Process Control 2.5 Automated Controls Testing NWBC

SAP GRC Regional Implementation Group

Applicable Releases:
SAP GRC Process Control 2.5

Topic Area:
GRC / Process Control

Capability:
GRC / Process Control

Version 1
June 2008
### Document History

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1 Introduction

1.1 About this document

SAP GRC Process Control is an enterprise software solution for internal controls management. It enables organizations to document their control environment, test and assess controls, track issues to remediation, and certify and report on the state and quality of internal controls. Using a combination of data forms, automated workflows, certification and interactive reports, this solution enables members of internal control, audit and business process teams to effectively manage compliance activities. SAP GRC Process Control features ERP integration and automated control testing and monitoring, which may help to reduce audit cycles and cost of compliance, as well as provide a higher degree of reliability and integrity in financial statements.

SAP solutions for governance, risk, and compliance are powered by the SAP NetWeaver® platform. SAP NetWeaver unifies technology components into a single platform, allowing organizations to reduce IT complexity and obtain more business value from their IT investments. It provides the best way to integrate all systems running SAP or non-SAP software. SAP NetWeaver also helps organizations align IT with their business. With SAP NetWeaver, organizations can compose and enhance business applications rapidly using enterprise services. As the foundation for enterprise service-oriented architecture (enterprise SOA), SAP NetWeaver allows organizations to evolve their current IT landscapes into a strategic environment that drives business change.

This guide provides guidelines and GRC best practices for the implementation of the SAP GRC Process Control. Implementation is the process of understanding customer requirements and helps to lay a firm groundwork for successful implementation of the Suite.

1.2 Target Audience

This document addresses the following groups:

- System administrators
- Consultants
- Hardware partners
### 1.3 Additional Information

More information is available as follows on SAP Service Marketplace

**Documentation**

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<td>The master guide is the starting point for implementing an SAP solution. It provides scenario-specific descriptions of preparation, execution, and follow-up of an implementation. It also provides references to other documents, such as installation guides, the technical infrastructure guide and SAP Notes.</td>
<td><a href="http://service.sap.com/instguides">http://service.sap.com/instguides</a></td>
<td>SAP GRC Process Master Guide</td>
</tr>
<tr>
<td>The operations manual is the starting point for operating a system that runs on SAP NetWeaver. The manual refers users to the tools and documentation that are needed to carry out various tasks, such as monitoring, backup/restore, master data maintenance, transports, and tests.</td>
<td><a href="http://service.sap.com/instguides">http://service.sap.com/instguides</a></td>
<td>SAP GRC Process Control Operations Guide</td>
</tr>
<tr>
<td>The installation guide describes the technical implementation of an installable unit, taking into account the combinations of operating systems and databases. It does not describe any business-related configuration.</td>
<td>On SAP Service Marketplace at <a href="http://service.sap.com/instguides">http://service.sap.com/instguides</a></td>
<td>SAP NetWeaver Installation Guide</td>
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General Quick Links

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2 Technical System Landscape

2.1 Process Control Architecture

The following is an overview of the technical system landscape.

* For more information about non-SAP applications, refer to SAP partners such as Greenlight Technologies.
* SAP PC2.5 - CISCO integration is optional. For more information, refer to CISCO documentation.
2.2 Software Component Matrix

This is an overview of all the software components used by GRC Process Control. For more information, refer to the SAP GRC Process Control Installation Guide at service.sap.com/instguides.

* For more information about non-SAP applications, refer to SAP partners such as Greenlight Technologies.
* SAP PC2.5 - CISCO integration is optional. For more information, refer to CISCO documentation.
3 Activities in the NWBC for automated control testing

Process Control facilitates full and partial automation of testing the effectiveness of controls in your ERP system. It also allows you to proactively monitor controls and data in your ERP system. It facilitates identification of transactions or changes that are outside prescribed tolerance settings. It enables you to track changes to configuration settings, monitor changes to master data, and validate business transactions against specified business rules and parameters, among others. Automated/semi-automated tests of effectiveness and automated controls monitoring use automated test rules. These rules determine the exception data you extract from your ERP system.

3.1 Using rules of the BC set

3.2 Creating own queries

The SAP Query application is used to create reports not already contained in the default. It has been designed for users with little or no knowledge of the SAP programming language ABAP.

SAP Query offers users a broad range of ways to define reports and create different types of reports such as basic lists, statistics, and ranked lists.

For detailed information on SAP Query please refer to following link:

http://help.sap.com/erp2005_ehp_03/helpdata/EN/30/6b7538c9a8ee45e10000009b38f8c05f9b38f8cf/frameset.htm
3.2.1 Test query

After you have created an own query you can run/test the query in Process Control. Therefore log on to the NWBC with a user having the task “PERF-QUERY” assigned. In the left menu select the entry “Evaluation Setup” and run the task “Query”.

Within the “Query” task define the target connector. This is the connection definition used by the GRC system for connecting to the system where you have created your own query. If you know the query name and or the user group you can also fill in those fields to get a minimized result list, but this fields are optional. Click the “Go” button to search for the query.
Select from the result list your query and click the “Select Query to Execute” button to run the query.

A pop up window opens where you can define the input parameters for your query. The available fields are dependent on your query. Click the “Execute Query” button to start the query.
Finally you get your result displayed.

