Working with Key Performance Indicators (KPIs) in SAP Business One, version for SAP HANA

All Countries

SAP

Typographic Conventions

Type Style	Description
Example	Words or characters quoted from the screen. These include field names, screen titles, pushbuttons labels, menu names, menu paths, and menu options. Textual cross-references to other documents.
Example	Emphasized words or expressions.
`EXAMPLE`	Technical names of system objects. These include report names, program names, transaction codes, table names, and key concepts of a programming language when they are surrounded by body text, for example, SELECT and INCLUDE.
`Example`	Output on the screen. This includes file and directory names and their paths, messages, names of variables and parameters, source text, and names of installation, upgrade and database tools.
`Example`	Exact user entry. These are words or characters that you enter in the system exactly as they appear in the documentation.
`<Example>`	Variable user entry. Angle brackets indicate that you replace these words and characters with appropriate entries to make entries in the system.
`EXAMPLE`	Keys on the keyboard, for example, F2 or ENTER.

Document History

Version	Date	Change
1.0	<2014-01-20>	First version for SAP Business One 9.0, version for SAP HANA PL09

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1 Introduction

A Key Performance Indicator (KPI) helps you evaluate the status of business in an easy-to-view way. You can now design KPIs using the pervasive analytics designer and view them in the cockpit.

2 Designing KPIs Using the Pervasive Analytics Designer

Prerequisites

- You have installed Microsoft Internet Explorer 9.0 or later.
- You have installed the Extreme App Framework. For more information about installing the Extreme App Framework, see *Working with Extreme App Framework for SAP Business One* in the documentation area of SAP Business One Customer Portal at http://service.sap.com/smb/sbocustomer/documentation.
- You have authorizations for the query manager. To grant authorizations for the query manager to users, from the SAP Business One, version for SAP HANA *Main Menu*, choose *Administration → System Initialization → Authorizations → General Authorizations*. In the *Authorizations* window, select the user to whom you want to grant the authorizations, and in *Reports → Query Manager*, select *Full Authorization*.

Procedure

1. In the SAP Business One, version for SAP HANA toolbar, choose 🗠 (*Pervasive Analytics Designer*).
   The *Pervasive Analytics Designer* window appears.

   > **i** Note
   >
   > Only users with authorizations for the query manager can access this window.

2. To design a KPI, choose the *New KPI* button.
   The *New KPI <number>* tab appears. The data source section on the left displays the following:
   o All the system and customized *SELECT* queries for which you have authorizations.
   o Deployed analytic and calculation views in the SAP HANA database.

   > **i** Note
   >
   > To grant the query authorizations to users, from the SAP Business One, version for SAP HANA *Main Menu*, choose *Administration → System Initialization → Authorizations → General Authorizations*. In the *Authorizations* window, select the user to whom you want to grant the authorizations, and in *Reports → Query Generator → <query group>,* select *Full Authorization*.

3. On the left of the pervasive analytics designer, in the data source section, select the query or view based on which you want to design a KPI.
   Its measures, dimensions, and parameters appear.
   Measures appear with the 🗠 label.
   String type dimensions appear with the 🏷 label.
   Date type dimensions appear with the 🕐 label.
   Parameters appear with the 🔧 label.

4. On the *Value Settings* tab, specify various settings. For more information, see Value Settings Tab.

5. [Optional] On the *Filter & Parameter* tab, specify filters and parameters. For more information, see *Filter & Parameter Tab*.

    ℹ Note

    You must add the dimension *KPI Factor Internal Key* or *KPI Factor Name* as a filter if you selected a measure from views *KPIBalanceSheetQuery*, *KPICashFlowStatementQuery*, or *KPIProfitAndLosssQuery*. For more information, see Filter & Parameter Tab and Financial KPI Factors.

6. [Optional] On the *Composite KPIs* tab, specify the variables if you are designing a KPI that consists of other KPIs. For more information, see Composite KPI Tab.

    ℹ Note

    KPI value is taken either from the KPI value box on the *Value Settings* tab or from the expression result on the *Composite KPIs* tab. Therefore, you cannot specify a measure in the KPI value box on the *Value Settings* tab if you are designing a composite KPI.

7. [Optional] In the preview area, choose *Status Displaying* and define the display settings. For more information, see Status Displaying Section.

