ArchiTECH.PC®

NEW FEATURES

EDICAD

ArchiTECH.PC®

Project © Éric HANCE, Architect

CONTENTS

Project © Éric HANCE, Architect

ArchiTECH.PC '23

Article updated on October 17 2022

Compatibilities

ArchiTECH.PC is fully compatible with the **Windows 11** operating system:

- Supported version: **ArchiTECH.PC '23**
- Compatibles versions*:
 - **ArchiTECH.PC '21**
  - **ArchiTECH.PC 2019**

(*) No update will be proposed in case of incidents related to Windows 11.

It is also compatible with files from **SketchUp 2020**, **2021** and **2022**.

New OpenGL 2D rendering engine

ArchiTECH.PC '23 benefits from a new OpenGL rendering engine allowing a **spectacular graphic acceleration of the 2D display**, a great fluidity in the displacements and the zooms, as well as the smoothing of the lines and the curves thanks to its integrated system of anti-aliasing.
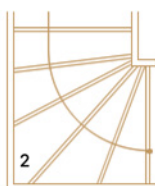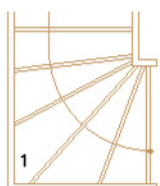
1. Without anti-aliasing
2. With anti-aliasing

The performance improvement also concerns the opening or importing of large files (containing a large number of graphic elements such as lines, hatchings, dimensions, texts...), as well as the work on these files.

Like many CAD software, ArchiTECH.PC is now equipped with an **intuitive WYSIWYG interface** (acronym of *What You See Is What You Get*): what is displayed on the screen corresponds precisely to what will be printed.

Improved performance of the DXF/DWG and PDF import module

This module now allows the **loading of very large files**, containing a large number of graphic elements, thanks to a better optimization of memory consumption during this type of import.

2D view properties: new options

It is now possible to set the dimension in distance or pixels of the following element:

- **Text outline summits**
- **Topographic points**
- **Arrows of reference lines** (walls, slabs, hatching...)
- **Symbol for roof reference lines**
- **Help points**

In addition to the possibility of changing the dimensions of the help points, it is also possible to change the line thickness.

Survey

- **Optim'BTP** is a new plugin directly synchronized with ArchiTECH.PC. It allows the reading of the library of works as well as the edition and the reading of the estimates of Optim'BTP.

- **Redesign of all ODS templates** and addition of new export templates by location.

Wall tool

The new **B17 Wall Tool - Join 2 walls by circular connection** allows you to connect two walls by means of a circular arc in two clicks.

Left : before connection
Right : after connection

Stairs

New line type parameter, which allows to differentiate between the overlap of the steps and the overlap of the staircase by floors.

New K-LINE entrance doors

18 new K-LINE entrance doors have been added to the door library. Each door is available in 2 models: single leaf and double leaf tierce.

ArchiTECH.PC '21

Article updated on November 29 2011

New Room Tool

The new **Room** tool allows:

● The creation of rooms based on regular or irregular polygons in a 2D or 3D view.
● The location of rooms.
● Automatic calculation of the surface area and volume of rooms.
● The creation of standards.
● The generation of area tables.

3D Tools (Wall, Slab, Roof)

● Bookmark tab :
Available in all 3D drawing tools, this tab allows you to add text in 2D view to automatically drawn elements.

2D views

● An **optimization of the OpenGL engine** has improved the display performance when moving and zooming in 2D views.
● The **display of projects** is automatically refreshed after changes are made using the **Line** and **Wall** sub-tools.
● The management of **selections/unselections by parameters** has been optimized.
● A context menu **Locate selected elements**, displayed with the right click of the mouse, has been added.
● The **display of projects** is automatically refreshed after modifications made in 2D views and worksheets.
● **Dimensions smaller than 1.00 m** can now be entered using the point or comma as decimal separator.
● **2D Textures**: the display management of 2D textures between the foreground and the background has been modified and improved.
● An option to **show** or **hide bookmarks** in the 2D view properties has been added.
● An option to move a plan using the **2**, **4**, **6** and **8 keys** on the numeric keypad has been added.

Text Tool: Rich Text Format (RTF)

Rich Text Format (RTF) is an uncompressed format recognised by most word processing software. Now available in ArchiTECH.PC, this format allows:

● the addition of **tables**, **images**, **photos**;
● the choice of **fonts**, their **size**, **alignment**, **indentation**, **colour**, **appearance** (underlined, crossed out...), etc.

Bookmarks

● ArchiTECH.PC allows to integrate texts using a font smaller than **8**.
● The display and movement of bookmarks in 2D views has been improved.
● Bookmarks associated with 3D elements visible in the 2D view are updated instantly.

PDF: New Option

A drag and drop PDF vectorisation option has been added to the software.

IFC

The management of the **preview window** of the IFC model before import has been improved. This window displays all the elements that will be imported into ArchiTECH.PC.

Optimizations

● The import time of **DWG** files has been optimised.
● The time taken to **move** and **duplicate** elements from one floor to another has also been optimised.

