

Supply Network Collaboration: Custom Key Figure Creation



Applies to

This article applies to the SAP SNC community using SNC 5.1 and above. For more information, visit the [Supply Chain Management homepage](#).

Summary

This paper talks about adding a custom key figure of computed type to the existing SMI view in the SMI scenario of the SAP Supply Network Collaboration module. This functionality helps the customer to enhance the SMI view by adding the custom key figures as per their business requirements apart from the standard SAP delivered key figures.

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Requirement

A customer can source out the replenishment planning to his or her supplier. The supplier is then responsible for planning and thereafter carrying out the replenishment to the customer i.e. supplier-managed inventory (SMI). The supplier can execute replenishment planning in SAP Supply Network Collaboration (SAP SNC). The supplier uses replenishment planning to determine the quantities of products that he or she has to deliver in every period of the planning period from his or her ship-from location to a particular customer location, to satisfy the demands at the customer location on time in the required quantities. The supplier executes the replenishment planning based on the data that the customer sends to SAP SNC (such as stocks, demands, or sales data).

One result of the replenishment planning by the supplier is the planned receipts. This key figure represents, for every period, the quantity of a customer location product that the supplier wants to deliver to the customer until the end of the period.

Customers need custom key figures to display some computed values on the replenishment monitor depending on the business needs. These can be derived from one or more of the standard key figures.

This paper talks about a custom key figure derived from the standard planned receipts key figure. It will be added in the SMI view of the SNC portal. This new key figure will be of "Computed" type with a service containing custom business logic. It will be visible in the SMI details-Product view screen on the SNC portal.

Key Figures																								
Grid		Graphic																						
Print Version		Export		Grid Arrangement		SMI Overview									Save		Propose Planned Receipts		Audit Trail		History Comparison		ASN Overview	
Rcpt/Reqmt List		Due List		Notes On																				
Key Figure	18.06.09	19.06.09	20.06.09	21.06.09	22.06.09	23.06.09	24.06.09	25.06.09	26.06.09	27.06.09	28.06.09	29.06.09	30.06.09	01.07.09										
Demand																								
Average Demand																								
Firm demand																								
Raw Net Demand																								
Planned Receipts																								
In-Transit Quantity																								
Projected Stock																								
Days' Supply																								
Minimum Proposal																								
Maximum Proposal																								
Minimum Stock																								
Maximum Stock																								

Solution

The configuration for key figures for SMI is maintained in SPRO->Supply Network Collaboration->Basic settings->Data matrix->Configure data matrix. In the data matrix list, the entry for SMI cBook is ICHSM1. This data matrix is related to the data matrix ICHRPL1, which is seen in the details view of ICHSM1. So now our key data matrix is ICHRPL1.

Finding aggregation level: Execute transaction /SCF/ICHDMVIEWCFG. In the list of data matrix views, find SMI Overview. The view corresponding to it is ICHRPLSMIVIEW01. Select it and go to data matrix compatibility. The data matrix ICHRPL1 is shown in the list of compatible data matrices. Select that entry and go to row configuration. A list of all key figures is displayed. Their corresponding aggregation level is also maintained. The aggregation level is found : PRDLOCTOPRTFRPM.

Step by Step Configuration

In SNC 5.1, SAP has provided C tables (config tables). Instead of creating or modifying entries in standard configuration and standard tables, SAP has recommended to use these tables. The data from these tables is automatically considered, hence no extra coding is required to read them. For every table for configuration there is a C table maintained.

The following procedure needs to be followed for creating the required key figure named Ztest123 and processing it with custom business logic.

