

DMS8000

MM8000 Management Station MP4.40

MT8001 Management Terminal MP4.30

With WW8000 Composer

Graphical Map Configuration

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About this document

Purpose

This manual is a guide to the configuration of graphical maps for MM8000 management stations and MT8001 management terminals.

The guide is to be used in conjunction with the product-specific Danger Management System (DMS) Installation, Configuration, and Commissioning guide (MM8000 / MT8001), and the DMS8000 Connectivity Guides when configuring a DMS.

→ **See also...** *Graphical Map Configuration Quick Reference* (document no. A6V10069550).

Scope

This document applies to the following products:

- MM8000 Management Station
- MT8001 Management Terminal
(*With WW8000 Composer*)

Target group

This documentation is intended for the following users:

- Project Engineers
- Commissioning Personnel

Individuals performing the operations described herein are expected to have prior expertise and training in the field of security, at least a moderate level of familiarity with the Siemens Building Technologies product line, and experience with the installation, configuration, and commissioning of security management systems.

Documentation resource information

The *DMS8000 Documentation Resource Information and Glossary Guide* assembles important information regarding documentation resources. This document contains the following:

- Comprehensive definitions of the target audiences for Siemens FS DMS documents
- Training program information including the Siemens intranet link
- A complete list of all available DMS8000 documents
- Instructions for how to obtain a document via the Siemens intranet using the Siemens Asset Portal
- A map of relevant documents for each target audience group
- Customer Support links & resources
- A glossary containing definitions of all terms and acronyms used in DMS8000 documentation

To access the *DMS8000 Documentation Resource Information and Glossary Guide* (document no. A6V10089056), go to the link and follow the document search instructions below:

<http://assetportal.bt.siemens.com/portal/index.html>

1. In the **Search** column on the left, set:

- Segment: **04 Fire -3F**

- Document Type: **All**
 - Image Type: **All**
 - Advanced search criterias: Select **Brochure No.** and enter the document number to search for (e.g. A6V10062415). Alternatively, select **Title** and enter the product name (e.g. MM8000).
2. Click **Search** to start.
 3. In the resulting area on the right, select the document type (e.g. Contacts, Data Sheet, etc).

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- Poor maintenance or a lack of maintenance.

We have checked the contents of this manual for agreement with the hardware and software described. Since deviations cannot be precluded entirely, we cannot guarantee full agreement. However, the data in this manual are reviewed regularly and any necessary corrections are included in subsequent editions. Suggestions for improvement are welcome.

Modification index

| Current version | Date | Notes |
|------------------|---------|--|
| A6V10062441_a_en | 06.2010 | DMS8000 MP4.30 Graphical Map Configuration edition |
| A6V10062441_a_en | 06.2009 | DMS8000 MP4.20 Graphical Map Configuration edition |
| A6V10062441_a_en | 06.2008 | DMS8000 MP4.15 Graphical Map Configuration edition |

1 Introduction

MM8000 / MT8001 can handle large maps representing entire building floors with as many dynamic points as required. MM8000 users navigate maps with zooming and panning controls. You can organize maps in multiple layers, which can be background or foreground layers. At least one background and one foreground layer are present in any map.



Note: Zooming feature not available for MT8001 terminals.

Map layers contain graphical objects, which own a number of properties. Objects are placed on layers from the tool-bar (static items - typically on the background) and from the Composer tree (MM8000 / MT8001 points on the foreground).

Background layers are used to include AutoCAD® files, image files, and any other object representing the building structure. Foreground layers contain the MM8000 / MT8001 points, represented as icons that show the dynamic states of the real-time database.

You can define and combine multiple layers in different ways to create all the required views. Particularly, you can use multiple foreground layers in combination with background layers to allow for multiple-depth views. For example, the same background layer can be coupled to foreground layers for areas, sections, zones, and elements, each couple being a different depth. This allows the MM8000 operator to “dive” up and down the different depths with a double-click of the mouse.

Note: This “diving” up and down capability is not available for MT8001 users. A depth is a combination of background and foreground layers. One foreground layer can belong only to one depth; so the points deposited on that layer will be associated with one depth only.

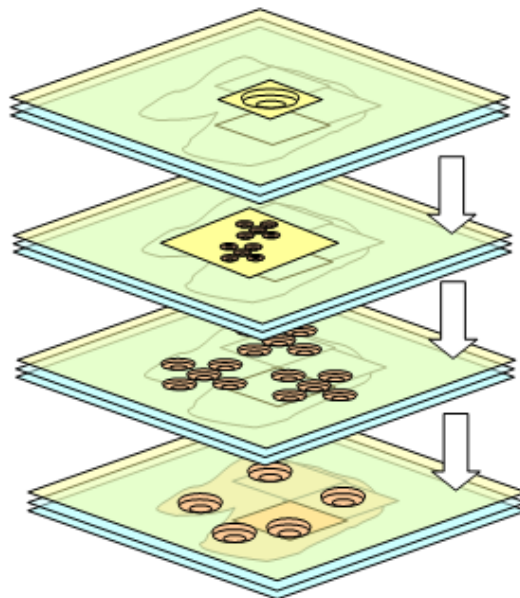


Fig. 1 Map organized in multiple depths with increasing level of functional details

You can associate individual points to one or more pages. An MM8000 / MT8001 page is a view, at a selectable zooming factor of a depth. The association between points and pages can be provided automatically by MM8000 / MT8001 tools and/or left to a manual setting.

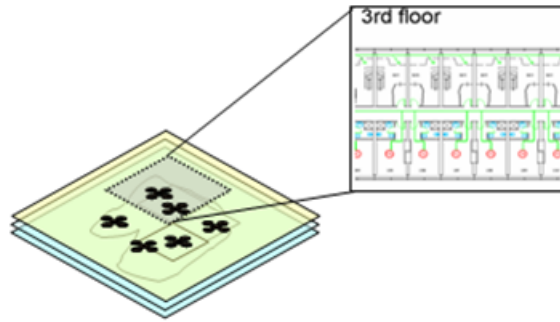


Fig. 2 A page is a partial view on a map's depth

1.1 What has been changed in MP4.40 graphic tools

Here is the list of modifications included in MP4.40 for new functions and software improvements.

| Section, Page | Modifications |
|---------------|--|
| p.27 | New point association to graphic objects for creating animations based on event status |
| | |

2 Configuring graphical maps – using the MapMaker

Tools for creating and modifying maps are contained in toolbars surrounding the work area. You can choose to hide them if you wish (View → Toolbars). The default is shown below.

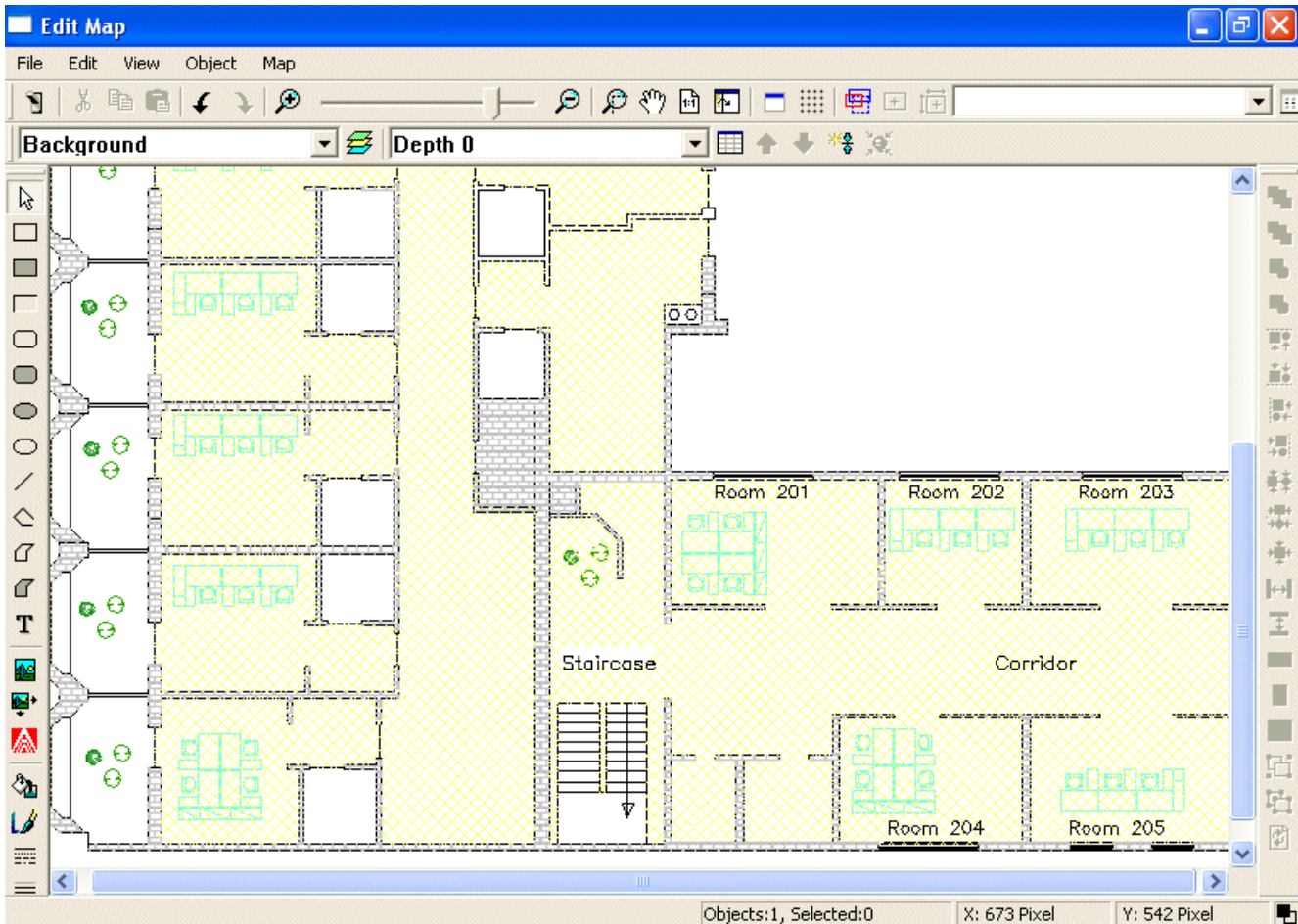


Fig. 3 MapMaker user interface

- To create a new map, follow the general procedure detailed in section 2.2, p. 11.
- To edit an existing map, select the map node in the tree, then in the **Node** tab, select **Edit Map** in the data view pane to the right of the tree.

Note: You may need to scroll down to see this button.

2.1 General concepts

Before starting the graphic configuration for MM8000 / MT8001, you need to become familiar with the following general concepts:

- Large maps can be handled by MM8000 / MT8001, representing an entire building floor with dynamic points. MM8000 users can navigate maps with zooming and panning controls.
- Maps are organized in multiple layers, which can be one or more background and foreground layers. At least one background and one foreground layer are present in any map.
- Maps layers contain graphical objects, which own a number of properties. Objects are placed on layers from the tool-bar (static items) and from the Composer tree (dynamic items or MM8000 / MT8001 points).
- Background layers are used to include AutoCAD files, image files, and any other static item representing the building structure. File types supported are:
 - DXF
 - DWG
 - WMF
 - EMF
 - PCX
 - BMP
 - JPEG
 - SHP

Note: refer to the product Release Notes for information about AutoCAD version compatibility.

- Foreground layers are used to contain the MM8000 / MT8001 points, represented as icons that can show the dynamic states of the real time database.
- Multiple layers can be defined and combined in different combinations to create all the required views.
- Particularly, multiple foreground layers can be used in combination with background layers to allow for multiple-depth views. For example, the same background layer can be coupled to foreground layers for areas, sections, zones, and elements, each couple being a different depth. This allows the MM8000 operator to zoom in and out through the different depths with a single mouse click.

Note: Zooming feature not available for MT8001.

- A depth is a combination of background and foreground layers with graphical zoom. One foreground layer can belong only to one depth; therefore, the points deposited on that layer will be associated with only one depth.
- Individual points can be associated to one or more pages. This allows showing the appropriate graphics at runtime. An MM8000 / MT8001 page is a view – at a selectable zooming factor – of a depth.

Note: The association between points and pages can be provided automatically by MM8000 / MT8001 tools (see following) and/or left to a manual setting.

- **MM8000 only:**Cameras can be associated to points in order to get the video images at runtime when the point or an event of that point is selected. The association can be based on a graphic technique: the area covered by the camera

view is depicted using a polygon drawing and the points within that area are automatically associated.

