TOPOCAL
cálculo topográfico

TopoCal 2026

Creation and Management of Blocks and DIN Sheet Formats

Formats A0 · A1 · A2 · A3 · A4

Complete guide to importing, creating and managing DXF/DWG blocks in TopoCal, together with the handling of DIN print formats in every standard size. Includes connectivity with AutoCAD, ZWCAD and GstarCAD.

■ 2 block types ■ 5 DIN sheet formats ■ CAD connectivity ■ PDF output

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Table of Contents

INT

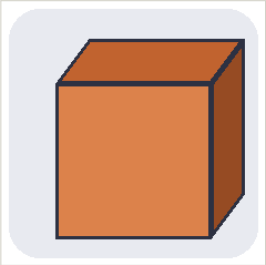
Introduction

Simple blocks vs. DIN sheet formats

TopoCal handles two clearly distinct concepts that are often confused: **simple blocks** (small reusable symbols such as trees, manholes, North arrows…) and **DIN sheet formats** (the predefined paper layouts A0 to A4 used for plotting and PDF output). Knowing which one to use for each task is the first step.

Simple block vs. DIN sheet format

Simple block	DIN sheet format
Reusable graphic symbol	Predefined sheet layout for plotting
Inserted at a point at any scale	Inserted around the drawing, fixed scale
Example: tree, manhole, vehicle	Example: A1 sheet 594 × 841 mm with title block
Stored in …\TopoCal 2026\Blocks\	Stored in …\TopoCal 2026\Formats\
Inserted from the Blocks menu	Inserted from Insert > Predefined Block



Simple block

DIN sheet format

Installation paths and backup

Custom blocks and DIN sheet formats are stored in the user folder. Before reinstalling or updating TopoCal it is essential to back up these two subfolders to avoid losing your customised work:

C:\Program Files (x86)\TopoCal 2026\Blocks	Blocks folder
C:\Program Files (x86)\TopoCal 2026\Formats	DIN formats folder

■ Backup before reinstalling

Copy the **Blocks** and **Formats** folders to a safe location before any reinstall. After installing the new version, paste them back to recover all your customisations.

CAD

1. CAD Connectivity

AutoCAD · ZWCAD · GstarCAD · CAD ribbon

To work with DXF files later than R12, or with DWG files, TopoCal can connect automatically to **GstarCAD**, **ZWCAD** or **AutoCAD** through the **Cad** menu in the menu bar. Any version installed is enough (even trial versions).

1.1 Connecting to AutoCAD

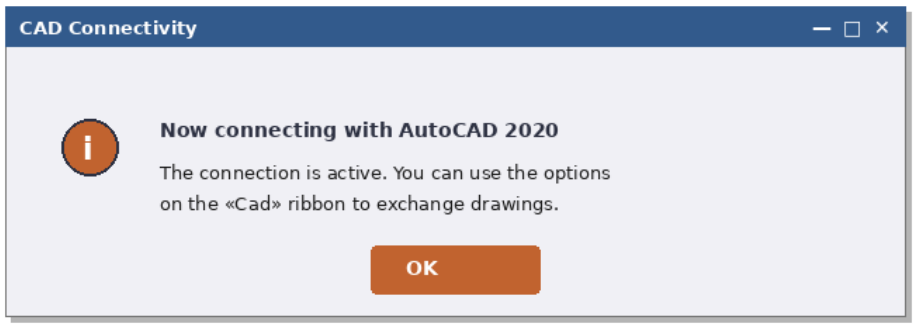
The process is immediate: from the **Cad** menu choose the AutoCAD version installed. TopoCal launches AutoCAD in the background and both applications stay linked. The AutoCAD icon appears in the Windows taskbar.

Steps to connect to AutoCAD

1 **Choose the version**
Cad menu → pick your AutoCAD version (2018, 2019, 2020…). TopoCal starts AutoCAD automatically.

2 **Confirm the connection**
A dialog appears: «Now connecting with AutoCAD vXX». Click **OK**.

3 **Check the taskbar**
The AutoCAD icon appears in the Windows taskbar, confirming the link is active.



