2020 Virtual Workshop
18 Sessions

A Virtual Workshop series featuring Carlson Software case studies, expert Q&A and practical training in survey drafting, civil design and 3D modeling

The 2020 Virtual Workshops combine Carlson Software demonstrations and project case studies with roundtable discussions led by developers and support specialists. Explore complete survey workflows, automated annotation, RoadNet design, hydrology, machine control model preparation and point cloud processing. Learn to reduce repetitive drafting, organize CAD standards and check project data through practical Carlson examples and troubleshooting discussions.

Key Topics:

- Carlson Survey project workflows, point management, deed correlation, legal descriptions and GIS imagery
- Carlson Field-to-Finish, automated annotation, lot closure checks, line and curve tables, and LotNet subdivision tools
- Carlson Civil case studies, RoadNet templates, intersection grading, profiles and earthwork quantities
- Carlson Hydrology and Precision 3D Hydro workflows for watersheds, storm and sanitary sewers, culverts, detention ponds and utility networks

- Carlson drawing cleanup, 3D polylines, surface triangulation and machine control exports
- Carlson Photo Capture, Point Cloud and scanning tools for drone imagery, LiDAR, terrain models and stockpile volumes
- Carlson settings standardization, reusable templates, CADnet image merging and drafting shortcuts
- Carlson desktop and SurvCE/SurvPC roundtables covering troubleshooting, cloud sharing, surface staking and GNSS workflows
- Autodesk licensing changes discussed in 2020 and workstation considerations for Carlson users

Sessions In This Series:

- 1-1: Introduction & Welcome, presented by Jennifer DiBona
- 1-2: Overview of Carlson Software, presented by Scott Griffin
- 1-3: Annotation Tips & Tricks, presented by Jeremy Taylor
- 1-4: No Recording
- 1-5: Case Study:Q&A Project Overview of Using Carlson to Create Machine Control Models, presented by Walt Liles
- 1-6: Case Study:Q&A Project Overview of Using Carlson software in civil engineering design projects, presented by Mark Long
- 1-7: Survey Project from Start to Finish with extra Field to Finish and Surface Modeling, presented by Jennifer DiBona
- 2-1: No Recording
- 2-2: Carlson Desktop Software VIP Round Table & Ask the Experts, presented by Dave Carlson, Lon Watson, Leonid Entov and Scott Griffin
- 2-3: No Recording
- 2-4: Carlson P3D & Dynamic CAD VIP Round Table & ASk the Experts, presented by Bruce Carlson, Mark Long and Scott Griffin

- 2-5: Carlson Field Software VIP Round Table & Ask the Experts, presented by Sara Winter, Jon Gerber and Butch Herter
- 2-6: Overview of Carlson’s Point Cloud Manipulation Program
- 2-7: Autodesk Licensing Changes: Plan for the future and how this will affect Carlson Software Users, presented by Dwayne Tindall
- 3-1: No Recording
- 3-2: Customizing, Migrating and Sharing Settings in Carlson Software, presented by Doug Aaberg
- 3-3: Drawing Cleanup for Model Building and Construction Staking, presented by Walt Liles
- 3-4: Point Cloud Demonstration “at the Booth”, presented by Steve Cummings
- 3-5: Tips & Tricks in CAD & Carlson, presented by Jennifer DiBona
- 3-6: Hot New Features in Carlson 2021, presented by Scott Griffin
- 3-7: Sanitary Sewer Design in Carlson Hydrology, presented by Mark Long
- 3-8: Utility Network Design in Carlson Hydrology, presented by Mark Long

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*These sessions were presented by Jennifer DiBona and Carlson staff***Introduction & Welcome, presented by Jennifer DiBona**

This session opened the 2020 Carlson Software Virtual Workshop, introducing attendees to the event structure, instructors, and logistics for the three-day training. The presentation covered session navigation, Q&A procedures, certificate details, and

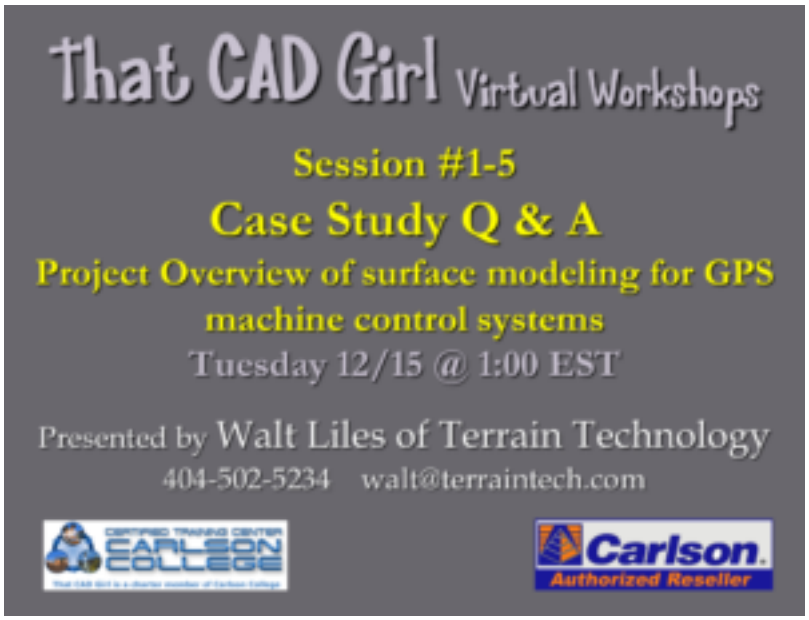
special promotions for participants.**Overview of Carlson Software, presented by Scott Griffin**

This Carlson Software virtual training workshop, led by Scott Griffin and hosted by That CAD Girl, provides an in-depth walkthrough of Carlson Survey and Civil tools, focusing on Field-to-Finish workflows, coordinate file utilities, lot and road design, and 3D modeling. The session demonstrates efficient CAD automation, data exchange with data collectors, and integration with Google Earth for visualization.**Annotation Tips & Tricks, presented by Jeremy Taylor**

This Carlson Software virtual workshop, led by Jeremy Taylor, demonstrates efficient methods for annotating subdivision plats

in Carlson CAD. It covers manual and automated annotation, lot closure verification, line and curve tables, and practical workflow tips for surveyors.**Case Study:Q&A Project Overview of Using Carlson to Create Machine Control Models, presented by Walt Liles**

This virtual workshop, led by Walt Liles of Terrain Technology, provides an in-depth walkthrough of building GPS-ready 3D surface models using Carlson Civil and IntelliCAD. The session covers drawing preparation, data cleanup, layer management, and model triangulation for machine control applications.**Case Study:Q&A Project Overview of Using Carlson software in civil engineering design projects, presented by Mark Long**

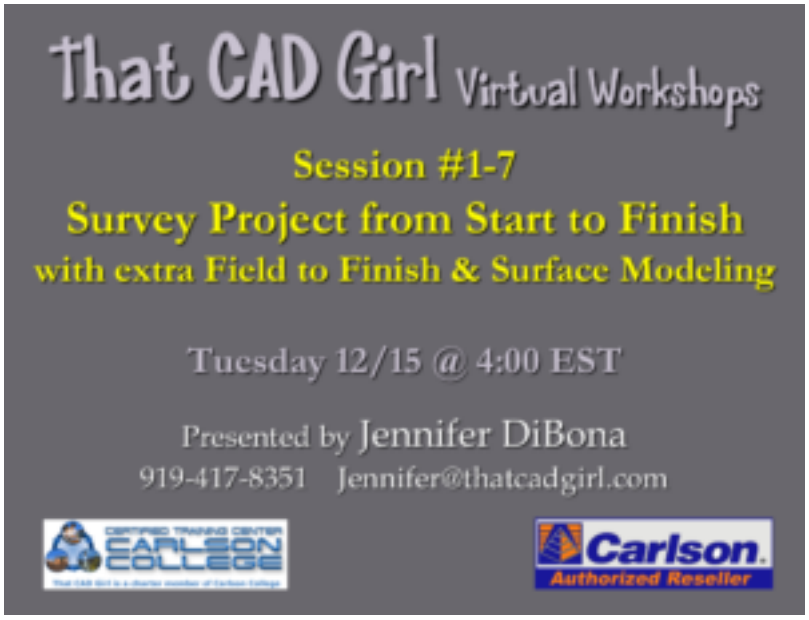


This virtual workshop session features Carlson Software’s Mark

Long demonstrating real-world civil engineering workflows using Carlson Civil Suite. The presentation covers subdivision design, grading, stormwater management, and road network modeling with practical tips and live demonstrations.**Survey Project from Start to Finish with extra Field to Finish and Surface Modeling, presented by Jennifer DiBona**

This Carlson Software virtual workshop, led by Jennifer DiBona, walks participants through a complete survey project workflow using Carlson Survey—from importing field data and creating coordinate files to deed entry, field-to-finish processing, surface modeling, and final sheet setup. The session emphasizes practical command usage, data organization, and troubleshooting

techniquesforreal-worldsurvey drafting.**Carlson Desktop Software VIP Round Table & Ask the Experts, presented by Dave Carlson, Lon Watson, Leonid Entov and Scott Griffin**