1. Create entry Ztest123 as key figure in /SCF/CCBVV.
 Data matrix view: ICHRPLSMIVIEW01.
 Key figure: Ztest123
 Key figure description: Ztest123
 Aggregation level: PRDLOCTOPRTFRPM
 Sequence number: Check the sequence level of the existing key figures and give one accordingly.
 Cell properties: STANDARDKPRM (for key figure)

Table /SCF/CCBVV Display

Check Table...	
Client	100
Data Matrix View	ICHRPLSMIVIEW01
Key Figure	ZTEST123
Aggregation Level	PRDLOCTOPRTFRPM
Sequence Number	13
Default KF Desc.	Ztest123
Cell Properties	STANDARDKPRM
Notes	
Add to Graphic	
Graphic Sequence	0
Read Only	
Use Digits	
Number of Digits	0
Delete from Standard	
Created By	
Created On	
Created At	
Changed By	
Changed On	
Changed At	
Key Figure Desc.	Ztest123

2. Create entry in table /SCF/CCBAGGKPRM.
Key figure type: CMPM (Calculated type)

Table /SCF/CCBAGGKPRM Display

Check Table...	
Client	100
Data Matrix	ICHRPL1
Aggregation Level	PRDLOCTOPRTFRPM
Key Figure	ZTEST123
Key Figure Type	CMPM
Changeable	<input type="checkbox"/>
Notes	<input type="checkbox"/>
Audit Trail	<input type="checkbox"/>
Delete from Standard	<input type="checkbox"/>
Created By	
Created On	
Created At	
Changed By	
Changed On	
Changed At	

3. Go to SPRO->SCM BASIS->TSDM->Configure Parameters->Create new entry of key figure type.
Give the appropriate data type.

Parameter	ZTEST123
Parameter	
Parameter Type	Key figure
Data Type	/SCMB/TDM_AVGDEMAND
InfoObject	
Created By	SV41
Created On	11.06.2009
Created At	14:54:29
Changed By	SV41
Changed On	11.06.2009
Changed At	14:54:29

4. Create an entry in table /SCF/CBSERVICES to define the service for our custom key figure.
In this case a function module is created and the required business logic for populating the Ztest123 key figure is written in it. For creating the FM refer SAP note: 0000903373.

Table /SCF/CBSERVICES Display

Client	100
Service	ZSERV_ZTEST123
Service Type	FM
Function Module	Z_SMI_KEY_FIG_SERVICE
ObjectTypeName	
Interface Comp.	
Service Desc.	

FM code snippet:

```

FUNCTION z_smi_key_fig_service.
*"-----
***"Local Interface:
*"  IMPORTING
*"    REFERENCE(IT_AGGLEVINDEX) TYPE  /SCF/CB_AGGLEVINDEX_TAB
*"    REFERENCE(IT_KEYFIGS2BCOMPUTED) TYPE  /SCF/CB_KPRMGUIDLIST_TAB
*"    REFERENCE(IT_PERIODS) TYPE  /SCF/CB_PERIODS_TAB
*"    REFERENCE(IT_INDEPKEYFIG) TYPE  /SCF/CB_KPRMINDEX_TAB
*"    REFERENCE(IV_SERVICEPROF) TYPE  /SCF/CB_SERVICEPROF
*"    REFERENCE(IT_KPRMINDEXOLD) TYPE  /SCF/CB_KPRMINDEX_TAB
*"  EXPORTING
*"    REFERENCE(ET_COMPKEYFIG) TYPE  /SCF/CB_KPRMINDEX_TAB
*"    REFERENCE(ET_RETURN) TYPE  BAPIRETTAB
*"-----
FIELD-SYMBOLS: <fs> TYPE /scf/cb_kprmguidlist_str,
               <fs_indep> TYPE /scf/cb_kprmindep_str.
DATA: e_op TYPE /scf/cb_kprmindep_str.

UNASSIGN <fs_indep>.
LOOP AT it_indepkeyfig ASSIGNING <fs_indep>.
  CHECK <fs_indep> IS ASSIGNED.
  UNASSIGN <fs>.
  LOOP AT it_keyfigs2bcomputed ASSIGNING <fs>
  where AGGLEV_GUID = <fs_indep>-AGGLEV_GUID.
    CHECK <fs> IS ASSIGNED.
    MOVE-CORRESPONDING <fs_indep> TO e_op.
    CHECK <fs> IS ASSIGNED.
    MOVE: <fs>-agglev_guid TO e_op-agglev_guid,
          <fs>-kprm_guid TO e_op-kprm_guid,
          <fs>-agglevid TO e_op-agglevid,
          <fs>-kprm TO e_op-kprm.
    APPEND e_op TO et_compkeyfig.
  ENDLLOOP.
ENDLOOP.
ENDFUNCTION.

