



GRAITEC
G ADVANCE

Advance Steel

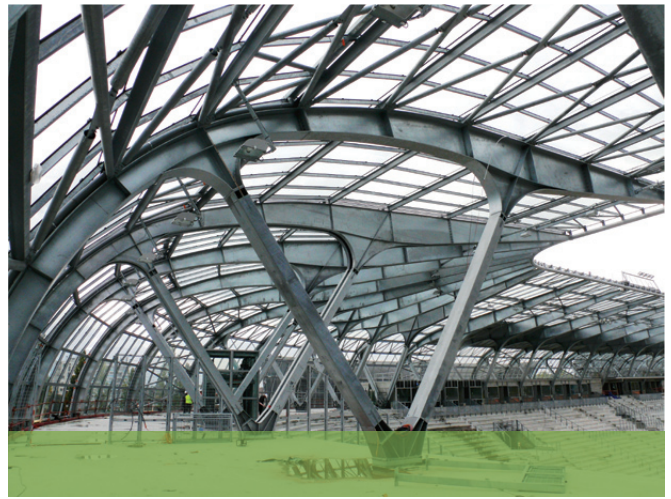
PROFESSIONAL AND EASY-TO-USE 3D STRUCTURAL
STEEL BIM SOFTWARE THAT AUTOMATES THE
PRODUCTION OF DRAWINGS, BOMS AND NC FILES

 **GRAITEC**

www.graitec.com

Grenoble Stadium, France
 Architecture office: Atelier d'architecture
 Chaix & Morel et associés, Paris
 Design office (metallic roof): ETI, Grenoble
 © Jacques Massot

Advance Steel

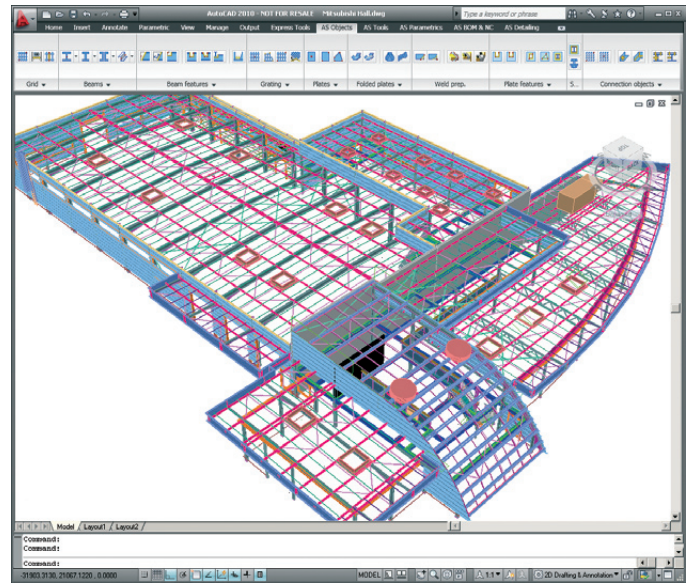


Advance Steel® is specifically designed for structural engineers and steel detailers who require a professional and easy-to-use 3D structural steel detailing BIM software that automates the production of drawings, BOMs and NC files. Advance Steel® drastically increases productivity and drawing quality, while reducing the risk of errors.

Perfectly integrated into AutoCAD®, Advance Steel® accelerates the design phase (single or multi-user mode) by offering an extensive library of automatic joints and specific tools for stairs and railings. It automatically generates all workshop and general arrangement drawings using intelligent tools to automatically control dimensions and labels as well as all necessary views required.

With its short learning curve, novice users can create, manage, and modify complex intelligent 3D models and all associated drawings faster than static 2D drawings.

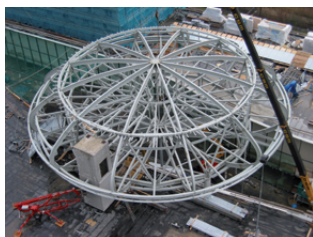
Advance Steel® is part of the GRAITEC structural BIM solution and provides data exchanges with Autodesk Revit as well as with all major industry file formats: IFC, CIS/2, SDNF, PSS, KISS.



