



EMC® Watch4net®

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WhatIf Scenario Administration Guide

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Preface

The purpose of this guide is to provide information about the WhatIf Scenario module for APG. It contains all the necessary information to install, configure and use it.

Intended Audience

This guide is intended to be read by any *APG* administrator who will install, configure and use the WhatIf Scenario module.

Prerequisites

This guide assumes that you have an *APG* installation ready.

Where to get help

EMC support, product, and licensing information can be obtained as follows:

PRODUCT INFORMATION - For documentation, release notes, software updates, or information about EMC products, go to EMC Online Support at:

<https://support.emc.com>

TECHNICAL SUPPORT - Go to EMC Online Support and click Service Center. You will see several options for contacting EMC Technical Support. Note that to open a service request, you must have a valid support agreement. Contact your EMC sales representative for details about obtaining a valid support agreement or with questions about your account.

1

Product Overview

The WhatIf Scenario provides a way, via a client, to create, update, and get what-if scenarios in the *APG* events database. Those scenarios will be used by the ScenarioBasedForecast available in the Frontend.

2

Configuration

The WhatIf Scenario module needs a configuration file to access *APG* events database. This file is located in the `<APG_Root>/Tools/WhatIf-Scenario/<Instance>/conf` directory. In case this file does not exist, it must be created in this folder.

Global structure of the configuration file Here is the global structure of the configuration file:

- `<scenario-database>`: the connection to the events database.

See [Appendix A](#) page 9 for an example.

3

Client Description

1 Usage

```
./whatif-scenario-cli.sh [-d (--delete) <id to delete or delete file>] [-i (--input) <input file>] [-o (--output) <output file>] [-r (--replace)]  
-d (--delete) <id to delete or delete file> : the id of the scenario to delete or a file that contains ids of scenarios to be deleted  
-i (--input) <input file> : the CSV file that contains scenarios to be inserted or updated  
-o (--output) <output file> : the file to write all the scenarios contained in the database  
-r (--replace) : deletes all the scenarios contained in the database prior to inserting new ones
```

2 Input file

The input file must be a CSV file and the fields must be in the following order for a scenario to be read and added in the database : Id, Scenario, Operation, Start, End, Value, Sustain, Comment, Filter,

Device, Devtype, Part, Parttype

- Id : the id of the scenario.
- Scenario : the name of the scenario. If NULL, *APG* will use the empty string value.
- Operation : the name of the operation that starts at timestamp Start and ends at timestamp End :
 - hold : hold the value at timestamp Start
 - add : add the value of Value column
 - set : set the value to Value column
 - mult : multiply by the value of Value column
 - div : divide by the value of Value column
- Start : the timestamp of the beginning of the scenario, represented as a unix time, in seconds. Unix time is defined as the number of seconds that have elapsed since 00:00:00 UTC, January 1st 1970, not counting leap seconds.
For an online converter, you can go to : <http://www.epochconverter.com/>.
- End : the timestamp of the end of the scenario, represented as a unix time, in seconds. If NULL, the scenario will never end.
- Value : the value of the operation of the scenario. If the operation is "hold", the value column will be ignored. If NULL, *APG* will use the value 0.
Note that if the operation is not instantaneous (i.e. column End is greater than column Start), the value of the operation will be linearly extrapolate between the start and the end timestamps.
- Sustain : whether to sustain the value at the end timestamp after the scenario or not. If NULL, *APG* will use false.
- Comment : a comment, if necessary. If NULL, *APG* will use the empty string value.
- Filter : a *APG* filter, to narrow the application of the scenario. If NULL, *APG* will use the EVERYTHING (*) filter.
- Device : a device property associated with the scenario. If NULL, this field will be ignored.
- Devtype : a devtype property associated with the scenario. If NULL, this field will be ignored.
- Part : a part property associated with the scenario. If NULL, this field will be ignored.
- Parttype : a parttype property associated with the scenario. If NULL, this field will be ignored.

If the Id is provided and exists in the database, the scenario in the database will be replaced (updated) by the provided fields. Otherwise, the scenario will be added and its Id will be automatically calculated.

See [Appendix B](#) page 11 for an example.

3 Delete file

The delete file contains ids of scenarios to be deleted. Each separate id must be put on a single line.
See [Appendix C](#) page 13 for an example.

4

Appendix A

1 Configuration Example

```
<?xml version="1.0" encoding="UTF-8"?>
<config xmlns="http://www.watch4net.com/whatif-scenario-cli" xmlns:xsi="http://www.w3.org/2001/
XMLSchema-instance" xsi:schemaLocation="http://www.watch4net.com/whatif-scenario-cli_whatif-
scenario-cli-conf.xsd">
  <scenario-database>
    <!-- Defines the connection to the events database for MySQL. -->
    <datasource driverClassName="com.mysql.jdbc.Driver"
      url="jdbc:mysql://localhost:53306/events?autoReconnect=true"
      username="apg" password="watch4net"
      maxActive="10" maxIdle="5" validationQuery="SELECT_1" testOnBorrow="false"
testWhileIdle="true"
      timeBetweenEvictionRunsMillis="10000" minEvictableIdleTimeMillis="60000" maxWait
="10000"
      removeAbandoned="true" removeAbandonedTimeout="60" logAbandoned="true" />
    <!-- Example of connection to the scenario database for Oracle 10g. -->
```

```
<!--
<datasource driverClassName="oracle.jdbc.OracleDriver"
  url="jdbc:oracle:thin:@localhost:1521:APG"
  username="apg" password="watch4net"
  maxActive="10" maxIdle="5" validationQuery="SELECT 1 FROM DUAL" testOnBorrow="
false" testWhileIdle="true"
  timeBetweenEvictionRunsMillis="10000" minEvictableIdleTimeMillis="60000" maxWait
="10000"
  removeAbandoned="true" removeAbandonedTimeout="60" logAbandoned="true"
  connectionProperties="SetBigStringTryClob=true" />
-->
</scenario-database>
</config>
```

Appendix B

1 CSV Input File Example

```
,Sc1,add,1368710210,1368710210,50,,,*,,,Part0,Disk
,Sc1,hold,1368710210,1368710365,NULL,NULL,NULL,*,,,,
,Sc1,set,1368710210,1368710210,21.8,NULL,NULL,*,,,,
,Sc1,add,1371229200,1371229200,1000000,NULL,NULL,*,,,,
14,Sc1,add,1371488400,1371488400,1000000,NULL,NULL,*,,,,
,Sc1,add,1374786000,1374793200,10000000,NULL,NULL,*,,,,
,Sc1,add,1374789600,NULL,10000000,NULL,NULL,ip=='10.128.7.50',10.128.7.50,Host,,
,Sc1,add,1374710400,NULL,10000000,NULL,NULL,name=='UsedMemory',,,,
,Sc1,add,1375394400,NULL,2000000,1,NULL,*,,,,
23,Sc1,add,1375390800,1375398000,2000000,1,NULL,*,,,,
,Sc1,set,1375387200,1375389000,1000000,0,NULL,*,,,,
,Sc1,set,1375405200,1375408800,1000000,0,NULL,*,,,,
```


Appendix C

1 Delete File Example

```
2  
3  
4  
7  
10
```