



# HICAD

UNLIMITED CAD PERFORMANCE DEVELOPED BY ISD

*2-D and 3-D*

*Special functions for  
glass, metal and sheet metal*

*Auto-generated  
production data*

# METAL ENGINEERING

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THE WORLD OF CAD AND PDM SOLUTIONS

## Perfection made of metal and glass

*HiCAD provides a powerful all-round package for glass, metal and facade engineering – a multi-element solution in one single system.*

Today metal has become a widely used material in many fields of industry, whether steel, metal and facade engineering, sheet metal processing, mechanical engineering or stairs and railings construction. Metal engineering companies or metalworking shops are in most cases all-round users dealing with the requirements of almost all industries. Therefore, the field of metal engineering, which is one of the oldest manufacturing trades, requires constant adaptation to new challenges and a high degree of flexibility. HiCAD enables you to combine tradition and innovation effortlessly: As a universal system covering the requirements of various industries, it provides you with all essential metal engineering functions as

well as with tools for all related industries within one system, thus sparing you switching between applications. The industry-specific special functions for glass, metal and facade engineering enable you to design room-closing components for all types of buildings at high speed. Whether windows and doors, individual glazing structures for conservatories, house facades, balconies, canopies or roofings are required - with HiCAD you will always be on the safe side. HiCAD offers all options in one single system: For instance, sheet metal or steel elements can be easily combined with components from glass, metal or facade engineering, and 2-D sections can be arbitrarily combined with 3-D objects.



*»HiCAD enables us to create highly complex constructions, which would not be possible with other CAD systems so easily. Besides the metal engineering functions, the integrated sheet metal solution and the 2-D/3-D associativity are among the software's highlights.«*

Johannes Maier, Chief Designer at the Fill Metallbau GmbH





The steel construction of the above canopy roof has been cladded with aluminium sheets.  
(Image: Sioplan AG für Metallbau und Fassaden-Engineering)

## This is how it's done

*HiCAD provides optimal support during the detailed planning and accurate realisation of your projects.*

### **You can design in 2-D or 3-D - as creatively as you like.**

HiCAD enables you to work flexibly right from the start. Whether you design in 2-D, 3-D, combine the two techniques, or work on the basis of losslessly transferred, imported data - HiCAD provides you with powerful functions in any situation. Metal engineering-specific standard part packages and material hatchings according to DIN and SMU (Swiss Metal Engineering Union) as well as extensive catalogues for accessories, individual sections, connections and connection details are available to you, and even in 2-D you are enabled to assign insulations, foils, glass panes etc. to your drawing objects. Use our expert system to fit supplier-specific 2-D-/3-D profile sections and connections without any additional design efforts. HiCAD's LogiKal® interface provides direct access to the complete LogiKal® libraries and al-

lows you to configure and fit individual profiles and entire profile groups for facades, transparent roofs, windows or doors from all established manufacturers at high speed. Glass panes can be fitted automatically, while glass insertion depths are taken into account and stress checks for the glass panes are performed. Furthermore, you can use 3-D planning grids for a safe realisation of very complex facades: In this way, slanted polygon facades, custom-tailored pyramids, all-glass facades, mullion-transom constructions etc. can be shaped and realised with only a few mouse clicks.



*HiCAD instantly generates all relevant data and documents, from glass pane lists, order lists and BOMs to workshop and detail drawings.*

### **Shape and process your models with smart functions.**

Intelligent functions enable a rapid and targeted modification of individual profiles, beam and profile groups or other components. Corresponding joints and connections will be adjusted automatically. Besides the special functions for steel engineering, metal engineering and sheet metal processing you have also access to the full range of 3-D processing functions.

### **Create drawings and bills of materials at the push of a button.**

After finishing and itemizing your model, you can use the efficient automatism for the generation of production drawings, mounting drawings, and order documents. Individually configured workshop and detail drawings can be generated at the push of a button, complete with intelligent, production-oriented dimensioning, user-

defined annotations, sections, and much more. Bills of materials, profile, order and glass lists can be output in many different formats, for example directly in the drawing, as Excel tables or as DSTV-BOM.

