



AUCOTEC
Create Synergy – Connect Processes

Engineering Base

ATEX Mark-Up

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1 The ATEX Mark-Up Wizard

In process engineering, there are frequently subsections of plants where explosion risks have to be dealt with. In such sections only parts conformant to explosion protection regulations are allowed.

In this context, Engineering Base offers special support by providing the ATEX Mark-Up wizard that allows to display only information related to one or several of these subsections exposed to explosion risks, and to switch all other information of a schematic drawing off or rather to render it transparent. As there are often multiple sections exposed to explosion risks in a plant, Engineering Base provides the possibility to associate different color characteristics to different sections.

The wizard can be used with one of the following Add-On licenses:

- EB Plant Design Add-On (Module 1049)
- EB Instrumentation Basic Add-On (Module 1048)
- EB Instrumentation Pro Add-On (Module 1043)
- EB Instrumentation Detail Add-On (Module 1074)

The ATEX Mark-Up Wizard consists of 3 modules:

- Defining: Definition of the ATEX mark-ups with the color codes.
- Assigning: Assignment of ATEX mark-ups to the areas of diagrams linked with explosion risks.
- Defining Visibility: Controls the visibility of the specified mark-ups.

1.1 Defining the ATEX Mark-Ups for Safety Areas

The ATEX Mark-Up wizard can be started either from the database or any project.

- If the configuration is set from the database, then these settings hold for all projects present in the database.
- If the configuration is set for a single project, then these settings hold only for this project.

In the dialog header, the user is informed on which level he enters the settings.

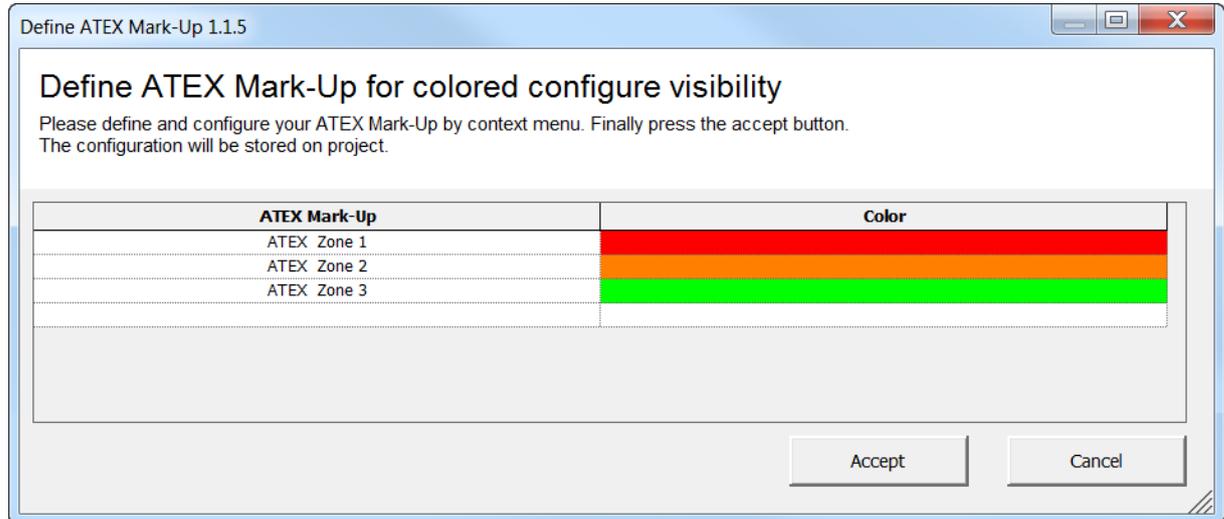
To start the Define ATEX Mark-Up dialog

1. In the **Engineering Base Explorer**, select the project.

If the configuration is executed on the database level, then these settings hold for all projects present in the database.

