Office Software

Data Collection

Instruments

Survey & GIS

Civil Engineering

Construction

Carlson

BREAK NEW GROUND

Solutions for Land Development Professionals

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Carlson Software produces a complete suite of solutions for land development professionals, across the disciplines of data collection, surveying, engineering design and drafting. In addition, utilizing its expertise in data collection, Carlson also offers accident and crime reconstruction field and office software for law enforcement personnel or law consultants.

> **We at Carlson recognize the paramount importance of free choice to the professional consumer in the land industry. We are committed to providing consistent software interfaces across hardware and across disciplines. This is the mission of Carlson Software.**
>
> --R. Bruce Carlson
> Founder and President
> Carlson Software

Founded in 1983 and based in Maysville, Kentucky, U.S.A., Carlson has branch offices and local representatives around the world.

Carlson Works for You

Carlson Software encourages a “positive feedback loop” from our customers ensuring that our annual software releases are full of customer-driven new features. We are grateful for our high rate of customer retention over our history and firmly believe in providing free technical support, which Carlson has done since the day of its founding.

“With RoadNETwork [in Carlson Civil], you can grip/ edit a centerline and have the whole thing seamlessly and dynamically update. That is the coolest thing I’ve experienced in the software.”

-- Christian Smith
Beals & Associates
Stratham, NH

“Carlson, with their hardware and their software, as far as I’m concerned, they’re number one in the market. You just can’t beat them. I recommend it to everybody.”

-- John Hill
President, CEO,
Alphatec Surveyors LTD
Chesapeake, VA

“Biggest benefit I’ve seen from SurvPC is really the time management and just how compatible it is with multiple types of software, whether it’s a Carlson software, not a CAD software, or simply just Esri®. Because of being able to do so many different data file types, I can work in any of those and I don’t have to worry about how I am going to convert files.”

-- Clay White
GIS Coordinator,
Berea Municipal Utilities
Berea, KY

“We started with SurvCE on the Carlson GPS receiver and expanded to Carlson Survey and then moved over to Carlson Construction for its estimating capabilities, 3D drawings and the ability to make 3D models for machine control. The more you get to know it, the more you can do it with it.”

-- Sean Roberts
Construction Surveyor
Van Etten/Blijdorp
Vlaardingen,
The Netherlands

Carlson Survey

Surveyors' #1 Software Choice

Carlson Survey is designed to complement land surveying operations and provides a variety of survey features to process data from surface modeling to Least Squares Network Adjustment. Users work seamlessly between the office and the field by utilizing company-wide design styles for ease of use and efficiency.

- **Get full tool kit – everything from network least squares to surface modeling**
- Work seamlessly between office and field
- Establish company-wide design styles
- Create GIS links & exchange Esri® data

Choose your platform – Carlson Survey works on:

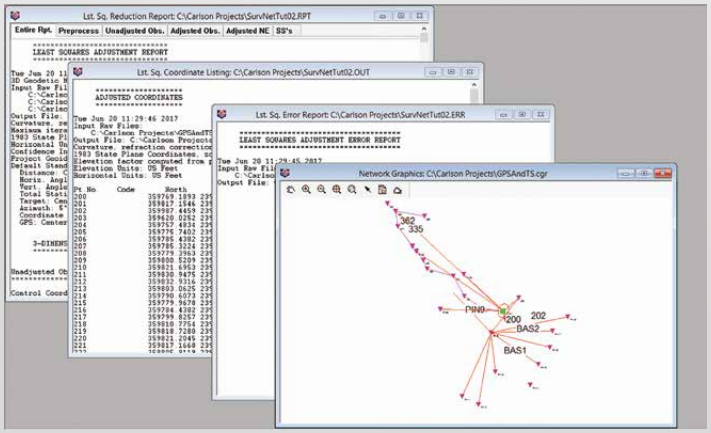
- AutoCAD® (sold separately)
- IntelliCAD® (built-in)

Or choose **Carlson Survey OEM** with built-in engine Powered with Autodesk® Technology.

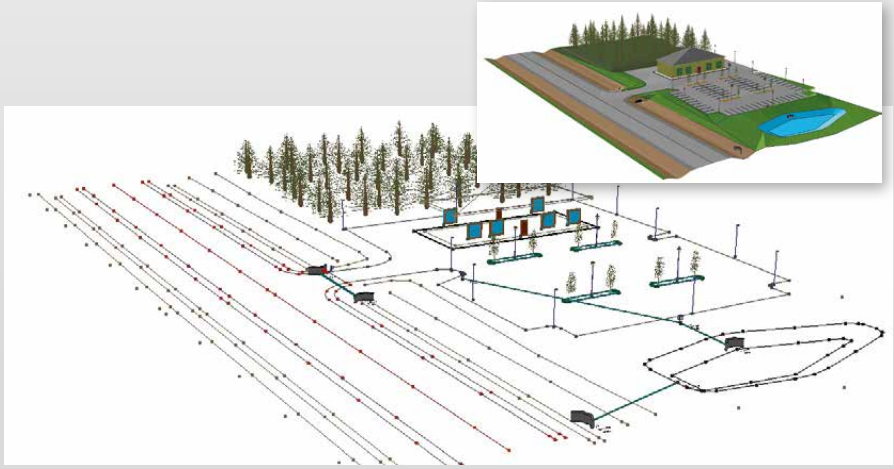
Get the Power of Carlson Field-to-Finish

Carlson Survey together with Carlson's popular data collection software, SurvPC, provide powerful, effective, and accurate "Field-to-Finish":

- Symbols, points and linework are drawn automatically in Carlson Survey
- Drawings in SurvPC process perfectly and easily in Carlson Survey



