

# progeSOFT

## progeCAD 2027

### What's New

*The most powerful and responsive progeCAD ever, built on the new IntelliCAD 14.1 engine — with dozens of new commands, smarter workflows, and performance gains you'll feel on every click.*

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#### Performance

**Up to 63% faster snapping. 2× faster Copy. 12× faster Break. 30× faster Copy to Clipboard.**

progeCAD 2027 is built on the brand-new **IntelliCAD 14.1 engine**, with a completely refactored core and an advanced memory management system. The result: snappier interaction, faster regeneration, a significantly reduced memory footprint on large projects, and hundreds of bug fixes.

#### Everyday commands, dramatically faster

Spend less time waiting, more time drawing. The commands you use hundreds of times a day are now substantially quicker:

- **Up to 63% faster** line creation when using entity snaps — snapping has been refactored from the ground up for stability and speed
- **Up to 2× faster** Copy command
- **30× faster** Copy to Clipboard in typical scenarios
- **12× faster** Break command
- Faster Move, View and Union operations
- Faster grip-stretching on large sets of overlapping lines
- Faster property changes (color, layer) when many entities are selected at once

#### Smarter memory management

- **New Advanced Memory Management system** — significantly improves Regen and drawing-close times. Configurable from the Performance tab in Options.
- **Improved memory usage** on drawings with many layouts, via the new REDUCEMEMORYLAYOUT variable
- **High-Performance Windows CPU & GPU management** — decide whether progeCAD requests high-performance mode at startup, asks each time, or respects your current Windows power-saving profile. Configurable from the Performance tab in Options.

#### Geo Map, reimagined for speed

Background maps now load fluidly even on complex sites. Under the hood: multithreaded tile preparation, background thread-pool tile loading, and a fully reworked tile cache.

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## Licensing

A new way to license progeCAD — built for the way people actually work today.

### **Flex License — Your progeCAD, wherever you work**

Your workday doesn't stop when you leave the office — and neither should your CAD. With the new **Flex License**, progeCAD follows you across every PC you use: office, home studio, client site. Install it everywhere, activate it where you need it, and switch in seconds with a simple online transfer.

### What it means in practice

- **Install on every PC you use** — no extra seats, no activation headaches
- **Activate where you're working today** — office in the morning, client site in the afternoon, home studio in the evening
- **Switch in seconds** — a simple online transfer moves your active license to the PC you're sitting at
- **Fully offline while you work** — internet is only required at the moment of transfer. Once active, progeCAD runs without any connection.

Just one smart license, ready to move as fast as you do.

## Migration

Upgrading made effortless — bring your full setup with you.

### **Upgrade in minutes — keep all your settings**

Upgrading to a new CAD version usually means hours of reconfiguring aliases, custom toolbars, profiles and tweaks. Not anymore.

The new **progeCAD UI Migrate Tool** transfers your full setup from progeCAD 2026 in a single guided step.

### What gets migrated

- **Settings and profiles** — your application preferences, options, and saved profiles
- **Customizations** — including command aliases and customized toolbars
- **Selective import** — through Migrate Settings you can select which configurations to import, so you only bring across what you actually want

Switch to progeCAD 2027 in minutes, with the same workspace your customers are already familiar with.

## New Commands & Features

The significant additions in progeCAD 2027 — new commands, new workflows, and major improvements to the ones you already rely on.

### **Spot every change, instantly — new COMPARE command**

Instantly see what's changed between two versions of the same drawing, or between any two DWG files on your PC. The new **COMPARE** command highlights added, removed and modified objects

through an interactive toolbar, making design reviews, revision control and client approvals dramatically faster.

*Not yet supported by Compare: images, non-DWG underlays, OLE objects, cameras, proxy entities, hatches, leaders and multileaders, point clouds, feature control frames, and block attributes.*

## **Work the way your monitors are set up — Floating Drawing Windows**

Drag any drawing out of the main application window to a second monitor, work side-by-side on related layouts, or keep a reference drawing always on top. Each floating window is fully functional with independent navigation — ideal for multi-monitor workflows and complex projects.

## **Your choice of basemap — ESRI ArcGIS now available alongside Bing**

progeCAD 2027 introduces **Esri ArcGIS basemaps** as a new integrated option for the GEOMAP command. After setting a coordinate system, choose from five new Esri layers — **OpenStreetMap, Imagery, Streets, Light Gray, Dark Gray** — in addition to the familiar Bing map services.

