stonebranch

Universal Task Documentation

Universal Automation Center support for SAP Event Monitor Triggering

ut-sap-eventmonitor-linux

Associated Activities:

Date: 26 June 2018

Author: Nils Buer

Revision: 01

CONFIDENTIALITY INFORMATION

Distribution list: Stonebranch Marketplace

Revision	Date	Author	Changes
00	20180626	Nils Buer	Initial Document (WIP)
01	20180628	Nils Buer	Final Version

Abstract:

The here described Universal Tasks Queries the SAP Event history table for the selected SAP Event & Parameter. If the Event is found, it gets confirmed, so that it is not triggered again. Optionally a task can be launched, based on the occurrence of an Event & Parameter.

Contents

1   Disclaimer

No support and no warranty are provided by Stonebranch GmbH for this document and the related Universal Task. The use of this document and the related Universal Task is on your own risk.

Before using this task in a production system, please perform extensive testing.

Stonebranch GmbH assumes no liability for damage caused by the performance of the Universal Tasks

2   Scope

This document provides a documentation how to install and use the Universal Tasks for SAP Event Monitoring.

3   Introduction

Some details about the Universal Tasks for SAP Event Monitoring

- The Universal Task will monitor the SAP Event history table for a certain event and related parameter.
- For the Parameters wildcards "*" are supported
- The Event is retrieved by calling the USAP command: "display event_history"
- Once the Event and Parameter have been identified the Event is confirmed in SAP, so that the monitor will not trigger a second time (optional setting)
- Once the Event and Parameter have been identified and confirmed the assigned task is started using the CLI command: ops-task-launch
- If no task is specified, the UT runs in Monitoring mode and goes to success in case an Event has been identified
- Currently only SAP connections via the *sapnwrfc.ini* destination file is supported. Please contact Stonebranch, if a Version for standard SAP Application Server connection is required (minimal efforts).
- You can create a Task Monitor trigger out of this task by adding an action to the Universal Task, which re-started the task in case of success.
- You can set different log-levels for the Universal task, providing you more information in case of issues
- This Universal Task been added to the CTK-Conversion tool to map automatically Tivoli Workload Scheduler Sap Monitors called: eventProvider="SapMonitor" towards this UT.

4 Installation

4.1 Software Requirements

Universal Task name: *ut_sap_eventmonitor_linux*

Related UAC XML Files for template and task: *Github repository*
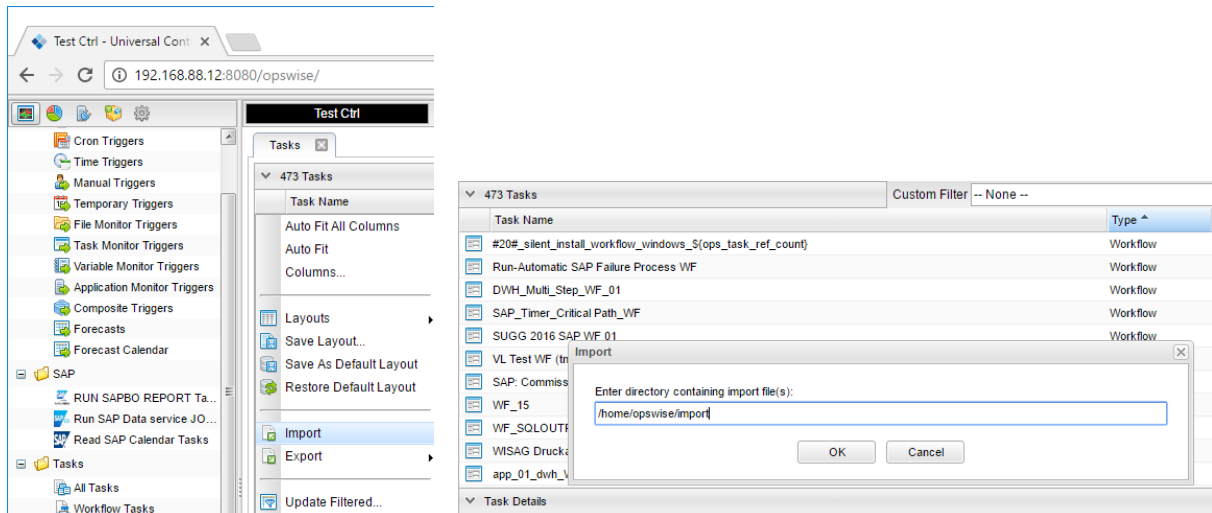
Software used:

For the set-up you need:

1. Universal Connector for SAP installed on a Linux Server
2. An SAP destination configured in sapnwrfc.ini (/opt/universal/uagsrv)
3. The Universal Task is based on a bash shell script and awk

4.2 Installation Steps

The following describes the installation steps:

1. Import the Universal Task including the Universal Template to your Controller

Go to "All Tasks" and load via the Import functionality the Universal Task configuration into the Controller.

