



GRAITEC
G ADVANCE

WHAT IS NEW
in
Advance Steel 2010

**GRAITEC**

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AutoCAD 2010 compliancy

Advance Steel 2010 is compliant with the latest version of AutoCAD®:
AutoCAD 2010

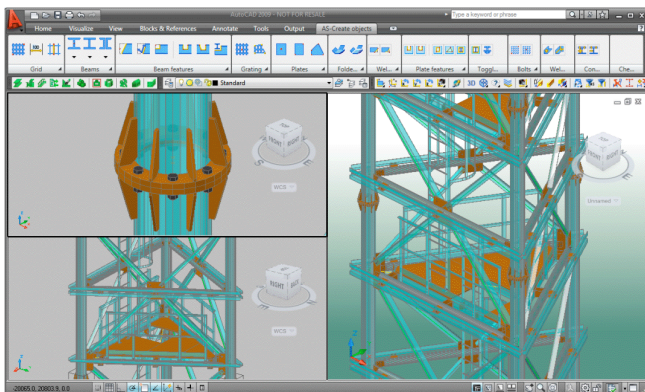
Improved user interface

The user interface has been improved for better ease of use and ease of learn.

User interface 1: Advance Steel Ribbon

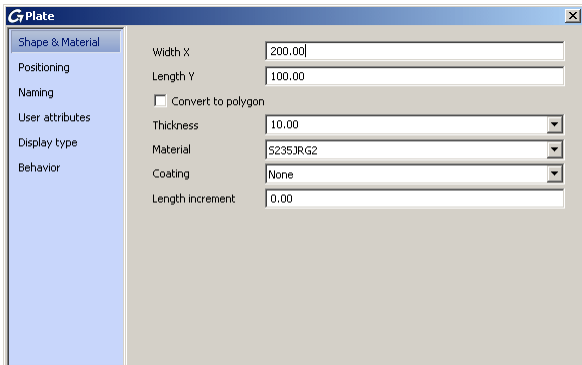
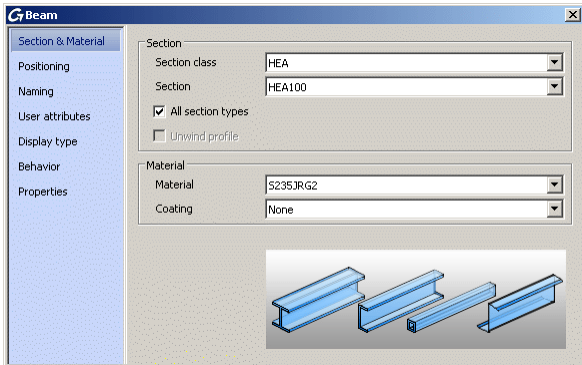
Use the Advance Steel ribbon for increased productivity.

- Easy to navigate
- User friendly
- Well organized



User interface 2: Property dialog boxes

The properties are better grouped in the left of the dialog boxes for easier access to the different properties.



Performance

Performance 1: Faster drawing creation

With Advance Steel 2010, you get your workshop drawing much faster.

Performance 2: Faster display in Shade mode

Displaying in shade mode is the same speed as displaying in wire frame mode.

Performance 3: Workshop drawings creation

The workshop drawing creation is much faster while using a Process.

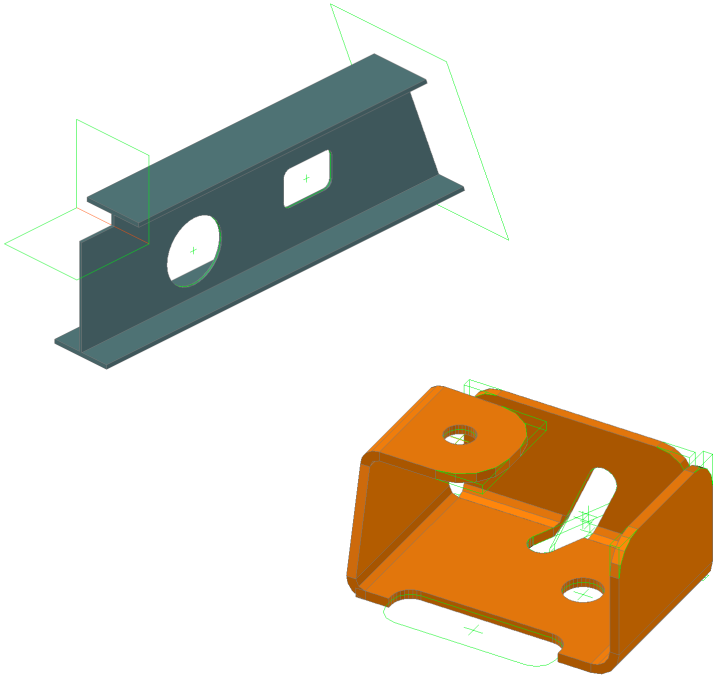
Performance 4: General arrangement drawings creation

The general arrangement drawing creation is much faster creation (the drawing is created slice by slice) and changing a view property (e.g. its scale) within a drawing is faster.

