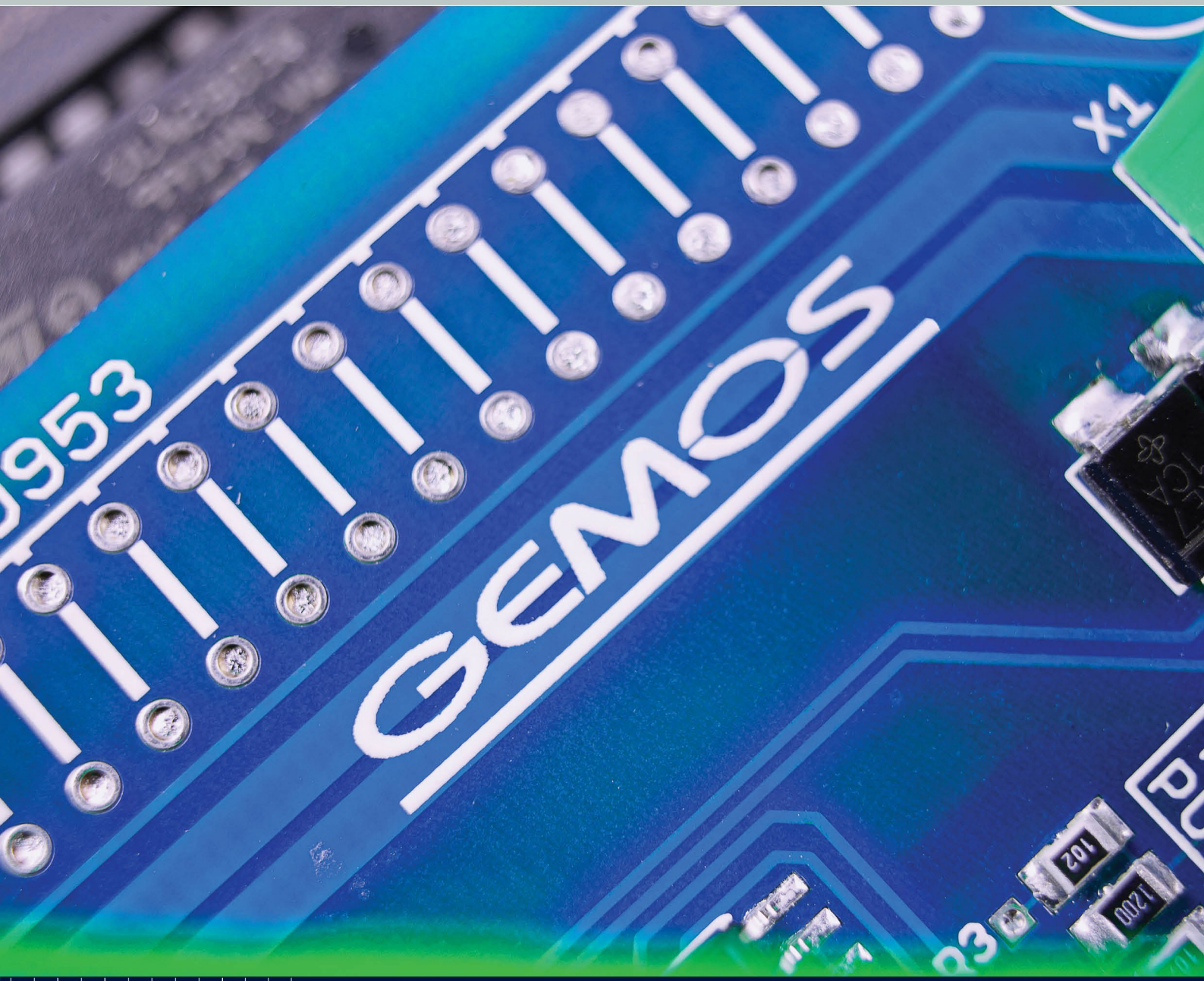
GRETSCH-UNITAS



technical documentation

ela soft

Requirements CAD-Import GEMOS / Checklist CAD-Drawing GEMOS4

Securing technology for you

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Inhaltsverzeichnis

1.Checklist for floor plan drawings....4
1.1.General....4
1.2.Layer structure....4
2.Checklist for symbols (detectors)....5
2.1.Detector blocks....5
2.2.Detector block attributes....5
2.3.Dynamic hatching....5
3.Overview of versions/revisions....7

