

3D-Catalogue

Brings the digital factory to life

Masterdata Management

The graphics engine

The digital factory is taking shape. Your customers demand 3D-tool models for NC-verification and -simulation. Because up to 150 tool models are necessary in order to simulate a single machine.

You could **save a lot of work**, if the 3D-models were part of your electronic catalogue. Or if they were available for download on your Web Site. At best in a setting so that:

- 2D-DXF-graphics can be generated from the same model,
- generic models enable the easy configuration of tool assemblies and
- any CAD-system can be supplied with 3D-data.

To make a long story short: Your level of service will make each process planner a fan of your tools.

Efficiency by parametrics

Your catalogue is based on parametric tables of characteristics, which are probably already available for your product line. As a CIMSOURCE user you are already familiar with classification and product attributes.

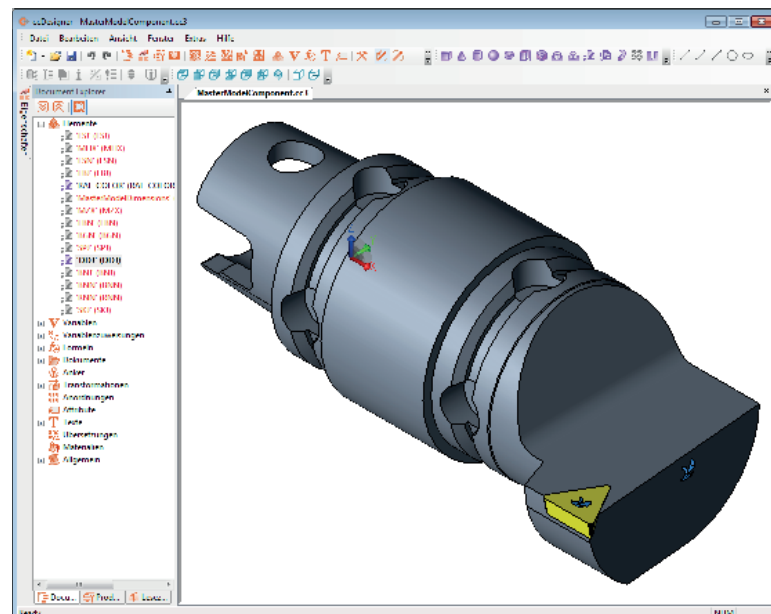
Now you “feed” these parameters to the generic CAD-models of the 3D-Catalogue. Eventually you need to create an additional model to close a gap in the tool library. For that you will use the modeling guidelines according to DIN 4003 and the functions of the 3D-Catalogue.

Standards to go beyond the limitations of proprietary CAD-systems

You decide in which format your customers may load the CAD-models. The 3D-Catalogue offers the popular standard formats (STEP, DWG, DXF, SAT,...). Or you use the download service of ToolsUnited. In this case, your customers may select the data appropriate for their CAD-system. For leading CAD-systems so called „Click2CAD” import drivers are available. Your customers may use these to directly access the 3D-Catalogue from their CAD-system.

Data supply instead of trade secrets

As it comes to engineering data, there is a fine line between cooperation and procurement crime. With the 3D-Catalogue, you are on safe ground: Why? Because you decide the level of detail exposed in the CAD models.



What needs to be done?

- **Comparison** of your product range and the content of the tool library of 3D-Catalogue.
- **Decide** whether you want to create eventual missing tool models on your own or if you prefer CIMSOURCE to render this service.
- **Decide** if you want to arrange data distribution inhouse or if you want to take advantage of the ToolsUnited-server.

Get in touch with CIMSOURCE now!

The 3D-Catalogue supports international standards.



The tool library

The CIMSOURCE 3D-Catalogue is more than a piece of software. It comes with the guidelines for 3D-modeling and the related generic CAD models. You start with a “ready to go” tool library.

Not every standard is standard

The tool library of the 3D-Catalogue is structured according to DIN 4003 into 20 main tool classes. Each of these is subdivided in different subgroups. Not each of these subgroups specifies tool types that are actually used as standard tools in diverse manufacturing operations. Or that are offered as standard tools from different suppliers. A standard by DIN/ISO definition is not necessarily a standard on the shop floor!

That is why the tool library of the 3D-Catalogue is primarily focused on the standards in use. The respective 3D-models may be applied for the product range of different tool suppliers.

Standard but not standardized

For some of the relevant tool groups the standardization work is still ongoing. In those cases the 3D-models need to be generated specifically. CIMSOURCE does respect the general rules of standardization procedures as the generation of these 3D-models is aligned with the official standardization procedures.

Requirements on data content

To „feed“ the tool library of the 3D-Catalogue the parameters of DIN 4000 are in most cases sufficient. Some cases require more. In any case you'll need a product database with no voids in it. CIMSOURCE supports you with the CS-Integrator and the CS-Dataminer.






















Maintenance of the 3D-tool models

The tool library of the 3D-Catalogue is kept up-to-date and constantly enhanced by CIMSOURCE. Instead of doing all the modeling work on your own you'll save time and money right away. Take advantage of the “cross-supplier” cooperation of different tool manufacturers – benefit from international standardization.

Status of the tool library

The actual content of the 3D-catalogues' tool library is represented in the table below.

You'll recognize that CIMSOURCE focused on „popular“ tool groups first. Because the issue is not to cover as many as possible DIN classes. The issue is to cover your product range to the highest extent. Rely on the experience of CIMSOURCE.

Denomination	DIN 4003 part.....	Short form		DIN Subclasses	3D-Models (Plan)	3D-Models (as-Is)	3D-Catalogue
Inserts clamped	76	SPJ		10	10	10	100%
Cutters for grooving and threading	77	SKJ		11	1	1	100%
Taps and reamers	80	BGN		6	4	4	100%
Drills, countersinks and bores with not exchange. cutting edge	81	BNN		11	11	9	80%
Milling cutters with shank and not exchangeable cutting edges	82	FSN		12	10	8	80%
Milling cutters with bore and not exchangeable cutting edges	83	FBN		12	4	4	100%
Modular boring tools	84	MBX		19	/	/	/
Drills, countersinks and bores with indexable inserts	86	BNJ		9	5	2	40%
Milling cutters with shank and indexable inserts	87	FSJ		12	10	5	50%
Milling cutters with bore and indexable inserts	88	FBJ		9	8	4	50%
Rotating tool holders	89	MHX		11*	11	11	100%
Tool holders with indexable inserts	90	DDJ		16	9	7	78%
Collet chucks	93	MZX		10	8	6	75%
Quick change insets	94	MWX		5	/	/	/
Reamers with not exchangeable cutting edges	126	RNN		5	4	2	50%
Reamers with indexable inserts	127	RNJ		5	/	/	/
Drillheads	171	BPJ		4	/	/	/
Driven toolholders	172	MAX		17	/	/	/
Reaming inserts	174	RPJ		5	/	/	/
Cartridges	175	KKJ		15	/	/	/

Time and again our industrial engineers use 3D CAD models of cutting tools to simulate manufacturing processes. In 95% of the case these tools will be ordered for manufacturing.

Jens Heidig, ZF group