- **MM8000 only:** You can create maps for graphical navigation by defining views at different zooming factors. This can be done for physical, logical, and geographical tree structures.
→ See section 2.3.4 on page 16 for details.
- A map can be exported in JPG format.

2.2 DMS8000 maps – general procedure

In the Composer project, Maps are located in

Supervisor System Settings → MM8000 / MT8001 System → Logical Configuration → Graphic Maps

Note: Add folders and sub-folders to organize a large number of maps.

When editing a map, a graphic editor containing all the required tools is launched.

→ For details on using the graphical editor, see section 2.3.13 on page 38.

You configure maps following the general procedure below:

→ For details on how to perform each step, refer to the page number.

1. Create a folder structure (for example, “fire graphics” or “intrusion maps”).
2. Create a new map.....p. 13
3. Follow the wizard during the first edit session to define the map size.....p. 13
4. Configure a background layer importing CAD, image files, or drawings of your ownp. 14
5. Define the foreground layer(s)p. 15
6. Define the first depth, combining background and foreground layers.p. 16
7. Configure the foreground by doing the following:p. 18
 - Drag and drop the points from the Composer tree into the appropriate graphical maps.
 - Drag and drop sequence command points from the Composer tree into the appropriate graphic maps.
8. If video applications are used, define the camera view areas.....p. 20
9. Modify object properties, if desiredp. 23
- 10 Manually define pages in the graphic tool, if required, and associate.....p. 31
 - Associate the manual pages to individual points p. 32
- 11 Save the map and proceed with other maps or other configurations.p. 35
- 12 Test the mapp. 36



Note: To configure a default graphic or text page to display during runtime for all points that have no map associated with them, see page 37.



Automatic association of maps to the points:

A point on a map is automatically associated to that graphical map. In other words, it is associated to the page created with the map's depth that contains the point. You can verify this association by selecting the point in the tree and then displaying the tabs named in:

- MM8000: **Event Treatment Pages** and **Plant Browser Pages**
- MT8001: **Pages**

Note: (MM8000 only) Automatic association can be globally disabled in:

- Supervisor System Settings → MM8000 / MT8001 System → Logical Configuration → Point Page Extension

Uncheck the **Automatic page calculation** check box.

If a point is deposited in more than one map, then it will be associated with all of them, in sequence (you can however modify the map order, see section 2.3.8.1, p. 32).

Note: In order to check the associated map, you must close the MapMaker. This will cause the points to be associated to the page or map, and this may take a while.

A map is always displayed to operators as a page. That is, as a view of a specific depth (a combination of layers with graphical zoom). In case of automatic association to a point, the page is dynamically built up by MM8000, possibly applying an **adjustment algorithm** that may enlarge the depth's zooming factor to include in the page all the points in the same tree-level (sibling points). For example:

- Map #1 is configured with one background ("BG") and three foreground layers ("FG1-Areas", "FG2-Sections", "FG3-Zones").
- "FG3-Zones" contains 15 points of a CC11 unit, namely 15 zones (Z1, Z2, ... , Z15) of the same parent section S5.
- "BG" and "FG3-Zone" are associated in a depth named "D3-Zones".
- "D3-Zones" has been set to show Z1 on Map #1 with a zooming factor 500.

When MM8000 shows the page for Z1 in a treatment procedure step or in the Plant Browser, it actually displays Map #1 as "D3-Zones" with zooming factor 650 (that is, a bit enlarged or zoomed out) so as to include Z1 as well as Z2 to Z15 in the view.

The page adjustment algorithm can be disabled for every page in the corresponding **Node** tab. If disabled, no automatic zooming modification is applied on the pages' depths.


Note: Zooming is not available for MT8001.

2.3 Guide to map configuration

This section contains details on how to perform each step when configuring a map.

→ For details on the tools available in MapMaker's graphical editor, see section 2.3.13, p. 38.

2.3.1 Creating a new map

1. Select: **Supervisor System Settings** → **MM8000 / MT8001 System** → **Logical Configuration** → **Maps**
2. Select the map icon  from the procedure icons to the left of the Composer tree.
A map node appears in the tree.
3. Select the new map node in the tree and then the **Node** tab.
4. If required, disable the **Page adjustment algorithm** (see note on page 12).



Disabling the page adjustment algorithm may result in some of the points not being visible for alarm treatment or graphic navigation. The algorithm has been designed to make sure that the depth's zooming factor can include in the pages all the points in the same tree-level (sibling points). Without this automatic adjustment, you have to verify that all the required points are properly visible on each page of the map. Refer to the note on page 12 for more information about the adjustment algorithm.

5. Click **Edit Map**.
The-map wizard starts.

New map wizard

1. Select map type, which can be:
 - Pixel-based: this is the simplest solution, map dimensions are given in screen units.
 - Metric-based with given units and dimensions: select this option if you want to define a scale in metric units. Here you are prompted to specify the X/Y size in pixels (m or Km) and the correspondent precision (here, for best performances, we recommend to leave the default values). Note that a CAD file background can be imported later using the import tools.
 - Metric-based related CAD units: this option allows for defining a scale related to the units of an AutoCAD file. In this case, you can import a DWG/DXF CAD file (DWG and DXF) and then define the scale ratio.

Note: If you have a reference of the scale units used in the map, select the Metric option. Otherwise, opt for the simpler Pixel-based map. Note that you will also be able to modify the resolution units later (menu command **Map** → **Resolution**).
2. Press **Next** and define the **Map size** in pixel or metric units.
Note: Use the default if you are unsure. You will be able to modify the size later if necessary (menu command **Map** → **Dimensions**).
3. Finish the creation Wizard and enter the graphic configuration environment.
Note: By default, the background is white. If you wish a colored background, you can customize it using the menu command **Map** → **Background color**.

2.3.2 Configuring a background layer

2.3.2.1 Using import tools

A background layer is typically prepared by importing an external file such as:

- AutoCAD files (DWG, DXF, SHP).
- Windows Metafiles (WMF, EMF).
- Bitmap files (BMP, JPG, PCX).

Simply select the appropriate icon from the toolbar.

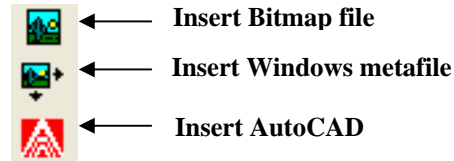


Fig. 4 Inserting a background layer

AutoCAD: An AutoCAD import wizard is provided for:

- Defining an area of the entire file to import.
- Adjusting the CAD positions and dimensions within the entire map.

Notes:

- The map dimensions can also be adjusted later according to the CAD background (menu command **Map** → **Dimensions** → **Bounding rectangle**).
- The visibility of every CAD layer in the Map layers can be defined in the **CAD layers** tab of the object properties (right click on the CAD object to open its **Properties** window).

2.3.3 Defining foreground layers

Define one foreground layer

Before inserting MM8000 / MT8001 points in a map, you need to create at least one foreground layer and then define a depth for it. Note that:

- Layers can be de-activated if not yet ready to be seen by the operators.
- The Background checkbox of the foreground layers should be unchecked.
- Layers may have a discipline and category type associated for dynamic filtering.
- **MM8000 only:** Layers can be hidden during configuration for easier handling of multi-layer maps.
- **MM8000 only:** Layers can have a visibility range – that is to be visible within given zoom factors. This works the same way as for individual objects - it can be used for letting an entire layer appear or disappear when an operator zooms in or zooms out.

Note: Zooming feature not available for MT8001.

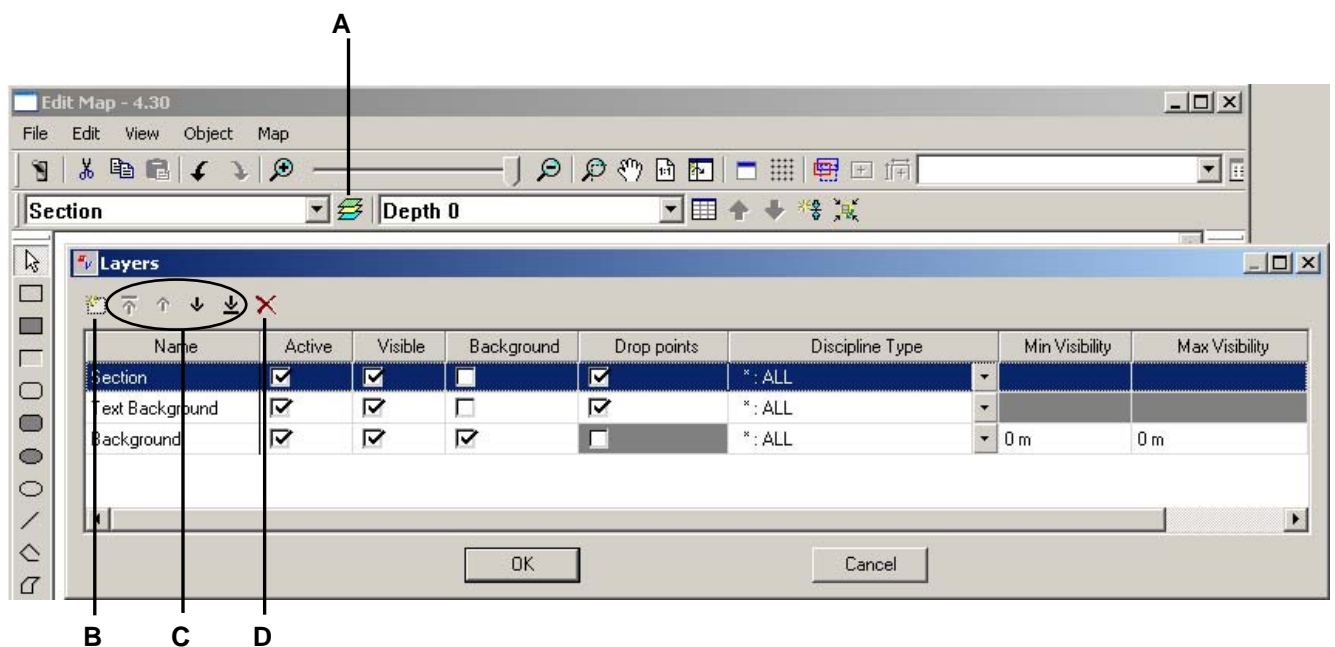




Fig. 5 Create a new layer

- A Open layer window, where you can add / delete layers
- B Create a new layer
- C Move layer up / down in the list
- D Delete layer

To create a foreground layer, do the following:

1. Select the **Edit Layers** icon  to open the **Layers** window (see Fig. 5)
2. Select the **New layer** icon  to add a new layer.
Note: Double-click on the name field to rename.
3. Specify the parameters. (See the following parameter descriptions.)

Layers parameters:

- **Name:** Layer description name, double click to rename. This column is fixed (frozen) and not affected by the horizontal scrolling.
- **Active:** Select to show a layer during runtime / de-select to hide a layer.
- **Visible:** Select to show a layer during configuration / de-select to hide a layer.
- **Background:** Select if a layer is a background layer.
- **Drop points:** Select to enable dragging and dropping points on the layer (foreground only). This option can be used to prevent unintended operations from being performed on a layer.
- **Discipline Type:** Specify a discipline to assign to a layer to filter what can be seen when activity occurs.
- **Min/Max Visibility:** Specify the zoom factor range within which the layer is visible.

Note: the Layers window can be resized and maximized as necessary, and layout and position settings are saved and reapplied next time it is opened.

2.3.4 Defining depths

Once you have the foreground layers, you can define the required depths, combining background and foreground layers at a given zooming factor.

To create a new depth, do the following:

- Select a zoom factor – use the zoom tools shown in the figure below.



Tip: To quickly select a zoom factor, click on a map and zoom in and out using the mouse wheel.