Modeling

Modeling 1: Better shade mode

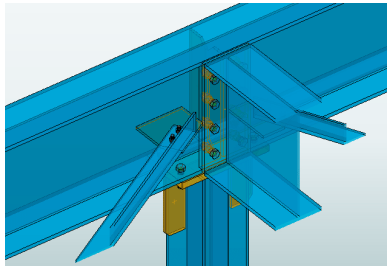
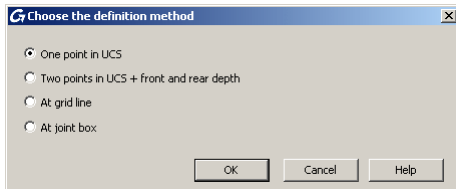
There is no more need to go back to wire frame display, you can see (and modify) all features and cuts even in shade mode!



Modeling 2: Model views

The new model views allow working easily in 2D views.

- Simplification of the different existing possibilities
- Can also be created from the grid or from a joint box
- Can be modified (e.g. renamed) afterwards
- Depth clipping of the objects, only the object part visible in the view box is displayed

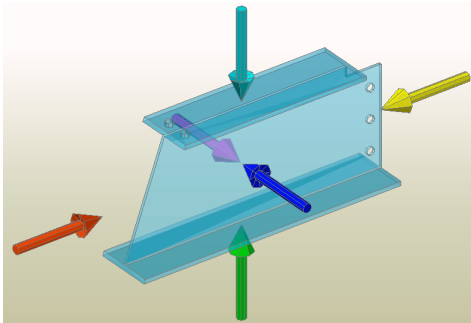


Modeling 3: Quick views

You can create “Quick” views on objects.

The following possibilities are available:

- Quick view on an object
- Quick view on an assembly
- Quick view on a joint



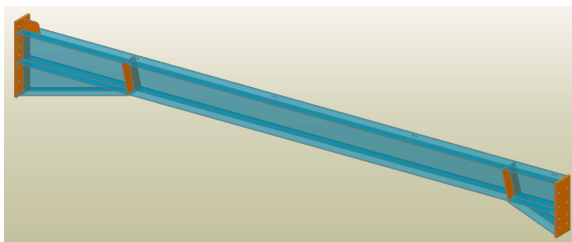
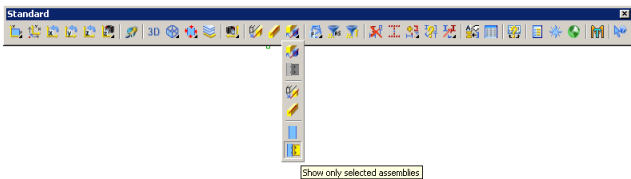
Selecting one of the displayed arrow will create a 2D view along this arrow, and the user can define the depth and the size of this view.

Modeling 4: View selected object

You can display only what you require.

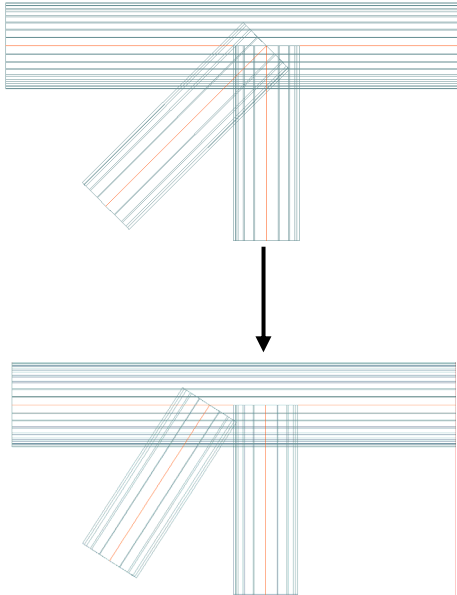
These different options are available with an icon:

- View selected object(s)
- Hide selected object(s)
- View selected assembly(s)
- Hide selected assembly(s)



Modeling 5: Beam clearance

This new command allow to enter the desired gap and beams will be automatically offset.



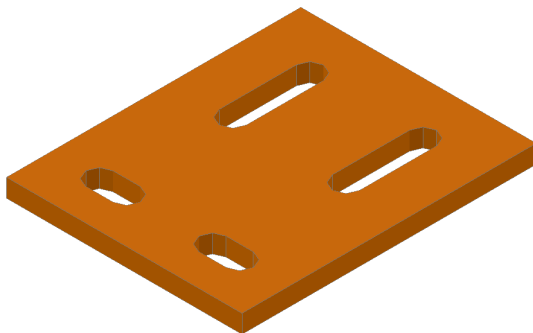
Simply select the beams, enter the gap value (e.g. 20) and the beam is moved to get the desired clearance... very useful tool for the design of trusses!

Modeling 6: Improved hole check

The checking of holes/bolts placement is more accurate with Advance Steel 2010.

The steel checking tool enables:

- Search (and display) a result like it does for a collision
- Find and display a bolt or a weld which connects nothing
- Detect that the distance is not respected between different bolt groups
- Use a new default for maximum distance between holes (or bolts)
- Consider slotted holes

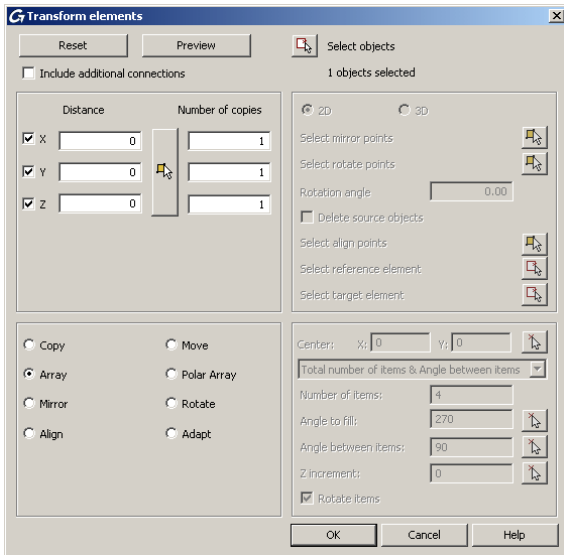


No technical problems found

Modeling 7: Extended copy tools

There are more options with the Advance Steel copy command.