1. Checklist for floor plan drawings

➔ *Deviations from the rules stated below will require examination by ela-soft!*
The dwg direct import is only available from version GEMOS4 onwards.

1.1. General

- Format: dwg, dxf is (currently) not supported.
- Special characters (e.g. ä, ö, ü) are (currently) not permitted in file names!
- Circles and arcs should be created as such, and not made up of many individual lines. Blocks should not be split up. Particular attention must be paid to this, especially when exporting from external systems into dwg format.
- If references (XREF) are used, the referenced drawing must be located in the same folder and a relative reference must be used (no specification of drive letter or path). The reference for all drawings should be added on the same layer. This layer is required in the import procedure!
- By default, the "XREF_Grundriss" layer is preset in GEMOS for a referenced floor plan/layout diagram.
- A layout called "GEMOS" must be created for defining the required figure/drawing excerpt in GEMOS. If a layout of this kind is not available, scaling is performed to the entire "Model Space". This can lead to an unfavourable representation.
- The "GEMOS" layout must be located in the drawing that contains the detector data to be imported (e.g. technology diagram with "GEMOS" layout in which the floor plan has been stored as XREF on the "XREF_Grundriss" layer).
- The active system of coordinates (BKS) must be set to the "World" setting.
- The drawing units must be set to metric.
- Texts which shall be displayed in GEMOS must have a standard Microsoft font.
- If a XREF is used, all drawings should have the same drawing units.
- If it is possible from an organisational point of view, drawing elements that are irrelevant to GEMOS (auxiliary structures, details) should be removed prior to the import. This can significantly improve the times required for loading. If it is not possible to remove irrelevant drawing elements, they must be located on separate layers so they can be switched off or frozen.

➔ *The use of dynamic symbols in AutoCAD must be agreed with ela-soft. At the present time, these detectors can be imported, but without consideration of the rotation angle (for example CCTV cameras). These data points will then be displayed as a circle in GEMOS layouts.*

Dynamic symbols should be avoided until the next GEMOS release, if it is possible.

1.2. Layer structure

- The drawing elements required for representation in GEMOS must be located on different layers (floor plan, hatching, texts, dimensions, etc.). It must be possible to set the display of a simple floor plan using the layer structure (by hiding or freezing the unused layers).
- The layer names should be identical where several drawings, e.g. several floors for 1 building, are used.
- Hatchings and details (e.g. for door profiles) are to be located on a separate layer.
- Windows and doors should be blocks.
- If the loading time in GEMOS is too long then elements that are not required for display/representation in GEMOS must be deleted from the drawing or the corresponding layers must be frozen.
- A default setting for the irrelevant layers (freezing) for GEMOS is to be recommended, since this provides greater clarity in the import procedure.
- The layer „0“ is a systemlayer from AutoCAD. All elements which are located on that layer can not be turned off. These are always displayed in GEMOS.

2. Checklist for symbols (detectors)

This processing is valid for GEMOS4.

2.1. Detector blocks

- When symbol blocks are used for the systems, the insertion point in the symbol block must be 0,0,0 (deviations will require examination by ela-soft). The insertion point must be in the middle of the symbol (see also the manual for creating attributes in AutoCAD). Mirrored symbol blocks are not allowed in the CAD drawing.
- Use of the attribute values as described in the "Preparations for the data import" manual.
- Symbols (detectors) that should not be represented in GEMOS must be identified. This can be stored in a block attribute, for example, or these detectors are placed on a separate layer.
- Symbols (detectors) must be placed in the correct position. There are not allowed to be any extended fields with cropping! Contact ela-soft if this cannot be avoided.

