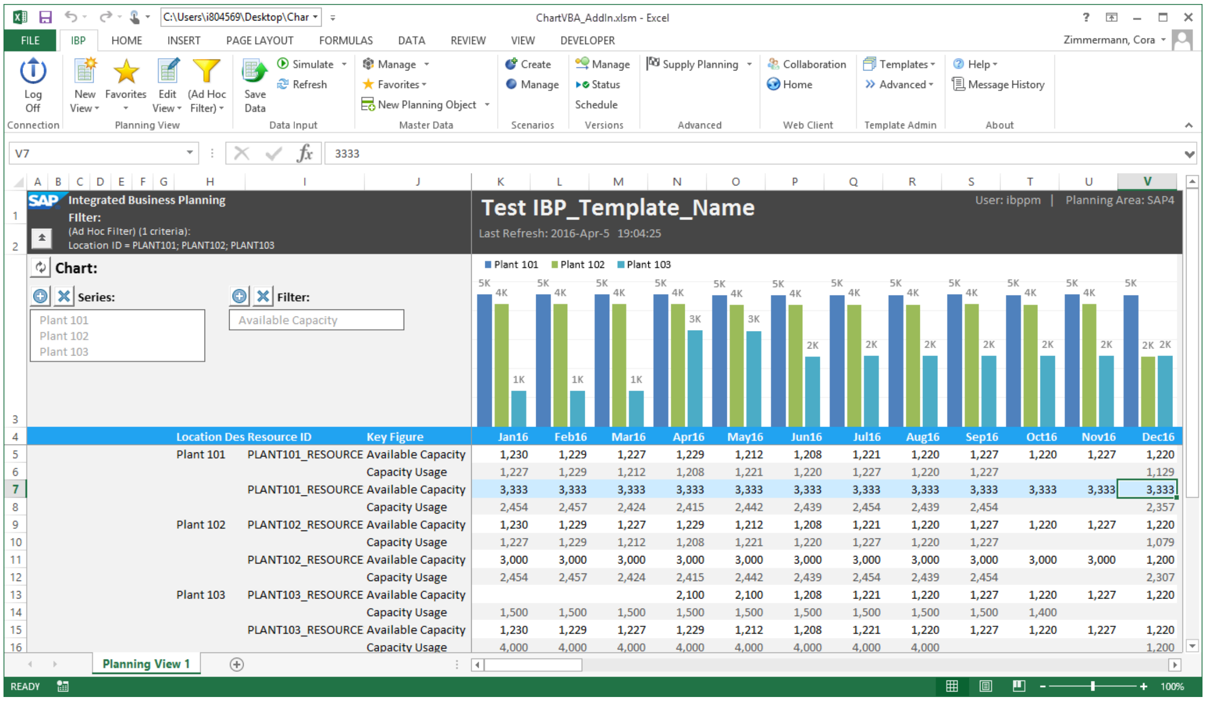
IBP Excel Add-In

How to Use the Sample VBA Template in Your Own Planning Area (Note 1790530)

- User Guide: Working with the Chart
- Admin Guide: Embedded vs. VBA Add-in
- Admin Guide: Creating a Template from ChartVBA_*.xlsm
- A Look Under the Hood
- APPENDIX:
  - Formatting Key Figures Editable in the Past
  - Packaging VBA Add-On



Integrated Business Planning

Filter:

(Ad Hoc Filter) (1 criteria):
Location ID = PLANT101; PLANT102; PLANT103

Chart:

Series: Plant 101, Plant 102, Plant 103

Filter: Available Capacity

Test IBP_Template_Name

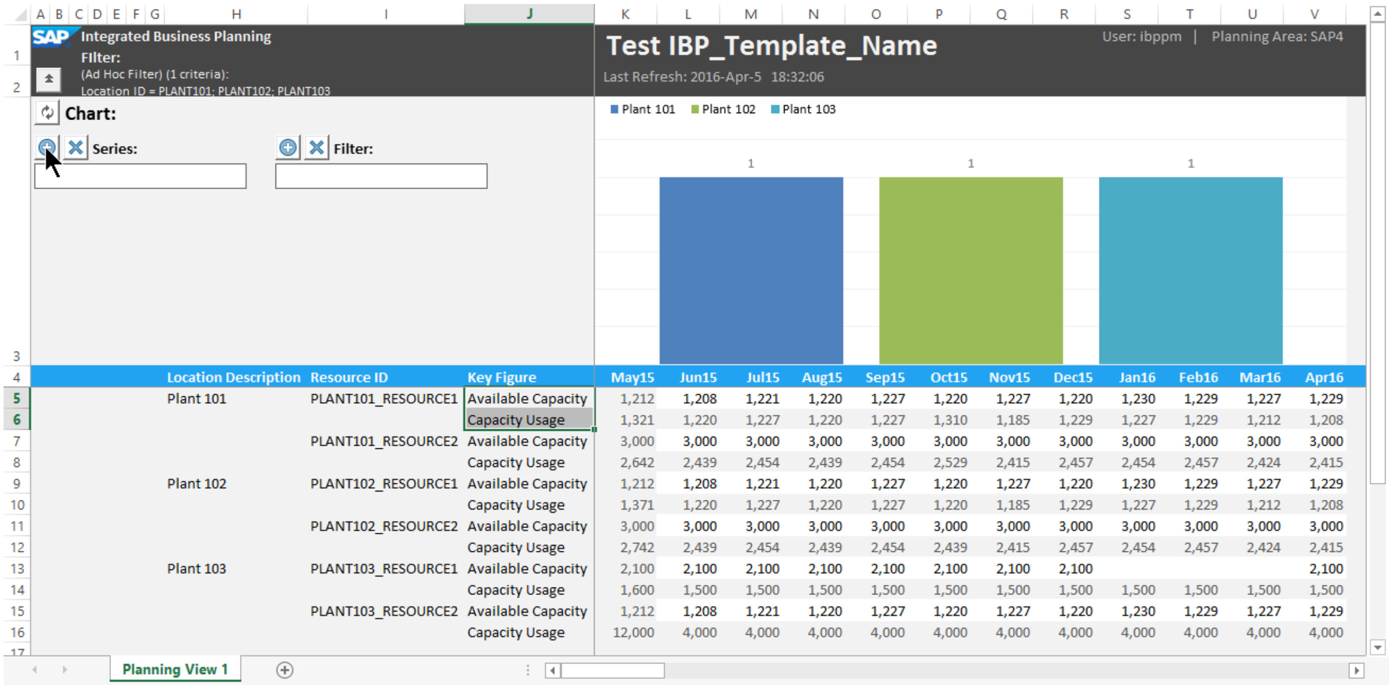
Last Refresh: 2016-Apr-5 19:04:25

User: ibppm | Planning Area: SAP4

Location Des	Resource ID	Key Figure	Jan16	Feb16	Mar16	Apr16	May16	Jun16	Jul16	Aug16	Sep16	Oct16	Nov16	Dec16
Plant 101	PLANT101_RESOURCE	Available Capacity	1,230	1,229	1,227	1,229	1,212	1,208	1,221	1,220	1,227	1,220	1,227	1,220
		Capacity Usage	1,227	1,229	1,212	1,208	1,221	1,220	1,227	1,220	1,227			1,129
	PLANT101_RESOURCE	Available Capacity	3,333	3,333	3,333	3,333	3,333	3,333	3,333	3,333	3,333	3,333	3,333	3,333
		Capacity Usage	2,454	2,457	2,424	2,415	2,442	2,439	2,454	2,439	2,454			2,357
Plant 102	PLANT102_RESOURCE	Available Capacity	1,230	1,229	1,227	1,229	1,212	1,208	1,221	1,220	1,227	1,220	1,227	1,220
		Capacity Usage	1,227	1,229	1,212	1,208	1,221	1,220	1,227	1,220	1,227			1,079
	PLANT102_RESOURCE	Available Capacity	3,000	3,000	3,000	3,000	3,000	3,000	3,000	3,000	3,000	3,000	3,000	1,200
		Capacity Usage	2,454	2,457	2,424	2,415	2,442	2,439	2,454	2,439	2,454			2,307
Plant 103	PLANT103_RESOURCE	Available Capacity				2,100	2,100	1,208	1,221	1,220	1,227	1,220	1,227	1,220
		Capacity Usage	1,500	1,500	1,500	1,500	1,500	1,500	1,500	1,500	1,500	1,400		
	PLANT103_RESOURCE	Available Capacity	1,230	1,229	1,227	1,229	1,212	1,208	1,221	1,220	1,227	1,220	1,227	1,220
		Capacity Usage	4,000	4,000	4,000	4,000	4,000	4,000	4,000	4,000				1,200

USER GUIDE: WORKING WITH THE CHART

To define your chart's series, select the key figures you want to plot in your row axis and press the ⊕ button next to *Series*:



Integrated Business Planning
Filter:
(Ad Hoc Filter) (1 criteria):
Location ID = PLANT101; PLANT102; PLANT103

Chart:

Series:

Filter:

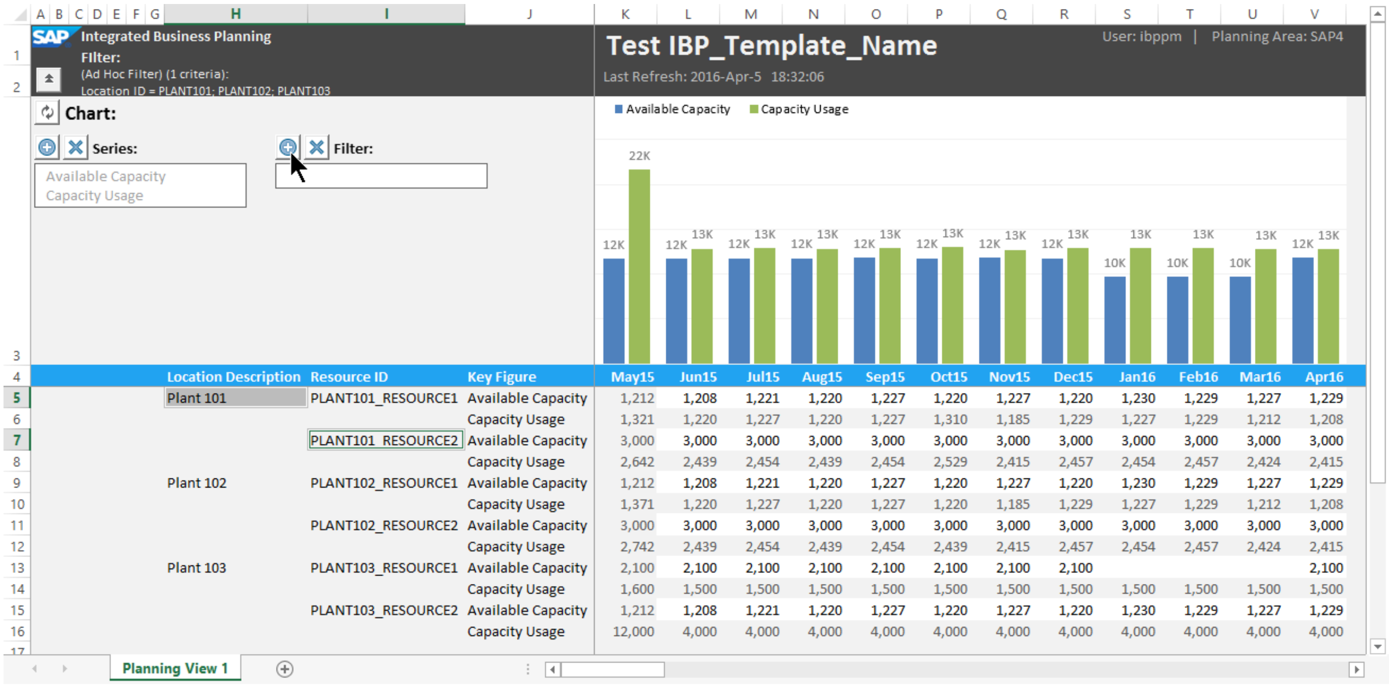
Test IBP_Template_Name

User: ibppm | Planning Area: SAP4

Last Refresh: 2016-Apr-5 18:32:06

Location Description	Resource ID	Key Figure	May15	Jun15	Jul15	Aug15	Sep15	Oct15	Nov15	Dec15	Jan16	Feb16	Mar16	Apr16
Plant 101	PLANT101_RESOURCE1	Available Capacity	1,212	1,208	1,221	1,220	1,227	1,220	1,227	1,220	1,230	1,229	1,227	1,229
		Capacity Usage	1,321	1,220	1,227	1,220	1,227	1,310	1,185	1,229	1,227	1,229	1,212	1,208
	PLANT101_RESOURCE2	Available Capacity	3,000	3,000	3,000	3,000	3,000	3,000	3,000	3,000	3,000	3,000	3,000	3,000
		Capacity Usage	2,642	2,439	2,454	2,439	2,454	2,529	2,415	2,457	2,454	2,457	2,424	2,415
Plant 102	PLANT102_RESOURCE1	Available Capacity	1,212	1,208	1,221	1,220	1,227	1,220	1,227	1,220	1,230	1,229	1,227	1,229
		Capacity Usage	1,371	1,220	1,227	1,220	1,227	1,220	1,185	1,229	1,227	1,229	1,212	1,208
	PLANT102_RESOURCE2	Available Capacity	3,000	3,000	3,000	3,000	3,000	3,000	3,000	3,000	3,000	3,000	3,000	3,000
		Capacity Usage	2,742	2,439	2,454	2,439	2,454	2,439	2,415	2,457	2,454	2,457	2,424	2,415
Plant 103	PLANT103_RESOURCE1	Available Capacity	2,100	2,100	2,100	2,100	2,100	2,100	2,100	2,100				2,100
		Capacity Usage	1,600	1,500	1,500	1,500	1,500	1,500	1,500	1,500	1,500	1,500	1,500	1,500
	PLANT103_RESOURCE2	Available Capacity	1,212	1,208	1,221	1,220	1,227	1,220	1,227	1,220	1,230	1,229	1,227	1,229
		Capacity Usage	12,000	4,000	4,000	4,000	4,000	4,000	4,000	4,000	4,000	4,000	4,000	4,000

