progeCAD 2025 what's new

1. **New engine** based on IntelliCAD 12.1
2. **Increased speed of opening drawings** containing many blocks or external references.
3. **Generative AI Drawing Translator**. Powered by Generative AI, the new progeCAD text translator for drawings uses the translation engine by Google® AI to translate all or part of your drawing into any language. The translated texts do not change their nature, therefore the drawing remains normally compatible with all CAD-DWG software.
   It works on Text, Mtext, Block attributes, Mleader and Tables.
4. **Advanced Blocks (aka Dynamic Blocks).** Transparently convert Dynamic Blocks to Advanced Blocks and moreover, using the block editor, you create and edit Advanced Blocks using parameters, actions, and visibility states as with AutoCAD® Dynamic Blocks. You can use it to modify any block reference and also make them parametric in size and shape. The contextual ribbon includes features to combine special grips and actions such as Move, Scale, Stretch, Rotate, Pattern or Mirror. You may, for example, create an Advanced Block which size can be dynamically adjusted with a grip that you can   stretch.
   You can also create Advanced Blocks with different states having elements that are hidden or shown. This allows, for example, to use only one block to show different options.
   One Advanced Block can replace many blocks. Combining multiple grips and actions allows you to create much smarter blocks. One Advanced Block may replace tens of the blocks you currently use and would therefore significantly increase your productivity.

   ### Convert Dynamic blocks into Advanced blocks
   You can use dynamic blocks created with AutoCAD® as they are. They will keep their intelligence and parameters in progeCAD. When you edit (modify the Block definition) an existing AutoCAD® dynamic block, it will be automatically converted into an Advanced Block.

   ### Dynamic Blocks vs. Advanced Blocks
   Using AutoCAD Dynamic Blocks in progeCAD
   progeCAD reads and uses AutoCAD dynamic blocks just like AutoCAD® does. When someone shares with you dynamic blocks created in AutoCAD®, they can be used inside progeCAD with the same set of interactivity functions, including modifying their shape, size, and configuration. After making interactivity changes and saving the drawing with progeCAD, the blocks are still seen as dynamic blocks back in AutoCAD®. When, however, you want to edit an AutoCAD® dynamic block with progeCAD Block Editor, it will be converted into an Advanced Block.

Using progeCAD Advanced Blocks in other CAD Programs

Advanced blocks created with progeCAD can be read by other CAD programs, such as AutoCAD®, but only as simple blocks. When one of progeCAD Advanced blocks is modified in another program, it loses the interactivity that was specified with progeCAD. Fortunately, you can modify the rest of the drawing with another program without breaking the interactivity of Advanced Blocks. When you want to edit a progeCAD Advanced Block with the AutoCAD Block Editor, it is required to redefine grips and actions from scratch.

5. **New Express commands QBREAK (Intersection Quick Break) and EBREAK (Auto Intersection Quick Break).** Trim all entities to the intersection of a cutting entity in a single operation using the quick trim command.

6. **Rubber sheeting. New functions for image editing (Raster Design).** Use rubber sheeting when you want two or more different data sets from different sources to align geographically: for example, when stretching a new subdivision map into a preexisting parcel map. Rubber sheeting is a nonuniform adjustment of a data set based on the movement of known control points to new locations. For example, data collected by aerial survey may be inaccurate because of flight alignment and camera inaccuracies. By comparing these data with the accurate ground survey data, the aerial data can be stretched or rubber sheeted over the accurate data using control points and objects common to both data sets.

7. **New Express command CHBLOCKBASEPOINT** (Change Block Base Point). Change the insertion point of the selected block and all its instances in the drawing without moving the geometry. Useful for correcting problems related to blocks with a very distant insertion point or for being able to change its reference point to manage different situations.

8. **New Express command INSERTPOINTSVALUES (Insert Point Coords).** Write coordinate values near the selected point entities. It is possible to configure the data type that will be reported in text.

9. **New 3D AEC Architectural module**. Compatible with AutoCAD®AEC Objects. The new AEC package allows you to draw 3D architectural elements with a two-dimensional view in plan and takes advantage of a whole series of new Architecture style commands. The drawn entities are now specific AEC elements editable and configurable via the Styles management. By default it replaces our previous EasyArch architectural plugin which still remains available and can be activated with the variable AECMODE.