Confirmation dialog of the active connection with AutoCAD

Exporting from TopoCal to AutoCAD

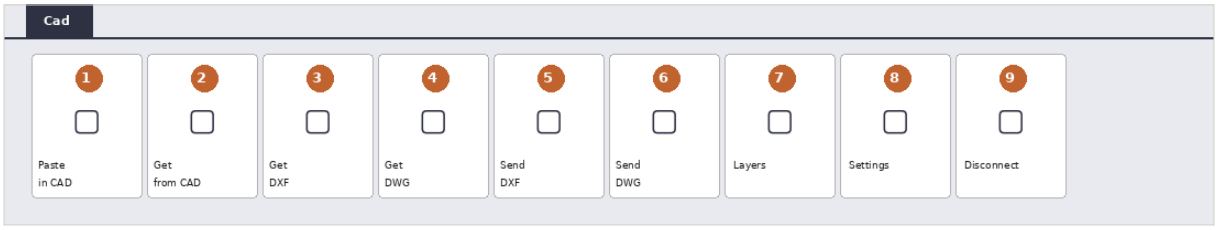
Cad menu → **Paste in CAD**. The export window opens with these options:

PNT
Points and entities
Choose what to include: point number, name, code, decimals, text height and direction.

POL
Polylines
Sends 2D and 3D polylines while preserving the original layer.

LAY
Layers
Maintains the layer structure used in TopoCal.

BLK
Custom blocks
Transfers blocks inserted in the TopoCal drawing.



Cad ribbon — actions available when AutoCAD is connected

Once connected, the **Cad** ribbon offers the following actions:

PEG
Paste in CAD
Sends the current drawing to AutoCAD as new entities.

OBT
Get from CAD
Imports the AutoCAD active drawing into TopoCal.

RDX
Read DXF
Loads a DXF file via AutoCAD (any DXF version).

RDW
Read DWG
Loads a DWG file via AutoCAD.

SDX
Send DXF
Saves the current TopoCal drawing as DXF.

SDW
Send DWG
Saves the current TopoCal drawing as DWG.

CAP

Layer manager

Filters which layers travel between both applications.

AJU

Settings

Adjusts the colour mapping, units and precision.

DSC

Disconnect

Closes the link with AutoCAD; TopoCal keeps running on its own.

1.2 Connecting to ZWCAD / GstarCAD

Both CAD platforms are **fully compatible** with the AutoCAD connector. The process is identical: open the **Cad** menu and select the installed version. TopoCal launches the CAD in the background and links to it just as with AutoCAD.

Known limitations

Feature	Behaviour
Polyline import	Identical to AutoCAD
Block import	Identical to AutoCAD
Hatch import	Not supported in some ZWCAD versions
Dynamic blocks	Imported as static blocks
3D solids	Converted to 3D faces

Connection workflow

1. **Install the CAD**
   Make sure ZWCAD or GstarCAD is installed. Any version is valid, including trial.
2. **Open the Cad menu**
   From TopoCal go to **Cad** → choose your version of ZWCAD or GstarCAD.
3. **Confirm the connection**
   A dialog confirms that the CAD link is active.
4. **Use the Cad ribbon**
   All ribbon options work the same as with AutoCAD.

> ■ **Choose the right CAD**
> If you have several CADs installed, TopoCal connects to the one selected in the menu. You can only have **one active connection at a time**; disconnect before switching to a different CAD.