The system will note your selection in the box below and adjust the chart; to restrict the chart to certain attribute values, select those values and press ⊕ next to *Filter*:



Integrated Business Planning
Filter:
(Ad Hoc Filter) (1 criteria):
Location ID = PLANT101; PLANT102; PLANT103

Chart:

Series:
Available Capacity
Capacity Usage

Filter:

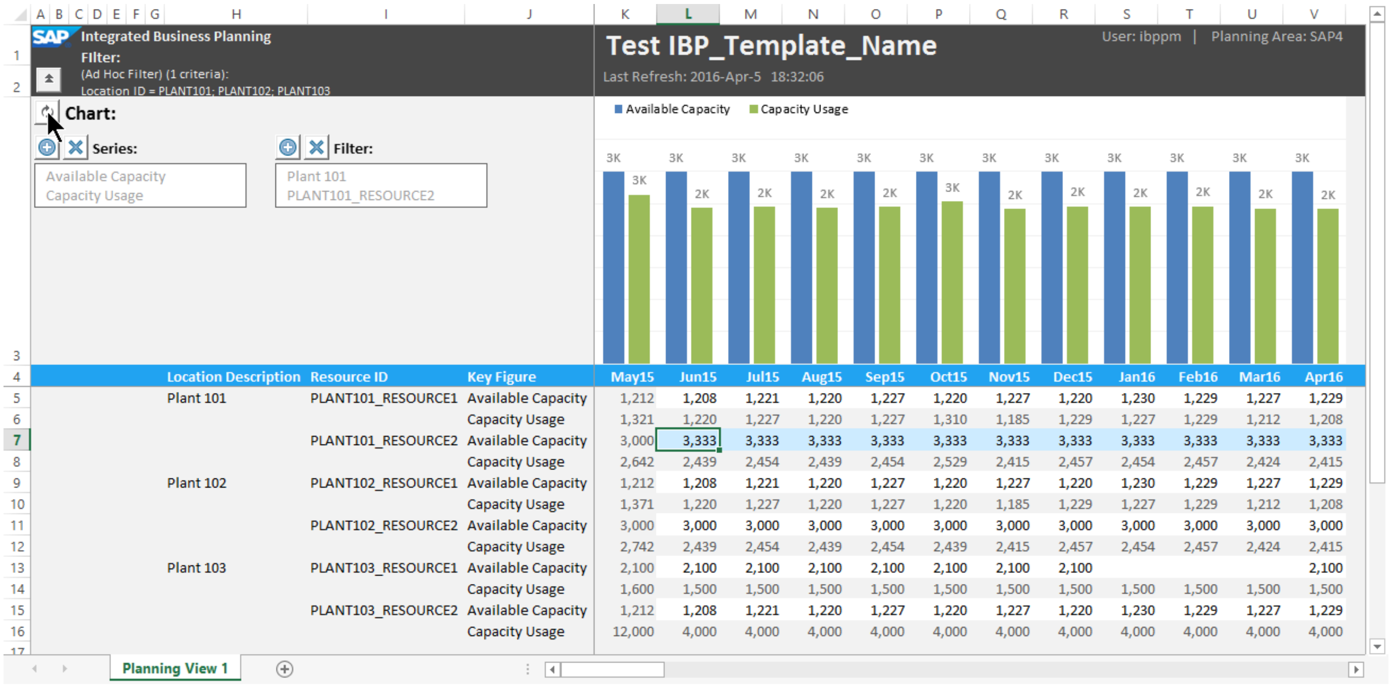
Test IBP_Template_Name

User: ibppm | Planning Area: SAP4

Last Refresh: 2016-Apr-5 18:32:06

Location Description	Resource ID	Key Figure	May15	Jun15	Jul15	Aug15	Sep15	Oct15	Nov15	Dec15	Jan16	Feb16	Mar16	Apr16
Plant 101	PLANT101_RESOURCE1	Available Capacity	1,212	1,208	1,221	1,220	1,227	1,220	1,227	1,220	1,230	1,229	1,227	1,229
		Capacity Usage	1,321	1,220	1,227	1,220	1,227	1,310	1,185	1,229	1,227	1,229	1,212	1,208
	PLANT101_RESOURCE2	Available Capacity	3,000	3,000	3,000	3,000	3,000	3,000	3,000	3,000	3,000	3,000	3,000	3,000
		Capacity Usage	2,642	2,439	2,454	2,439	2,454	2,529	2,415	2,457	2,454	2,457	2,424	2,415
Plant 102	PLANT102_RESOURCE1	Available Capacity	1,212	1,208	1,221	1,220	1,227	1,220	1,227	1,220	1,230	1,229	1,227	1,229
		Capacity Usage	1,371	1,220	1,227	1,220	1,227	1,220	1,185	1,229	1,227	1,229	1,212	1,208
	PLANT102_RESOURCE2	Available Capacity	3,000	3,000	3,000	3,000	3,000	3,000	3,000	3,000	3,000	3,000	3,000	3,000
		Capacity Usage	2,742	2,439	2,454	2,439	2,454	2,439	2,415	2,457	2,454	2,457	2,424	2,415
Plant 103	PLANT103_RESOURCE1	Available Capacity	2,100	2,100	2,100	2,100	2,100	2,100	2,100	2,100				2,100
		Capacity Usage	1,600	1,500	1,500	1,500	1,500	1,500	1,500	1,500	1,500	1,500	1,500	1,500
	PLANT103_RESOURCE2	Available Capacity	1,212	1,208	1,221	1,220	1,227	1,220	1,227	1,220	1,230	1,229	1,227	1,229
		Capacity Usage	12,000	4,000	4,000	4,000	4,000	4,000	4,000	4,000	4,000	4,000	4,000	4,000

The system will note your selection in the box below and adjust the chart; to refresh the chart after manual edits, press the ⟳ button next to *Chart*:



SAP Integrated Business Planning
Filter:
(Ad Hoc Filter) (1 criteria):
Location ID = PLANT101; PLANT102; PLANT103

Test IBP_Template_Name
User: ibppm | Planning Area: SAP4
Last Refresh: 2016-Apr-5 18:32:06

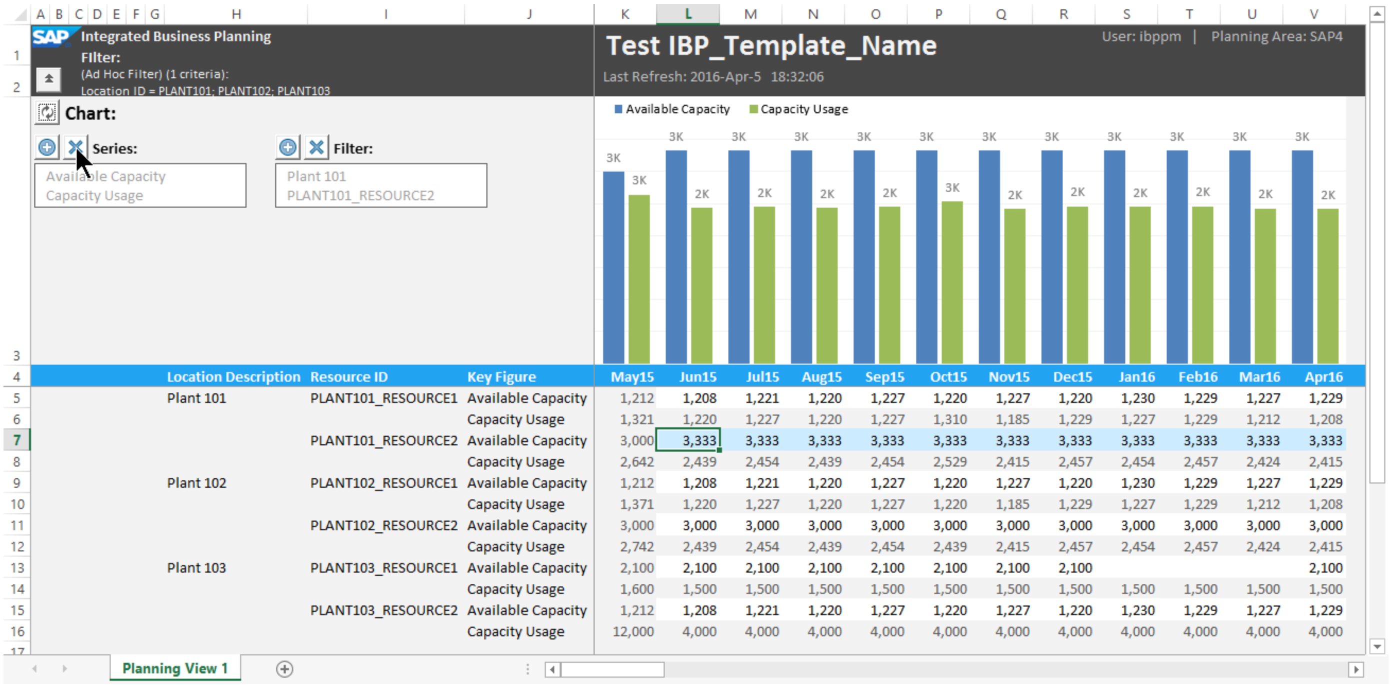
Chart:

Series:
Available Capacity
Capacity Usage

Filter:
Plant 101
PLANT101_RESOURCE2

	Location Description	Resource ID	Key Figure	May15	Jun15	Jul15	Aug15	Sep15	Oct15	Nov15	Dec15	Jan16	Feb16	Mar16	Apr16
5	Plant 101	PLANT101_RESOURCE1	Available Capacity	1,212	1,208	1,221	1,220	1,227	1,220	1,227	1,220	1,230	1,229	1,227	1,229
6			Capacity Usage	1,321	1,220	1,227	1,220	1,227	1,310	1,185	1,229	1,227	1,229	1,212	1,208
7		PLANT101_RESOURCE2	Available Capacity	3,000	3,333	3,333	3,333	3,333	3,333	3,333	3,333	3,333	3,333	3,333	3,333
8			Capacity Usage	2,642	2,439	2,454	2,439	2,454	2,529	2,415	2,457	2,454	2,457	2,424	2,415
9	Plant 102	PLANT102_RESOURCE1	Available Capacity	1,212	1,208	1,221	1,220	1,227	1,220	1,227	1,220	1,230	1,229	1,227	1,229
10			Capacity Usage	1,371	1,220	1,227	1,220	1,227	1,220	1,185	1,229	1,227	1,229	1,212	1,208
11		PLANT102_RESOURCE2	Available Capacity	3,000	3,000	3,000	3,000	3,000	3,000	3,000	3,000	3,000	3,000	3,000	3,000
12			Capacity Usage	2,742	2,439	2,454	2,439	2,454	2,439	2,415	2,457	2,454	2,457	2,424	2,415
13	Plant 103	PLANT103_RESOURCE1	Available Capacity	2,100	2,100	2,100	2,100	2,100	2,100	2,100	2,100				2,100
14			Capacity Usage	1,600	1,500	1,500	1,500	1,500	1,500	1,500	1,500	1,500	1,500	1,500	1,500
15		PLANT103_RESOURCE2	Available Capacity	1,212	1,208	1,221	1,220	1,227	1,220	1,227	1,220	1,230	1,229	1,227	1,229
16			Capacity Usage	12,000	4,000	4,000	4,000	4,000	4,000	4,000	4,000	4,000	4,000	4,000	4,000

The system will recalculate the chart:



SAP Integrated Business Planning
Filter:
(Ad Hoc Filter) (1 criteria):
Location ID = PLANT101; PLANT102; PLANT103

Test IBP_Template_Name
User: ibppm | Planning Area: SAP4
Last Refresh: 2016-Apr-5 18:32:06