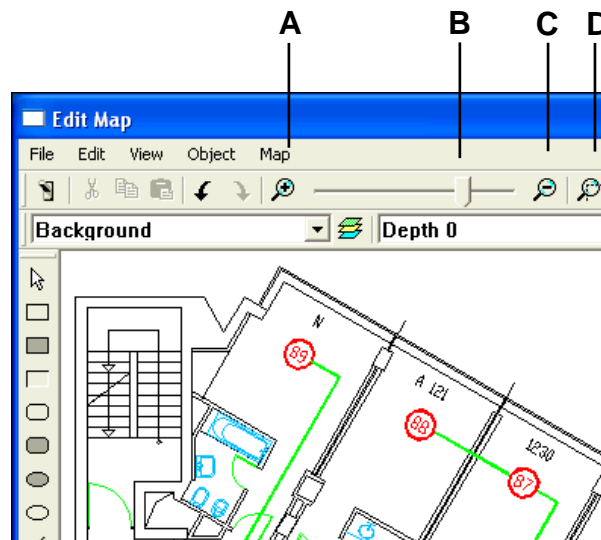


Fig. 6 Zoom tools

- | | |
|---|------------------------|
| A | Zoom-in step |
| B | Zoom control |
| C | Zoom-out step |
| D | Zoom-in a given window |

Note: The zoom tools are also available from the menu **View → Zoom**. Instead, the **View → Viewport** option allows defining the screen view using a numeric range (origin, extension or centre point, defined in pixel/metric units).

1. Select the **New Depth** icon  to create a new depth.

Note: You have one button to create a new depth, and another to open the depth window where you can also add (as well as delete) a depth (see Fig. 7). Try to use the first command because it allows you to automatically set the zoom factor. The second command requires you to define the zoom factor as a numeric range (in pixel or metric unit).

2. Deselect any background layers you don't want associated to the depth.

3. Select the associated foreground layers.

Note: A depth combines one or more foreground and one or more background layers. A depth is the graphic shown on the screen. Multiple depths allow the user to quickly change views. (Dive down/up.) **A foreground layer can be associated to only one depth.**



Note: During runtime, MT8001 can display only one depth at a time.

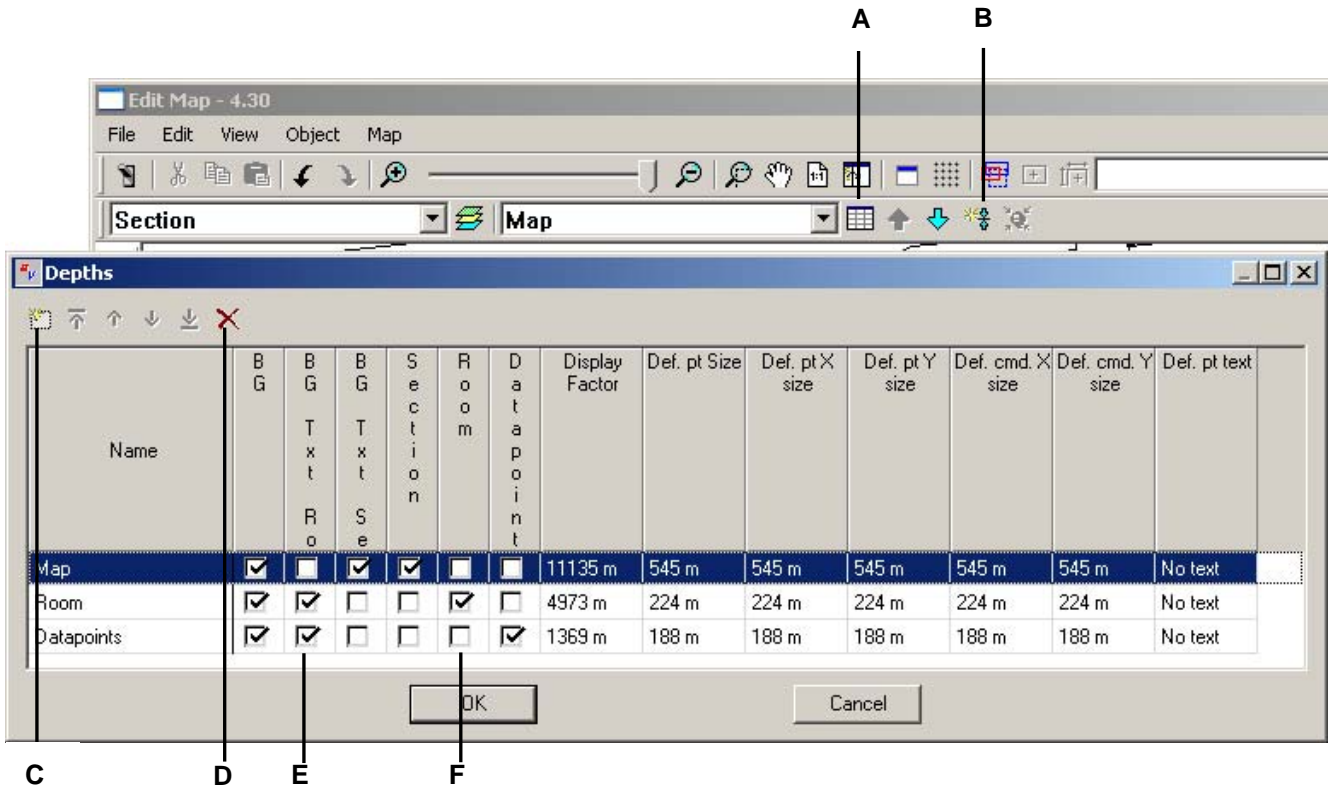



Fig. 7 Creating a new depth

- A Open depth window, where you can add / delete depths
- B Open depth window to create new depth, set with current zoom factor
- C Create new depth
- D Delete depth
- E Associate background layer with one or more depths; associate foreground layer to one depth only
- F Check the foreground layer associated to the depth

2.3.5 Configuring the foreground

Once you have defined your foreground layers and depths, you need to configure the foreground layers by dragging the points from Composer tree into the appropriate graphical maps. The MapMaker graphic tool provides a command for a quick arrangement of the screen for optimal operations with MM8000 /MT8001 points.

To configure a foreground layer, do the following:

1. Select a depth from the right drop-down arrow (located near top of screen).
2. Select the associated foreground layer from the left drop-down arrow.
3. Select the adjust dimension icon  to display the Composer tree on left and map on right (arrange screen windows).

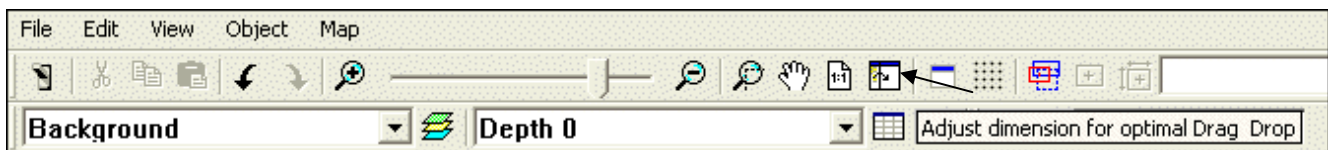



Fig. 8 Arrange screen windows

4. Drag points from the tree, one at a time, and drop them onto the correct position on the map. (See Fig. 9.) The selected objects can be data points as well as sequence command points.

While editing the map, the description text of the points that have been deposited on the map are temporarily shown in red in the Composer tree and in the Children tab view of the parent node.

To resize an initial object on the map, select the object, drag the edges to the size you want, then select **Set default object size** icon . (Another way to do this is to right-click the object you just resized and select **Set as Default Size.**) You can also set the best default size for subsequent objects of different types.

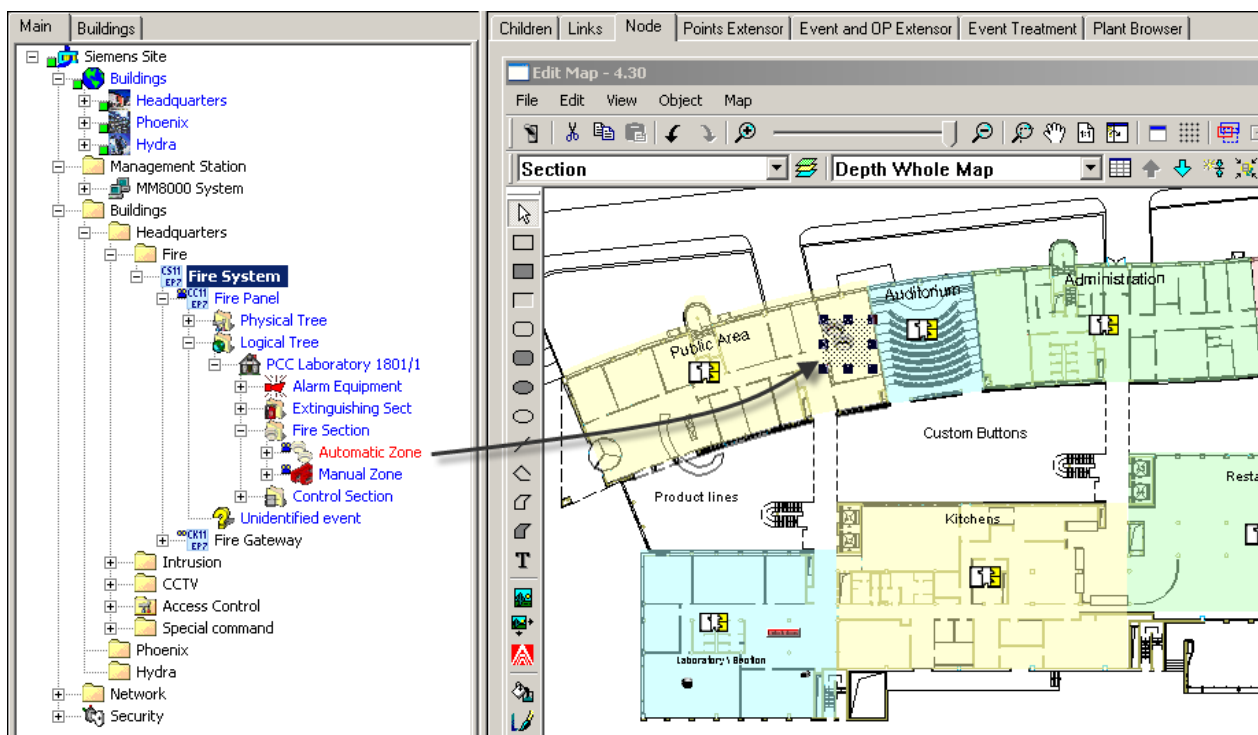


Fig. 9 Drag and drop, set default object size

When you close the graphical map editor (saving your work), the points you deposited on the map are indicated in the tree by a green square next to the node.

View options: snap grid and image placeholders

If you wish to align the objects on a grid, set the option in **View** → **Options**. There you can also enable the image placeholder option, mostly used to speed up operations in case of slow graphic display.

Large maps: aerial view and object locator

Large and populated maps can require special tools to localise objects. Use the **View** → **Aerial View** option to show a general navigation window on top of the detailed map (see Fig. 10).

Also, the object locator command (**View** → **Object Locator**) can list the foreground point objects currently configured and then move the screen view on any of them by simply clicking the correspondent list item.

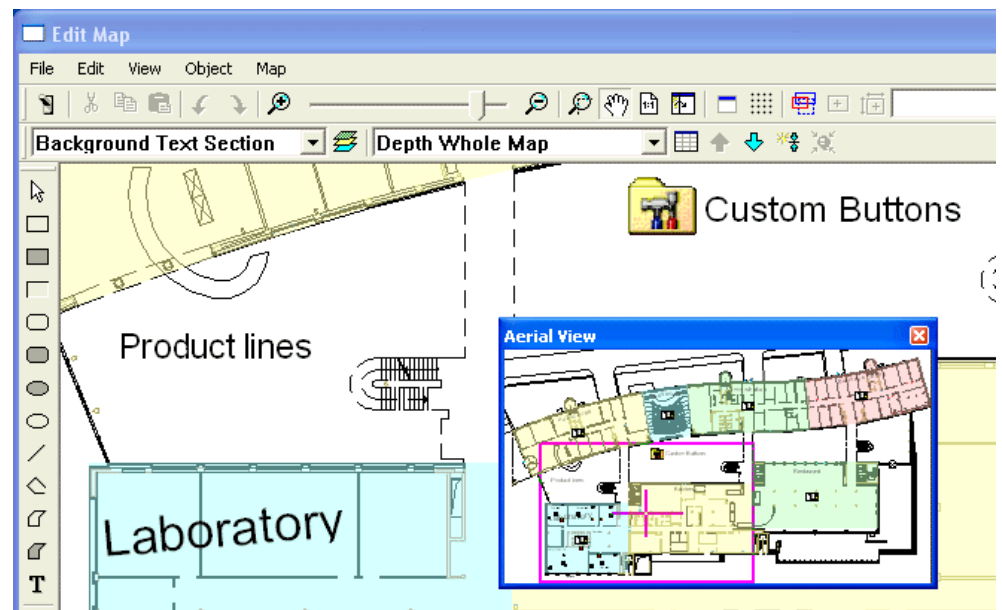


Fig. 10 Aerial view

2.3.6 Defining camera views

The graphic tool provides commands to define the area covered by a camera view. At runtime, this allows for the association of the points located within that area to the camera images.

