Carlson 2026 New Features and Improvements

General

- Added support for IntelliCAD 13.1 and AutoCAD 2026
- Added Unit detection from Civil 3D drawings
- Improved Civil 3D Point conversions
- Added new Fillet at Polyline Intersection command to give option to save polyline segments after fillet
- Added new command Remove Proxy Objects to help with AutoCAD copy/paste issues
- Added option to sync Annotation Scale to Drawing Horizontal Scale
- DGNIMPORT command in IntelliCAD now has UI and extensive number of options for bringing DGN files into DWG drawings
- Improved IFC support: reworked MDL2IFC command to support IFC 4x3_ADD2 schema, added IFC2MDL command, ability to carry over object properties to/from MDL file.
- Users employing the cloud-based network license can monitor its use in the Registration dialog.
- Report Formatter now has Title Editor on main dialog box
- Added Points with Wipeouts to OEM symbol library
- Import Polyline Files now allows multiple file selection
- Settings Server now always allow multiple file selection
- Erase Network command to allow multiple entity selection

DGN

- Resolved color differences between DGN/DWG palette colors in Draw Profile and Profile Capture

Survey

Menu

- Created new Stakeout Pull-Down Menu containing stakeout specific commands

Annotate

- Survey Text routines now support Annotative Properties
- Line and Curve tables now support use of Suffix
- Table Defaults dialog box now displays table status
- Improved Line/curve Table defaults
- Added support to use annotation defaults in Label Arc command
- Added support to apply Table Default Settings to existing tables
- Added "Header and Title Defaults" button to Table Defaults
- Added command to "Un-Link Labels" to line work without deleting from table

- Curve and Line Tables now supports Editing by double-click action

Survey
- The Legal Description Writer now supports "Word style" quotes.
- Improved SurvNET project recall selection
- SurvNET: Added ability to add and edit JDB files for input
- New command to edit JDB data
- Deed Reader - new functions to Import Text from PDF and for automatic Setting Detection.
- Edit Deed dialog allows input of decimal second values
- Draw Deed - added ability to set layer by lot name and to label parcels
- Coordinate File Utilities - Coordinate Transformations is reworked to remove legacy projections list and to support transformation between pre-refined projections better

Centerline
- Added Station and Offset display and labeling to Surface Inspector
- Added Centerline Report to the Centerline Editor.
- Initial implementation of Centerline Capture
- For Centerline Editor Line segment, added the "Pick Multiple" button to create multiple line segments at once by picking the end points without having to return to the main dialog.
- For Centerline Editor Curve and Spiral Segments, added the "Add Another" button to create multiple curve and spiral segments at once.

Field to Finish
- Edit Field is now in focus when adding a new category
- Added "Select All" and "Clear All" for column options
- Column option button names changed to match their respective column header names for export import options
- Added ability to draw both 2D and 3D offset polylines on user defined layers
- For pipe feature, added the pipe name creation based on the downstream/upstream structure names
- Revised the depth field processing code to handle the "," and made the first depth for invert in, the second depth for invert out.
- Added Mtext for both structure and pipe labels in pipe feature.

GIS
- Added Point GIS Editor to Survey Module GIS pulldown menu

Lot Network
- Added new command to remove ROW Lines from being processed
- Added option to clear selected entities from the Lot Network
- Added new commands to highlight current ROW and Lot Edges
- Added option to Load Lot Types from an existing LTN file
- Added new feature to Lot Network to create Custom Setbacks

- Added new command to clear Custom Setbacks from selected polylines
- Added ability to create an isolated Parcel (Lot) with no frontage
- Added ability to dictate Lot Closure Tolerance in Lot Network
- Added new command to create a lot by internal point

Points
- Added option to update CRD point descriptions and elevations using an entity, lines, arcs or polylines as the selection.
- Added ability to tag non surface points from Edit Multiple Point Attributes command
- Added ability to tag non surface points from Point Group Manager
- Add Draw 3D polyline to Point Groups Manager
- Added support for NGS NCAT format to Import Points
- Added more weighting options to Best Fit Line by Least Squares routine

Area/Layout
- Added Solar Farm Piling Placement command

Civil

General
- Improvements to Civil 3D export:
  - Support for existing styles for point, alignment and surface creation
  - Support for points ranges and point groups with different styles
  - Added new command to import styles from another drawing
  - Retention of position for point attributes with leader

