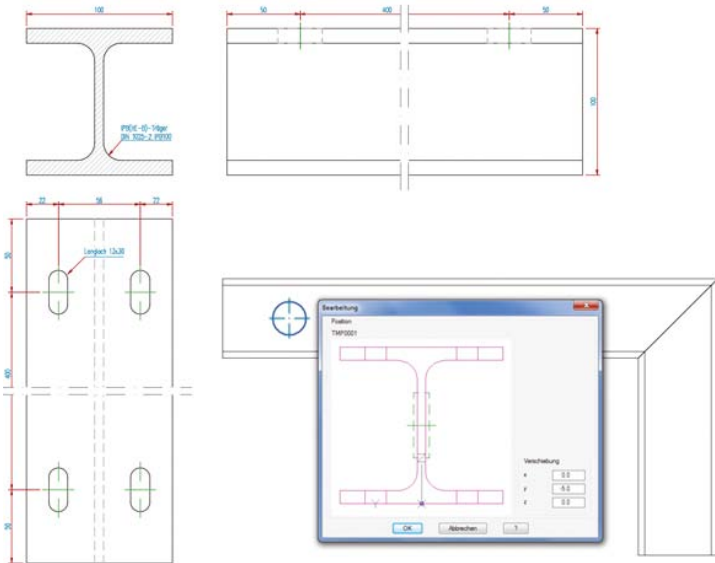


# ATHENA<sub>2016</sub>

New upgrade, useful tools, smart working



## ATHENA 2D+

2D and 3D are merging more and more. For this reason 2D+ has been developed to draw quickly and efficiently in 2D, but nevertheless to still have the intelligence and analysis options of 3D: ATHENA 2D objects (bar-shaped standard parts, semi-finished products, infills such as panes of glass or panels) can now contain spatial information, e.g. a depth and processes. In this way they can be completely utilized, e.g. in parts lists and production drawings.

### The following can be carried out on 2D profile projections:

- Slicing by stating two points
- Associative application of processes (drilled holes) with subsequent distribution to rules
- Job allocation
- Production of cutting lists
- Bar diagrams
- Generation of sections

### The following can be carried out on 2D infills:

- Job allocation
- Production of lists
- Infill diagrams
- Generation of sections



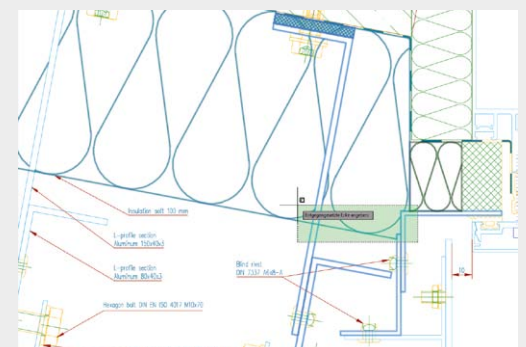
## New interface to LogiKal (Orgadata) and ERPlus (T.A.Project)

ATHENA users now have a new bidirectional interface available with which ATHENA, LogiKal and ERPlus can be linked in real time. The special feature here is that all three products access the same data version. A change in a facade element in one of the programs leads to an automatic update in the other two programs, irrespective of whether it is a change of profile, fields (e.g. Turn/Tilt to Turn), geometry or quantities. This saves an enormous amount of time and sources of error are eliminated.