Note: This functionality is not available for the MT8001 Management Terminal.

To define a camera view, do the following:

Note: Before proceeding, ensure that you have already configured the map background and foreground, including camera points.

1. Right-click a camera.
2. Select **Show coverage area** in the menu that appears.

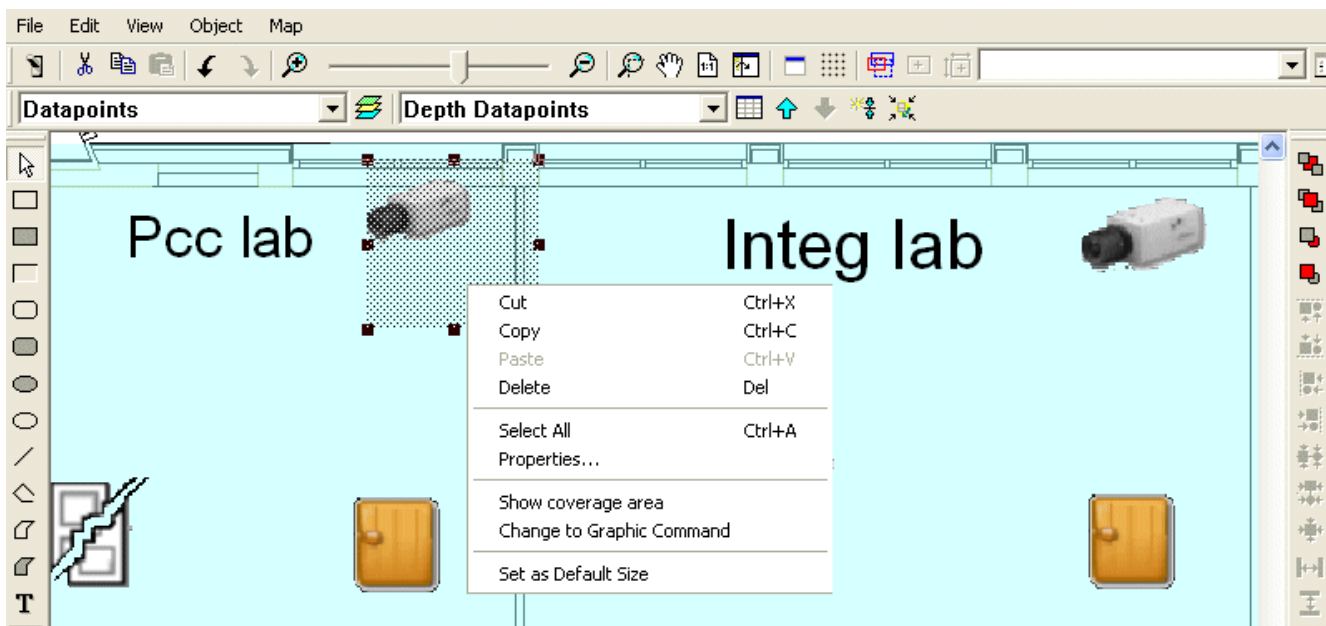


Fig. 11 Camera view: right-click menu on camera points

A polygon appears indicating the camera coverage area. (See Fig. 12.)

3. Use the interior squared dot of the polygon to move and orient the coverage area. (See "A" in Fig. 12.)
4. Use the peripheral squared dots to shape the polygon to represent the actual camera view. (See "B" in Fig. 12.)

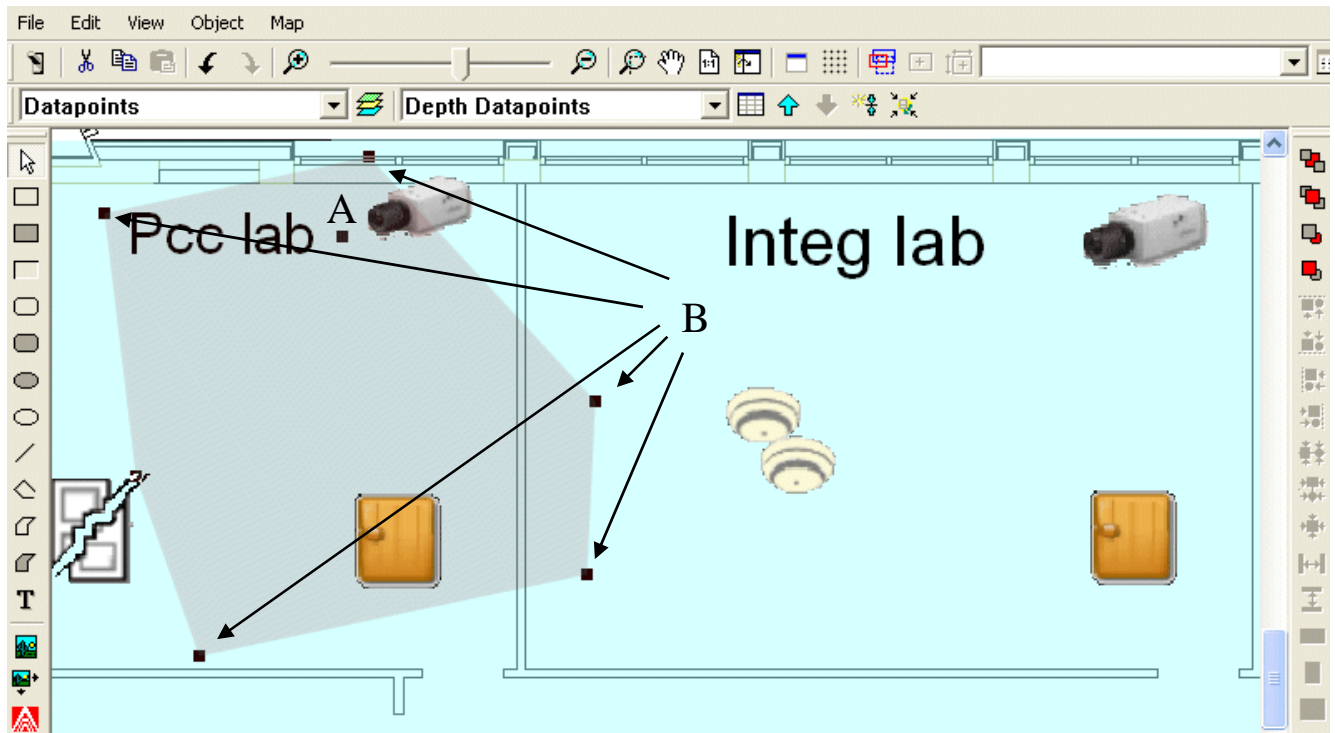


Fig. 12 Area controls

- A Select the interior squared dot to move and rotate the entire polygon
- B Select the peripheral squared dots to reshape the polygon

5. Right-click once more on the camera point.
6. Select **Hide coverage area** in the menu that appears.
Note: If you need to modify the area, show it again and repeat this procedure.
7. Repeat steps 1-6 for all cameras.

Camera visibility: You can define specific layers on which cameras will be visible during runtime (default is **All layers**). Proceed as follows:

1. Double-click the camera object to display the **Graphic Object Property** window.
2. Select the **Visibility** tab.
3. De-select **All layers** and check the desired visibility layers.
4. Close the window.



Note: You can modify this at any time by repeating the above procedure.

For more information on graphic object properties and how to modify them, see section 2.3.7 on page 23.

2.3.6.1 Manually associating video cameras

Video cameras are automatically assigned to points according to the coverage area defined for the camera points allocated on the map. However, a manual assignment can replace or be added to the automatic association.

Note: This functionality is not available for the MT8001 Management Terminal.

First, select the point node in the tree. Then, in the **Camera Extensor** tab (Fig. 13) you can see the camera associations and manually add one or more cameras.

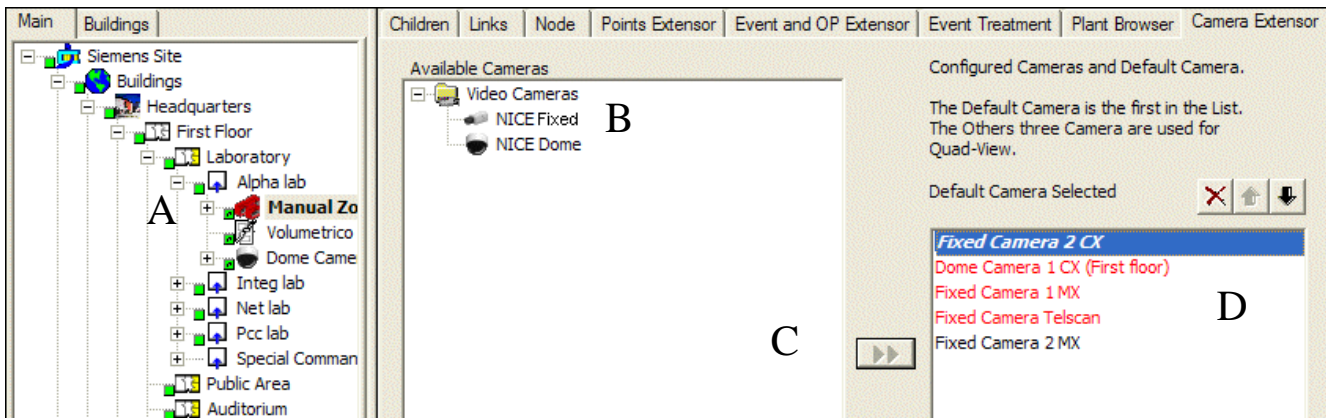






Fig. 13 Camera association

- A Select a point in the tree for manual camera coverage area association
- B Select a camera in the tree to associate it manually (Available Cameras).
- C Add a camera by selecting the double arrows.
- D Configure the camera display(s) – see the following procedure.

To configure camera displays, do the following:

- To choose the camera you want to be the default display for the point:
 - Select a camera and then select the up-arrow icon  to move the default camera to the top of the list.
The text for the camera changes to bold/red/italics.
- Note:** The next three cameras (if available) display in red text – these will be displayed in the quad view. Any additional cameras associated to the point display in black text. (See Fig. 13, “D”.)
- To rearrange the order of the camera display, select a camera and use the up and down arrow icons   to move it in the list.
- To delete a camera from the list, select a camera and then select the delete icon .


2.3.7 Modifying graphic object properties

Each point or object you deposit on a map has a set of properties. You can modify these properties to suit your needs by opening the related **property window**.

- To open the property window, double-click on it. Alternatively, you can also right-click and select **Properties**.

The Property window displays.

For easier and faster operation, the property window can be left open on your screen while you work. Each time you select a different object on the screen, data in the properties window will be updated to reflect the properties of that object.

You may also find it more convenient to work with the Auto-hide feature activated. To activate and deactivate auto-hide, select this icon: . When auto-hide is active, the properties window will collapse when you are working showing only the bar on your screen (this keeps it from blocking your view). To view the properties window, simply move the mouse over the bar and it will expand to show the entire properties window.

Note: Use the menu command **View → Property Page** to enable/disable the tabs in the property page that appears right-clicking on any object.

2.3.7.1 Modifying foreground objects

The property pages of the foreground objects is illustrated in Fig. 14.

