

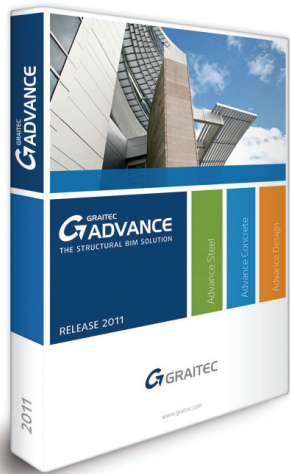
The GRAITEC Advance suite: launch of the 2011 versions

Advance Design / Advance Concrete / Advance Steel



Paris, France, December 15th, 2010. GRAITEC, an international software developer for CAD and structural analysis solutions for civil engineering, launches GRAITEC Advance 2011, the structural BIM software solution for construction professionals.

GRAITEC ADVANCE 2011: + interoperability + productivity + simplicity



GRAITEC Advance is a Building Information Modeling (BIM) system that automates the entire structural design and construction documentation process from engineering design and structural analysis to member optimization, detailing and fabrication.

GRAITEC Advance provides designers and detailers with an optimal working environment with tools to create and completely carry out their construction projects: optimization of construction materials, elimination of project inconsistencies, faster study turnaround time, automatic document creation, project history and tracking, fluid communication with project partners, etc.

The development of the 2011 versions of the Graitec Advance suite focuses on 4 main themes:

- **Development of intelligent data exchange and interoperability** not only between the Advance Suite of products but also with other industry standard formats, other software systems, industry partners and equipment manufacturers
- Enhanced **ergonomic user interface** and ease of use
- Improved **performance**
- **Greater Automation** in the production of documents and project management designed to increase the **productivity** of users.

Data exchange between the Advance products

With version 2011, all programs in the Advance Suite are now **delivered on one DVD**. This greatly simplifies installation and facilitates **the sharing of common data sources** between designers and draughtsmen, such as the databases containing sections (UKB, RHS...) and materials.

In addition certain calculation engines are shared between the design programs and the detailing programs (e.g. EC3 connection design).

The introduction of our innovative new interface, **"Graitec Advance Manager"**, centralises the management of common system settings and tools shared between programs in the suite. This new application comes as standard for all users.

Interoperability

Graitec Advance 2011 also enhances interoperability with **Autodesk Revit®** (Revit Architecture® and Revit Structure®). This allows Graitec users to carry out the design and the production of construction drawings from models designed in Autodesk Revit.

Another major development (and a massive step forward) in the field of plant design: Graitec Advance 2011 is now compatible with **Aveva's PDMS®** software package. The R&D teams of Graitec and AVEVA® have worked together to develop exchange protocols that allow Aveva and Graitec users to intelligently and efficiently share their design models.

Not forgetting our full compatibility with industry standards: **IFC, CIS/2, PSS, SDF, KISS...**

Standardisation of Brand Names

The Graitec Advance suite is now used in over 80 countries and is available in more than 12 Languages. Thousands of users around the world rely on our solutions every day, so in a bid to standardise the regional brand names we are **unifying our global product identity**: all local names previously used have been rebranded to **Advance Steel, Advance Concrete and Advance Design**.

Localisation of programs to different country standards and practices still remains a major focus of Graitec development. The Graitec Advance range is also supplemented by software tailored to the specific needs of local markets such as Arche, Eiffel and Melody in France and SuperSTRESS and SuperCAD in the UK.

According to Francis Guillemard, CEO of the GRAITEC Group: "The market is demanding global solutions for design calculation, CAD and more effective BIM (Building Information Modeling) and Graitec is breaking new ground in this area as is evident with our latest release of Graitec Advance 2011. Our expansion into Singapore with the recent opening of a new subsidiary is evidence of the demand for Graitec technology and testimony to our global presence. With nearly 25 years of experience in this field and thousands of international references, Graitec is able to provide an innovative solution to its clients. The 2011 version of the Graitec Advance product range is founded on this collaborative approach while offering ever more time-saving functionality to increase the productivity and confidence of our users."