5 Universal Task Configuration

1. Activate: Resolvable Credentials in Universal Automation Center:

Name	Value
Resolvable Credentials Permitted	true

2. Fill Out the Universal Task for each SAP Event and Parameter to monitor:

In the example the SAP Event: UAC_TEST with Parameter: UAC is monitored.

If the Event occurs in the SAP Event history table with status "NEW" the Task "*Sleep 600*" is launched and the Event is confirmed in SAP.

Fill out or select the required Credentials for SAP and the Universal Controller cli (oms credentials)

Example: Universal Controller cli (oms credentials) credentials:

Example: SAP Credentials:

6 Universal Tasks for SAP Event monitoring

The following chapter describes the provided SAP Event monitoring UT.

Field Description:
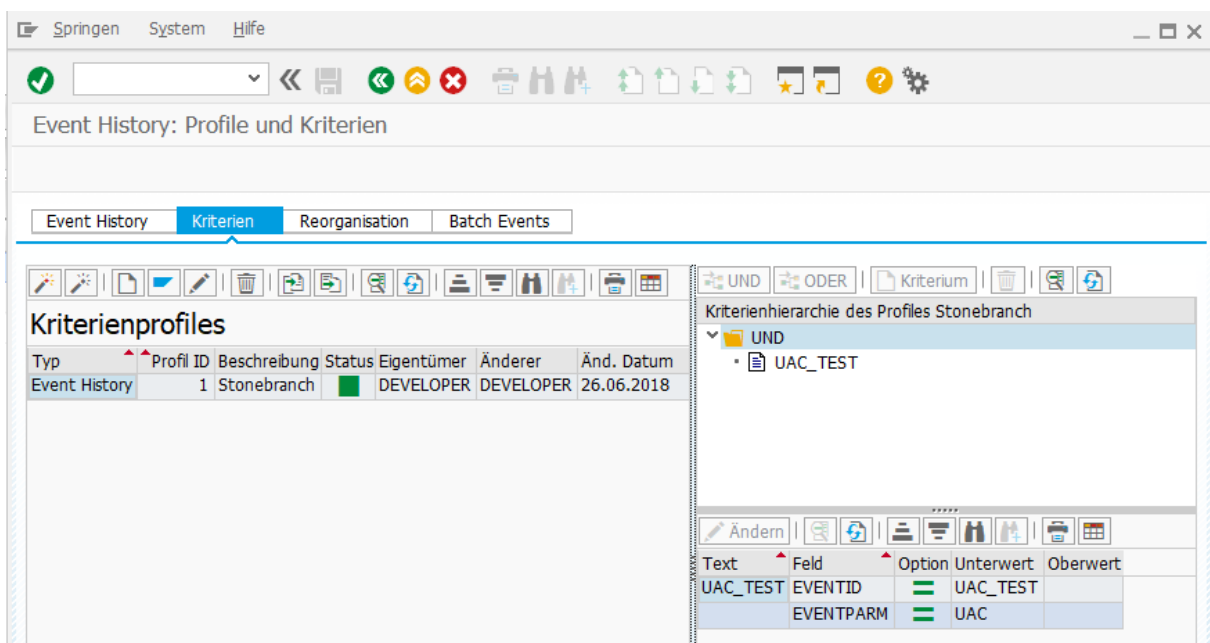
Field	Required	Description
Agent	Yes	Linux Universal Agent to run the USAP commands and bash shell script.
Agent Cluster	optional	Optional Agent Cluster for load balancing
Client	Yes	SAP Client to connect to e.g. 100
dest	Yes	SAP destination in the file: /opt/universal/uagsrv/*sapnwrfc.ini*
Usapdir	Yes	Directory where the USAP binary is stored default is: */opt/universal/usap/bin*
opsclidir	Yes	Directory where the CLI is stored default is: */opt/universal/opscli/bin/*
Event ID	Yes	Name of the Event to Scan for
Event Parameter	optional	name of the parameter to scan for. Note: wildcard "*" is supported ua* searches for all event parameters beginning with ua. If no Event Parameters is provided any Event Parameter will match

Event Status to Select	Yes	NEW – scan only for new Events (default) Confirmed – scan only for confirmed Events Any Status – scan for any status of Events
oms port	Yes	Default is 7878
Taskname	optional	Name of the task to start in case a new event has been identified. If no task is specified, the UT runs in Monitoring mode and goes to success in case an Event has been identified. E.g. you can add the Event Monitor to a Workflow (Note: in that case remove the action, which automatically re-starts the UT in case of status "success")
oms hostname	Yes	Hostname or IP of the OMS
Confirm Events or Leave status as new	Yes	Default is "confirm events". This ensures that the same event is only triggers the event monitor once.