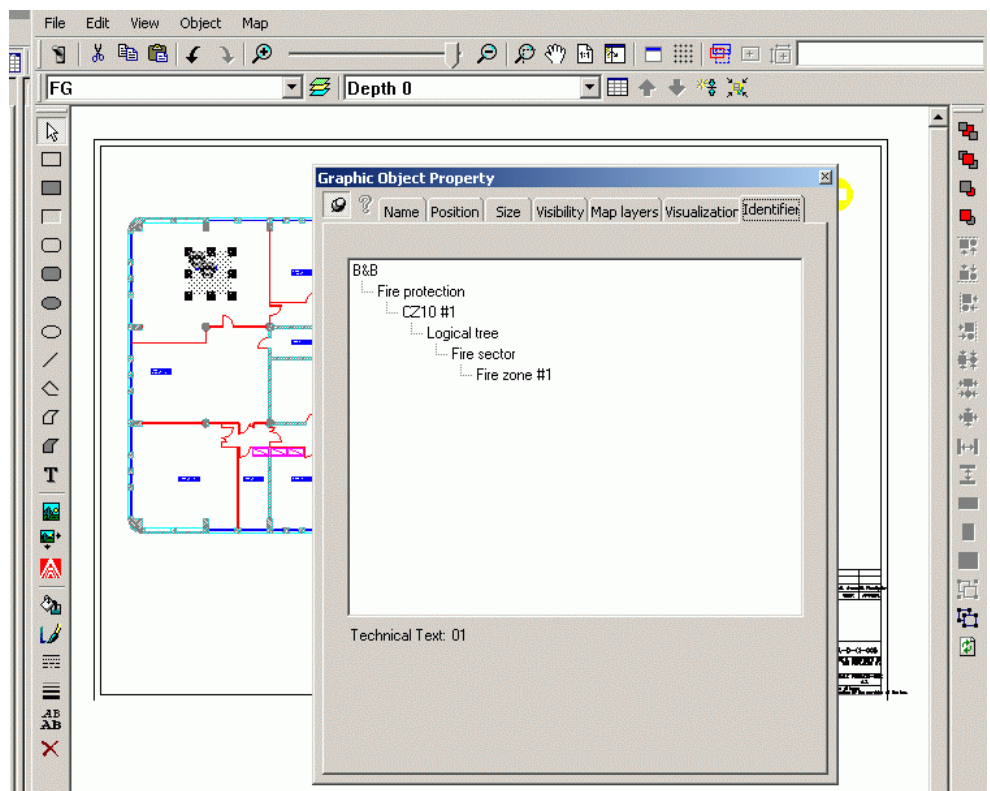


Fig. 14 Foreground Object Property window

The following list defines the tabs in the foreground **Object Property** window.

Note: Any changes you make are automatically saved when you close the window.

- **Name:** The technical information (for debugging purposes) for the object.
- **Position:** The position of the object on the map in X, Y coordinates. Useful for fine position adjustments.
- **Size:** The size of the object in pixels (X, Y dimensions). Use this tab to lock the object proportion and/or size and/or to make fine size adjustments.
- **Visibility:** The zoom range in which the object is visible on the map. Default is Min 0 / Max 0 which means that the object is always visible.

Note: If an object is either a camera or is configured as a graphic command, you can specify the layer(s) on which the object is visible. Default is **All layers**.

→ For details on graphic commands, see section 2.3.7.3 on page 28.

- **Map layers:** The layer on which the object is deposited.
- **Visualization:** This tab is where you define the textual content that describes an object, and the way it appears during runtime.

Text options to choose from to display with an object on a map and/or tooltip when a mouse hovers the object. The selection lists include:

- **Text:** Customer text, Technical text, both (choice of display order), or None.
- **Tooltip:** Customer text, Technical text, Location, or some combinations or the above (choice of display order).

You can also select text **Font** properties such as Type, Style, Size, Position and Color.

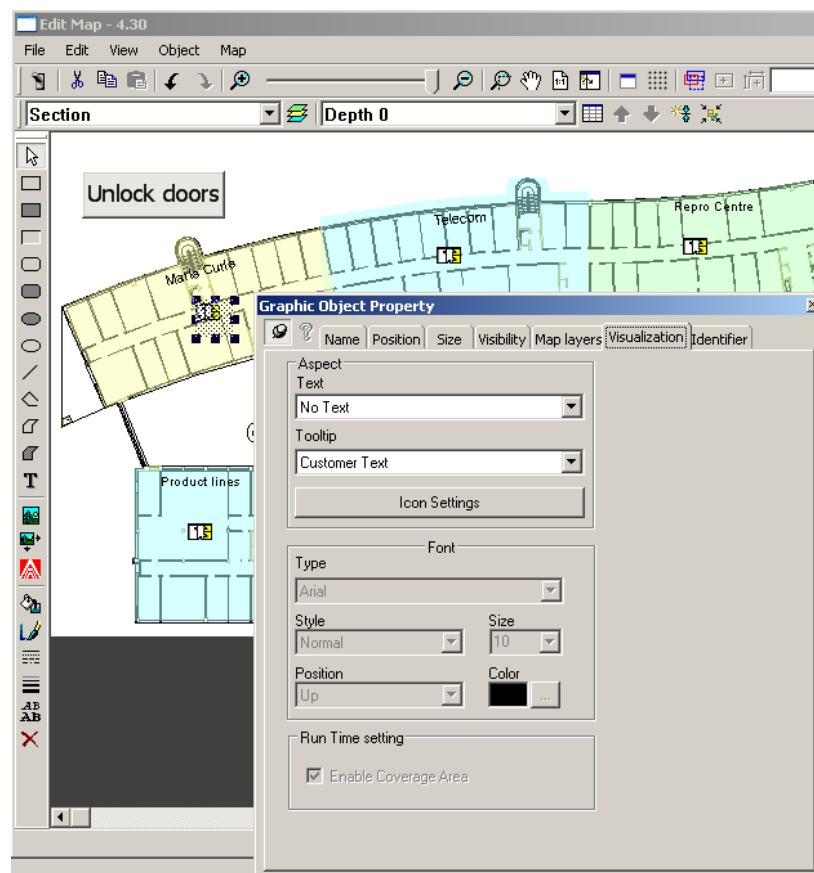


Fig. 15 Visualization tab showing text selection on map

Additionally, you can customize the icon settings. You change these by clicking the **Icon Settings** button to display the Icon Settings window (see Fig. 16).

The **Display type** setting you choose will affect what the operator sees during runtime. Selecting **Whole** means that when an event occurs, the operator will see the data point icon as well as the condition icon (the field surrounding the data point icon). Selecting **Partial** means that only the condition icon will flash to indicate event location and type (type indicated by color).

Also, you can adjust the size of the condition icon if you select **Partial**. Resizing when you select the **Whole** option will result in the size of both icons being proportionate.

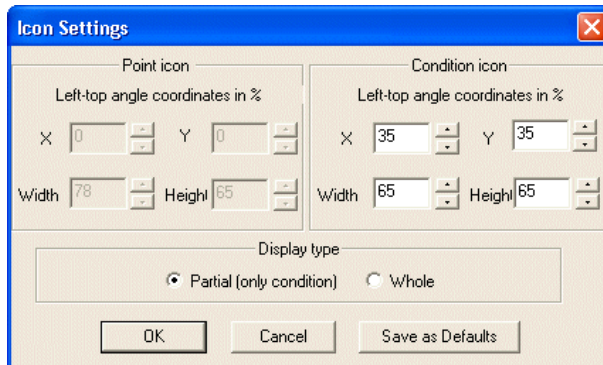


Fig. 16 Visualization icon settings window

Cameras only – Visualization tab:

The default setting for **Enable Coverage Area** is un-checked. This means that during runtime, the user will not be able to see the coverage area for that camera.

Note that if you select a camera and then set the coverage area (see 2.3.6 on page 20), this option will be checked.

- **Identifier:** The path (in the tree) to the data point. In large projects, this is an important tool to tell you where a data point is located.

2.3.7.2 Modifying and animating background objects

The following figure illustrates an example of background Object Property window.

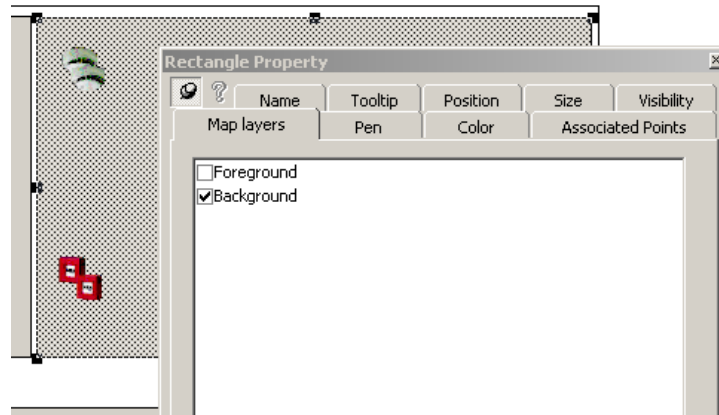


Fig. 17 Background Object Property window

The following list defines the tabs in the background **Object Property** window.

The exact property window name and property list varies depending on the type of object you select. In general, the list includes the tabs listed below.

Note: Any changes you make are automatically saved when you close the window.

- **Name:** The technical information (for debugging purposes) for the object.
- **Tooltip:** Blank by default. Enter text to appear as a tool-tip in runtime if pointing with the mouse on it.
- **Position:** The position of the object on the map in X, Y coordinates. Useful for fine position adjustments.
- **Size:** The size of the object in pixels (X, Y dimensions). Use this tab to lock the object proportion and/or size and/or to make fine size adjustments.
- **Visibility:** The zoom range in which the object is visible on the map. Default is Min 0 / Max 0 which means that the object is always visible.
- **Map layers:** The layer on which the object is deposited.
- **Pen:** Available for drawing objects, it contains the style and thickness of lines.
- **Color:** Available for drawing objects, it contains filling color, blinking option, and blending controls for creating transparency effects.
- **Rotation:** Available on some objects, it allows to rotate clockwise the object from 1 to 359 degrees.
- **Font:** Available for text only, it allows for setting Font, Style, Size, and Horizontal or Vertical alignment in the text frame.
- **Image effects:** Available for graphic images, it allows setting a transparent color and a smoothing factor that may improve the result of the image size reduction.
- **Filename:** Available for graphic images, it shows the imported file path and allow for quick change of the image file. It also allows to disable the image display (uncheck the **Show Image** checkbox).

- **CAD Layers:** Contains the AutoCAD layers whose visibility that can be enabled/disabled for each of the MAP layer.

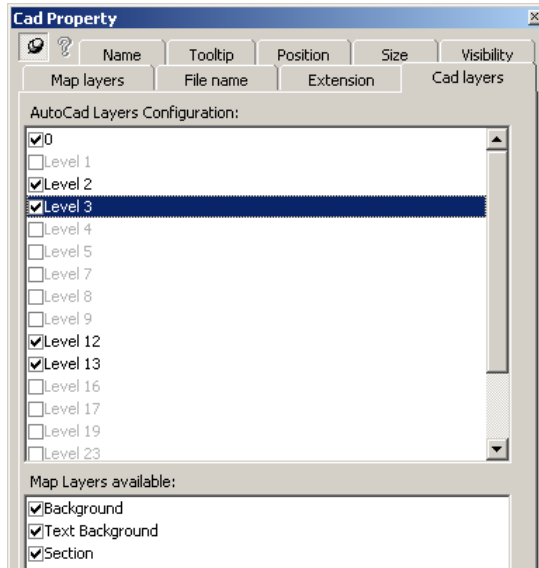


Fig. 18 CAD layers visibility setting

- **Associated points:** available for drawing objects, it allows for associating one or more points (among the ones present in the map) to the object and set its colour attribute according to the most severe event present within the set of **Selected categories**.

The blinking condition of the event may be set on the graphic object or not depending on a checkbox (**Add Blinking**) option. Another checkbox (**Show when normal and for unselected categories**) can be used to show (or hide) the object when none of the considered events is pending.

One point can be associated to max. 100 graphical objects and each object can have up to 100 point associations.

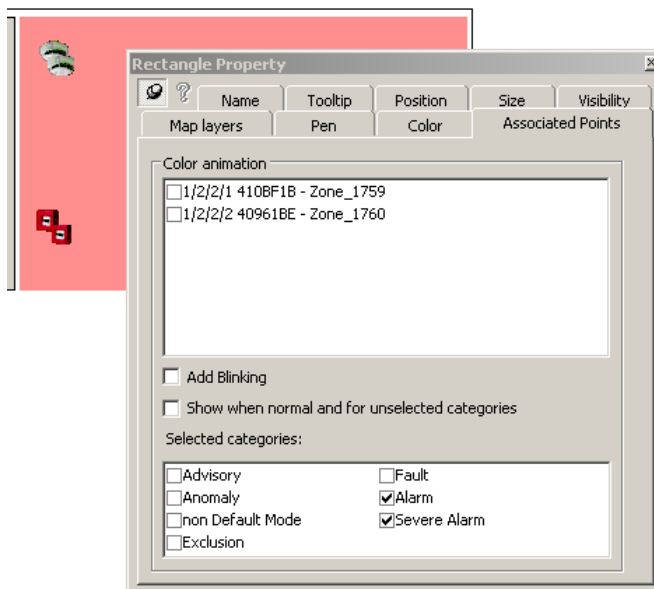



Fig. 19 Point association for object animation

2.3.7.3 Changing an imported AutoCAD file

You can change an AutoCAD file by doing the following:

1. Select the CAD object on the map.
- Note:** You may need to zoom out to do this.
2. Right-click to display the **CAD Property** window.
3. Select the **File name** tab.
4. Select the browse icon  to open the browsing window.
5. Select the new CAD file and then click **Open**.

