Automate Period Opening in SAP

Applies to:

This document is applicable to organization running SAP Enterprise Release 4.7 & above and limited to R/3 FICO & MM applications. For more information, visit the Enterprise Resource Planning homepage.

Summary

This document details out the procedure for automating the task of period opening & closing for FI, CO & MM periods in SAP R/3. This will eliminate the risk arising out of manual intervention involved for period opening. Steps mentioned in this document may need to be tweaked depending upon requirements of organization.

Author: Sanjeev Kumar

Company: Gujarat Gas Company Limited

Created on: 23 November 2010

Author Bio

Sanjeev is working as SAP FI-CO consultant at Gujarat Gas Company Limited (BG Group) and has total experience of 6 years. His area of expertise includes FI-CO, FI-AA, FI-CA, CIN, IHC, etc.

Table of Contents

Objectives

The objective of this document is allow businesses, who are running on SAP R/3 system (4.7 and above), to automate the process of opening and closing periods for posting at pre-defined time/intervals. This eliminates the risk arises due to manual interventions and helps in smooth functioning of business.

Scope

Scope of current document is limited to:

1) Opening of periods for Financial Accounting, Controlling & Material Master

2) Closing of periods for Financial Accounting, Controlling & Material Master

3) Updating Variables to be used in various opening & closing programs

4) Restricting & Allowing business users from/to posting any particular transactions to FI, CO or MM modules of SAP

Pre-requisites

To automate period opening jobs in SAP, one of the pre-requisite is to have dynamic variables, especially for months & year, which keeps changing for every period opening job. One limitation of FI & CO period opening program is that, there is no option in standard program to use dynamic date variable for scheduling periodic job. The variants need to be manually updated on periodic basis for successfully execution of jobs. This has a risk of failure of jobs at times due to human mistake (not updating variant some time).

To counter this we can make use of SAP tables TVARV/TVARVC. One needs to update either of these tables with following variables and use the same while creating "Program Variant" for automation of period opening/closing jobs:

- **RV_ACTUAL_DATE** = this represents the current system date
- **RV_ACTUAL_MONTH** = this represents the current month as per system date *plus* 4 days
- **RV_ACTUAL_YEAR** = this represents the current year as per system date
- **RV_MONTH_FROM** = this represents the month for system date *minus* 61 days
- **RV_YEAR_FROM** = this represents the year for system date minus 61 days

There is no need to update the initial values, against the variables, in table TVARV/TVARVC. One needs to set-up a background job using program "**RVSETDAT**" for updating above table with current values. This program will update current values in above table. For updating the values on monthly basis please following steps:

1. Go T-code SM36 and give a suitable name to job like "UPDTVARV_STVARV_MLY"

2. Click on [Step] tab from the top of screen and give program name "RVSETDAT" in next screen.

3. Click on save button in above screen (can be found out in lower part of screen) to save the step for background job

4. Now press F3 or [icon] icon from top of screen to go back to initial screen

5. [Start condition] tab from top of screen to define run time and frequency of background job   Press

6. Click on Date/Time tab to define run time of background job

7. Select check box "Periodic Job" and click on Period values tab to define the frequency of background job
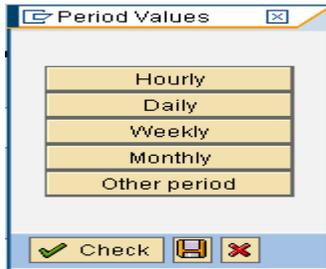
8. Select save button on every screen to exit the process of background job setting and saving the job, which will run at define time & frequency (as defined in step 6 & 7)

9. The job defined in above steps will update current values in table TVARV/TVARVC on periodic basis

Automate Period Opening/Closing for Material Management (MMPV)

To allow creation of goods receipt, goods issue, MM invoice posting or for any kind of material posting, posting period for material master records has to be open. At any point of time only two periods can be kept open for material master viz. current period and previous period.

To open material master period T-code "MMPV" is used in front end. This requires someone to manually run this transaction on last day of month for opening next posting period (at the same time period one before the previous period closed for posting). This manual process runs the risk of not opening next period, due to human omission, and jeopardizing the business for some time as no material posting can be carried out in system.