DXF

2. Direct DXF Block Import

DXF R12 · layer selection · automatic blocks

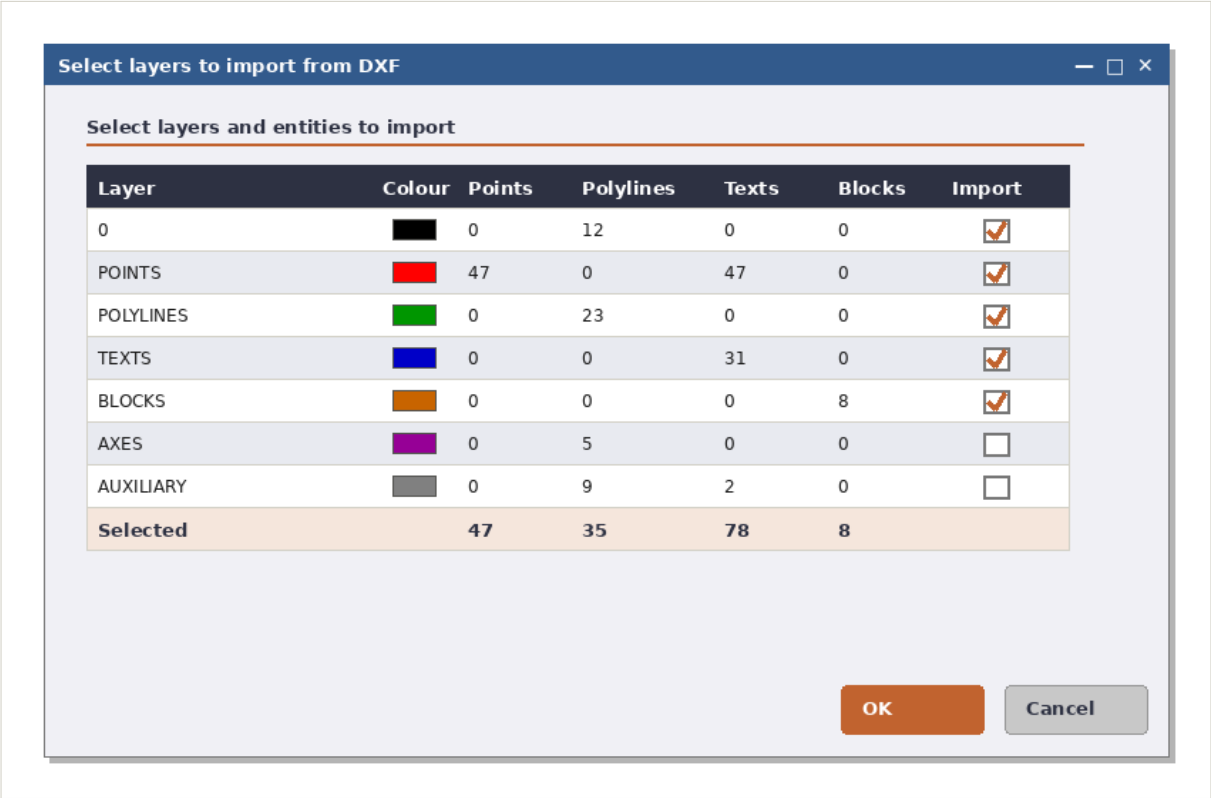
If you only have **DXF R12** files, TopoCal imports them directly without needing any CAD. From the **File** menu choose **Open** and select the DXF file. The application analyses its contents and shows a layer selection dialog.

1 **Open the DXF file**
File → **Open** → select the .dxf file from disk.

2 **Review the layer dialog**
TopoCal lists every layer with its colour, number of entities and a checkbox.

3 **Tick the layers you need**
Tick only the layers you want to import. The «Selected» row at the foot updates the count.

4 **Confirm with OK**
Press **OK**. The layers and any blocks defined in the DXF are loaded into TopoCal.



Layer selection window when importing a DXF file

■ Blocks included automatically

When you import a DXF, **all the blocks** defined in it are also imported, exactly as when using the CAD connectivity. No extra step is needed to recover the blocks from the file.

■ DXF later than R12

If you receive a DXF in a newer version (2004, 2007, 2010, 2013…) and you do not have any CAD installed, ask the sender to export it as **'DXF AutoCAD R12/LT2'**. This option is available in every modern CAD under 'Save as'.

Block sources on the internet

- Look for topographic or architectural blocks in **DXF R12** format for direct import.
- For blocks in DWG or later DXF, use the CAD connectivity (Section 1).
- Downloaded blocks must be copied manually to **…\TopoCal 2026\Blocks** so they appear in the insertion menu.

BLO

3. Blocks and DIN Sheet Formats

Create · insert · sheet formats · print

This section covers the complete workflow with blocks and DIN sheet formats: from creating your own custom blocks to printing the final plan in PDF, going through the insertion of standard sheet formats from A0 to A4.

Blocks and DIN Sheet Formats

INS
Insert block
Inserts a block from the library at a chosen point and scale.

IFM
Import format
Loads a new DIN sheet format file into the application.