Material Library (Works)

● It is now possible to synchronise the Technical Specifications library with the Works library.
● New partnership with **Placo Saint-Gobain**. Creation and integration of a complete PLACO brand library.
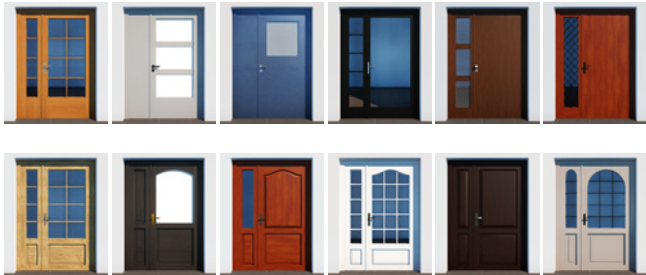
New library objects

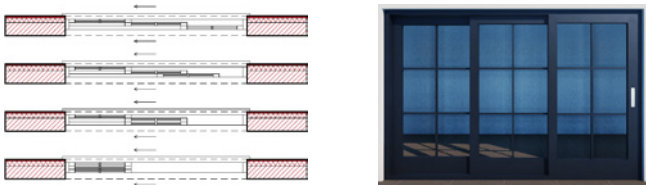The **steel entrance door** models have new options to add:
- A fixed fanlight window
- A simple or double fixed sidelight window
- A fixed fanlight window and a simple or double fixed sidelight window.

The **Door** tool has been enriched with new models:
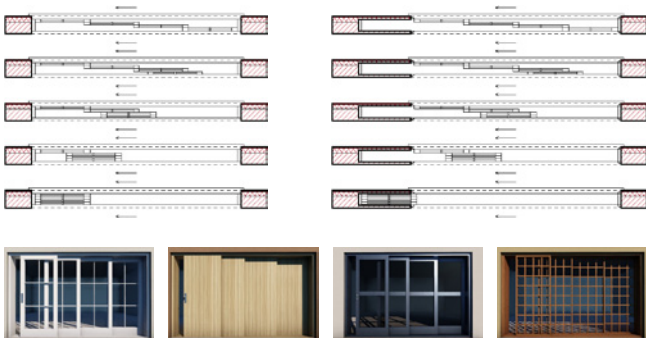- **Asymmetrical double doors**

- **3-leaf sliding doors**

- **3-leaf pocket doors**

- **4-leaf sliding and pocket door** (4 tracks)

- **6-leaf sliding and pocket door** (3 tracks)

Project management

A new **project template** has been added.

GPS

Evolution of ArchiTECH.PC **GPS data** calculation to make it more accurate.

APCRender+

A semi-automatic synchronization of the **ArchiTECH.PC texture library** with that of APCRender+ has been integrated into the program.

Automated tender management with SPIGAO

The direct link between ArchiTECH.PC and the SPIGAO application allows:
- **the detection of tenders** in your geographical area;
- direct import of the **Breakdown of the overall and fixed price**;
- **quantification of projects by simple drag and drop**;
- analysis and comparison of the result with the quantities of the selected tender;
- **the publication of your submission** to this call for tenders.

Plugins

- ArchiTECH.PC is able to identify materials that are no longer associated with plan elements when generating a sales document or an estimate.
- Two new plugins have been created:
  - **URS**.
  - **I-cost** with **Web Services**.
- **ONAYA** plugin: the ONAYA software only accepts two decimals, so the number of decimals displayed in the plugin has also been limited accordingly.
- **Batigest**: ArchiTECH.PC is compatible with the latest version of the Batigest software.
- **EBP**: the **Invitation to Tender** function has been adapted to the latest version of EBP.
- **Multidevis**: the layout of imported estimates without titles has been improved.

Polish and Hungarian versions

A new management of the unit of measurement compatibility has been realized.

Windows compatibility

The compatibility management of projects made on different Windows versions has been improved.

Import/export

- **IFC**: a specific compatibility with **Revit** software has been developed for the treatment of doors in ArchiTECH.PC.
- An issue with **importing PDF files** that did not display the correct image has been fixed.
- The file import window is compatible with high resolution 4K displays.

Online Help

The ArchiTECH.PC online help has been translated into **English**, **Hungarian**, **Czech** and **Polish**.

New status bar management features

The status bar formerly appearing at the foot of every window has been moved to a fixed position below the menu bar independent of the current view, with content customisable as desired for each view type (2D, 3D, plot view).
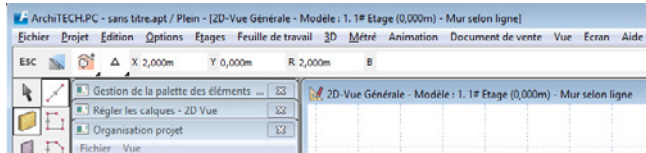
Bar icon sizes and text font can also be configured to facilitate display on high-resolution monitors (2K, 4K, etc.).
Left-click/right-click mouse operation has also been replaced with the **left-click/Shift+click** system standard for Windows operating systems.

Non-modale dialog boxes

All of the following may now be displayed simultaneously:
● Project organization
● Layer setup
● Element palette management
● **Element parameters**. This allows the user to step to another dialog box without closing the previous one.

Start page

When the program is launched, a dialog box appears, offering the following options:
● open a recent project
● begin a new project
● open a template file from the offered list.
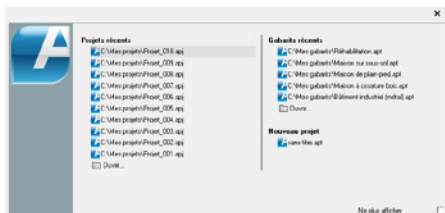
Management of IFC files

● Import with **File** > **Merge…**
● Export with **File** > **Save as** > ***.ifc**.
● IFC type parameter group for 3D drawing elements in IFC tab.
● Manage IFC properties with the command **Project** > **IFC Properties Management**.
● Manage IFC styles with the command **Project** > **IFC Styles Management**.