Through the use of program "RMMMPERI" the process of opening material master period can be automated for a given/all set of company codes. Following steps should be used to set up variants and set a background job for automatic execution of program at periodic intervals:

1. Go to t-code "MMPV" and save your variant by including desired selections
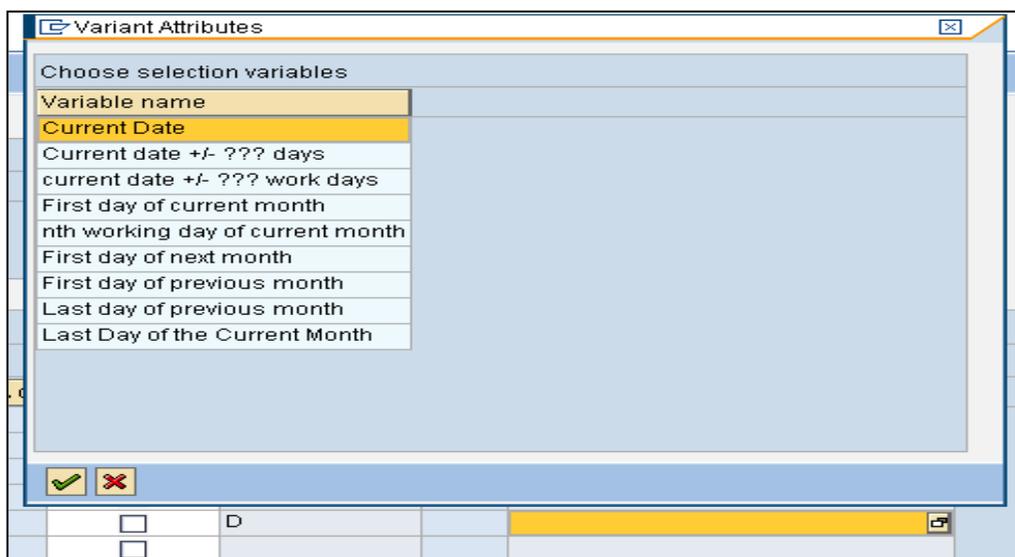
2. Select save button from top of screen to save the variant and give a suitable name to your variant
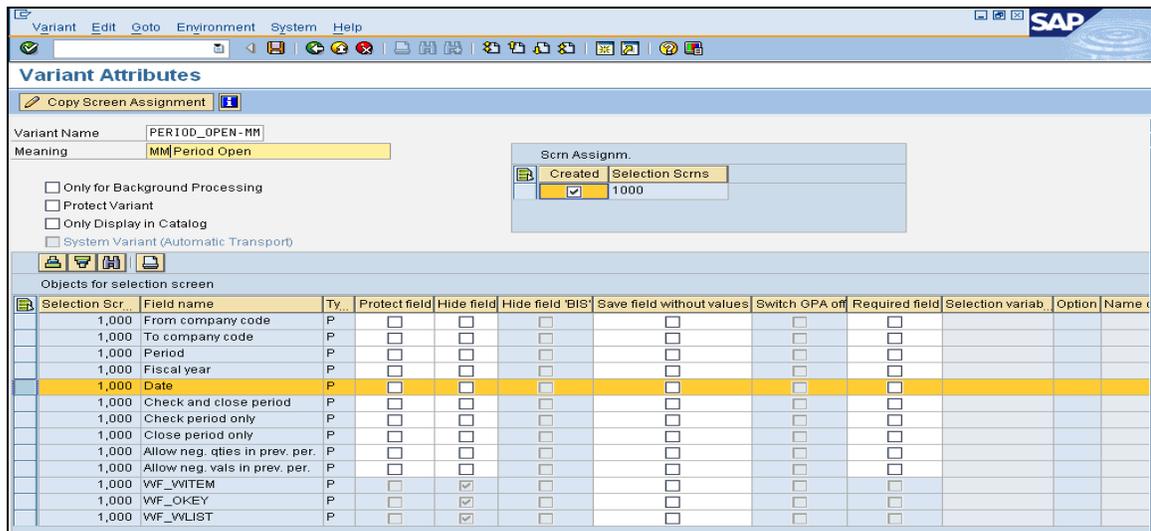
3. In "Date" row of above screen, go to column "Selection Variable" and select "D: Dynamic date calculation" from drop-down selections (by pressing F4 key on keyboard)
4. Now go to last column i.e. "Name of Variable" and select option as per requirement

5. At Step 3 we can also select "T: Table Variable from TVARVC" and select variable "RV_ACTUAL_DATE" at step 4
6. Program "RMMMPERI" uses the period from selected date to open that particular period for material master
7. Now click on save button from top of screen to save the variant, this variant will be used while setting up background job
8. Now Go T-code SM36 and give a suitable name to job like "MMPCLOSE_MMPV_MLY"