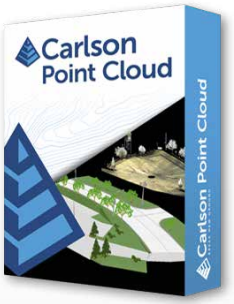
Least Squares Adjustments



Twist to 3D view

Carlson Point Cloud

Bring Point Cloud data to your CAD environment

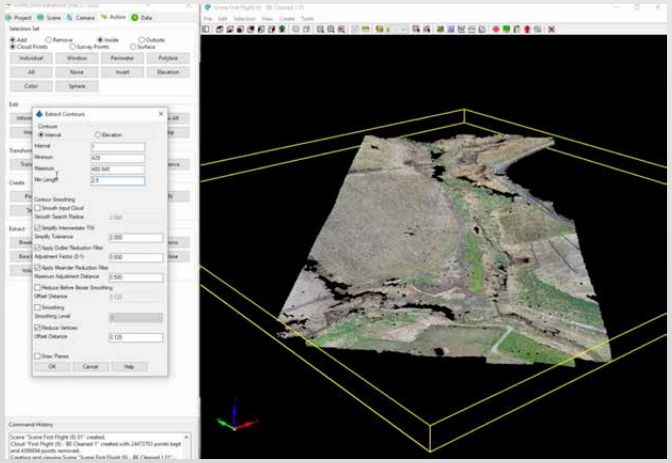


A powerful program that provides the ability to go from field scan to finished plat. Carlson Point Cloud delivers powerful filters and advanced automation for large data sets from terrestrial scanners, public LiDAR data, aerial LiDAR or photogrammetry, or any other source.

Key features include:

- Register scans to local coordinates, filter or decimate the points, overlay raster images in 3D, and filter to bare earth
- Automated tools from Carlson's Digital Twin Division including feature extraction for parking lines, curbs, powerlines, building footprints, trench pipes, and more
- Create contours, profiles, sections, and breaklines from within the point cloud

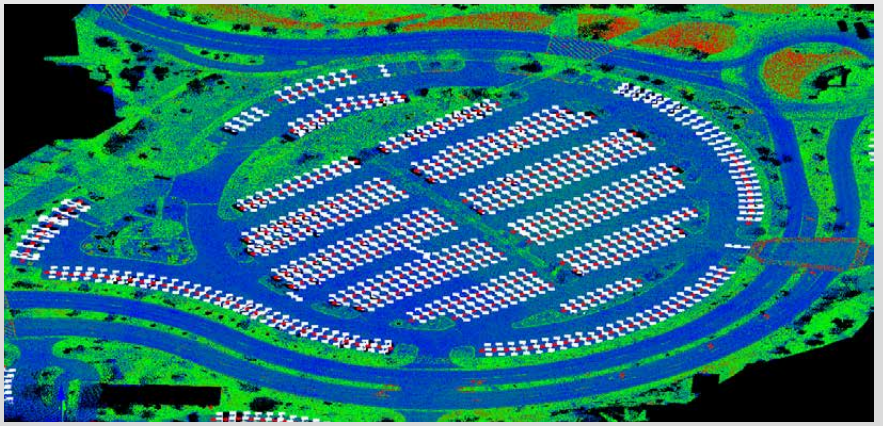
All surface models, points, contours, breaklines, grid and profiles can be exported to CAD.



Read scan data from many instruments

Basic and Advanced

Carlson Point Cloud is available in both Basic and Advanced versions, Carlson Point Cloud Advanced adds many valuable functions, including feature extraction capabilities as well as additional filters, transformations, and the creation of feature type points and solids.



Powerful feature extraction in Point Cloud Advanced

Carlson Civil Suite

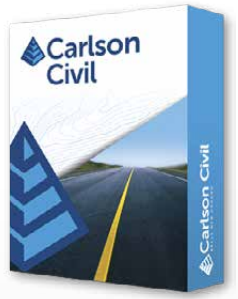
The Ultimate Civil Package

Get Fair Price, Full Featured CAD, and Free Support with Carlson Software's Civil Suite, a powerful bundle made up of: Carlson Survey (see page 4), Carlson Civil, Carlson Hydrology, and Carlson GIS. These four civil-related modular programs, working together, provide the ultimate civil package that dramatically increases productivity while helping users create better designs.

All Carlson office software modules come with perpetual and maintenance licensing with Carlson customers allowed to own the software and to upgrade when they choose. They come with IntelliCAD® built-in, plus run on top of any AutoCAD®, Civil 3D®, or Map® from versions 2010 and up. Carlson has offered free support since the founding of the company. It's what we're based on – Carlson works for you!

