Insight Tile KPI Definition

SYSPRO 8

Reference Guide

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Insight Tile Definition

Insight Tile Definition

Exploring

Where it fits in?

This program lets you define specific thresholds for targets or key performance indicators (KPIs) and highlight these values on business insight tiles.

This program lets you create and deploy business insight tiles, as well as define specific thresholds for targets or key performance indicators (KPIs) and highlight these values within the tiles.

Things you can do in this program include:

- View a list of custom and standard tiles
- Create new business insight tiles
- Deploy business insight tiles
- Define thresholds for tiles
- Define the visual change in tiles when the threshold is reached
- Import business insight tiles
- Export existing business insight tiles

Navigation

- This program is accessed from the **Program List** pane of the SYSPRO menu:

  SYSPRO Programs > Administration > General Setup

Terminology

Business Activity Query (BAQ)

SYSPRO Business Activity Queries are SQL views that are created in the relevant company databases and (because they are defined in SYSPRO) are recognized as data sources. They provide a view into the business data commonly used during the typical business management process. The queries are built and secured in the core ERP system and then surfaced to users via their enterprise reporting and connectivity solutions.

Business insight tiles

Business insight tiles (also called insight tiles or just tiles) are essentially SQL scripts displayed in a tile format within a SYSPRO web view. These tiles are context-driven and let you act instantly on events, facilitating informed business decisions and sound business behavior.

KPIs on tiles can be used to highlight values approaching or exceeding pre-determined objectives or thresholds. This lets you proactively keep an eye on approaching targets. These targets could be a certain value, company-wide goal or a specific target agreed for a person or a role within the organization.

Data source

In the context of SYSPRO Business insight tiles and SYSPRO Business Activity Queries, a data source can be considered as one of the following:

- SYSPRO base table (e.g. InvMaster)

- SYSPRO custom form table (e.g. InvMaster+)

- SYSPRO Business View

- User defined base table (i.e. any base table in the current database that is not part of the standard SYSPRO database)

- User defined custom form table (i.e. any base table defined with a trailing + sign that doesn't form part of the standard custom table definitions)

- User defined views (i.e. any view in the company database that is not defined as a SYSPRO Business View)

Solving

System messages

Warning messages

The critical low threshold value must be less than the warning low threshold value

Cause

This message is displayed if the values you have entered are incorrect.

Solution

The value of the warning threshold must be less than the value of the critical threshold.

The critical high threshold value must be higher than the warning high threshold value

Cause

This message is displayed in the **Insight Tile Definition** program if the values you have entered are incorrect.

Solution

The value of the warning threshold must be less than the value of the critical threshold.

The icon is invalid. Use the browse to see a list of valid icons

Cause

This message is displayed if you typed the icon name into the field and the icon does not exist.

Solution

Search for and select the applicable icon from the list to ensure you use the correct name.

FAQs

Creating business insight tiles and selecting data sources

How do I create a new business insight tile?

You can either create a new business insight tile from scratch, or copy an existing one and then change the tile details:

1. Open the **Insight Tile Definition** program (*SYSPRO Programs > Administration > General Setup*).

2. To create a new tile definition:

   - Select the **New Tile** function.

   To copy an existing tile:

   - Select the applicable tile in the **Tiles** pane.

   - Select the **Create From** function from the toolbar of the **Tile Builder** program.

   The **New Tile** window of the **Tile Builder** program is displayed.

3. Configure the following tile details and select **OK**:

   - Tile description

   - Associated key type

   - Tile title

   - Variables

   > The variables will be replaced at run time using the output of the tile summary SQL script.

4. Select the **Edit Tile Summary** function to configure the SQL script that is used to render the summary tile values – including the main tile value, together with optional subtitle and footer values.

   You can use a simple-to-use interface to have the SQL statement generated, or you can define a custom SQL script, which provides more flexibility when presenting sophisticated information.

5. Select the **Save and Close** function.

   You are returned to the **Insight Tile Definition** program.

6. Select the **Edit Tile Detail** function to configure the SQL script that is used to render the detail list view column values. These values are displayed when clicking on the tile to zoom into the details.