- All copy options are available from the same dialog box
- This gives the option to also copy connections with the mirror copy



Modeling 8: Multiple joint copy

Select a joint, select several beams, the joint is created between the different selected beams!

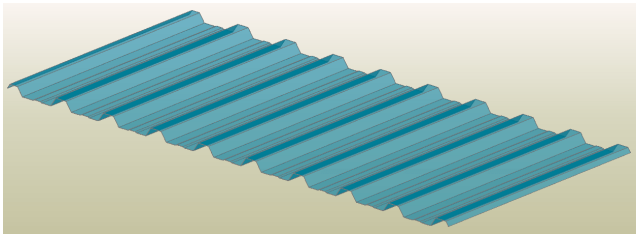
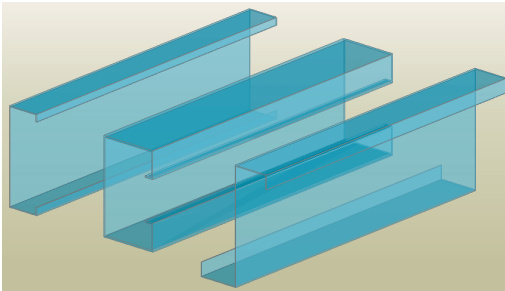
Modeling 9: Trim/extend to a line or two points

Select a straight or a curved beam and trim it (or extend it) to the selected line or points!

Modeling 10: Extended libraries

The Advance Steel libraries have been extended for profiles and bolts.

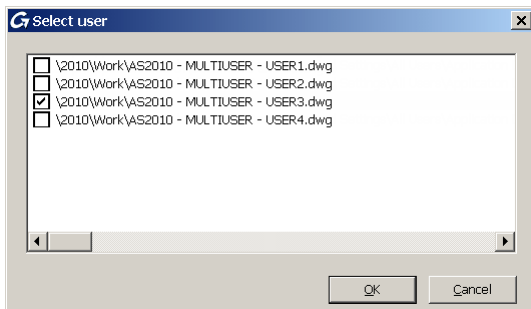
- Updated SADEF profiles
- Updated Ayrshire profiles
- Updated Lindap profiles
- Updated Polish bolts
- Updated Polish anchors



Modeling 11: Multi-user improvements

Better visualize who is connected to the 3D model!

A user-friendly dialog box can be used to see which user has currently checked out elements.



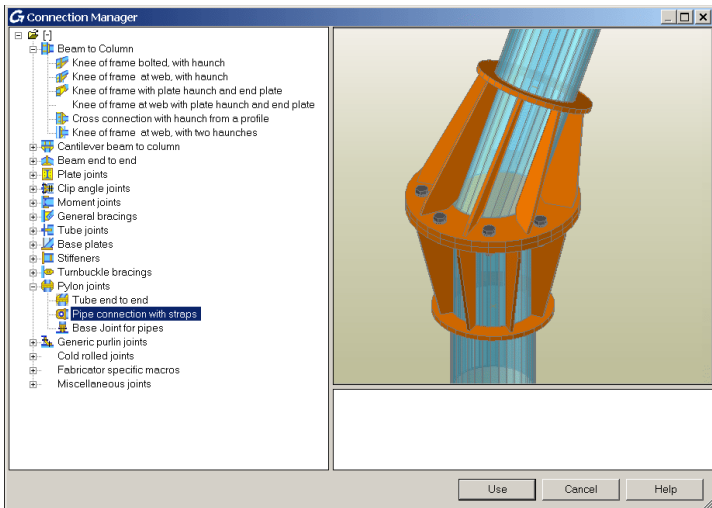
Joins

Joint 1: Connection vault

A new user-friendly connection vault is available.

The user benefits are:

- All connections in one place
- Sample previews to give an idea of the possibilities
- Select a joint and use it directly from the connection vault!

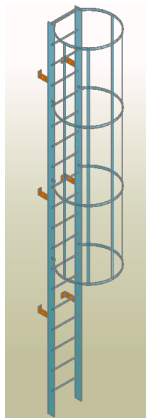
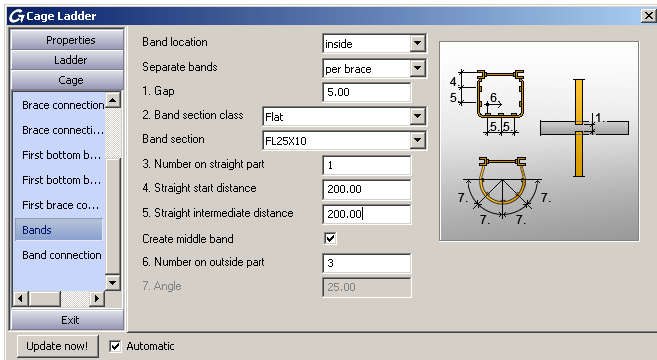


Joint 2: Cage ladder macro

Advance Steel 2010 provides a new Cage ladder macro.