### **Forward your data to other departments.**

You can forward the required data to other departments or parties, e.g. to your purchasing or production department, or your partners. All common standard formats, such as DXF, DWG or STEP, direct interfaces to market-relevant systems, the SDNF and IFC interface as well as current NC export formats such as DSTV-NC or TOPS-GEO ensure a smooth data exchange between CAD, statics and production systems. You can also transfer your profiles and assemblies directly to Logikal® and prepare them for manufacturing. Use the bidirectional LogiKal® interface to synchronize all changes in LogiKal® and HiCAD.



# HiCAD – At a glance!

Thanks to its modular structure, HiCAD can be individually extended and adjusted to your company-specific needs at any time. For glass, metal and facade engineering tasks, HiCAD is available to you in three configuration levels which can be further enhanced by adding the module for staircase and railing construction. If you are frequently dealing with cross-sectoral projects, you should also take a look at our solutions for mechanical engineering, plant construction, sheet metal processing and steel engineering, the latter also being suitable for metalworking shops. Please feel free to contact us and request further information.

Sail-shaped facade combining steel, glass and sheet metal elements, designed with HiCAD. (Image: Arnold Datei CAD Planung und Konstruktion)



- Automatic drawing derivation ✓
- Itemisation and identical part search ✓
- Error-free data exchange ✓
- Ideal for metalworking shops ✓
- Expert system for profiles and connections ✓

## HiCAD – CAD suites for Metal Engineering

	Suite	Suite classic	Suite premium
<b>Basic functions</b> For a rapid familiarisation, e.g. GUI with Ribbons, Help, Sketch Technology, Text Editor, Browser, etc.	✓	✓	✓
<b>2-D drawing functions</b> State-of-the-art 2-D drawing functions, all CAD features required for 2-D drawing	✓	✓	✓
<b>3-D modelling</b> Innovative functions and tools for the creation of photo-realistic product models, Mechanical Engineering standard parts	✓	✓ max. 5000 3D-Pkt.	✓
<b>3-D fasteners</b> Mechanical Engineering standard parts for bolts and screws, pins, studs, washers, nuts	✓		✓
<b>Simulations</b> Motion simulations based on motors, physical simulations taking gravity into account, collision check, creation of Videos	✓		✓
<b>Sheet Metal professional</b> Production-oriented creation of complex sheet metal products, with special functions such as automatic development, user-specific blanks, bending simulation etc.			✓
<b>Metal Engineering</b> Special functions for glass, metal and facade engineering for a rapid realisation of room-closing elements for all types of buildings	✓	✓ nur 2D	✓
<b>Steel/Metal Engineering</b> Industry-specific functions for simple or complex steel and metal engineering projects, whether complex support structures or custom-made glazing constructions; beam/profile libraries			✓
<b>logiKal@-Schnittstelle</b>	✓	✓	✓
<b>Drawing derivation, i.e.</b> Itemization, automatic production/mounting drawing creation and BOM generation	✓	✓	✓
<b>Document and Drawing Management for Civil Engineering (BIM)</b> For a safe project handling, with constantly updated design data, auto-generated drawings and bills of materials throughout the complete enterprise (* only in conjunction with HELIOS Engineer)	✓*		✓*



Further information: [isdgroup.com](http://isdgroup.com)



## Much more than just CAD - all from one source!

The ISD Group, one of the leading providers of CAD, PDM and automation software, develops innovative solutions for entire process chains. Our software products HiCAD and HELiOS help our customers realise the most demanding design tasks throughout all fields of industry. Besides developing and selling our software products we offer a wide range of services and have experienced specialists for consulting, installation, training, maintenance, and a hotline in place. This enables us to provide you with a truly comprehensive service package from one source. Short ways of communication and customer proximity are a matter of course for us.

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