9. Click on ![Step] tab from the top of screen and give program name & variant viz. "RMMMPERI" & "PERIOD_OPEN-MM" respectively in next screen

10. Click on save button in above screen (can be found out in lower part of screen) to save the step for background job

11. Now press F3 or ![icon] icon from top of screen to go back to initial screen

12. Press ![Start condition] tab from top of screen to define run time and frequency of background job

13. Click on [Date/Time] tab to define run time of background job

14. Select check box "Periodic Job" and click on [Period values] tab to define the frequency of background job

15. Select save button on every screen to exit the process of background job setting and saving the job, which will run at define time & frequency (as defined in step 12 & 13)

Automate Period Opening/Closing for Financial Accounting (OB52)

To allow any posting in Financial Accounting in a particular period, such period should be open for types for accounts (Assets, Customers, Vendors, Materials, GL Accounts, etc.). Transaction code "OB52" is used to open/close periods for financial accounting.

But this transaction needs to be executed manually, at periodic intervals, and open/close periods for all/specific account types. This also runs the risk of not opening next period, due to human omission, and jeopardizing the business for some time as no posting can be carried out in system.

Through the use of program RFPERIOD_OPEN/RFPERIOD_CLOSE the process of FI period opening/closing respectively can be automated for a given set of company codes. Following steps should be used to set up variants and set a background job for automatic execution of program at periodic intervals:

1. Go to t-code "SE38" , execute program "RFPERIOD_OPEN/RFPERIOD_CLOSE" and save your variant by including desired selections

2. Select save button from top of screen to save the variant and give a suitable name to your variant

3. For each selected row of above screen, go to column "Selection Variable" and select "T: Table Variable from TVARVC" from drop-down selections (by pressing F4 key on keyboard)
4. Now go to last column i.e. "Name of Variable" and select option as per requirement

5. Now click on save button from top of screen to save the variant, this variant will be used while setting up background job

6. Step 1 to 5 needs to be repeated for each Account Type for which period opening is required, for leading & non-leading ledgers

7. Now Go T-code SM36 and give a suitable name to job like "FIPOPEN_0L_OB52_MLY"
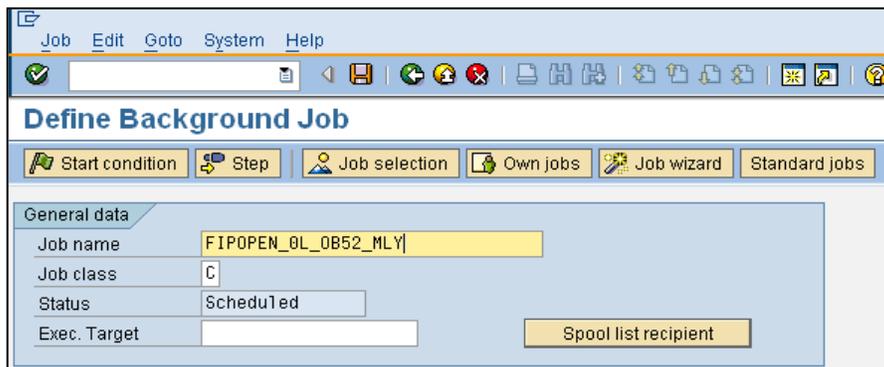
8. Click on [Step] tab from the top of screen and give program name and variant viz. "RFPERIOD_OPEN" & "PERIOD_OPEN" respectively in next screen
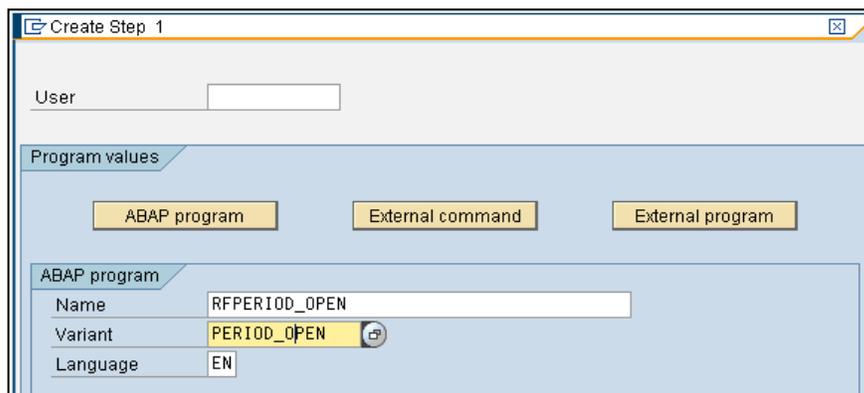
9. Click on save button in above screen (can be found out in lower part of screen) to save the step for background job