This Carlson Software virtual workshop featured a live “Ask the Experts” roundtable focused on desktop software, including Carlson Survey, Civil, Construction, and IntelliCAD. Developers and support leaders discussed common technical issues, new features, and user wishlist items for upcoming releases.**Carlson P3D & Dynamic CAD VIP Round Table & ASk the Experts, presented by Bruce Carlson, Mark Long and Scott Griffin**

This virtual workshop session, led by Bruce Carlson, provides an in-depth demonstration of Carlson Precision 3D Hydrology (P3D Hydro) and its integration with Carlson CAD modules. The training covers intelligent TIN modeling, storm sewer and

culvert design, hydrology analysis, and dynamic CAD synchronization for civil engineering workflows.**Carlson Field Software VIP Round Table & Ask the Experts, presented by Sara Winter, Jon Gerber and Butch Herter**

This Carlson Software virtual workshop brought together field-software experts to answer user questions about Carlson SurvCE and SurvPC. Topics included troubleshooting, version 6 updates, Carlson Cloud file sharing, surface staking, and GPS/robotic workflows.**Overview of Carlson's Point Cloud Manipulation Program**

This Carlson Software virtual workshop session provided an in-depth overview of the company's point cloud and 3D modeling tools, including Photo Capture, Precision 3D, Point Cloud Basic

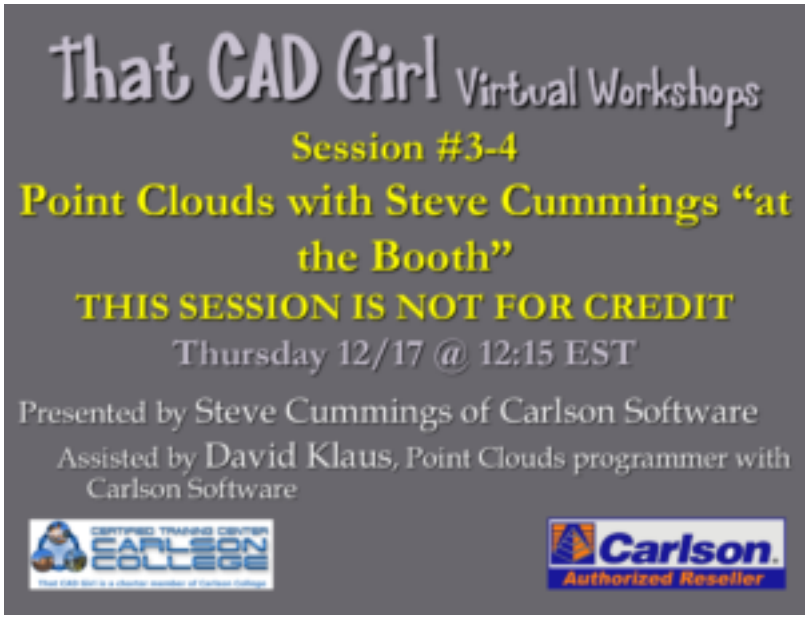
and Advanced, and related hardware such as the Scan 2K and Fixed One. Presenters demonstrated workflows for processing drone, lidar, and laser scan data, and discussed integration with Carlson's CAD and mining software.**Autodesk Licensing Changes: Plan for the future and how this will affect Carlson Software Users, presented by Dwayne Tindall**

This virtual workshop session, led by Bruce Carlson, provides an in-depth demonstration of Carlson Precision 3D Hydrology (P3D Hydro) and its integration with Carlson CAD modules. The training covers intelligent TIN modeling, storm sewer and culvert design, hydrology analysis, and dynamic CAD synchronization for civil engineering workflows. **Customizing, Migrating and Sharing Settings in Carlson Software, presented by Doug Aaberg**

This Carlson Software virtual workshop, led by Doug Oberg and hosted by Jennifer DiBona, focused on managing and standardizing CAD and Carlson settings across multiple platforms. The session demonstrated how to use Carlson's Setting Server to synchronize templates, plot styles, fonts, and configuration files company-wide.**Drawing Cleanup for Model Building and Construction Staking, presented by Walt Liles**

This Carlson Software virtual workshop features Walt Liles demonstrating best practices for CAD drawing cleanup and model building using Carlson Software. The session covers file-size reduction, polyline management, layer organization, and exporting coordinate data for field layout.**Point Cloud Demonstration "at the Booth", presented by Steve Cummings**

This bonus session from the 2020 Virtual Workshops focuses on Carlson Point Cloud software, demonstrating how to import, clean, and process point cloud data to create usable terrain models. Steve Cummings and David Kraus walk through workflows, performance considerations, and practical tips for handling large LIDAR datasets in Carlson Civil.**Tips & Tricks in CAD & Carlson, presented by Jennifer DiBona**



This virtual workshop, led by That CAD Girl, covers practical CAD and Carlson Software tips and tricks for surveyors, engineers, and CAD technicians. The session demonstrates workflows for merging raster images, using Field to Finish, managing polylines, cleaning drawings, and creating reusable

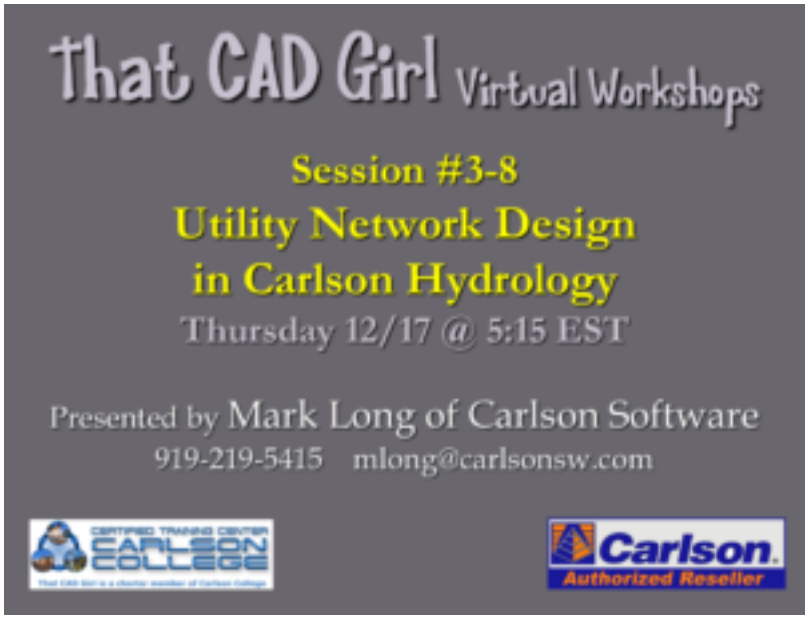
title block templates.**Hot New Features in Carlson 2021, presented by Scott Griffin**

This virtual workshop session showcased new and enhanced features in Carlson 2021 software, focusing on Survey, Civil, and CADNet modules. Presenter Scott Griffin demonstrated dynamic point attributes, BIM/Revit file integration, road network improvements, and advanced parking design tools for surveyors and engineers.**Sanitary Sewer Design in Carlson Hydrology, presented by Mark Long**

This Carlson Software virtual workshop, led by hydrology expert Mark Long, provides an in-depth walkthrough of storm and sanitary sewer design using Carlson Hydrology tools. The session covers watershed setup, pipe network creation, stormwater

management, and integration with CAD surfaces for accurate drainage modeling.**Utility Network Design in Carlson Hydrology, presented by Mark Long**

This virtual Carlson Software workshop, led by Mark Long, provided an in-depth demonstration of detention pond design, hydrology analysis, and utility network creation within Carlson Civil and Hydrology. The session covered practical workflows, design parameters, and troubleshooting tips for stormwater management and utility modeling.



2021 Virtual Workshop
17 Sessions

A Virtual Workshop series featuring Carlson Software training in CAD standards, survey drafting, surface modeling, grading and survey adjustments.

The 2021 Virtual Workshops combine CAD fundamentals with practical Carlson Software workflows for surveying, civil design and construction modeling. Follow survey and site grading projects from data preparation through finished drawings and surfaces, with additional training in advanced Field-to-Finish, quantity takeoff and survey adjustments. Learn to reduce manual drafting, standardize CAD output and check survey and grading data with Carlson tools.

