Business Rule Parameters (BRPs) in SAP Process Control 10.1

Applies to:

SAP Process Control 10.1 SP10 or above

Summary

In Process Control Continuous Control Monitoring (CCM), Organization-Level System Parameters (OLSPs) are used to assign system-specific organization parameters at the global level instead of creating each business rule separately and assigning them to each control.

Starting with SAP Process Control 10.1 SP10 a new alternative to OLSP, Business Rule Parameters (BRPs) is introduced. BRPs break the limitation of allowed fields in OLSPs, and enable customers to create named parameters for use in business rules; provided the data type of the parameter matches the field it will be applied.

In this document, you can find information about how to create a Business Rule Parameter and use the BRP in a business rule to monitor controls.

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Created on: 15 Jul 2015

Version 1.0

Document History

Document Version	Description
1.00	First official release of this guide

Typographic Conventions

Type Style	Description
Example Text	Words or characters quoted from the screen. These include field names, screen titles, pushbuttons labels, menu names, menu paths, and menu options. Cross-references to other documentation
Example text	Emphasized words or phrases in body text, graphic titles, and table titles
`Example text`	File and directory names and their paths, messages, names of variables and parameters, source text, and names of installation, upgrade and database tools.
`Example text`	User entry texts. These are words or characters that you enter in the system exactly as they appear in the documentation.
`<Example text>`	Variable user entry. Angle brackets indicate that you replace these words and characters with appropriate entries to make entries in the system.
`EXAMPLE TEXT`	Keys on the keyboard, for example, `F2` or `ENTER`.

Icons

Icon	Description
	Caution
	Note or Important
	Example
	Recommendation or Tip

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1. Business Scenario

In Process Control CCM, Organization-Level System Parameters (OLSPs) can be used as environment variables to allow the customer to use the same business rule to monitor local controls sharing the same organizational attributes, instead of creating separate business rules and assigning them to each control. However, in OLSP, only these four fields can be used as parameters:

Rule Criteria	SAP Table	SAP Field
PURCHASE_ORG	T024E	EKORG
SALES_ORGANIZATION	VBAK	VKORG
PLANT	T001W	WERKS
COMPANY CODE	T001	BUKRS

The use of OLSPs is limited to Configurable and Programmed rule types.

The new Business Rule Parameters (BRPs), available in SAP Process Control 10.1 SP10, breaks this limitation and allows customers to use any named parameter and use them in business rules, provided the data types of the field fall into the categories supported by BRPs. BRPs can also be used in most types of business rules, including Configurable, Programmed, ABAP Report, SAP Query, BW Query, and HANA. The BRP feature is an improved alternative to the OLSP feature in previous releases.

