Working with Key Performance Indicators (KPIs) in SAP Business One, version for SAP HANA
All Countries
## Typographic Conventions

<table>
<thead>
<tr>
<th>Type Style</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Example</strong></td>
<td>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.</td>
</tr>
<tr>
<td><strong>Example</strong></td>
<td>Emphasized words or expressions.</td>
</tr>
<tr>
<td><strong>EXAMPLE</strong></td>
<td>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.</td>
</tr>
<tr>
<td><strong>Example</strong></td>
<td>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.</td>
</tr>
<tr>
<td><strong>Example</strong></td>
<td>Exact user entry. These are words or characters that you enter in the system exactly as they appear in the documentation.</td>
</tr>
<tr>
<td><code>&lt;Example&gt;</code></td>
<td>Variable user entry. Angle brackets indicate that you replace these words and characters with appropriate entries to make entries in the system.</td>
</tr>
<tr>
<td><strong>EXAMPLE</strong></td>
<td>Keys on the keyboard, for example, F2 or ENTER.</td>
</tr>
</tbody>
</table>
# Document History

<table>
<thead>
<tr>
<th>Version</th>
<th>Date</th>
<th>Change</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.0</td>
<td>&lt;2014-01-20&gt;</td>
<td>First version for SAP Business One 9.0, version for SAP HANA PL09</td>
</tr>
</tbody>
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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 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.

   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:
   - All the system and customized SELECT queries for which you have authorizations.
   - Deployed analytic and calculation views in the SAP HANA database.

   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.

   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 KPIProfitAndLossQuery.
   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.

   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 are 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.

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.

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

   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.

   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.
If you selected a measure from views **KPIBalanceSheetQuery**, **KPICashFlowStatementQuery**, or **KPIProfitAndLossQuery**, 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:
   - In the **Parameter Editor** window for a date type parameter, specify a default date.
   - In the **Parameter Editor** window for a number type parameter, specify a default number.
   - 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.

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

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

<table>
<thead>
<tr>
<th>Chart of Accounts</th>
<th>Local Settings</th>
</tr>
</thead>
<tbody>
<tr>
<td>M - 股份有限公司会计制度</td>
<td>P.R.China</td>
</tr>
<tr>
<td>C - US_CoA</td>
<td>United States Of America</td>
</tr>
<tr>
<td>N - SKR03</td>
<td>Germany</td>
</tr>
<tr>
<td>G - GB_CoA</td>
<td>United Kingdom</td>
</tr>
</tbody>
</table>

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](Tools).
5. From the dropdown list, choose **Settings**.
The **Select KPI** window appears, listing all the KPIs.

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

   - **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.
4 Managing KPIs in the Pervasive Analytics Designer

Prerequisites

- You have installed Microsoft Internet Explorer 9.0 or later.
- 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.

   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:

   - Select each KPI to view its contents.
   - To delete a KPI, hover your mouse over the relevant KPI, choose the icon, and choose the Yes button in the system message.

   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

Note

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

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</tr>
<tr>
<td>N - SKR03</td>
<td>Germany</td>
</tr>
<tr>
<td>G - GB_CoA</td>
<td>United Kingdom</td>
</tr>
</tbody>
</table>