10. Now press F3 or icon from top of screen to go back to initial screen

11. Press [🏴 Start condition] tab from top of screen to define run time and frequency of background job

12. Click on [Date/Time] tab to define run time of background job
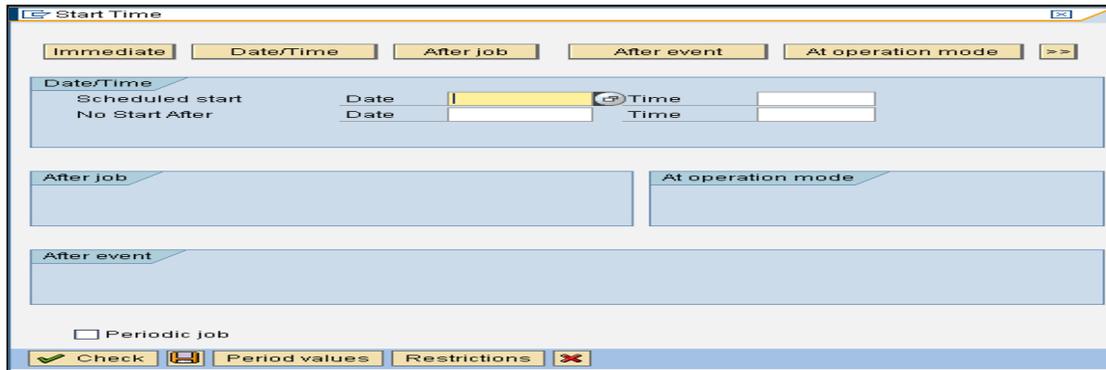
13. Select check box "Periodic Job" and click on [Period values] tab to define the frequency of background job, e.g. "Monthly"
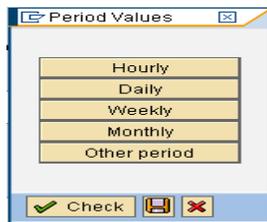
14. Select save button on every screen to exit the process of background job setting and saving the job, which will run at define time & frequency (as defined in step 12 & 13)

15. Step 1 to 14 needs to repeated for setting a background job for closing of FI periods through the used of program "RFPERIOD_CLOSE"

Automate Period Opening/Closing for Controlling (OKP1)

Controlling module of SAP is used for management reporting & analysis and for that to take place all postings show flow from FI to CO. There are many posting which happen only in CO, purely for management reporting and helping the management in decision making. To allow any posting to (in) controlling, in a particular period, such period should be open for types CO Business Transactions (Annexure-1). Transaction code "OKP1" is used to open/close periods for financial accounting.

But this transaction needs to be executed manually, at periodic intervals, and open/close periods for all/specific CO business transactions. This also runs the risk of not opening next period, due to human omission, and jeopardizing the business for some time as no posting can be carried out in system.

