

# Portfolio and Project Management 5.0: Excel Integration for Financial and Capacity Planning



## Applies to:

Portfolio and Project Management 5.0

## Summary

Financial and Capacity planning for item, initiative or a bucket can be done offline via a customer-specific solution using Microsoft Excel. This document mainly concentrates on how to write the customer-specific macro to get financial / capacity planning data from SAP Portfolio and Project Management system and fill the Microsoft Excel sheet.

Download the related [Excel Template](#) (ZIP 62 KB)

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## Table of Contents

Introduction .....	3
APIs in Portfolio and Project Management .....	3
API : /RPM/CAP_PLAN_EXCEL_DOWNLOAD .....	3
API : /RPM/CAP_PLAN_EXCEL_UPLOAD .....	5
API : /RPM/FIN_PLAN_EXCEL_DOWNLOAD .....	6
API : /RPM/FIN_PLAN_EXCEL_UPLOAD .....	7
Excel Integration .....	9
1. Excel worksheet Preparation .....	9
2. Macro for Excel Export .....	10
3. Macro for Excel Import .....	10
Related Content .....	11
Copyright .....	12

## Introduction

Financial and Capacity planning for a item, initiative or a bucket can be done offline via a customer-specific solution using Microsoft Excel.

This enables users to export Portfolio Management planning data for financial and capacity planning to a Microsoft Excel file. Each planning view is exported to a separate worksheet. The user can then modify the data or analyze the data with Microsoft Excel tools and import the data to the Portfolio Management planning again.

This document covers the detail about the API's used for excel integration and how to call these API's from excel sheet and fill the sheet accordingly.

## APIs in Portfolio and Project Management

Application : SAP Portfolio and Project Management 5.0

Software Component: CPRXRPM

Package: /RPM/API

Function Group: /RPM/EXCEL\_FIN\_CAP\_PLAN

### API : /RPM/CAP\_PLAN\_EXCEL\_DOWNLOAD

This RFC is used to transfer the capacity planning data from the SAP system to Microsoft Excel sheet.

	Field Name	Description
Import Parameters	IS_CONTEXT	Input context for exporting planning data.  For Item capacity planning: Item ID is mandatory  For Initiative capacity planning: Initiative ID is mandatory  For Bucket capacity planning: Bucket ID and Portfolio ID are mandatory
	IV_LANGUAGE	Login Language
	IV_ISBUCKET	If this field is filled export is done at the bucket level. If neither IV_ISBUCKET nor IV_ISINITIATIVE is filled the export is done for item.
	IV_ISINITIATIVE	If this field is filled export is done at the initiative level. If neither IV_ISBUCKET nor IV_ISINITIATIVE is filled the export is done for item.
Export Parameters	ES_CONTEXT	Returns information about the item, initiative or bucket attributes

		such as name, ID, planning start date, planning end date, GUIDs etc.
	ES_VIEW_ATTR	Returns information like number of views, number of periods, number of fixed columns and no of custom column. These values are used to fill the excel sheet.
	EV_RC	Returns error code.
	EV_NO_DECIMALS	Returns number of decimals
Tables	ET_EXCEL_HEADER_FIELDS	Contains header field names which will be used to fill header row of excel sheet (first row of the sheet).
	ET_CAP_VIEWS	Contains information about item, initiative or bucket views.
	ET_CAP_DETAILS	Contains the group information. Each row belongs to each group in a particular category in a particular view.
	ET_DETAIL_SEGMENTS	Contains planning data information. Each row belongs to a particular period value.
	ET_MSG	Contains the error message in text format

**API : /RPM/CAP\_PLAN\_EXCEL\_UPLOAD**

This RFC is used to transfer the capacity planning data from the Microsoft Excel sheet to the SAP system.