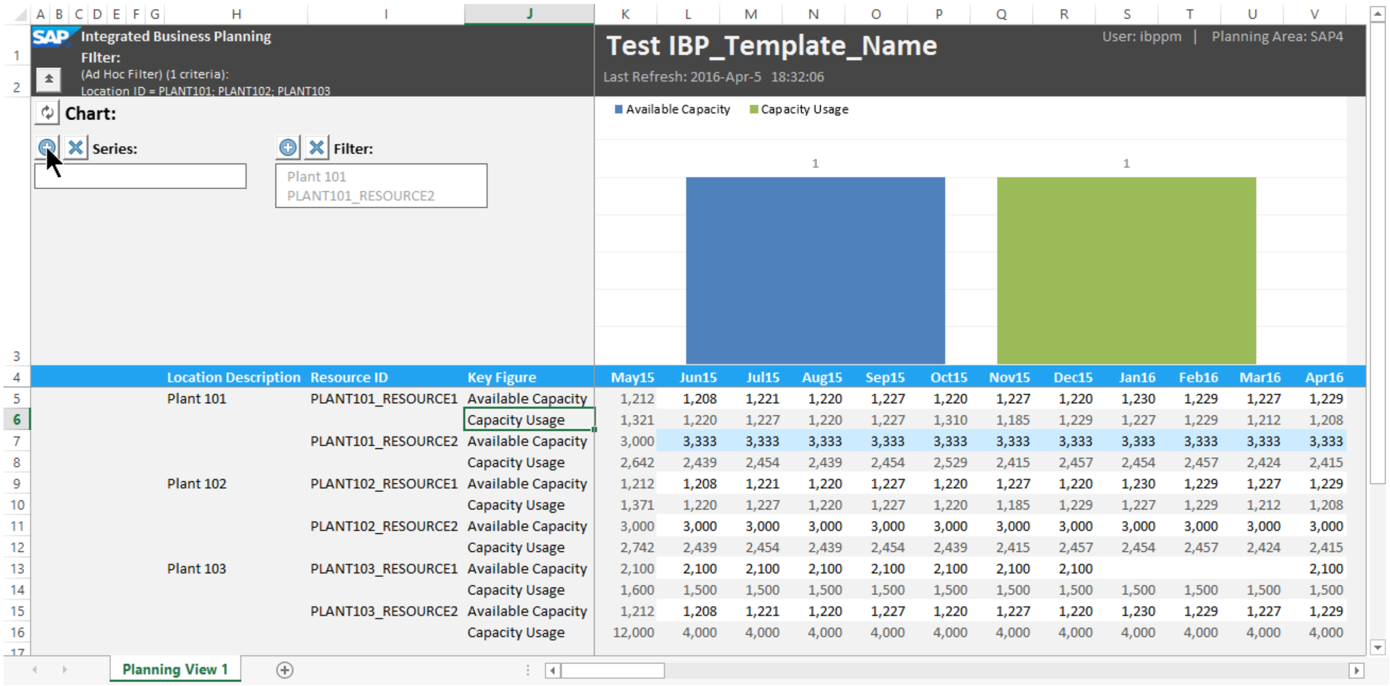
Chart:

Series:
Available Capacity
Capacity Usage

Filter:
Plant 101
PLANT101_RESOURCE2

	Location Description	Resource ID	Key Figure	May15	Jun15	Jul15	Aug15	Sep15	Oct15	Nov15	Dec15	Jan16	Feb16	Mar16	Apr16
5	Plant 101	PLANT101_RESOURCE1	Available Capacity	1,212	1,208	1,221	1,220	1,227	1,220	1,227	1,220	1,230	1,229	1,227	1,229
6			Capacity Usage	1,321	1,220	1,227	1,220	1,227	1,310	1,185	1,229	1,227	1,229	1,212	1,208
7		PLANT101_RESOURCE2	Available Capacity	3,000	3,333	3,333	3,333	3,333	3,333	3,333	3,333	3,333	3,333	3,333	3,333
8			Capacity Usage	2,642	2,439	2,454	2,439	2,454	2,529	2,415	2,457	2,454	2,457	2,424	2,415
9	Plant 102	PLANT102_RESOURCE1	Available Capacity	1,212	1,208	1,221	1,220	1,227	1,220	1,227	1,220	1,230	1,229	1,227	1,229
10			Capacity Usage	1,371	1,220	1,227	1,220	1,227	1,220	1,185	1,229	1,227	1,229	1,212	1,208
11		PLANT102_RESOURCE2	Available Capacity	3,000	3,000	3,000	3,000	3,000	3,000	3,000	3,000	3,000	3,000	3,000	3,000
12			Capacity Usage	2,742	2,439	2,454	2,439	2,454	2,439	2,415	2,457	2,454	2,457	2,424	2,415
13	Plant 103	PLANT103_RESOURCE1	Available Capacity	2,100	2,100	2,100	2,100	2,100	2,100	2,100	2,100				2,100
14			Capacity Usage	1,600	1,500	1,500	1,500	1,500	1,500	1,500	1,500	1,500	1,500	1,500	1,500
15		PLANT103_RESOURCE2	Available Capacity	1,212	1,208	1,221	1,220	1,227	1,220	1,227	1,220	1,230	1,229	1,227	1,229
16			Capacity Usage	12,000	4,000	4,000	4,000	4,000	4,000	4,000	4,000	4,000	4,000	4,000	4,000

It is not necessary to select all values at once. If values aren't next to each other or you prefer a different sequence in your series, you select the values one by one. In our example we start over by clearing the *Series* with ✖. Then we select one key figure and add it with ⊕:



Integrated Business Planning
Filter:
(Ad Hoc Filter) (1 criteria):
Location ID = PLANT101; PLANT102; PLANT103

Test IBP_Template_Name
Last Refresh: 2016-Apr-5 18:32:06
User: ibppm | Planning Area: SAP4

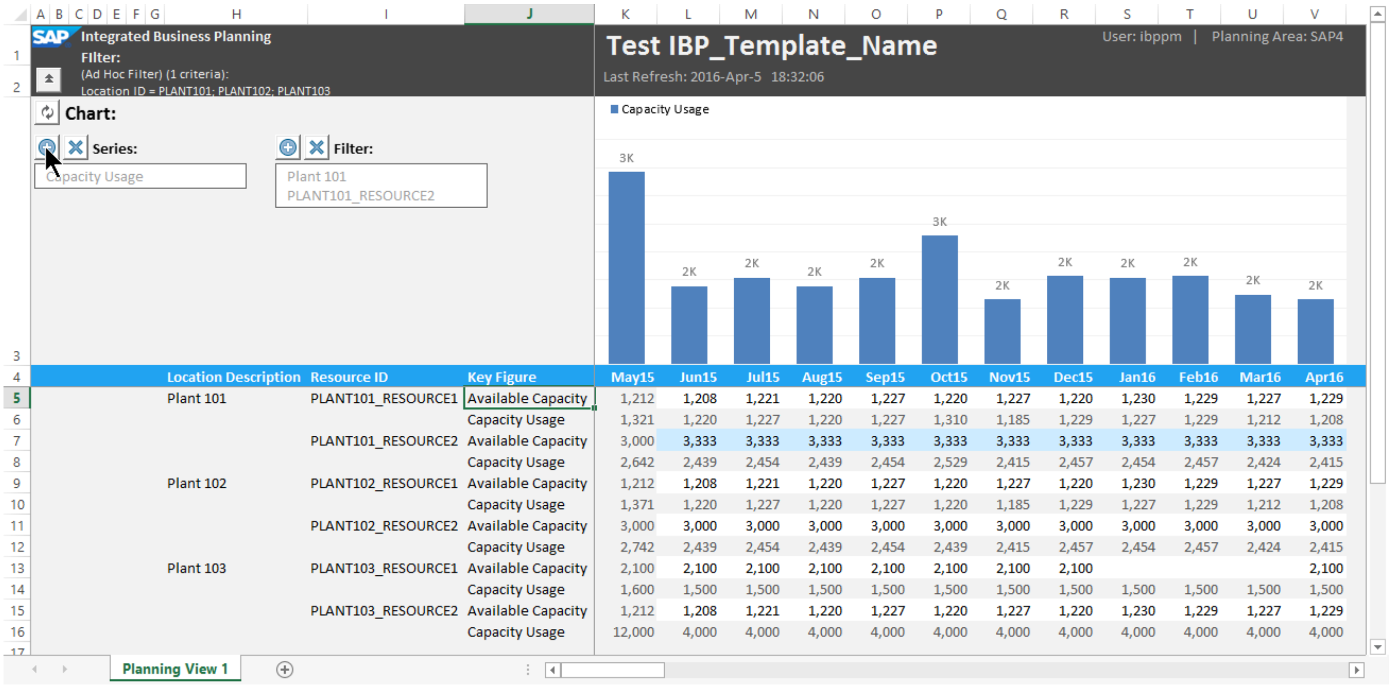
Chart:

Series:

Filter:
Plant 101
PLANT101_RESOURCE2

	Location Description	Resource ID	Key Figure	May15	Jun15	Jul15	Aug15	Sep15	Oct15	Nov15	Dec15	Jan16	Feb16	Mar16	Apr16
5	Plant 101	PLANT101_RESOURCE1	Available Capacity	1,212	1,208	1,221	1,220	1,227	1,220	1,227	1,220	1,230	1,229	1,227	1,229
6			Capacity Usage	1,321	1,220	1,227	1,220	1,227	1,310	1,185	1,229	1,227	1,229	1,212	1,208
7		PLANT101_RESOURCE2	Available Capacity	3,000	3,333	3,333	3,333	3,333	3,333	3,333	3,333	3,333	3,333	3,333	3,333
8			Capacity Usage	2,642	2,439	2,454	2,439	2,454	2,529	2,415	2,457	2,454	2,457	2,424	2,415
9	Plant 102	PLANT102_RESOURCE1	Available Capacity	1,212	1,208	1,221	1,220	1,227	1,220	1,227	1,220	1,230	1,229	1,227	1,229
10			Capacity Usage	1,371	1,220	1,227	1,220	1,227	1,220	1,185	1,229	1,227	1,229	1,212	1,208
11		PLANT102_RESOURCE2	Available Capacity	3,000	3,000	3,000	3,000	3,000	3,000	3,000	3,000	3,000	3,000	3,000	3,000
12			Capacity Usage	2,742	2,439	2,454	2,439	2,454	2,439	2,415	2,457	2,454	2,457	2,424	2,415
13	Plant 103	PLANT103_RESOURCE1	Available Capacity	2,100	2,100	2,100	2,100	2,100	2,100	2,100	2,100				2,100
14			Capacity Usage	1,600	1,500	1,500	1,500	1,500	1,500	1,500	1,500	1,500	1,500	1,500	1,500
15		PLANT103_RESOURCE2	Available Capacity	1,212	1,208	1,221	1,220	1,227	1,220	1,227	1,220	1,230	1,229	1,227	1,229
16			Capacity Usage	12,000	4,000	4,000	4,000	4,000	4,000	4,000	4,000	4,000	4,000	4,000	4,000

Then we add the second key figure in the same way:



Integrated Business Planning
Filter:
(Ad Hoc Filter) (1 criteria):
Location ID = PLANT101; PLANT102; PLANT103

Test IBP_Template_Name
Last Refresh: 2016-Apr-5 18:32:06
User: ibppm | Planning Area: SAP4

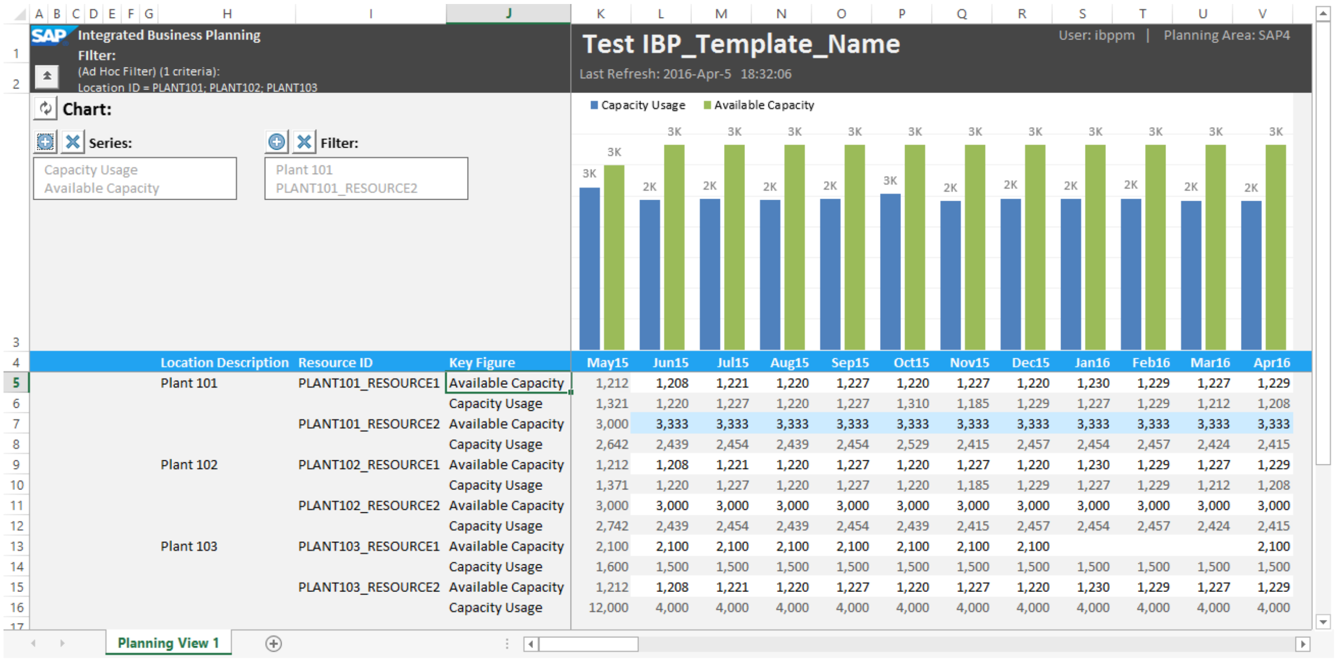
Chart:

Series:
Capacity Usage

Filter:
Plant 101
PLANT101_RESOURCE2

	Location Description	Resource ID	Key Figure	May15	Jun15	Jul15	Aug15	Sep15	Oct15	Nov15	Dec15	Jan16	Feb16	Mar16	Apr16
5	Plant 101	PLANT101_RESOURCE1	Available Capacity	1,212	1,208	1,221	1,220	1,227	1,220	1,227	1,220	1,230	1,229	1,227	1,229
6			Capacity Usage	1,321	1,220	1,227	1,220	1,227	1,310	1,185	1,229	1,227	1,229	1,212	1,208
7		PLANT101_RESOURCE2	Available Capacity	3,000	3,333	3,333	3,333	3,333	3,333	3,333	3,333	3,333	3,333	3,333	3,333
8			Capacity Usage	2,642	2,439	2,454	2,439	2,454	2,529	2,415	2,457	2,454	2,457	2,424	2,415
9	Plant 102	PLANT102_RESOURCE1	Available Capacity	1,212	1,208	1,221	1,220	1,227	1,220	1,227	1,220	1,230	1,229	1,227	1,229
10			Capacity Usage	1,371	1,220	1,227	1,220	1,227	1,220	1,185	1,229	1,227	1,229	1,212	1,208
11		PLANT102_RESOURCE2	Available Capacity	3,000	3,000	3,000	3,000	3,000	3,000	3,000	3,000	3,000	3,000	3,000	3,000
12			Capacity Usage	2,742	2,439	2,454	2,439	2,454	2,439	2,415	2,457	2,454	2,457	2,424	2,415
13	Plant 103	PLANT103_RESOURCE1	Available Capacity	2,100	2,100	2,100	2,100	2,100	2,100	2,100	2,100				2,100
14			Capacity Usage	1,600	1,500	1,500	1,500	1,500	1,500	1,500	1,500	1,500	1,500	1,500	1,500
15		PLANT103_RESOURCE2	Available Capacity	1,212	1,208	1,221	1,220	1,227	1,220	1,227	1,220	1,230	1,229	1,227	1,229
16			Capacity Usage	12,000	4,000	4,000	4,000	4,000	4,000	4,000	4,000	4,000	4,000	4,000	4,000

Now the sequence in the series is reversed compared to the sequence in the axis:



SAP Integrated Business Planning

Filter:

(Ad Hoc Filter) (1 criteria):

Location ID = PLANT101; PLANT102; PLANT103

Test IBP_Template_Name

Last Refresh: 2016-Apr-5 18:32:06

User: ibppm | Planning Area: SAP4

Chart:

Series:

Capacity Usage
Available Capacity

Filter:

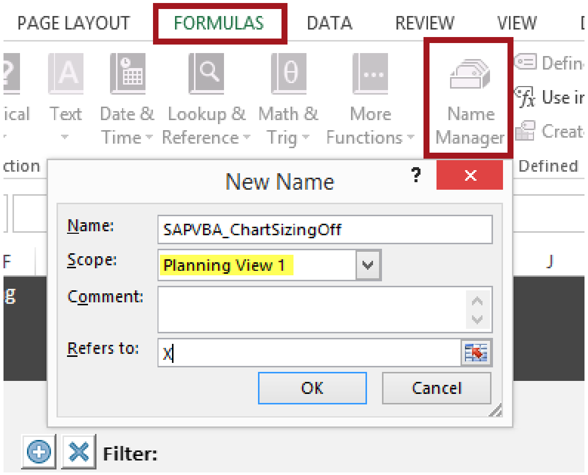
Plant 101
PLANT101_RESOURCE2

Location Description	Resource ID	Key Figure	May15	Jun15	Jul15	Aug15	Sep15	Oct15	Nov15	Dec15	Jan16	Feb16	Mar16	Apr16
Plant 101	PLANT101_RESOURCE1	Available Capacity	1,212	1,208	1,221	1,220	1,227	1,220	1,227	1,220	1,230	1,229	1,227	1,229
		Capacity Usage	1,321	1,220	1,227	1,220	1,227	1,310	1,185	1,229	1,227	1,229	1,212	1,208
	PLANT101_RESOURCE2	Available Capacity	3,000	3,333	3,333	3,333	3,333	3,333	3,333	3,333	3,333	3,333	3,333	3,333
		Capacity Usage	2,642	2,439	2,454	2,439	2,454	2,529	2,415	2,457	2,454	2,457	2,424	2,415
Plant 102	PLANT102_RESOURCE1	Available Capacity	1,212	1,208	1,221	1,220	1,227	1,220	1,227	1,220	1,230	1,229	1,227	1,229
		Capacity Usage	1,371	1,220	1,227	1,220	1,227	1,220	1,185	1,229	1,227	1,229	1,212	1,208
	PLANT102_RESOURCE2	Available Capacity	3,000	3,000	3,000	3,000	3,000	3,000	3,000	3,000	3,000	3,000	3,000	3,000
		Capacity Usage	2,742	2,439	2,454	2,439	2,454	2,439	2,415	2,457	2,454	2,457	2,424	2,415
Plant 103	PLANT103_RESOURCE1	Available Capacity	2,100	2,100	2,100	2,100	2,100	2,100	2,100	2,100				2,100
		Capacity Usage	1,600	1,500	1,500	1,500	1,500	1,500	1,500	1,500	1,500	1,500	1,500	1,500
	PLANT103_RESOURCE2	Available Capacity	1,212	1,208	1,221	1,220	1,227	1,220	1,227	1,220	1,230	1,229	1,227	1,229
		Capacity Usage	12,000	4,000	4,000	4,000	4,000	4,000	4,000	4,000	4,000	4,000	4,000	4,000

Note

- The values you plot by using *Series* must to be from the same column in the row axis.
  If you add a value to either box that conflicts with previous content, the new value will overwrite the existing value or values.
  Local members are exempt from these rules.
- The sequence in *Filter* is irrelevant
- Only if checkbox "Include Totals" is checked, the chart plot time-based Totals or attribute-based Totals
- To render properly the active-x controls an autofit needs to be done for the columns that shows the settings. To also have the possibility to avoid the autofit the template takes the EPM sheet option "autofit column width" as an indicator. If a user does not want the autofit for every column but only for the columns that shows the setting, the user can deselect the EPM sheet option, and set the variable Use EPMAUTOFIT in the vba coding of the sheet to false.
- The chart adapts to the width of the planning view after *Edit View* in two ways:
  - It adjusts the x-axis of the chart automatically to the new number of columns if you edit the view.
  - It resizes the width of the chart's plot area to match the width of the planning view columns after rendering.
    If this feature is not wanted, it can be switched off by creating Excel Name *SAPVBA_ChartSizingOff* like in the following screenshot - make sure to set the scope to the worksheet that contains the chart. Any non-blank value in

this name will switch the sizing off.



New Name

Name: SAPVBA_ChartSizingOff

Scope: Planning View 1

Comment:

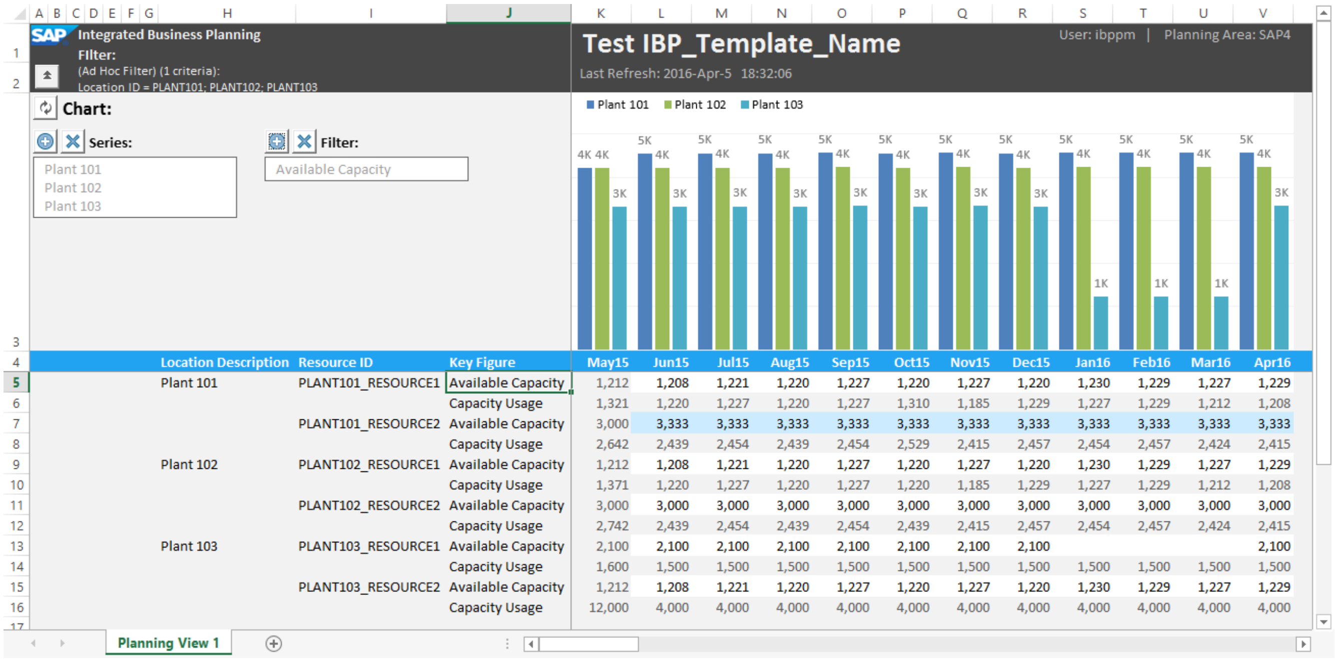
Refers to: X

OK Cancel

Filter:

- You can remove individual items from *Series* or *Filter* by selecting the items you want to remove before clicking ✖. Selecting no or all items clears the control completely.
- The chart updates automatically after *Save Data*, *Simulate*, *Refresh*, *Edit View*, and other functions that cause the planning view to render. It also updates after changes to *Series* and *Filter* wherever possible. It does not react immediately to manual edits, like a chart based on formulas – you need to refresh manually.
- This VBA driven chart is more flexible than our previously published formula based charts. It can handle non-standard layouts and can plot attributes other than key figures or versions.