2. On the shortcut menu, click **Define** or click **Select Assistant** and then, select the module **Define** of the wizard **ATEX Mark-Up** and click **Run**.

This opens the **Define ATEX Mark-Up** dialog to add or edit ATEX mark-ups.



3. On the shortcut menu in the column **ATEX Mark-Up**, click **New**.
This opens the **New ATEX Mark-Up** dialog.
4. Enter the new ATEX mark-up and click **OK**.
The new ATEX mark-up is inserted into the **ATEX Mark-Up** column.
A given name can be renamed or deleted via the context menu of the column **ATEX Mark-Up**.
5. On the shortcut menu in the column **Color**, click **Select color**.
6. In the color dialog, select the desired color and click **OK**.
The new or changed color is inserted into the **Color** column.
7. Click **Accept**, to store the configuration for the project.

The following options are offered in the context menu of the columns:

ATEX Mark-Up

- **New:** on a free line to define a new ATEX markup.
- **Rename:** on a defined line to rename an existing ATEX mark-up.
- **Delete:** on a defined line to delete an existing ATEX mark-up.

Color

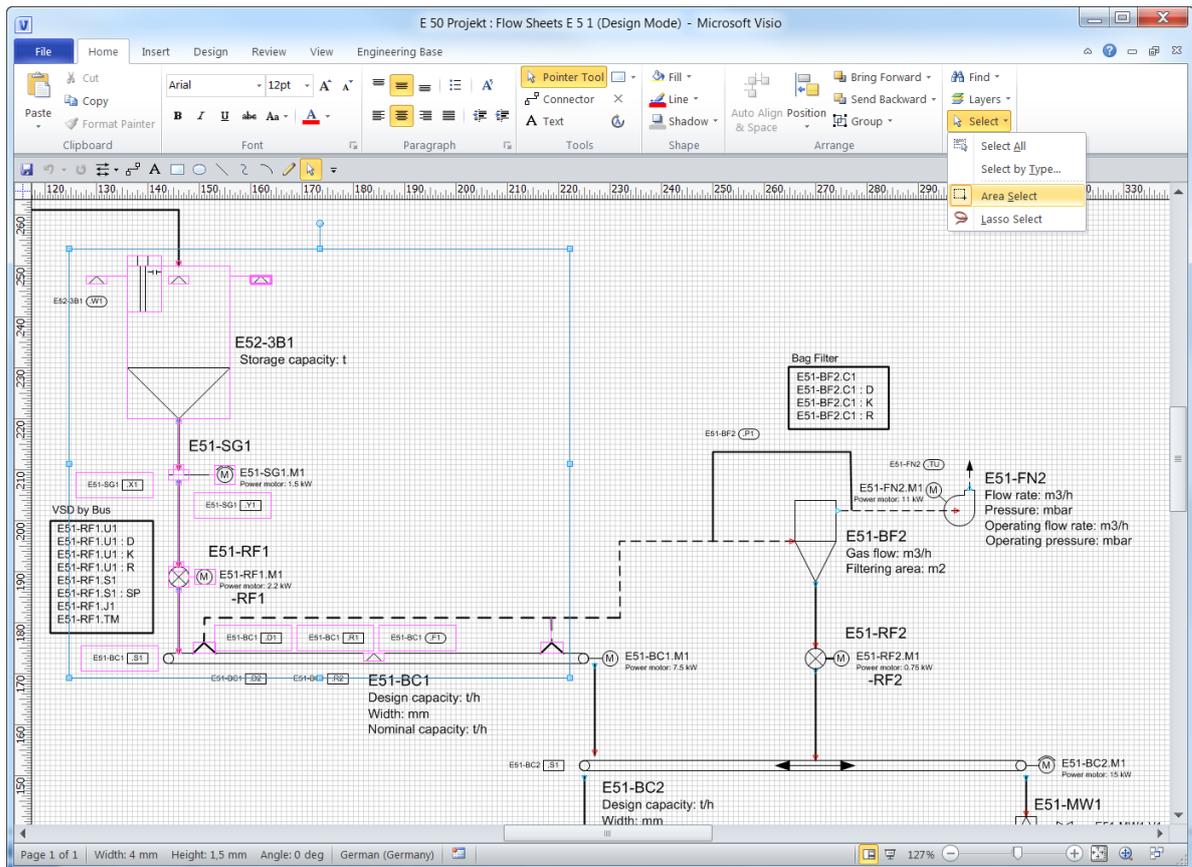
- **Select color:** on a defined line to specify the color code for the ATEX mark-up.