You can use a simple-to-use interface to have the SQL statement generated, or you can define a custom SQL script, which provides more flexibility when presenting sophisticated information.

7. Preview the tile in the **Insight Tile Definition** program.

8. Assign KPIs by selecting the **Add** hyperlink of the applicable column in the **Tiles** list view.

> 💡 Once the business insight tile has been created, it can be assigned to a workspace using the **Visual Designer** program.

How do I define the data source for a business insight tile?

1. Open the **Insight Tile Definition** program (*SYSPRO Programs > Administration > General Setup*).

2. Select the **New Tile** function to create a custom tile.

   The **Tile Builder** program is launched.

   a. Enter the tile details within the **New Tile** window.

   b. Select the **Edit Tile Summary** function.

      The **Tile Builder - SQL Definition** program is displayed.

      > ℹ️ You can also manually edit the SQL statement by selecting the **Edit Tile Detail** button. This displays the **SQL Query Script** pane.

   c. From the **SQL Select** pane, use the **Select data source** function at the **Primary data source** field to indicate the anchor data source.

      The **Data Sources** program is displayed.

   d. Select the relevant table from the **Data Sources** list view.

      Once you have selected the data source it is displayed in square brackets next to the **Primary data source** field in the **Tile Builder - SQL Definition** program.

   e. Select the **Save and Close** function to exit the **Tile Builder** program.

3. Exit the **Insight Tile Definition** program.

How do I specify the data to be used for the business insight tile value?

1. Open the **Insight Tile Definition** program (*SYSPRO Programs > Administration > General Setup*).

2. Create a custom tile (or select an existing business insight tile).

   The **Tile Builder** program is launched.

a. Select the **Edit Tile Summary** function.

The **Tile Builder - SQL Definition** program is displayed.

> ℹ️ You can also manually edit the SQL statement by selecting the **Edit Tile Detail** button. This displays the **SQL Query Script** pane.

b. From the **SQL Select** pane, indicate the anchor data source at the **Primary data source** field.

> 💡 You can use the **Select data source** function to search for and select the data source using the **Data Sources** program.

c. Once the main data source has been defined, select the **Select column** function at the **Value** field.

The **Data Sources** program is launched.

d. Select the relevant column from the **Columns for Data Source** list view.

Once you have selected the column, the column name is displayed next to the **Value** field in the **Tile Builder - SQL Definition** program.

e. Select the **Save and Close** function to exit the **Tile Builder** program.

3. Exit the **Insight Tile Definition** program.

Using KPIs within business insight tiles
How do I add key performance indicators (KPIs) to a business insight tile?

The following explains how to add key performance indicators to a business insight tile:

1. Open the **Insight Tile Definition** program (*SYSPRO Programs > Administration > General Setup*).

2. From the **Tiles** pane, highlight the tile for which you want to add KPIs.

3. Depending on the level at which the tile must be deployed, select the **Add** or **Edit KPI** hyperlink of the appropriate column:

▪ **System KPI**

This lets you add or maintain the tile at system-wide level (i.e. all operators will be able to see the tile).

▪ **Company KPI**

This lets you add or maintain the tile at company level (i.e. all operators that have access to the defined company will be able to see the tile).

▪ **Role KPI**

This lets you add or maintain the tile at role level (i.e. operators within the defined role(s) will be able to see the tile).

- **Operator KPI**

  This lets you add or maintain the tile at operator level (i.e. only the operator for whom the tile is created will be able to see the tile).

  The **Tile KPI Maintenance** program is launched.

4. From the **Items** pane, select the **Add** or **Edit** function of the **Edit** column.

   The **KPI Properties** pane is then available for editing.

5. Edit the KPI properties as required.

6. Select the **Save KPI** function.

7. Exit the **Tile KPI Maintenance** program.

8. Exit the **Insight Tile Definition** program.

Why can't I enter a specific target value when defining KPIs for a tile?

You can't select a target value for **Minimizing** or **Maximizing** type tile goals. You can only use a fixed target value if the selected type goal is defined as **Target Value**.

