

# HiCAD FAQ

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## Which standard interfaces can be used for data interchange with other systems?

You can easily incorporate already existing know-how into HiCAD when switching from other systems or from 2-D to 3-D design. You can re-use existing 2-D and 3-D legacy data in HiCAD without any loss of data and, even more important, process them without having to re-create your drawings after "successful data transfer", which is often the case when using other CAD systems. For data transfer all common standard formats such as DXF, IGES, STEP etc. are available, as well as native formats such as ME10, Autocad, CATIA, Pro/E, Parasolid, PC-Draft, SolidWorks or ACIS.

Furthermore, each version of HiCAD contains interfaces for our own systems SISCAD, BABCAD and PC-DRAFT, as well as the standard interfaces DXF and DWG. Depending on your individual requirements, a large number of additional interfaces can be provided. If requested, our software developers are prepared to make individual adjustments or create customized interfaces. The open system design of HiCAD ensures flawless data transfer not only to and from the whole "CAD world", but also CAM or PPS systems. This way, it is possible to work with supplementary applications like NC, simulation and FEM programs.

An overview of interfaces

## Which data formats (versions) are supported for the import via native interfaces?

| HiCAD 2019 | Import possible for version | Export as |
|------------|-----------------------------|-----------|
| ACIS       | up to 2018                  | 6.0       |
| CATIA V4   | 4.1.x/4.2.x                 | 4.1.9     |
| CATIA V5   | R8 - R28(6R2018)*           | R19       |
| DWG        | -14/-2013                   | 2004      |
| DXF        | -14/-2013                   | 14        |
| IFC        | 2x3                         | 2x3       |
| IGES       | all                         | 5.3       |

|             |                          |            |
|-------------|--------------------------|------------|
| Inventor    | v7 – 2017                | -          |
| JTOpen      | 9*                       | 7.0        |
| Parasolid   | 10 - V29                 | 11         |
| PLMXML      | -                        | -          |
| Pro/E, CREO | Wildfire 3 - 5, Creo 3-4 | Wildfire 4 |
| SketchUp    | -                        | 2013       |
| SolidWorks  | 98 – 2018*               |            |
| STEP        | AP203/214/242            | AP214      |
| UniGraphics | 11 - NX12*               | -          |
| VDAFS       | all                      | 2.0        |
| VRML        | -                        | 2.0        |

\* CATIA V5 R28, Unigraphics NX 12, SolidWorks 2018, Creo 5.0, JTOpen 9.0: as of HiCAD 2019

## What kernel is HiCAD based on?

As early as 1987, the ISD developed its own kernel, the so-called ESM kernel (European Solid Modeller); it provided HiCAD with its unique 2-D/3-D associativity that enabled the user to create 2-D drawings and 3-D models in one system and combine them with each other on a bi-directional basis. In HiCAD next 2008, the kernel has been redesigned to allow a universal use of NURBS technology. The new NURBS kernel supports the newest market-leading technologies and can be instantly adapted to individual and changing customer and market requirements.

## Does HiCAD support the parametric or free modelling (“Direct Modelling”) approach?

As a company with more than four decades of experience on the market, we are perfectly aware of the fact that both approaches do only work in combination. Therefore, HiCAD has always offered both working techniques. Our customers do not opt for a particular technique when buying a software product - they do so each single working day, and each time they perform their design tasks. A CAD system that fails to support both approaches does not support the user either!

cf. [Direct Modelling vs. Parametric Design](#)

## What are the reasons why Autocad®-Users change to HiCAD?

In order to survive in a global competition, more and more complex and often branch-comprehensive tasks have to be completed effectively in a very short period of time. This is the reason why there is an increasing demand for universal and highly-integrated solutions for the complete process chain. Therefore, CAD users change to HiCAD and ensure clear advantages in competition.

- The existing data cannot only be imported to HiCAD, but can also be processed without any losses and can be transferred to 3-D models automatically at any time. The access to the 3-D world is possible anytime and the costs for the transfer from 2-D to 3-D can be reduced by more than 60 %.
- The unique universality does not only provide a simple transfer from 2-D elements as the basis for 3-D designs, but makes the modification and correction of 2-D production drawings also very simple. The complete 2-D functional range with associative data structures enables you to create 2-D drawings with dimensions, tolerances, surface symbols, hatching and parts lists suitable for production.
- Each branch has its specific requirements concerning a CAD system. In HiCAD, special knowledge from various branches can be used for individual tasks - even for complex branch-comprehensive projects. All branch functions are integrated into the user interface completely. The productivity can therefore be increased considerably in the various application areas: in mechanical and special mechanical engineering, from steel engineering to glass, metal and façade design, from plant construction to sheet metal processing, in tool and mould making etc.
- Due to the extremely compact data structure, the design process can be carried out fast without longer periods waiting time-independent of the number of parts of a component group (hundreds or thousands). The Information + Communication Navigator provides an overview and more transparency. It enables fast access and simple processing of all model information - from the geometric object, via 3-D views and production drawings to part properties.
- The Windows typical user philosophy, in connection with an object-dependent function selection, reduces the training effort decisively. The clear menu design, the individual adaptation of the menus and the special start mode will enable employees, who

only work with the system from time to time, to get accustomed to the operations in a simple and fast way.