## It is even easier now!

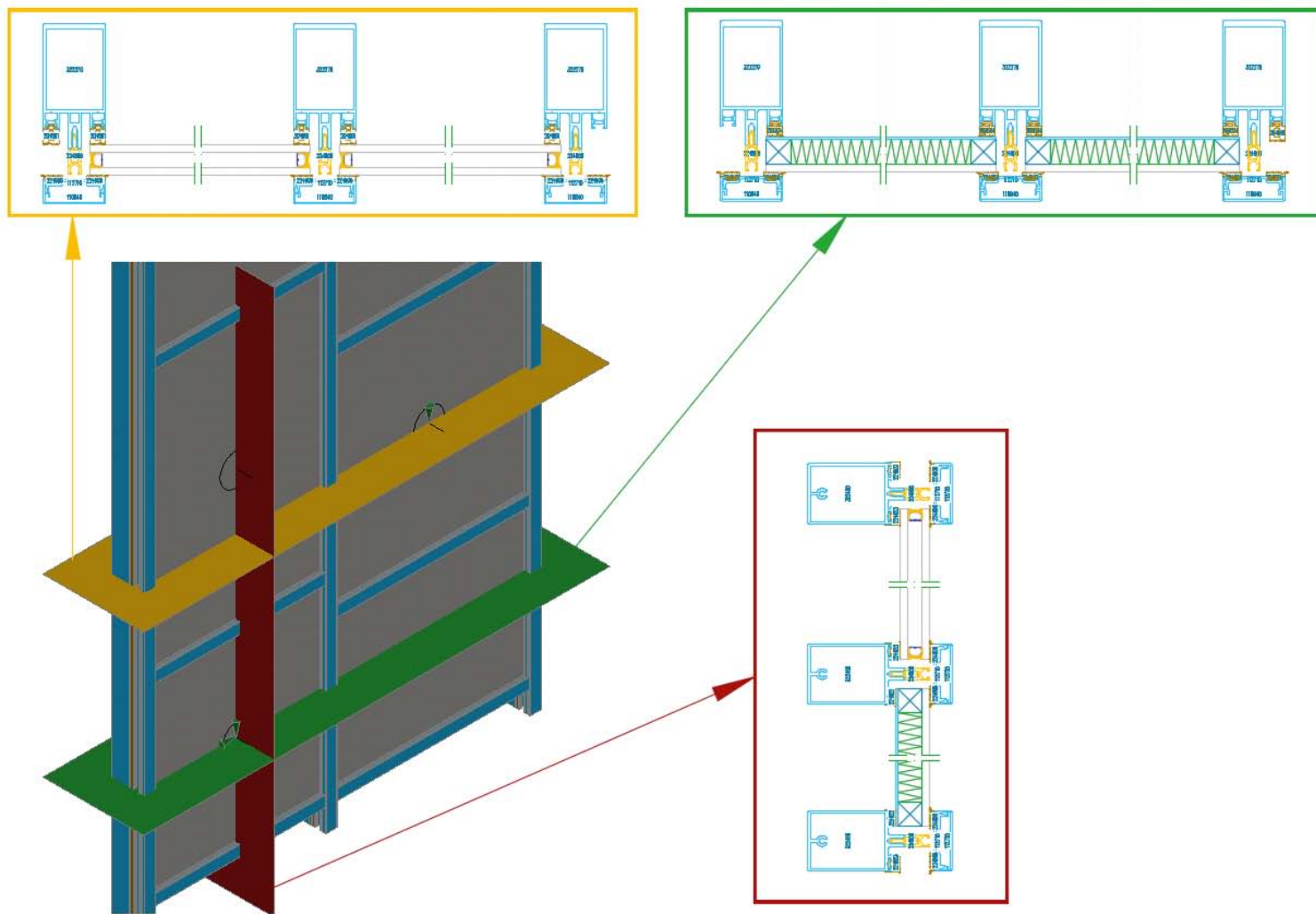
The focus was on the solution of simplifying complex design tasks during the upgrade to ATHENA 2016. Just a few working steps to the goal and to achieve this, existing functions were optimized and new ones added.

2D, 3D, dimensions, analyses, data interchange – lots of innovations to ensure that many tasks are completed more easily and more quickly.