What happens if I change the icon on an existing business insight tile?

If you change the icon on an existing tile, then the warning icon overrides the existing icon when the warning value has been reached or exceeded.

Similarly, the critical icon will override the warning icon if the critical threshold is reached or exceeded.

Using

Attributes

When creating a standard tile in a SYSPRO web view, you can specify the following attributes:

- Tile name
- Optional parameter values to be used at run time
- Tile width (small or large)
- Main text color
- Tile background color
- Optional icon and icon color

When adding KPI attributes to a tile, the tile value is compared to pre-defined thresholds.

When these thresholds are reached or exceeded, the visual appearance of the tile can change. This draws the user's attention, enabling them to take the appropriate action.

Therefore, the following tile attributes can be changed when a threshold is reached or exceeded:

- Main value text color
- Tile background color
- Optional icon and icon color

KPI goals and thresholds

When defining a KPI against a business insight tile, one of the following objectives must be specified for the threshold creation:

- Minimizing
  - The ideal value must be as small as possible.
  - The value can be negative or zero.
  - The tile can have a warning high and a critical high threshold.
- Maximizing
  - The ideal value must be as large as possible.
  - The tile can have a warning low and a critical low threshold.
- Target value
  - The ideal tile value is fixed to a predefined value.
  - The value has high and low thresholds.
  - The warning and critical values lie within a range.

    □ The tile can have a warning high and a critical high threshold, for both high and low values.

Warning and Critical Thresholds

You can define the warning and critical thresholds and indicate whether the value only has to be reached or exceeded.

- When the warning threshold is reached or exceeded, a certain set of attributes is applied (e.g. an orange background).

- When a critical threshold is reached or exceeded, another set of attributes is applied (e.g. a red background).

> If no threshold is reached, the original tile attributes (defined at the time of creating the tile) are used.

KPI levels

KPIs against business insight tiles can be created for a number of different levels:

- **System KPI**

  This lets you add or maintain the tile at system-wide level (i.e. all operators will be able to see the tile).

- **Company KPI**

  This lets you add or maintain the tile at company level (i.e. all operators that have access to the defined company will be able to see the tile).

- **Role KPI**

  This lets you add or maintain the tile at role level (i.e. operators within the defined role(s) will be able to see the tile).

- **Operator KPI**

  This lets you add or maintain the tile at operator level (i.e. only the operator for whom the tile is created will be able to see the tile).

Hints and Tips

- Columns in a list view are sometimes hidden by default. You can reinstate them using the **Field Chooser** option from the context-sensitive menu (displayed by right-clicking a header column header in the list view). Select and drag the required column to a position in the list view header.

- Press CTRL+F1 within a list view or form to view a complete list of functions available.

Referencing

Menu and Toolbar

Field	Description
File	
Close	This returns you to the previous screen.
View	
Refresh View	This refreshes the **Tiles** list view.
Filter KPI Where Used	When ticked, only tiles that are used are displayed in the list view.

Close

This closes the current window or program.

⟳ Refresh View

This refreshes the list of business insight tiles and their KPIs.

Filter KPI Where Used

This lets you filter the business insight tiles displayed in the **Tiles** list view to only show those that are currently in use (i.e. tiles that are part of the Where Used list).

> 💡 Select the **View** hyperlink in the **Where used** column to determine who uses the tile and in what context it is used.
>
> The number in brackets after **View** shows how many times the tile has been used.

Filter Custom Tiles

This lets you filter the business insight tiles displayed in the **Tiles** list view to only show custom-built tiles.

🗋 New Tile

This lets you create a new business insight tile using the **Tile Builder** program.

🗓 Import

This lets you import an insight tile using the **Tile Builder - Import** program.

🗏 Export

This lets you export an insight tile using the **Tile Builder - Export** program.

Web View

This pane displays the tiles for which KPIs and thresholds have been created.

Tiles

This pane displays a list of standard tiles that are shipped with SYSPRO, as well as custom tiles (if applicable).