Project organization

New menu command in the right-click menu of **Project Organization** for 3D view windows: **3D View Setup**. The 3D settings were previously accessed by the **Properties** menu command; now this menu item displays the properties of the 3D view window.

Miscellaneous dialog box

New options in the **Options** > **Preferences** > **Miscellaneous** dialog box:
● **Error Signs parameter group**: **Disable Sound**
● **Virtual Reality** parameter group, **Navigation** window options:

Show Image in Oculus Navigation Window, **Oculus Navigation Window Width**, **Oculus Navigation Window Height**.

Parameters of Gravitated Element dialog box

The use of the **Parameters of Gravitated Element** dialog box has become clearer. The program distinguishes between the current, highlighted item and the selected/marked items, so that possible actions are displayed on the buttons with clearer text.

Minor changes on user interface

● View windows: Gray scaled icons in the upper left corner.
● The way the selected items are displayed in lists in multiple locations in the program is changed. Previously, they appeared in red and now appear in bold type for better readability.

Locations

New ways to manage your locations:
● New menu commands in the right-click menu of 2D and 3D edit view windows : **Select Location of Gravitated element**, **Set Location of Selected Elements**.
● New menu item in the **Location Management** dialog: **File** > **Copy Location**.

Stretching textures

You can also specify a negative value for the **Stretch** parameter for textures assigned to drawing elements, so that the texture applied to the surface is mirrored.

New objects

● New items have been added in the Object library : **OBJECTS\ SIMPLE 3D CHARACTERS** (30 items). Standing, sitting, walking and running models are built with few surfaces, with one texture, so they do not burden the 3D views even if they are placed in large numbers.

● New item in **DOORS** folder: **DOORS\Singles\Entrance 13 (MAHJONG)**.

● Other new entrance door models provided by different manufacturers:

● Two new door types in the object library (**DOORS\SINGLES**), which can be used mainly in loft and can be parameterized according to the roof angle: **Loft door** and **Loft glassed door**.

● Two new, configurable roof structure types have also been added: **roof structure with liveable attic space incorporated** and **roof structure without liveable attic space**.
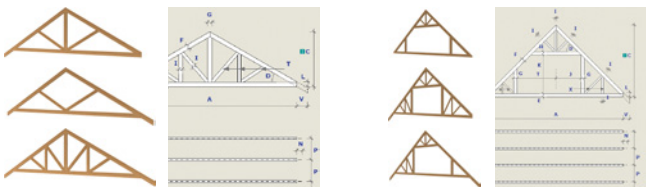

New wall settings

6 new built-in parameters are added to walls:

● **Gross left surface** (**LSuG**): left surface without openings, but roof cuts and bottom slope are taken into consideration.

● **Surface of left side holes** (**LSuH**): part of the opening outside the wall is not included.

● **Gross right surface** (**RSuG**): right surface without openings, but roof cuts and bottom slope are taken into consideration.

● **Surface of right side holes** (**RSuH**): part of the opening outside the wall is not included.

● **Gross surface** (**SuG**): (LSuG +RsuG)/2.

● **Surface of holes** (**SuH**): (LSuH +RsuH)/2.

Automatic dimensioning

ArchiTECH.PC permits several walls, including walls with window/door openings, to be dimensioned simultaneously, in a single step. Supplemental parameters can be used to configure dimensioning lines and the distances between them:
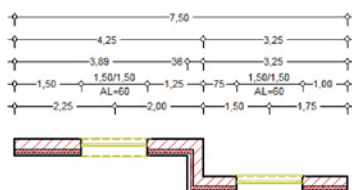
● Full dimension
● Interior dimension
● Interior dimension and door/window axes

● Interior dimension and perpendicular adjoining wall thickness.

Merging 3D Partplan files (*.PPL)

When merging **3D Partplan files** (***.PPL**), the content of the partplan will be automatically selected as the 2D views, so you can perform the desired transformation (eg. move).

Terrain tool

Improvement of **terrain platform edge** assignment:

● Offsets could not be entered for the edges of the terrain platform.

● The offset value assigned to the terrain platform edges was not visible in the drawing area if a value other than zero (**0**) was specified.

● New functionality to copy terrain edge parameters to another edge with the **Shift+C** and **Shift+V** shortcut pair.

Render+

New saving file format in version Render+ to display projects with ArchiTECH.PC Viewer: ***. APJV**.

Measurement

RTF file format supported in text boxes to increase compatibility with **Codial** management software.

Display

● Increase in the number of visualization windows that can be opened.

● The handling of container elements has changed, allowing a faster display in case of large files.

Worksheets

New option in the **Worksheet Properties** dialog box for sections and elevations: **Main mode** (**Hidden faces**, **Hidden faces + 3D hatching**).

Sections and elevations

New option in the **Section/Elevation** dialog box: **Text Horizontally**. When this option is turned **ON**, the index text stays always in horizontal position.

Tool parameters

Drawing tool parameters are additionally accessible via a tree view located adjacent to the toolkit. Parameters can be modified without interrupting the drawing operation.

Increased drawing précision

While drawing, the pending wall body is displayed from the start point to the current cursor position, permitting reference lines to be positioned precisely. The positions of walls with respect to reference lines can also be modified during the drawing process.
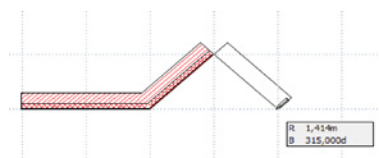
Ready element management

Some operations pertaining to ready elements can be performed in one step: modify selected ready element; delete or add material and/or attribute of selected ready element.