Carlson Civil

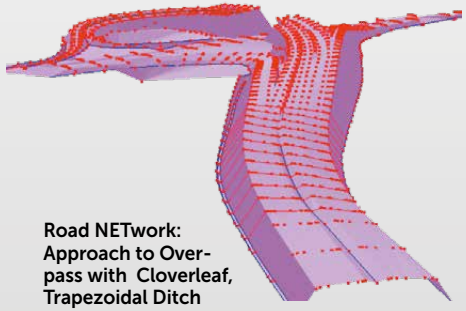
The 'Civil' Choice



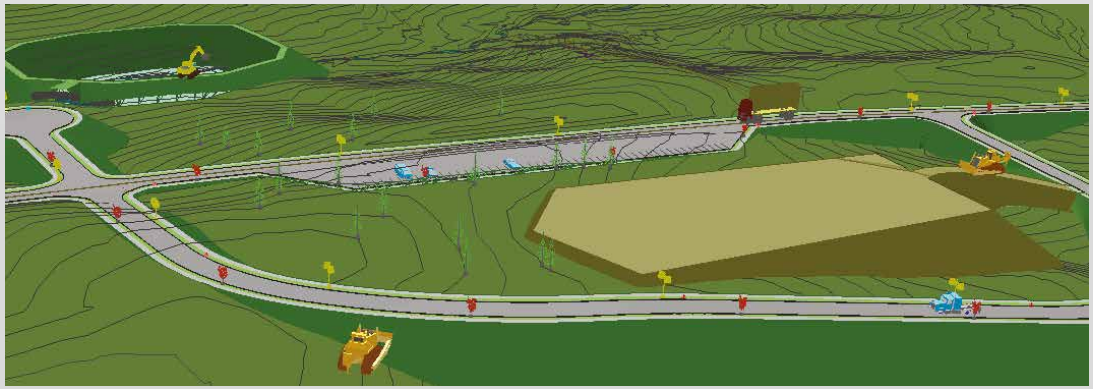
Carlson Civil provides the most robust automation and ease-of-use of any civil design solution available today, and it does dynamic updating without a single custom object. What might take days with other civil software takes just hours, or even minutes, with the powerful, intuitive Carlson Civil:

- **Road NETwork.** Build all roads, intersections and cul- de-sacs in 2D and 3D with a single click of the "PROCESS" button.
- **Site NETwork.** Elevate your estimating accuracy with this intuitive layer-based surface generator for easy cut/fill and material quantities calculations.
- **Lot NETwork.** Quickly define an entire subdivision of lots based on an outer boundary, interior ROWs or Centerlines, and a simple set of user-defined "rules," then pick "PROCESS" and the lots appear, defined and labeled.
- **Parking NETwork.** Easily and efficiently design parking lots in 3D.

With Carlson's fully dynamic design environment, its trademark "networking," changes made to one aspect of design are reflected in all other related aspects. Plus, Carlson Civil users get true 2D, easy-to-use 3D, intersection design, multi-baseline road networks, lot layout, storm and utility analysis and design, plus much, much more.

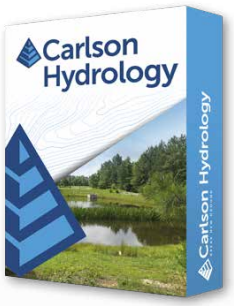


Road NETwork: Approach to Over-pass with Cloverleaf, Trapezoidal Ditch



Carlson Hydrology

Complete Hydrologic & Hydraulic Solution

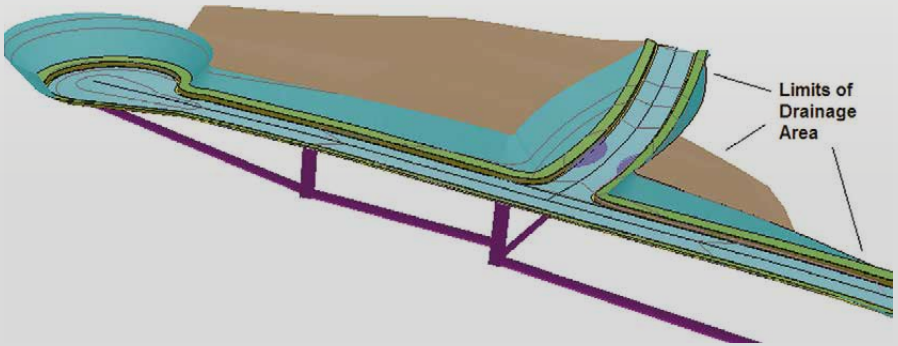


Comprehensive, yet easy-to-master, Carlson Hydrology provides the automation to meet your hydrology needs and all in the CAD environment of polylines, text, and layers. Full 3D road and lot design feed directly into flow calculations and drainage design.

Top attributes include:

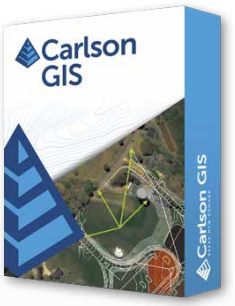
- Site Drainage-using either Rational or SCS Method
- Runoff Analysis to determine watershed area, time of concentration and peak flow rates
- Storm Drain System design and drafting
- Pond, culvert, channels, and outlet design and sizing
- Extensive libraries on rainfall, inlets, manholes, outlets

Carlson Hydrology provides a system-wide stormwater solution in 3D, offering enhanced 3D options plus a command to run multiple rain events at the same time. The software also provides warnings for collisions, excessive pipe lengths, insufficient cover, lack of slope, excessive flow rates, and more.



Carlson GIS

Put Your Designs on the Map



With tools for data capture and linking, data labeling, import/export of SHP files, polygon topology creation and analysis, and more, Carlson GIS is a true GIS "Swiss Army Knife" for the surveyor or engineer. The routines for managing aerial images enable users to improve the quality of the geographic positioning of their designs.

With Carlson GIS' powerful GIS automation, users can input, edit, label, inspect, and report GIS data to entities via simple tools, in addition to obtaining topographic and planimetric features from county databases.