> 💡 The tiles are listed by category for ease of use.

Column	Description
Tile	This indicates the tile description. Select the tile description to view the standard tile definition in read-only mode using the **Tile Builder** program. From here you can do the following: ▪ View the SQL query script by selecting the **Edit Tile Summary** function. ▪ View the SQL script that makes up the detail of the tile by selecting the **Edit Tile Detail** function. ▪ Create a new tile using the existing tile information by using the **Create From** function.
Tile name	This indicates the name of the tile.
Where used	This indicates if the tile is currently in use (i.e. has been deployed). The number of instances throughout the system in which the tile is used is displayed in brackets behind the **View** link. > 💡 If the tile is in use, you can select the **View** hyperlink to display the **Tile Where Used** pane from where you can view more information.
System KPI	The **Add** hyperlink in this column lets you add the tile at system-wide level (i.e. all operators will be able to see the tile). If the tile has already been added, select the **Edit KPI** hyperlink to edit the existing KPI properties.

Column	Description
Company KPI	The **Add** hyperlink in this column lets you add the tile at company level (i.e. all operators that have access to the defined company will be able to see the tile). If the tile has already been added, select the **Edit KPI** hyperlink to edit the existing KPI properties.
Role KPI	The **Add** hyperlink in this column lets you add the tile at role level (i.e. operators within the defined role(s) will be able to see the tile). If the tile has already been added, select the **Edit KPI** hyperlink to edit the existing KPI properties.
Operator KPI	The **Add** hyperlink in this column lets you add the tile at operator level (i.e. only the operator for whom the tile is created will be able to see the tile). If the tile has already been added, select the **Edit KPI** hyperlink to edit the existing KPI properties.
Custom	This indicates whether the tile is a **Standard** tile that was shipped with the software, or a **Custom** tile that has been created. ⓘ This displays **AI tile** if the tile is an Artificial Intelligence tile.
Tile ID	This indicates the unique, 6-character tile identification code.
Tile Type	This indicates the type of tile, which can be one of the following: ▪ Text ▪ Bar chart ▪ Line chart
Development	A tick mark in this column indicates that the tile is still being developed (i.e. it is not ready to be used and can only be viewed by the person who is creating the tile).

Tile Where Used

Column	Description
Source	This indicates the source of the tile (i.e. for which level the tile was created).

Column	Description
Operator/Role	This indicates the operator or role description where the tile is used.
Operator/Role code	This indicates the operator or role code where the tile is used.
Type	This indicates the type of tile (e.g. program).
View	This indicates the view where the tile is displayed.
Program	This indicates the name of the program where the tile is displayed.
Program description	This indicates the description of the program where the tile is displayed.
Definition file	This indicates the file path of the tile's definition file.

Tile KPI Maintenance

The **Tile KPI Maintenance** program is displayed when you select either the **Add** or **Edit KPI** hyperlinks within the KPI columns of the **Tiles** pane.

Items

Column	Description
Description	This indicates the level at which the tile was created: ▪ **System-wide KPI** indicates tiles created at system level ▪ **Company name** indicates tiles created at company level ▪ **Role description** indicates tiles created at role level ▪ **Operator name** indicates tiles created at operator level
Item	Depending on which level the tile is created: ▪ **System** is displayed for tiles created at system level ▪ **Company** is displayed for tiles created at company level ▪ **Role** is displayed for tiles created at role level ▪ **Operator** is displayed for tiles created at operator level
Edit	Select the **Add** hyperlink to add the tile and define its KPI properties, or the **Edit** hyperlink to edit the tile's existing KPI properties.
Delete	This deletes the tile. System tiles that are shipped with the software can't be deleted.

KPI Properties

Save KPI

This saves the KPI properties of the tile.