1.2 Assigning the ATEX Mark-Up

In order that ATEX mark-ups can be assigned in the areas of a diagram linked with explosion risks, the objects and connections in the diagram have to be marked.

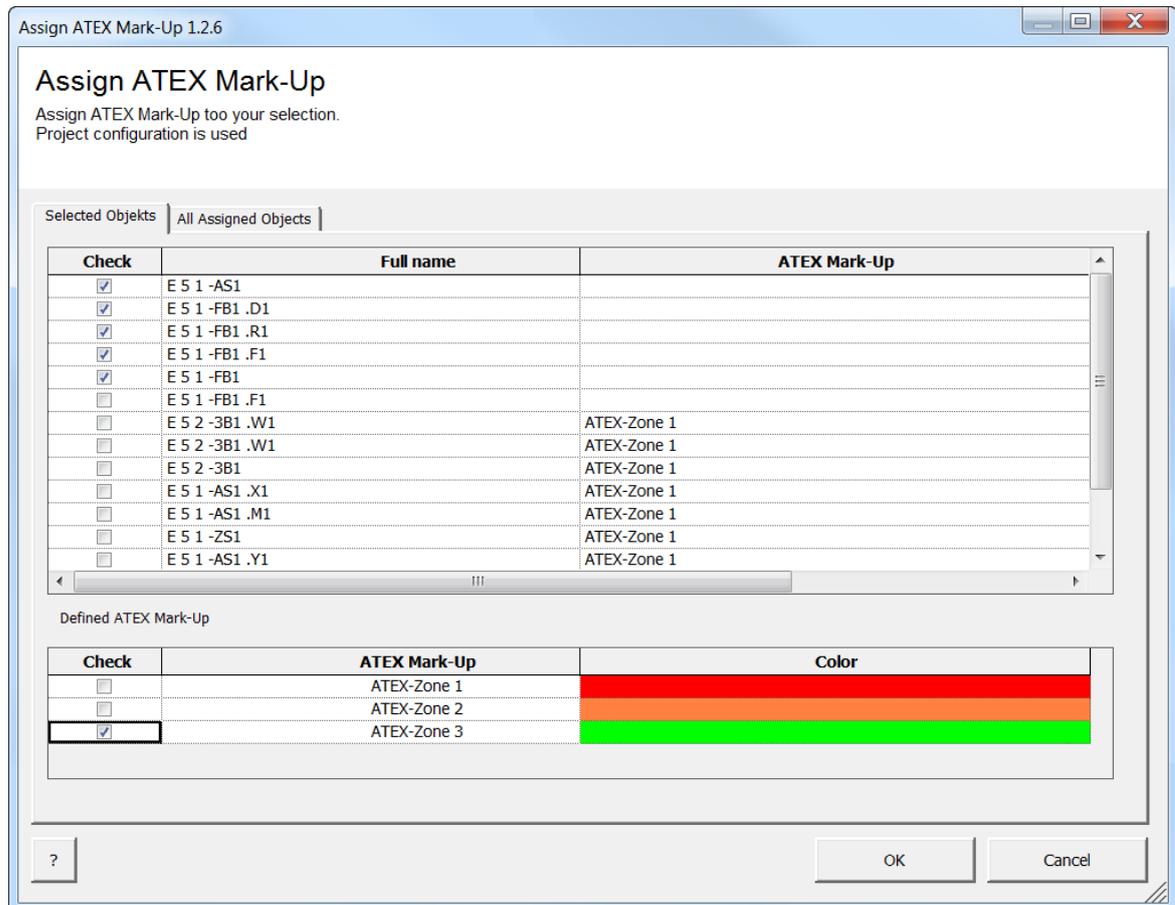
To assign ATEX Mark-Ups

1. Open the sheet with **Visio**.
2. Use the command **Area Select** or **Lasso Select** (Home/Editing/Select) to mark the objects and connections to which an ATEX mark-up is to be assigned. By this marking, a selection is executed.



3. On the shortcut menu, select **Assign** or click **Select Assistant** in the context menu and select the module **Assign** of the **ATEX Mark-up wizard** and click **Run**.