2.2. Detector block attributes

- The names of block attributes are (currently) not allowed to contain any umlauts (ä, ö, ü).
- It must be possible to derive the Pro02id of the allocated detector from the available block attributes. Ideally, the pro02id will be available directly as a block attribute, but if not then at least as an attribute indicating the line and detector number. This attribute must always have the same name in all blocks.
- Each block attribute is only allowed to occur once, e.g.: free, free, free = incorrect / free1, free2, free3 = correct.
- Each system should use its own layer. The detector designation must be clearly recognisable layer-by-layer. For example, the detector group designation of fire detectors is '1/7' and '1/8' on the FAS layer.
- If the systems are on the same layer, attention must be paid to having a clear allocation to the systems when assigning the detector designations. For example 'I 1/7' and 'F 1/8' for IDS and FAS.
- The unique detector designation in the CAD plan must also be apparent in the central unit or logfile. This is essential. If it is not possible then a list has to be compiled which allows the allocation to be recognised. If there are several central units then this must also be apparent.
- All symbols (detectors) that should be represented in GEMOS must also be present in the CAD drawing. There must be a symbol for each data point. A summary is not possible.

➔ *The rotation angles of symbols in GEMOS are represented as specified by VdS.*

Example video camera: in accordance with the VdS guidelines, the viewing direction should be to the right. This corresponds to a 0° rotation angle in the CAD drawing. Accordingly, at a rotation angle adjustment of 0° in GEMOS, the viewing direction of the camera is to the right.

2.3. Dynamic hatching

Dynamic hatching takes the form of AUTOCAD blocks that are hidden/shown dynamically in GEMOS on the basis of a detector status (or another boundary condition).

- A separate block with an attribute must be created in AUTOCAD for each hatching (entry e.g. designation of the area). The block must be given a unique name. The name is not allowed to contain umlauts (ä, ö, ü) or special characters, with the exception of underscore, minus and dot. The attribute **must** be set to "invisible").
- The content of the hatching block must be created in AUTOCAD in the way that it should be represented subsequently in GEMOS (polyline and/or hatching).
- The hatching blocks must be placed on special layers. These layers are only allowed to contain hatching blocks. If it should be possible to show and hide groups of hatching (e.g. by system) then each group must be given its own layer.
- The layer colour, respectively colour sample must be adjusted using the AutoCAD colour index. If True Color or colour books are used, a dynamic colour change in GEMOS is not

possible.

➔ *Necessary attributes in the hatching block must be set to "invisible".*
Single or multi-line texts are not allowed to be stored in the hatching block, because they are not displayed optimally.

It is essential to assign colours using the AutoCAD colour index.

3. Overview of versions/revisions

Revision	Date	Editor	Explanation
1.0	2005.05.16	SL	First version
1.1	2005.06.30	SL	Expansion
1.2	2005.11.23	SL	Expansion
1.3	2007.03.27	SiS	Correction/supplement
1.4	2007.11.14	SiS	Reformatting
1.5	2008.08.13	SiS	Change of company name
1.6	2010.03.30	SiS	Expansion to include dwg direct import/correction
1.7	2010.11.12	SiS	Layout adaptation, supplements
1.8	2012.12.19	SiS	Layout adaptation, adaptation to GEMOS4
1.9	2013.07.31	SiS	BKS information added
2.0	2013.09.18	SiS	Rotation angle of symbols added
2.1	2013.11.27	SiS	Identical names of layers added
2.2	2014.05.05	SiS	Use of colour tables for dynamic hatching added.
2.3	2015.04.30	SiS	Additional systemlayer „0“ tip
2.4	2015.06.02	SiS	Separation GEMOS3 and GEMOS4
2.5	2018.02.09	SiS	Additional dynamic blocks in AutoCAD
2.6	2018.11.01	SiS	Additional title General