Field	Description
Tile definition	
Tile description	This indicates the description of the selected tile.
Tile goal	Indicate the tile's objective (i.e. what you want the tile to highlight): *Minimizing* Select this for tiles where the ideal value is as small as possible. *Maximizing* Select this for tiles where the ideal value is as large as possible. *Target value* Select this for tiles where the ideal tile value is fixed, but can deviate to either side. ⓘ Warning and critical values lie within a range.
Target value	Indicate the fixed value for tiles that are defined with **Target value** as their **Tile goal**.
Warning high	
Warning high required	This lets you indicate that the tile must have a warning high value. This applies to tiles with **Minimizing** and **Target value** goals, where the aim would be a value that is either fixed or as low as possible.
Threshold value	Enter the value on or above which the warning properties must be displayed.

Threshold condition	Indicate the warning threshold condition:
	
	▪ **>=** - greater than and equal to
	
	   Warning properties are applied when the value is reached
	
	▪ **>** - greater than
	
	   Warning properties are applied when the value is exceeded

Field	Description
Warning low	
Warning low required	This lets you indicate that the tile must have a warning low value. This applies to tiles with **Maximizing** and **Target value** goals, where the aim would be a value that is either fixed or as high as possible.
Threshold value	Enter the value on or below which the warning properties will be displayed.

Threshold condition	Indicate the warning threshold condition:
	
	■ **<=** - less than and equal to
	
	    Warning properties are applied when the value is reached
	
	■ **<** - less than
	
	    Warning properties are applied when the value is exceeded

Warning properties	
Warning tile color	Specify the background tile color that will be applied when the warning threshold is reached or exceeded.
	{No override} No background color will be applied.
	Warning The background color will change to orange.
	Critical The background color will change to red.
	Primary The background color will change to the default color (i.e. mid-tone blue).
	Info The background color will change to turquoise.
	Success The background color will change to green.

Field	Description
	Inverse The background color will change to the inverse or opposite color.
	Gray The background color will change to gray.
	LightGray The background color will change to light gray.
	VeryLightGray The background color will change to very light gray.
	White The background color will change to white.
	{Custom RGB} The background color will change to a custom defined color (which you can select).
Warning tile color RGB	This displays the RGB color code for the selected color.
Warning value color	Specify the font color that will be applied to the value when the warning threshold is reached or exceeded. The options here are the same as explained in the **Warning tile color** field.
Warning value color RGB	This displays the RGB color code for the selected font color.
Warning icon	Select the icon to be displayed in the left-hand bottom corner of the tile when the warning threshold is reached or exceeded.
Warning icon color	Specify a color for the icon that will be displayed when the warning threshold is reached or exceeded.
Warning icon color RGB	This displays the RGB color code for the selected icon color.
Critical high	

Field	Description
Critical high required	This lets you specify a critical high value. This applies to tiles with **Minimizing** and **Target value** goals, where the aim would be a value that is either fixed or as low as possible.
Threshold value	Enter the value on or above which the critical properties will be displayed.
Threshold condition	Select the critical threshold condition: ▪ **>=** - greater than and equal to Warning properties will be applied when the value is reached ▪ **>** - greater than Warning properties will be applied when the value is exceeded
Critical low	
Critical low required	This lets you specify the critical low value. This applies to tiles with **Maximizing** and **Target value** goals, where the aim would be a value that is either fixed or as high as possible.
Threshold value	Enter the value on or below which the critical properties will be displayed.
Threshold condition	Select the critical threshold condition: ▪ **<=** - less than and equal to Warning properties will be applied when the value is reached ▪ **<** - less than Warning properties will be applied when the value is exceeded
Critical properties	
Critical tile color	Specify the background tile color that will be applied when the critical threshold is reached or exceeded. The options here are the same as explained in the **Warning tile color** field.
Critical tile color RGB	This displays the RGB color code for the selected color.
Critical value color	Specify the font color that will be applied to the value when the critical threshold is reached or exceeded. The options here are the same as explained in the **Warning tile color** field.

Field	Description
Critical value color RGB	This displays the RGB color code for the selected font color.
Critical icon	Select the icon to be displayed in the left-hand bottom corner of the tile when the critical threshold is reached or exceeded.
Critical icon color	Specify a color for the icon that will be displayed when the critical threshold is reached or exceeded.
Critical icon color RGB	This displays the RGB color code for the selected icon color.

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