This opens the **Assign ATEX Mark-Up** dialog.



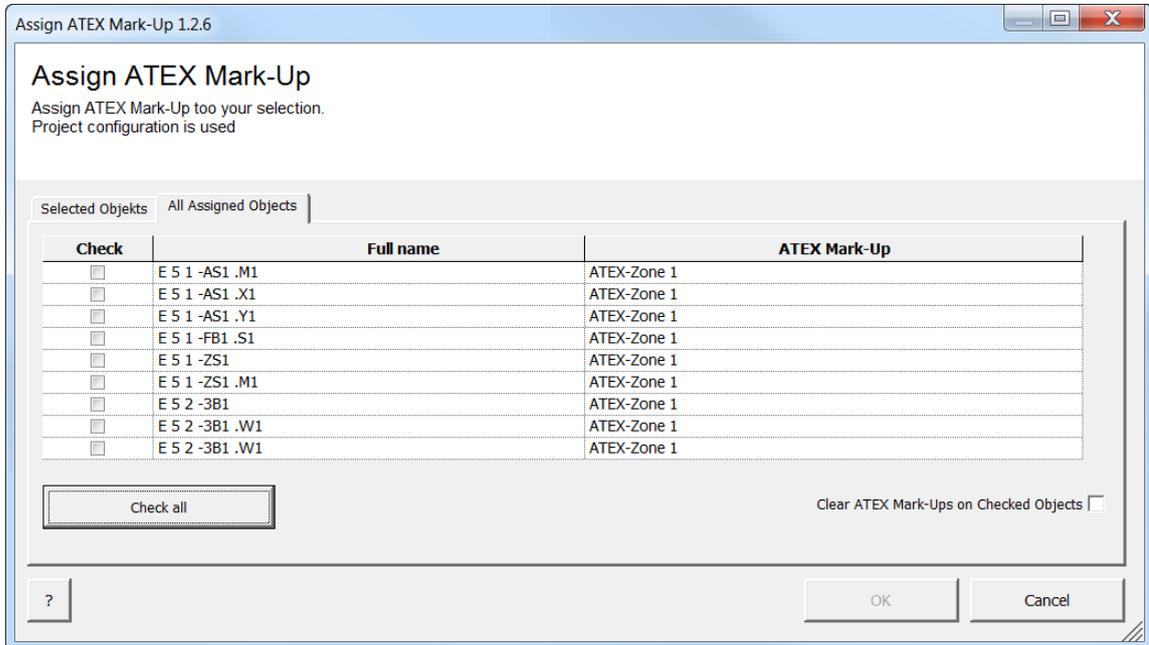
The objects previously marked are displayed with their complete name under the tab **Selected Objects**. If an assignment to an ATEX mark-up has already been executed, it will be listed in the column **ATEX Mark-Up**.

4. Check in **Selected Objects** the objects, you want to assign one or more ATEX mark-ups with.
5. Check in **Defined ATEX Mark-Up** the ATEX mark-ups, you want to assign to the selected objects.
6. Click **OK** to acknowledge the assignment.