Ready elements configured for a given project are place in a dedicated system-level library, rendering it unnecessary to import them every time a new template is created.

New symbol for elevation drawing

Elevations are no longer created using the section line tool, but with a set of symbols provided specifically for the purpose.

Subtools allow to place and orient these symbols.
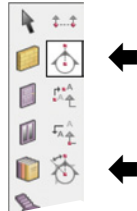
More intelligent cursor shapes

The cursor's shape changes according to the current operation and the drawing element encountered:

1   2   3   4   5   6   7   8   9   10

1- Signals a wall reference line endpoint in default mode

2- Signals a wall reference line in default mode

3- Base cursor shape during data input

4- Signals a hot spot during data input

5- Signals a hot line during data input

6- Signals a wall reference line endpoint during data input

7- Signals a reference line during data input

8- Signals a hot line and its midpoint during data input

9- Signals a hot line and its midpoint during data input with angle measure locked

10- Signals the direction perpendicular to a reference line during data input with x-coordinate locked

Virtual viewing

By computing realtime stereo views, an Oculus headset connected to ArchiTECH.PC gives you the unique experience of total immersion in your 3D project.

Project thumbnails

Each project can be assigned its own thumbnail for display next to its name in the Windows file manager.

DXF/DWG Files

New option to open or merge DXF/DWG files: **Preview** > **Designate detail**. Clicking on the button opens a window allowing to select a detail to open.

Importation de fichiers PDF

The Resolution parameter in **Import PDF** dialog box (**File** > **Merge PDF file**) remembers the last used value.

Compatibility with SketchUp

SketchUp files can also be open the latest version of the program. When saving to ***.SKP** format, you can choose which version format to save in the dialog that opens.

New Terrain tool

Beginning with an altimetric point cloud (copied directly or imported in the form of a TRN file), ArchiTECH.PC can determine intermediate points in order to densify and smooth a terrain mesh by subdividing the surface.

x16   x64   x256
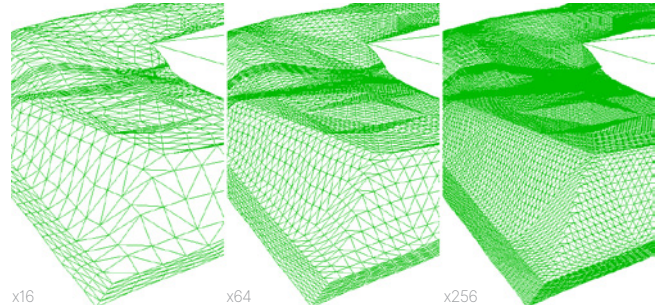
Improved contour lines

It is possible to generate contour lines whose interval can be adjusted according to the desired drawing precision.

25 cm   50 cm   100 cm
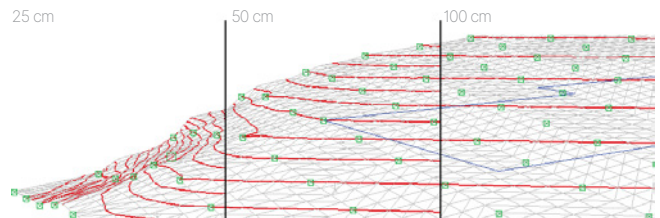
Sloping

ArchiTECH.PC allows you to set slopes on each segment of a platform, and to modify the altitude of a point or a surface while acting on a zone that was predefined by using a selection polygon. The selected points can be saved in a TXT file in order to plot them on the contruction site, using a theodolyte, to prepare for the installation of buildings, land entries, etc.

Revamped Layer Manager

The **Layers** dialog box can remain open and visible throughout the entire preparation of a project (either on top of the current view or on a second screen), while its size becomes variable in order to display only the layers of the tool in use, or only the layers of the selected elements.

Layers can be displayed in alphabetical or numerical order or in order of their use.
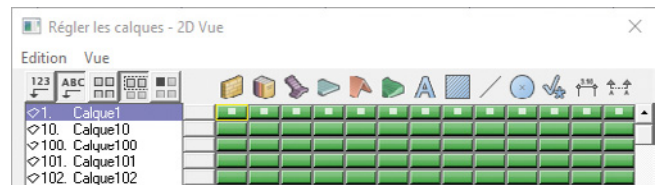
Flashing

Bands for valleys and hip joints as well as chimney flashings can be placed by simple mouse clicks on the corresponding edges.
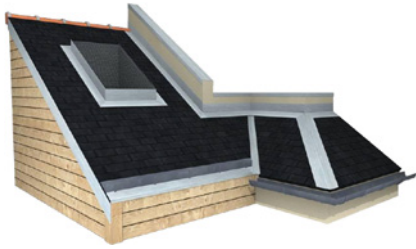
Metal frameworks

The metal girders available in the object library have been collected in a generic tool that allows you to arrange a series of purlins, rafters and battens at the same time in accordance with a predetermined layout.
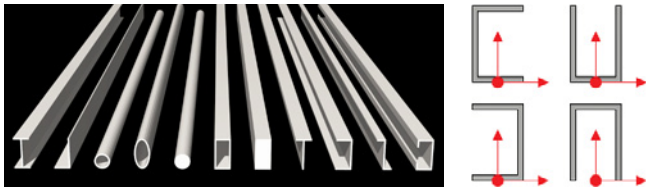
ArchiTECH.PC recognizes roofing holes (skylights or chimney ducts) and proposes treating them with headers.