Consider this chart, where we compare the total available capacity in three plants:



Integrated Business Planning

Filter:

(Ad Hoc Filter) (1 criteria):

Location ID = PLANT101; PLANT102; PLANT103

Test IBP_Template_Name

User: ibppm | Planning Area: SAP4

Last Refresh: 2016-Apr-5 18:32:06

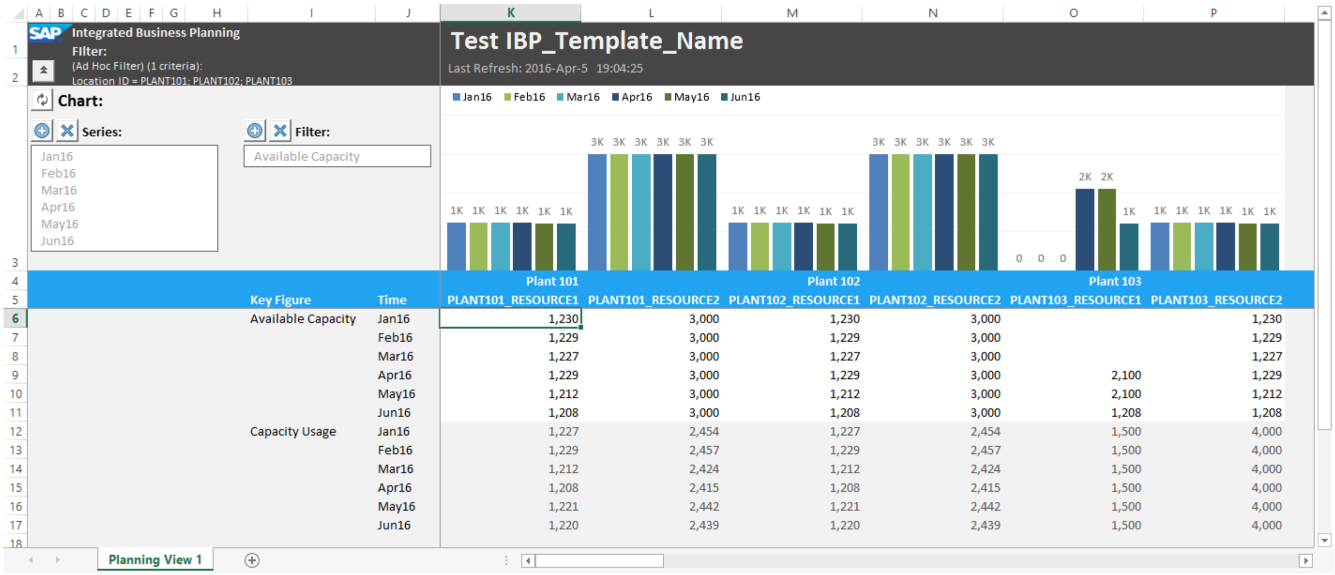
Chart:

Series: Plant 101, Plant 102, Plant 103

Filter: Available Capacity

Location Description	Resource ID	Key Figure	May15	Jun15	Jul15	Aug15	Sep15	Oct15	Nov15	Dec15	Jan16	Feb16	Mar16	Apr16
Plant 101	PLANT101_RESOURCE1	Available Capacity	1,212	1,208	1,221	1,220	1,227	1,220	1,227	1,220	1,230	1,229	1,227	1,229
		Capacity Usage	1,321	1,220	1,227	1,220	1,227	1,310	1,185	1,229	1,227	1,229	1,212	1,208
	PLANT101_RESOURCE2	Available Capacity	3,000	3,333	3,333	3,333	3,333	3,333	3,333	3,333	3,333	3,333	3,333	3,333
		Capacity Usage	2,642	2,439	2,454	2,439	2,454	2,529	2,415	2,457	2,454	2,457	2,424	2,415
Plant 102	PLANT102_RESOURCE1	Available Capacity	1,212	1,208	1,221	1,220	1,227	1,220	1,227	1,220	1,230	1,229	1,227	1,229
		Capacity Usage	1,371	1,220	1,227	1,220	1,227	1,220	1,185	1,229	1,227	1,229	1,212	1,208
	PLANT102_RESOURCE2	Available Capacity	3,000	3,000	3,000	3,000	3,000	3,000	3,000	3,000	3,000	3,000	3,000	3,000
		Capacity Usage	2,742	2,439	2,454	2,439	2,454	2,439	2,415	2,457	2,454	2,457	2,424	2,415
Plant 103	PLANT103_RESOURCE1	Available Capacity	2,100	2,100	2,100	2,100	2,100	2,100	2,100	2,100				2,100
		Capacity Usage	1,600	1,500	1,500	1,500	1,500	1,500	1,500	1,500	1,500	1,500	1,500	1,500
	PLANT103_RESOURCE2	Available Capacity	1,212	1,208	1,221	1,220	1,227	1,220	1,227	1,220	1,230	1,229	1,227	1,229
		Capacity Usage	12,000	4,000	4,000	4,000	4,000	4,000	4,000	4,000	4,000	4,000	4,000	4,000

Or this, where we compare the available capacity of six resources over six months:



SAP Integrated Business Planning

Filter:

(Ad Hoc Filter) (1 criteria):

Location ID = PLANT101; PLANT102; PLANT103

Test IBP_Template_Name

Last Refresh: 2016-Apr-5 19:04:25

Chart:

Series: Jan16, Feb16, Mar16, Apr16, May16, Jun16

Filter: Available Capacity

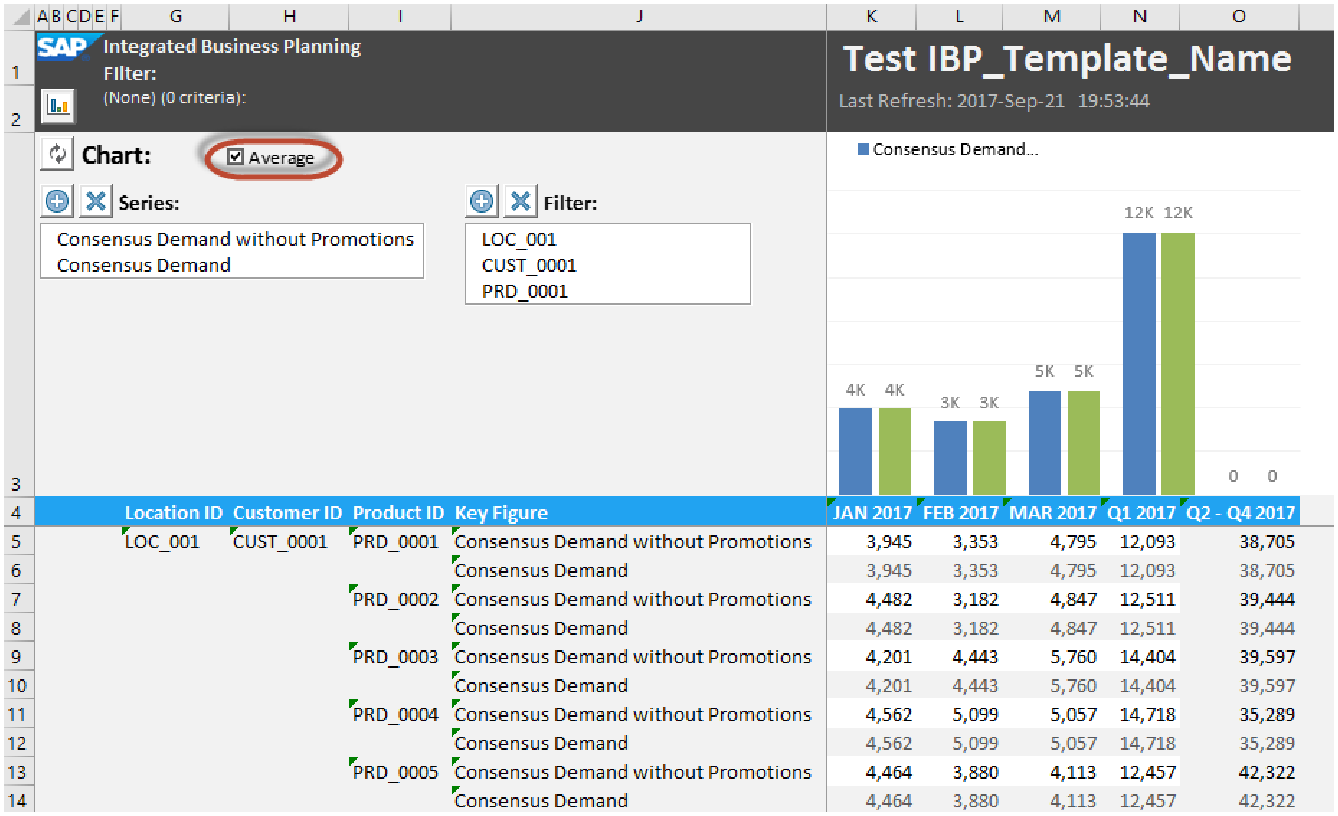
		Plant 101		Plant 102		Plant 103	
Key Figure	Time	PLANT101_RESOURCE1	PLANT101_RESOURCE2	PLANT102_RESOURCE1	PLANT102_RESOURCE2	PLANT103_RESOURCE1	PLANT103_RESOURCE2
Available Capacity	Jan16	1,230	3,000	1,230	3,000		1,230
	Feb16	1,229	3,000	1,229	3,000		1,229
	Mar16	1,227	3,000	1,227	3,000		1,227
	Apr16	1,229	3,000	1,229	3,000	2,100	1,229
	May16	1,212	3,000	1,212	3,000	2,100	1,212
	Jun16	1,208	3,000	1,208	3,000	1,208	1,208
Capacity Usage	Jan16	1,227	2,454	1,227	2,454	1,500	4,000
	Feb16	1,229	2,457	1,229	2,457	1,500	4,000
	Mar16	1,212	2,424	1,212	2,424	1,500	4,000
	Apr16	1,208	2,415	1,208	2,415	1,500	4,000
	May16	1,221	2,442	1,221	2,442	1,500	4,000
	Jun16	1,220	2,439	1,220	2,439	1,500	4,000

Caution

This flexibility makes it easy to add apples to oranges. If, for example, we hadn't filtered by Available Capacity in above chart, the chart would have summed up capacity and usage.

Note

In the second example above, a new row was inserted between rows 3 and 4 to accommodate the extra header line. This action does not cause any issues with the chart.



Integrated Business Planning
Filter:
(None) (0 criteria):

Test IBP_Template_Name
Last Refresh: 2017-Sep-21 19:53:44

Chart: ☑ Average

Series:
Consensus Demand without Promotions
Consensus Demand

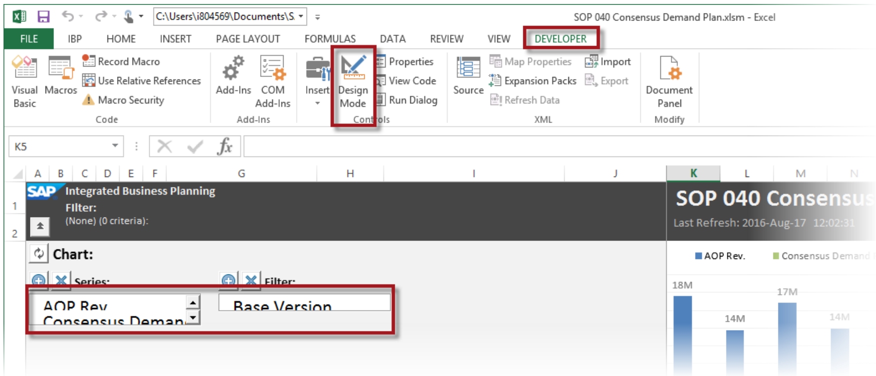
Filter:
LOC_001
CUST_0001
PRD_0001

Location ID	Customer ID	Product ID	Key Figure	JAN 2017	FEB 2017	MAR 2017	Q1 2017	Q2 - Q4 2017
LOC_001	CUST_0001	PRD_0001	Consensus Demand without Promotions	3,945	3,353	4,795	12,093	38,705
			Consensus Demand	3,945	3,353	4,795	12,093	38,705
		PRD_0002	Consensus Demand without Promotions	4,482	3,182	4,847	12,511	39,444
			Consensus Demand	4,482	3,182	4,847	12,511	39,444
		PRD_0003	Consensus Demand without Promotions	4,201	4,443	5,760	14,404	39,597
			Consensus Demand	4,201	4,443	5,760	14,404	39,597
		PRD_0004	Consensus Demand without Promotions	4,562	5,099	5,057	14,718	35,289
			Consensus Demand	4,562	5,099	5,057	14,718	35,289
		PRD_0005	Consensus Demand without Promotions	4,464	3,880	4,113	12,457	42,322
			Consensus Demand	4,464	3,880	4,113	12,457	42,322

By default, the chart plots the sum of values that fit to the selection criteria. If you enable the checkbox “Average” the chart plots the average of the values that fit to the selection criteria.

Finally, button ⏶ / 📊 will collapse / expand row 3 and hide the chart controls – like row grouping would. Please do not use row grouping to hide this row, as the controls can lose their anchor due to an Excel bug.

Another issue with ActiveX controls can be observed if the same workbook is used with different screen resolutions:



Integrated Business Planning
Filter:
(None) (0 criteria):

SOP 040 Consensus
Last Refresh: 2016-Aug-17 12:02:31

Chart:
Series:
AOP Rev
Consensus Deman
Filter:
Base Version

This situation can usually be corrected by toggling the Design Mode on and off (the DEVELOPER tab may need to be switched on to access the button).

ADMIN GUIDE: EMBEDDED VS. VBA ADD-IN INSTALLATION

The VBA-template comes in two flavors:

- **Embedded:**

  With this flavor, all code is in the template.

  The advantage is that the end user does not need to install an additional add-in to run the templates.

  The downside is that the code is replicated in every template and favorite, which makes it impossible to correct a bug in all copies in the code: You would have to correct all templates and ask your end-users to recreate their favorites from the corrected templates.

  To use the embedded template, extract ChartVBA_Embedded.xlsm from the archive delivered with note 1790530 and proceed with the next chapter.

- **With VBA add-in:**

  With this flavor, the central code resides in the VBA add-in, only control events, EPM-events, and control manipulation code is located directly in the template.

  The downside is that users have to install an additional add-in. The advantage is that replacing the VBA add-in with a newer version will correct any central code issue for all favorites and templates without the need to fix individual workbooks.

  To use the VBA add-in, extract SAP_IBP_Chart.xlam from the archive delivered with note 1790530 and place it in **%appdata%\Microsoft\AddIns**. Then open Excel and go to File > Options > Add-Ins. You should see Sap_Ibp_Chart under Inactive Application Add-ins with type Excel Add-in.

  Choose Manage: Excel Add-ins -> Go

  Check the checkbox for Sap_Ibp_Chart and confirm with OK

⚠ Caution:

Certain Excel versions will not load the Excel Add-in unless it is in a trusted location. Go to File > Options > Trust Center > Trust Center Settings… > Trusted Locations > Add new location… > Browse
Copy **%appdata%\Microsoft\AddIns** into the path field. Press OK until done.