```

5. Create entry in table /SCF/CCBKPRMSERV.

Service: Name of the service which will point to the logic (function module or class method).

Table /SCF/CCBKPRMSERV Display

Check Table...	
Client	100
Data Matrix	ICHRPL1
Aggregation Level	PRDLOCTOPRTFRPM
Key Figure	ZTEST123
Service	ZSERV_ZTEST123
Sequence Number	1
Service Parameter	
Notes Service	
Delete from Standard	<input type="checkbox"/>
Created By	
Created On	
Created At	
Changed By	
Changed On	
Changed At	

6. Create an entry in table /SCF/CCB_DEP to indicate dependency on another key figure. In our case it is PLANSHIPTS.

Table /SCF/CCB_DEP Display

Check Table...	
Client	100
Data Matrix	ICHRPL1
Aggregation Level	PRDLOCTOPRTFRPM
Key Figure	ZTEST123
Service	ZSERV_ZTEST123
Sequence Number	1
Dependency ID	1
Aggr.Lvl (Req. KF)	PRDLOCTOPRTFRPM
Required Key Figure	PLANSHIPTS
Delete from Standard	<input type="checkbox"/>
Created By	
Created On	
Created At	
Changed By	
Changed On	
Changed At	

7. Go to SPRO->SCM BASIS->TSDM->Configure TSDM. Go to Time series data type. Select INVM1 (inactive). Go to Key figure parameters. Add Ztest123 key figure. Then go to SPRO->SCM BASIS->TSDM->Activate time series data type. Enter Time series data type as INVM1 and execute.

Activate Time Series Data Type

Time Series Data Type **INVM1**

Activate Time Series Data Type

Activation Options

Reset

Activate Dependent

Activate Planning Object Str.

8. Create an entry in table /SCF/CB_TSDMTP.

Table /SCF/CB_TSDMTP Display

Client	100
Data Matrix	ICHRPL1
Aggregation Level	PRDLOCTOPRTFRPM
Key Figure	ZTEST123
Time series type	INVM1

Result

The key figure is now visible in the SNC portal and is getting populated with the Planned receipts value.

Key Figures

Grid Graphic

Print Version Export Grid Arrangement SMI Overview Save Propose Planned Receipts Audit Trail History Comparison ASN Overview

Due List Expand All Collapse All Notes On

Product/Customer Location/Key Figure	Initial	18.06.2009	19.06.2009	20.06.2009	21.06.2009	22.06.2009	23.06.2009	24.06.2009	25.06.2009
▼ P100									
▪ Demand	1.985								
▪ Average Demand									
▪ Firm demand	1.985								
▪ Ztest123			50		2.000		1.500	100	
▪ Raw Net Demand									
▪ Planned Receipts			50		2.000		1.500	100	
▪ In-Transit Quantity	50	100	220						
▪ Projected Stock	-1.935	-1.835	-1.565	-1.565	435	435	1.935	2.035	2.035
▪ Days' Supply					9.999,00	9.999,00	9.999,00	9.999,00	9.999,00
▪ Minimum Proposal	5.935	5.835	5.615	5.565	5.565	3.565	3.565	2.065	1.965
▪ Maximum Proposal	9.935	9.835	9.615	9.565	9.565	7.565	7.565	6.065	5.965
▪ Minimum Stock	4.000	4.000	4.000	4.000	4.000	4.000	4.000	4.000	4.000
▪ Maximum Stock	8.000	8.000	8.000	8.000	8.000	8.000	8.000	8.000	8.000

Related Content

[SAP note: 0000903373](#)

[SAP note: 0000916344](#)

http://help.sap.com/saphelp_snc70/helpdata/EN/b4/f20483605b0d4fa856354a986e900d/frameset.htm

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