

Profile technology with Autodesk Inventor®

ASi Profiles (ASi) is a supplementary tool for Autodesk Inventor. With ASi very efficiently profiles and their typical connections, for example for structural steelworks, support frames, maintenance stages or operational fund construction can be planned and designed in Inventor. In doing so, it is possible to benefit from the advantages of adaptive object-oriented designing with Inventor also for profil construction and their joints.

ASi-Profiles (ASi) offers many comfortable functions for the installation and the changing of profiles and their special connections. Profiles can be produced freely in the 3d-area, from point to point, from point to a face or even also with a given length. Very efficiently profiles can be inserted along scetch-lines, within special work spaces produced with ASi or along 2D or 3D scetchlines within Inventor parts.



The logic data of the respective profile connection is compatibly defined to Inventor standards and saved in the system for further use. Special ASi command dialogs simplifies and accelerates the expiration of construction with profiles made of steel and aluminum substantially. The statements of sizes, e.g. for own connections, can be stored in tabular form and been available then for later use again.

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http://www.itb-ps.de http://www.asi-profile.de Natural it was also so far possible to produce profiles structures and joints with Inventor, however there were a lot of work to do before it was efficient to work with. Together with ASi-Profile this process is very much simplified, also standardized and much more accelerated. Also the possibility to define own profile systems or user-defined profiles is offered by ASi. With ASi produced construction units remain Inventor compatible construction units, also the necessary parts list information are added to the construction parts and assemblies.

Functions in overview:

Defining ASi-Workspaces:

For spatial and isometrical orientation in groups of profile structures it is advantageous to build a basic structure of 3D-Lines. This skeletal structure is the ASi-workspace, which can also

represent the outer and inner system lines and a knot list from the statics. Different types of work spaces are implemented. With using of the sketch lines of the workspace it is very simple to build profiles in and to work on it.



But it is also possible to use your own "free" 2Dor 3D- scetchlines in Inventor parts as baselines for profiles produced with ASi.

Administration, construction and changing of profiles:

All ASi profiles are principle based on the available Inventor profile libraries and on different manufacturer data.

There is no warranty that the ASi defined parts ore their names are corresponding with regional national standards The profile data base can be easily proofed and changed or extended by the user (Microsoft ACCESS necessarily). Own profile designations or also own item numbers can be changed or supplemented by the user.

After inserting the profiles can be changed or reworked with the function, "change profile". In this dialogue the profile types and sizes are

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indicated and can be changed. Likewise another insertion point can be selected here and the insertion situation of the profile will be changed. A preview function may be used to look at the changes before realising it.

Manipulation of Profiles and Profile knots:

With this very efficient function most manipulation operations on profiles and their Knots can be done. Profiles can be, e.g.:

- extended and shortened,
- rotated,
- aligned,
- cut/extended parallel to a plane surface,
- cut/extended parallel to a part surface
- miter cut,

An easy and simple definition of profile knots (corner joint, miter-points, t-impact etc..) is now possible to use with ASi. Rotation, moving and



exchanging of profiles without recovery problems and without limits of assembly structures is very useful. The length information for the bill of material (BOM) remains all the time correct and associative with the model.

Inserting and Changing of Drilling Fields:

It will be possible to construct almost any regular drilling field with one **ASi**-function and it can be changed with another **ASi**-function. The produced drilling field consists of one sketch level and an Inventor drilling feature. In the sketch all the drillings are connected together by using the Inventor dimensioning feature.

Typical Connections for Profils:

ASi-Profile offers for the steel structure range different special functionalities:

- Standard Plate Joints (German DASt)
- User defined Plate Joints
- Base and Head Plates
- Profile to Profile connections
- Web Angle Joints
- Stiffeners, Ribs
- Bolted connections

After the selection of the profile and the face the plate is to be inserted to, the profile is shortened or extended, the plates (web angles) are inserted as independent Inventor



parts and the needed Inventor constraints for the connection are defined automatically. If selected, directly all drillings and bolted connections are produced too. The provided connections can be changed later. Depending on the connection type it can be completely redisigned or delete with one command and easily produced again.

Bill of Material:

All components produced with ASi will be provided with the necessary bill of material information for Inventor. With the ASi function "update parts list" the current dimensions are updated, if, for example, the lengths of profiles are manipulated.

Parametric buildings:

With the Parametrik functions integrated in Inventor it is very easy to produce parametric building groups by using Microsoft Excel within Inventor.

With this functioning the characteristic variables can be changed and building groups with different sizes and characteristics may be produced.



ASi-Profile needs to run with:

- Autodesk Inventor ® (Autodesk Inc.)
- Microsoft Access®, if you will design your own ASi-standard data.

ASi-Profile for You:

- Easy to learn and great efficiency
- Good Value
- Many ASi-Partners in the near
- Based on one of the most popular 3D-Software products – Autodesk Inventor of Autodesk inc, USA.

Contact:	
More Info in the Internet:	

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