progeCAD Architecture
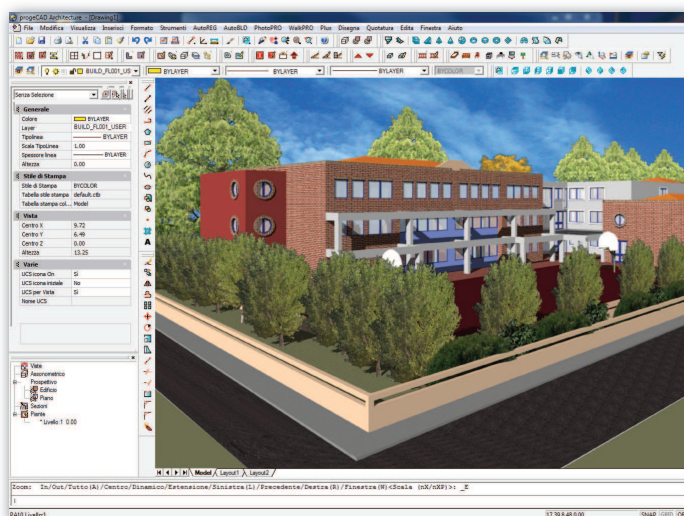
Advanced BIM Architectural Design

New parametric Architectural software, complete, easy to use and cheaper than others

progeCAD Architecture is 3D & 2D Architectural software using DWG as its native file format. Its powerful cutting-edge BIM technology helps you draw faster and easier in 3D & 2D.

progeCAD Architecture combines a familiar AutoCAD-like environment with its standard 2D/3D functionality and a sophisticated object-based BIM (Building Information Modeling) technology.

Very intuitive and fast for AutoCAD or progeCAD users and 100% DWG.

progeCAD Architecture offers the AutoCAD-like look and feel and helps you draw 3D buildings or interiors just like you are used to draw in 2D with AutoCAD or progeCAD with simple commands such as polyline, copy, trim, extend, offset… etc.

The progeCAD Architecture's native format DWG and the functionality of the most widely-spread CAD software make your work intuitive and enable you to use the software for any CAD drawing. Thanks to a break-through BIM technology, **progeCAD Architecture** provides a powerful tool for accurate design and model shaping directly on the real 3D building model through intelligent building objects (e.g. walls, roofs, openings etc.).
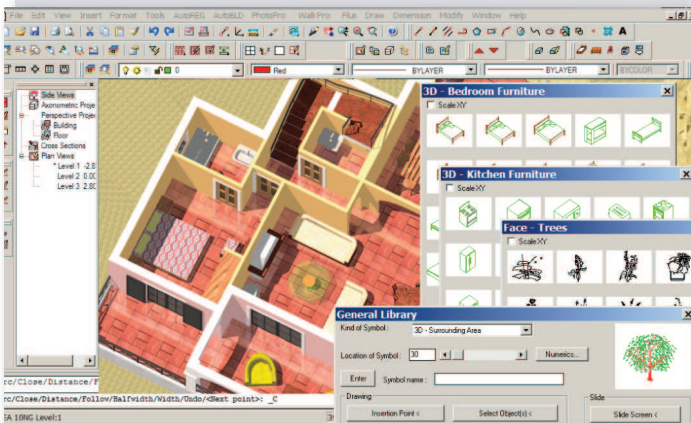
www.progecad.com

Architectural Modeling

With progeCAD Architecture you can design directly on the 3D building model by manipulating the architectural objects and elements just like "plastic" objects, freely shaping them in real time. This is possible not only in the simple building objects but also in the composite ones, thanks to the BIM functionalities that allow to have a direct control over the interaction among the components and the effects of introduced modifications. This enables even the most complicated design ideas to be realized in a very easy and fast way.