Specific MS Excel versions might not load templates properly unless the file path for the related workbook is added as a Trusted Location. To do so, go to File > Options > Trust Center > Trust Center Settings… > Trusted Locations > Add new location… > Browse.

Copy **"C:\Users\<User Name>\Documents\SAP_IBP"** (which is by default file path for IBP workbooks) and paste it into the path field. Press OK until done. If your workbook file path is not at above mentioned location, then you can find your workbook path in Settings option under IBP Excel Add-in. For this open MS Excel > Logon to IBP > Go to Settings… > **File Path for Workbooks** > Add mentioned location as Trusted Location.

Your VBA add-in is installed and ready to use. To update it, replace it with a newer version. You don't need to re-install. Note that all users of the VBA templates will have to install the VBA add-in once.

Now extract ChartVBA_AddIn.xlsm from the archive delivered with note 1790530 and proceed with the next chapter.

ADMIN GUIDE: CREATING A TEMPLATE FROM CHARTVBA*.XLSM

- Open ChartVBA_AddIn.xlsm or ChartVBA_Embedded.xlsm
  (refer to previous chapter to make the choice)

- Choose the worksheet with the chart you prefer – you can delete the other one

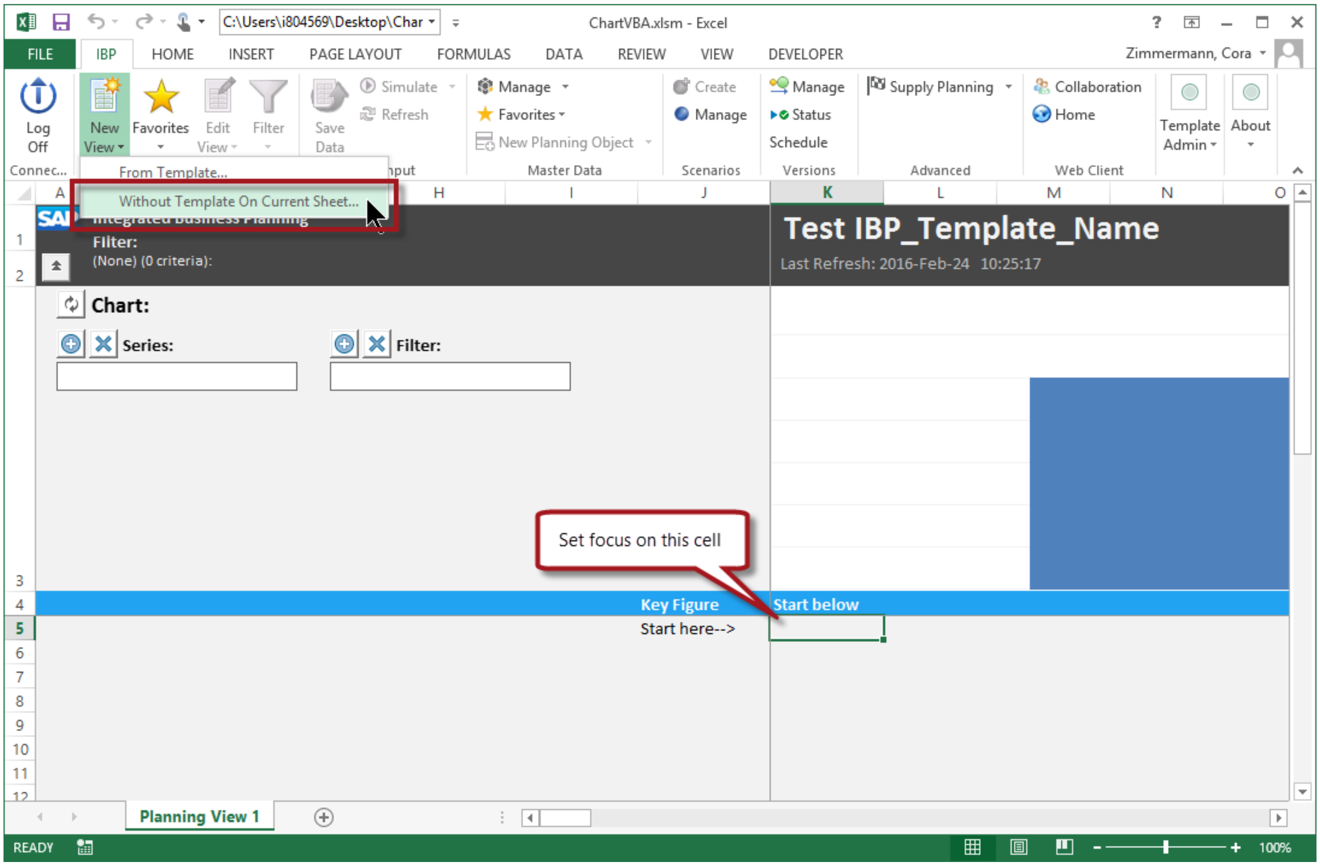
- If desired, adjust the controls, chart, header section, and VBA code as you see fit (refer to chapter "A Look Under the Hood" for more information)

- Note: The **S&OP 3.0** add-in does not support the SOP_Filter_* fields – to avoid confusion, please delete those fields from A1/A2

- If you need more than 10 columns for the row headers, insert more columns and adjust the header section accordingly; repair the headers in what is initially row 4

- For a multi sheet template, copy the sheet as many times as you want. Remember:
  - you can only copy the sheet as long as it has no planning view in it – deleting extra sheets later is no problem
  - if you copy an extra sheet from your "empty template" workbook later, delete any links to the original workbook

- Save your version of the empty template!



- Log on to IBP

- Focus on the cell next to “Start here-->” and below “Start below” and create a planning view using *New View > Without Template On Current Sheet…*:

- When the planning view is rendered, follow the instructions in chapter “User Guide: Working with the Chart” to set meaningful defaults in *Series* and *Filter*

- Repeat the last three steps for every sheet

- Adjust the formatting (note that you can copy an existing formatting sheet from a previous template) – this template comes pre-formatted for flexible key figure editability (see the appendix of this document for more information)

- Hide the formatting sheet, upload your template, and save a versioned copy locally

ℹ Note

If you change Time Settings for any planning view, then the color of time header will change for modified time setting. We keep this behavior because of performance reason. If you want to change this behavior in your planning view,
Open MS Excel > Login to IBP > Open/Create respective Template > Go to Edit view… > Select Sheet Options > Go to Performance group… > Untick the Keep Formulas Static that Reference Planning View Cells > Click on OK.

Unchecking this option might affect the performance of your planning view. You can change this setting for every template.

A LOOK UNDER THE HOOD

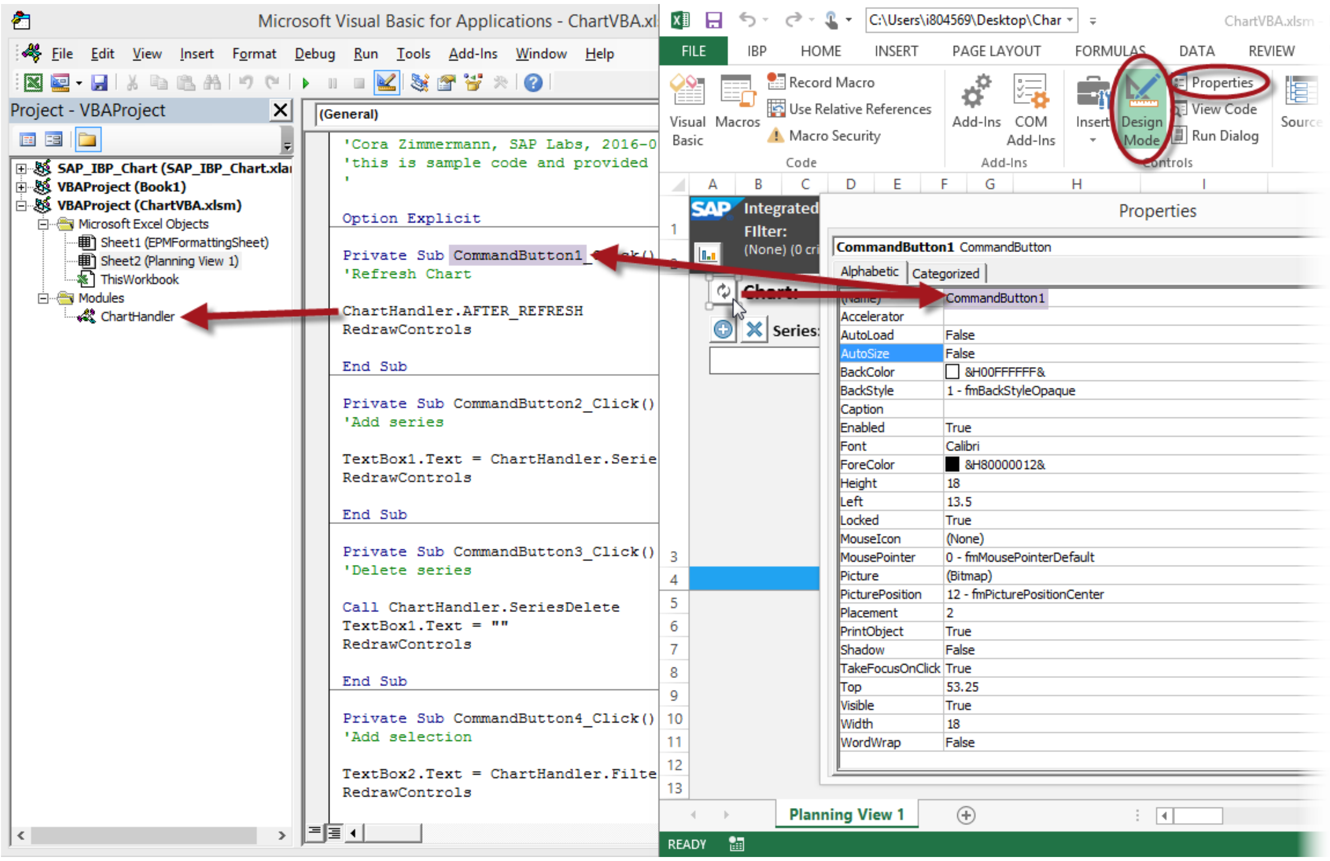
This section addresses template administrators who want to change or enhance the sample code provided with the templates.

Note that the intent of delivering sample templates is to jumpstart the template development within the implementation project. The delivered templates cannot eliminate this very important task, they can only make it easier. Therefore, changes or enhancements to the code by the implementation team is expected.

Support: The code is provided “AS IS” and support may be extended as a courtesy until the code is stable. Any changed code is clearly your responsibility.

To view the code, use Alt+F11 or DEVELOPER → Visual Basic (you may have to customize your ribbon to make the DEVELOPER tab visible).

To make adjustments to the controls, use DEVELOPER → Design Mode, then select the control you want to adjust. Click on DEVELOPER → Properties to change names or captions.



```
'Cora Zimmermann, SAP Labs, 2016-0
'this is sample code and provided
'

Option Explicit

Private Sub CommandButton1_Click()
'Refresh Chart

ChartHandler.AFTER_REFRESH
RedrawControls

End Sub

Private Sub CommandButton2_Click()
'Add series

TextBox1.Text = ChartHandler.Serie
RedrawControls

End Sub

Private Sub CommandButton3_Click()
'Delete series

Call ChartHandler.SeriesDelete
TextBox1.Text = ""
RedrawControls

End Sub

Private Sub CommandButton4_Click()
'Add selection

TextBox2.Text = ChartHandler.Filte
RedrawControls
```

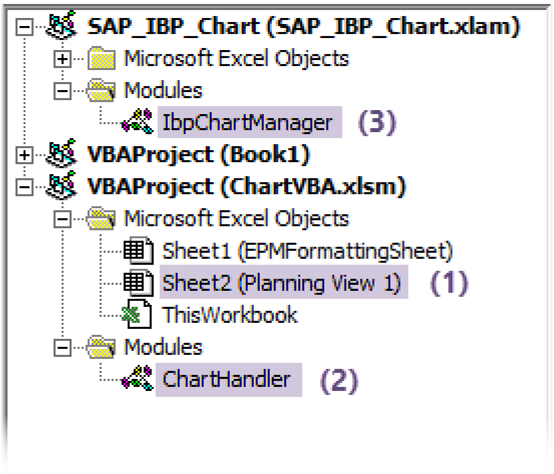
Properties

CommandButton1 CommandButton

Alphabetic | Categorized

(Name)	CommandButton1
Accelerator	
AutoLoad	False
AutoSize	False
BackColor	□ &H00FFFFFF&
BackStyle	1 - fmBackStyleOpaque
Caption	
Enabled	True
Font	Calibri
ForeColor	■ &H80000012&
Height	18
Left	13.5
Locked	True
MouseIcon	(None)
MousePointer	0 - fmMousePointerDefault
Picture	(Bitmap)
PicturePosition	12 - fmPicturePositionCenter
Placement	2
PrintObject	True
Shadow	False
TakeFocusOnClick	True
Top	53.25
Visible	True
Width	18
WordWrap	False

Depending on whether you are using the embedded template or the VBA add-in, you will find VBA code in two or three places:



- **SAP_IBP_Chart (SAP_IBP_Chart.xlam)**
  - Microsoft Excel Objects
  - Modules
    - IbpChartManager (3)
- **VBAProject (Book1)**
- **VBAProject (ChartVBA.xlsm)**
  - Microsoft Excel Objects
    - Sheet1 (EPMFormattingSheet)
    - Sheet2 (Planning View 1) (1)
    - ThisWorkbook
  - Modules
    - ChartHandler (2)

(1) In the sheet with the chart and planning view:

Both flavors have a slim code layer behind the Excel worksheet. This layer provides two kinds of services:

- CommandButton<n>_Click()
  These subroutines handle the user’s button click. They call the logic in the central code and fill or clear the corresponding text box. Two routines collapse / expand the chart-line (line 3).
  Except for the collapse subroutine, they then call the second service:

- RedrawControls()
  This subroutine resizes and re-positions all controls except collapse / expand to repair any movement / distortion and to adjust to the width of the text box content. The central code also calls back into this method (if you rename it, adjust those calls, too).