A message displays informing you the AutoCAD file has been updated, and the action to take to display it (see Fig. 20).

Note: You can also change the **Background color** in this tab.

6. Close the map and open it again to display the updated CAD file.

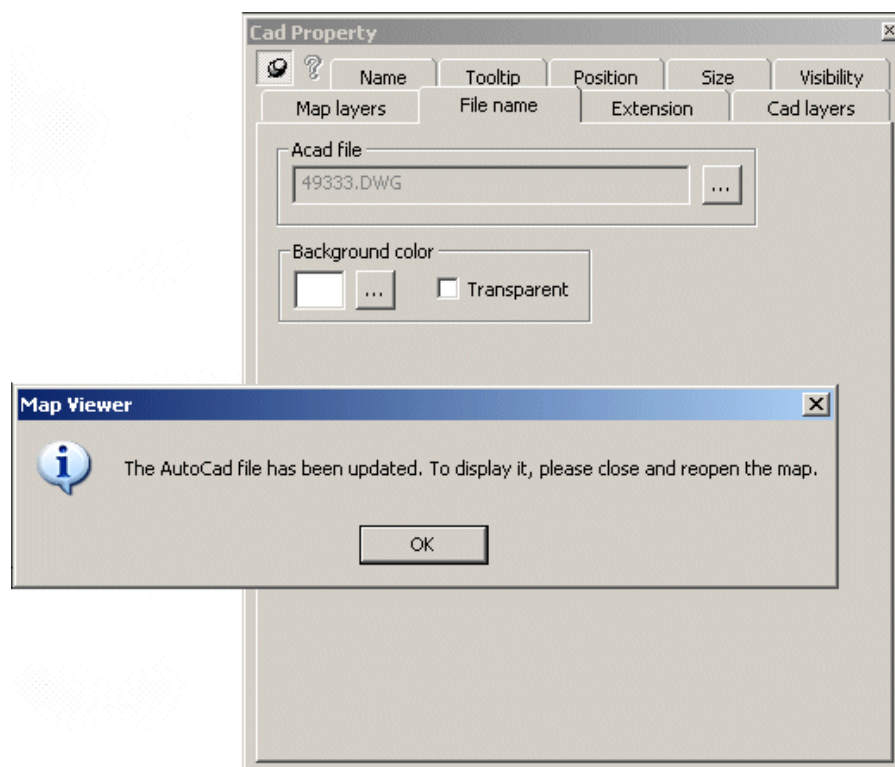


Fig. 20 CAD Property window – File name tab

2.3.7.4 Changing an object to a graphic command

Choose this function if you want an object to be a button to allow an operator to send commands.

Note: To have an object represented on a map as both a button and an icon, drag the same data point twice onto the map, and change one of the icons to a graphic command button.

- To access this function, select an object, and then in the right-click menu, select **Change to Graphic Command**.

The *Graphic Object Property* window displays that includes the ‘*Command Parameters*’ tab.

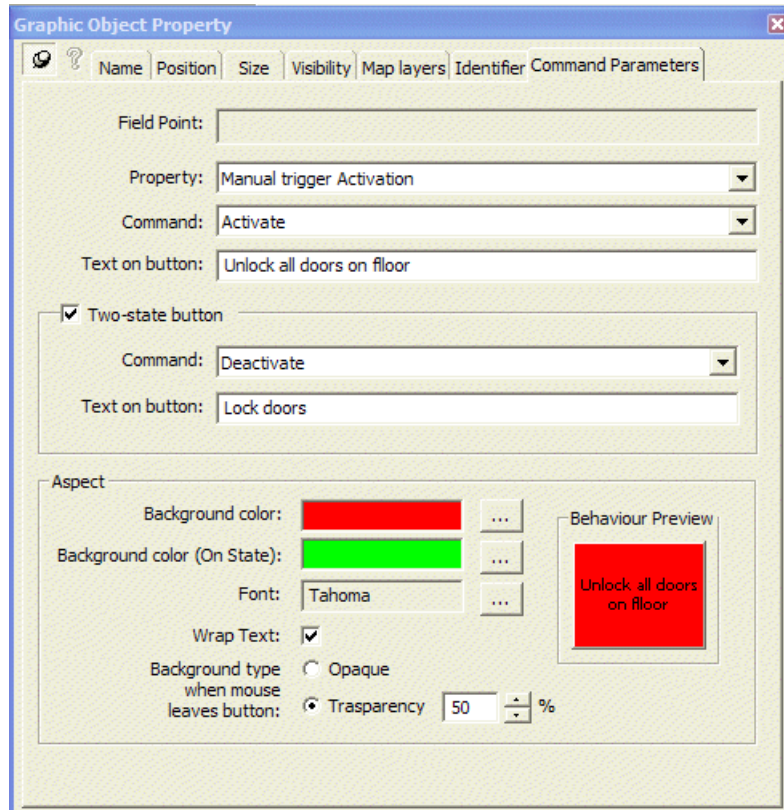


Fig. 21 Graphic Object Property window – Command Parameters tab

To change an object to a graphic command, open the **Graphic Object Property** window as described above, and proceed as follows (in the **Command Parameters** tab):

1. Select the property in the drop-down list that you want the button to be associated with.
2. Select the **Command** for the button in the drop-down list.
3. Type in the text that you want to appear on the button in the **Text on button** field.
4. If this is to be a two-state button, check the box and select the alternate command in the drop-down list. Otherwise, skip to step 6.
5. Type in the text that you want to appear on the button in the second state.
6. Assign **Aspects** to the button (background color, font, etc.).
Note: For lengthy commands, select the **Wrap Text** check box. (See Fig. 21.)
7. Close the window to save your changes. (See Fig. 22.)

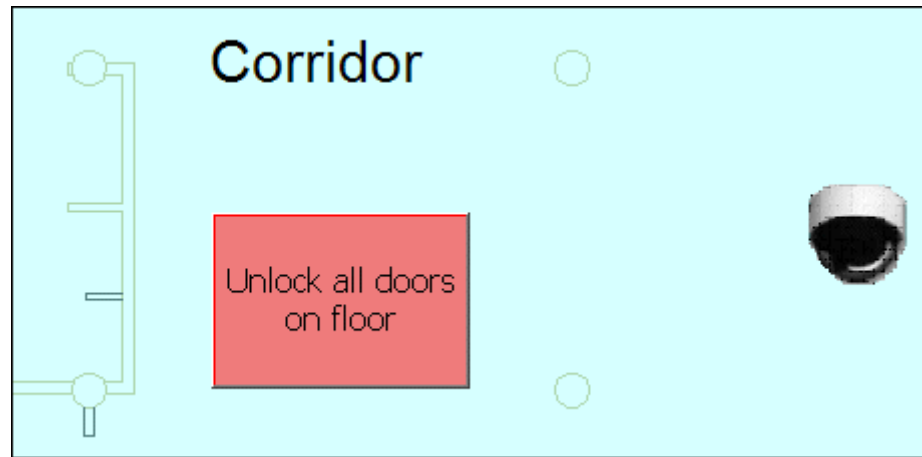


Fig. 22 Example of graphic command button on a map

- To modify a button, double-click on it to open the **Graphic Object Property** window.
- To change a button back to a graphic point, select it and in the right-click menu, select **Change to Graphic Point**.

2.3.8 Creating manual pages

In addition to the automatic association described in section 2.3.9, you can also create your own pages and then associate them manually to the individual points. The buttons illustrated in the figure below provide the tools for creating and managing a list of pages.

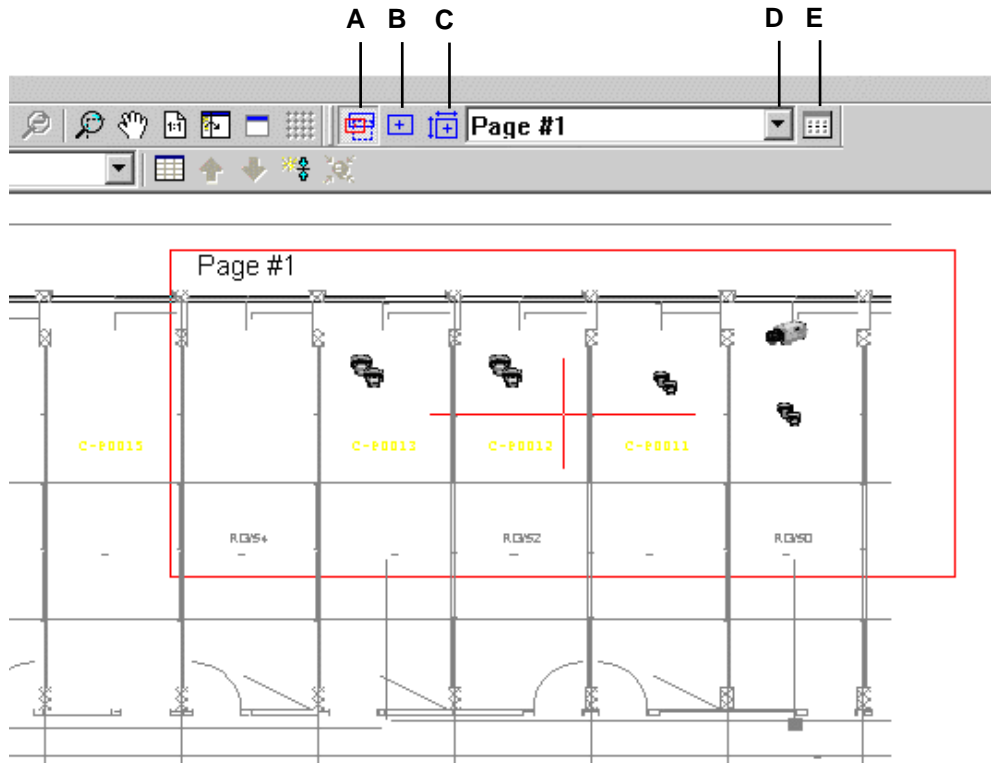


Fig. 23 Manually creating pages

- A Toggle to page mode
- B Create a new page with fixed proportions
- C Create a new page with free proportions (Not for MT8001)
- D Select a configured page
- E Open the list of configured pages

To manually create pages, perform the following steps:

1. Open a map.
2. Click the Toggle page icon to open page mode. (See “A” in Fig. 23.)
3. Create the page.
Select the Create icon (see “B” and “C” in Fig. 23.), and then select an area on the page by dragging the red rectangle.

The ‘Personalise Preset Page Name’ dialog box appears.

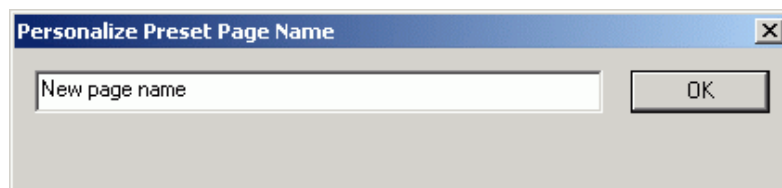


Fig. 24 Set new page name

4. Type in the page name and select **OK**.

To edit or delete pages, do the following:

- Click the Open list icon to display the list of configured pages. (See “E” in Fig. 23.)

The Pages window appears.

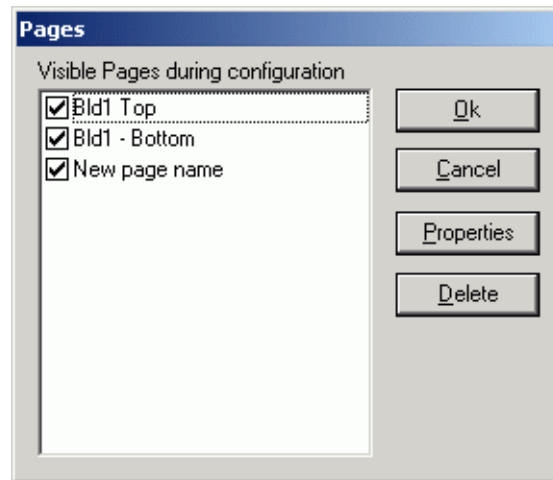


Fig. 25 Edit/delete pages in the Pages window

2.3.8.1 Associating manual pages to points – MM8000

Once manual pages are defined, you should associate them to points. In the **Event Treatment** and **Plant Browser** tabs (Fig. 26) you can see the graphic map associations and manually add one or more associated page.