About GRAITEC...

Founded in 1986, GRAITEC is a major software developer for civil engineering offering a Building Information Modeling (BIM) system that automates the entire structural process. Used by more than 30,000 professionals worldwide, GRAITEC solutions have helped in creating outstanding projects: Cœur Défense tower, Stade de France stadium, Cairo Subway, Düsseldorf International Airport, Băneasa Shopping City in Bucharest, Milano Fair, etc. The GRAITEC Group has more than 250 employees working in 12 companies (France, Germany, Czech Republic, Romania, Russia, United Kingdom, Canada, USA and Singapore). GRAITEC also manages an international network of more than 40 resellers.

For more information, please visit www.graitec.com

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Press contact: Valérie DUGARD - GRAITEC SA

10 bis, Burospace - 91572 Bièvres Cedex - FRANCE

Tél: +33 (0)1 69 85 56 22 - e-mail: valerie.dugard@graitec.com - Site: www.graitec.com



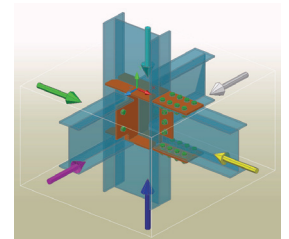
ADVANCE STEEL 2011

The 2011 version of Advance Steel has reached a new milestone in terms of functionality, productivity, quality and security.

More intuitive functionality

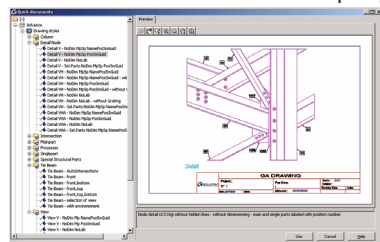
Advance Steel is easy to learn and use ensuring efficiency and productivity for its users. The 2011 version brings with it numerous improvements, which include:

- New **project explorer** facilitating the modeling and management of layered structures
- Create **groups of elements** to improve the management of large models
- Storing of **dynamic search** criteria allowing the user to easily select, view, filter and edit the elements of the model as it is created
- Numerous other features that simplify the use of the software allowing the user to work more comfortably and efficiently: creation of **partial views**, remembering of **preferred values**, improvements in CAD rendering...



Improvements in productivity

With this new version several new and enhanced functions improve the productivity and efficiency of our users. For example, as well as modeling the steelwork elements of the structure the user can now also **model the concrete and timber elements of the structure**. These elements can be manipulated using the normal commands of the program (adding openings, cuts...) and they are integrated into the entire process of the project from the detection of collisions to the production of drawings.



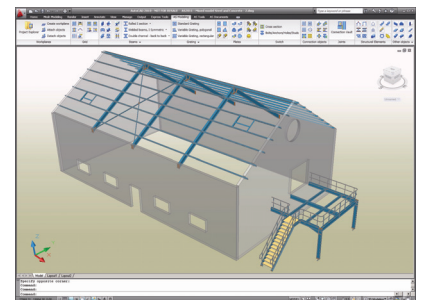
Advance Steel also integrates **many new connections** for bracing and tubular profiles, an expanded library of connection design according to European (EC3) and American (AISC) codes and provides users with a **comprehensive library of anchors and studs**. **Cambering of beams** for the management of long spanning beams and guard **rails on curved beams** are also available in this 2011 version.

New automation for the creation of documents

The major concern of detailers in steel construction is the quick creation of fabrication drawings.

Advance Steel 2011 brings major changes in this area:

- A new **tool for the quick production of drawings** ("Quick Documents") allows the user to quickly generate new drawings using existing presentations as a template
- **Intelligent dimensioning** which, even when manually added to the drawing by the user, is updated according to changes in the model.
- Automatic indication of **grid references on the drawings**
- **Revision management** and in particular the NEW automatic inclusion of **revision clouds** around the changes with **automatic indexing** and archiving of back up of the drawings before their update.