Through the use of program RKCOOKP1 the process of CO period opening/closing respectively can be automated for a given controlling area. Following steps should be used to set up variants and set a background job for automatic execution of program at periodic intervals:
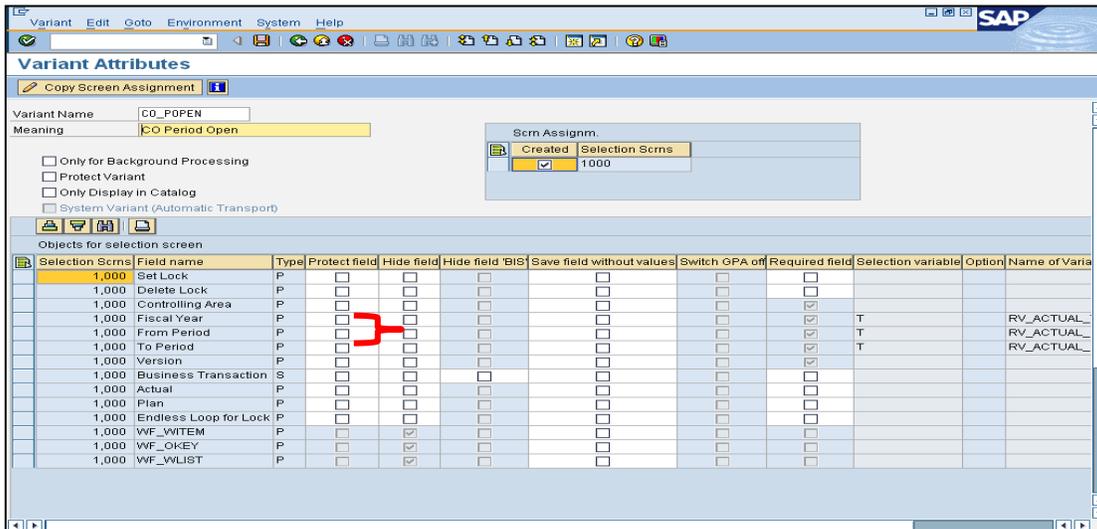
1. Go to t-code "SE38" , execute program "RKCOOKP1" and save your variant by including desired selections
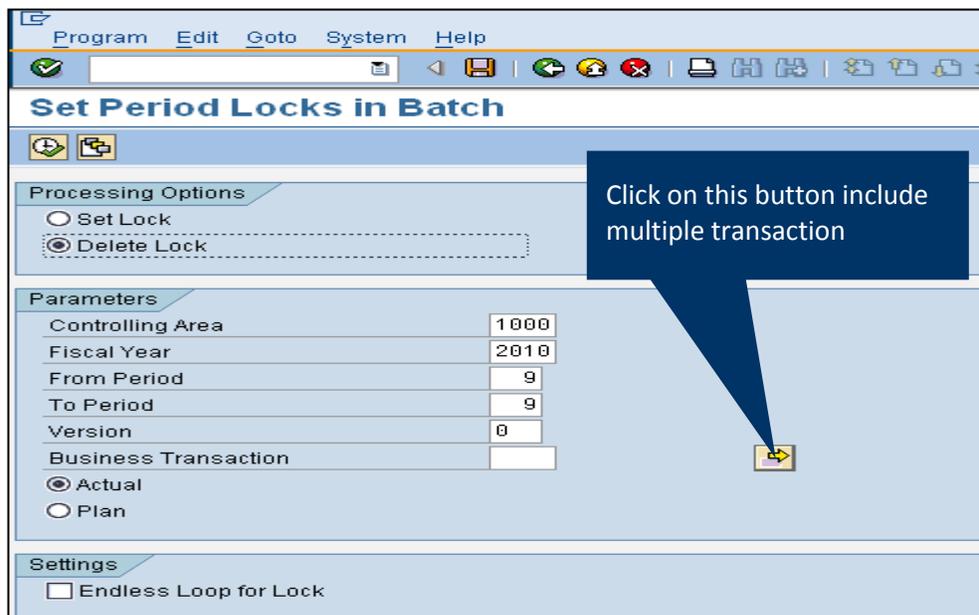
2. In the above there is option of include one or multiple business transaction(s) for processing

3. Select [Delete Lock] to open CO period and [Set Lock] to close CO period

4. Select save button from top of screen to save the variant and give a suitable name to your variant

5. For each selected row of above screen, go to column "Selection Variable" and select "T: Table Variable from TVARVC" from drop-down selections (by pressing F4 key on keyboard)

6. Now go to last column i.e. "Name of Variable" and select option as per requirement
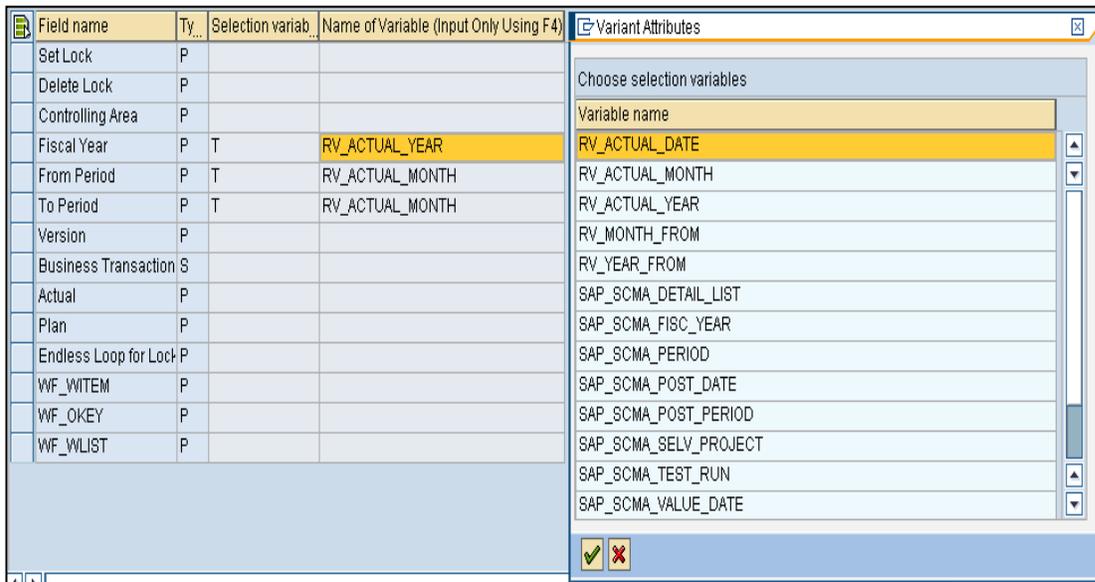
7. Now click on save button from top of screen to save the variant, this variant will be used while setting up background job