Other attributes include ability to:

- Import images and terrain from both Google Earth and Esri®
- Perform preliminary engineering and hydrologic studies, and planning analysis
- Drape images on 3D surfaces and view in 3D
- Handle large image areas and adjust the resolution
- Import GIS layers as linework with GIS data with Web Feature Service (WFS)
- Use Web Map Service (WMS) to place images from Carlson Image Server or user-specified server

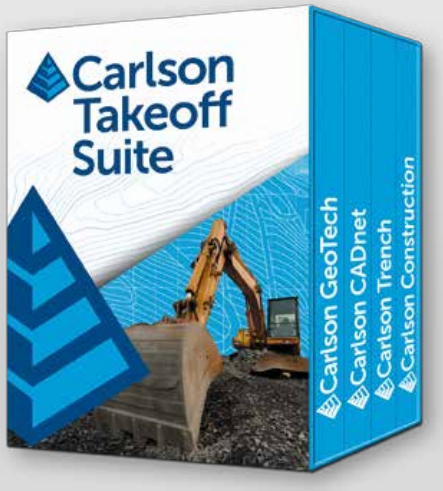

Our GIS module has a collection of routines for managing aerial images

Carlson Takeoff Suite

Carlson Takeoff is a cut/fill volumes and data prep (for layout or machine control) solution that can estimate jobs using paper plan digitizing, PDFs, or electronic CAD files. It is available in two configurations--Takeoff OEM (comes with AutoCAD engine built-in) and the Takeoff Suite, comprised of Carlson Construction, CADnet, Trench, and GeoTech (see following).

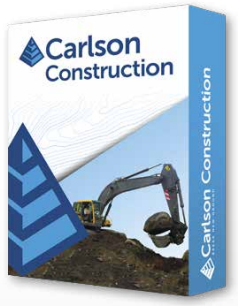
Carlson Takeoff is the only estimating software that works in the .dwg environment natively, which gives its users a distinct "CAD Advantage" when estimating from an engineer's electronic files.

The Takeoff OEM has all of the same ingredients as the Takeoff Suite, which works on AutoCAD sold separately, or with IntelliCAD built-in. The Takeoff Suite's four modules are all fully integrated with Carlson Civil and Hydrology to meet the variety of customers' needs.



Carlson Construction

For Estimating & 3D Modeling

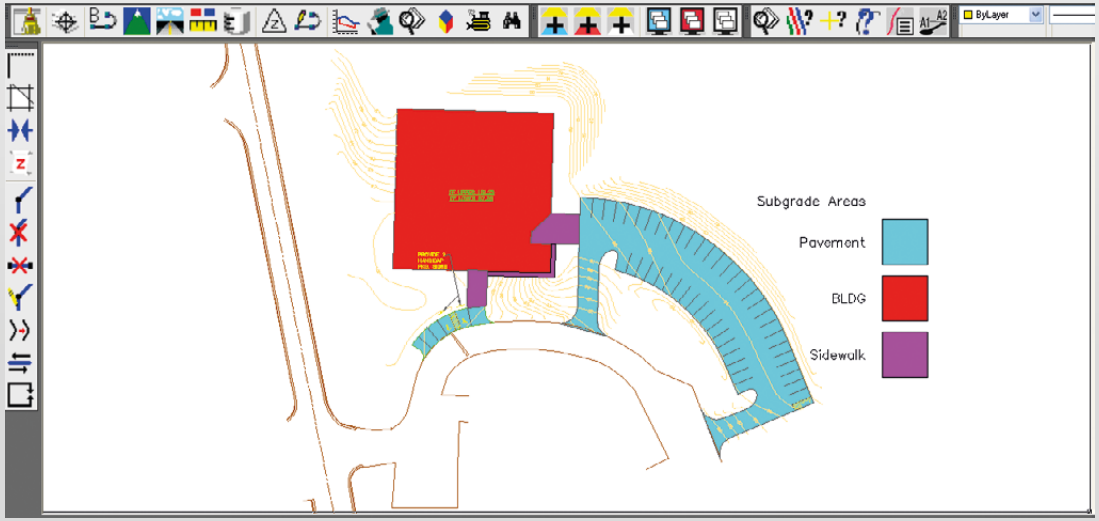


Carlson Construction is an integrated cut/fill takeoff and 3D surface modeling software solution designed for site and road construction from CAD files. It offers powerful section and 3D viewing tools for elevating 2D designs to 3D model files.

Core Abilities:

- Cut/Fill Estimating
- Output 3D Machine Control Files (Carlson Grade, Trimble, CAT-Accugrade, Leica, and Topcon)
- Output Construction Staking files for site, roadway, and building columns and offsets
- As-Built Mapping

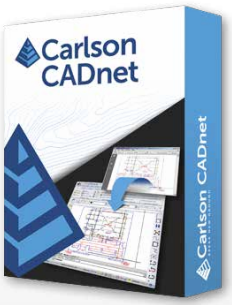
Carlson Construction's Material Quantities Reports give estimators the volume, area, length and/or count for items such as asphalt, gravel, curb, or any "subgrade" or "select fill" that's defined. For construction data prep, Carlson Construction creates surfaces from points and contours and can easily move lines from the "wrong" elevation and slope to the correct elevation and slope.



Subgrade Color Map

Carlson CADnet

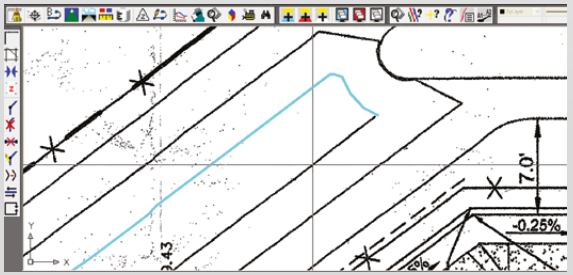
Create CAD from PDF, BIM, and more



Carlson CADnet allows users to create CAD from non-CAD documents such as PDFs, raster images, and paper plans. CAD text can also be generated from raster images with CADnet's built-in Optical Character Recognition (OCR).

With Carlson CADnet, users can access a full set of digitizing routines for: Points, Polylines, Areas, Contours, Profiles, Sections, End-Areas.