Key Topics:

- Carlson CAD fundamentals, configuration, project folders, templates and settings management
- Carlson CAD standards for fonts, blocks, tool palettes, linetypes, plot styles and dimensions
- Carlson Survey workflows for point management, deed entry, boundary correlation and final annotations
- Carlson Field-to-Finish code tables, special codes, automated legends, tree features and pipe networks

- Carlson surface modeling and grading with breaklines, 3D polylines, building pads and daylight slopes
- Carlson drawing cleanup, Civil 3D and LandXML imports, SiteNet takeoff, topsoil quantities and cut/fill analysis
- Carlson Civil and Hydrology tools for RoadNet, storm and sanitary systems, utility crossings and structure libraries
- Carlson Survey traverse and least squares adjustments, GNSS integration, checkpoints and report interpretation

Sessions In This Series:

- 1-1: Introduction & Welcome, Overview of Carlson Software, Presented by Jennifer DiBona
- 1-2: Tips & Tricks for Standardizing Carlson Software with IntelliCAD, presented by Travis Maxwell
- 1-3: No Recording
- 1-4: Tips & Tricks in Carlson Civil & Hydrology, presented by Mark Long
- 1-5: Tips & Tricks in Carlson Survey, presented by Doug Aaberg
- 1-6: Tips & Tricks in Carlson Software and Wrap Up, presented by Jennifer DiBona
- 2-1: Very Basic Introduction to CAD for Carlson Users, presented by Jennifer DiBona
- 2-2: Introduction to Carlson Software, presented by Jennifer DiBona
- 2-3: Survey Project From Start to Finish, presented by Jennifer DiBona
- 2-4: Basic Introduction to Carlson Field to Finish, presented by Jennifer DiBona
- 3-1: Basics of Surface Modeling in Carlson Software, presented by Jennifer DiBona
- 3-2: Site Grading Project from Start to Finish, presented by Jennifer DiBona

- 3-3: Making Models From A Mess, presented by Jennifer DiBona
- 3-4: Tips & Tricks for Site Grading, presented by Jennifer DiBona
- 4-1: Advanced Field to Finish in Carlson Survey, presented by Doug Aaberg
- 4-2: Advanced Field to Finish in Carlson Survey (continued), presented by Dough Aaberg
- 4-3: No Recording
- 4-4: Traverse Adjustment & Best Practices for Network Solutions with Carlson’s GNSS RTK systems, presented by Doug Aaberg
- 4-5: Traverse Adjustment & Best Practices for Network Solutions with Carlson’s GNSS RTK systems (continued), presented by Doug Aaberg

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*These sessions were presented by Jennifer DiBona and Carlson staff***Introduction & Welcome, Overview of Carlson Software, Presented by Jennifer DiBona**

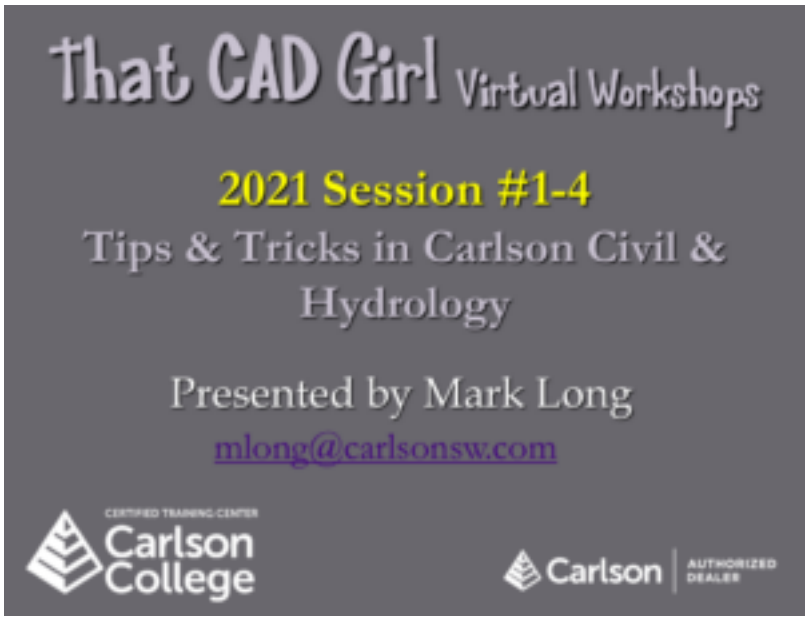
This virtual workshop introduces Carlson Software’s core CAD tools, licensing options, and interoperability with AutoCAD and IntelliCAD. Jennifer DiBona demonstrates setup, field-to-finish workflows, surface modeling, lot design, and road network

creation for surveyors and civil engineers.**Tips & Tricks for Standardizing Carlson Software with IntelliCAD, presented by Travis Maxwell**

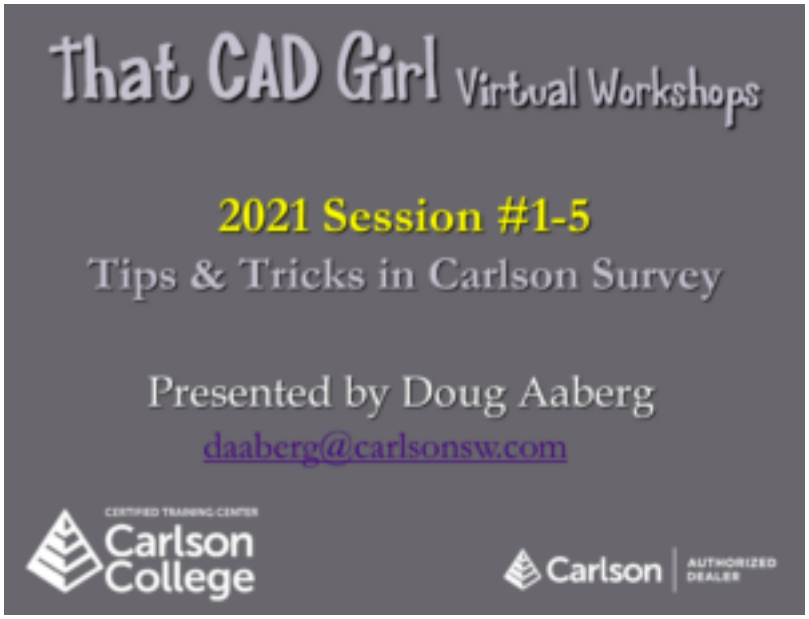
This session from That CAD Girl's 2021 Virtual Workshops features Travis Maxwell presenting advanced Carlson Software and IntelliCAD techniques for establishing and maintaining CAD standards. The webinar covers fonts, line types, blocks, symbol libraries, and tool palettes to streamline drafting workflows and ensure consistent, efficient project delivery.**Tips & Tricks in Carlson Civil & Hydrology, presented by Mark Long**

This virtual workshop session, led by Mark Long from Carlson Software, explores advanced design workflows in Carlson Civil, focusing on RoadNet, hydrology, and utility network tools.

Attendees learned practical tips for roadway design, intersection grading, sewer and stormwater modeling, and creating custom structures for efficient civil engineering design.**Tips & Tricks in Carlson Survey, presented by Doug Aaberg**



This Carlson Software virtual workshop, led by Doug Aaberg, provided advanced tips and tricks for Carlson Survey users, focusing on configuration management, field-to-finish workflows, and CAD efficiency tools. The session covered settings migration, annotation management, field text automation, grid-to-ground scaling, and practical drafting shortcuts for survey professionals.**Tips & Tricks in Carlson Software and Wrap Up, presented by Jennifer DiBona**



This 2021 Virtual CAD Workshop session, led by Jennifer DiBona of That CAD Girl, focuses on practical CAD fundamentals including line types, line weights, and dimension styles in AutoCAD and Carlson Software. The session provides detailed demonstrations, explanations of key settings, and best practices for achieving consistent, professional-quality drawings.**Very Basic Introduction to CAD for Carlson Users, presented by Jennifer DiBona**

This Carlson Software virtual workshop explores configuration, templates and project setup, demonstrating core tools and settings that help surveyors and CAD professionals develop reliable project workflows. The session covers versions and updates, carlson configure, project data folders, and practical

checks that support consistent model and drawing output.**Introduction to Carlson Software, presented by Jennifer DiBona**

This virtual workshop session introduces participants to Carlson Software, covering setup, configuration, and point management within IntelliCAD. It explains default settings, project folder organization, templates, and best practices for integrating Carlson with AutoCAD and Civil 3D workflows.**Survey Project From Start to Finish, presented by Jennifer DiBona**

This session from the 2021 Virtual Workshops walks participants through a complete Carlson Survey project from importing field data and creating boundaries to building surfaces and generating deliverables. Jennifer DiBona demonstrates practical workflows,

data management techniques, and visualization tools to streamline survey drafting and analysis.**Basic Introduction to Carlson Field to Finish, presented by Jennifer DiBona**

This virtual workshop session provides an in-depth demonstration of Carlson Software's *Field to Finish* feature, showing how to automate point layering, symbol insertion, and linework generation from survey data. The session walks through setup, coding, and customization of FLD files to streamline survey drafting and surface modeling workflows.**Basics of Surface Modeling in Carlson Software, presented by Jennifer DiBona**

This session from That CAD Girl's 2021 Virtual Workshops

introduces the fundamentals of surface modeling in Carlson Software. Jennifer DiBona demonstrates how to build, verify, and refine surfaces using points, breaklines, and public elevation data sources.**Site Grading Project from Start to Finish, presented by Jennifer DiBona**

