2023 Virtual Workshops: Session #3-1 Overview of Carlson and What’s New in Carlson 2024

A Virtual Workshop Using Carlson Software – Explore What’s New in Carlson 2024

This virtual workshop, led by Scott Griffin and hosted by Jennifer, provided an in-depth overview of Carlson Software’s 2024 updates and practical demonstrations of key CAD and surveying tools. Topics included drawing cleanup, Google Earth integration, PDF import, BIM handling, field-to-finish workflows and point cloud processing.

Key Topics:

- Drawing cleanup and data preparation
- Google Earth and GIS imagery integration
- PDF import and vectorization using CADnet
- BIM and IFC/Revit file handling
- Field-to-Finish enhancements for trees, pipes and labeling
- Point cloud processing and AI-based feature extraction

Descriptions, transcripts and other details of this recording have been AI-generated and may contain errors.

This session was presented by Scott Griffin on 11/29/2023.

2024 Virtual Workshops: Session #4-4 Continuation of Advanced Design with Carlson Civil and Hydrology Presenter: Mark Long

A Virtual Workshop Using Carlson Software – Design Storm Sewer and Hydrology Models

This advanced Carlson Software virtual workshop, led by Mark Long, demonstrates integrated civil and hydrology design workflows using Carlson Hydrology, Sewer Network and Precision 3D Hydro. Participants learn how to model surfaces, design storm and sanitary systems and visualize drainage networks in 3D for more efficient, accurate engineering.

Key Topics:

- Precision 3D Hydro and Dynamic CAD integration
- Storm drainage and sewer network design in Carlson Hydrology
- Surface modeling, watershed analysis and runoff coefficients
- Pipe sizing, hydraulic grade line (HGL) setup and profile generation

- Utility network creation (water, conduit, laterals)
- Future Carlson Software enhancements (2026 release preview)

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This session was presented by Mark Long on 12/11/2024.

2024 Virtual Workshops: Session #4-3 Advanced Design with Carlson Civil and Hydrology
Presenter: Mark Long

A Virtual Workshop Using Carlson Software – Design Roads and Subdivisions with Carlson Civil

In this advanced Carlson Software virtual workshop, Mark Long demonstrates time-saving techniques for civil and hydrology design using Carlson Civil and Hydrology modules. The session focuses on efficient subdivision layout, road network design, templates, super elevation and grading transitions to enhance productivity and precision in engineering workflows.

Key Topics:

- Lot Network and Subdivision Layout Tools
- Road Network (RoadNet) Design and Settings
- Template Creation and Management
- Super Elevation and Transition Design
- Grading, Slopes and Stream Impact Minimization

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This session was presented by Mark Long on 12/11/2024.

2024 Virtual Workshops: Session #4-2 Continuation of Surface Modeling in Carlson Software
Presenter: Jennifer DiBona

A Virtual Workshop Using Carlson Software – Grade Sites with Surfaces and 3D Polylines

This virtual workshop continues the 2024 series on Carlson Software, focusing on surface modeling, pad grading and 3D polyline workflows. Participants learn practical grading

techniques, daylight line creation and surface triangulation for real-world site design projects.

Key Topics:

- Pad grading and daylight line creation
- 3D polyline utilities and elevation editing
- Building pad and curb grading workflows
- Surface triangulation, contour generation and volume analysis
- Cut/fill color mapping and contour cleanup

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This session was presented by Jennifer DiBona on 12/11/2024.

2024 Virtual Workshops: Session #4-1 Surface Modeling in Carlson Software Presenter: Jennifer DiBona

A Virtual Workshop Using Carlson Software – Build Accurate Surface Models

This session from *That CAD Girl's 2024 Virtual Workshop Series*

introduces participants to surface modeling and grading workflows in Carlson Software. The training covers building existing ground surfaces, using breaklines, creating 3D polylines, merging surfaces and integrating GIS imagery for visualization.

Key Topics:

- Carlson Software surface modeling fundamentals
- Breaklines, boundaries and triangulation (TIN) creation
- Field-to-Finish automation and 3D polyline generation
- Contour labeling, line-type generation and cleanup
- Importing Google/NASA/USGS surfaces and merging TIN files
- Using GIS imagery and 3D flyovers for visualization

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This session was presented by Jennifer DiBona on 12/11/2024.