CADnet gives users the ability to import BIM models (doors, windows, walls, roofs, etc.) and bring them into CAD as CAD entities; plus, CADnet includes a routine to export surfaces into BIM.



PDF Auto Trace

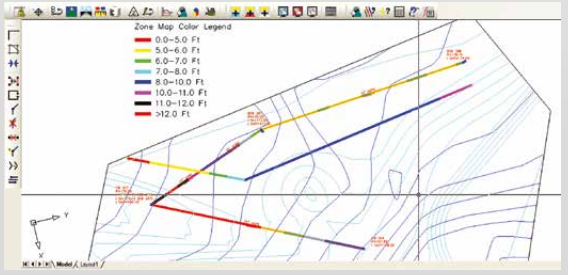
Carlson Trench

For Trench Quantities & Modeling

Carlson Trench is for calculations related to installing pipes, sewers, or utility lines. The software calculates the volume of the trench cut, the volume of backfill (excluding pipe size), and the linear footage of pipe broken down by the pipe material, size, and/or depth.

Core capabilities in Carlson Trench include:

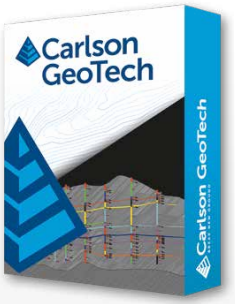
- Calculates trench excavation and backfill quantities
- Draws trench network in plan view, profile and 3D
- Automatically adjusts trench design based on pipe size
- Produces Trench Reports including Manhole Depth Summary, Pipe Length By Size, Stations Depth Summary, Structure Details, etc.



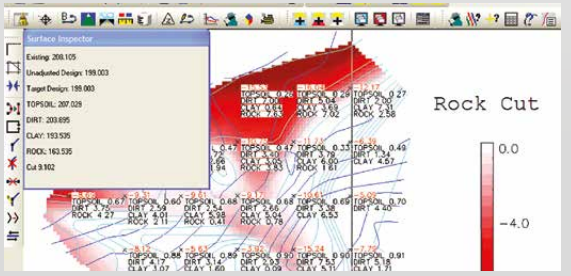
Trench Depth Zone Map

Carlson GeoTech

Know your Strata Cut



Designed for geotechnicians, civil engineers, and construction professionals, Carlson GeoTech provides the ability to import borehole data for analyzing subsurface conditions and materials. It models all core samples, producing a detailed, easy-to-read report for drill logs, cross sections, and plan view. This information is fully integrated with Carlson Civil, for determining site stability and suitability, and also Carlson Construction, for accurate strata takeoff estimation.



Strata Cut Map

Carlson PhotoCapture

Surveyors,
Meet the Newest Tool in Your Kit

Aerial surveying is rapidly becoming a vital part of any surveyor's toolkit. Thousands of people use drone site flyovers every day to help boost efficiency and lower costs.

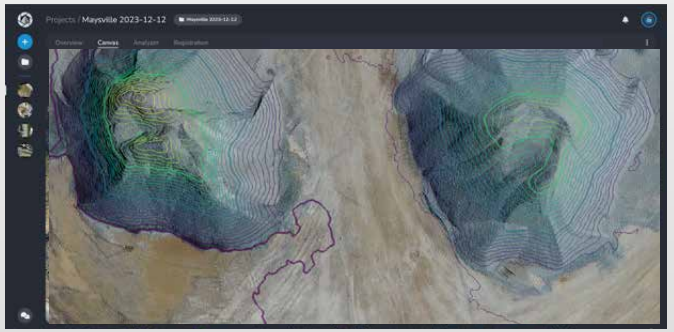
With Carlson Photo Capture processing, you can use flyover data to:

- Instantly generate interactive 3D maps of sites
- Capture highly accurate 3D site data from any camera
- Share site maps with customers -anywhere, anytime!
- Save man-hours in the field

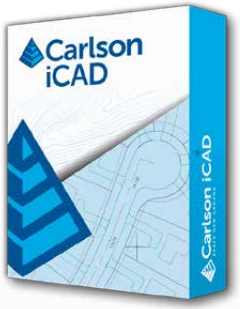
Available in both cloud-based and standalone desktop versions, PhotoCapture meets the needs of today's professionals.

Powerful Features:

- View and edit your 3D map the minute it's done uploading
- Capture the full 3D layout of your land from any camera angle
- Composite an accurate map from multiple flyovers
- Turns pixels into accurate 3D models of your worksite
- Set control points to fine-tune the accuracy of your survey data
- Get topographic elevations of landscape features with just a click
- Show your 3D job site to customers and employees with our web app
- Instantly calculate the mass of any feature to learn how big your project is
- Get precise location-based data no matter what state you're in



Carlson iCAD

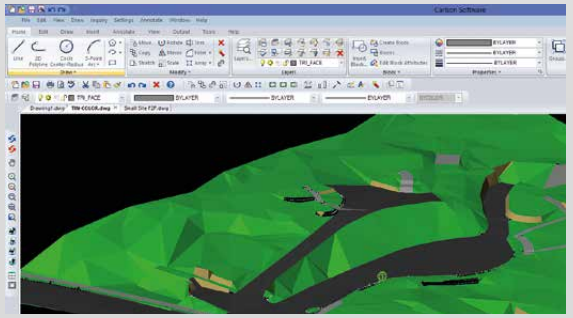


Simple but Powerful CAD solution

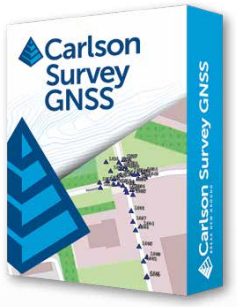
Carlson iCAD is an affordable CAD program that is .dwg file based and designed to fit into your production workflow. Carlson iCAD allows drafters to finish drawings and engineers to review drawings.

