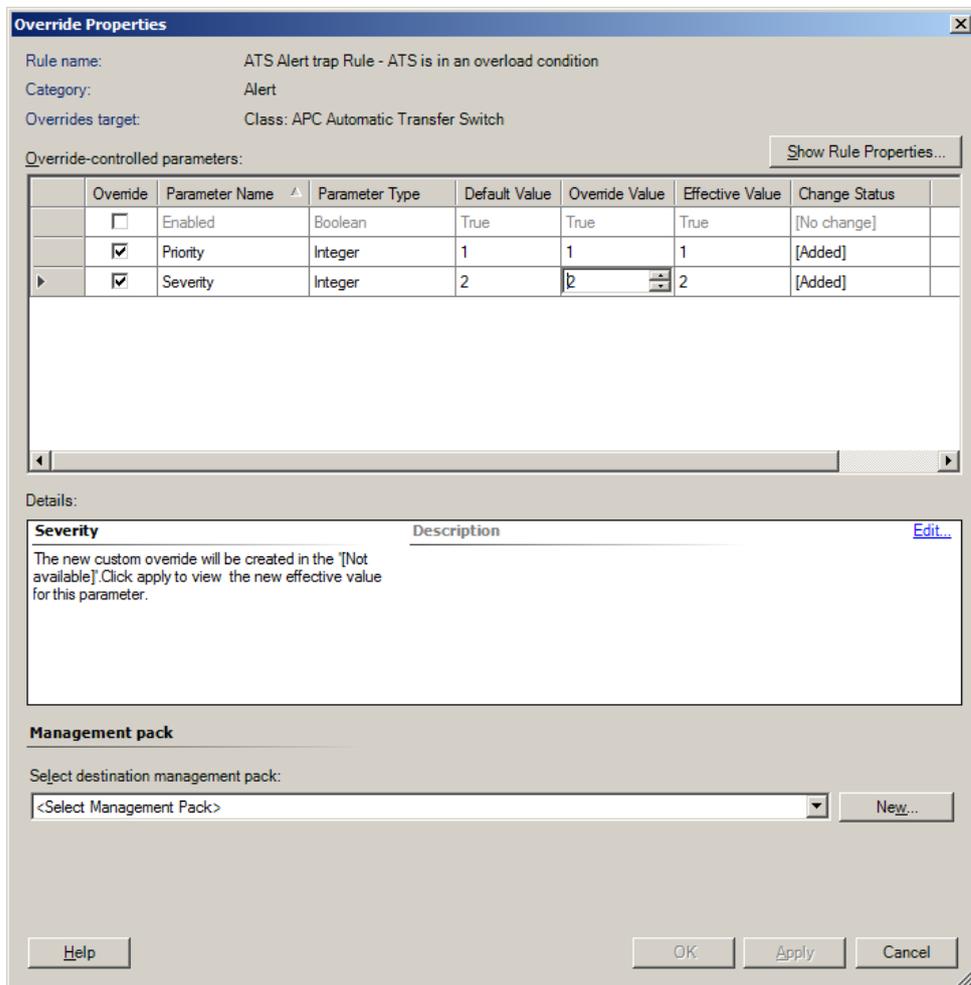


Fig. 7 Overriding Priority and Severity.

Severity defines the alert severity and can be one of the following values:

- 0 - Information
- 1 - Warning
- 2 – Critical

Priority defines the alert priority and the mapping, and it can be one of the following values:

- 0 - Low
- 1 - Medium
- 2 – High

Reports

SCUtils Management Pack for APC ATS includes 16 reports available in the Reporting workspace.

7. Known issues and troubleshooting

Here we describe the known issues. If you haven't found a solution in this section, please contact us at support@scutils.com.

The Activate task fails to complete

If you've just installed the management packs and try to activate the product, the Activate task may fail to complete. It happens because the management servers require some time to complete the deployment of the management pack's resources. Please wait for 2-5 minutes and try to activate again. If the task fails again, just give a bit more time and repeat the attempt.

Errors and warning during a discovery process

During the first discovery you may see some of these errors and warnings being logged on the SCOM Management Servers:

Initialization of a module of type "SnmpAsyncProbe" (CLSID "{2B72C326-CDBB-421A-ACC3-A1994DBD52BB}") failed with error code Unspecified error causing the rule "SCUtils.APC.ATS.Input.Phase.Rule.atsInputPower" running for instance "Phase-1 on APCATS1" with id:"{9A8FF3D5-B24F-CE64-0BAD-56A5DE03DE71}" in management group "SCOM2012".

These errors and warnings may be safely ignored.