Architectural design is further facilitated by high-quality photorealism, virtual walkthrough and many other not less important software components such as a topographic module, a bill of materials and others.

progeCAD Architecture offers the real BIM power under an Autocad®-like interface, already known to the majority of the CAD users.
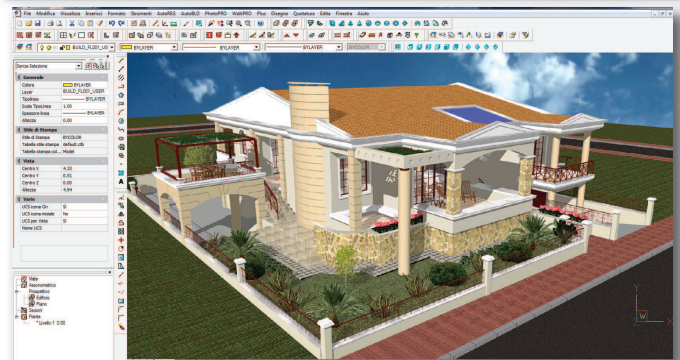
Advantages over progeCAD or AutoCAD include:

● Higher speed for design for 3D and 2D: the software understands how the elements need to be adjusted and helps you save a lot of time while drawing and editing.

● Very easy and fast 3D Design with intelligent parametric objects and extensive libraries. You just pick the shape and specify its dimensions.

● Create 3D stairs and roofs in a few clicks.

● Get automatically all the 2D drawings and views from the 3D model: floor plans, elevations, perspective views, cross sections… and keep them updated in real-time!

● Extended functionality: automatic dimensioning, photo-realistic rendering, 3D furniture libraries and walkthrough videos, bill of materials, 3D ground generation and excavation…

progeCAD Architecture is a highly useful and affordable tool that will enable you to save time, increase productivity and cut down expenses on learning, support and maintenance.
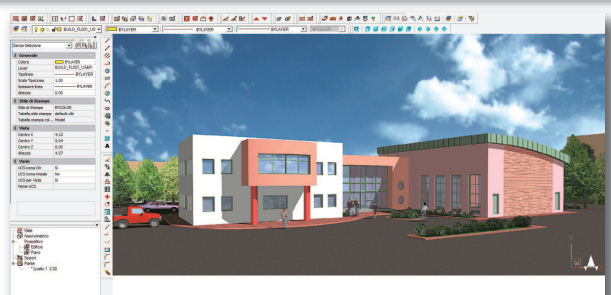
With **progeCAD Architecture** you draw in 3D even faster and easier than in 2D with traditional CAD software and save a lot of time when modifying. Moreover, you can extract all the 2D DWG drawings and the software will update them automatically when you modify the 3D project. **progeCAD Architecture** not only represents an excellent low-cost alternative to Revit or ArchiCAD, but also excels them at being extremely intuitive and easy to learn even for non-designers!

High Quality Rendering

PhotoPRO is the rendering module of progeCAD Architecture to produce photorealistic scenes. With PhotoPRO you can create high quality photorealistic images thanks to the OpenGL fast algorithms and the state-of-the-art ray-tracing technology. PhotoPRO uses a rich library of real materials with textures (e.g. marble, wood, stone, carpets etc.) which can be selected and adjusted according to your needs. Since all the material information is provided in the same dialog with all the other object attributes, the whole process becomes fast and easy and the results are immediately visible on the screen with just a mouse click. The ability of selecting and editing materials from the rich program library, the positioning of the lighting sources, the background selection, the use of photographic objects as well as many other options and settings are all performed in a friendly and fast way through the PhotoPRO group of commands.
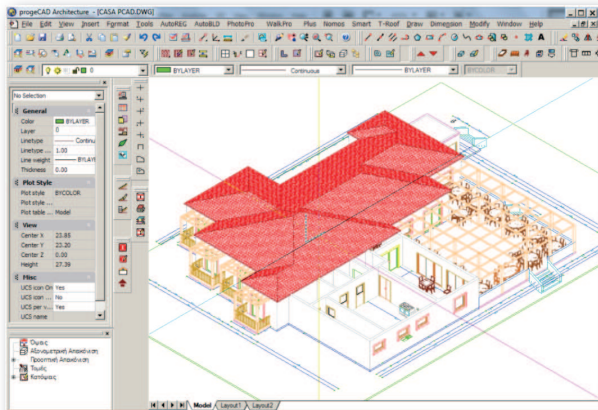
Live walkthrough

WalkPRO is the virtual reality component of progeCAD Architecture generating walking through scenarios in a very simple manner. With WalkPRO you can take a real-time virtual tour of your photorealistic 3D model and the WalkPRO group of commands will enable various special effects such as stair climbing, door opening while walking indoors and outdoors and others. Furthermore, you can create avi video files by just clicking on the "record" button and make use of a stereoscopic vision of 4D reality through a pair of stereo glasses.