Mitsubishi Garage, exhibit hall and office (Voglous, France)
 Design office: SARL Bouchet
 Architecture Office: AER



Sand drying and transportation, Provodiv,
 Czech Republic
 Design office: CAB minerals s.r.o., Brno,
 Czech Republic



The UFO Zoetermeer, Zoetermeer,
 Netherlands
 Design Office: CSM NV (Victor Buyck Group),
 Belgium



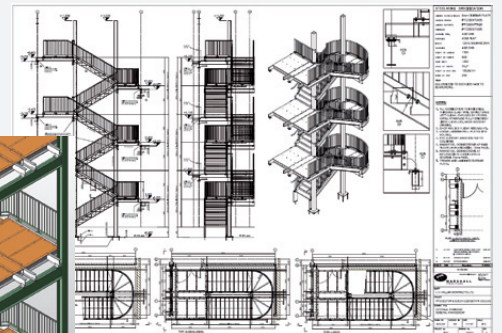
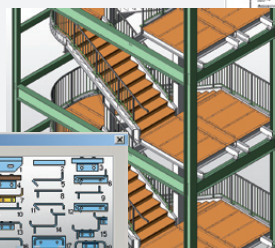
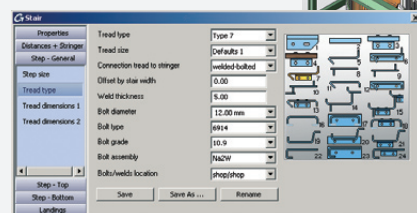
Grenoble Stadium, France
 Design office: ETI, Grenoble
 © Atelier d'architecture Chaix
 & Morel et associés.

Miscellaneous Steel

Many new macros enable quick modeling of miscellaneous steel such as: handrails, stairs, cage ladders, spiral staircases, etc.

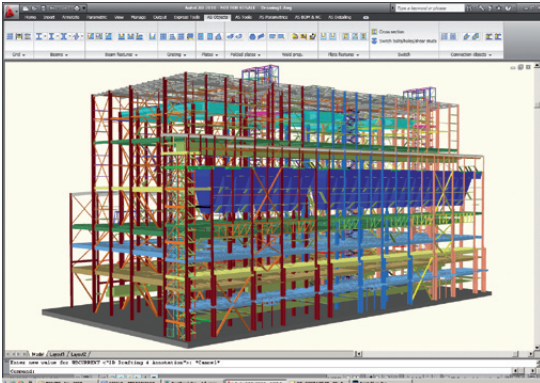
User can even use their own proprietary shape profiles and specifications within the macro: the stringer type, stair pan, railing, elbows at the end, mid rails / vertical pickets and the various types of connection to the stringer among other things can be user defined.

The stair model carries full parametric technology, hence any modification (length, width, angle, etc.) also modifies the handrails. Once a stair "type" has been saved in the library it can be recalled in any other project within the macro.



1

CREATE THE FRAMING WITHIN MINUTES



Prunerov II Power Plant reconstruction - Czech Republic
Design office: Noving s.r.o., Ostrava

Advance Steel ensures precise, efficient, fast modeling and its unique technology automatically creates your general arrangement drawings, detail drawings, material lists and NC files.

Start modeling your columns, floor beams, bracings, girts and miscellaneous steelwork (stairs, railings, etc.) with easy to use Advance objects and assemblies that snap in place. Visual dialog boxes immediately pop-up to customize preferences and dimensions.

Advance Steel provides an extensive library that includes hundreds of connections that intelligently snap in place and instantly adapt to ongoing model changes with visual feedback.

The powerful "Quick connect" function automatically creates and designs all standard connections in the project according to user preferences.

Advance Steel then performs a final check: element collision detection, construction tool accessibility and object numbering correction.