## Objects visible

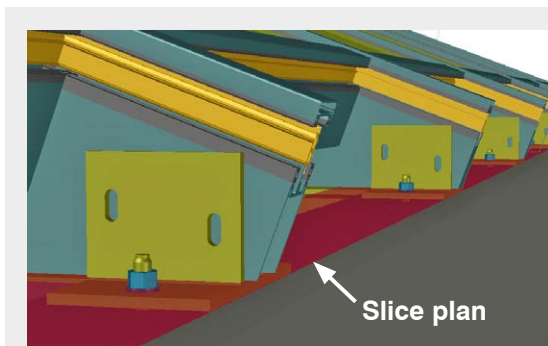
The ATHENA commands «Objects invisible/visible» can be used in combination with the AutoCAD commands for hiding and isolating objects.



### Different infill thicknesses per bar (3D)

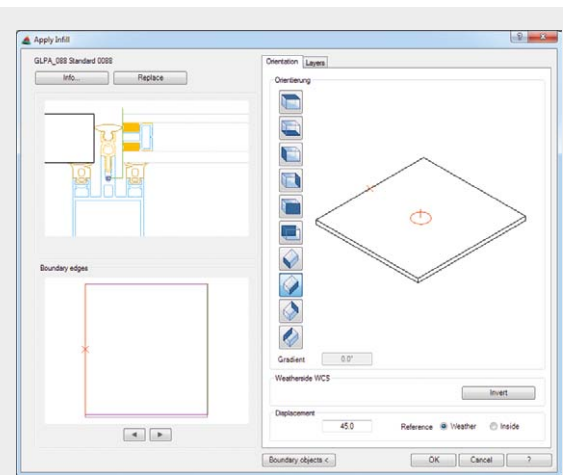
Different infill thicknesses of fields can now be obtained on a bar (e.g. mullions). The adjacent bar is then automatically interrupted.

When producing a 3D model, it is not necessary to consider different inset thicknesses beforehand. All bars are simply assigned the same inset thickness when determining the glazing bar assemblies if they are created using the functions «Apply bar assembly» or «Determine bar joint». The bars then receive the final inset thickness during the subsequent insertion of infills using an automatic adaptation of sealing and equalization profiles.



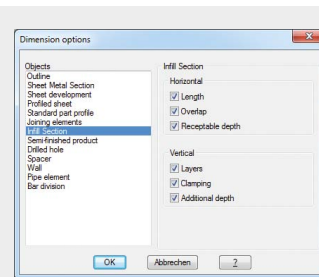
### Slice several profiles (3D)

With this new command it is possible to slice several 3D bars in one working step. A slice plane is defined on a special layer either by specifying three points or via two points in a previously set view. The slice plane is not bound to slicing elements and can, for example, have a certain distance to a concrete edge. Profiles can be shortened or extended by moving the plane and the original state is restored by deleting the plane.



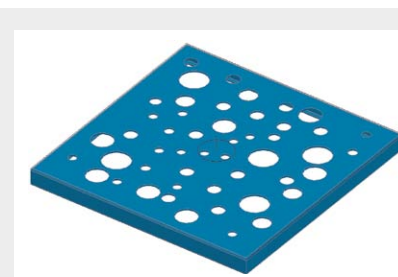
### Expanded 3D infills

The functionality for the application of 3D infills has been expanded and optimized. Existing 3D infills can now be more easily interchanged and the edge spacer and the formation of the layers can be defined independently on each side of the panel.



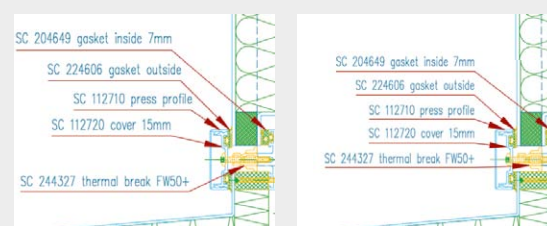
### Object dimensions

The object dimensions can now be preconfigured for different ATHENA objects. Consequently, even better dimensions are possible. The configuration only has to be carried out once in a few steps. During the selection of an object in a drawing, ATHENA recognizes the object type and automatically adopts the preconfigured dimension options. Existing dimensions can be updated and in this way receive the preconfigured options.