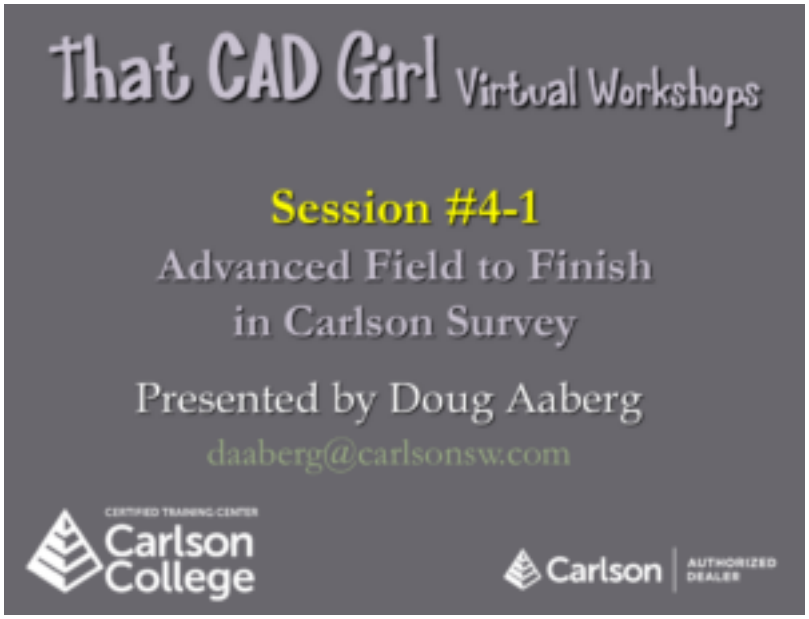
This virtual workshop session, led by Jennifer DiBona of That CAD Girl, provides a comprehensive walkthrough of a site grading project using Carlson Civil software. The training covers practical tools and workflows for converting 2D linework into 3D models, managing layers, and building accurate grading surfaces from start to finish.**Making Models From A Mess, presented by Jennifer DiBona**

This 2021 Virtual Workshop session, *Making Models from a Mess*,

teaches Carlson Software users how to clean up and prepare messy CAD drawings for accurate surface modeling and grading. The session covers practical workflows for converting 2D linework into 3D data, managing layers, and building balanced, constructible surfaces.**Tips & Tricks for Site Grading, presented by Jennifer DiBona**

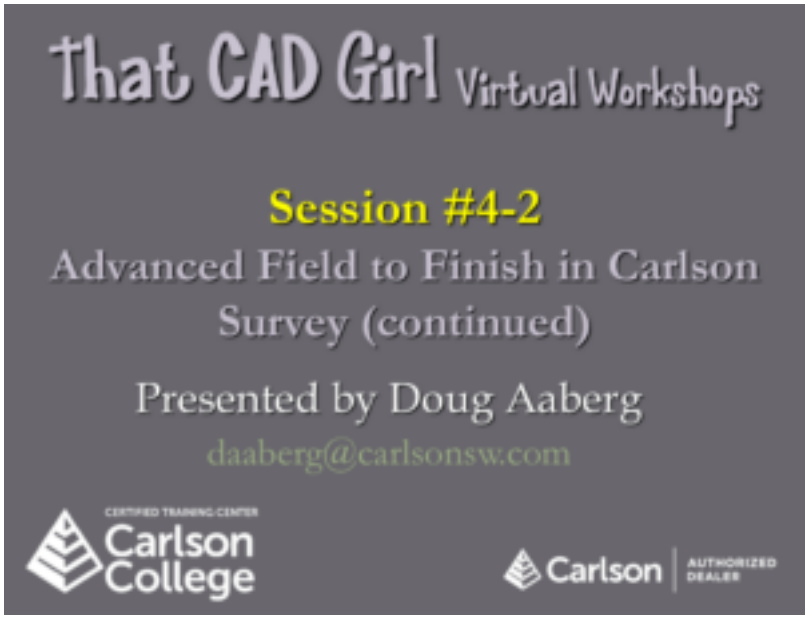
This session from the 2021 Virtual Workshop series provides a detailed, step-by-step demonstration of grading, drawing cleanup, and surface modeling techniques in Carlson Civil. It focuses on using LandXML, Civil 3D object imports, and the SiteNet/Takeoff tools to create accurate surface models and calculate earthwork and material quantities.**Advanced Field to Finish in Carlson Survey, presented by Doug Aaberg**

This Carlson Software virtual workshop explores advanced field-to-finish survey coding, demonstrating core tools and settings that help surveyors and CAD professionals develop reliable project workflows. The session covers code table organization, offsets and curves, attributes and labels, and practical checks that support consistent model and drawing output.**Advanced Field to Finish in Carlson Survey (continued), presented by Dough Aaberg**



This virtual training session continues the Advanced Field-to-Finish workshop led by Doug Aaberg, focusing on Carlson Survey tools for automating legends, tree features, and pipe networks. The session demonstrates practical workflows for survey data processing, symbol management, and integration with

CarlsonHydrologyforplanandprofile generation.**Traverse Adjustment & Best Practices for Network Solutions with Carlson's GNSS RTK systems, presented by Doug Aaberg**



This virtual workshop session, led by Doug Aaberg and hosted by That CAD Girl, provides a detailed walkthrough of Carlson Survey tools for performing traverse adjustments, compass rule balancing, and least squares network adjustments. The presentation includes practical demonstrations using real survey data, focusing on everyday workflows for field and office surveyors.**Traverse Adjustment & Best Practices for Network Solutions with Carlson's GNSS RTK systems (continued), presented by Doug Aaberg**

This session from the 2021 Virtual Workshops series featured Doug from Carlson Software demonstrating advanced survey workflows using Carlson Survey and SurvCE/Carlson CNET. The

training covered GPS vector processing, network adjustments, annotative text handling, and subdivision design using LotNet.

2022 Virtual Workshop 22 Sessions

A Virtual Workshop series featuring Carlson Software training in CAD fundamentals, survey workflows, field data collection, hydrology and point cloud processing

The 2022 Virtual Workshops combine CAD fundamentals in IntelliCAD and AutoCAD with practical Carlson workflows for

survey drawing production and data management. Learn to standardize templates and annotation, automate survey linework and prepare surfaces, layouts and plotted plan sets. Demonstrations and expert discussions also explore Carlson 2023 tools, SurvPC field software, surveying hardware, detention pond and storm sewer design and drone point cloud processing.

Key Topics:

- Carlson and IntelliCAD setup, command shortcuts, object snaps and precise drafting
- Carlson CAD standards for layers, blocks, dimension styles, templates and custom linetypes
- Carlson survey points, deed entry and correlation, annotation and legal descriptions
- Carlson Field-to-Finish, TIN surfaces, contours and GIS imagery
- Carlson layouts, viewports, legends, title blocks, sheet sets and PDF plotting
- Carlson 2023 drawing cleanup, CADnet PDF and BIM tools, retaining walls and subdivision layouts
- Carlson SurvPC field least squares, BIM stakeout, map overlays and Cloud data exchange
- Carlson BRx7 GNSS, hybrid robotic surveying and drone hardware demonstrations
- Carlson Hydrology and Precision 3D Hydro pond routing, storm networks and parametric inlets
- Carlson Point Cloud LAS imports, ortho imagery, bare earth extraction and automated feature extraction

Sessions In This Series:

- 1-1: Introduction to CAD, presented by Jennifer DiBona
- 1-2: Introduction to CAD, presented by Jennifer DiBona
- 1-3: Introduction to CAD, presented by Jennifer DiBona
- 2-1: Introduction to Carlson, presented by Jennifer DiBona

- 2-2: Introduction to Carlson, presented by Jennifer DiBona
- 2-3: Introduction to Carlson, presented by Jennifer DiBona
- 3-1: Carlson Software Showcase: Overview of Carlson, presented by Scott Griffin
- 3-2: Carlson Software Showcase: Field Software Round Table, panelists: Sarah Winter, John Gerber, Dough Aaberg & Butch Herter
- 3-3: No Recording
- 3-4: Carlson Software Showcase: Desktop Software Round Table, panelists: Leonid Entov, Lon Watson, Mark Long, Scott Griffin & Doug Aaberg
- 3-5: Carlson Software Showcase: Hydrology & P3D Round Table, panelists: Bruce Carlson, Shan Lu & Mark Long
- 3-6: Carlson Software Showcase: Hydrology & P3D Round Table, panelists: Bruce Carlson, Shan Lu & Mark Long
- 3-7: No Recording
- 4-1: Field to Finish from Start to Finish, presented by Doug Aaberg
- 4-2: Field to Finish from Start to Finish, presented by Doug Aaberg
- 4-3: Field to Finish from Start to Finish, presented by Doug Aaberg
- 5-1: Civil Design in Carlson Software, presented by Mark Long
- 5-2: Civil Design in Carlson Software, presented by Mark Long
- 5-3: Civil Design in Carlson Software, presented by Mark Long
- 6-1: User Case Study: Wet Pond Design for Multi-Family Development, presented by Travis Maxwell
- 6-2: User Case Study: Pervious Paver Parking Lot Design, presented by Finch & Associates
- 6-3: User Case Study: Fire Flow Analysis Case Study, presented by Travis Maxwell