If you make any adjustments to these controls you may have to change the corresponding code.

This sheet-dependent code will be copied with the sheet, if you create a multi-sheet template.

(2) In module ChartHandler

In the embedded flavor of the template, this module contains the EPM-hook for AFTER_REFRESH() and all central code.

In the add-in flavor of the template this module contains only the EPM-hook AFTER_REFRESH(). The central code is in the add-in (point 3).

AFTER_REFRESH() is a function called by the IBP add-in's EPM layer after every rendering of a planning view, no matter how it is triggered (refresh, simulate, save data, new view, edit view, open favorite/template, sheet options, …).

In the VBA templates, the AFTER_REFRESH-hook is used to auto-update the chart.

(3) In SAP_IBP_Chart, module IbpChartManager

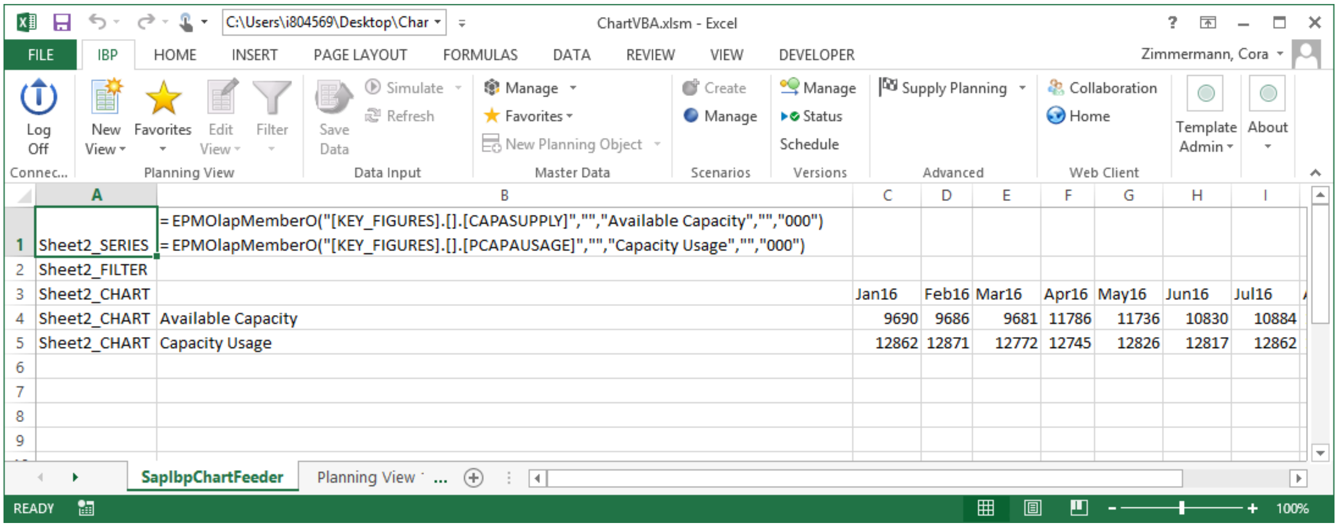
This is the VBA add-in. It is an xlam-add-in, which is basically an empty workbook with VBA code and a special extension (.xlam).

The IbpChartManager module is almost identical to ChartHandler in the embedded version. The only difference is the missing AFTER_REFRESH(), which needs to be in the active workbook to be found by EPM.

The templates use a helper sheet, named *SapIbpChartFeeder*. In case the sheet is deleted, you will have to re-select your *Series* and *Filter* - the system will regenerate the sheet automatically when you do.

SapIbpChartFeeder serves all chart-sheets in the workbook.

It remembers *Series* and *Filter* selections per sheet and holds the numbers to plot:



	A	B	C	D	E	F	G	H	I
1	Sheet2_SERIES	=EPMOlapMemberO("[KEY_FIGURES].[].[CAPASUPPLY]","","Available Capacity","","000") =EPMOlapMemberO("[KEY_FIGURES].[].[PCAPAUSAGE]","","Capacity Usage","","000")							
2	Sheet2_FILTER								
3	Sheet2_CHART		Jan16	Feb16	Mar16	Apr16	May16	Jun16	Jul16
4	Sheet2_CHART	Available Capacity	9690	9686	9681	11786	11736	10830	10884
5	Sheet2_CHART	Capacity Usage	12862	12871	12772	12745	12826	12817	12862
6									
7									
8									
9									

It uses the code name of the sheet (here *Sheet2* is the code name of *Planning View 1*), so renaming your planning view sheet doesn't break the link between the sheets.

The VBA code in *ChartHandler* or *IbpChartManager* links the chart to its data, so extending the series or the width of the planning view does not require manual intervention.

ChartHandler/IbpChartManager also senses the position of the planning view, so adding columns to accommodate more planning levels does not require any manual intervention.

If the series labels in the chart's legend don't update correctly, right-click the chart, chose "Select Data…" and extend the selection to cover column B, where the system puts the series labels. Doing this once should fix the issue permanently.

APPENDIX: FORMATTING KEY FIGURES EDITABLE IN THE PAST

The checkbox *Inputable* (using property *CALC* with values Y/N) works on entire rows and columns. A cell is editable only if all column and row attribute values relevant for the cell are editable.

Assume you have key figures in rows and time buckets in columns. Each key figure and time bucket only has one *CALC* flag: Either editable or not editable. Past time buckets are always flagged as "not editable". They cannot be flagged as editable for one key figure and as not editable for a different key figure.

Therefore, flexible key figure editability cannot be formatted this way. IBP provides these two properties:

Property *Editable Indicator* for dimension *Key Figures* with these values:

- **ALL**
- **FUTURE**
- **PAST**
- **NONE**

Property *Past Current Future Indicator* for time dimensions with these values:

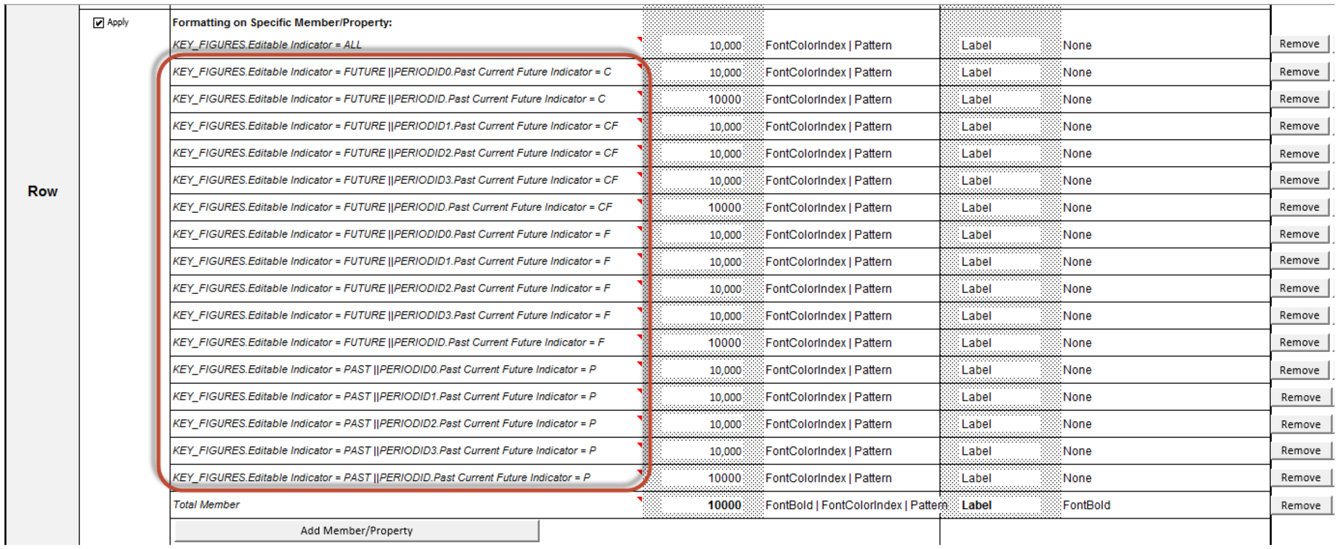
- **P** (past – all time dimensions)
- **C** (current – lowest granularity)
- **F** (future – all time dimensions)
- **PC** (past and current – aggregated time dimensions, e.g. Q1 in March)
- **PCF** (past, current, and future – aggregated time dimensions, e.g. Q1 in February)
- **CF** (current and future – aggregated time dimensions, e.g. Q1 in January)

The system will allow editing for these property value combinations:

Editable Indicator (Key Figures)	**Past Current Future Indicator** (Time)
ALL	(irrelevant)
FUTURE	C
FUTURE	CF
FUTURE	F
PAST	P

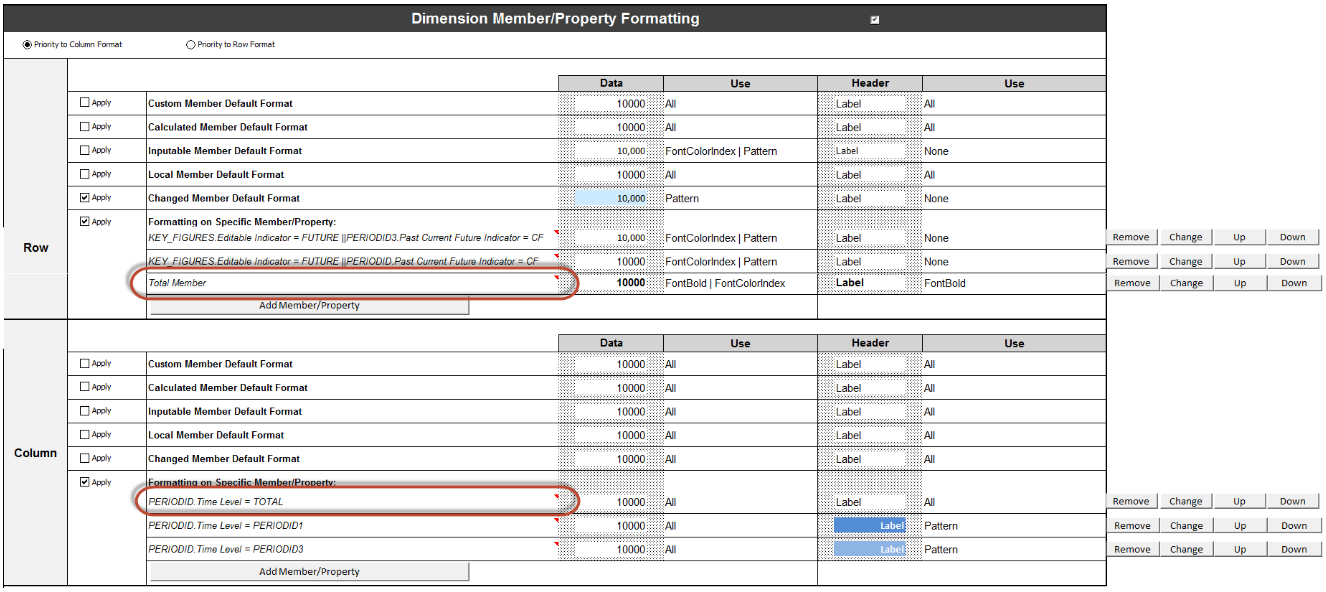
To give special formatting to editable cells, the formatting instructions need to match those property combinations for all aggregation levels in your time profile that are relevant for your template.