This macro provides different options:

- Ladder with or without cage
- Different cage types
- Different cage exit types

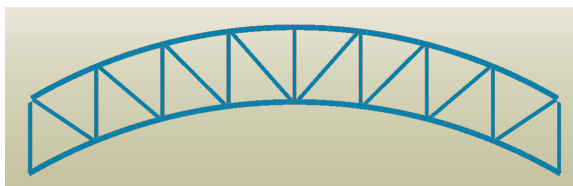
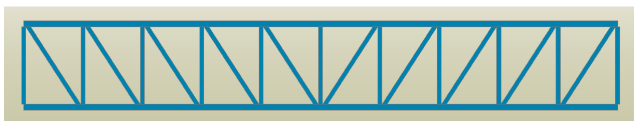


Joint 3: Truss macro

Advance Steel 2010 provides a new Truss macro.

This macro provides different options:

- Different truss types: "Warren", "Pratt", "Half-Pratt"
- Can be created from tubes, angles with single or double sections
- Beam clearance can be set from the dialog box
- Chords can be straight or curved

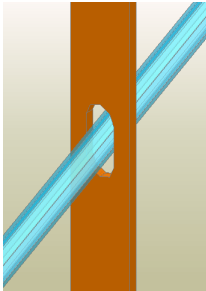


Joint 4: Stairs and railings

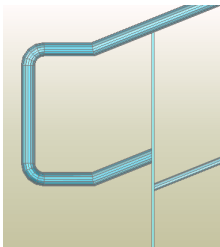
Advance Steel 2010 provides different new options in the Stairs and Railings macros.

These new options are:

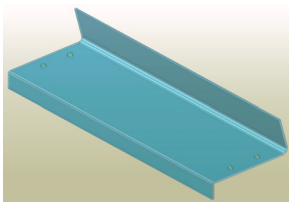
- Railing: slotted contour on posts



- Railing: new “loop return” option



- Stairs with real grate treads
- Stairs: rear bending angle



- Spiral stairs: middle rail as flat

Joint 5: Purlins / Side rails macro

Advance Steel 2010 provides a new Purlins macro.

This macro provides different options:

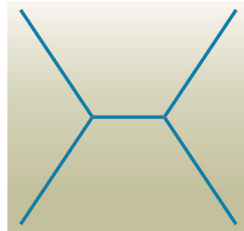
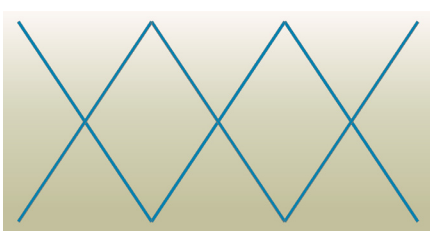
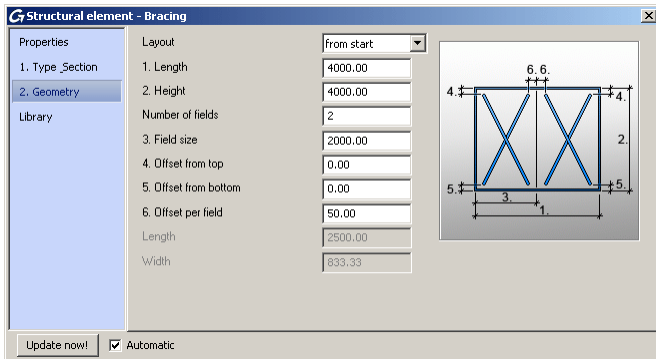
- Offset value can be set individually for each purlin
- Gap between purlins can be specified
- Beam clearance can be set from the dialog box
- Purlins overlap each other by setting a negative gap
- Model role can be set within the properties dialog box
- Purlin sections can be stored in a library for later reuse

Joint 6: Bracing macro

Advance Steel 2010 provides a new Bracing macro.

This macro provides different options:

- Different bracing types: “Crossed”, “Single”, “Inserted”
- Different member types: “Simple”, “Double mirrored”, “Double flipped”
- Number of fields definable
- Offset can be set individually for bracing members
- Values can be stored in a library

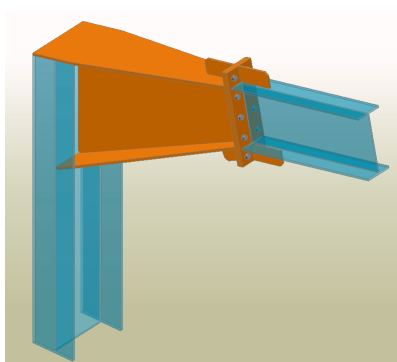
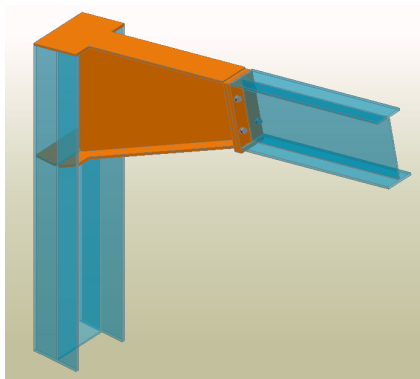


Joint 7: New plate haunch to column web joint

Advance Steel 2010 provides a new plate haunch to column web joint.