	<b>Field Name</b>	<b>Description</b>
Import Parameters	IS_CONTEXT	Input context for importing planning data.  For Item capacity planning: Item ID is mandatory  For Initiative capacity planning: Initiative ID is mandatory  For Bucket capacity planning: Bucket ID and Portfolio ID are mandatory
	IS_VIEW_ATTR	Contains information like number of views, number of periods, number of fixed columns and no of custom column.
	IV_LANGUAGE	Login Language
	IV_ISBUCKET	If this field is filled import is done at the bucket level. If neither IV_ISBUCKET nor IV_ISINITIATIVE is filled the import is done for item.
	IV_ISINITIATIVE	If this field is filled import is done at the initiative level. If neither IV_ISBUCKET nor IV_ISINITIATIVE is filled the import is done for item.
Export Parameters	EV_RC	Returns error code.
Tables	IT_CAP_DETAILS	Contains the group information. Each row belongs to each group in a particular category in a particular view
	IT_DETAIL_SEGMENTS	Contains planning data information. Each row belongs to a particular period value.
	IT_EXCEL_HEADER_FIELDS	Contains header field names which will be used to fill header row of excel sheet (first row of the sheet).

	IT_CAP_VIEWS	Contains information about item, initiative or bucket views.
	ET_MSG	Contains the error message in text format

#### API : /RPM/FIN\_PLAN\_EXCEL\_DOWNLOAD

This RFC is used to transfer the financial planning data from the SAP system to Microsoft Excel sheet.

This RFC is used to transfer the financial planning data from the SAP system to Microsoft Excel sheet.

	Field Name	Description
Import Parameters	IS_CONTEXT	Input context for exporting planning data.  For Item financial planning: Item ID is mandatory  For Initiative financial planning: Initiative ID is mandatory  For Bucket financial planning: Bucket ID and Portfolio ID are mandatory
	IV_LANGUAGE	Login Language
	IV_ISBUCKET	If this field is filled export is done at the bucket level. If neither IV_ISBUCKET nor IV_ISINITIATIVE is filled the export is done for item.
	IV_ISINITIATIVE	If this field is filled export is done at the initiative level. If neither IV_ISBUCKET nor IV_ISINITIATIVE is filled the export is done for item.
Export Parameters	ES_CONTEXT	Returns information about the item, initiative or bucket attributes such as name, ID, planning start date, planning end date, GUIDs etc.
	ES_VIEW_ATTR	Returns information like number of views, number of periods, number of fixed columns and no of custom column. These values are used to fill the excel sheet.

	EV_RC	Returns error code.
	EV_NO_DECIMALS	Returns number of decimals
Tables	ET_EXCEL_HEADER_FIELDS	Contains header field names which will be used to fill header row of excel sheet (first row of the sheet).
	ET_FIN_VIEWS	Contains information about item, initiative or bucket views.
	ET_FIN_DETAILS	Contains the group information. Each row belongs to each group in a particular category in a particular view.
	ET_DETAIL_SEGMENTS	Contains planning data information. Each row belongs to a particular period value.
	ET_MSG	Contains the error message in text format

#### API : /RPM/FIN\_PLAN\_EXCEL\_UPLOAD

This RFC is used to transfer the financial planning data from the Microsoft Excel sheet to the SAP system.

	Field Name	Description
Import Parameters	IS_CONTEXT	Input context for importing planning data.  For Item financial planning: Item ID is mandatory  For Initiative financial planning: Initiative ID is mandatory  For Bucket financial planning: Bucket ID and Portfolio ID are mandatory
	IS_VIEW_ATTR	Contains information like number of views, number of periods, number of fixed columns and no of custom column.
	IV_LANGUAGE	Login Language
	IV_ISBUCKET	If this field is filled import is done at the bucket level. If neither