### Multiple selection: Assign complex processes to infills

The new possibility of multiple selection enables several outlines to be defined at once as processes, e.g. drilled holes, and assigned to infills. For example, complex perforated panels can be quickly created.

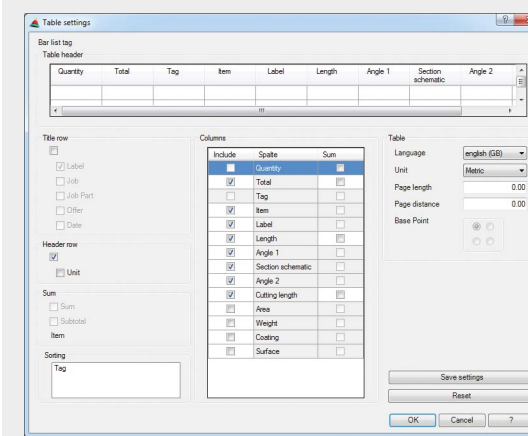


### Arrange leaders

ATHENA leaders can now be arranged retrospectively like the AutoCAD leaders with a uniform spacing to one another, either with a defined fixed distance or with a uniform distribution between two points.

### New intelligent tables

Tables, which are output by ATHENA commands and are relevant to parts lists, are now available as intelligent AutoCAD tables. They can be edited quickly and simply using the AutoCAD functions so they can be formatted and exported and the output of intermediate results and the transfer to page 2 are possible.



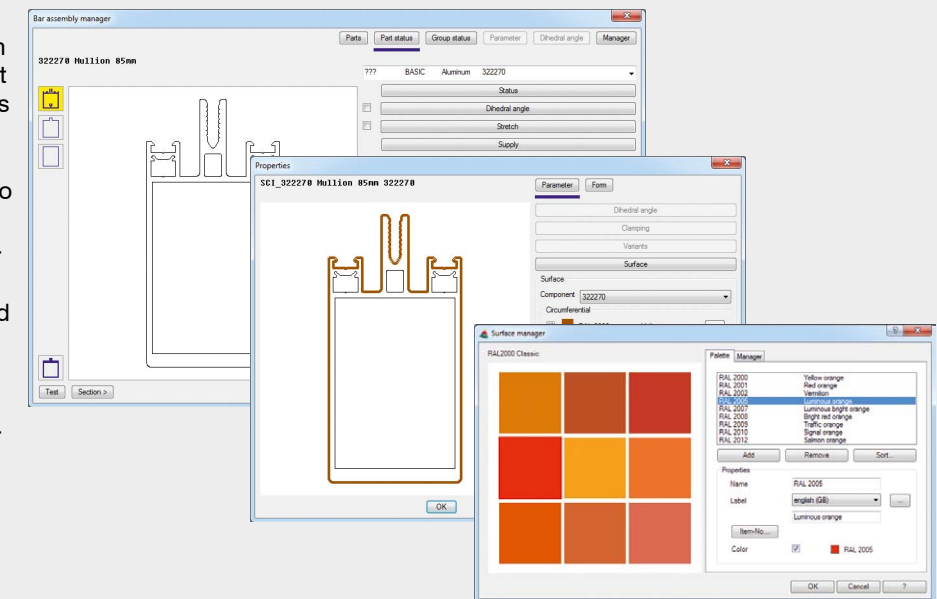
Quantity	Total	Tag	Item	Label	Length	Angle 1	Section schematic	Angle 2	Cutting length	Area	Weight	Coating	Surface
4	4	D1yp001	224606	Gasket 3,5mm	2200,0	90,0°	---	90,0°	2200,0	0,123	0,138		
6	6	D1yp002	224606	Gasket 3,5mm	950,0	90,0°	---	90,0°	950,0	0,053	0,060		
2	2	D1yp004	224823	Gasket 7mm	950,0	90,0°	---	90,0°	950,0	0,069	0,052		
2	2	D1yp005	204691	Gasket 13mm	2200,0	90,0°	---	90,0°	2200,0	0,155	0,329		
1	1	D1yp006	204691	Gasket 13mm	1100,0	90,0°	---	90,0°	1100,0	0,077	0,165		
1	1	D1yp007	204691	Gasket 13mm	1100,0	90,0°	---	90,0°	1100,0	0,077	0,165		
2	2	D1yp008	204691	Gasket 13mm	100,0	90,0°	---	90,0°	100,0	0,007	0,015		
2	2	P1yp003	112720	Cover 15mm	2200,0	90,0°	---	90,0°	2200,0	0,371	0,668	0,371	RAL 7015 Slate grey
3	3	P1yp004	112720	Cover 15mm	949,0	90,0°	---	90,0°	949,0	0,160	0,287	0,160	RAL 7015 Slate grey