*Requires a free personal ArcGIS account. Easy to setup.*

## **PDF-to-CAD, now on your terms — revamped PDF2CAD**

The new **PDF2CAD** workflow gives you full control when converting PDFs: insert the result directly into the current drawing, or create a brand-new file from it. Multi-page and batch conversion are still fully supported.

*The previous importer is still available as PDF2CADCLASSIC via command line.*

## **Create geospatial PDFs**

The PDF Printer (PC3) now supports an "**Include Geospatial Information Mark**" option, embedding coordinate system information in the exported .pdf — ideal for surveyors, infrastructure and GIS workflows.

## **2D isometric drawing made simple — new ISODRAFT command**

The new **ISODRAFT** command activates progeCAD's 2D isometric drawing environment, letting you create three-dimensional views using standard 2D tools. It automatically sets snap and cursor orientation to the left, right or top isometric planes (30°, 90°, 150°), making it easy to draw 3D-looking objects without complex modeling. Also accessible from the Status Bar.

## **Generate barcodes directly in your drawings — new BARCODE command**

Create scannable barcode blocks without leaving progeCAD. A new dialog lets you choose from multiple encodings and insert the result as a fully scannable block element — perfect for part numbering, warehouse drawings, and industrial documentation.

## **A full Visual LISP development environment — new VLISP command**

**Visual LISP (VLISP)** brings an enhanced, object-oriented version of AutoLISP directly into progeCAD (AutoCAD® like), with full control over drawing objects and the progeCAD environment. Launch the new VLISP command to access the LISP programming environment, and use Microsoft® Visual Studio Code with the IntelliCAD Lisp Debugger extension for a complete **Interactive Development Environment (IDE) with debugging tools**.

progeCAD 2027 also loads AutoCAD® compiled LISP applications (.vlx) and fast-load LISP applications (.fas) — making it easier than ever to deploy custom tools and migrate complex LISP workflows.

### Clearer selections with Glow preview

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The new Glow selection preview highlights picked objects in a soft, transparent blue (by default, style is customizable) — not just dashed lines. The result: selections are instantly recognizable, especially in dense drawings.

### Dimension Grips Content Menu - Smarter grip editing for dimensions and multileaders

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Dimension grips in progeCAD are now multifunctional, meaning they offer a specialized context menu when you hover over them. These grips allow for quick editing of dimension geometry, text placement, and style without needing to open and interact with the complex entries in the properties mask.

### Share drawings in one click — new SHAREWITH command

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Share selected parts of your drawing using the native Windows Share feature. Send directly to phones, Teams chat, email, or any other app that supports Windows Share — no manual export step required.

### Import SVG files as CAD entities — new SVGIMPORT command

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Import Scalable Vector Graphics (.svg) files directly into your drawings. SVG content is converted into native CAD entities, preserving geometry without any loss of accuracy or clarity.

### Updated BIM compatibility — Autodesk® Revit® 2026 support

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BIM Import now supports **Autodesk® Revit® 2026** RVT and RFA file formats. Underlay attachment remains supported up to Revit® 2025.

### Faster corner closing — FILLET & CHAMFER improvements

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Hold down Shift before picking the second object to extend or trim it into a closed corner. While Shift is held, the current fillet radius or chamfer distances are temporarily set to zero — a long-requested shortcut that saves clicks on every cleanup task.

### Preserve folder structure when packaging projects — ETRANSMIT improvement

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The ETRANSMIT command now includes a "**Use Organized Folder Structure**" option, which duplicates the folder hierarchy of the files being transmitted. The root folder becomes the top-level folder in the resulting package — essential for complex projects with deeply nested references.

### AEC module — architectural drawing enhancements

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- **Flip walls on the fly** — change wall orientation while drawing, using the new Flip option
- **Cycle Measure To** — place doors and windows by dimensioning to the left edge, center, or right edge of the opening. The option cycles automatically between Start / Center / End.
- **New AECANCHOREDIT command** — specify position and orientation settings for anchoring doors and windows to walls, via an intuitive dialog

## **Build 3D solids from surfaces — new SURFSCULPT command**

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Create a three-dimensional solid by trimming and combining a set of surfaces and solids. SURFSCULPT also works with existing 3D solids when the selected entities share part of a common surface — a powerful tool for complex 3D modeling.