Comparing OLSP and BRP features

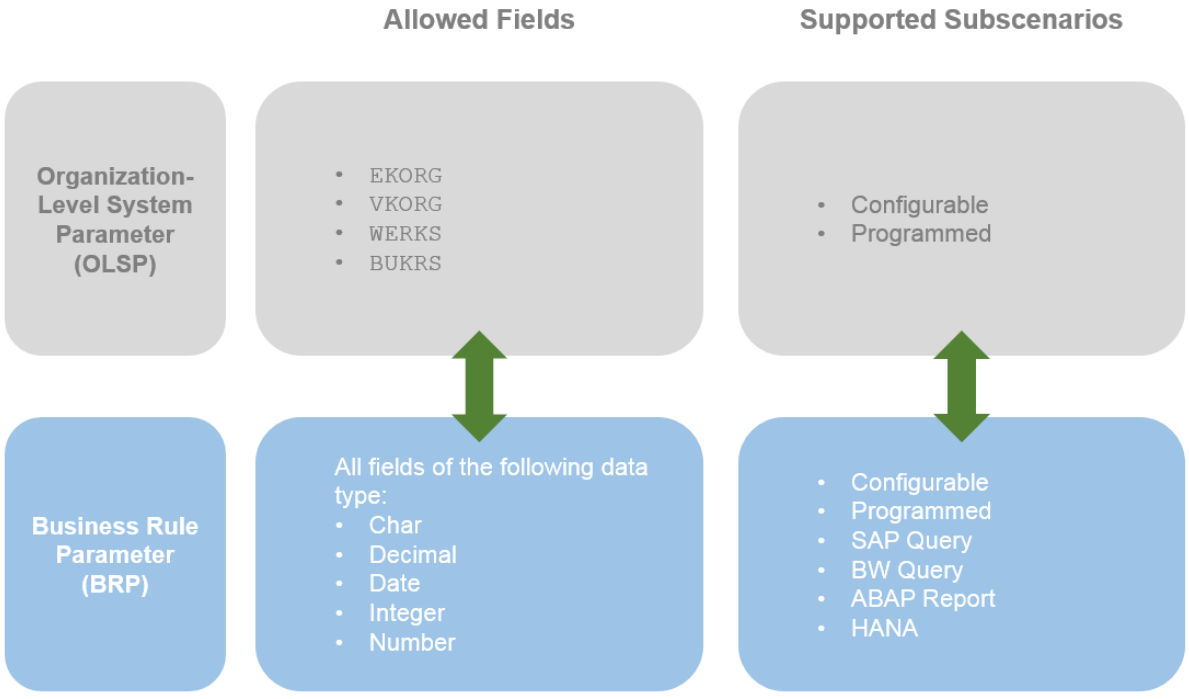

Figure 1. Comparison of OLSP and BRP

2. Background Information

Continuous Controls Monitoring (CCM) is a key feature of SAP Process Control that allows customers to define monitoring rules against backend systems. The rules extract data from backend systems, typically about configurations, master data and transactions.

For a general overview of the SAP Process Control Continuous Control Monitoring feature, see *SAP Process Control 10.0 Automated Monitoring Overview*.

PC 10.1 also supports the monitoring of HANA-based applications, for more information, see *SAP Process Control 10.1 Monitoring HANA-Based Applications*.

For more information about the Business Rule Parameter feature, see release information note 2163751.

3. Prerequisites

To use BRPs in business rules, you must upgrade to SAP Process Control 10.1 SP10.

4. Step-by-Step Procedure

The process of setting up CCM to access any system for monitoring follows the same pattern described in *SAP Process Control 10.0 Automated Monitoring Overview*:

- Create a Data Source of the right type
- Create a Business Rule linked to the Data Source
- Assign the Business Rule to a local control and schedule it

In this section, you'll find information specifically relevant to BRPs, including creating and editing a BRP, using BRPs to filter data and set deficiency criteria in a business rule, and scheduling monitoring jobs with a business rule using BRP.

The following figure explains the general steps involved in this procedure with BRP usage:

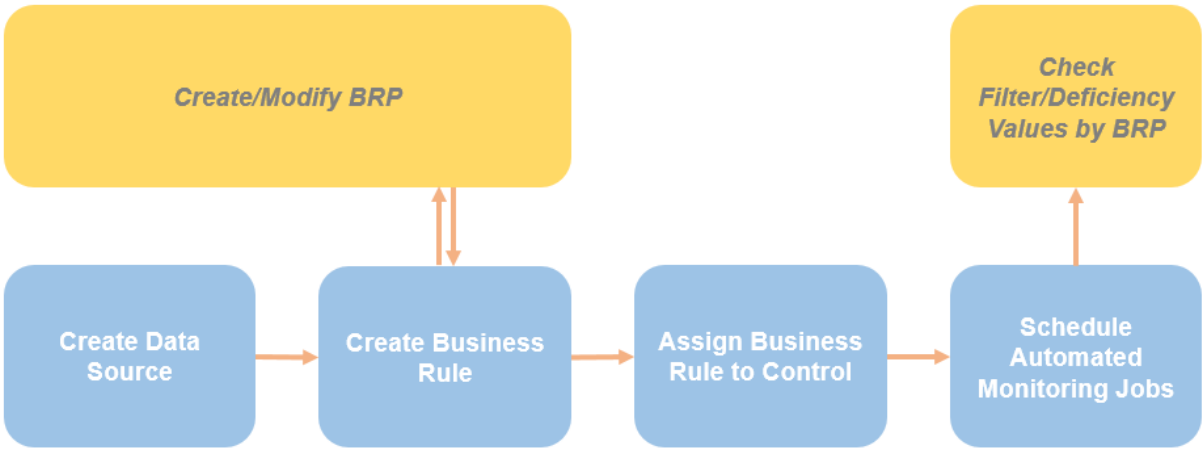

Figure 2. Using Business Rule Parameter to Monitor Controls

4.1 Adjusting PFCG Roles

To allow your user to create, change, display, and delete BRPs in the system, add the relevant authorization entries under object `GRFN_API` to your local copy of PFCG role **Cross Continuous Monitoring Business Rule Specialist** (`SAP_GRC_SPC_CRS_CM_BR_SPEC`), as shown in the table below:

Activity (ACTVT):	`01 (Create or generate), 02 (Change), 03`

	(Display), 06 (Delete)
Data Part for GRC Object Types:	*
Authorization Entity:	BRP
Sub entity:	*

4.2 Creating a PC Data Source

For general instructions about creating a data source, refer to document *SAP Process Control 10.0 Automated Monitoring Overview*. This section provides instructional steps relevant to BRPs.

When you create a data source, you can preview the list of fields and get a rough idea about which particular field of the source data you may want to create a system parameter. The OLSP feature only allows users to create parameters based on four fields, as detailed in Business Scenario. With BRP, you can create a named parameter based on any field as long as the data type matches one of the following types:

ABAP Data Type	ABAP Dictionary Type	Description	Notes
C	CHAR	Character string	Maximum length is 45 characters. Example: AB00
D	DATE (DATS)	Date	
P	DEC	Decimal	Only 2-digit decimal numbers are allowed. Example: 123,45 (European format)
I	INT	Integer	Maximum length is 16 characters. Example: 32.453 (European format)
N	NUMC	Numeric character	Maximum length is 16 characters. Example: 32.453 (European format)

Data type information is located in the *Object Field* section on the data source creation screen:

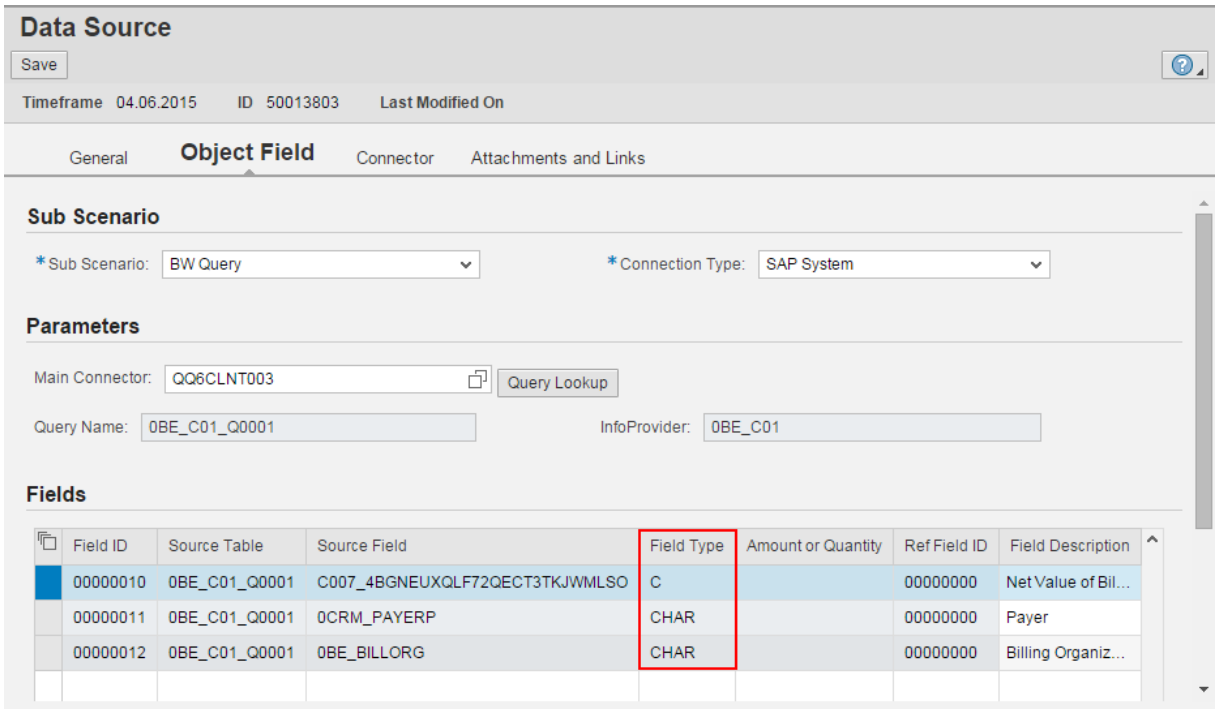

Figure 3. Object Fields from Source Data

Note

Both ABAP data type and ABAP dictionary type can be used in the source data. Therefore, you might see mixed indicators of data types displayed in the *Field Type* column. Both types are supported by BRP.
For a complete list of the mapping relationships between the two data types, see Mapping of the ABAP Data Types.

4.3 Creating a Business Rule Parameter (BRP)

BRP's can be created at any time; creating BRPs is independent of data sources and business rules. However, you might need to revisit the BRP and modify the parameter values before, during, or even after a business rule is created.

Use these steps to create a business rule:

1. Go to Rule Setup > Continuous Monitoring > Business Rule Parameter.
2. On the *General Data* section, enter the following information:

Field	Required/Optional	Description
Name	Required	Enter the name of the BRP.
Type	Required	Select the type of BRP from the drop-down list. Note: only *Org-Level Parameter* type is supported.
Data Type	Required	Select one of the following supported data types: • Char • Decimal • Date • Integer • Number

Default Values	Required	Depending on the data type, provide a default value for the BRP. If no values are maintained in the *Maintain Rule Parameter Value* section, the default value will be used.
Description	Required	Enter the description of the BRP.

Note

Name, Type, and Data Type cannot be changed once the BRP is saved.

3. Choose *Next*. On the *Maintain Rule Parameter Value* section, enter the parameter values for the organizations you want to apply to the BRP. You can choose to skip this step during the creation process, as you may not yet know what values to be given to each organization. However, you can open and edit the BRP any time before a monitoring job is scheduled for the relevant business rule.

   You can assign different values to different organizations.

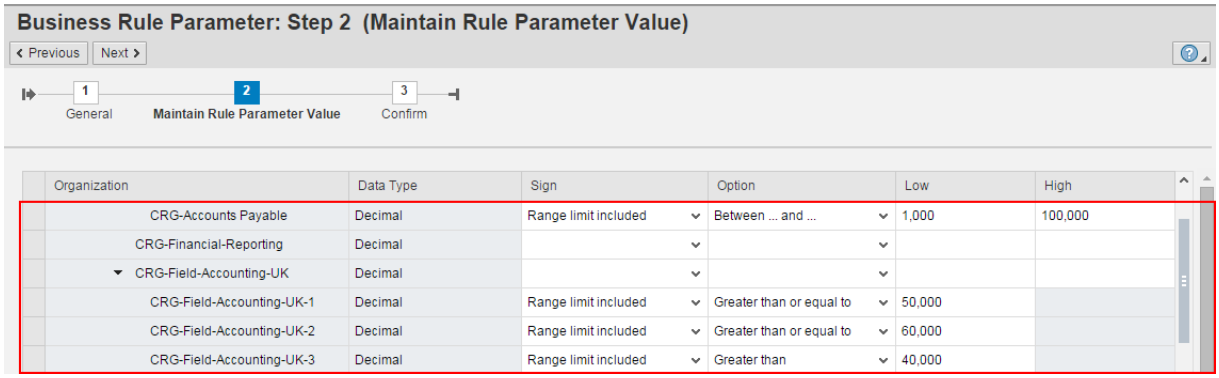

Figure 4. Assign Parameter Values to Organizations

Multiple value ranges using the 'Value Set' option

One advanced feature with BRP is that you can maintain multiple values and value ranges in a single value field for an organization. Select 'In' from the drop-down list on the Option field and enter the values. Use a semi colon (;) to separate values and a tilde (~) to indicate a value range.