This joint provides different options:

- Different flange types
- Several options for stiffeners
- Galvanizing holes available

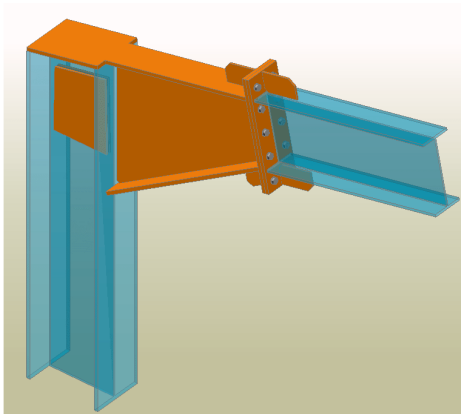
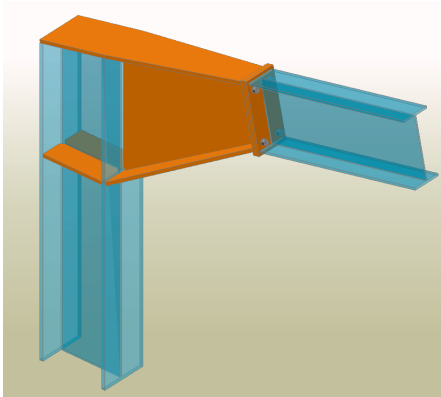


Joint 8: New plate haunch to column flange joint

Advance Steel 2010 provides a new plate haunch to column flange joint.

This joint provides different options:

- Different flange types
- Several options for stiffeners
- Galvanizing holes available

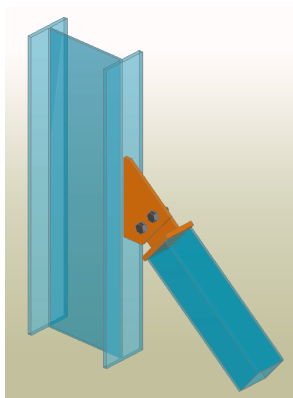
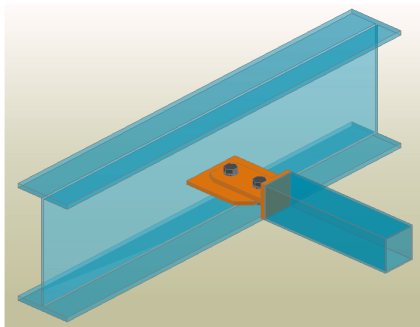


Joint 9: New tube bracing joint for one diagonal

Advance Steel 2010 provides new tube bracing joint for one diagonal.

There are 4 different types of joints:

- Tube brace – gusset
- Tube brace – angle
- Tube brace – gusset & kidney hole
- Tube brace – angle & kidney hole

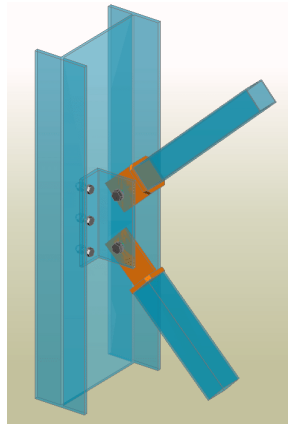
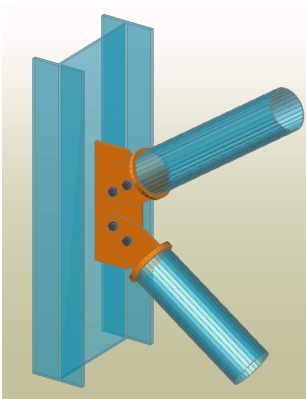


Joint 10: New tube bracing joint for two diagonals

Advance Steel 2010 provides new tube bracing joint for two diagonals.

There are 4 different types of joints:

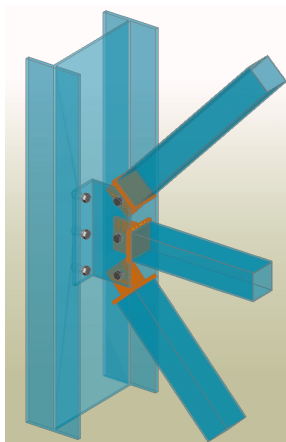
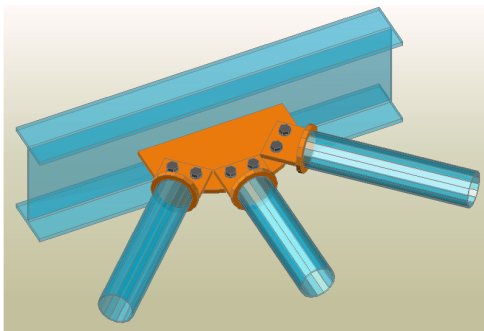
- Tube brace – gusset
- Tube brace – angle
- Tube brace – gusset & kidney hole
- Tube brace – angle & kidney hole



Joint 11: New tube bracing joint for three diagonals

Advance Steel 2010 provides new tube bracing joint for three diagonals. There are 4 different types of joints:

- Tube brace – gusset
- Tube brace – angle
- Tube brace – gusset & kidney hole
- Tube brace – angle & kidney hole

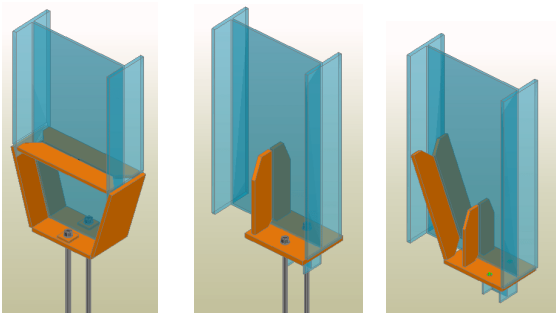


Joint 12: New base plate joint

Advance Steel 2010 provides a new base plate joint.