According to Heiko GRAF, CAD Product Line Manager at GRAITEC: "With new features such as cambered beams and automatic revision clouds, Advance Steel 2011 is reaching a state of the art level for steel construction. Version 2011 also had another major goal: becoming, step-by-step, a global BIM modeling environment for all multi-material structures, including easy-to-use features for dealing with multi-floor structures such as buildings."

Delivery of version 2011: 15 December 2010

Commercial Packages: Standard / Professional / Premium

Available in: German, English, Chinese, Spanish, French, Dutch, Hungarian, Japanese, Polish, Romanian, Russian, Czech

Standard formats: DWG, IFC, CIS/2, PSS, SDNF, KISS, DSTV, DXF

Windows compatibility: Windows 7, Windows Vista, Windows XP Pro (32-bit and 64-bit)

AutoCAD® Compatibility: AutoCAD® 2011, 2010, 2009 (32-bit and 64-bit), 2008 (32-bit)

Press contact: Valérie DUGARD - GRAITEC SA

10 bis, Burospace - 91572 Bièvres Cedex - FRANCE

Tél:+33 (0)1 69 85 56 22 - e-mail: valerie.dugard@graitec.com - Site: www.graitec.com



ADVANCE CONCRETE 2011

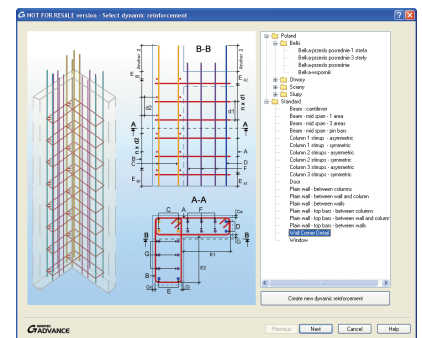
The 2011 version of Advance Concrete provides greater help to designers and detailers with enhanced performance and precise attention to detail.

Improved performance for 3D Reinforcement

Advance Concrete 2011 contains significant improvements for all 3D reinforcement functionality. This proprietary technology distinguishes Advance Concrete from existing 2D solutions and represents a new advancement towards BIM.

The main changes to the 3D reinforcement are as follows:

- **Improvement in the performance of the "3D power" technology.** This unique technology allows the easy creation of 3D reinforcement models starting from 2D views. These models are then used for the 3D visualisation of reinforcement cages and collision detection.
- **"3D Copy":** new function for copying the 3D reinforcement of an element to another element along with all its accompanying annotations (reference marks, labels, tags, dimensions...)
- **New "DYNamic reinforcement" library:** the software is enriched by the new "type" reinforcement which is automatically applied to different elements of the structure
- All created 3D reinforcement can be **exported in ACIS format** and can be used in project review systems such as Autodesk® NavisWorks® or taken into Revit (just a suggestion)



New tools for the production of reinforcement detailing

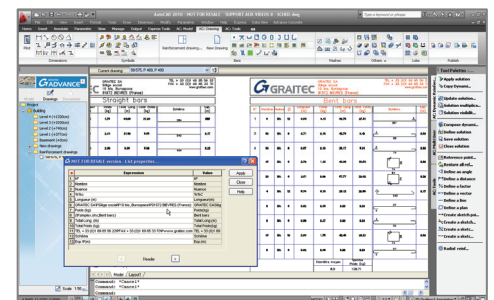
In response to the expectations of draughtsmen and reinforced concrete detailers, in terms of speed of creation of construction drawings, Advance Concrete 2011 brings with it a great number of improvements including:

- **Placing of bars and meshes:** the ability to simultaneously create multiple links inside a rectangular section
- **Reference marks, labels, bending details:** directly adjustable label text, mirroring of labels, easier manipulation of bending details and availability of new details, automatic updating of mesh dimensions if modified, advanced management of intersections of extension lines.
- **Representation of elements:** easier control of drawings thanks to automatic colour management linked to the bar diameters, new options for the management of the display of zeros in the decimal part in labels or dimensions...