The layout plan dialog box allows you to set an offset in relation to the underside of the roof in order to obtain the correct stacking of the different framing elements, irrespective of the type of profile chosen. The installation of the roof elements can be done at the same time for simple rectangular panels or parts of panels if irregular intervals between the elements need to be set. Taking roof breaks into account requires restarting with a new element.
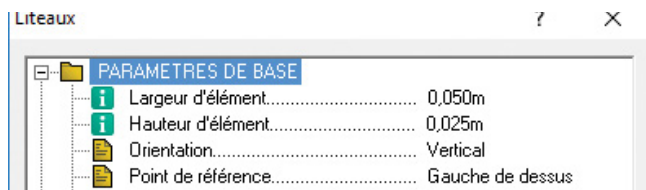
Niches

Wall niches have been integrated into the ArchiTECH.PC object library. These include the shapes and the settings proposed for the free bays and allow a great diversity of shapes.
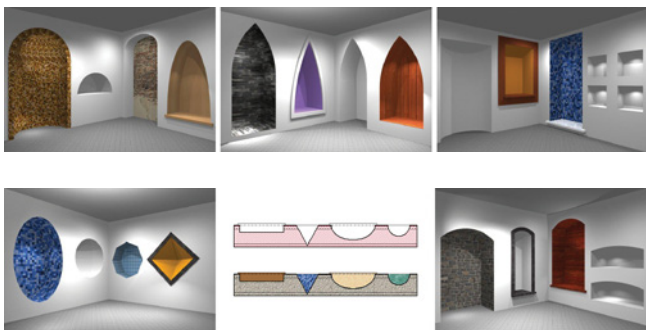
New Tools

In addition to the features developed for this version of ArchiTECH. PC, new tools are available that can enable you to work more quickly and efficiently, especially during modifications.

Selecti and move with one click

Sélect and copy with one click

Move only the clicked element of a selection

Copy only the clicked element of a selection

Offset a polygon segment according to a fixed value or the movement of the mouse; or move two segments beginning from the angle of a polygon depending on the movement of the mouse

Duplicate the selection with each new mouse click

**Cut all elements** of the drawing according to a line

Cut all elements of the drawing according to a polyline

ArchiTECH.PC **2015**

New view : worksheet

A section line on a project allows editing this section in a new view type: the worksheet. This sheet has 2D tools that allow completion of the section without switching betwee the project's 2D and 3D views. The dimensioning implemented in this worksheet is interactive with the modifications made in 2D/3D views.
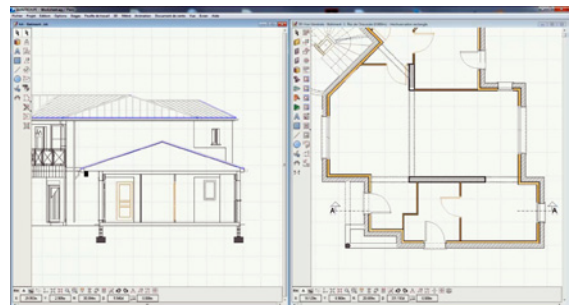
Other worksheets can be created by all types of 2D drawing (sketchbook, record of works executed, schematic diagrams...).

Save floor settings

The organization of the floors of a project can be saved in order to be used in other projects. If the imported scenario contains more floors than the current project, new floors are created automatically. In the opposite case, the floors are then deleted.

Savec a work area

A work area in a zoomed part can be saved and recalled at any time during a session, with the option of locking it or not. A very useful command when working on large files in DWG or PDF format.

Adjustment on perspectives of photos

In a few clicks, transform photographs of buildings (viewed in perspective) in geometral views (front views) with scaling, for the purpose of surveying, estimates, etc. Adjusted photos can

be resized and added to each other in order to carry out the deployed builIding.
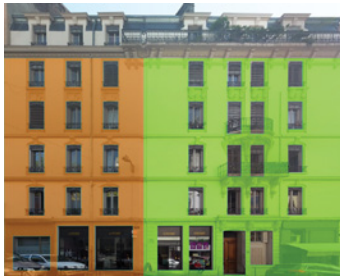
Photo Match

This function makes it possible to carry out photomontages with very precise insertions on site by calculating the observer's position beginning from the vanishing points of the photos used for this effect.

Hatching reference lines

Option of displaying reference lines of hatched surfaces.

Grouped settings for reference lines

Option of setting the type, color and thickness of reference lines for slabs, hatchings, and arcs.

Emissive textures

The surfaces of a project will then have the option of diffusing light thanks to the texture's emissivity setting.

New objects with adjustable settings

● New chimney stacks

● **New chimney stacks** starting from strokes made with the line and arc tools. Afterwards the parameters are used to define the depth of the basin, the water depth, dimensions of ledges, ladders and stairs as well as the textures of each element.
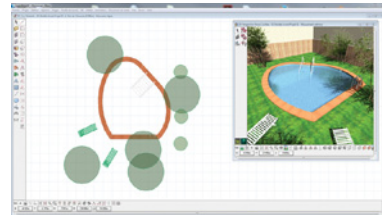
● Exterior lighting
● Bathroom furniture
● **Hip**: placed in 2D or 3D, it automatically adapts to the roof pitch.
● Cornices and eaves

ArchiTECH.PC **8**

New tools

● **Frames**: A function to lay purlins, rafters and battens by parts of the roof section, thus facilitating the layout of complex roofs.
● **Help Points**: A function to place help points taking into account the total distance between two clicked points, the offset of the first point from one side of the element (slab, roof, wall, etc.), the interval between each point, the desired number of points, and the last interval.
● **Woodwork**: Possibility of associating handles to woodwork. Setting the type of handle, escutcheon and lock.