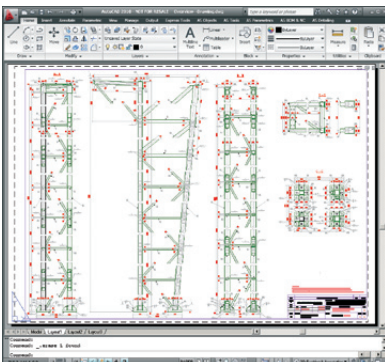
2

CREATE ALL DRAWINGS AUTOMATICALLY

Now that your model is finished with members, connections and correctly numbered you can use the automatic drawing creation for:

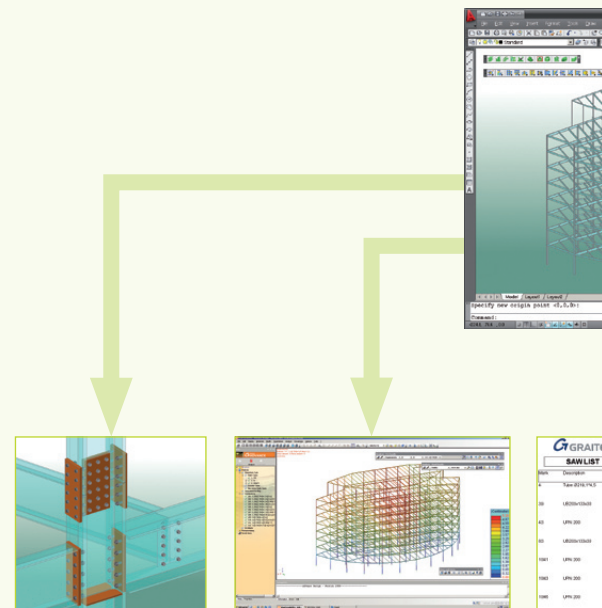
- General arrangement drawings (isometric views, elevations, floor plans, etc.)
- Sections and close ups
- Fabrication drawings (assembly drawings, single part drawings, etc.)

Dimensions and labels are automatically placed and easily modified using a visual wizard tool (welds, level symbols, etc.). And if that's not enough... You can use all AutoCAD® functions to obtain the highest level of detail!



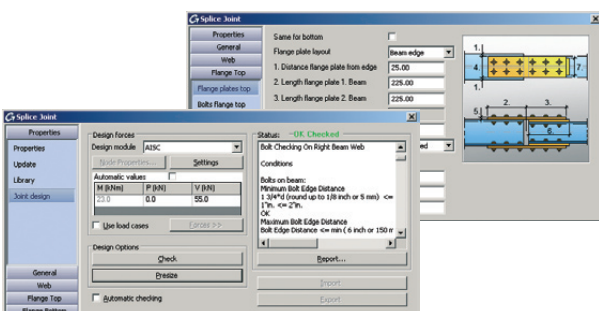
A major time saver: Advance Steel automatic drawing consistency check! When the model is modified all the relevant drawings are updated automatically upon your approval!

Advance Steel® is part of the GRAITEC® solution for automating the entire structural engineering design to detailing and production output.



4

HAVE COMPLETE CONTROL OVER YOUR MODEL'S DESIGN REQUIREMENTS

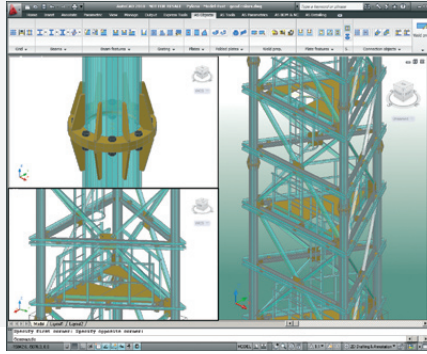


Advance Steel is part of the GRAITEC Advance structural BIM solution for construction professionals. This modular end to end solution offers the advantage of fluid workflow from the initial structural concept to final design and production output. Our software integration saves considerable time by virtually eliminating double entries and redundant work!