Map views (automatic pages) are assigned to points according to the point allocation on the maps themselves. However, a manual assignment can replace or be added to the automatic association (Fig. 27).

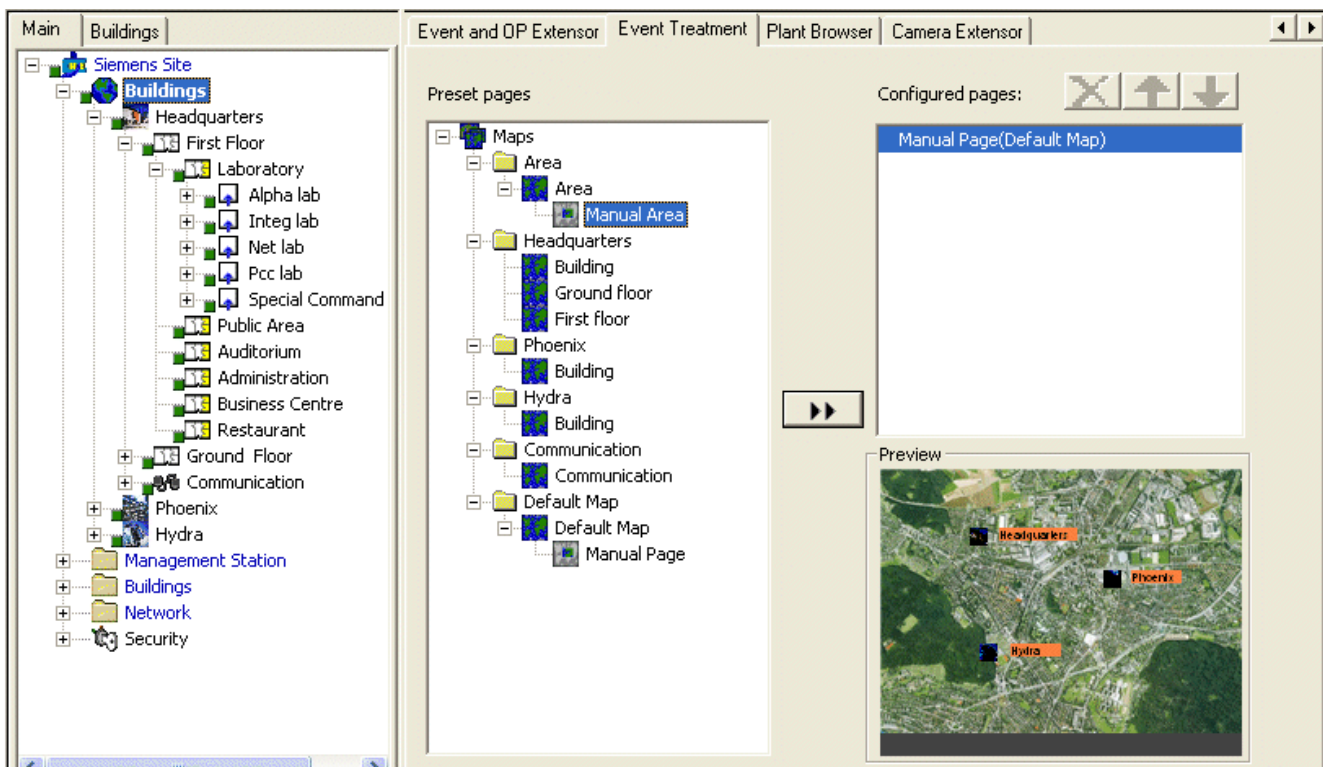



Fig. 26 Event Treatment Pages tab

To associate a page to a data point, do the following:

1. Select the desired point node in the tree.
2. Select the **Event Treatment** tab.

Note: To associate the page to the point in the Plant Browser, select the **Plant Browser** tab.

3. Select the manual page in the **Preset pages** pane.
4. Select the assign icon .

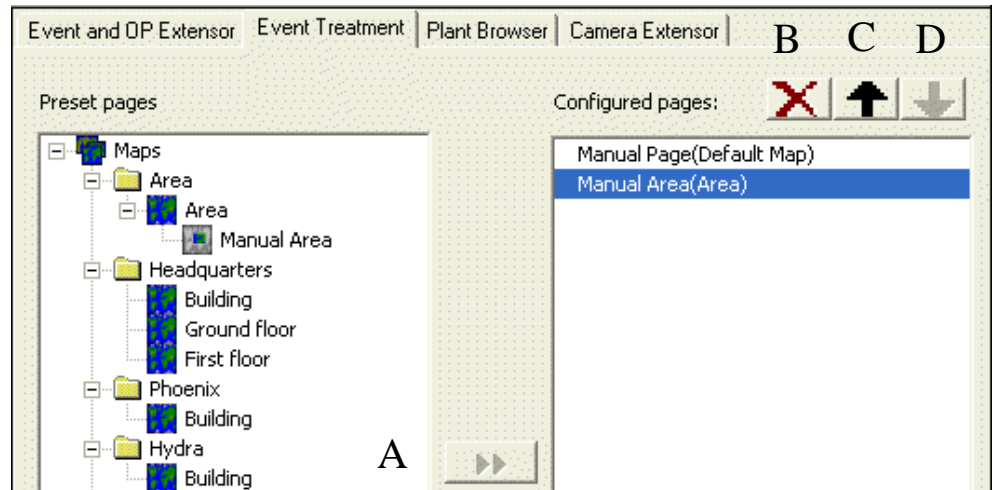


Fig. 27 Associate a page to a point manually – MM8000

A Assign manually a page with the assign icon

B De-assign manually a page

C Move a page up in the runtime display order

Note: The top-most map is the first to be displayed, followed in sequence to the bottom-most.

D Move a page down in the display order

2.3.8.2 Associating manual pages to points – MT8001

If you have created one or more pages for a point on a map, you can choose to have a specific page or an entire map displayed during event treatment for that point.

To do this, proceed as follows:

1. Select the desired point node in the tree (it must already be deposited on a map).
2. Select the **Pages** tab.
3. The map and any pages you created for it display in the **Maps/Pages** pane.
4. Select the map or page you want in the **Maps/Pages** pane or use the up and down arrow controls located above the far right window to navigate to the display you want for the point.

The display appears in the 'Preview' window.

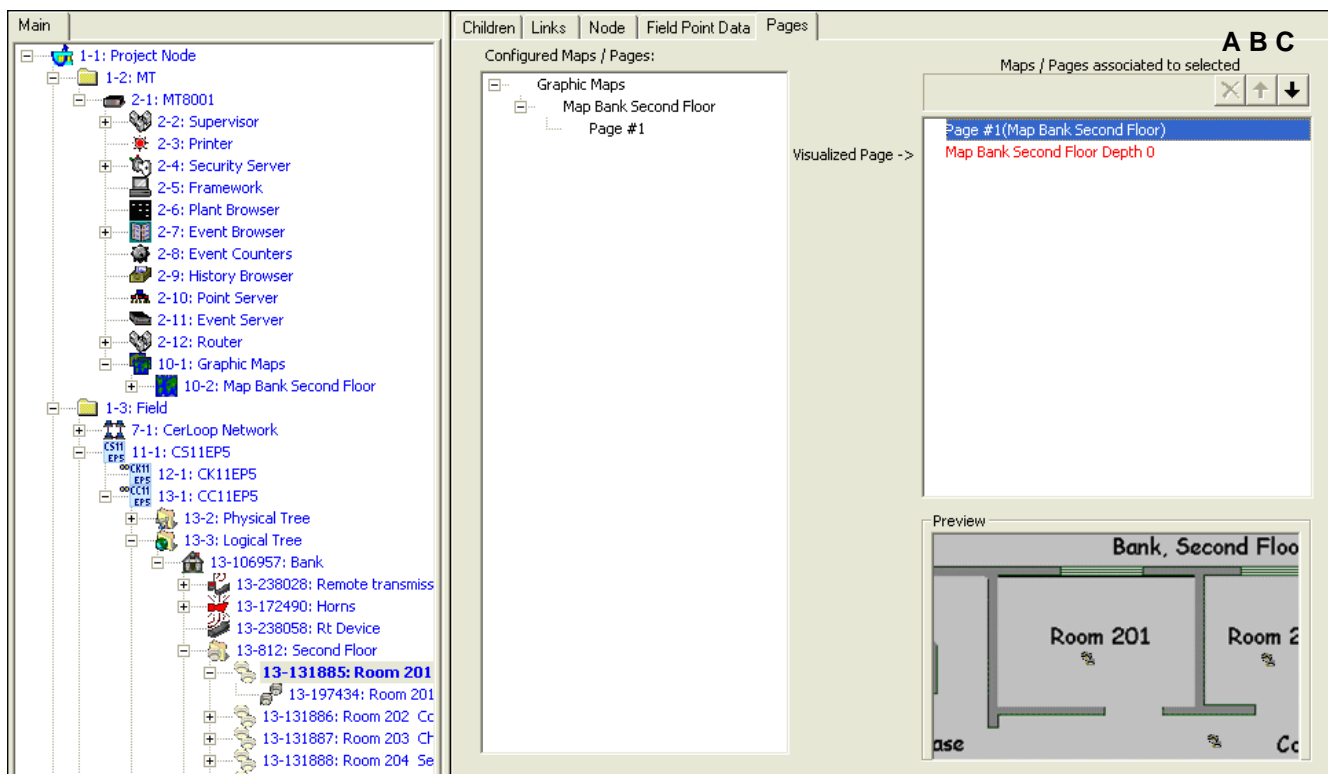


Fig. 28 Associate a page to a point manually – MT8001

- A De-assign manually a page
 - B Move a page up in the runtime display order
- Note:** The top-most map is the first to be displayed, followed in sequence to the bottom-most.
- C Move a page down in the display order

2.3.9 Saving a map

There are two ways to save a map:

- a) Use the menu command File → Save (or the shortcut CTRL-S)
- b) Exit MapMaker by closing the window (you will be given the option to save)

Option “a” allows you to periodically save a map while continuing to work on the configuration.

To return to a map to continue editing (if you selected option “b”), select the map node in the tree, and click the **Edit Map** button in the **Node** tab page.

Points in maps will automatically be associated to a page

When you save a map, the points deposited on that map are automatically associated to it. In other words, it is associated to the page created with the map’s depth that contains the point. You can verify this association by selecting the point on the tree and then showing the tabs named **Event Treatment Pages** and **Plant Browser Pages** in Composer.



Note: If a point is deposited in more than one map, then it will be associated with all of them, in sequence. You can also modify the map sequence order (automatic or manual pages).

→ For details on modifying sequence order see section 2.3.8.1, p. 33, “D” and “E”.



MM8000 only:

The automatic association of maps to the points can be globally disabled in:

<**Supervisor System Settings**> → **MM8000 system** → **Logical Configuration** → **Point Page Extension**

Uncheck the Automatic page calculation check box.

2.3.10 Saving a map as JPG file

For exporting the map as a JPEG graphic file, flattening all vector objects (*rasterization*):

- Use the menu command File → Save as JPG (or the shortcut CTRL-J)

This can be used for print or process the resulting image using external tools.

2.3.11 Testing a map

toggling the button shown in the following figure allows you to test certain elements of a graphical map as if it were active in MM8000 / MT8001. Use this button to test the behavior of special commands (such as graphic commands) to see how they will appear in MM8000 / MT8001 runtime.

Toggle the test button again when you wish to go back into edit mode.

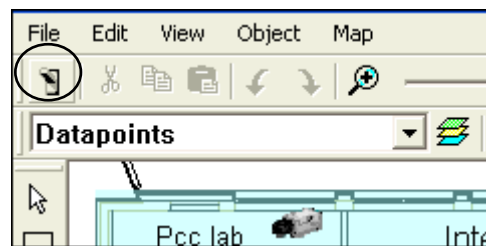


Fig. 29 Test a map by toggling the test button (encircled)

2.3.12 Creating a default map page

You can also define a default page so that a graphic or text will appear for all data points that have no map associated with them.

Note: This feature not available for MT8001.



Only a manual page can be used as a default page.

Proceed as follows:

1. Create a manual page to use as the default page (if you don't already have one).
→ See section 2.3.8 for details on how to do this.
2. Select the Point Page Extension node:
<Supervisor System Settings> → MM8000 System → Logical Configuration → Point Page Extension
3. Select the default map page in the **Default page settings** pane.
4. Select **Set as Default** (see Fig. 30).