Displacement mapping

A feature that generates true relief on flat surfaces by using simple textures (displacement mapping) to simulate wave tiles, clapboard wood, metal siding, stone walls, grassy areas, etc.
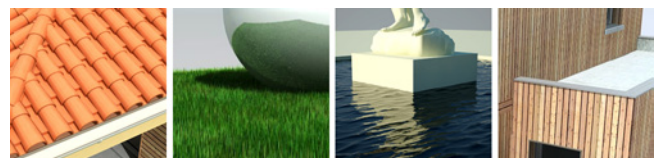
### Drag and drop and copy/paste textures in 2D and in 3D

● Feature allowing drag and drop of cropped images (PNG format) on the final rendering in order to personalize them quickly, without going through image processing software.
● Integration of an image editor which allows:
  - **enlarging/reducing the calculated image**;
  - **moving/pivoting an imported image**;
  - **manage foregrounds and backgrounds**;
  - **register the fitting of a current image** as a work file (proprietary format) to resume later.

Compatibility with ArchiWIZARD

In dynamic relationship with ArchiTECH.PC 8, **ArchiWIZARD** calculates the bioclimatic need during the design phase of your projects.

ArchiWIZARD linked with ArchiTECH.PC 8, delivers the thermal calculation note at the end of the project.

Equipped with the calculation engine developed by STCB (French Scientific and Technical Centre for Building), the software ensures bioclimatic need, primary energy consumption and the comfortable indoor temperature calculations for your projects.
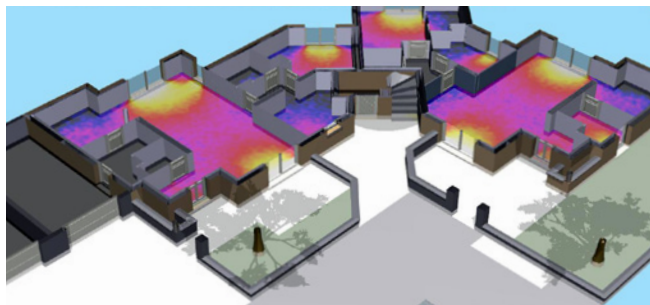
2D and 3D acceleration

ArchiTECH.PC 8 runs in OpenGL in 2D views, allowing quick manipulation of large files containing a large number of lines and shading in DXF and DWG.

ArchiTECH.PC 8 greatly accelerates the display of 3D views through the continuous storage of 3D view components. Updates of modified, added or deleted components are instantaneous.

PDF import

● Conversion of images when opening PDF files.
● Option of scaling the imported file with a geometrically similar ratio of length and width, if necessary.

Integrated DevisCAD

● Plans, facades, sections, perspectives, detail booklet, written documents (bill of quantities and estimate, technical specifications) are treated as views and are an integral part of the project in ArchiTECH.PC 8.
● ArchiTECH.PC 8 provides a **report generator** to lay out and customize different types of editions as needed for all written documents.
● Plug-in allowing **work in connection with external software specifications** (many types of French bill of materials software : for link to any other software, contact us) in order to associate library materials of the external software to the plan and to generate the estimate directly.
● ArchiTECH.PC 8 can also generate data in desktop tools such as Microsoft Excel, Word, Project and LibreOffice.

3D Edit Mode

Textured 3D views now allow modeling and changes to the 3D model of a project.

Drag and drop and copy/paste textures in 2D and in 3D

ArchiTECH.PC 8 allows copy/paste and drag and drop of textures directly on different sides of a project in 2D and 3D views.

Post processing

Various tools for image correction are available to allow you to fine tune brightness, contrast and intensity of your 3D renderings (**tone**
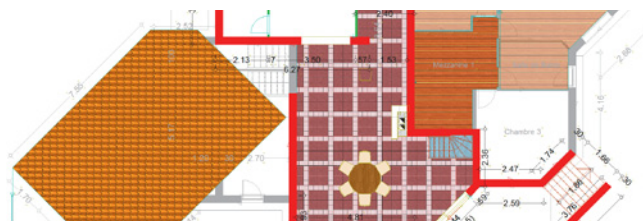
mapping, **white balance**, **editing curves**, **gamma correction**).

BEFORE   AFTER

ArchiTECH.PC **7**

2D Textures

The textures and/or hatchings assigned to the drawing elements can be displayed in the 2D view. These textures or hatchings can be made partially or totally transparent to show the details of the drawing (objects, dimensions, texts, etc.).

Insertion in the site

The insertion in the site can be done directly from the 3D view by displaying the picture of the building plot in the background of the project.

The project is then positioned and oriented on the background image using the ArchiTECH.PC navigation tools. When the project is correctly inserted, the final image can be calculated.

Clipping and image retouching

If the insertion of a project into the site hides some elements of the photo that should remain in the foreground (trees, vehicles, etc.), there are features that allow you to make the project partially transparent in order to cut out these elements and put them back in the foreground of the view. Other features allow you to retouch the view for the calculation of the final image: positioning of shadows or modification of textures.

Copy/paste quantities

This new feature allows you to start a quantity survey or an estimate without any prior settings or library of works.

A right click of the mouse on an element of the project (e.g. insulated wall of 36 cm thickness) allows to select all the identical elements. A second right click on this selection displays a table of quantities.


