



CAD data delivery guide

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How to create a CAD file for your Deep Map™

This document contains a description of all the steps needed for you to adapt your DWG or DXF format CAD data so that it can be imported automatically by Heidelberg Mobil.

To guarantee that your CAD data can be successfully processed, you must ensure that it fulfils certain quality requirements. These criteria are described in detail below. Should you have any further questions, please do not hesitate to contact us. We are happy to help.



Step 1: Determine what is to be shown on the map

When you send us overloaded files, our first task is to find our way around your data. This can lead to disproportionate increases in costs at your end. So we would ask you to take the time to think about what items and areas should actually be rendered on the map.

The map can, for instance, show the following buildings, spaces, rooms, facilities and special areas:

Buildings

- office buildings
- exhibition halls
- factory workshops

Spaces

- office spaces
- manufacturing spaces
- event spaces

Rooms

- meeting rooms
- individual offices

Facilities

- stairs and lifts
- facilities and amenities such as toilets, restaurants, server rooms

Special areas

- booths at trade fairs
- machinery
- office workstations

Step 2: Create new layers

For the items that are to be rendered to be uniquely identifiable, it is necessary to enter these in layers with the prefix **HDMI_*** in your CAD plan. Each layer type (buildings, spaces, rooms, facilities and special areas) must have at least two layers: the **geometry layer** and a **label layer**. A third, optional layer can be added containing supplementary information, such as an additional name for a room.

The geometry layer

The geometry layer contains the geometries of the layer type that is to be rendered. At the moment, Heidelberg Mobil only supports closed, non-interlocked polygons (see Step 3) in this layer.

The label layer

The label layer contains the unique identification text or the unique identification number of the individual geometries and is the link between the geometry and the relevant technical data. This is the layer by which spaces, rooms etc. can later be unambiguously identified (see Step 3). If the optional text layer is not used, then the identification texts for the spaces, rooms etc. are taken from this layer.

The text layer

The text layer can contain optional information or descriptions of the items contained in the geometry layer.

In this layer there is no need for the text to be unique and unambiguous (see Step 4). The text layer is used, for instance, to render a text instead of an identification number for an item on the finished map. One example might

be an office that has the room identifier “R001” on the label layer and an optional text “IT Team”. The map data contains the unique identifier “R001” for the room, but on the map the item is rendered as the “IT Team” room.

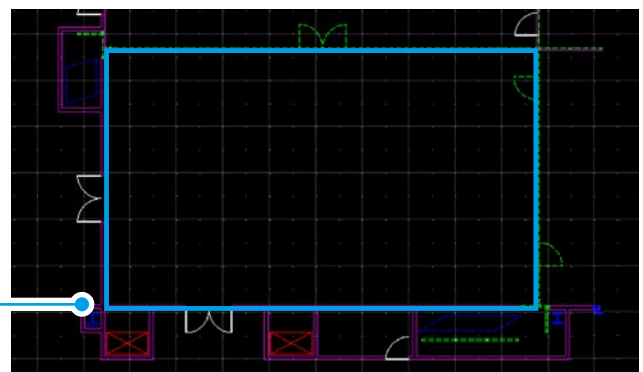
Overview of layers

Here are some examples of what these layer names could look like and what they contain:

	Layer name	Layer type	Layer content
Building	HDMI_building_outline	Geometry	Outline of the building
	HDMI_building_number	Label	Unique number/identifier of each building (optional)
	HDMI_building_text	Text	Designation of the individual buildings (optional)
Spaces	HDMI_area	Geometry	Office spaces, manufacturing spaces, storage spaces, event spaces
	HDMI_area_number	Label	Unique number/identifier of each space
	HDMI_area_text	Text	Designation of the individual spaces (optional)
Rooms	HDMI_room	Geometry	Room geometries
	HDMI_room_number	Label	Unique number/identifier of each room
	HDMI_room_text	Text	Designation of the individual rooms (optional)
Facilities	HDMI_facilities	Geometry	Outline of facilities such as toilets, server rooms or restaurants
	HMDI_facilities_number	Label	Unique number/identifier of each facility (optional)
	HDMI_facilities_text	Text	Designation of the individual facilities (optional)
Special areas	HDMI_object	Geometry	Machinery, workstations, booth geometries
	HDMI_object_number	Label	Unique number/identifier of each special area
	HDMI_object_text	Text	Designation of the individual special areas (optional)
Additional layer	HDMI_building_detail	Geometry	Building details such as corridors, walls and windows that are to be rendered on the map – these do not require a unique identifier, i.e. label and text layer are not used.

Step 3: Draw geometries

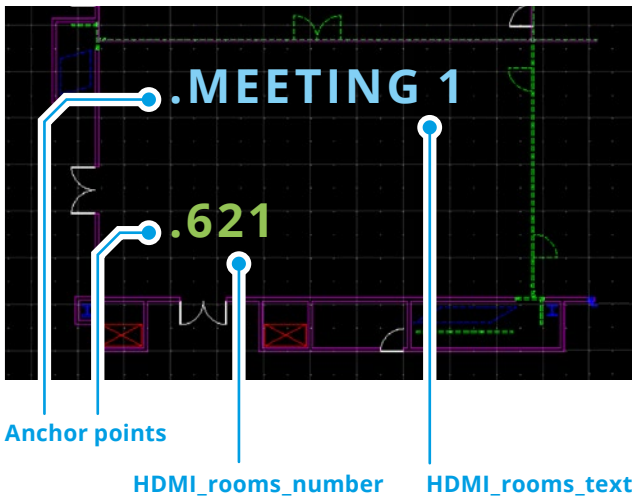
For each item that is to be shown on the map, a separate geometry is required. So we would ask you to draw a closed polyline, such as a rectangle (as illustrated below), around every item. To test whether a polyline is closed, select the item. If it is closed, the whole item will be marked.



Closed polyline/rectangle

Step 4: Name/number the geometries

Each geometry requires a **unique name or a unique number** by which it can be identified. This name or number must be a text object (CAD: simple text) on the map. Please enter the numbers and designations as unique identifiers of the geometries in the appropriate layer, e.g. HDMI_rooms_number.



If there is no text, the number is rendered as the geometry label on the map. Please enter the optional text in the appropriate layer, e.g. HDMI_rooms_text. If there is a text, it will be rendered rather than the number as the geometry label on the map. A text object within a CAD file is aligned by its **anchor point**. Please make sure that the anchor point of the text object lies **within the geometry**. This is how the link between the geometry and the text object can be identified unambiguously. On the finished map, the text can be used as a map label, while the number serves as the unique identifier of the item. Please also note that paragraphs and special characters are not allowed.

Step 5: Sending data

Please send your finished CAD files to Heidelberg Mobil. After successful validation we will proceed with creating your map.

FAQs

Q: What needs to be deleted from the CAD files?

A: Architectural features such as water pipes, cables, fire extinguishers as well as legends can be removed.

Q: Does the CAD file have to include the colour scheme?

A: No, this is not necessary. Colour information is not imported from the CAD file. Please send us details of the colour scheme in a separate style guide.

Q: Why do the items IDs from Deep Map™ not match those in my data feed?

A: Please make sure that the IDs in your CAD files are identical to those in your data feed.

Q: Can names or numbers be shown as labels for the individual items?

A: Both options are available, but experience has shown that numbers tend to be more legible than names. Long names are particularly difficult to read in small geometries. Please note that the names and numbers are generated as unique IDs to unambiguously identify the items.

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