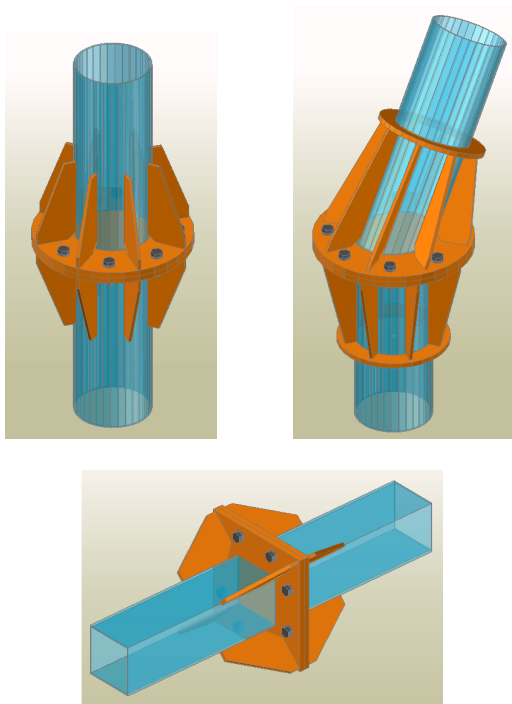
This joint provides different options:

- Options for sloped and/or vertical stiffeners
- Column can be cut or coped
- Can be applied to welded I beams



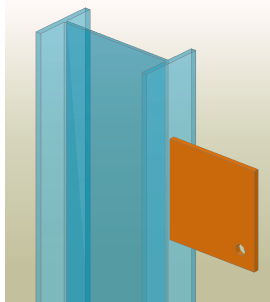
Joint 13: New tube end to end joint

Advance Steel 2010 provides a new tube end to end joint.



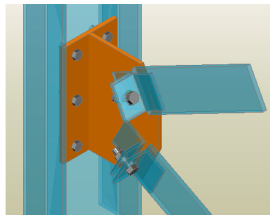
Joint 14: New joist stabilizer plate joint

Advance Steel 2010 provides a new joist stabilizer plate joint.



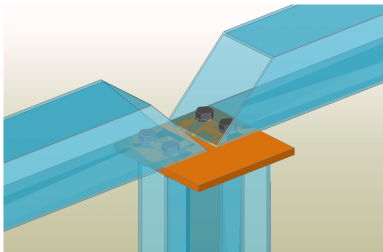
Joint 15: New flat bracing for two diagonals joint

Advance Steel 2010 provides a new flat bracing for two diagonals joint.



Joint 16: New double beam to post joint

Advance Steel 2010 provides a new double beam to post joint.



Joint 17: New stair anchor with angle joint

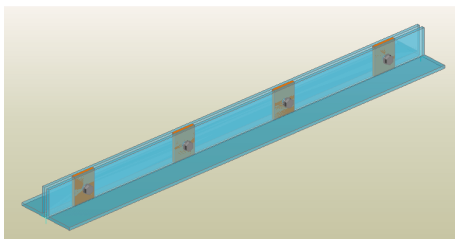
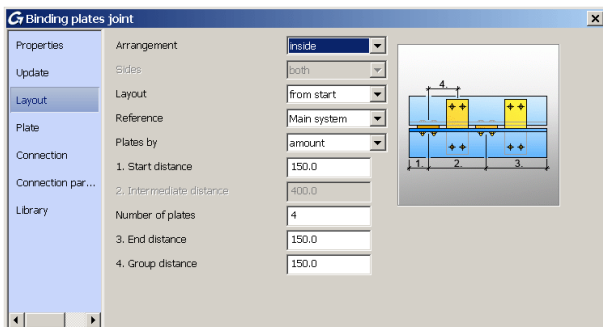
Advance Steel 2010 provides a new stair anchor with angle joint.

Joint 18: New stair anchor with base plate joint

Advance Steel 2010 provides a new stair anchor with base plate joint.

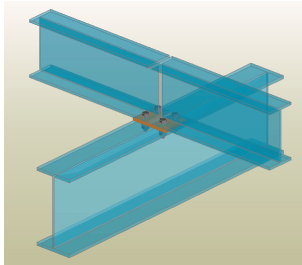
Joint 19: New binding plates joint

Advance Steel 2010 provides a new binding plates joint.