Below are the formatting instructions delivered with this note. They are maintained for a four-tier time profile including PERIODID for flexible time axis. It is safe to remove all instructions for PERIODID3 if your time profile only has three tiers:



Row	☑ Apply	Formatting on Specific Member/Property:					
		KEY_FIGURES.Editable Indicator = ALL	10,000	FontColorIndex | Pattern	Label	None	Remove
		KEY_FIGURES.Editable Indicator = FUTURE ||PERIODID0.Past Current Future Indicator = C	10,000	FontColorIndex | Pattern	Label	None	Remove
		KEY_FIGURES.Editable Indicator = FUTURE ||PERIODID.Past Current Future Indicator = C	10000	FontColorIndex | Pattern	Label	None	Remove
		KEY_FIGURES.Editable Indicator = FUTURE ||PERIODID1.Past Current Future Indicator = CF	10,000	FontColorIndex | Pattern	Label	None	Remove
		KEY_FIGURES.Editable Indicator = FUTURE ||PERIODID2.Past Current Future Indicator = CF	10,000	FontColorIndex | Pattern	Label	None	Remove
		KEY_FIGURES.Editable Indicator = FUTURE ||PERIODID3.Past Current Future Indicator = CF	10,000	FontColorIndex | Pattern	Label	None	Remove
		KEY_FIGURES.Editable Indicator = FUTURE ||PERIODID.Past Current Future Indicator = CF	10000	FontColorIndex | Pattern	Label	None	Remove
		KEY_FIGURES.Editable Indicator = FUTURE ||PERIODID0.Past Current Future Indicator = F	10,000	FontColorIndex | Pattern	Label	None	Remove
		KEY_FIGURES.Editable Indicator = FUTURE ||PERIODID1.Past Current Future Indicator = F	10,000	FontColorIndex | Pattern	Label	None	Remove
		KEY_FIGURES.Editable Indicator = FUTURE ||PERIODID2.Past Current Future Indicator = F	10,000	FontColorIndex | Pattern	Label	None	Remove
		KEY_FIGURES.Editable Indicator = FUTURE ||PERIODID3.Past Current Future Indicator = F	10,000	FontColorIndex | Pattern	Label	None	Remove
		KEY_FIGURES.Editable Indicator = FUTURE ||PERIODID.Past Current Future Indicator = F	10000	FontColorIndex | Pattern	Label	None	Remove
		KEY_FIGURES.Editable Indicator = PAST ||PERIODID0.Past Current Future Indicator = P	10,000	FontColorIndex | Pattern	Label	None	Remove
		KEY_FIGURES.Editable Indicator = PAST ||PERIODID1.Past Current Future Indicator = P	10,000	FontColorIndex | Pattern	Label	None	Remove
		KEY_FIGURES.Editable Indicator = PAST ||PERIODID2.Past Current Future Indicator = P	10,000	FontColorIndex | Pattern	Label	None	Remove
		KEY_FIGURES.Editable Indicator = PAST ||PERIODID3.Past Current Future Indicator = P	10,000	FontColorIndex | Pattern	Label	None	Remove
		KEY_FIGURES.Editable Indicator = PAST ||PERIODID.Past Current Future Indicator = P	10000	FontColorIndex | Pattern	Label	None	Remove
		Total Member	**10000**	FontBold | FontColorIndex | Pattern	**Label**	FontBold	Remove
		Add Member/Property					

If you need to maintain these instructions yourself, note that depending on the time you do this, not all indicators are sent for all time buckets. For example, the CF indicator for a year is only sent in January, since as of February the year already contains a past month and the current year is sent with indicator PCF, all other years either with P or F. At this point in time, you cannot set the CF-instruction for the year.



Dimension Member/Property Formatting ☑

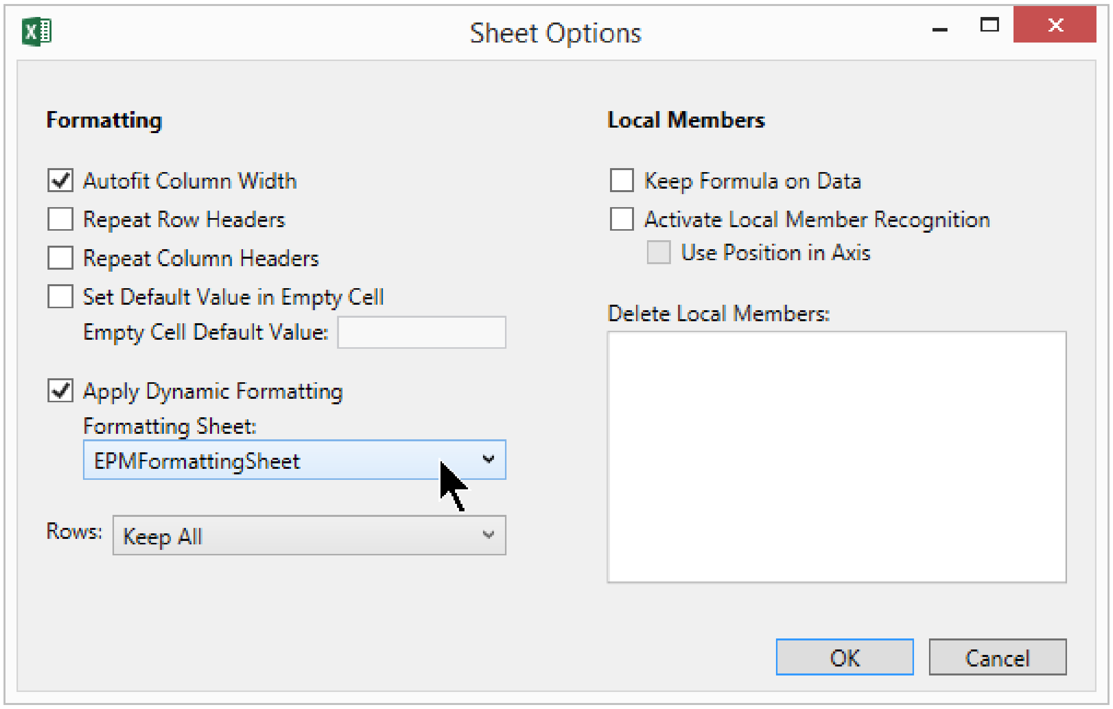
● Priority to Column Format ○ Priority to Row Format

			Data	Use	Header	Use				
Row	☐ Apply	Custom Member Default Format	10000	All	Label	All				
	☐ Apply	Calculated Member Default Format	10000	All	Label	All				
	☐ Apply	Inputable Member Default Format	10,000	FontColorIndex | Pattern	Label	None				
	☐ Apply	Local Member Default Format	10000	All	Label	All				
	☑ Apply	Changed Member Default Format	10,000	Pattern	Label	None				
	☑ Apply	Formatting on Specific Member/Property:								
		KEY_FIGURES.Editable Indicator = FUTURE ||PERIODID3.Past Current Future Indicator = CF	10,000	FontColorIndex | Pattern	Label	None	Remove	Change	Up	Down
		KEY_FIGURES.Editable Indicator = FUTURE ||PERIODID.Past Current Future Indicator = CF	10000	FontColorIndex | Pattern	Label	None	Remove	Change	Up	Down
		Total Member	**10000**	FontBold | FontColorIndex	**Label**	FontBold	Remove	Change	Up	Down
		Add Member/Property								

			Data	Use	Header	Use				
Column	☐ Apply	Custom Member Default Format	10000	All	Label	All				
	☐ Apply	Calculated Member Default Format	10000	All	Label	All				
	☐ Apply	Inputable Member Default Format	10000	All	Label	All				
	☐ Apply	Local Member Default Format	10000	All	Label	All				
	☐ Apply	Changed Member Default Format	10000	All	Label	All				
	☑ Apply	Formatting on Specific Member/Property:								
		PERIODID.Time Level = TOTAL	10000	All	Label	All	Remove	Change	Up	Down
		PERIODID.Time Level = PERIODID1	10000	All	Label	Pattern	Remove	Change	Up	Down
		PERIODID.Time Level = PERIODID3	10000	All	Label	Pattern	Remove	Change	Up	Down
		Add Member/Property								

Formatting rules also exist for attribute-based Totals and time-based Totals. Formatting rule for attribute-based Totals was inserted in the Row section, formatting rule for time-based Totals was inserted in Column section.

To introduce these instructions into an existing template, or vice versa, you can copy only the formatting sheet into a template workbook. Rename and delete the formatting sheets as needed. Use the sheet options to make sure all planning view sheets refer to the correct formatting sheet (Planning View → Edit View → Sheet Options):



Sheet Options

Formatting

☑ Autofit Column Width

□ Repeat Row Headers

□ Repeat Column Headers

□ Set Default Value in Empty Cell

Empty Cell Default Value:

☑ Apply Dynamic Formatting

Formatting Sheet: EPMFormattingSheet

Rows: Keep All

Local Members

□ Keep Formula on Data

□ Activate Local Member Recognition

□ Use Position in Axis

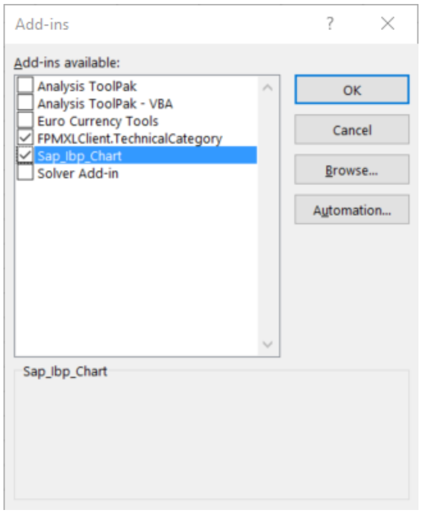
Delete Local Members:

APPENDIX: ADD PERIOD START DATE IN A ROW

APPENDIX: PACKAGING VBA ADD-ON

If you provide the vba add-on to a lot of users, please consider to package the vba add-on with the SAP_IBP_Chart.xlam file. If the following is not considered the xlam add-on is not activated automatically. Manually it could be done by the following actions:

- Choose Manage: Excel Add-ins -> Go
- Check the checkbox for Sap_Ibp_Chart and confirm with OK



Add-ins available:

☐ Analysis ToolPak
☐ Analysis ToolPak - VBA
☐ Euro Currency Tools
☑ FPMXLClient.TechnicalCategory
☑ Sap_Ibp_Chart
☐ Solver Add-in

Sap_Ibp_Chart

Provide the following registry entry within the package.

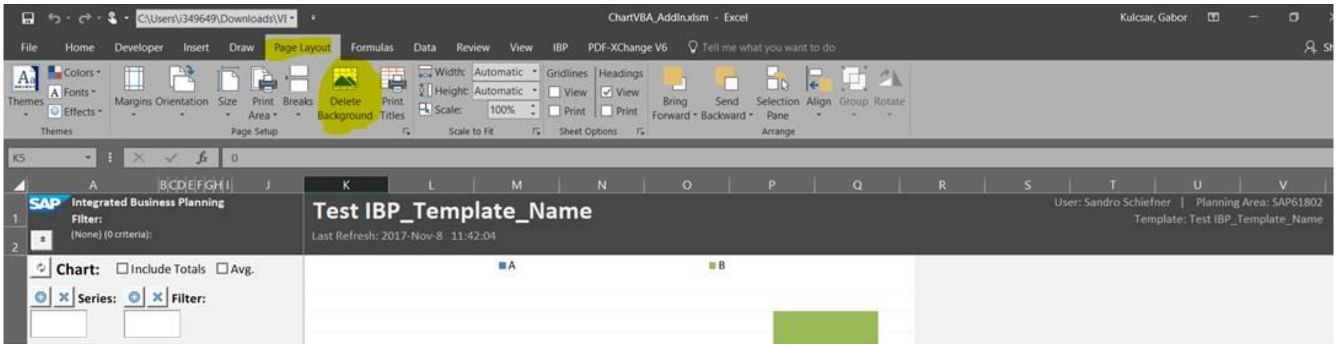
Excel Chart Addin:
[HKEY_CURRENT_USER\SOFTWARE\Microsoft\Office\15.0\Excel\options]
"OPEN10"="SAP_IBP_Chart.xlam"

The key OPEN10 is used, because it will not override potential existing add-ons. If excel is initially started a proper key is assigned.

With this approach, it is not possible to deactivate xlam add-on because the proper key could not be retrieved anymore.

APPENDIX: CHOOSE A DIFFERENT BACKGROUND

If you want a different background for the template, you can first delete the grey background via Page Layout → Delete Background and then insert a new background.


C:\Users\i349649\Downloads\VI
ChartVBA_AddIn.xlsm - Excel
Kulcsar, Gabor
File
Home
Developer
Insert
Draw
Page Layout
Formulas
Data
Review
View
IBP
PDF-XChange V6
Tell me what you want to do
Themes
Colors
Fonts
Effects
Margins
Orientation
Size
Print Area
Breaks
Delete Background
Print Titles
Page Setup
Width: Automatic
Height: Automatic
Scale: 100%
Scale to Fit
Gridlines
View
Print
Headings
View
Print
Sheet Options
Bring Forward
Send Backward
Selection Pane
Align
Group
Rotate
Arrange
K5
0
Integrated Business Planning
Filter:
(None) (0 criteria):
Test IBP_Template_Name
Last Refresh: 2017-Nov-8 11:42:04
User: Sandro Schiefner | Planning Area: SAP61802
Template: Test IBP_Template_Name
Chart:
Include Totals
Avg.
Series:
Filter:
A
B