ATHENA 2017

CAD-PLAN

Clarity, ergonomics, functionality – more of everything!

A new structural analysis module, a new tool for the placement of profiled sheets, a new ERPlus® link – apart from the expanded functionality and the optimized user-friendliness, various innovations are included in the upgrade to ATHENA 2017.

Numerous requests from ATHENA users have been incorporated, making the new ATHENA version even more powerful and user-friendly.
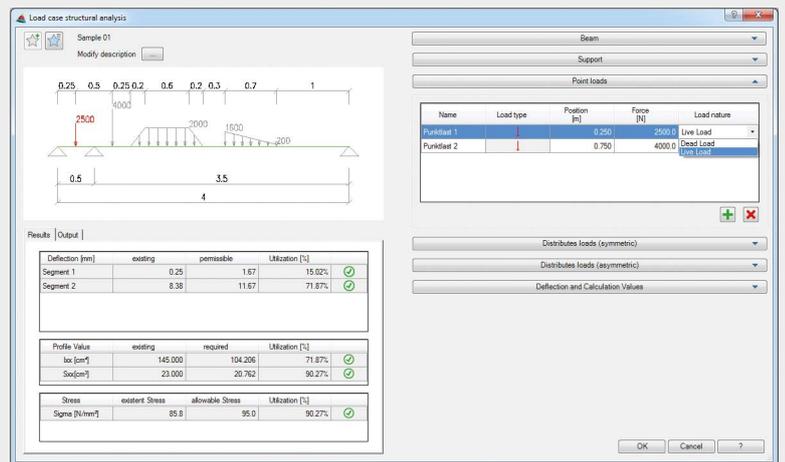

Load-case structural analysis

The new structural analysis module "Load-case structural analysis" for the load-case calculation of bars replaces the former module "Ix required / deflection". Now, loading cases can be calculated with a significantly higher degree of freedom in the choice of conditions.

An overview of the innovations:

- Completely new dialog box with modern parameter input method
- Any number of supports
- Different types of bearing
- Any combination of loads (point and linear loads)
- Differentiation of usable load and permanent load
- Inclusion of safety factors (also freely definable)
- Check of the entered values for requirements and reliability.
- Indication of whether requirement criteria are satisfied
- Percentage figure for load factor
- Computation of the buckling stress and buckling force
- Report: Computation results as table or graphs (e.g. reaction forces, max. deflection, max. stress in the cross section, etc.)
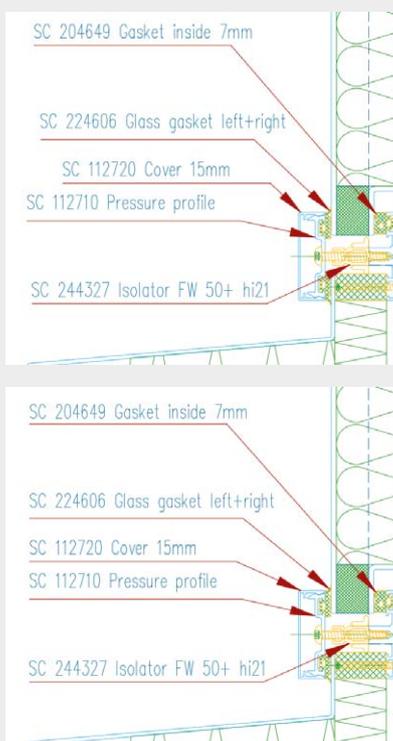
Arrange leaders to text

ATHENA leaders can now be arranged such that they are exactly flush with the start or end of the text.
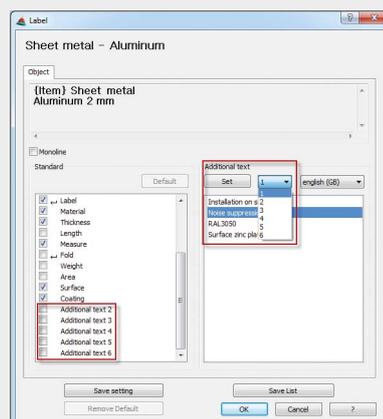
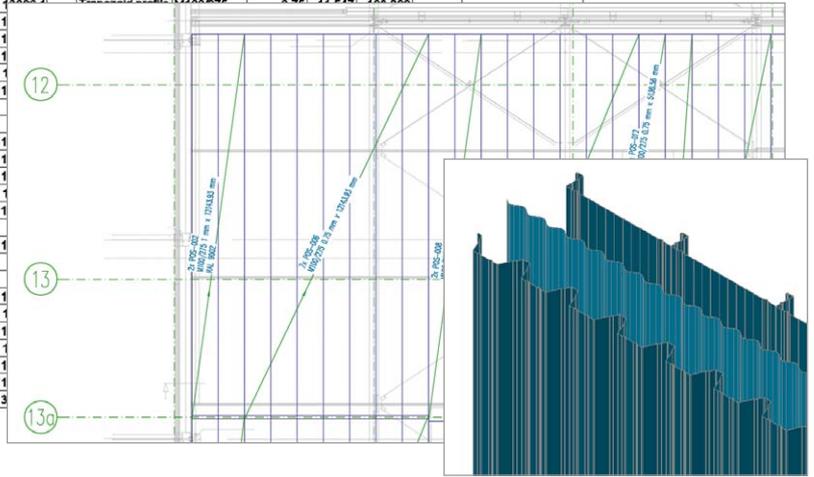### Additional texts for labels

Up to six individual attributes (items of information) can now be appended to ATHENA objects. They cannot only be labeled, but rather, along with the automatically assigned information, they can be transferred to a BIM model, e.g. Autodesk Revit® or Navisworks®, by means of IFC export. This is also very important for transporting non-graphical information to a BIM model.