8. To save the KPI, at the top of the KPI tab, choose the 💾 (*Save*) button.

    To save the changes as another KPI, at the top of the KPI tab, choose the 💾 (*Save As*) button.

2.1   Value Settings Tab

Procedure

On the *Value Settings* tab, perform the following:

1. Specify the KPI name and description.

    The KPI name appears as the tab name and also appears in the up left corner of the preview area. The KPI description appears as a tooltip when you place your mouse cursor over the KPI name.

2. In the data source section, in a query or view, select a measure, and drag it to the value box of the *Set KPI Value* section.

    The preview area is refreshed and the sum or average of the KPI value appears.

    The name of the selected query or view appears in the *From Data Source* field at the bottom of the *Set KPI Value* section.

3. [Optional] In the data source section, in the same query or view, select a date dimension, and drag it to the date dimension box of the *Set KPI Value* section.

    The preview area is refreshed and the KPI value is calculated according to the date range you specified.

4. [Optional] In the *Unit* dropdown list of the *Set KPI Value* section, select the unit that you want to display behind the KPI value.

    The preview area is refreshed and the selected unit appears behind the KPI value.

5. In the *Set Goal* section, perform the following to define a basic goal or an advanced goal.

    o To define a basic goal, specify a goal name, and specify a number as the goal value.

- To define an advanced goal, specify a goal name. If you selected a measure from a query as your KPI value, select a measure from the same query category as your goal value; if you selected a measure from a view as your KPI value, select a measure from any query as your goal value.

  The first value of the measure will be the goal value.

If the KPI value is greater than the goal value, an up arrow appears before the KPI value in the preview area. If the KPI value is equal to the goal value, there is nothing before the KPI value in the preview area. If the KPI value is less than the goal value, a down arrow appears before the KPI value in the preview area.

The preview area is refreshed as follows:

- The goal name and goal value appear in a tooltip when you place your mouse cursor over the KPI value.
- The arrow (if the KPI value is not equal to the goal value) appears before the KPI value.
- The color of the arrow (if the KPI value is not equal to the goal value) and the KPI value is updated. The color of the arrow and the KPI value are determined by the settings in the *Status Displaying* section and the status of the *Smaller Is Better* checkbox.

  i Note

  If you have changed any default settings in the *Status Displaying* section since you created the KPI, the status change of the *Smaller Is Better* checkbox will **NOT** determine the color of the arrow (if the KPI value is not equal to the goal value) and the KPI value.

6. [Optional] In the *Set KPI Trend* section, perform the following to define a basic trend or an advanced trend.
   - To define a basic trend, specify a trend name and select the trend type.

     Example

     For the month-on-month basis, the trend value will be the compared percentage between the KPI value of this month and that of last month. For the month-over-month basis, the trend value will be the compared percentage between the KPI value of this month and that of the same month last year.

   - For an advanced trend, if you selected a measure from a query as your KPI value, select a measure from the same query category as your trend value; if you selected a measure from a view as your KPI value, select a measure from any query as your trend value.

     The first value of the measure will be the trend value.

If the trend value is greater than zero, an up arrow appears before the trend value in the preview area. If the trend value is equal to zero, there is nothing before the trend value in the preview area. If the trend value is less than zero, a down arrow appears before the trend value in the preview area.

The preview area is refreshed as follows:

- The trend name and trend value appear in a tooltip when you place your mouse cursor over the KPI value.
- The trend value appears in the lower right corner of the preview area.
- The arrow (if the trend value is not zero) appears before the trend value.
- The color of the arrow (if the trend value is not zero) is updated. The color of the arrow is determined by the status of the *Smaller Is Better* checkbox.

  i Note

  If you have changed any default settings in the *Status Displaying* section since you created the KPI, the status change of the *Smaller Is Better* checkbox will not immediately refresh the preview area. The color of the trend arrow will be refreshed the next time you open this KPI.

7. [Optional] To make this KPI unavailable for display in the cockpit, select the *Interim* checkbox. This means that the KPI will only be the component of other KPIs, and will not be available for display in the cockpit.

8. [Optional] Select the *Smaller Is Better* checkbox to indicate that the smaller the value than the goal value, the better the result.

The status of this checkbox determines the color of the arrow before the trend value.