## **More reliable undo/redo — new MREDO command**

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The new **MREDO** command reverses the effect of a multi-step Undo. UNDO and REDO now also track changes made to session and registry system variables, making the whole undo stack significantly more trustworthy.

## **Clean up more types of duplicate geometry — OVERKILL improvements**

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OVERKILL now works with rays, infinite lines, text, multiline text, hatches, dimensions and multileaders — helping you clean up a much wider range of duplicated or overlapping geometry with a single command.

## **Test Advanced (dynamic) blocks without commitment — new BTESTBLOCK command**

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Opens a temporary drawing window where you can test the behavior of advanced (Dynamic) Blocks. Experiment freely, then return to the Block Editor to refine or save your changes. Available only inside the Block Editor.

## **More powerful Tool Palettes**

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Tool palettes are now more flexible and information-rich:

- Support for images, leaders and external references
- Image tool palettes show both the image name and a preview at a glance
- Add text titles to visually organize tools into groups
- Attribute Editor includes a new context menu for faster editing

## **GIS & DTM Tools**

A new suite of terrain and slope analysis commands, designed for surveyors, civil engineers, and infrastructure professionals.

## **TRIANGULATE — now works with splines and polylines**

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The TRIANGULATE command can now operate directly on isolines (splines or polylines). Divide selected elements by a user-defined percentage, then generate the 3D triangulation automatically.

## **New slope and elevation commands**

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- **ELEVARROW** — insert arrows indicating the direction of slope on a 3D polyline
- **SLOPEVECTORS** — create the maximum slope vectors of a terrain represented by 3DFaces
- **SLOPECOLORING** — color-code terrain faces based on their slope
- **SLOPE3D** — create 3D slopes between two curves at different elevations

- **ELEVTEXT** — insert text on contour lines showing their elevation

## Express Tools

Four new productivity commands for your everyday toolbox:

- **HATCH EXCEL** — select hatches in your drawing and export their information to an Excel file
  - **TEXT EXCEL** — export text information to an Excel file
  - **FREEZEALL** — freeze all layers except those of the selected objects
  - **TEXTORIENTATION** — align text to a selected segment of a polyline
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## Raster Draw Tools

A comprehensive new suite of commands brings raster image editing directly into your drawing workflow — no more switching to external image editors for routine tasks.

### Image correction and region editing

- **IFIX** — correct perspective distortions in images already inserted into the drawing
- **ICROPCIRC / IRUBCIRC** — remove raster data outside (crop) or inside (erase) a defined circular region
- **ICLEANUP** — automatically clean bitonal raster images, removing small isolated elements or graphic noise

### Multi-object raster selection

- **IWINDOW** — select multiple raster portions via a window, then edit (move, rotate, etc.)
- **IPICKOBJECT** — select multiple raster objects with a single-point pick
- **ICROSSING** — select multiple raster objects via a crossing window

### Drawing directly onto raster images

- **ITEXT / ILINE / ICIRCLE / IRECTANG** — write text and draw lines, circles and rectangles (even rotated) directly into raster images
  - **IVMERGE improvements** — specify stroke width in pixels when merging CAD entities into a raster image
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## Additional Improvements

Dozens of quality-of-life refinements across the whole application — many of them building on preview features introduced in progeCAD 2026 and now fully polished.

### Interface & everyday workflow

- Menus and overall interface have been optimized to better match the current theme, with several menus reorganized for improved usability

- ▶ **SHIFT + mouse wheel click** during panning — new shortcut for orthogonal-only movement
- ▶ Close drawings without switching to them first — a significant speed-up when juggling many complex drawings
- ▶ Configurable transparency for the undocked command bar
- ▶ **REVCLOUD** — now uses a sensible default radius based on the current view size on first use
- ▶ **"Multiple" option in OFFSET** — repeats the offset operation with the same distance and selection

### Text, tables and attributes

- ▶ Use new Unicode OTF fonts, and toggle automatic stacking of multiline text on or off
- ▶ Use the TRIM command directly with table entities
- ▶ Tables can be auto-filled with blocks placed in selected cells
- ▶ Navigate table cells with Home, End, Page Up and Page Down keys
- ▶ Quick Properties Palette now manages Attribute values inside blocks directly
- ▶ New Quick Properties support for Array (rectangular, polar, path) and Camera entities, manageable through the CUI dialog