Key features include:

- 2D and 3D CAD package
- Based on .dwg, .dgn file
- Built on IntelliCAD® 11 engine
- Carlson Software drafting and annotation tools
- Perpetual license & free tech support
- Open/Save .dwg, .dgn and .dxf files: Supports AutoCAD® 2018 and earlier formats
- Plot: Output to printers and PDF
- Google Earth: Import and Export KML/KMZ
- Civil 3D: Convert Civil 3D custom objects to standard CAD entities
- Xref: Manage external references
- Drawing Utilities: Functions include spell check and purge



Carlson SurveyGNSS

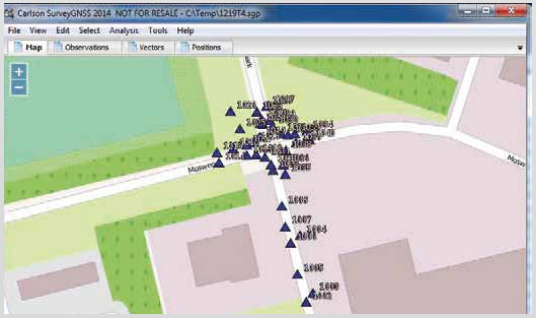


For all your Post-Processing needs

Designed for surveyors and positioning professionals, Carlson SurveyGNSS is a simple, yet powerful post-processing software that achieves high accuracy results for computing quality vectors and resultant positions.

Key features include:

- Import GNSS observations from any GNSS receiver in RINEX and other proprietary formats
- Achieve high accuracy results in areas with limited or no real-time corrections
- Get intuitive user interface with tables, maps and graphs
- Interact efficiently with Carlson SurvPC and Carlson office software
- Do quality control of GNSS data before export to Survey or GIS software



Stop and Go rover points for topo survey

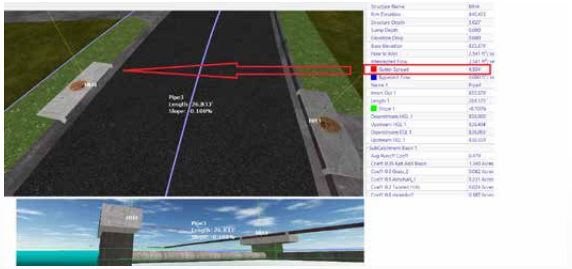
Carlson Precision3D Hydro

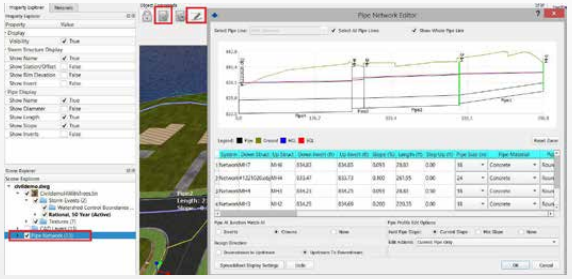
Powerful 3D Design, Traditional CAD Deliverables

A smart, new software, with game-like ease of use, providing users tools for rigorous, precise engineering in 3D.

- DynamicCAD automated plan and profile CAD design documentation
- Speed design with revolutionary drag and drop options for selecting headwalls and endwalls
- Delineate drainage and ponding areas
- Calculate runoff from surface models
- Size culverts and place at low points
- Curb Line Snap and low point snap for fast inlet placement
- Robust drainage structure library and the ability to customize their dimensions
- Grade surfaces for both upstream and downstream designs
- Move culverts and headwalls to new locations with full dtm restoration
- Choose from multiple barrel options
- Integrate easily into Carlson Civil Suite, AutoCAD and Microstation

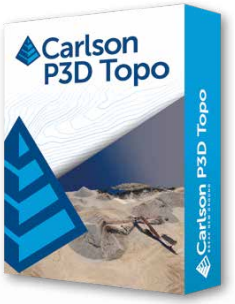
Carlson Precision3D provides the analytical tools to design with ease in a 3D environment while creating your CAD deliverables seamlessly and simultaneously.





Carlson Precision 3D Topo

Bridge the gap between drones and CAD

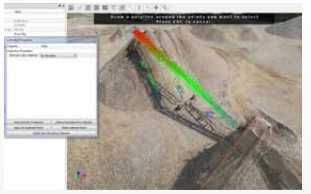


Designed for use by surveyors, civil engineers, and contractors, Precision 3D Topo allows users to import survey data, points, polylines, surfaces, point clouds, both traditional LIDAR and aerial drone survey data, and more from a wide variety of programs and entities to create usable 3D surfaces.

- Importing Point Cloud data from Lidar and Aerial Drone mapping.
- Merge and edit point clouds to create surface models.
- Import survey data to further refine surface models.
- Powerful surface Editing tools to perfect surface models. Including Google Maps photographic background, automated Google surface creation.
- Easy surface volume tools directly from point clouds or surfaces.
- Advanced Texturing and Presentation Tools
- Import / Export all data as LandXML, DXF, and Surface Models as TIN, TN3, and TTM.

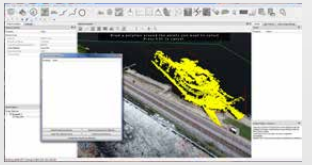
Import Point Cloud data from Lidar and Aerial Drone mapping.