100% AutoCAD®

Working within AutoCAD® insures a flexible and solid industry standard software platform that reduces running costs and risks: large established user base, shorter learning curve, quick integration into production, smooth file exchange between project partners (DWG), etc.

From a technical point of view, Advance Steel uses the latest and most powerful 100% AutoCAD® compliant development technology: Object ARX. This ensures the current and future AutoCAD® compatibility of objects that support most basic functions (stretch, shorten, copy, move, etc.). The Advance Steel native format is the DWG file.

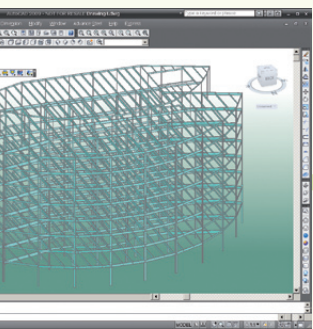


Advertising pylon - Czech Republic
Design office: EGE

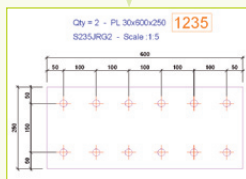
3

PRINT YOUR LISTS AND BILLS OF MATERIAL

ITEC structural BIM solution, design process, from and fabrication.



Code	Quantity	Material	Unit	Comments	Material	Comments
S235JR32	1722		m			
S235JR32	2336		m			
S235JR32	3367		m			
S235JR32	2468		m			
S235JR32	1468		m			
S235JR32	2067		m			
S235JR32	1908		m			



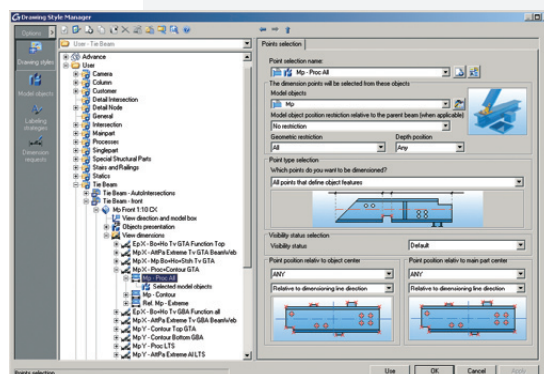
Now that your drawings are ready, Advance Steel can create all material lists in addition to NC files. Advance Steel includes many predefined report formats (beam lists, plate lists, etc.) and supports custom templates: content definition, customizable sorting, logos and pictures, etc.

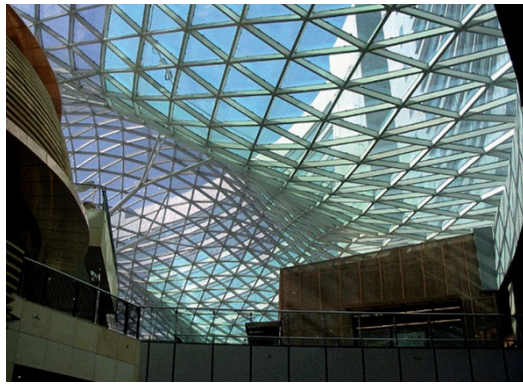
The Advance Steel “Document Manager” offers a centralized, time saving visual tracking and management system (drawings, lists, NC files, etc.). You can check your drawings at a glance, sort out the drawings or print the material lists!

Customization

If AutoCAD® can help create the drawing you want... then Advance Steel can do it for you! Out of the box Advance Steel creates high quality drawings with a generic “Look and Feel”. Users can adapt the “Look and Feel” to their own requirements with the user-friendly “Drawing Style Manager”.

The Drawing Style Manager is a high-end tool that customizes the automatic drawing creation process (part visibility, content and placement of labels according to the object type, dimension positioning, etc.) to obtain drawings that require little or no cleanup.