### Layers, XRefs and data exchange

- ▶ Export group layer filters to .lft files; copy layer settings from Explorer and paste into Excel for reporting and audits
- ▶ **Digitally sign drawings** using Cryptography Next Generation (CNG) technology
- ▶ **New STEP file conversion driver** for Export and Import — manages sub-meshes and solid bodies, and groups individual STEP elements as blocks and nested blocks
- ▶ **New MAPIMPORT entry for ESRI Shape files (ISHP)** — complements the classic ESRISHAPE command and lets you manage entity information through the Properties palette

### Reliability fixes

- ▶ Extensive fixes improve reliability in external references, raster-to-PDF export, snapping, trimming, dynamic input, polylines and fillet, multileaders, tables, data extraction and more

### Other features

- ▶ Visual styles in print via WinGLES2 device on standard and virtual printers
  - ▶ **Insertion units in GEO command** — background maps are now scaled using the INSUNITS variable
  - ▶ **DRAGOPEN now works with DXF files** — control the behavior when dragging a drawing from Explorer into the program
  - ▶ Improved Cube View — changing 3D view keeps the current selection and uses it for Fit zoom
  - ▶ **CPolygon for Stretch Action** in Advanced/Dynamic Blocks — define a closed polygon boundary for the action
  - ▶ **Smart Zoom Detail** — automatically disables on small drawings to eliminate flashing. Remains active on large drawings for performance. Configurable from the Performance tab in Options.
  - ▶ **SPLINEEDIT improvements** — when converting a Spline to a Polyline, choose whether to use lines or arcs. New PLINECONVERTMODE variable controls the fit method.
  - ▶ **SOLIDEDIT improvements** — edge and face selection on 3D solids now uses Glow preview for better visual recognition
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## For Developers — APIs & LISP

*This section is aimed at plugin developers and power users building on the progeCAD platform. Skip ahead if you don't write custom code.*

### .NET API

- ▶ Updated to .NET 8 (progeCAD now supports .NET Framework 4.8 and .NET 8)
- ▶ Improved performance for GetCurrentView and SetCurrentView
- ▶ Improved performance when working with view objects and bulk editing via grips
- ▶ New Close method on PaletteSet
- ▶ Use IlcadApplicationPreferences for retrieving .ctb file paths

### LISP & Visual LISP

- ▶ Load compiled LISP (.vlx) and fast-load LISP (.fas) applications
- ▶ LISP Debugger extension now supports "program" and "cwd" options — specify the progeCAD executable path and working directory when debugging from VS Code
- ▶ New LISP property functions: dumpallproperties, getpropertyvalue, setpropertyvalue, ispropertyreadonly
- ▶ New LISP functions: tablet\_setbutton, several CAutoMLeader methods, and VLX helpers (vl-list-loaded-vlx, vl-unload-vlx, vl-vlx-loaded-p)
- ▶ Additional LISP additions: vla-setblockattributvalue, vla-get-contentblockname, vl-registry-delete, vl-registry-read, vla-explode, ssgget, tablet\_setbutton

### lcARX / IRX / ObjectARX compatibility

- ▶ Continued progress on the long-term ObjectARX-compatible API clone
- ▶ New in lcARX: AcadAppInfo, CAdUiPaletteSet, Properties Palettes API, OdBrBrep::getPointContainment
- ▶ New in IRX: IlcEdSelectionSetHistoryAccessor
- ▶ lcARX fixes: acTransactionManagerPtr(), CAdUiAnchorBar, CAdUiDockControlBar, OpenDCL

### SDS & VBA

- ▶ New SDS function: sds\_getcorner
- ▶ SDS fixes: sds\_invoke(), acedCmdS (sds\_cmd), sds\_getargs(), sds\_ssggetfirst
- ▶ VBA fixes: ObjectModified and ObjectErased events

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## System Variables

*For reference. A short summary is included here; full details are in the release notes.*

### New in 2027

ANNOSCALEPANEMODE, BDEPENDENCYHIGHLIGHT, CMDROLLOVEROPACITY, ISAVECOUNT, MTEXTAUTOSTACK, PROXYNOTICE, QCDECIMALSEPARATOR, STATBARMENUMODE, TEMPOVERRIDES, AECCYCLEMEASURETO, BLOCKTESTWINDOW.

### Renamed

UITHEME is now **COLORTHEME** and includes new values.

## **Updated**

GRIDLINESMAX, GRIDPOINTSMAX, LIMMIN, LIMMAX, OSNAPMAX, STARTUP, AFLAGS, TRACKPATH.