8. Now Go T-code SM36 and give a suitable name to job like "COOPEN_OKP1_MLY"

9. Click on [Step] tab from the top of screen and give program name and variant viz. "RKCOOKP1" & "CO_POPEN" respectively in next screen

10. Click on save button in above screen (can be found out in lower part of screen) to save the step for background job

11. Now press F3 or [icon] icon from top of screen to go back to initial screen

12. Press [Start condition] tab from top of screen to define run time and frequency of background job

Automate Period Opening in SAP

13. Click on **Date/Time** tab to define run time of background job

14. Select check box "Periodic Job" and click on **Period values** tab to define the frequency of background job, e.g. "Monthly"

15. Select save button on every screen to exit the process of background job setting and saving the job, which will run at define time & frequency (as defined in step 13 & 14)

Annexure

A. Controlling Business Transactions

Business Transaction	Description
COIN	CO Through-postings from FI
CPPA	ABC Actual process assessment
JVIU	JV Actual assessment
JVIV	JV Actual distribution
KABG	Automat. WIP/results analysis
KABM	Manual WIP/results analysis
KAMV	Manual cost allocation
KAZI	Actual cost center accrual
KAZO	Down payment
KFPI	Transfer price allocation
KOAO	Actual settlement
KOR1	PS Incoming Ord: Auto Determ.
KPIV	Actual cost distrib. cost obj.
KRAT	LIS transfer: Actual stat. KF
KSI0	Actual cost center split
KSII	Actual price calculation
KSPA	Assessment to CO-PA
KTDA	COPA: TOP-DOWN: Actuals
KVAR	Variance calculation
KZPI	Actual overhead (periodic)
KZRI	Interest calculation (actual)
PNV1	PRC: Activity Backflush
RKIB	Actual Periodic Repostings
RKIL	Actual inverse activity alloc.
RKIU	Actual Overhead Assessment
RKIV	Actual Overhead Distribution
RKL	Actual activity allocation
RKLN	Revaluation at actual price
RKLT	Actual template allocation
RKLX	Predistribution of fixed costs
RKN	Actual non-alloc. activities

RKS	Enter statistical key figures
RKU1	Repost costs
RKU2	Repost revenue
RKU3	Repost CO line items
RKWD	Target=actual acty allocation
RRIB	Seg. adjust.: Act.per.repost.
RRIU	Segment adjust.: Act. Assess.
RRIV	Segment adjust.: Act. distrib.

B. Types of Accounts in Financial Accounting

Account Types	Short Description
+	Valid for all account types
A	Assets
C	CO-PA: Profitability Analysis
D	Customers
G	Special Purpose Ledger
K	Vendors
M	Materials
S	G/L accounts
V	Contract accounts

Related Content

[Note 665042 - Report RVSETDAT](#)

[MM Period Closing](#)

[Month End Procedure](#)

For more information, visit the [Enterprise Resource Planning homepage](#)

Disclaimer and Liability Notice

This document may discuss sample coding or other information that does not include SAP official interfaces and therefore is not supported by SAP. Changes made based on this information are not supported and can be overwritten during an upgrade.

SAP will not be held liable for any damages caused by using or misusing the information, code or methods suggested in this document, and anyone using these methods does so at his/her own risk.

SAP offers no guarantees and assumes no responsibility or liability of any type with respect to the content of this technical article or code sample, including any liability resulting from incompatibility between the content within this document and the materials and services offered by SAP. You agree that you will not hold, or seek to hold, SAP responsible or liable with respect to the content of this document.