The status of this checkbox, together with the settings in the *Status Displaying* section, determines the color of the following:

o   Arrow before the KPI value (if the KPI value is not equal to the goal value)

o   KPI value

i Note

If you have changed any default settings in the *Status Displaying* section since you created the KPI, the status change of the *Smaller Is Better* checkbox will not immediately refresh the preview area. The color of the trend arrow will be refreshed the next time you open this KPI.

i Note

If you have changed any default settings in the *Status Displaying* section since you created the KPI, the status change of the *Smaller Is Better* checkbox will **NOT** determine the color of the arrow (if the KPI value is not equal to the goal value) and the KPI value.

2.2   Filter & Parameter Tab

Prerequisite

You have dragged a measure from a query or view to the value box of the *Set KPI Value* section on the *Value Settings* tab.

Procedure

On the *Filter & Parameter* tab, perform the following:

1.   In the data source section, in the same query or view from which you dragged the KPI value, select a dimension and drag it to the filter box.
    The *Filter Editor* window appears.

2.   Perform the following based on the type of the dimension:

o   In the *Filter Editor* window for a string type dimension, select or enter a filtering value, and choose the *Add Value* button.

    The filtering value is added to the *Active Filters* section.

o   In the *Filter Editor* window for a date type dimension, define a time range.

3.   To save the filter settings, in the *Filter Editor* window, choose the *Add* button.

The preview area is refreshed according to the added filters.

i Note

> If you selected a measure from views *KPIBalanceSheetQuery*, *KPICashFlowStatementQuery*, or *KPIProfitAndLosssQuery,* you must add the dimension *KPI Factor Internal Key* or *KPI Factor Name* as a filter. For more information, see Financial KPI Factors.

4. In the data source section, in the same query or view from which you dragged the KPI value, select a parameter and drag it to the parameter box.

    The *Parameter Editor* window appears.

5. Perform the following based on the type of the parameter:

    o   In the *Parameter Editor* window for a date type parameter, specify a default date.

    o   In the *Parameter Editor* window for a number type parameter, specify a default number.

    o   In the *Parameter Editor* window for a string type parameter, specify a default value.

6. To save the parameter settings in the *Parameter Editor* window, choose the *Add* button.

    The preview area is refreshed according to the added parameters.

i Note

> Some parameters are labeled with a red rectangle. To get a meaningful KPI value, you must drag those parameters to the parameter box.

2.2.1   Financial KPI Factors

A financial KPI factor links a KPI and an item in the financial report templates. You define financial KPI factors in the *Financial KPI Factor - Setup* window. To open this window, from the SAP Business One, version for SAP HANA *Main Menu*, choose *Administration → Setup → Financials →Financial KPI Factors*. SAP Business One, version for SAP HANA provides 28 predefined financial KPI factors.

In views *KPIBalanceSheetQuery*, *KPICashFlowStatementQuery*, or *KPIProfitAndLosssQuery*, the measures that are defined as the KPI values do not retrieve data directly from the database. Only after you set the dimension *KPI Factor Internal Key* or *KPI Factor Name* as a filter, does the KPI value retrieve data from the financial report template item that is linked to the financial KPI factor.

Procedure

To link a financial KPI factor to an item in the financial report template, follow the procedure below:

1. From the SAP Business One, version for SAP HANA *Main Menu*, choose *Financials → Financial Report Templates*.

    The *Financial Report Templates* window appears.

2. In the *Financial Report Templates* window, select a template from report *Balance Sheet*, *Profit and Loss*, or *Statement of Cash Flows*.

    The template appears on the right.

3. In the *Financial KPI Factors* section, in the *Factor* field, enter the factor code, or press `Tab` to select a factor.

4. To save the link, in the *Financial Report Templates* window, choose the *Update* button.

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Procedure

To set the dimension *KPI Factor Internal Key* or *KPI Factor Name* as a filter, follow the procedure below:

1. In the data source section, in the same query or view from which you dragged the KPI value, select *KPI Factor Internal Key* or *KPI Factor Name*, and drag it to the filter box.

   The *Filter Editor* window appears, displaying all the financial KPI factors that contain values.