		IV_ISBUCKET nor IV_ISINITIATIVE is filled the import is done for item.
	IV_ISINITIATIVE	If this field is filled import is done at the initiative level. If neither IV_ISBUCKET nor IV_ISINITIATIVE is filled the import is done for item.
Export Parameters	EV_RC	Returns error code.
Tables	IT_FIN_DETAILS	Contains the group information. Each row belongs to each group in a particular category in a particular view
	IT_DETAIL_SEGMENTS	Contains planning data information. Each row belongs to a particular period value.
	IT_EXCEL_HEADER_FIELDS	Contains header field names which will be used to fill header row of excel sheet (first row of the sheet).
	IT_FIN_VIEWS	Contains information about item, initiative or bucket views.
	ET_MSG	Contains the error message in text format

## Excel Integration

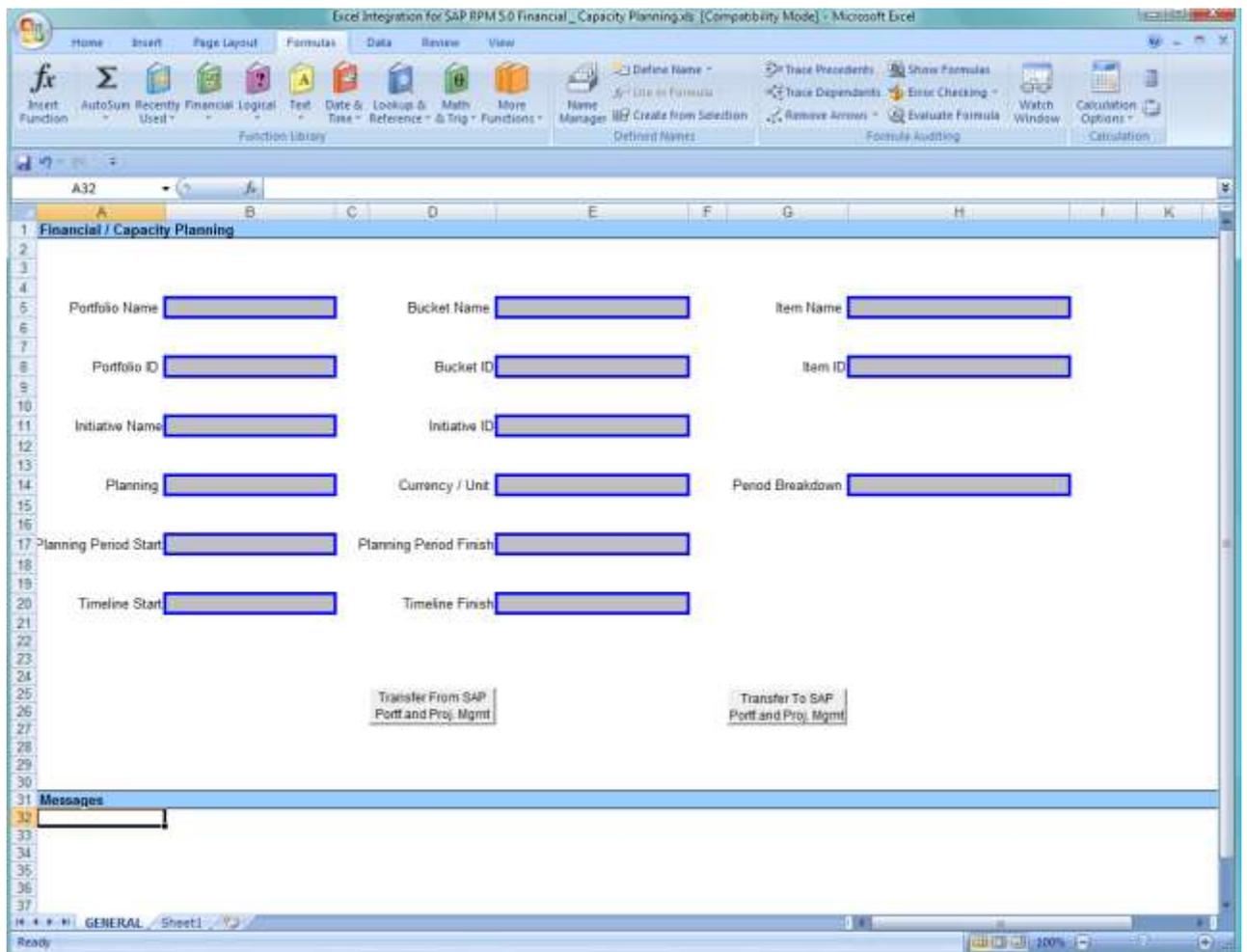
The excel integration for financial / capacity planning comprises of the following