### Surface manager

The new Surface manager facilitates the definition of surface properties for the use of bars and sheet metal. For example, colors and properties such as «anodized layer» can be assigned, or processes such as «ground» or «brushed». In this way it is possible to assess how much surface area has to be coated.

The surface properties are assigned via the Bar assembly manager and the sheet-metal section function. Then they are displayed in sections and in the sheet processing/development. They also flow into the labeling and are output to the parts lists.

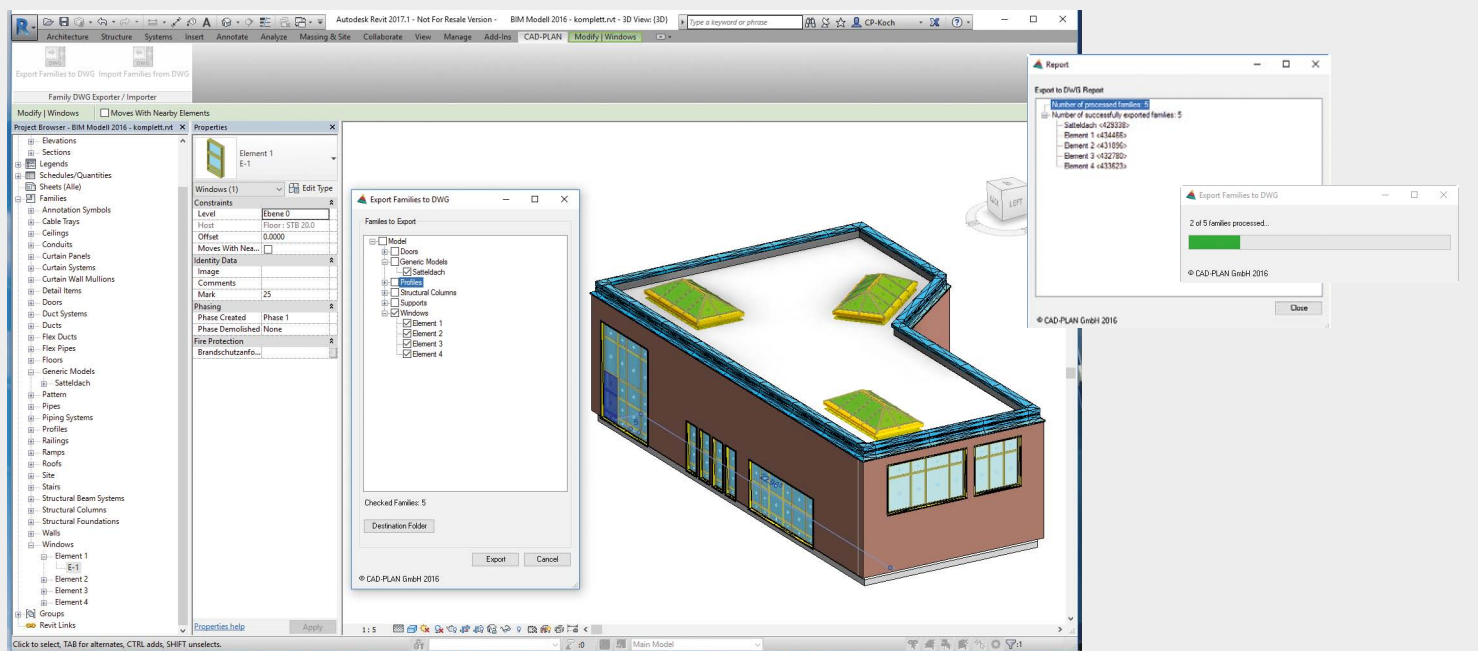
The new surface properties can also be used for a particularly realistic 3D visualization.