2024 Virtual Workshops: Session #3-4 Continuation of Adjusting YOUR Datasets with SurvNet
Presenter: Donnie Stallings

A Virtual Workshop Using Carlson Software – Review Least Squares Reports and Survey Control

This session from That CAD Girl’s 2024 Virtual Workshop series features Donnie’s in-depth training on Carlson’s Least Squares Adjustment tools for survey data analysis. The workshop covers interpreting reports, identifying blunders, understanding statistical tests and applying best practices for boundary and DOT survey adjustments.

Key Topics:

- Carlson Least Squares Adjustment fundamentals
- Error analysis and residual interpretation
- Chi-square testing and blunder detection
- ALTA/NSPS accuracy standards
- Practical examples: boundary and DOT survey data

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This session was presented by Donnie Stallings on 12/10/2024.

2024 Virtual Workshops: Session #3-3 Adjusting YOUR

Datasets with SurvNet Presenter: Donnie Stallings

A Virtual Workshop Using Carlson Software – Adjust Survey Networks with SurvNet Least Squares

This virtual Carlson Survey workshop, led by Donnie Stallings and hosted by That CAD Girl, introduced surveyors to the principles of least-squares adjustment and the use of Carlson Survey's SNET module. The session covered theory, workflow setup and practical examples combining total-station and GPS data.

Key Topics:

- Introduction to least-squares adjustment theory
- History and development of Carlson Survey's SNET (Survey Net)
- Practical setup and configuration of SNET projects
- Combining total-station and GPS vectors
- Error analysis, blunder detection and ALTA/NC DOT workflows

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This session was presented by Donnie Stallings on 12/17/2024.

2024 Virtual Workshops: Session #3-2 Continuation of Advanced Carlson Survey and Field to Finish
Presenter: Doug Aaberg

A Virtual Workshop Using Carlson Software – Refine Field-to-Finish Survey Coding

This advanced Carlson Software workshop, led by Doug Aaberg, explored powerful Field to Finish tools and workflows for surveyors, including annotation automation, tree and pipe features and special coding techniques. The session offered practical demonstrations and Q&A to help users streamline drafting, labeling and data collection processes.

Key Topics:

- Carlson Field to Finish advanced features
- Annotation and MText automation
- Tree and pipe feature configuration
- Special codes, offsets and templates
- Real-world Q&A on survey workflows

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This session was presented by Doug Aaberg on 12/10/2024.

2024 Virtual Workshops: Session #3-1 Advanced Carlson Survey and Field to Finish

A Virtual Workshop Using Carlson Software – Automate Survey Drafting with Advanced Field-to-Finish

This virtual training session, led by Carlson Software expert Doug Aaberg, provided an in-depth walkthrough of the Field to Finish feature in Carlson Survey. Attendees learned how to automate drafting from field data, manage code tables, apply special codes and streamline survey workflows from data collection to finished CAD drawings.

Key Topics:

- Introduction to Carlson Field to Finish
- Creating and editing code tables
- Using special codes (begin, end, PC/PT, jog, rectangle, jo in point number)
- Managing layers, linework and symbols
- Handling point groups and reprocessing efficiency
- Q&A on practical field coding and data management

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This session was presented by Doug Aaberg on 12/10/2024.

2024 Virtual Workshops: Session #2-4 Continuation of Overview of Carlson Takeoff Suite modules
Presenter: Jennifer DiBona

A Virtual Workshop Using Carlson Software – Elevate 2D Plans into 3D Takeoff Models

This advanced Carlson Software workshop covered 2D-to-3D conversion tools, drawing cleanup and CADnet functions for converting and merging raster and vector PDFs. Attendees learned practical workflows for elevating contours, creating 3D polylines, digitizing plans and integrating geotechnical data into construction modeling.

Key Topics:

- Carlson Civil and Takeoff 2D-to-3D tools
- Elevate and 3D Data menus: contour and polyline elevation
- CADnet for PDF import, raster/vector conversion and image merging
- Geotech module for strata modeling and volume calculations
- Practical cleanup and modeling workflows

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This session was presented by Jennifer DiBona on 11/20/2024.