- 6-4: User Case Study: Live Field Design, presented by Bill Dennis of Civil Design Team LLC
- 6-5: Tips & Tricks in Carlson Software, presented by Travis Maxwell

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*These sessions were presented by Jennifer DiBona and Carlson staff***Introduction to CAD, presented by Jennifer DiBona**

The opening session of the 2022 Virtual Workshops introduced participants to IntelliCAD 2023 and Carlson 2023, focusing on CAD fundamentals, interface navigation, and drafting precision. Jennifer DiBona guided attendees through command usage, settings, object snaps, polylines, text tools, and practical workflow tips for survey and civil design professionals.**Introductio n to CAD, presented by Jennifer DiBona**

This virtual CAD workshop session covers foundational and intermediate concepts in IntelliCAD and AutoCAD, focusing on layers, properties, symbols, dimension styles, and drawing templates. Participants learned how to manage visibility, organize drawings, create reusable blocks, and apply national

CADstandardsforconsistentproject setup.**Introduction to CAD, presented by Jennifer DiBona**

This virtual workshop session from That CAD Girl's 2022 series provides an in-depth tutorial on CAD line types, line-type scales, and paper-space layout management in Carlson and IntelliCAD. Attendees learned how to create, edit, and manage custom line types, control scaling across model and paper space, and use viewports effectively for plotting.**Introduction to Carlson, presented by Jennifer DiBona**

This virtual workshop introduces participants to Carlson Software 2023, focusing on setup, configuration, and best practices for new users. The session covers installation,

interface customization, project folder organization, and annotation standards within Carlson Survey and IntelliCAD environments.**Introduction to Carlson, presented by Jennifer DiBona**

This virtual training session introduces participants to Carlson Software's CAD tools, focusing on annotation settings, drawing templates, point management, and survey project workflows. Instructor Jennifer DiBona demonstrates practical commands and configuration strategies to standardize drafting and survey processes within Carlson.**Introduction to Carlson, presented by Jennifer DiBona**

This session from the 2022 Carlson Virtual Workshops provides a detailed, walkthrough of Carlson Survey tools, including symbol

insertion, field-to-finish workflows, surface creation, GIS imagery, annotation, legends, title blocks, and plotting. Participants learn practical CAD techniques for producing professional survey drawings and managing multi-sheet plan sets efficiently.**Carlson Software Showcase: Overview of Carlson, presented by Scott Griffin**

This Carlson Software virtual workshop, led by Scott Griffin, introduced users to new and existing features in Carlson 2023, including Drawing Cleanup, Field to Finish utilities, CADnet, and BIM integration. The session emphasized workflow efficiency, data cleanup, and 3D modeling enhancements for surveyors, engineers, and CAD professionals.**Carlson Software Showcase: Field Software Round Table, panelists: Sarah Winter, John Gerber, Dough Aaberg & Butch Herter**

This 2022 Carlson Virtual Workshop session introduced major updates to Carlson’s field software, including new least-squares analysis tools, enhanced reporting, and BIM integration for SurvPC Version 7. Presenters demonstrated real-world workflows for boundary surveys, redundancy checks, and BIM-based stakeout, followed by live Q&A and support tips.**Carlson Software Showcase: Desktop Software Round Table, panelists: Leonid Entov, Lon Watson, Mark Long, Scott Griffin & Doug Aaberg**

This 2022 Virtual Workshop session hosted by That CAD Girl featured Carlson Software experts discussing new features in the 2023 release, customization of toolbars and menus, hydrology and civil design workflows, and user-submitted questions. The interactive session included live demonstrations,

troubleshooting, and feature requests for future development.**Carlson Software Showcase: Hydrology & P3D Round Table, panelists: Bruce Carlson, Shan Lu & Mark Long**

This virtual workshop session from Carlson Software explored hydrology design workflows using Carlson Hydrology and Precision 3D Hydro. Presenters demonstrated detention pond design, rational and TR-55 methods, and integration between CAD and 3D modeling for stormwater management.**Carlson Software Showcase: Hydrology & P3D Round Table, panelists: Bruce Carlson, Shan Lu & Mark Long**

This session of the 2022 Virtual Workshops continued the exploration of Carlson Hydrology and P3D tools, led by Bruce Carlson. The presentation demonstrated advanced storm sewer design, parametric inlet creation, and the upcoming Hydrology

Engineer Game for training and competition.**Field to Finish from Start to Finish, presented by Doug Aaberg**

This virtual workshop session, led by Carlson Software's Doug Aaberg and hosted by That CAD Girl, provides an in-depth, step-by-step demonstration of Carlson's Field to Finish workflow. The training covers code table creation, special codes, multiple coding, layering strategies, and symbol management for efficient survey drafting and CAD automation.**Field to Finish from Start to Finish, presented by Doug Aaberg**

This session of the 2022 Carlson Virtual Workshops provides an in-depth demonstration of Carlson's Field to Finish tools for survey data processing. The instructor covers code table setup,

special codes, templates, and workflow optimization for efficient CAD drafting and survey data management.**Field to Finish from Start to Finish, presented by Doug Aaberg**

This session from the 2022 Virtual Workshops series covers advanced “Field to Finish” workflows in Carlson Software, led by Doug. The training focuses on coding strategies, symbol rotation, scaling, pipe and tree features, and automated labeling techniques for survey drafting efficiency.**Civil Design in Carlson Software, presented by Mark Long**

This session from the 2022 Virtual Workshops features Mark Long of Carlson Software demonstrating advanced CAD workflows using

Carlson’s LotNet and RoadNet tools. The training covers efficient subdivision layout, automated lot labeling, setbacks, and roadway design for civil engineering and hydrology applications.**Civil Design in Carlson Software, presented by Mark Long**

This Carlson Software virtual workshop provides an in-depth demonstration of RoadNet for roadway and subdivision design, including surface modeling, template management, intersections, and grading workflows. The session covers practical techniques for widening roads, handling intersections, creating cul-de-sacs, and balancing earthwork using Carlson Civil tools.**Civil Design in Carlson Software, presented by Mark Long**

This recorded session from the 2022 Virtual Workshops features Carlson Software’s Mark Long demonstrating step-by-step civil design workflows in Carlson Civil and Hydrology. The class covers sanitary-sewer and storm-drain network setup, surface merging, pipe-network editing, and profile design techniques used in real-world subdivision projects.**User Case Study: Wet Pond Design for Multi-Family Development, presented by Travis Maxwell**

This virtual workshop demonstrates advanced stormwater design techniques using Carlson Software’s HydroNet Explorer. Presenter Travis Maxwell guides attendees through converting Civil 3D files, creating surfaces from Google Earth data, and designing

detention and retention ponds with Carlson's hydrology tools.**User Case Study: Pervious Paver Parking Lot Design, presented by Finch & Associates**

This virtual workshop showcased a real-world case study on designing a permeable paver stormwater system using Carlson HydroNet. Engineers from Finch & Associates demonstrated how to model complex drainage networks, link watershed areas, and simulate stormwater detention using Carlson's 2022–2023 hydrology tools.**User Case Study: Fire Flow Analysis, presened by Travis Maxwell**

This Carlson Software virtual workshop session, led by Travis Maxwell, demonstrates how to model waterline extensions and perform fire flow and hydrostatic pressure analysis using Carlson's Pressure Pipe Network tools. The presentation covers

setup, data input, hydraulic grade line calculations, and integration with EPA Net for validation.**User Case Study: Live Field Design**

This virtual workshop session features civil engineer Bill Dennis demonstrating a streamlined field-to-office GIS and CAD workflow using Carlson Software. The presentation covers integrating GPS data, GIS mapping, and CAD design to improve efficiency in large-scale land development projects.**Tips & Tricks in Carlson software, presented by Travis Maxwell**

In the final session of That CAD Girl's 2022 Virtual Workshop series, Travis demonstrated advanced CAD project management

workflows using tables, custom fields, and sheet sets. The session also covered Civil 3D conversions, LIDAR data handling, grading, watershed analysis, and integration with HEC-RAS for hydrology modeling.

2023 Virtual Workshop
8 Sessions

A Virtual Workshop series featuring Carlson Software training for survey data processing, point clouds, civil design and construction takeoff.

The 2023 Virtual Workshops explore Carlson Software workflows and Carlson 2024 updates for surveyors, civil engineers and construction professionals. Learn to work with GIS attributes,

drone imagery and LiDAR, process survey data, design roads and drainage networks, and prepare surfaces and quantity reports. Practical Carlson demonstrations show how to automate drafting, reuse design settings and check project data for more consistent field and office deliverables.