IBQ
Import block
Loads a new block file (DXF/DWG) into the library.

EDT
Edit block
Modifies the geometry of an existing block.

MOV
Move block
Repositions an inserted block in the drawing.

DEL
Delete block
Removes a block from the drawing or library.

PIN
Insertion point
Defines the reference point for inserting the block.

VIS
Show / hide blocks
Toggles the visibility of blocks in the drawing.

3.1 Creating user blocks

There are three ways of creating a custom block. Choose the one that best fits the origin of the geometry:

A

A. From a drawing in TopoCal

Draw the symbol with polylines, points and texts in TopoCal. Then go to **Blocks** → **Create from selection**, mark the elements and define the insertion point. The block is saved in **…\TopoCal 2026\Blocks**.

B

B. From an imported DXF

Open a DXF that already contains the block. TopoCal imports all blocks automatically; you only need to give the block a name and save it to the library.

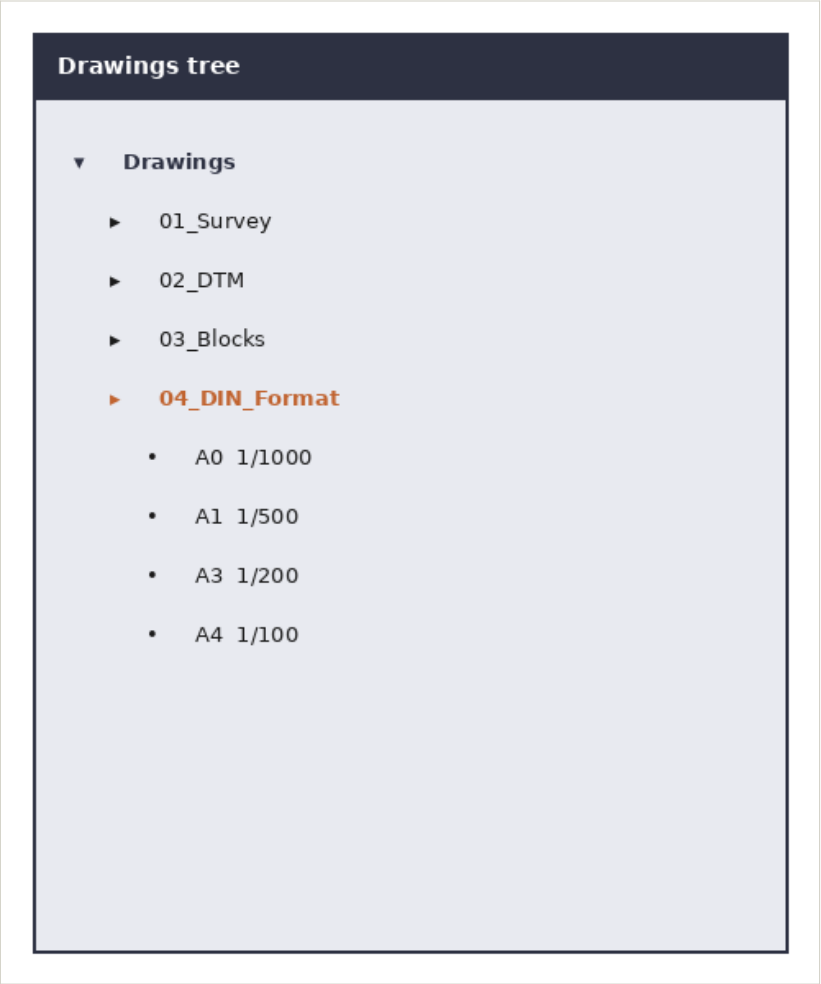
C

C. From a CAD via the connector

With AutoCAD/ZWCAD/GstarCAD connected, use **Get from CAD** to retrieve the block directly. TopoCal preserves the original insertion point and layer.

■ Insertion point

The insertion point is the reference around which the block is positioned, scaled and rotated. Place it where you want the block to «hang» — typically the centre of the symbol or one of its corners. A poorly chosen insertion point makes the block hard to use.