### Revised standard parts and manufactured parts

The standard parts and manufactured parts library has been revised and expanded as follows:

- New group „Würth window sill screws“
- New group „HFT screws“
- New group „Frame mounting“
- SFS-Intec screws
- Hilti screws have been updated:
  - Pan head tapping screw with ISR
  - Wing screw with counter sunk
  - Plug screws
  - Self-drilling sandwich screw
  - Thread cutting screw with hexagon head
  - Counter sunk concrete anchor
  - Hexagon with Torx
  - Drilling screws
  - Counter sunk disk head screw Torx (partial thread)
- Würth screws have been updated:
  - Timber screw with disk head
  - Pan head drilling screw
  - Concrete screws
  - Pan head concrete screw Torx
- Ejot counter sunk drilling screw Torx
- Plastic washer DIN 34815 and 34816
- New profiled sheets (e.g. trapezoidal sheets): ArcelorMittal, HOESCH, Munker, Sab, Kalzip, LAUKIEN



## Simplify BIM with Revit app: Family/DWG Exporter Importer for Revit (optional)

The Revit app «Family/DWG Exporter Importer» was developed to facilitate an easier and faster BIM data interchange between ATHENA and Revit. This enables Revit families including their parameters to be saved automatically as an AutoCAD drawing and they can then be edited with ATHENA. On the other hand, if the drawings modified with ATHENA are saved with index and the parameters updated, the drawings can be quickly and easily imported again in Revit. The corresponding families and their parameters are updated.

This means that a facade planner can export window, door or facade elements that are represented as «dummies» from an architect's Revit model to ATHENA where they can be converted into technically correct and intelligent elements. They can then be imported back into the Revit model and the dummy elements are automatically substituted by the technically correct elements. Here, types are exchanged for the same type. The app can be downloaded at <https://apps.autodesk.com> (Find: athena).

## Optional (additional charge)

### Export SAT

The output module «Export SAT» is now available as an additional option for ATHENA to output 3D volume models in the ACIS format for machine control.

### NC-X export

With this optional function NC data of ATHENA 3D profiles can be generated in the NC-W format. Together with all the geometrical information, such as cut-out parts and processes, the NC data also contains job and job-part information. An optional post-processor is required to be able to control profile processing machines.

## Further new features:

- The setup has been thoroughly revised: faster, clearer and with the optional «preconfigurable Silent Installation». Very interesting for automated installation in larger networks.
- The dialog box «Position symbol» has been optimized.
- 3D drilled holes now have grips, This noticeably improves handling
- Infills: New dialog box and expanded functionality.
- Interrupted dimension: Objects can now be located in different viewports.

## System requirements for ATHENA 2016

- AutoCAD 2011- 2017
- AutoCAD Architecture 2011- 2017
- AutoCAD Mechanical 2011- 2017

Operating system:

Windows 7, 8 und 10

Hardware:

ATHENA requires the same hardware configuration as AutoCAD.

AutoCAD – registered trade mark of Autodesk Inc.

Windows (7, 8, 10) – registered trade marks of Microsoft Inc.

CAD-PLAN GmbH  
Hanauer Landstrasse 174  
60314 Frankfurt  
Germany

Tel. +49-69-800 818-0  
Fax +49-69-800 818-10  
info@cad-plan.com  
www.cad-plan.com