- 1) Excel worksheet preparation
- 2) Macro for Excel Import
- 3) Macro for Excel Export

### 1. Excel worksheet Preparation

The worksheet "GENERAL" will display the items, initiative or bucket attributes for Financial/Capacity Planning. Steps to create the "GENERAL" sheet

- 1) Open a new Excel file with one worksheet.
- 2) Name the worksheet as "GENERAL" and create the layout in the general sheet as shown below in the diagram



- 3) Create two VB macro procedures namely "Excel\_download" and "Excel\_upload".
- 4) Create two buttons with the names "Transfer From SAP Portf and Proj.Mgmt" and "Transfer To SAP Portf and Proj.Mgmt" in the "GENERAL" sheet and link the above macros to each button.

## 2. Macro for Excel Export

Step to write a macro which transfers Financial/Capacity planning data from Portfolio Management to the Excel file.

- 1) Create a "SAP Function" object.
- 2) Log into SAP Portfolio and Project Management using the "SAP Function" object
- 3) Get the inputs using a VB form
- 4) Get the API interface signature and create a corresponding API proxy object and add to "SAP Function" object based on the type of planning.
  - a. /RPM/FIN\_PLAN\_EXCEL\_DOWNLOAD for financial planning
  - b. /RPM/CAP\_PLAN\_EXCEL\_DOWNLOAD for capacity planning
- 5) Set the input values for the API proxy object
- 6) Execute the API using API proxy object and get the output.
- 7) Create a new worksheet (View Sheet) for every Financial/Capacity Views (ET\_VIEWS).
- 8) Fill the first row of worksheet with value from the API table ET\_EXCEL\_HEADER\_FIELDS
- 9) Fill group data from the API tables ET\_DETAILS and ET\_DETAIL\_SEGEMENTS into Excel rows.
- 10) Store attributes like item, initiative, bucket, portfolio GUID, Period ID etc. in the general worksheet custom property. This attribute values will be used as input for Excel Download.
- 11) Store view attributes like View ID, View Name etc. in the corresponding worksheet custom property. This attribute values will be used as input for Excel Download.
- 12) Display the error message or success message using popup window.

Please refer the example Excel file for code implementation.

## 3. Macro for Excel Import

Step to write a macro which transfers Financial/Capacity planning data from the Excel file to Portfolio Management.

- 1) Create a "SAP Function" object.
- 2) Log into SAP Portfolio and Project Management using the "SAP Function" object
- 3) Get the API interface signature and create a corresponding API proxy object and add to "SAP Function" object based on the type of planning.
  - a. /RPM/FIN\_PLAN\_EXCEL\_UPLOAD for financial planning
  - b. /RPM/CAP\_PLAN\_EXCEL\_UPLOAD for capacity planning
- 4) Set the input values for the corresponding API proxy objects from general worksheet and generated worksheets.
 

Fill each row of the API table IT\_VIEWS with view attributes from custom property of the view sheet.

Fill each row of the API table IT\_DETAILS with each row from view sheets (only first seven columns)

Fill each row of the API table IT\_DETAIL\_SEGMENTS with each cell from view sheets (only period cells)
- 5) Execute the API using API proxy object.
- 6) Display the error message or success message using popup window.

Please refer the example Excel file for code implementation

## Related Content

[http://msdn.microsoft.com/en-us/library/aa167852\(office.11\).aspx](http://msdn.microsoft.com/en-us/library/aa167852(office.11).aspx)

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