Profiles
- Improved intelligence of various Profile Capture capabilities:
  - Added recognition of Horizontal Label Box "Draw Vertical Lines" option
  - Added storage of "Draw Label Box Headers" option
  - Added support to extract grid settings (Civil3D Profile View) from Civil3D objects
  - Supports Grid Style of "None"
  - Added support for drawings with active "Twist Screen" view
  - Support for new label box options added to Draw Profile
  - Improved distinction between short roads and sewers
- Draw Profile enhancements:
  - Added support to label minor stations
  - Label box improvements: separate layer and colors for headers, vertical slopes and curves, horizontal curve elements; draw vertical labels options
  - Added several more options to Drawing Profiles, improved labeling options for road and sewer profiles
- Add Grid Tick and Dots: UI improvements and additional options
- Added new command to save profile settings data from drawings
- Optimized performance of draw profile in the drawings with large number existing profiles
- Horizontal Label Box

- ○ Added pipe size unit

- ○ Added prefix and suffix for pipe size and pipe material labels

- ○ Added the option to draw label only when pipe size/material value changes at the breakpoint

Sections
- Updated Draw Sections dialog layout to be consistent with Draw Profile
- for Draw Sections
- Improved performance for large section files
- Added new command to save section settings data from drawings

- Create section from pipe polyline command: saved the pipe thickness and material in the section file

- Draw Section:

  - ○ Hatch Topsoil option added

  - ○ Added option for separate cut/fill layers in Hatch End Areas

Road Network
- Improved file management for Road Networks
- Added Draw Right-of-Way Polylines toggle to Road Network's Settings to allow control of the Right-of-Way linework.
- Added Intersection Indicator
- Added "Elevation Rounding" option for the elevations of elevated Building Pads
- Added Error Log for Processing warnings and errors
- Added Topsoil Removal and Replacement options to the Defaults
- Added Superelevation output file option for processed roads.
- Improved surface naming allowing output of Road, Subgrade, Merge Existing with Road and Merge Existing with Subgrade
- Added ability to prompt for overwrite of Road and Subgrade surfaces
- Automatic connection of Curb Cuts to sidewalks
- Added Radial Curb Cut return option
- Added Driveway option to Curb Cuts to connect to elevated Building Pads
- Added a number of ADA mat options to Curb Cuts
- Improved Sidewalk Crossing recognition at intersections
- Updated Template Series Editor to allow the Template used to be edited from within the editor
- Improved Subgrade processing for subgrades, Curb and Sidewalk items
- Improved template drawing options
- Improved transition template with island to those without
- Added option for a "Smooth" transition between templates

3D Data
- Profile to 3D polyline now allows configuration of vertical curve density

- Offset 3D Polyline: options for multiple offsets to surface and option to avoid sharp pinch points in the resultant polyline
- Added new command BANKPRO to create stream bank profiles for stream reclamation
- Added new command DRIVEWAY to place a curb cut on the 3D linework and connect to an elevated building pad.

Surface
- Added option to display and label Station Offsets in surface Inspector
- Grid file Utilities now supports combining adjacent grids
- Added ability to adjust contours by points from a coordinate file
- Command to detect a mismatch between contour data and CRD points
- LandXML import now handles surfaces with data-only export from Bentley software
- TINUTIL command for TIN transformation
- TINUTIL: Replace and Imprint commands for TIN modification using 3D polyline

Hydrology

SewerNET
- Added a startup dialog with initial settings for creating new networks
- Restructured the settings dialog to place the design direction and pipe auto-connection options on the first tab for better visibility
- Added a method to insert structures onto a pipe, allowing for station input from downstream/upstream manholes
- In plan view, added the option to position pipe flow arrows above or below the pipes, and added controls to remove trailing zero decimals from all labels
- Remove Sewer Structure: Added a "Remove ALL" option to reset the sewer project .
- Added support for two surfaces, existing and final surfaces, in sewer design.
- Added new command – Sewer Profile Inspector to display station, elevation and slope details for any sewer profiles at the cursor within the drawing.
- Added new junction loss methods: Standard Loss method and AASHTO loss method.
- Added option to Erase Network to support SewerNET files
- Added symbol previews for lateral settings.
- Improved labeling options in Plan View for laterals
- Added option to decrement manhole names
- Added option to directly enter invert values in SewerNET dialog box
- Added lateral cleanout station/offset in the lateral design, updated functions to compute the station/offset, read/save data, and display on the dialog
- Improved Lateral creation workflow
- In lateral design, added trunk pipe downstream structure station, added distance measured from the downstream structure
- Added the attribute block option for lateral labels at the cleanout location.
- Added cleanout station, offset and depth to the sewer lateral report
- Improved Rainfall data checks when setting up sewer projects
- Improved options for drawing and labeling Sewer Profiles