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

<table>
<thead>
<tr>
<th>KPI Name</th>
<th>KPI Description</th>
<th>Interim or Not</th>
</tr>
</thead>
<tbody>
<tr>
<td>Accounts Payable</td>
<td>Account payable amount on the current day</td>
<td>Yes</td>
</tr>
<tr>
<td>Accounts Receivable</td>
<td>Account receivable amount on the current day</td>
<td>Yes</td>
</tr>
<tr>
<td>Asset Turnover</td>
<td>Asset turnover ratio up to today in the current month</td>
<td>No</td>
</tr>
<tr>
<td>CCC</td>
<td>Cash conversion cycle up to today in the current month</td>
<td>No</td>
</tr>
<tr>
<td>COGS</td>
<td>Costs of goods sold up to today in the current month</td>
<td>Yes</td>
</tr>
<tr>
<td>Cash</td>
<td>Total amount of cash and monetary capital on the current day</td>
<td>Yes</td>
</tr>
<tr>
<td>Cash Ratio (by Profit)</td>
<td>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.</td>
<td>No</td>
</tr>
<tr>
<td>Cash Ratio (by Revenue)</td>
<td>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.</td>
<td>No</td>
</tr>
<tr>
<td>Current Ratio</td>
<td>Current ratio on the current day</td>
<td>No</td>
</tr>
<tr>
<td>DIO</td>
<td>Days of inventory outstanding up to today in the current month</td>
<td>No</td>
</tr>
<tr>
<td>DPO</td>
<td>Days of payable outstanding up to today in the current month</td>
<td>No</td>
</tr>
<tr>
<td>DSO</td>
<td>Days of sales outstanding up to today in the current month</td>
<td>No</td>
</tr>
<tr>
<td>Debt Ratio</td>
<td>Debt ratio on the current day</td>
<td>No</td>
</tr>
<tr>
<td>Gearing</td>
<td>A proportion of the debt to the equity on the current day</td>
<td>No</td>
</tr>
<tr>
<td>Gross Profit</td>
<td>Gross profit amount gained up to today in the current month</td>
<td>No</td>
</tr>
<tr>
<td>Gross Profit Margin</td>
<td>Gross profit margin up to today in the current month</td>
<td>No</td>
</tr>
<tr>
<td>KPI Name</td>
<td>KPI Description</td>
<td>Interim or Not</td>
</tr>
<tr>
<td>--------------------------</td>
<td>---------------------------------------------------------------------------------</td>
<td>----------------</td>
</tr>
<tr>
<td>Inventory</td>
<td>Inventory amount on the current day</td>
<td>Yes</td>
</tr>
<tr>
<td>Inventory Turnover</td>
<td>Inventory turnover ratio up to today in the current month</td>
<td>No</td>
</tr>
<tr>
<td>Net Cashflow (Financial)</td>
<td>Net cash flow amount spent on financing activities up to today in the current month</td>
<td>No</td>
</tr>
<tr>
<td>Net Cashflow (Investment)</td>
<td>Net cash flow amount spent on investing activities up to today in the current month</td>
<td>No</td>
</tr>
<tr>
<td>Net Cashflow (Operating)</td>
<td>Net cash flow amount spent on operating activities up to today in the current month</td>
<td>No</td>
</tr>
<tr>
<td>Net Profit</td>
<td>Net profit amount gained up to today in the current month</td>
<td>No</td>
</tr>
<tr>
<td>Net Profit Margin</td>
<td>Net profit margin up to today in the current month</td>
<td>No</td>
</tr>
<tr>
<td>Net Sales Revenue</td>
<td>Net sales revenue amount achieved up to today in the current month</td>
<td>No</td>
</tr>
<tr>
<td>OC</td>
<td>Operating cycle up to today in the current month</td>
<td>No</td>
</tr>
<tr>
<td>Operating Income</td>
<td>Operating income gained up to today in the current month</td>
<td>No</td>
</tr>
<tr>
<td>Operating Margin</td>
<td>Operating margin up to today in the current month</td>
<td>No</td>
</tr>
<tr>
<td>Quick Ratio</td>
<td>Quick ratio on the current day</td>
<td>No</td>
</tr>
<tr>
<td>ROE</td>
<td>Return on equity up to today in the current month</td>
<td>No</td>
</tr>
<tr>
<td>Total Assets</td>
<td>Total assets on the current day</td>
<td>No</td>
</tr>
<tr>
<td>Total Current Assets</td>
<td>Total current assets amount on the current day</td>
<td>Yes</td>
</tr>
<tr>
<td>Total Current Liabilities</td>
<td>Total current liabilities amount on the current day</td>
<td>Yes</td>
</tr>
<tr>
<td>Total Equity</td>
<td>Total equity on the current day</td>
<td>No</td>
</tr>
<tr>
<td>Total Liabilities</td>
<td>Total liabilities on the current day</td>
<td>No</td>
</tr>
<tr>
<td>Working Capital</td>
<td>Total working capital up to the current day</td>
<td>No</td>
</tr>
</tbody>
</table>