Event configuration in SAP

The SAP Task Monitor scans for Events in the SAP Event history. An Event only shows up in the Event history if an appropriate event criteria profile has been set-up in SAP by using transaction SM62. (Note: optionally a criteria profile can also be set-up via an SAP Task of command group "Set CM Profile" in the Universal Controller). The following screen shows an example of the set-up in SAP using SM62:

Event History table:

The following provides and example of the Event history table in SAP (SM62).
Only Event showing up here can trigger the SAP Event Monitor UT.

6.1 Task Monitor Trigger mode

You can create a Task Monitor trigger out of this task by adding an action to the Universal Task, which re-started the task in case of success.

7 Test Cases

The following basic test cases has been performed:

Case#	Assumed behavior	Result
Scan for Event and Parameter Event: UAC_TEST Parameter: UAC Task to Launch: Sleep 600	#INFO# ### Monitoring for SAP EVENT:UAC_TEST and Parameter:UAC ##INFO #EVENT:UAC_TEST and Parameter:UAC in STATUS N found. Task Type parameter not specified, defaulting to ALL. Successfully launched the Timer task "Sleep 600" with task instance sys_id 1530192249641046777S2VLE5WXSRS4Z. opscmd-complete ##INFO# Task: Sleep 600 launched	Correct
Scan for Event only Event: UAC_TEST Parameter: - Task to Launch: Sleep 600	#INFO# ### Monitoring for SAP EVENT:UAC_TEST and Parameter: ##INFO #EVENT:UAC_TEST and Parameter: in STATUS N found. Task Type parameter not specified, defaulting to ALL. Successfully launched the Timer task "Sleep 600" with task instance sys_id 1530192249641201777700IUD521Q1F1I. opscmd-complete ##INFO# Task: Sleep 600 launched	Correct
Scan for Event and Parameter with wildcard Event: UAC_TEST Parameter: U* Task to Launch: Sleep 600	##INFO# ### Monitoring for SAP EVENT:UAC_TEST and Parameter:UAC ##INFO# EVENT:UAC_TEST and Parameter:UAC in STATUS N found. ##INFO# Task launched: Sleep_${env}_600	Correct
Scan for Event and Parameter with wildcard Event: UAC_TEST Parameter: K* Task to Launch: Sleep 600	Task Monitor should stay in running mode because K* as Parameter does not exist. #INFO# ### Monitoring for SAP EVENT:UAC_TEST and Parameter:K*	Correct
Scan for Event and Parameter no Task "Monitoring Mode" Event: UAC_TEST	#INFO# ### Monitoring for SAP EVENT:UAC_TEST and Parameter:UAC ##INFO #EVENT:UAC_TEST and Parameter:UAC in STATUS N found.	Correct

Parameter: UAC Task to Launch: -	##INFO #Monitoring Mode, No task to launch specified	
Scan for Event with wildcard Event: UAC_* Parameter: UAC Task to Launch: -	#INFO# ### Monitoring for SAP EVENT:UAC_* and Parameter:UAC ##INFO #EVENT:UAC_* and Parameter:UAC in STATUS N found. ##INFO #Monitoring Mode, No task to launch specified	correct
Force finish the Monitor UT	Monitor has stopped and no new usap process is started.	Correct
Wrong: Client	*UNV3087I Universal Connector component 1530192277 registered with local Broker.* *UNV0668I Establishing RFC connection.* *UNV0629E SAP logon error: Client 003 is not available in this system* *UNV0616E Universal Connector ending unsuccessfully with exit code 202.*	Correct
Wrong: dest		Correct
Wrong: Client	UNV3087I Universal Connector component 1530192982 registered with local Broker. UNV0668I Establishing RFC connection. UNV0629E SAP logon error: Client 003 is not available in this system UNV0616E Universal Connector ending unsuccessfully with exit code 202. ##ERROR# ### exitcode =202	
Wrong: Usapdir	##ERROR# /opt/universal/usap/bins does not exists.	Correct
Wrong: opsclidir	##ERROR# /opt/universal/opscli/bin/s does not exists.	Correct
launch task name that does not exists	##ERROR#in function launch_task No tasks found matching with name: Sleep_${env}_6000	Correct
Wrong: oms port	Not yet tested	
Wrong: oms hostname	Not yet tested	
Confirm Events or	Not yet tested	
Leave status as new	Not yet tested	
NEW – scan only for new Events (default)	Not yet tested	

Confirmed – scan only for confirmed Events	Not yet tested	
Any Status – scan for any status of Events	Not yet tested	

8 Document References

There are no document references.