- Added a new method to create a structure by inserting onto a pipe

- Made tailwater editable on the sewer dock dialog editor for Rational method
- Added a sewer setting for dock dialog editor to exclude the most upstream structure to take the drop invert.

- Added structure height in the sewer table.

- Updated HGL report to include new junction loss data

- For the edit sewer in profile view command, the profile redraw function has been updated to only redraw profiles that contain the modified sewer structures

- Added the MText box border offset for plan view labels.

- Added pipe dash linetype control in plan view.

- Assigned Line Name to sewer pipes, and incorporated Line Name to layer names for drawing sewer plan view pipes and pipe labels

- Added leader tick style control for plan view label leaders

Structure
- Added horizontal orifice, multiple drop pipe design; updated Pond design and HydroNet

Watershed
- Modified HydroNet to not prompt the surface file when it is set to use the 3D flow line slope.
- Added ability to reduce polyline vertices for large watershed areas

- Added HSG (hydrologic soil group) to the runoff coefficient library and its calculation in Tc, peakflow, pond design and HydroNet

Mining
- Solids menu is now available to Surface Mining users
- Improved grade merging for very large block models
- Surface Mine Reserves - Adjusted Min Key Thickness option to consider all constraints reflecting previously improved thickness and area estimates for strata
- Surface Mine Reserves Autorun - updated interface allows for faster definition of benches. Addition of Overall Top/Bottom constraints allows for simplified bench definitions
- Added newer block model CBM format support to remaining block model commands
- PitMaster - new command for Bench Pit Design. An iterative bench-by-bench design tool for simple and user friendly pit design with haul ramps.
- TunnelNet - improved ability to process complex networks
- 3D Viewer now allows for toggling solids visibility by double-clicking. Added ability to reload multiple surfaces
- Write Block Model - option to store blocks with no data
- New command to draw 3D boundaries of holes in solid models

Point Cloud
- Improved reporting and options for Cloud Compare routine
- Added Feature Completion routines to Point Cloud drop down menu

- Added ability to compare points to TINs or fixed elevations in Point Cloud Compare routine.
- Added Clear option for Point Cloud ortho image
- Improved file management for Point Cloud projects
- Improved project settings retention for purposes of new project creation
- Point Cloud: Added Snap Mode controls to Select by Sphere routine.
- Best Fit Roundabout feature completion to clean up extracted roundabouts and reports the standard deviation and average value of the residuals of the best-fit circle calculation.

- Merge Cloud Dialog now saves the Color and Intensity toggle settings and updates their enabled status according to whether the items being merged have the corresponding attributes.
- The last opened project is now recalled in between runs of Point Cloud.
- Added summary of fitted/simplified profile data information in the Extract Profile routine.
- Improved tooltip when selecting "Extract Along" polyline in the Extract Profile routine.
- Added improved prompts for modifying existing clouds
- Improved profile extraction control and documentation
- Improved Scene viewing contrast
- Added units display to Bare Earth by Grid method
- Added Delete Polyline to the Screen Pick Action drop down menu in the Create Polyline Panel that allows deleting polylines with one click
- The Feature Extraction method updates:
    - Parking lines and paint stripes extraction tools have been combined. The individual routines are still available from the Action Page -> Color Lines panel
    - Material boundary method has been added, allowing for selection of two materials to compute boundary between
    - Open Pit Bench breakline detection
    - Road Edge model to detect the pavement edges
- Obsolete features are optionally removed from the program interface
- Point Cloud Import now has "Import…" option that lists all the supported formats
- Implements a new Solid creation method called SSSR

- Improved CRD file integration and switching between internal and drawing's CRD files

GIS
- Added Background transparency to World TIF file
- ArcGIS Feature, Image, and Map Service: Routine now support OAuth 2.0 authentication for accessing private services.

- Import ESRI Rest now supports import of raster image data