Placement plan for profiled sheets

This new tool enables the fully automatic placement of profiled sheet-metal panels within any outlines, e.g. of walls or roofs, and the detailed output.

A sheet placement plan with labeling is generated from the specification of the placement orientation (horizontal or vertical), the choice of a profiled sheet from the ATHENA database and an outline via two diagonal corner points. During this process, overlaps, tolerances and sheet thickness values can be determined. With just one step, a parts list, in which identical parts are summarized, can be output from the sheet placement plan. The sheets can be converted to 3D objects with the command "Object to solid body" – for example, to use them in a BIM project.

List profiled sheet position

Position	Quantity	Total	Cutting length mm	Item	Label	Nominal size	Thickness mm	Area m²	Weight kg	Coating m²	Surface
POS-001	2	2	13996.1		Trapezoid profile	M100/275	1.00	11.547	144.796	17.412	RAL 9002 Grey white
POS-002	2	2	12143.9		Trapezoid profile	M100/275	1.00	10.019	125.635	15.108	RAL 9002 Grey white
POS-003	3	3	13996.1		Trapezoid profile	M100/275	1.00	11.547	144.796	17.412	RAL 9002 Grey white
POS-004	3	3	12143.9		Trapezoid profile	M100/275	1.00	10.019	125.635	15.108	RAL 9002 Grey white
POS-005	7	7			Trapezoid profile	M100/275	0.75	11.547			
POS-006	7	7	1								
POS-007	2	2	1								
POS-008	2	2	1								
POS-009	9	9	1								
POS-010	6	6	1								
POS-011	1	1									
POS-012	1	1									
POS-013	1	1									
POS-014	3	3	1								
POS-015	1	1									
POS-016	1	1									
POS-017	4	4	1								
POS-018	4	4									
POS-019	5	5	1								
POS-020	1	1									
POS-021	1	1									
POS-022	6	6	1								
POS-023	8	8	1								
POS-024	1	1	1								
POS-025	6	6	1								
POS-026	2	2	1								
POS-027	5	5	1								
	94	113									

Profiled sheet

The command, "Profiled sheet" has been revised, but retains its name as "Profiled sheet". A new modern dialog box is easier to use and the functional features have been expanded with the following points:

- New manufacturers have been added
- Sandwich panels and steel cassettes have been added.
- ATHENA surfaces (e.g. colors and treatments) can be assigned.
- On the new "Sections" tab countries can be switched on and off (as with the "Standard parts" module) in order to use the country-specific products of certain manufacturers.
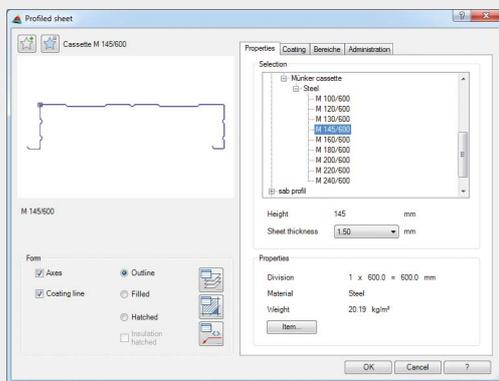
ERPlus® item link

With this link, users of ERPlus® from T.A.Project can ensure that items in ATHENA and ERPlus have or are given the same item numbers. When selecting ATHENA parts (e.g. standard parts), an item search in the ERPlus item database can be carried out and a comparison of the data made. In this way, automatic access to ERP data is already possible from the design drawing.

System requirements for ATHENA 2017

- AutoCAD 2014 - 2018
- AutoCAD Architecture 2014 - 2018
- AutoCAD Mechanical 2014 - 2018

Operating system:
Windows 7, 8 und 10

Hardware:
ATHENA requires the same hardware configuration as AutoCAD.

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ERPlus - registered trademark of T.A. Project GmbH.
Windows (Vista, 7, 8, 10) – registered trademarks of Microsoft Inc.

Further new features:

- New setup: System directories from older installations can be accepted
- Various changes in the ribbon menu
- ATHENA tables now with scaling
- Expansion of "Profiled sheet" (formerly trapezoidal sheet): More metal sheet manufacturers (depends on country), sandwich panels and steel cassettes, surfaces
- New command "Label item" (item ID)
- "ATHENA leader: Texts can be inset
- "Copy label text" (New)
- "Edit dimensions" now multiples are also possible
- "Dihedral angle" routine: Now also functions with null bars (lines) and infills
- "Offset auxiliary line" now also possible with "0" or negative values
- "Infills" dialog box optimized: "Layers" pick list now dynamic
- And much more.

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