Management of steel quantity

Another essential part of Advance Concrete concerns the management of steel quantity and the production of automatic lists:

- **Direct personalisation of lists,** without the use of an external editor.
- **Expansion of the list of internal variables** to facilitate the displaying and exporting of more information about the elements' reinforcement.
- More flexibility in the module that manages steel orders: **ability to show/hide information in the orders, automatically highlight the ordered steel on drawings...**



According to Michael OPITZ, Advance Concrete Product Manager: "For Advance Concrete 2011, the focus was on the details. We have included many user requests and this version will provide our users a high degree of comfort and quality."

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ADVANCE DESIGN 2011

The 2011 version of Advance Design brings with it further integration of the Eurocodes with the inclusion of more detailed aspects of the codes, new Finite Element functionality and further performance optimisation for calculations and graphics.

Eurocodes

The Eurocodes are set to become a permanent and critical part of future projects across Europe unifying working practices and completely replacing existing codes (British, French, etc). Graitec's mission is to support and assist our users in the application and adoption of these new codes.

Eurocode 0 / Eurocode 1:

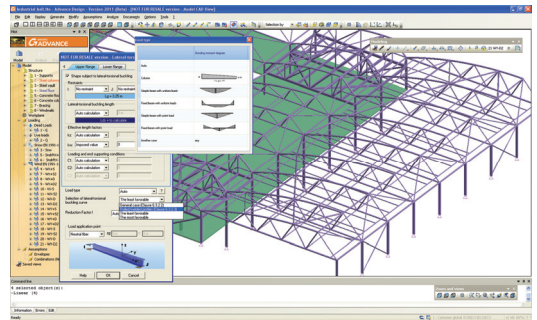
- Management of **particular load cases** (roof setbacks, awnings, insulated roofs) for the **automatic generation of climatic loading** including Wind and Snow.
- New loadcase combination engine which allows comprehensive application of permitted **loadcase permutations**.

Eurocode 2:

- Extension of the design engine to take into account **fire requirements in the dimensioning of reinforced concrete elements** (EN 1992-1-2/Section 5 tabulated values).

Eurocode 3:

- New options for **determining local imperfections** (taking account of the reduction factor for lateral torsional buckling)
- **Update to the design of interaction factors** according to the latest amendments to EN1993-1-1
- **Fire resistance** of elements (EN1993-1-2)
- **New module for the design of connections to Eurocode 3**. Fully shared with Graitec Advance Steel, it covers the most important connection types: column base, moment end plate, gusset plate, clip angles.



Performance

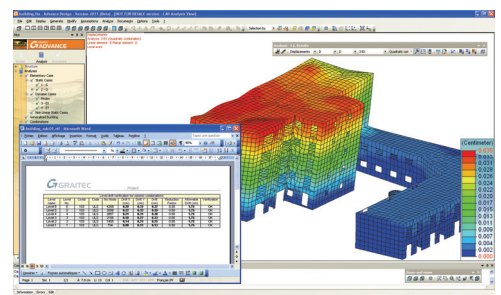
Engineers are tackling more important projects involving increasingly complex geometries. Advance Design 2011 brings with it major improvements in this area.

- **New graphics engine** for more fluid manipulation of large models (loading, rotation, zoom, pan...)
- Significant reduction of calculation time (minimum gain of 30%) thanks to the utilisation of a **multi-core engine**.

New Finite Element functionality

The "heart" of the software has improved significantly with the following:

- **New boundary conditions** for planar elements
- **Cracked inertia** taken into account
- **Automatic integration of lintels** into their supporting walls
- Automatic verification of **inter-storey drift** (in accordance with EN1998)
- **Smoothing of Finite Element results** around point supports (useful for interpreting the results in a floor slab)



According to Joseph Pais, Design Product Line Manager at GRAITEC: "The transition to Eurocodes will be a real upheaval and challenge for the profession. Advance Design is prepared to meet this challenge and alongside the software GRAITEC provides an important training programme to assist users in putting these new codes into practice".

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