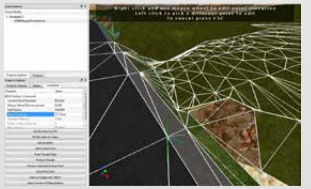
- Import up to 50 point cloud files at once
- Bare earth classification filter .las, .laz, .ply, .xyz, .pts, .e57, .pcd files
- Remove outliers
- Apply thinning factor
- Automatically merge clouds.



Once the point clouds are loaded use the powerful editing tools.

- Point Cloud point selector tool for crop, delete, with the ability to create a totally new cloud from a the selection.
- Save point cloud to LAS/LAZ version 1.2, 1.3 and 1.4 including coordinate projection WKT.
- Merge multiple point clouds together.
- Crop point cloud to smaller area.
- Delete point cloud points.
- Crop/delete points using polygons.
- Remove trees, vegetation, cars, building using baregound filter.
- and much more....



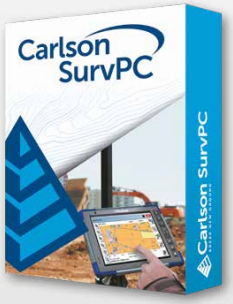


Carlson SurvPC

The data collection software for the professional surveyor

With SurvPC you are using the most flexible, powerful software on the market to get your work done in the most efficient and productive way.

SurvPC supports the most hardware with the largest driver library available anywhere, including RTK GNSS receivers, Total Stations, rangefinders, and even Sonar for hydrographic surveys. Many models are supported from: Altus, Ashtech, Carlson, Geomax, Leica, Pentax, Sokkia, Spectra-Precision, Topcon and many more...

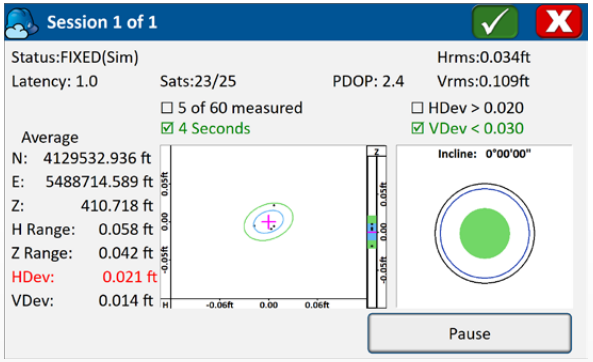


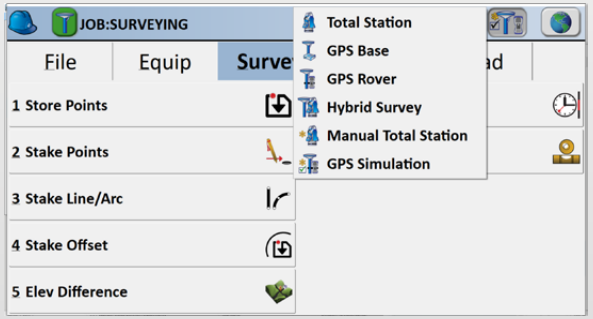
Carlson SurvPC combines advanced functionality, ease-of-use, and sheer capability with excellent service and technical support to make it surveyors' first choice in data collection software.

This complete data collection system for Real Time (RTK) GPS and total stations with in-field coordinate geometry supports the widest range of popular and new release RTK GPS and conventional/robotic total stations.

These powerful features help you do more, do it accurately and in less time:

- **User interface:** Carlson SurvPC is designed for field use under all conditions. Simple interfaces and a large virtual keyboard, has made entering data even easier
- **Powerful Roading:** favored by U.S. DOTs and heavy highway contractors around the world
- **Advanced functionality** for staking intersections and culde-sacs using Carlson Road Network Files
- **Highly graphical** and intuitive **user interface** – the software prompts you so no detail is missed
- **Strong GIS features** for accurate data capture, including attribute data, that allows seamless links to Esri® and ArcGIS Online integration
- **True versatility:** SurvPC runs on most GPS and total station equipment models in service today
- **Optimal Field-to-Finish:** no need to spend extra hours in the office to make drawings
- **BIM support:** for viewing and 2D/3D staking (IFC and RVT)
- **Easy data exchange** due to rich support of CAD file formats and .dwg, .dgn, .shp
- **More field capabilities** with quick and easy volume calculation and ability to generate points from polylines
- **GNSS advanced averaging:** graphical averaging with full data visibility
- **SurvNet least squares:** perform least squares adjustments in the field
- **Cut/Fill stakeout** using surface files
- **Total station monitoring**



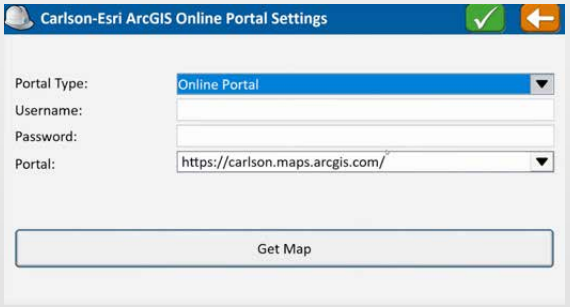


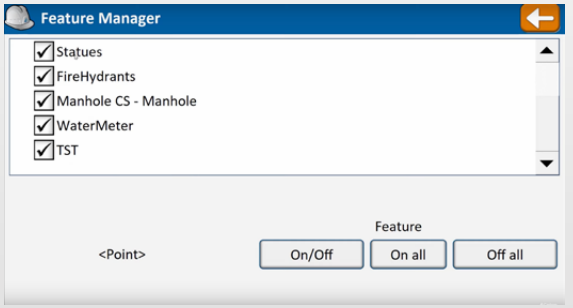
SurvPC and Esri® ArcGIS Online databases