Composite Elements & Structures

progeCAD Architecture includes a set of sophisticated dialogs and modelers to create slabs, staircases, roofs, rails and vertical or horizontal elements of any type and shape. Dynamic shaping and editing of any composite element is performed through the progeCAD Architecture parametric dialogs which allow to modify any property at each stage of the design process. Through usage of these BIM tools the user is able to quickly analyze alternative design solutions to discover the most suitable one.

progeCAD Architecture contains:

● Dialog boxes to define and shape beams, columns, slabs and other structural elements.
● Staircase modeler to generate even the most complex shapes along with their parts and accessories.
● Roof modeler with unlimited options to design any type of roof structure and add components such as attics, lofts, skylights, inclined openings and others.
● Dialog boxes to define vertical elements, gables, ramps, rails and many other special building entities such as fireplaces and pergolas.

Further to the Parametric Library Generators, wherever required (e.g. openings, shutters etc.), progeCAD Architecture also includes a large number of items (objects, accessories, symbols etc.) properly grouped into thematic libraries (Living Room Furniture, Dining Room Furniture, Kitchen Furniture, Office Furniture, Equipment, Plants etc). In addition, through the Dynamic Library Editor the user can define and create new libraries, edit existing items, or even insert any dwg drawings and convert them into library items.
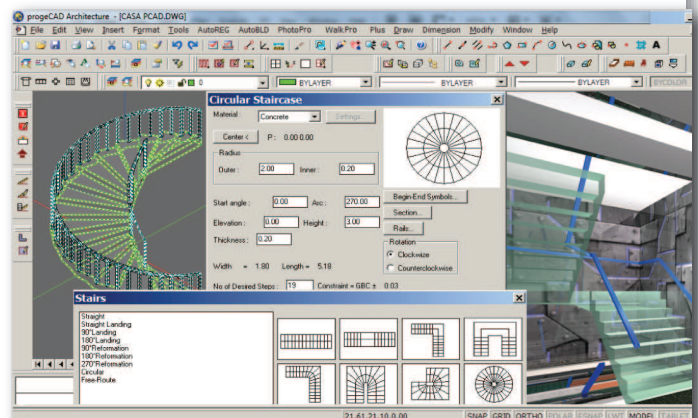
Topographic Component

progeCAD Architecture contains a complete Topographic component including a group of smart commands for the quick and precise creation of topographical drawings and the automatic generation of a 3D ground model.

progeCAD Architecture

Unlimited freedom in Architectural Modeling

progeCAD Architecture guarantees excellent performance, good speed for editing and unlimited freedom in shaping on a 3D building model thanks to its state-of-the-art BIM structure. The possibility to display all modifications in real time enables the user to focus his efforts entirely on the design process, thus avoiding time-consuming drawing tasks. When defining or editing any building element or controlling the interaction of various building components, all 2D-3D drawings are immediately updated and correctly visualized.

progeCAD Architecture allows handling all the standard CAD commands (copy, move, trim, break, mirror, extend, copy-paste etc.) as well as usage of the usual CAD Editing Tools (osnap, the "right button" properties etc.) applying them directly to any building object: walls, openings, slabs, beams, columns etc. Creation or modification of any element at any stage of the design process results in instant update of all 2D/3D project drawings, displayed in real time through the smart project drawing explorer (the tree-view browser).

Modifications can be carried out in any view (floor plans, cross sections, elevations, perspective views) or on a 3D model, and all necessary adjustments are automatically taken into consideration having their effect even on dimensioning and tables in both the model and layouts. The **progeCAD Architecture** advanced BIM structure continuously updates all project drawings and any other intervention made by the user on the layout such as insertion of library items, text, annotation etc. As a result, the user has a full control over the design process on both the 3D model and all project drawings and an opportunity to supervise the whole building and its parts.