**Query: Z_CSP_QUER1 HRP1000**

<table>
<thead>
<tr>
<th>Start Date</th>
<th>End Date</th>
<th>Object Type</th>
</tr>
</thead>
<tbody>
<tr>
<td>01.01.1994</td>
<td>31.12.9999</td>
<td>O</td>
</tr>
<tr>
<td>01.01.1994</td>
<td>31.12.9999</td>
<td>O</td>
</tr>
<tr>
<td>01.01.1994</td>
<td>31.12.9999</td>
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</tr>
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<td>01.01.1994</td>
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<td>O</td>
</tr>
<tr>
<td>01.01.1994</td>
<td>31.12.9999</td>
<td>O</td>
</tr>
</tbody>
</table>
3.2.2 Creating a rule criteria

To create a rule criteria log on to the NWBC with a user having the task “EDIT-RULCR” assigned. In the left menu select the entry “Evaluation Setup” and run the task “Rule Criteria” to create a rule criteria.

Click the “Create” button to create a new criteria.
Fill in all required fields and change to tab “Connectors”

Within the Connectors tab select the Target Connector and fill in either the fields “Table Name” and “Field Name” or “Data Type”. Save your changes.
3.2.3 Creating a rule script

To create a rule script log on to the NWBC with a user having the task “EDIT-SCRPT” assigned. In the left menu select the entry “Evaluation Setup” and run the task “Rule Script” to create a rule script.

Click on the “Create” button to create a new rule script
Set the “Script Type” to “Query”

Fill in all required fields and assign a program by clicking on the “Query Lookup” button.
Within the pop up define the Target Connector and Query Name (optional) to search for the query you want to use within your rule script. Click the “Go” button.

Select the query you want to use in your rule script and click the “OK” button.
Change to tab “Script Criteria” to select the rule criteria you created before.
Select your Rule Criteria and click the "OK" button.

Finally save your changes.
3.2.4 Creating a rule

To create a rule script log on to the NWBC with a user having the task “EDIT-RULE” assigned. In the left menu select the entry “Evaluation Setup” and run the task “Rule” to create a rule.

Click the create button to create a new rule.
Fill in the rule name and description and search for your script.

Within the pop up window search for your script.
Select the desired script you want to assign to your rule and press the “OK” button.

Now select the rule status and change to tab “Rule Parameter”
Within the rule parameter tab you first have to create a new rule parameter before you can add rule criterias.
After you have successfully created a new rule parameter click on the “Add” button and select your rule criteria you created in section 3.2.2. Finally add operators that fit your rule criteria and save your changes.
3.2.5  Defining Org-Level System Parameter
To define the Org-Level System Parameter log on to the NWBC with a user having the task “EDIT-OLSP” assigned. In the left menu select the entry “Evaluation Setup” and run the task “Org-Level System Parameter” to define the Org-Level System Parameter.

Click the “Create” button to create a new entry for an Org Level System Parameter.
Fill in the Org Level System Parameter name and description.
Click the “Add” button and select “Add Connectors” to create a new connector for your Org Level System Parameter.
Select the desired Target Connector and click “OK”
You can also define System Parameters to the selected Connector. To do so click on the “Add” button and select “Add System Parameters”.

Create Org. Level System ...

Save  Cancel

General  System Parameters

System Parameters

Add  Remove

Add Connectors
Add Systems Parameters

Criteria  Operator  Low  High

Row 1 of 1
Go to field “Rule Criteria” to get the possibility to select a rule criteria.

<table>
<thead>
<tr>
<th>Target Connector</th>
<th>Rule Criteria</th>
<th>Operator</th>
<th>Low</th>
<th>High</th>
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<tbody>
<tr>
<td>F7K</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>.</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
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</table>

4/9/2008
Select rule criteria and click the “OK” button.

<table>
<thead>
<tr>
<th>Rule Criteria</th>
<th>Target Connector</th>
<th>System Type</th>
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<tbody>
<tr>
<td>COMPANY CODE</td>
<td>SAP</td>
<td></td>
</tr>
<tr>
<td>PLANT</td>
<td>SAP</td>
<td></td>
</tr>
<tr>
<td>PURCHASE ORG</td>
<td>SAP</td>
<td></td>
</tr>
<tr>
<td>SALES ORGANIZATION</td>
<td>SAP</td>
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Fill in the Operator and the values for Low and High.

![Create Org. Level System Parameters](image)

<table>
<thead>
<tr>
<th>Target Connector</th>
<th>Rule Criteria</th>
<th>Operator</th>
<th>Low</th>
<th>High</th>
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<tbody>
<tr>
<td>F7K</td>
<td>*</td>
<td>COMPANY CODE</td>
<td>INCLUDE</td>
<td>0001</td>
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</table>
### 3.2.6 Assign Control to rules

To assign a control to a rule log on to the NWBC with a user having the task “ASGN-CTRRL” assigned. In the left menu select the entry “Evaluation Setup” and run the task “Control Rule Assignment” to assign a control to a rule.

Search for the Org Unit to get a list with all the controls that can be assigned a rule. This are controls which test attribute has been set to automated or semi-automated control testing.
Select the control for which you want to assign a rule and press the “Assign Rules To Selected Control” button.

Within the pop up windows select the desired rule and press the “OK” button, to assign the rule to the control.
Finally you have to maintain the Frequency, therefore press the “Maintain Frequency” button.

Within the pop up window select the desired frequencies for either monitoring and or compliance testing and press the “OK” button.

After all those steps have been performed you can either plan the Test control effectiveness task within the planner or run the job scheduler to start the automatic testing/monitoring of the controls.
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