Key Topics:

- Carlson 2024 updates, drawing cleanup, imagery integration and BIM data handling
- Carlson Survey and GIS workflows for Field-to-Finish, feature attributes and shapefile imports
- Carlson Photo Capture and Point Cloud workflows for drone imagery, LiDAR, feature extraction and surface creation
- Carlson survey data processing, coordinate systems, raw data editing and GPS base point corrections
- Carlson Lot Network, RoadNet and Parking Network tools for site design, templates and plan/profile sheets
- Carlson Hydrology workflows for watersheds, runoff calculations, storm pipe sizing and utility crossing checks
- Carlson CADnet workflows for PDF imports, image merging, scaling and digitizing
- Carlson SiteNet workflows for 2D-to-3D conversion, material quantities, topsoil adjustments and machine control exports

Sessions In This Series:

- 1-1 to 2-4 were live.
- 3-1: Overview of Carlson and What’s New in Carlson 2024, presented by Scott Griffin
- 3-2: Overview of Carlson and What’s New in Carlson 2024, presented by Scott Griffin
- 3-3: Overview of Carlson Survey, GIS and Point Cloud, presented by Doug Aaberg

- 3-4: Overview of Carlson Survey, GIS and Point Cloud, presented by Doug Aaberg
- 4-1: Overview of Carlson Civil & Hydrology, presented by Mark Long
- 4-2: Overview of Carlson Civil & Hydrology, presented by Mark Long
- 4-3: Overview of Carlson, CADnet, SiteNet & Takeoff, presented by Jennifer DiBona
- 4-4: Overview of Carlson, CADnet, SiteNet & Takeoff (First 8.5 minutes have no sound), presented by Jennifer DiBona

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

*These sessions were presented by Jennifer DiBona, Scott Griffin, Doug Aaberg or Mark Long.****The first two days were live.*****Overview of Carlson and What's New in Carlson 2024, presented by Scott Griffin**

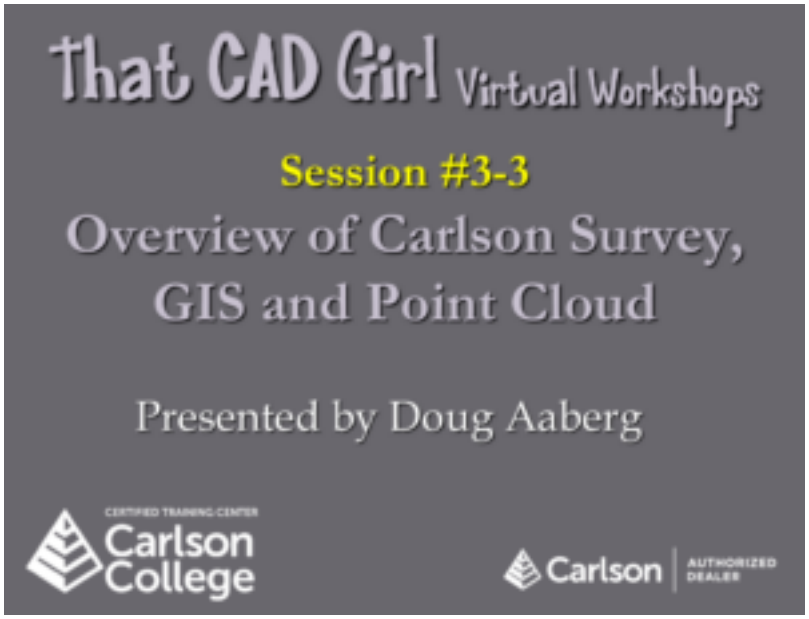
This virtual workshop, led by Scott Griffin and hosted by Jennifer, provided an in-depth overview of Carlson Software's 2024 updates and practical demonstrations of key CAD and surveying tools. Topics included drawing cleanup, Google Earth integration, PDF import, BIM handling, field-to-finish

workflows, and point cloud processing.**Overview of Carlson and What's New in Carlson 2024, presented by Scott Griffin**

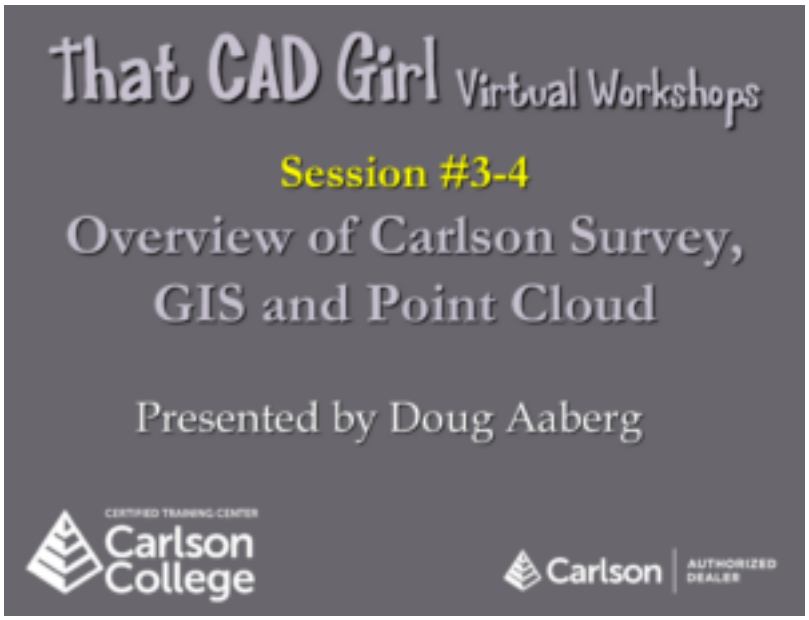
This 2023 Carlson Software virtual workshop, led by Scott Griffin, provides an in-depth demonstration of new and enhanced features in Carlson 2024. The session covers Lot Network, Road Network, Sheet Production, Profile Capture, and Parking Network tools, showcasing practical workflows for surveyors, engineers, and CAD designers.**Overview of Carlson Survey, GIS and Point Cloud, presented by Doug Aaberg**

This workshop session, led by Carlson Software's Doug Aaberg, provides an in-depth overview of the GIS and Point Cloud capabilities in Carlson Survey. The presentation demonstrates how to integrate GIS data with field-to-finish workflows, manage

attribute data, and import/export shape files for practical surveying and mapping applications.**Overview of Carlson Survey, GIS and Point Cloud, presented by Doug Aaberg**

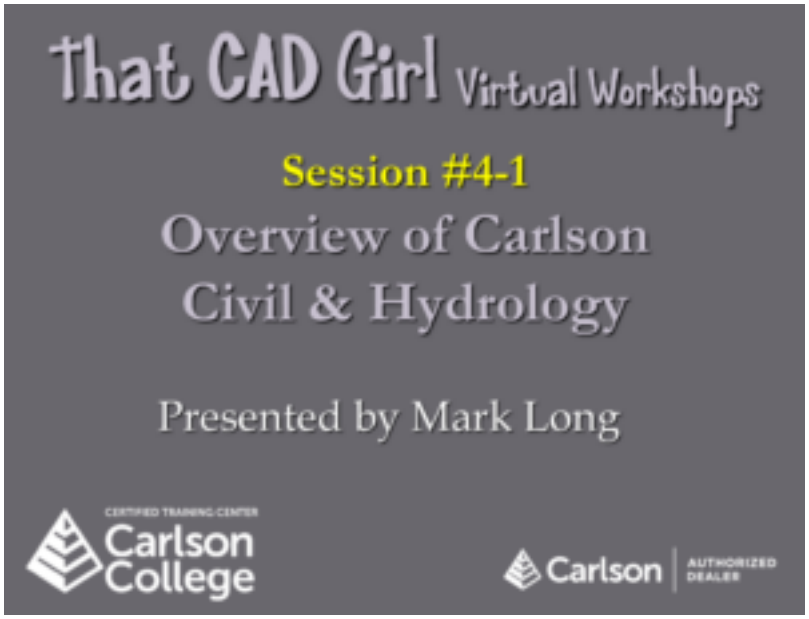


This Carlson Software virtual workshop, hosted by That CAD Girl, provided an in-depth demonstration of Carlson's Point Cloud module, lidar data integration, and survey data processing workflows. The session concluded with updates on coordinate projection changes in 2024 and practical guidance on raw data editing and GPS processing.**Overview of Carlson Civil & Hydrology, presented by Mark Long**