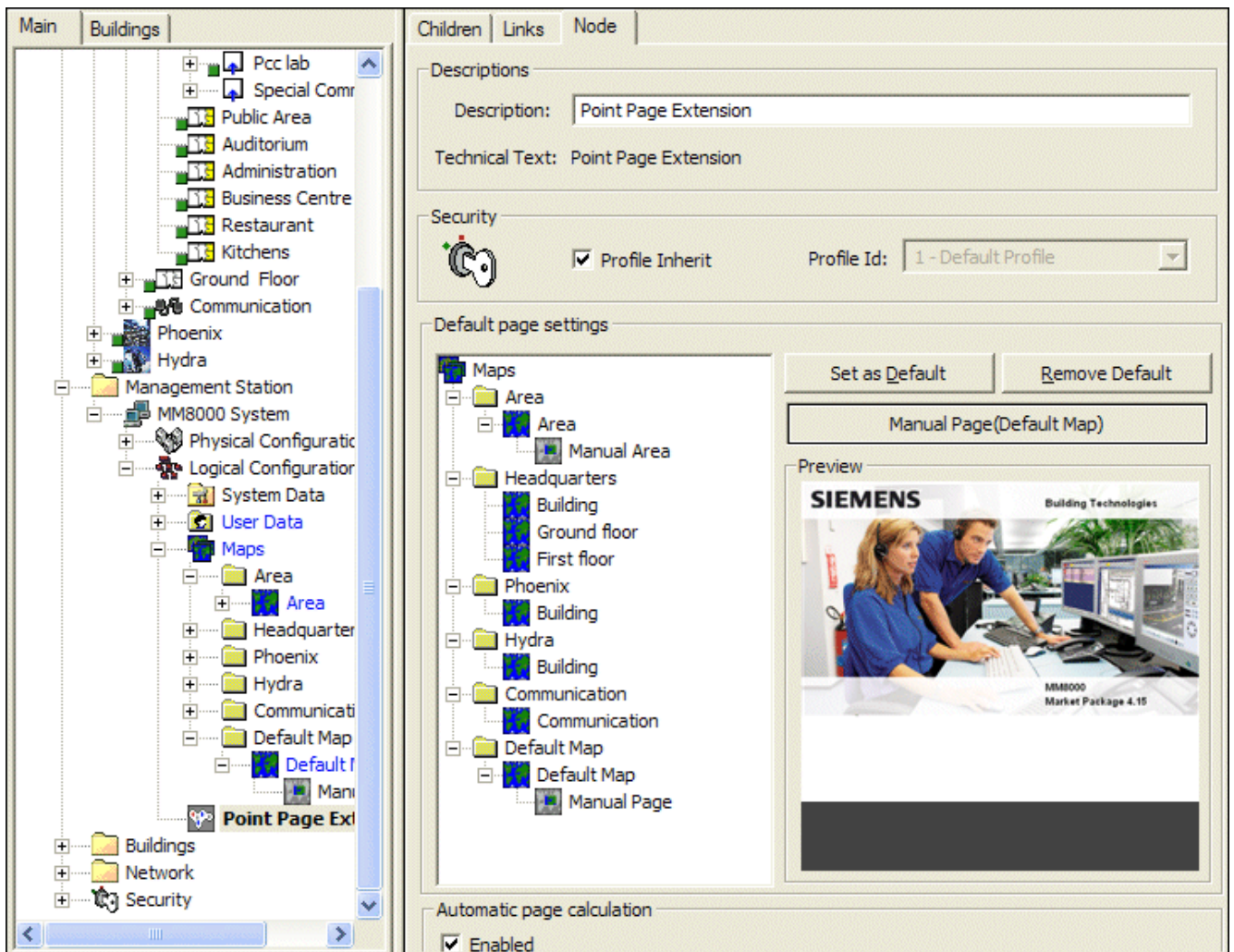


Fig. 30 Setting the default page

Note: To remove the default map page, select the **Point Page Extension** node and then select **Remove Default**.

2.3.13 Using the graphical editor

The graphical editor contains a number of tools to use when creating maps. This section describes the editing tools to enable you to create maps more efficiently and/or to customize them.

2.3.13.1 Using drawing tools

Standard graphic tools are available, as shown in Fig. 31.

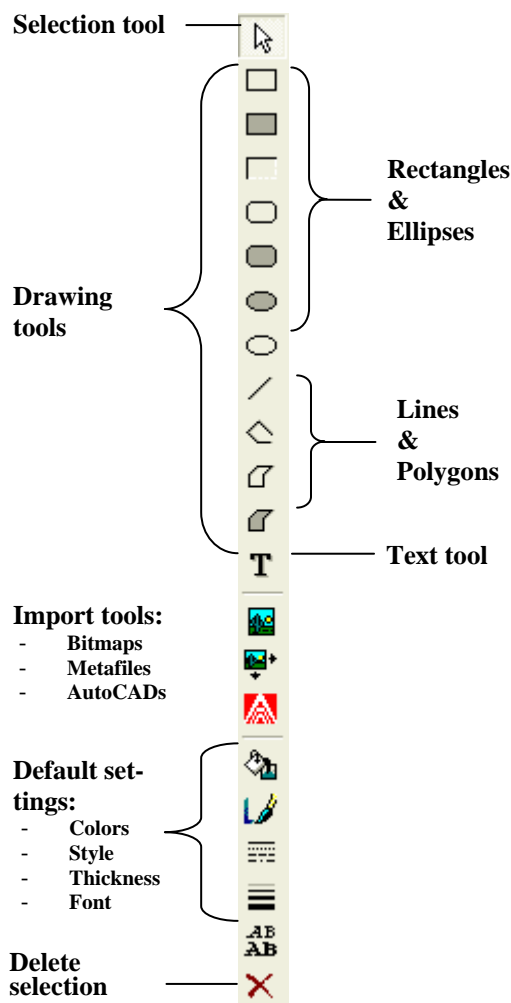



Fig. 31 Drawing and import tools

Tip for Polyline, Polyfill, Polygon tools:

To draw perfect vertical, horizontal, and 45° lines, press and hold the **SHIFT** key.

Selecting objects

The selection tool  allows a single or multiple object selection using by single-clicking on an object, or drawing a rectangular shape around multiple objects.

Note that:

- Keeping **CTRL** key pressed allows you to select and then deselect (toggling) objects for multiple selections;
- Keeping **ALT** key pressed allows you to select and then deselect (toggling) objects on different layers.

Configuring graphical maps – using the MapMaker

When an object is selected, it appears covered by a grayed grid, delimited by few black, squared dots (see Fig. 32).

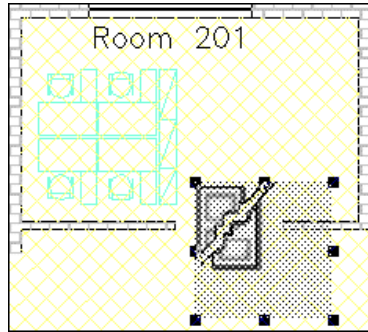


Fig. 32 Selected object

2.3.13.2 Using size and positioning tools

Adjusting object size and position

A number of tools are available for adjusting size and position of objects.

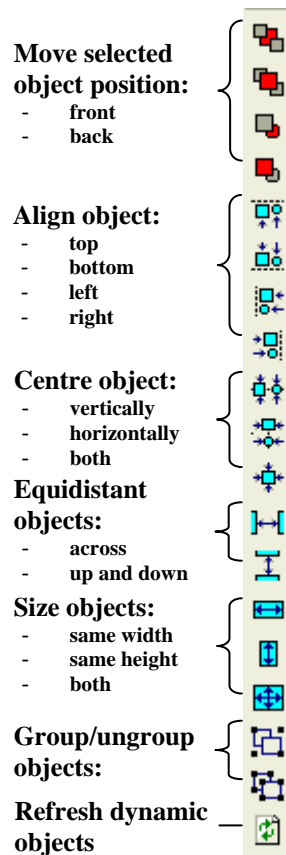


Fig. 33 Size and position tools

Note: The same tools are available from the menu Object.

2.3.13.3 Adjusting views

Use the following tools to control the map display:

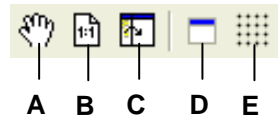


Fig. 34 View tools

- A** Move the map (pan)
- B** Adjust current view to the screen size
- C** Adjust dimension – see tree and map at same time (for drag and drop)
- D** See aerial view – a small navigation window for easy orientation
- E** Set/unset grid – modify resolution in View → Options



Tip: To quickly zoom in and out on a map, click on it and use the mouse wheel.

2.3.14 General commands

User interface

Use the menu command **View → Toolbars** to enable/disable the toolbars in the MapMaker interface.

The command **View → Status Bar** can enable/disable the information bar at the bottom on the MapMaker screen.

Appendix A – Limits and best practices

- Use a maximum of **200** layers.
- A maximum of 100 graphical objects can be associated to a datapoint for animation purposes.
- **Split maps** with too large a surface into 2 or more pieces.
- Limit the number of active symbols (detectors, push-buttons) on the same map to about a maximum of **400** elements.
- Parts belonging together must be present on the same map. E.g.: **all detection zones of a section belong on the same map.**

Appendix B – Recommendations for AutoCAD® drawings

For an easy integration of AutoCad maps in MM8000 / MT8001, a number of rules must be taken into account. Prepare the maps with AutoCAD prior to the integration into MM8000 / MT8001.

Remove all unused layers

1. Remove all irrelevant layers.
Keep the layer with the implementation of the detectors.
2. Lock all layers you do NOT want to remove.
3. Put all layers ON.
4. Make a **Select All**.
All unused/unwanted layers are now removed.
5. Unlock all layers.

Explode all block definitions

- Use the **Burst** command (not available under AutoCad LT) or eventually the 'Explode' command. You probably have to execute this command more times to explode blocks within blocks.

Remove everything outside of the wanted view

1. Use the **Erase** command.
2. Select everything with the command **Select All**.
3. Using the command **Remove** you can now keep the part you want to keep, by selecting only that part.

Verify the map and remove all irrelevant pieces

- Attention: With **Explode**, text attributes are most probably changed to attribute text and no longer the customer text. (There are tools to change this).
- Adapt eventually the color of lines or surfaces.

Make sure there is enough room for placing the active symbols

- Eventually move (text) items to make room for the placement of the active detection symbols.
 - Move text to the sides of the room. Detectors are usually placed in the centre of the room.
 - Remove all unwanted items, like furniture, plants, electrical appliances, etc.

Clean up the map

- Use the **Purge** command to ensure removal of all unused layers.
- Use the **Audit** command to resolve eventual faults on the drawing.

Create an “extents view”

- From the original plan, make an extents view, exactly as you want it to appear in MM8000 / MT8001.
1. Draw a rectangle on a new layer **MM8000 / MT8001_Extents**, with the desired drawing size.
 2. Perform a **Zoom extents** to view the result and note the values of the drawing extents with the command:
EXTMIN = reference of the lower left side.
EXTMAX = reference of the upper right side.
 3. Round these values and note them on the layer **MM8000 / MT8001_Extents**
 4. Remove the rectangle.
 5. Draw a new rectangle based on the **EXTMIN** and **EXTMAX** values that you have chosen.
 6. Switch off the layer **MM8000 / MT8001_Extents**.

Save the drawing

- Save and close the drawing.
In case of troubles with the native format of your version, you may try to **Save as** the file in another format. Keep the original as reference drawing for future changes.
→ Information about version compatibility can be found in the product Release Notes.
- Never change the extents view. This way you will never have to redo the placement of active symbols.

Appendix C – MT8001 graphic guidelines

Unless a clear concept is followed, the number of graphic pages required for even a medium-sized installation can become excessive. Here are some guidelines to help you achieve the best results:

- Use the same graphic for all event categories within the same part of the building. For example, the same graphic can be used to indicate an Alarm, a Fault, or an Exclusion, etc in the south wing of the fourth floor. The fact that it is a Fault, which has occurred, is indicated by the event message itself and by the color of the dynamic symbol.
- Use the graphic to indicate an entire floor (or at least part of it) where the event has occurred: a separate graphic to pinpoint the room where the event occurred should be avoided. For example, the fact that the Fault has occurred in Room 415 is indicated in the event message text itself and by the position of the colored symbol.

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