Drawings tree — blocks and formats organised by project

3.2 Inserting DIN sheet formats

DIN sheet formats are predefined sheets (A0, A1, A2, A3, A4) that frame the drawing for plotting. They include a title block, an optional grid and the North arrow. The insertion process consists of five steps:

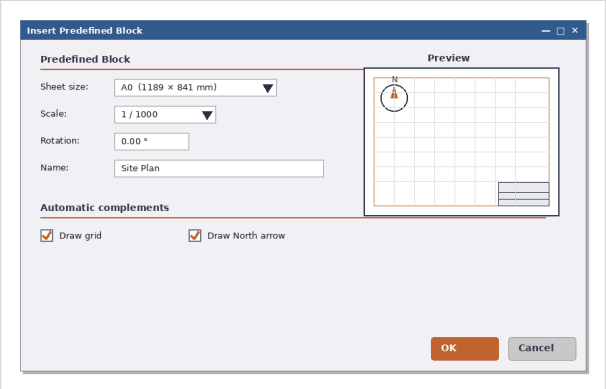
1. **Open the dialog**
   Insert → **Predefined block**. The format and scale dialog appears.

2. **Choose the size**
   Pick the format from the drop-down (A0, A1, A2, A3, A4). The dimensions in mm appear next to the name.

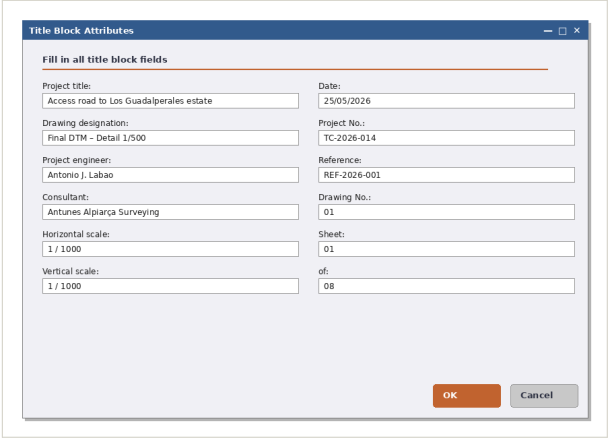
3. **Set the scale**
   Choose the drawing scale (1/500, 1/1000…). TopoCal resizes the sheet to fit the drawing area.

4. **Add complements**
   Tick **Draw grid** and **Draw North arrow** if you want them included automatically.

5. **Fill in the title block**
   A second dialog asks for the title block attributes (project, date, drawing number…).



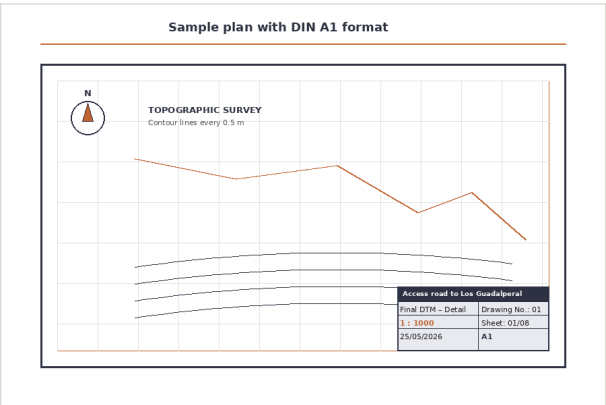
«Insert Predefined Block» window — setting up the DIN sheet format



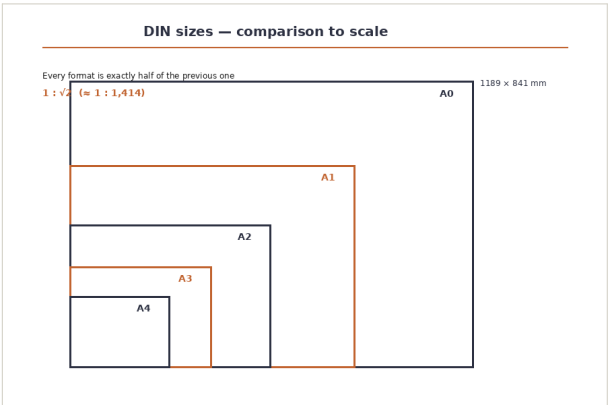
«Title Block Attributes» window — editable title block fields

Title block fields

Field	Description
Project title	Identifying name of the work or project.
Drawing designation	Specific name of this plan within the project.
Project engineer	Person responsible for the project.
Consultant	Engineering firm or surveying office in charge.
Date	Issue date of the plan.
Project / Reference No.	Internal numbers for filing.
Drawing No. / Sheet	Numbering within the drawings set.
Horizontal / Vertical scale	Print scale for each axis.