For example, you can maintain a value list as: `5.000,00;2.000,00~3.000,00`. This parameter value means if the value from the business data equals to 5.000,00 or is between 2.000,00 and 3.000,00, the business rule will be applied. In this example, European format separators are used.

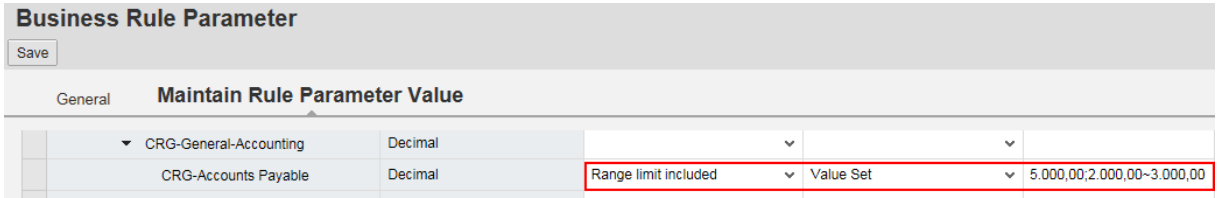

Figure 5. Multiple Value Ranges with 'Value Set' Option

4. Confirm the details of the BRP and finish.

4.4 Using BRP in Business Rules

BRPs can be used to filter ERP data and provide criteria for deficiencies in a business rule.

On the *Filter Criteria* tab of the creating business rule screen, select a filter field and choose *With Parameter* in the *Filter Value* section. Now you can assign a BRP in the *Low* field to the filter. Press F4 to see a list of available BRPs with the matching data type.

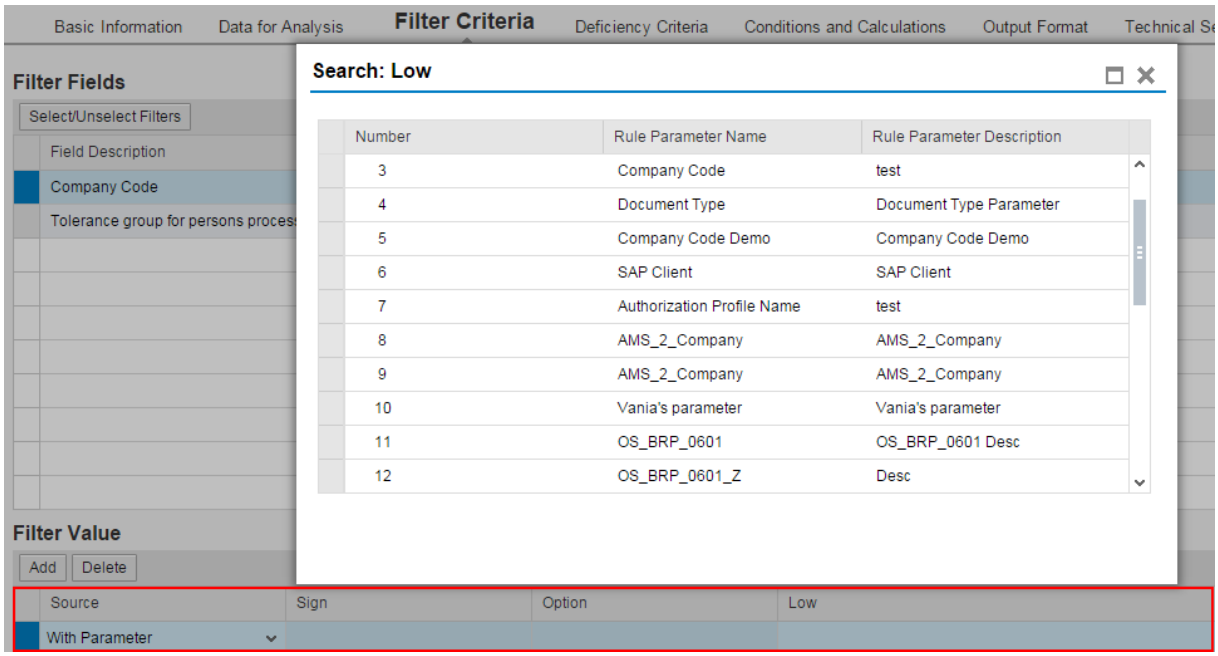

Figure 5-1. Assigning BRP to Business Rule

You can also use BRPs to define the deficiency values on the *Deficiency Criteria* step. Choose *With Parameter* as the *Source* and enter/select a BRP in the *Low* field:

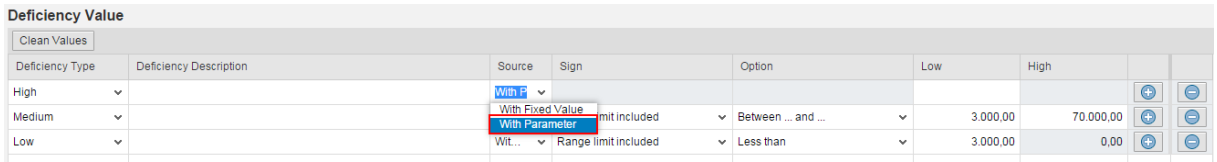

Figure 5-2. Assigning BRP to Business Rule

Note

You can apply multiple BRPs to filter data for the same field, or use multiple BRPs to define the deficiency values for the same deficiency type. The system interprets multiple BRPs using the 'or' logic operator, therefore if the conditions in any of the BRPs are met, the filter will allow the data through or a deficiency will be raised. The same rule applies when both OLSP and BRP are used simultaneously in a business rule.

4.5 BRP in Runtime

After assigning BRPs to a business rule, you can check the values at runtime when you schedule a job in *Automated Monitoring*, and when you check the BRP snapshot in *Job Monitor*.

4.5.1 BRP Value Preview during Job Scheduling

When you create an automated monitoring job, select the *Runtime Value Determination* button to preview the BRP values in *Control Details* step 4. In case you find the filter values or deficiency values are incorrect, you can still change the values in the BRP.