This table of quantities remains open when one passes from ArchiTECH.PC in your usual software of estimate or office automation in which exists a model of estimate all trades.
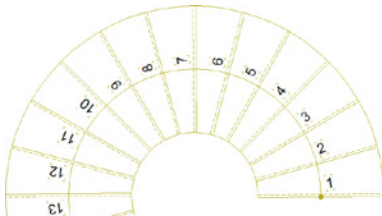
It does not remain any more but to copy the result of the selected formula, and to paste it in the field Quantity of the corresponding work.

Staircases

- All staircase models allow the use of a **central stringer**.
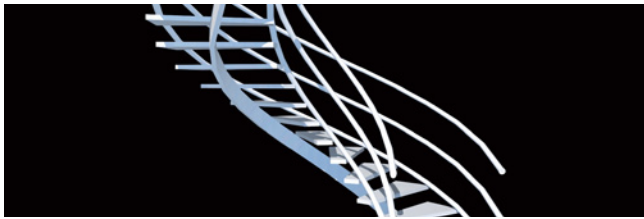
- The **numbering of the steps** is also possible.

New library objects

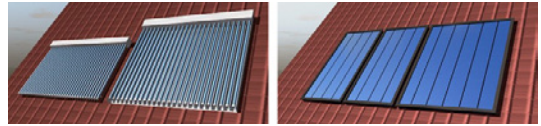New customizable objects have been integrated in ArchiTECH. PC :

- **Transom doors and windows**

- Roof window on glass sill
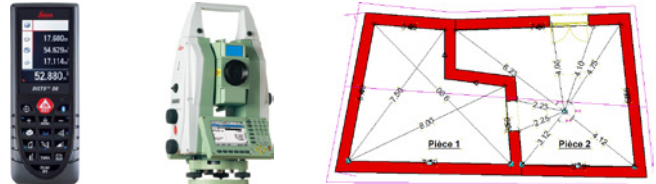- **Roof window on door**

- Solar panels

Import and export

It is possible to import and export new objects in **3DS** format.

Survey of building sites

In Bluetooth connection with a **laser meter** or a **Leica Builder Station**, ArchiTECH.PC resizes the sketches of the rooms drawn freehand on the screen.

Roofing surveys are done from the ground where each slope is calculated by measuring the elevation of three specific points. The layout of the roof plan will take the slope defined by these three points.
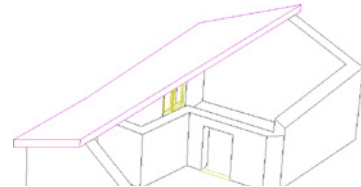
The survey can be saved in DWG format to be exported to other CAD software or processed by design offices.

Line library for the representation of networks and boundaries

ArchiTECH.PC 7 has a library of customizable lines for the representation of different networks, systems and terrain boundaries.

- **Networks**:
  - Water supply system
  - Severage system
  - Rainwater
  - Domestic sewage
  - Foul waste water
  - Domestic hot water
  - Steam
  - Heating system
  - Gas supply
  - Electric power distribution
  - Telecommunication networks
- **Limits**:
  - terrain
  - Buildable area
  - Fencing

Render+, new 3D imaging

ArchiTECH.PC 7 features a new global illumination rendering engine, Render+, to increase the photorealism of your images. Render+ takes into account the direct (light sources) and indirect lights of a project (incidence of light rays bouncing on different surfaces, according to their brightness).
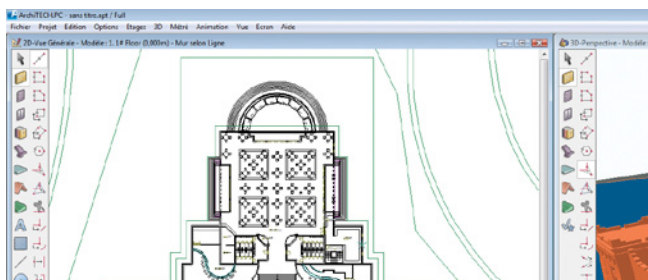
Project © Maisons France Confort

A new material editor also integrates the parameters dedicated to Render+ for the customization of surface effects from textures (brightness, transparency, reflection, refraction...).

ArchiTECH.PC **6**

New interface
Graphic redesign of all tools, sub-tools and dialog boxes for a better reading of the functionalities.


Networking
Professionals collaborating on the same project (architects, engineers, draftsmen...) do not necessarily work in the same place and/or at the same time. Such an operator can ask for the centralization of the data processed by one or more of his colleagues located in other offices, even in other cities or countries. ArchiTECH.PC 6 allows you to prepare and organize this team work in a local network or via the Internet.
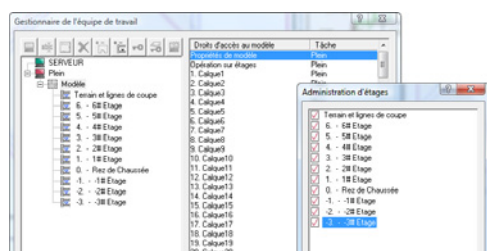

Ready elements/Prototypes
For all elements of the model, it is possible to create directories and sub-directories of Ready elements/Prototypes. Ready elements are elements saved in the template file (**Untitled.apt**) which store all the tab settings of the concerned tool (wall, slab, roof, etc.). They are available for each new project. These Ready elements contain the most frequently used settings, in order to avoid the need to re-set all the recurrences later. It is therefore not necessary to redo the settings of the element to be drawn each time: it is sufficient to place the corresponding Ready element/Prototype in the project.
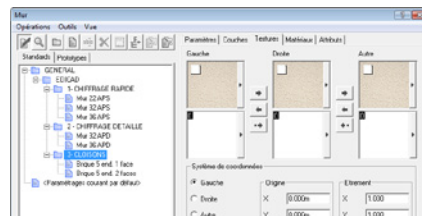
Prototypes are the history of the elements of the current project. They can be saved and organized in a tree structure. Modifying an element in the tree structure causes all identical elements in the project to be modified.