Joint 20: New bolt on gauge lines joint

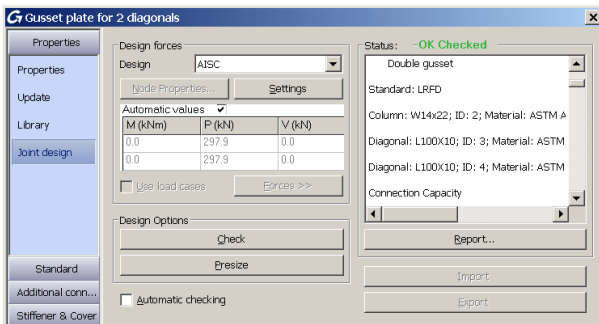
Advance Steel 2010 provides a new bolt on gauge lines joint.



Joint 21: Joint Design according to AISC

Bracing joints include Joint Design according to AISC.

- Joint Design available for “Gusset plate for 2 diagonals” joint
- Joint Design available for “Gusset plate for 3 diagonals” joint
- Can be “Checked” and/or “Pre-sized”
- Report automatically created



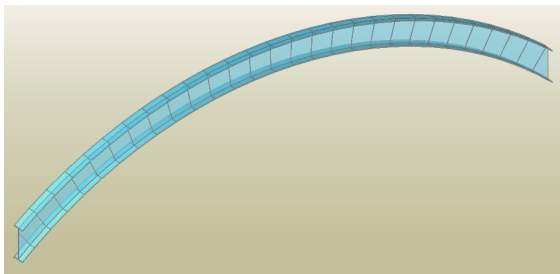
Joint 22: Joint Design report in MS Word format

The Joint Design report can be automatically created in MS Word format.

Drawings

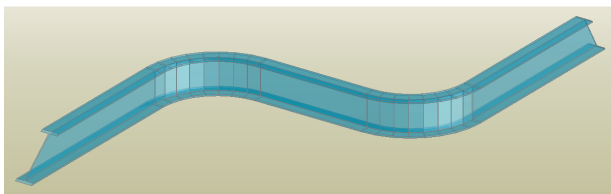
Draw 1: Unfolding of curved beams

A curved beam can be displayed unfolded on workshop drawings. Its elongation calculation can be configured with a default.



Draw 2: Unfolding of poly-beams

A poly-beam can be displayed unfolded on workshop drawings. Its elongation calculation can be configured with a default.



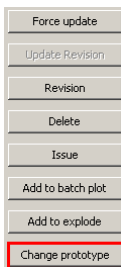
Draw 3: Improved file names

The drawing file name is automatically updated if the drawing format is changed.



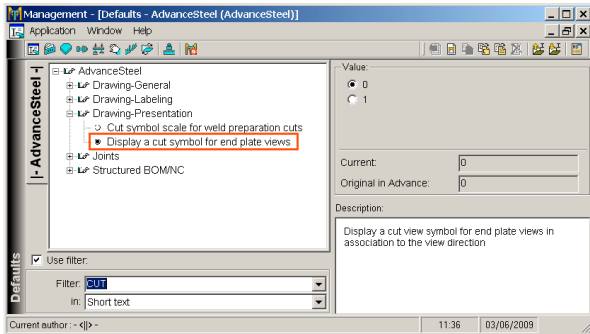
Draw 4: Document manager

Changing the prototype file can be done for more than one drawing with the “Change prototype” button.



Draw 5: Cut symbol for endplate

A cut symbol can be displayed for end plate views on assembly drawings, thanks to a new “Display a cut symbol for end plate views” default.

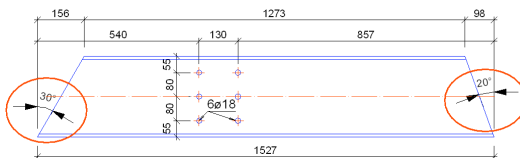
**Draw 6: More accuracy in used dimension styles**

A drawing created with Advance Steel can be obtained using more accurate settings for each different dimension:

- Dimension style for linear dimensions
- Dimension style for angle dimensions
- Dimension style for angular dimensions
- Dimension style for radial dimensions
- Dimension style for slope triangle dimensions

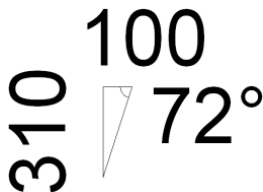
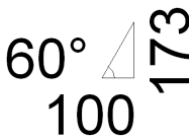
Draw 7: Better outputs – angle dimension placement

An angle dimension is automatically better placed (in order to avoid overlapping on the object).



Draw 8: Better outputs – slope triangle presentation

Whatever shape the slope triangle has, the texts stay horizontal in order to be easily readable on drawings.



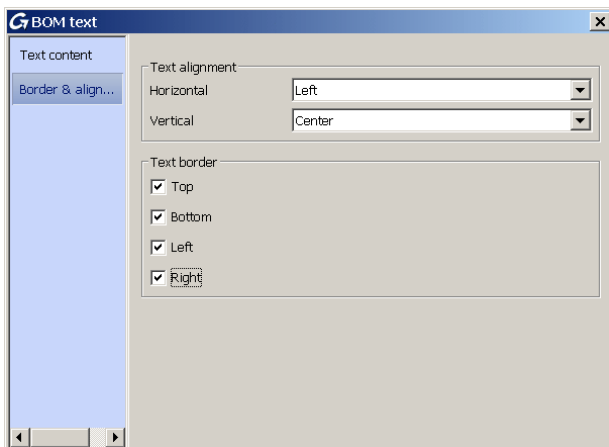
Lists

Lists 1: New BOMs on drawings

With Advance Steel 2010, you get your BOMs more efficiently on workshop drawings.