Remove assigned ATEX markups

1. Select the tab **All Assigned Objects**. In the diagram, mark the objects the ATEX mark-ups of which are to be removed.

All objects which have an assigned ATEX mark-up are displayed.



2. Check the desired objects or click **Check all** to check all objects. If all objects are checked you can use **Uncheck all** to cancel the selection.
3. Check **Clear ATEX Mark-Ups on Checked Objects** to remove the ATEX mark-up at the checked objects.
4. Click **OK**.

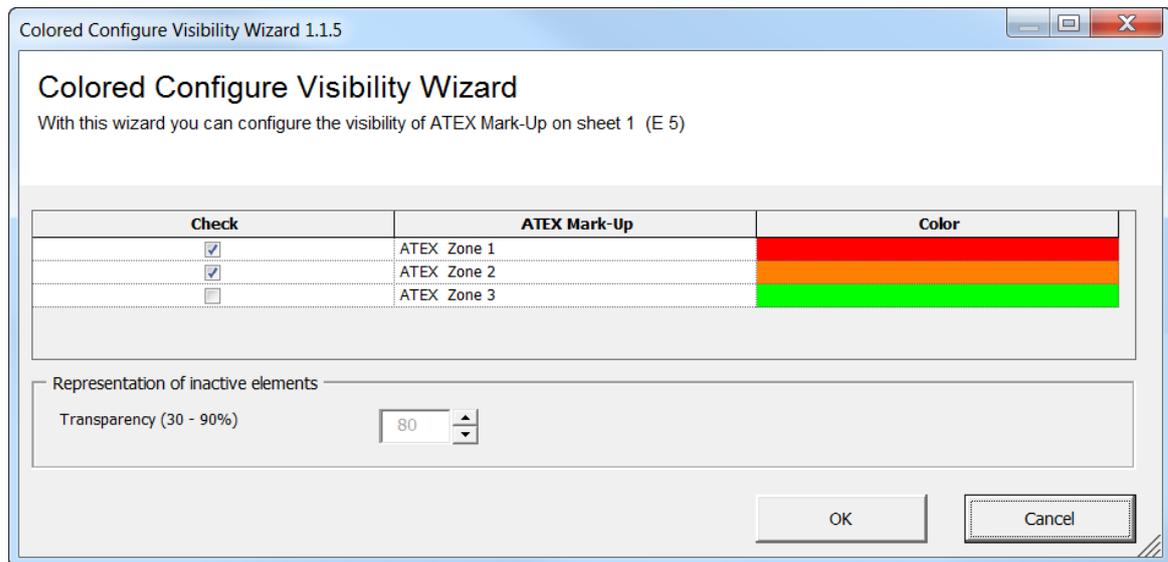
The dialog **Assign ATEX Mark-Up** remains open.

1.3 Defining Visibility and color markings of the zones

Use the module **Define Visibility** of the assistant ATEX Mark-ups to set the colors of the assigned ATEX mark-ups in the drawing and to set a transparency value for the representation of inactive items.

1. Open the sheet with Visio.
2. In the Explorer, select the sheet and click **Configure Visibility** on the shortcut menu or click **Select Assistant** in the context menu and select the module **Configure Visibility** of the **ATEX Mark-Up** wizard and click **Run**.

This opens the dialog **Colored Configure Visibility Wizard**. In this dialog, the ATEX mark-ups assigned in the sheet are shown.



3. Select in the column **Check** the ATEX Mark-ups, the assigned objects of which are to be highlighted in colors.
4. Use the arrow buttons of the check box **Transparency** to select the transparency level for all the other objects. The transparency is changed in steps of 5 %.
A transparency level of 100% corresponds to complete invisibility.
5. Click **OK**.

This sets the colors for the objects according to the related ATEX mark-ups, and sets all the other elements transparent according to the transparency level chosen.