Location
With the **Project** > **Location Manager** command, the various elements of a project can be assigned to locations structured in a tree structure.
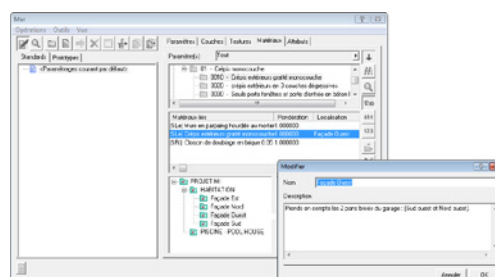
The location scenarios can be saved by type of project, and recalled for any new project. This allows the generation of **estimates**, **work contracts** and **planning** with the location of the works or, conversely, the details of the works by location.

Working in 3D views
The menus of the 2D and 3D environments are identical and synchronized. This allows the entry of information in the 3D views, using the same tools as in the 2D view. This feature is particularly useful for complex models, such as roofs and terrains.

The 3D input allows you to work on any floor of a project without having to change levels. It is also possible to simultaneously modify selected elements on several floors at the same time. Information entered in a 3D view automatically updates the corresponding 2D view. Editing is possible in **Color**, **Wireframe** or **Hidden Faces** mode, with the 3D window automatically displayed with one of the latter. In addition, ArchiTECH.PC 6 allows the saving of layer settings and the recall of scenarios on a project by project basis (same as in 2D view).

Ghost floors
In addition to the current floor in the 2D view of a project, this feature allows to see the other floors, upper or lower (or only part of these floors), in order to check the overlapping of their

respective structures. Hotspots and reference lines of the elements present on the ghost floors are recognized.

Display variants of elements or textures as thumbnails
Some elements in the libraries have variants that can now be quickly selected using preview thumbnails in drop-down lists, such as types of closures (doors, windows) or representations (stairs).

Library objects and textures are classified by directories in their respective dialog boxes.

New Status bar
Organized in a double line, the status bar integrates the commands **Shift**, **Show ghost floors** for the 2D mode, and the commands **Switch to Edit/View mode**, **Switch grid to visible/invisible mode**, **Show/hide origin marker**, **Lock/unlock view**, **Lock/unlock camera** for the 3D display mode.

Shutters and lintels
Doors and windows are completed with two new parameter groups:
- **Shutters**: swing shutters and roller shutters. Roller shutters with interior/exterior/wall-mounted boxes are present in the program.
- **Lintels** of various types, with special parameters for the creation of the metering. Different types of lintels can be associated with the frames.

Floor designations
The names and floor numbers are now displayed in the title bar of the program.

New intersection pointers
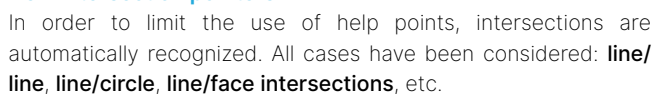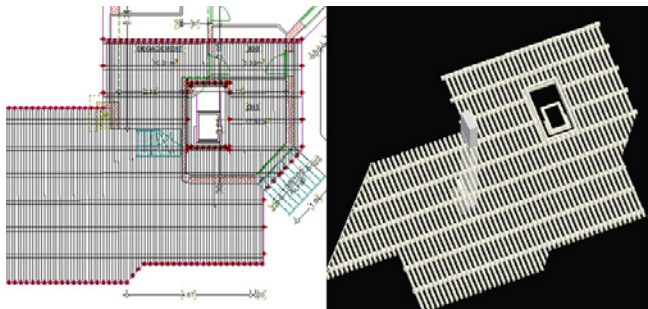In order to limit the use of help points, intersections are automatically recognized. All cases have been considered: **line/line**, **line/circle**, **line/face intersections**, etc.

New mouse use
The basic principle of the mouse click has changed. In the new version, the drawing of plane elements starts when the mouse click is released, not where it was initiated.

2D Environment
- **Wall tool**: The types and colors of lines separating each layer of a composite wall can be defined by the user.
- **Object tool**: The position of a roof window is determined automatically by simply recognizing the slope and altitude of the clicked point.

The setting, the distribution and the position of the purlins, rafters and battens is automatic for each roof section (frame modeler).

A 2D object can be extruded along a polyline, with automatic angle junction (e.g. cornice around a building).

It is possible to add or remove the angle of an object extruded along a polyline. The extrusion path of a 2D object following a polyline can be modified (e.g. modification of a segment in arc, or conversely).

- **Staircase tool**: It is possible to draw a free staircase according to its walkline or its stairwell drawn with the **Line** or **Arc** tools. But, with these same tools, the staircase can also be drawn taking into account both the walkline and the stairwell.

It is possible to transform walklines represented by broken lines into arcs and/or arcs into broken lines.

The contours of a stairwell can be transformed from lines to arcs and/or from arcs to lines, and the sway of each step corrected punctually.

- **Roof tool**: The reference line of a roof can be shifted from its starting point.

It is now possible to draw a roof passing through 3 points. This feature is very useful in the case of projects on old buildings with non-parallel and/or non-perpendicular walls (sloping edge lines).

The slope of the roof slabs can be modified: vertical, horizontal, perpendicular to the slope, or at a given angle.

An integrated framework modeler allows the parameterized and automated input of the different elements (purlins, rafters...).

EDICAD