2. In the *Filter Editor* window, select the available KPI, or enter a financial KPI factor code (if you dragged the *KPI Factor Internal Key* dimension) or financial KPI factor name (if you dragged the *KPI Factor Name* dimension), and choose the *Add Value* button.

   The financial KPI factor is added to the *Active Filters* section.

3. To save the filter settings, choose the *Add* button.

   The preview area is refreshed and the KPI value is retrieved from the financial report template item.

2.3   Composite KPI Tab

When you select the *Composite KPI* tab, the data source section displays all the KPIs in the database, including interim KPIs.

Procedure

On the *Composite KPIs* tab, perform the following:

1. From the KPI list section, drag a KPI to the variable box.

   The dragged KPI is labeled as a variable.

2. In the *Expression* field, specify the expression using the variables.

   The preview area is refreshed, and the result of the calculated expression appears as the KPI value.

2.4   Status Displaying Section

Procedure

In the *Status Displaying* section, perform the following:

1. Select the separator type.

2. In the two value boxes, perform the following based on the separator type you selected:

   o If you selected *Specific Value*, enter specific values to act as the separators for different colors.

   o If you selected *Ratio of KPI to Goal*, enter numbers with percentage symbols to act as the separators for different colors.

3. In the three colored dropdown lists, select the colors to represent the three separated parts.

4. You can click the color bar to add a separator.

5. To delete the separator, choose 🗑 (*Delete*) beside the value box.
6. To save the display settings, choose the *OK* button.

   The preview area is refreshed. The colors of the KPI and the arrow before the KPI value (if the KPI value is not equal to the goal value) are updated.

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3 Viewing KPIs in the Cockpit

Depending on the authorizations that you have been granted, you can view SAP-defined KPIs for working capital management, financial statements, and performance management, as well as the KPIs that are designed based on user-defined queries, analytic views, and calculation views.

> ℹ **Note**
>
> The predefined KPIs are available for the following charts of accounts:

Chart of Accounts	Local Settings
M - 股份有限公司会计制度	P.R.China
C - US_CoA	United States Of America
N - SKR03	Germany
G - GB_CoA	United Kingdom

Prerequisites

- Your system administrator or key user has done the following:
  - Enabled the cockpit at company level by selecting the *Enable Cockpit at Company Level* checkbox on the *Cockpit* tab of the *General Settings* window. To open this window, from the SAP Business One, version for SAP HANA *Main Menu*, choose *Administration → System Initialization → General Settings*.
  - Assigned the user authorizations for *Cockpit & Widget*. To grant the *Cockpit & Widget* authorizations to users, from the SAP Business One, version for SAP HANA *Main Menu*, choose *Administration → System Initialization → Authorizations → General Authorizations*. In the *Authorizations* window, select the user to whom you want to grant the authorizations, and in *Cockpit & Widget*, select *Full Authorization*.
- You have enabled the cockpit at user level by choosing *Tools →Cockpit →Enable My Cockpit* in the SAP Business One, version for SAP HANA menu bar.

Procedure

1. From the SAP Business One, version for SAP HANA navigation panel on the left side of the window, under *My Cockpit*, select the cockpit you want to use.

   The cockpit appears.
2. In the navigation panel, choose *Widget Gallery → General Widgets*.
3. Click *KPI Widget* and drag it into the open cockpit area.

   A window appears.
4. To add a KPI to your cockpit, in the top right of the window, choose ✎ (*Tools*).
5. From the dropdown list, choose *Settings*.

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The *Select KPI* window appears, listing all the KPIs.

6. To add one or more KPIs to the cockpit, select the appropriate checkbox.

   i Note

   Make sure that you have authorizations for the data sources based on which the selected KPIs are designed. To grant the query authorizations to users, from the SAP Business One, version for SAP HANA *Main Menu*, choose *Administration → System Initialization → Authorizations → General Authorizations*. In the *Authorizations* window, select the user to whom you want to grant the authorizations, and in *Reports → Query Generator → <query group>,* select *Full Authorization*.

7. To confirm your choices, choose the *OK* button.

   The selected KPIs appear.