Final result — plan with DIN A1 format and complete title block



Comparison of DIN sizes to scale — each format is half the previous one

3.3 PDF printing

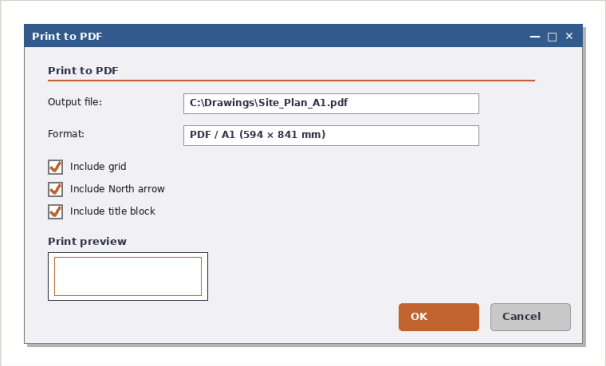
Once the drawing is inside a DIN sheet format, you can print directly to PDF without any third-party software. TopoCal includes its own PDF engine that preserves vectors, text and the title block.

1 **Frame the drawing in the format**
Make sure the drawing is correctly placed inside the inserted DIN sheet format.

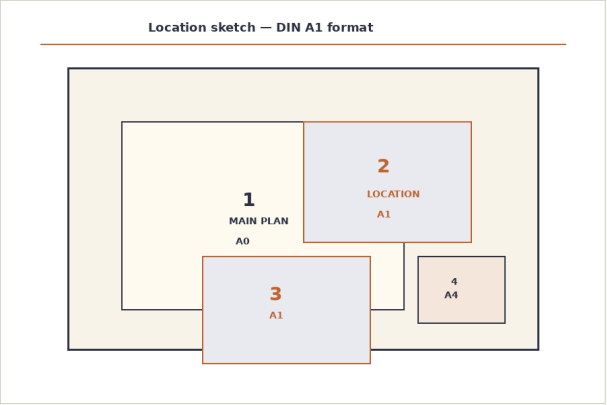
2 **File → Print**
Open the print menu and choose **Print to PDF**.

3 **Set the output**
Pick the destination file, the format (A0–A4) and the elements to include.

4 **Generate the PDF**
Press **OK**. TopoCal generates the PDF and opens it in the default viewer.



«Print to PDF» dialog — output options



Location sketch on DIN A1 format with main plan and key map

REF

Reference

Complete workflow · DIN sizes · compatibility

Recommended workflow

1. **Survey**
   Take the field measurements with a total station or GNSS.
2. **Import to TopoCal**
   Load the points, work the DTM and generate contours.
3. **Draft the plan**
   Add blocks (trees, manholes, signage…) and texts.
4. **Choose the DIN format**
   Insert the right size (A0–A4) based on the scale.
5. **Fill in the title block**
   Complete project, date, reference and signatures.
6. **Print to PDF**
   Generate the final PDF, ready to send or plot.

DIN sheet sizes

Format	Width (mm)	Height (mm)	Area (m²)
A0	1189	841	1.00
A1	841	594	0.50
A2	594	420	0.25
A3	420	297	0.125
A4	297	210	0.0625

CAD version compatibility

CAD	Versions	Notes
AutoCAD	2010 – 2026	Full compatibility
ZWCAD	2018 – 2026	Full, except some hatches

GstarCAD	2020 – 2026	Full, identical to AutoCAD
DXF R12	All	Native import, no CAD needed
DXF > R12	All	Requires CAD installed

■ Final reminders

Always back up the **Blocks** and **Formats** folders before reinstalling. If your blocks are in DWG or DXF later than R12, you need a CAD installed to import them. The five DIN formats (A0–A4) cover every practical need: choose the size based on the drawing scale, not the other way round.