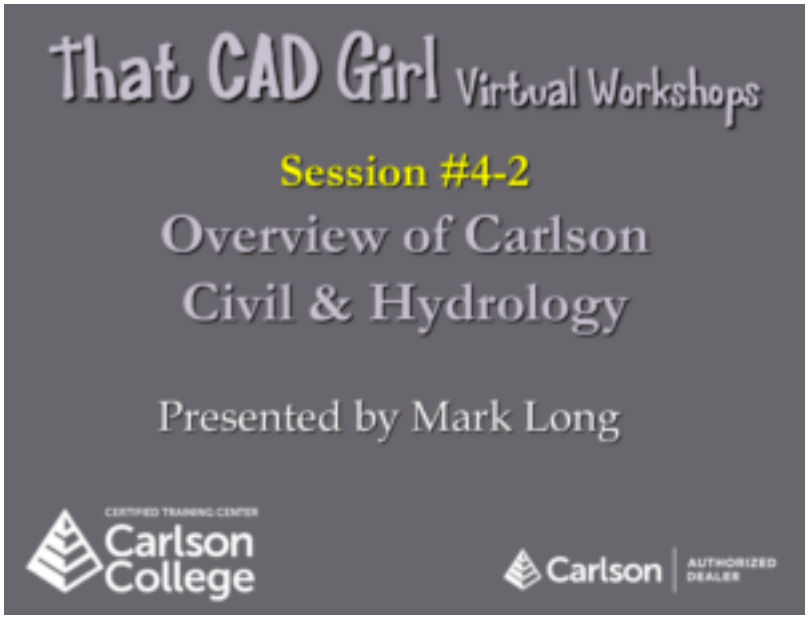


This virtual training session, led by Mark Long from Carlson

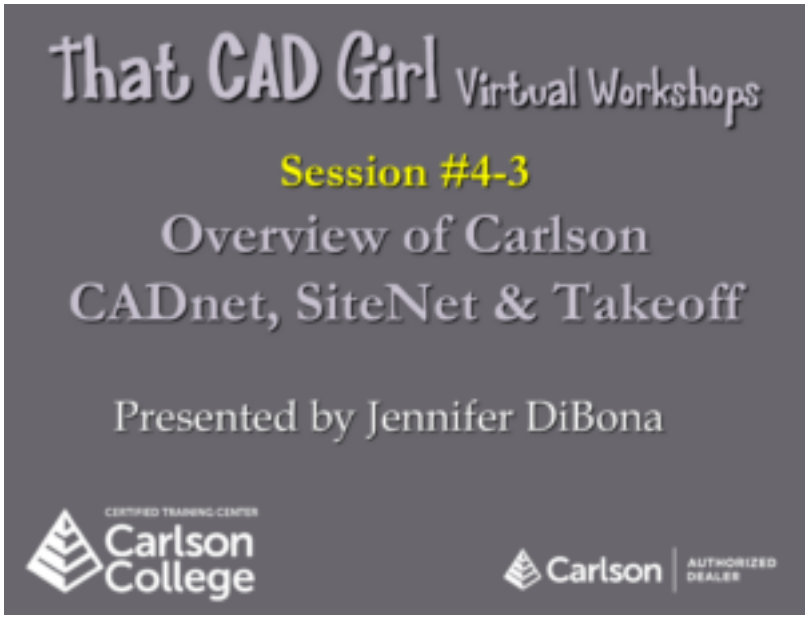
Software, provides an in-depth walkthrough of Carlson Civil's RoadNet module for roadway and site design. The class covers setup, surface modeling, templates, intersections, cul-de-sacs, knuckles, and integration with hydrology and grading workflows.**Overview of Carlson Civil & Hydrology, presented by Mark Long**



This virtual workshop, led by Mark Long of Carlson Software, provided an in-depth walkthrough of hydrology and pipe design tools within Carlson Civil and Hydrology modules. The session covered watershed setup, storm drainage design, pipe network creation, and profile management for civil engineering projects.**Overview of Carlson, CADnet, SiteNet & Takeoff, presented by Jennifer DiBona**

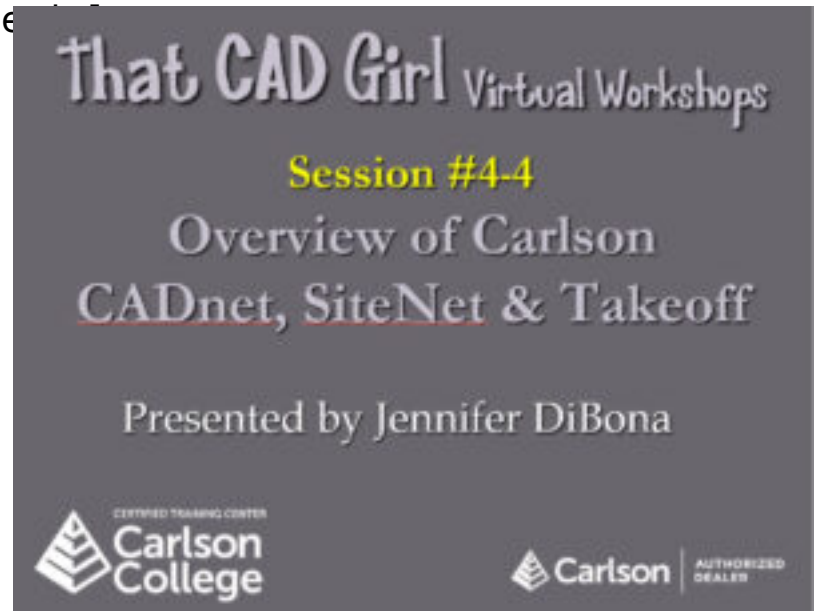


This virtual Carlson Software workshop demonstrates advanced SiteNet workflows for calculating material and dirt quantities, managing topsoil removal and replacement, and performing drawing cleanup and 2D-to-3D data conversion. The session provides practical guidance for preparing accurate takeoff models and cleaning complex CAD drawings for construction and civil design.**Overview of Carlson, CADnet, SiteNet & Takeoff, presented by Jennifer DiBona**



This Carlson Software virtual workshop demonstrates how to import PDF plans into CADnet, distinguish raster and vector content, merge images, calibrate plan scales, and digitize contours, pads, and spot elevations. It then explains how to clean engineering drawings for SiteNet, organize existing and proposed features, configure layer targets, and define takeoff

quantities and subgrade mate



2024 Virtual Workshop
16 Sessions

A Virtual Workshop series featuring Carlson Software training for surveying, surface modeling, construction takeoff and civil design.

The 2024 Virtual Workshops bring together practical Carlson Software demonstrations for surveyors, civil engineers and construction professionals. Explore workflows for Field-to-Finish, GIS and point cloud processing, least squares adjustment, surface modeling, quantity takeoff, roadway design

and hydrology. Learn how to automate drafting, check survey and design data, and produce more consistent project deliverables with Carlson tools.

Key Topics:

- Carlson setup, project organization, Civil 3D and LandXML imports, deed entry and lot layout
- Carlson GIS data imports, imagery, feature attributes and field collection
- Carlson Point Cloud and Photo Capture workflows for drone imagery, LiDAR filtering and feature extraction
- Carlson Field-to-Finish code tables, automated linework, symbols and annotations
- Carlson Survey SNET least squares adjustment, residuals, blunder detection and accuracy checks
- Carlson surface modeling, breaklines, 3D polylines, pad grading and cut/fill analysis
- Carlson Takeoff, CADnet and Geotech workflows for PDF data, subgrades, topsoil and material quantities
- Carlson Civil, Hydrology and Precision 3D Hydro workflows for RoadNet, culverts, drainage and utility networks

Sessions In This Series:

- 1-1: Overview of Carlson Software, presented by Jennifer DiBona
- 1-2: Overview of Carlson Survey and GIS, presenter by Doug Aaberg
- 1-3: Overview of Carlson Point Cloud and Carlson Photo Capture, presented by Doug Aaberg
- 1-4: Overview of Carlson Civil and Hydrology, presented by Mark Long
- 2-1: Overview of Carlson Precision 3D Topo and Hydrology, presented by Bruce Carlson
- 2-2: Continuation of Overview of Carlson Precision 3D Topo

and Hydrology, presented by Bruce Carlson

- 2-3: Overview of Carlson Takeoff Suite modules, presented by Jennifer DiBona
- 2-4: Continuation of Overview of Carlson Takeoff Suite modules, presented by Jennifer DiBona
- 3-1: Advanced Carlson Survey and Field to Finish, presented by Doug Aaberg
- 3-2: Continuation of Advanced Carlson Survey and Field to Finish, presented by Doug Aaberg
- 3-3: Adjusting YOUR Datasets with SurvNet, presented by Donnie Stallings
- 3-4: Continuation of Adjusting YOUR Datasets with SurvNet, presented by Donnie Stallings
- 4-1: Surface Modeling in Carlson Software, presented by Jennifer DiBona
- 4-2: Continuation of Surface Modeling, presented by Jennifer DiBona
- 4-3: Advanced Design with Carlson Civil and Hydrology, presented by Mark Long
- 4-4: Continuation of Advanced Design with Carlson Civil and Hydrology, presented by Mark Long

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

These sessions were presented by Jennifer DiBona, Doug Aaberg, Mark Long, Bruce Carlson, or Donnie Stallings**Overview of Carlson Software, presented by Jennifer DiBona**