Major improvements for BOMs on drawings:

- Easier to configure, very user-friendly to define
- BOM template in DWG file format
- AutoCAD®-based configuration
- **Much faster workshop drawings creation**



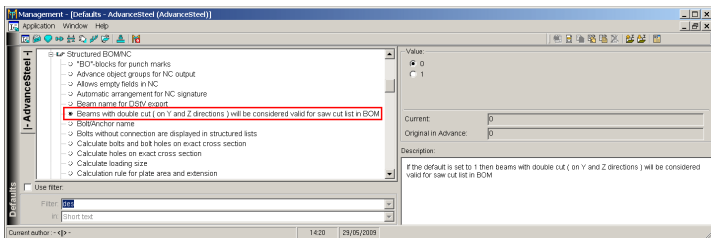
Mark	Qty.	in Mp
1045	1	13
1045	1	16
1045	2	9

Lists 2: Saw cut list with cut dimensions

A saw cut list can show cut dimensions in addition to saw cut angle values.

Lists 3: Saw cut list for beams having a double cut

A new default allows the displaying of beams having a double cut within a saw cut list with pictures.

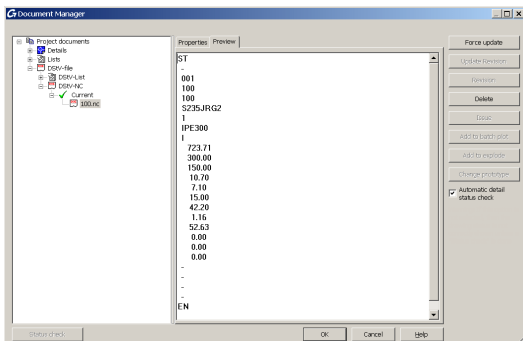
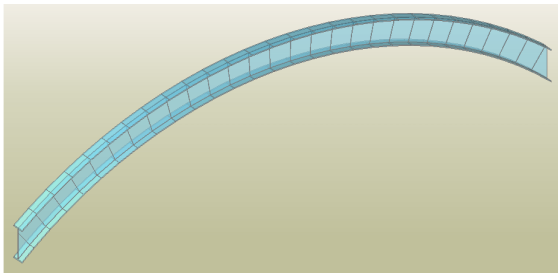


NC Files

NC Files 1: Automatic creation for curved beams

Users can now automatically get their NC-DSTV files for curved beams.

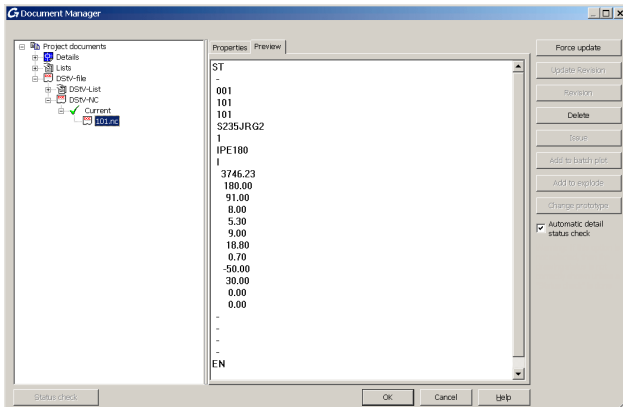
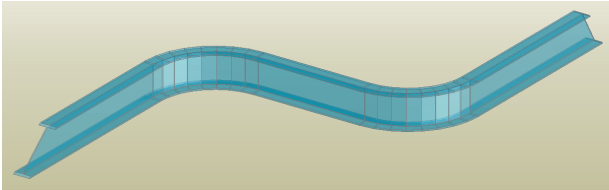
- NC-DSTV file created automatically
- Header filled with the correct information for fabrication
- Can be updated from the Document Manager



NC Files 2: Automatic creation for poly-beams

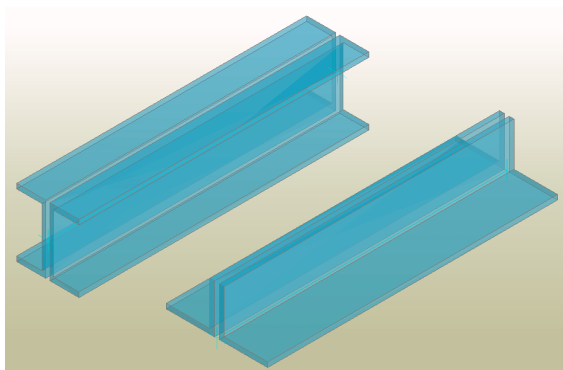
Users can now automatically get their NC-DSTV files for poly-beams.

- NC-DSTV file created automatically
- Header filled with the correct information for fabrication
- Can be updated from the Document Manager



BIM Structural GRAITEC Advance suite**BIM GTC: Compound beams**

Compound beams are transferred between Advance Steel and Advance Design with the use of the GRAITEC GTC file format.



New FLEXnet protection

Protection: New FLEXnet protection

Advance Steel 2010 use the latest FLEXnet technology (Acesso).

- Speeds up license deliveries to end-users
- Can borrow a license from a network license server
- Easily move the license from one computer to another

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