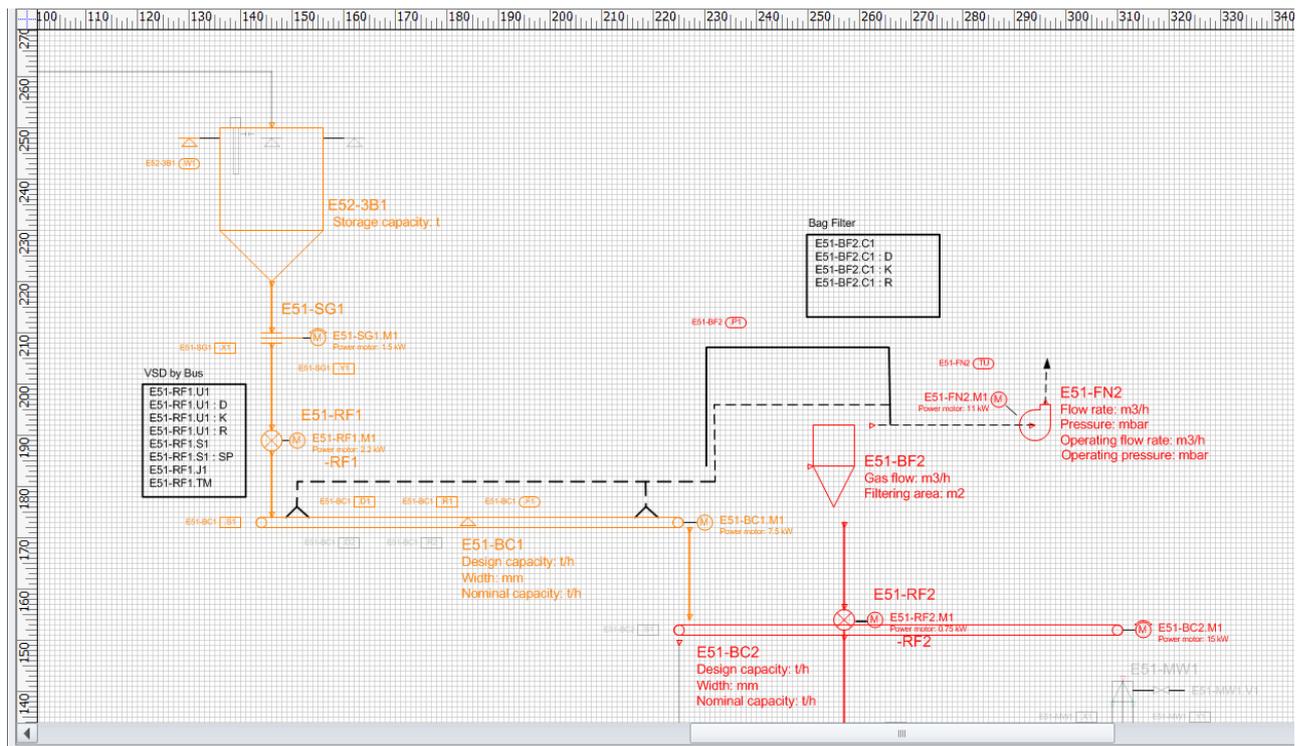
1.3.1 Control Icons in the Visio Toolbar

After setting the visibility, additional control icons are displayed in the Engineering Base tab.

Control Icon	Meaning
	Refresh Configure Visibility: Refreshes the display according to the settings made in the dialog Configure Visibility .
	Reset Configure Visibility: The specified settings are reset in the current representation. The settings of the dialog Configure Visibility are not deleted. The additional control icons are not displayed anymore.
	Select Configure Visibility: Marks all objects on the sheet, for which the ATEX mark-ups have been switched to visible.

1.4 Result

The visibility and the color markings of the zones are shown in the schematics.



1.5 Supplementary information

Visibility

When opening a schematic, all connections and objects have the visibility status 'neutral'.

Printing

The special view can be printed only from the graphic. When the graphic is active, it is transmitted to the printer with the different colored zones.