progeCAD Architecture BIM Concept Design vs Flat Design

#	Features	progeCAD	Flat CAD
1.	Ability to work directly on the real 3D Building Model	✔	−
2.	All the project drawings (views, sections, axonometric etc.) are being globally updated	✔	−
3.	The entire building, composed of parts and levels, can be globally edited & shaped	✔	−
4.	Properties button on any objects	✔	−
5.	Editing of simple object entities (e.g. walls, slabs, beams etc)	✔	−
6.	Editing of more complex objects directly or through parametric dialogs	✔	−
7.	Group editing capabilities (e.g. modify a common feature of a group of building elements)	✔	−
8.	Use of generators for standard building entities (e.g. openings)	✔	−
9.	Parametric modeling of specific Objects (e.g. slabs, gables, rails etc.)	✔	−
10.	Modelers for complex architectural components (e.g. stair modeler, roof modeler and others)	✔	−
11.	Dimensions automatically assigned to Objects	✔	−
12.	Synergy of Architectural drawing, Photorealism and Animation	✔	−
13.	Object libraries easily adapted within the 3D model	✔	−
14.	Automatic listing of the Bill of materials	✔	−
15.	Materials and textures assignment and editing	✔	−
16.	High accuracy of 3D model rendering	✔	−
17.	Walktrough engine for a 3D project virtual tour	✔	−
18.	Almost no learning curve to start working productively	✔	−
19.	Dramatically decreased time of project completion	✔	−
20.	Dramatically decreased editing time	✔	−

progeCAD Architecture vs the top-class BIM Architecturals

#	Features	progeCAD vs. competitors	progeCAD Architecture Advantages
1.	CAD Functionality	✔	progeCAD Architecture adopts all standard CAD functionality
2.	Full DWG Compatibility	✔	progeCAD Architecture follows the opendwg format standards (DWG/DXF)
3.	Modern BIM design	✔	progeCAD Architecture has been designed according to the cutting-edge BIM standards
4.	Synergy of 3D modeling, Photorealism and Animation	✔	progeCAD Architecture, PhotoPRO and WalkPRO work within a seamlessly integrated environment
5.	Momentum regarding R&D on BIM technology	✔	progeCAD Architecture adopts an open software engineering structure
6.	Real time editing/ Properties button	✔	Properties button on any building object for quick and dynamic shaping
7.	Live interaction among the drawings	✔	Automatic update of all project drawings (sections, views, perspectives, etc.) while keeping track of any change made by the user (e.g. insertion of library items, text, annotation, etc.)
8.	Project drawing manager	✔	BIM Manager with the built-in progeCAD Architecture smart explorer (tree-view browser of drawings)
9.	Friendly Features: Slides for openings	✔	Over 500 slides available, which can be combined with several object parameters of the openings
10.	Friendly Features: Library manager	✔	Dynamic Library editor to define/create libraries/items or even convert any DWG drawing into a library item
11.	Friendly Features: Parametrical building entities	✔	progeCAD Architecture manages all the objects of architectural design (e.g. slabs, rails, stairs, roofs, chimneys, pergolas and others)
12.	Friendly Features: Sophisticated Modelers	✔	progeCAD Architecture manages complicated building components (e.g. roof modeler with unlimited options to design any type of roof structure and additional components such as attics, skylights etc.)
13.	Bill of materials	✔	progeCAD Architecture produces a complete bill of materials on the basis of objects a building model is made up
14.	Topographical design	✔	progeCAD Architecture comprises a topographical design application based on a sophisticated 3D ground modeler
15.	Rendering engine	✔	High speed rendering performance based on OpenGL and the ray-trace algorithm for the best quality results
16.	Walkthrough engine	✔	Based on high speed algorithms providing smooth animation and the highest 3D/4D performance
17.	Save back compatibility	✔	With regard to both BIM and DWG formats
18.	Almost no learning curve to start working productively	✔	progeCAD Architecture users can start working with the software after a quick training. Due to its functionality progeCAD Architecture is already known to CAD users
19.	Small size with regard to Disk space requirements	✔	progeCAD Architecture needs less than 500 Mbytes
20.	Low Cost for BIM	✔	progeCAD Architecture is approximately 5 times less expensive than its competitors
21.	Negligible Training Cost	✔	progeCAD Architecture training cost is practically negligible
22.	Low Maintenance fees	✔	progeCAD Architecture maintenance fees are very low

For more information about progeCAD Architecture:

E-mail: **info@progecad.com**   *Web:* **www.progecad.com**