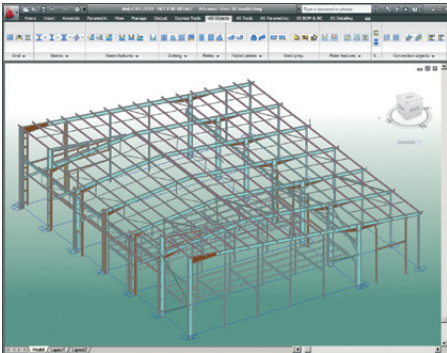




Roof of Złote Tarasy atrium (Golden Terraces) in Poland. Waagner-Biro GmbH, Austria, winner of the European Award for steel construction 2007

YOUR PROJECT AT A GLANCE

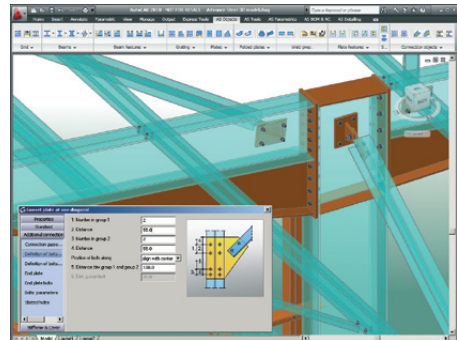
1



Structural modeling

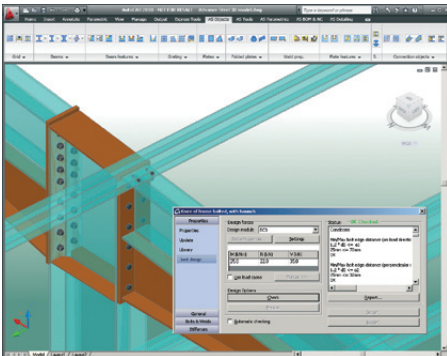
Create your columns, floor-beams, bracings, girts with the same approach as drawing AutoCAD® lines and then call on the automatic connections library!