AEC Main Features:

- Draw walls, doors, curtain walls, windows, stairs and railings
- Draw slabs, roofs, or roof slabs
- Walls and Slabs can be created by direct conversion of 2D entities
- Multi-level manager to assign levels to AEC entities. Levels contain default settings for bottom and top elevations, wall height, on/off status, lock/unlock status, freeze/thaw status, offset, and other settings for walls and plane symbols
- Attach Roof and Ceiling plane symbols to walls and reference them while interactively creating roof and ceiling planes using the plane solve command

- AEC Styles manager: manage & customize AEC Styles for Walls, Doors, Windows, Curtain Walls and Curtain Wall Units, stairs and railings, and slabs
- AEC Family – imports AEC objects style from external fam or dwg files

10. **Improved Tables.** New functions for managing cell border format.
11. **Commands preview.** When using the Offset, Trim, and Extend commands, you can see a preview of the results.
12. **New Layers Manager Palette** with some improvements. Change the columns visibility and restore the default display of columns.
13. **New DATAEXTRACTION** with new functions and the ability to create dynamic tables inside the drawing that can be updated based on drawing changes.

   DataExtraction (DATAEXTRACTIONEW) new features:
   - Xrefs and Blocks inside Xrefs extraction
   - Advanced Blocks and Dynamic Blocks data extraction (DATAEXTRACTION only)
   - AEC Objects data extraction
   - Optional filter for Layouts (Paper Space) and Models
   - Custom rename of Columns
   - Customize Columns Order
   - XLS and XLSx export supported
   - Selectable styles for tables
   - Extracted tables are dynamically linked to the drawing and automatically updated with drawing changes through the DATALINK functions

14. **New BIM Importer for Autodesk® Revit®**. Direct import of Revit files (up to v. 2024) selecting the entire model or a specific View. BIM objects are placed on different layers selecting between two options:
   1) Layers based on entities
   2) Layers based on Level+Category.
   If present, the appropriate materials will be associated with the imported entities.
15. **New Publish** (optional: the PUBLISHMODE system variable allows you to use the new or previous version of the command).
16. **IFC Export**. Create IFC from DWG with the new experimental IFCEXPORT and IFCEXPORTOPTIONS commands. It is possible to include .rvt, .ifc underlays, and AEC Objects when exporting to .ifc files. Specify the IFC4 or IFC4x3 schema when exporting to .ifc files and set display properties for AEC styles.
17. **Snap entities.** Use the new Geometric Center snap to find the centroid of any closed polyline or spline. Previously it was managed automatically by the center snap with Arc, Circles, etc.
18. **New Printers in PDF via DWG to PDF.PC3** - more options and features. Also used with the PDF Export command.
19. **Drawing area.** Improved handling of model space viewports. Click and drag the border of a Model Space viewport to resize it.
20. **Improved Quick Properties.** With the customize user interface command specify what entity types and properties are visible in the Quick Properties pane.

21. **Splines improvements.** Draw splines using control vertices and knot parameterization. Choose undo to erase the previously specified point. Choose join when using the edit spline command to combine a selected spline with other splines, lines, polylines, or arcs.

22. **New command LAYVPI for Layouts.** Use the layer isolate viewports freeze command to freeze the layers of selected entities in all layout viewports except the current viewport.

23. **Explorer Improvements**:
    - Manage more visual style properties using the explore visual styles command
    - Manage more layout settings using the explore layouts command
    - Specify whether to freeze layers automatically in layouts that you create using the explore layers command
    - Manage data links using the explore external references command
    - Change the column order, the visibility of columns, and restore the default display of columns in all explorer panes

24. **New 3D command PROJECTGEOMETRY**. Create a projection of lines, curves, or points on a three-dimensional solid, surface, or region using a direction you specify. You can project points, lines, arcs, circles, ellipses, 2d or 3d polylines, splines, and helices.

25. **.NET:** Access many new .net classes, methods, and properties.

26. **ARX API:** the new API framework compatible with AutoCAD® ARX Classes which makes extremely easier the porting of AutoCAD® applications to progeCAD.

27. **Improved command CONVTONURBS**. Convert surfaces and 3d solids to nurbs surfaces. You can convert surfaces that are created using the convert to surface command.

28. **New command TFRAMES**. You can display or hide the frames of all images and wipeouts. This command controls the settings of the IMAGEFRAME and WIPEOUTFRAME system variables.

29. **NLM licenses Migration mode**. It allows you to easily switch NLM Server from one server to another.

30. **Other Improvements**:
    - Thousands of bug fixes
    - Drag a .dwg file from Windows File Explorer to a tool palette to add it as a block on the tool palette
    - Right-click a drawing file tab to access window tools quickly
    - Load and save print stamp setting (.pss) files
    - Use print preview for .pc3 printers
    - Click the down arrow at the right end of the layout tab row in the drawing window to display and choose from a list of layout tabs
    - Toggle the display of the printable area boundary in paper space
    - Use diesel expressions when customizing the ribbon
    - 3D Draw. Use the show cv and hide cv commands to display or hide the control vertices of selected nurbs surfaces and curves
    - New command RESETBLOCK - Resets Advanced or Dynamic block references to the default values

- New XREFOSNAP variable that allows you to disable object snaps on entities contained in external references. By default it is enabled.