This session kicked off the 2024 Virtual Workshops hosted by That CAD Girl, providing an introductory overview of Carlson Software and its CAD environments. The training covered setup, configuration, data management, and practical demonstrations of key Carlson tools for survey, civil, and land development

workflows.**Overview of Carlson Survey and GIS, presenter by Doug Aaberg**

This virtual workshop, led by Doug Aaberg of Carlson Software, provided a detailed walkthrough of the Carlson GIS module, demonstrating how to import, manage, and utilize public GIS data within Carlson Survey and Civil. The session also covered creating GIS feature files, collecting field attributes, and integrating imagery and LIDAR data to enhance survey projects.**Overview of Carlson Point Cloud and Carlson Photo Capture, presented by Doug Aaberg**

This Carlson Software virtual workshop focused on using Carlson Point Cloud and Photo Capture tools to process drone and LiDAR data for surveying and mapping. Doug demonstrated workflows for

creating, cleaning, classifying, and extracting data from point clouds to produce accurate surfaces, contours, and CAD deliverables.**Overview of Carlson Civil and Hydrology, presented by Mark Long**

This Carlson Software virtual workshop, led by Mark Long, provided an in-depth overview of civil design and hydrology workflows using Carlson Civil and Hydrology modules. The session covered surface modeling, roadway design, storm drainage, and sanitary sewer network creation, highlighting practical tools and new features in the 2025 release.**Overview of Carlson Precision 3D Topo and Hydrology, presented by Bruce Carlson**

This session from the 2024 Virtual Workshops features Bruce

Carlson demonstrating advanced hydrology workflows using Carlson Precision 3D and IntelliCAD. The presentation covers terrain modeling, watershed analysis, culvert design, and dynamic CAD integration for civil engineering and land development professionals.**Continuation of Overview of Carlson Precision 3D Topo and Hydrology, presented by Bruce Carlson**

This virtual workshop demonstrates Carlson Software's Precision 3D Hydrology and RoadNet tools, showing how to design, analyze, and visualize stormwater systems within a CAD-integrated environment. The session covers intelligent TIN creation, watershed modeling, gutter spread analysis, and report generation for KYTC-compliant submittals.**Overview of Carlson Takeoff Suite modules, presented by Jennifer DiBona**

This training session provides an in-depth walkthrough of Carlson Civil Suite’s RoadNet, Hydrology, and CADnet modules, demonstrating practical workflows for road design, storm sewer layout, and converting PDF plans into CAD data. The instructor showcases real-world examples, emphasizing dynamic design updates, data management, and interoperability with Civil 3D and LandXML standards.**Continuation of Overview of Carlson Takeoff Suite modules, presented by Jennifer DiBona**

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.**Advanced Carlson Survey and Field to Finish, presented by Doug Aaberg**

This training session provides an in-depth walkthrough of Carlson Civil Suite's RoadNet, Hydrology, and CADnet modules, demonstrating practical workflows for road design, storm sewer layout, and converting PDF plans into CAD data. The instructor showcases real-world examples, emphasizing dynamic design updates, data management, and interoperability with Civil 3D and LandXML standards.**Continuation of Advanced Carlson Survey and Field to Finish, presented by Doug Aaberg**

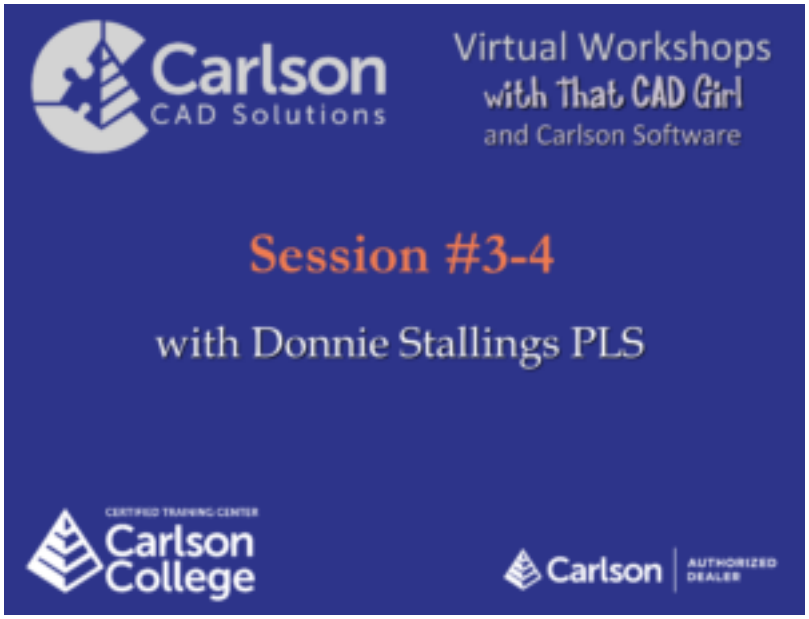
This advanced Carlson Software workshop, led by Doug Aaberg, explored powerful Field to Finish tools and workflows for surveyors, including annotation automation, tree and pipe

features, and special coding techniques. The session offered practical demonstrations and Q&A to help users streamline drafting, labeling, and data collection processes.**Adjusting YOUR Datasets with SurvNet, presented by Donnie Stallings**

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.**Continuation of Adjusting YOUR Datasets with SurvNet, presented by Donnie Stallings**

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.**Surface Modeling in Carlson Software, presented by Jennifer DiBona**



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.**Continuation of Surface Modeling, presented by Jennifer DiBona**

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.**Advanced Design with Carlson Civil and Hydrology, presented by Mark Long**

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.**Continuation of Advanced Design with Carlson Civil and Hydrology, presented by Mark Long**

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.

Standardizing Layers, Linetypes & Dimensions

A Virtual Webinar Using Carlson Software – Learn to Standardize CAD Drawings

This webinar by That CAD Girl covers how to standardize CAD drawings using the National CAD Standard (NCS) within Carlson Software and AutoCAD. It explains best practices for managing layers, linetypes and dimension styles to ensure consistency across civil and survey projects.

Key Topics:

- National CAD Standard (NCS) layer naming and structure
- Carlson template and layer library management
- Linetype scaling, polyline generation and plotting behavior
- Dimension style creation and scaling for different drawing types

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

This session was presented by Jennifer DiBona on 05/07/2024.

Standardizing CAD and Carlson

A Virtual Webinar Using Carlson Software – Learn to Standardize Settings, Toolbars and Templates

This webinar by That CAD Girl provides a detailed walkthrough of how to standardize settings in Carlson Software and its underlying CAD platforms (AutoCAD or IntelliCAD). It covers configuration management, toolbar customization, quick keys and best practices for creating consistent templates and workflows across teams.

Key Topics:

- Understanding the relationship between CAD platforms and Carlson vertical programs
- Configuring default settings and toolbars
- Managing quick keys and command aliases
- Creating and sharing standard settings and templates
- Using configuration files (.CFG, .TRI, .DWT) for consistency

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

This session was presented by Jennifer DiBona on 02/26/2020.

Sheet Setup with Paper Space, DView and UCS Rotation

A Virtual Webinar Using CAD – Learn to Set Up Sheets

This Carlson Software training webinar explains how to set up drawing sheets in Paper Space, create and manage viewports, control drawing scales and use DView and UCS rotations for plan and profile sheet layouts. It provides a detailed, step-by-step walkthrough of best practices for plotting, scaling and managing multiple layout tabs in Carlson Survey 2020 with IntelliCAD.

Key Topics:

- Paper Space fundamentals and layout setup
- Creating and locking viewports
- Managing drawing scales and line-type scales (LT Scale / PSLT Scale)
- DView Twist and UCS Rotation for plan/profile alignment
- Layer visibility control per viewport
- Batch plotting and page setup management

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

This session was presented by Jennifer DiBona on 07/28/2020.

If You’re Not Using LandXML – You Should Be (yes, all of you!)

A Virtual Webinar Using Carlson Software – Learn to Exchange Project Data with LandXML

This webinar, hosted by That CAD Girl and presented by Nathan Crews of Carlson Software, introduces LandXML as a universal data format for sharing civil engineering and survey data. It covers LandXML structure and supported data types, interoperability between CAD and survey platforms and its growing role in photogrammetry and machine control.

Key Topics:

- Overview and history of LandXML
- Data exchange between Carlson, Autodesk and Bentley products
- Using LandXML with photogrammetry and drone data
- LandXML 2.0 enhancements (materials, 3D objects)
- Future ISO standardization for machine control

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

This session was presented by Nathan Crews on 09/11/2018.

Template Files and Layer Management Tips & Tricks

A Virtual Webinar Using Carlson Software – Learn to Manage Drawing Layers

This webinar explains how to create, customize and manage drawing template files (DWT) and layers in Carlson Software and AutoCAD/IntelliCAD. It covers best practices for setting up company standards, using the Layer Library and improving drawing efficiency through template customization.

Key Topics:

- Creating and customizing DWT template files
- Setting up company drafting standards
- Understanding Carlson and NCS layer standards
- Using Layer Library for layer management and standardization
- Improving drawing efficiency through template customization

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

This session was presented by Jennifer DiBona on 07/27/2018.