2



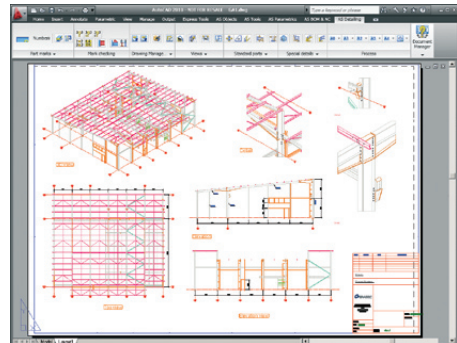
Intelligent connections

3



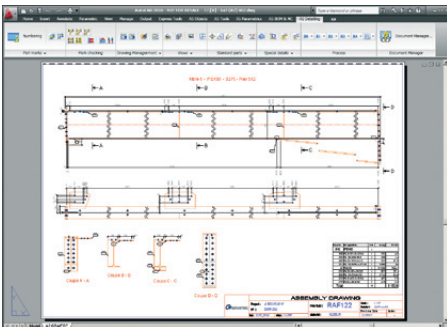
Quick connection with design

4



General arrangement drawing

5



Fabrication drawing

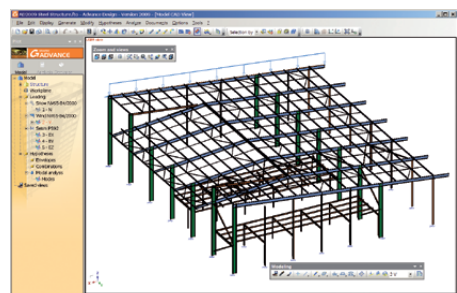
6

GRAITEC		Client	Job			
MATERIAL LIST SUMMARY		Project	Date	20-01-2009		
Material	Name	Quantity	Length (m)	Volume (m³)	Surface (m²)	Total Weight (kg)
HEAB						
8	HEA100	2	3.775	46.3	62.7	3.114
21	HEA100	2	4.785	79.9	109.9	5.989
119	HEA100	1	8.000	191.2	274	24.8
120	HEA100	2	4.785	79.9	109.9	5.989
		7	30.760	597.3	866.5	67.251
IPCL40						
1	IPCL40	3	9.000	12.2	286.6	3.688
62	IPCL40	3	9.000	12.2	286.6	3.688
174	IPCL40	4	12.000	166	824	6.863
120	IPCL40	2	9.000	126.9	220.2	4.401
631	IPCL40	1	9.000	126.9	220.2	4.401
103	IPCL40	1	10.000	141.6	283.2	3.540
931	IPCL40	1	12.000	166	824	6.863
962	IPCL40	1	12.000	166	824	6.863
160	IPCL40	1	12.040	166.4	824.8	6.868
136	IPCL40	1	11.000	142	748	6.109
168	IPCL40	1	11.000	142	748	6.109
280	IPCL40	1	9.000	126.9	220.2	4.401
		30	369.960	2.171.9	462.111	462.111

List

From the model, Advance Steel automatically creates general arrangement drawings, detail drawings, material lists, NC files... and links to Engineering software packages!

7



Finite element analysis with advance design



THE GLOBAL STRUCTURAL BIM SOLUTION FOR CONSTRUCTION PROFESSIONALS

Better tools, improved workflow, increased productivity...

- 100% dedicated to Structural Design, Engineering and Detailing
- Automatically creates and updates construction and fabrication drawings
- FEM analysis and structural optimization
- Multi-user environment and integrated document management
- Eliminates data re-entry with unique bi-directional synchronization technology



Advance Steel

Advance Steel® is specifically designed for structural engineers and steel detailers who require a professional and easy-to-use 3D structural steel detailing software that automates the production of drawings, BOMs and NC files. Advance Steel® drastically increases productivity and drawing quality, while reducing the risk of errors.



Advance Design

Advance Design® is specifically dedicated to structural engineers who require a professional and easy-to-use solution for simulating and optimizing all their projects. Advance Design includes: a user-friendly structural modeler, an automatic load generator, a powerful FEM engine, comprehensive wizards for designing concrete and steel members according to Eurocodes and efficient post-processing and report generators.



Advance Concrete

Advance Concrete® is specifically designed for structural engineers and reinforced concrete detailers who require a professional and easy-to-use 3D software that automates the production of drawings, BOMs and NC files. Advance Concrete® drastically increases productivity and drawings quality, while reducing the risk of errors.

THE Software Suite that optimizes structural design and detailing...
Are you ready for GRAITEC Advance?



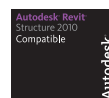
Autodesk
Authorized Developer
Autodesk
Authorized ISV Partner



GRAITEC is ADN (Autodesk Developer Network)
GRAITEC is ISV (Independent Software Vendor)



www.graitec.com/revit



Minimum recommended configuration:

Pentium IV with min. 2 GHz, 2 GB RAM and 128 MB graphic card.
Windows 7, Windows Vista or Windows XP Professional. AutoCAD® 2007 or higher.
This configuration may change depending on the evolution of operating systems and AutoCAD®.

Non contractual document - The availability of the aforementioned functionalities is dependent on the commercial package. - © October 2009 Graitec, SA
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For more than 20 years, GRAITEC has been committed to developing high performance CAD and analysis software for the construction industry.

Over 30,000 customers now rely on GRAITEC's complete suite of fully compatible and integrated products covering design and detailing for the reinforced concrete and steel construction industries.

GRAITEC is a true software, engineering and R&D organization involved in the complete structural solution lifecycle: New technology R&D, CAD and design software development, quality assurance, training, support, specific solution/project consulting and outsourcing.

GRAITEC provides consistently improving cutting edge products matched by comprehensive support services to fulfil the highest production and quality requirements.

GRAITEC is a unique source for complete structural software expertise!

Headquartered in France, GRAITEC has subsidiaries in the USA, Canada, UK, Germany, Spain, Czech Republic, Romania and Russia and works closely with resellers worldwide.

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