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4 Managing KPIs in the Pervasive Analytics Designer

Prerequisites

- You have installed Microsoft Internet Explorer 9.0 or later.
- You have installed the Extreme App Framework. For more information about installing the Extreme App Framework, see *Working with Extreme App Framework for SAP Business One* in the documentation area of SAP Business One Customer Portal at http://service.sap.com/smb/sbocustomer/documentation.
- You have authorizations for the query manager. To grant authorizations for the query manager to users, from the SAP Business One, version for SAP HANA *Main Menu*, choose *Administration → System Initialization → Authorizations → General Authorizations*. In the *Authorizations* window, select the user to whom you want to grant authorizations, and in *Reports → Query Manager,* select *Full Authorization*.

Procedure

1. In the SAP Business One, version for SAP HANA toolbar, choose 📊 (*Pervasive Analytics Designer*).
   The *Pervasive Analytics Designer* window appears.

   > **ℹ Note**
   >
   > Only users with authorizations for the query manager can access this window.

2. On the *Home* tab, in the *My KPIs* section, you can find all the KPIs.
   For those KPIs for whose data source you have authorizations, you can perform the following:
   o Select each KPI to view its contents.
   o To delete a KPI, hover your mouse over the relevant KPI, choose the ✖ icon, and choose the *Yes* button in the system message.

   > **ℹ Note**
   >
   > To grant the query authorizations to users, from the SAP Business One, version for SAP HANA *Main Menu*, choose *Administration → System Initialization → Authorizations → General Authorizations*. In the *Authorizations* window, select the user to whom you want to grant the authorizations, and in *Reports → Query Generator → <query group>,* select *Full Authorization*.

5 Predefined KPIs: CN, DE, UK, and US

ℹ Note

The predefined KPIs are available for the following charts of accounts:

Chart of Accounts	Local Settings
M - 股份有限公司会计制度	P.R.China
C - US_CoA	United States Of America
N - SKR03	Germany
G - GB_CoA	United Kingdom

SAP Business One, version for SAP HANA provides 35 predefined KPIs. You can find the names and their corresponding descriptions in the table below.

KPI Name	KPI Description	Interim or Not
Accounts Payable	Account payable amount on the current day	Yes
Accounts Receivable	Account receivable amount on the current day	Yes
Asset Turnover	Asset turnover ratio up to today in the current month	No
CCC	Cash conversion cycle up to today in the current month	No
COGS	Costs of goods sold up to today in the current month	Yes
Cash	Total amount of cash and monetary capital on the current day	Yes
Cash Ratio (by Profit)	Net cash flow spent on operating activities as a percentage of the net profit gained. The value is up to today in the current month.	No
Cash Ratio (by Revenue)	Net cash flow spent on operating activities as a percentage of the net sales revenue achieved. The value is up to today in the current month.	No
Current Ratio	Current ratio on the current day	No
DIO	Days of inventory outstanding up to today in the current month	No
DPO	Days of payable outstanding up to today in the current month	No
DSO	Days of sales outstanding up to today in the current month	No
Debt Ratio	Debt ratio on the current day	No
Gearing	A proportion of the debt to the equity on the current day	No
Gross Profit	Gross profit amount gained up to today in the current month	No
Gross Profit Margin	Gross profit margin up to today in the current month	No

KPI Name	KPI Description	Interim or Not
Inventory	Inventory amount on the current day	Yes
Inventory Turnover	Inventory turnover ratio up to today in the current month	No
Net Cashflow (Financial)	Net cash flow amount spent on financing activities up to today in the current month	No
Net Cashflow (Investment)	Net cash flow amount spent on investing activities up to today in the current month	No
Net Cashflow (Operating)	Net cash flow amount spent on operating activities up to today in the current month	No
Net Profit	Net profit amount gained up to today in the current month	No
Net Profit Margin	Net profit margin up to today in the current month	No
Net Sales Revenue	Net sales revenue amount achieved up to today in the current month	No
OC	Operating cycle up to today in the current month	No
Operating Income	Operating income gained up to today in the current month	No
Operating Margin	Operating margin up to today in the current month	No
Quick Ratio	Quick ratio on the current day	No
ROE	Return on equity up to today in the current month	No
Total Assets	Total assets on the current day	No
Total Current Assets	Total current assets amount on the current day	Yes
Total Current Liabilities	Total current liabilities amount on the current day	Yes
Total Equity	Total equity on the current day	No
Total Liabilities	Total liabilities on the current day	No
Working Capital	Total working capital up to the current day	No