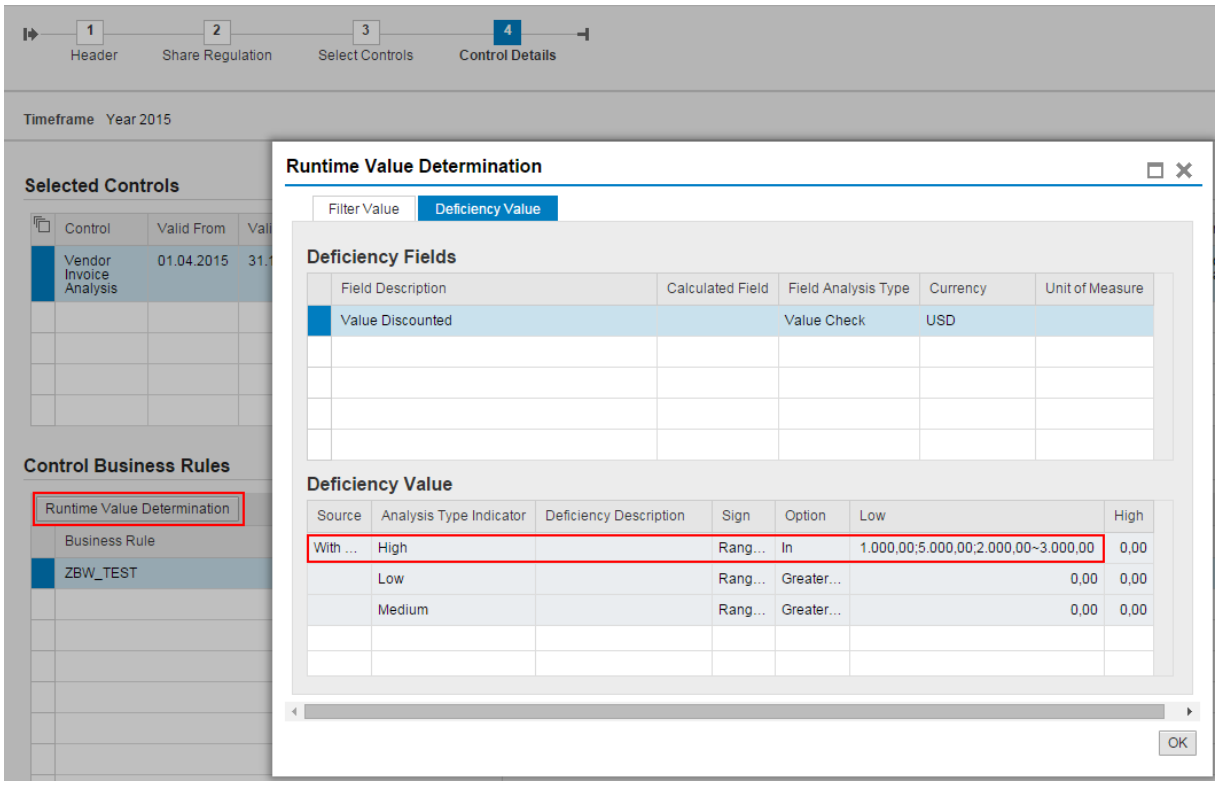

Figure 6. Check Values during Job Creation

4.5.2 Business Rule Parameter Snapshot

The Business Rule Parameter Snapshot function enables you to check values of the BRP applied to the business rule at the time of job execution regardless of any changes made to the BRP afterwards.

To use this functionality, go to *Job Monitor*, select a job and choose the *Business Rule Parameter Snapshot* button:

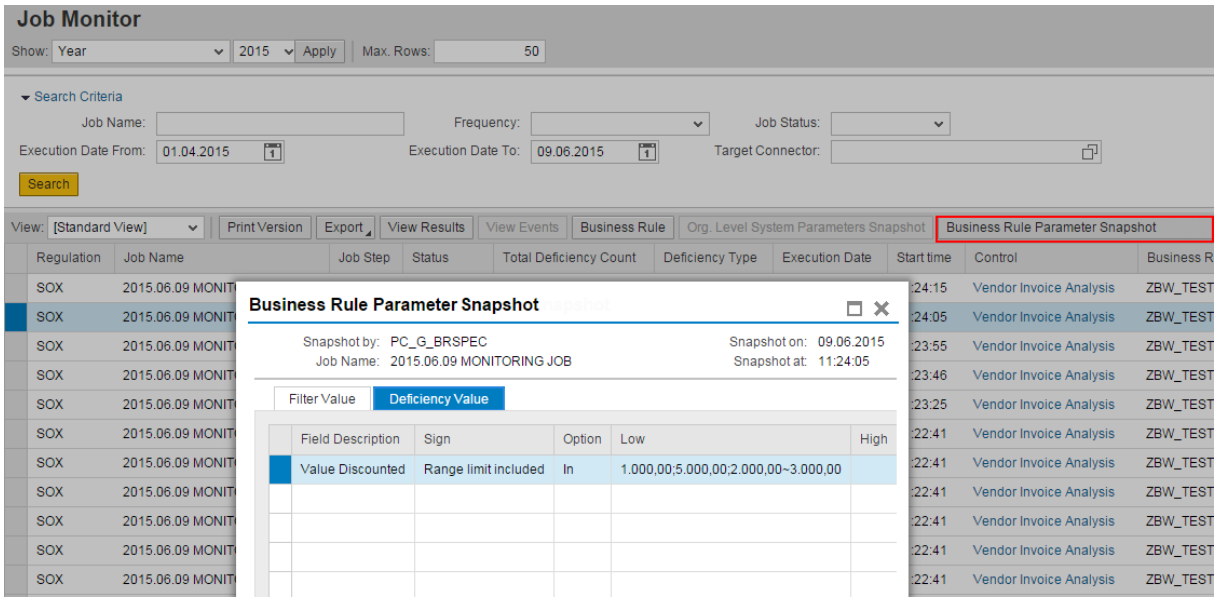

Figure 7. Business Rule Parameter Snapshot

5. FAQ

n/a

6. Comments and Feedback

Your feedback is very valuable and will enable us to improve our documents. Please take a few moments to complete our feedback form. Any information you submit will be kept confidential.

You can access the feedback form at:
http://www.surveymonkey.com/s.aspx?sm=stdoYUlaABrbKUBpE95Y9g_3d_3d

You can also read and contribute to: http://scn.sap.com/community/grc

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