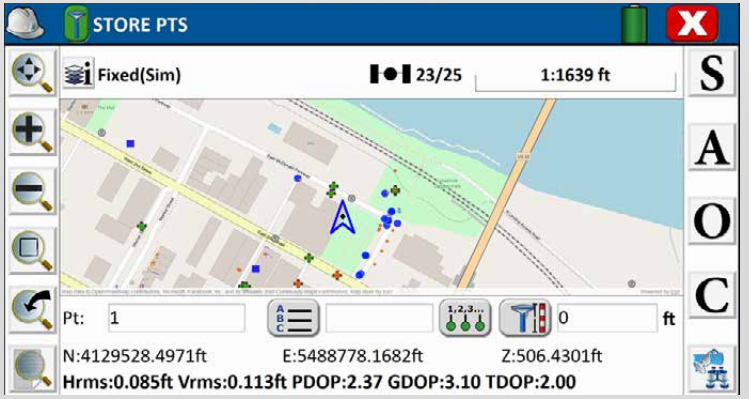
Work directly with an ArcGIS Online database with Carlson SurvPC

Esri ArcGIS Online databases can be accessed directly in SurvPC, allowing live updating of Esri® maps for municipalities and water boards, utilities, state or national governments, or anyone else using ArcGIS Online.

- Work in the Esri ArcGIS format natively
- Add new features or locate, identify or draw to any existing Esri feature
- Apply the powerful SurvPC surveying features such as GNSS averaging and Field-to-Finish directly to Esri data
- Use any hardware SurvPC supports
- Product Esri and CAD deliverables simultaneously
- Esri maps are updated securely and in real time
- Fast, simple coordination with teams and clients







Carlson Hybrid+

Combine the strengths of laser and GNSS while surveying

With a Carlson BRx7 or RTk5, a Carlson CRx or any supported robotic total station, and a special prism, Hybrid+ adds the ability to combine the best of laser and GNSS surveying together in real time.

Features include:

- **Follow Me:** An alternative to optical tracking, follow Me continuously turns the total station towards the prism using the GNSS location.
- **Smart Lock:** Automatically detects when you are slowing to take a measurement and locks on the prism
- **Smart Staking:** Use the GNSS receiver as you make your way to your stakeout point; when you get close, the total station will automatically turn and lock on the prism for final staking precision

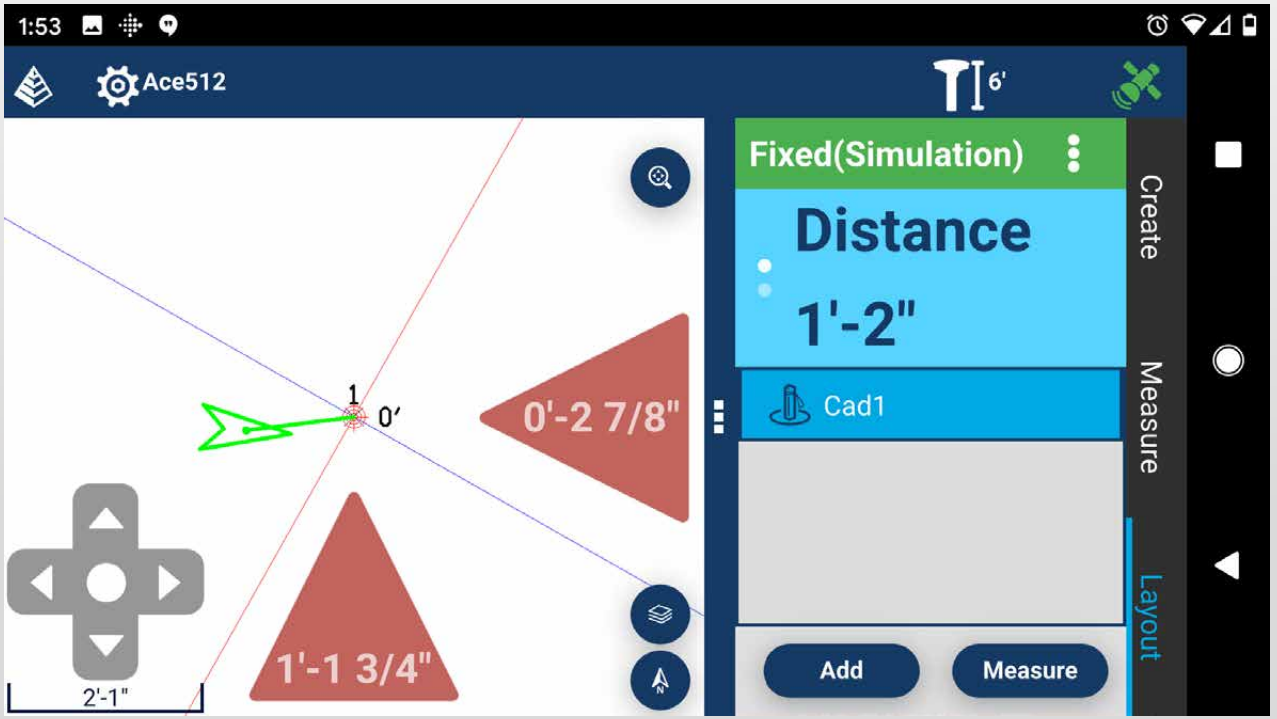
- **Cross Check:** SurvPC will automatically cross-check your total station and GNSS positions and warn you when they differ
- **Hybrid-Resection:** Setup anywhere using GNSS positions to calculate the total station occupied point and orientation; measurements from the GPS and RTS are time-synchronized for an accurate and simple one-tap resection measurement

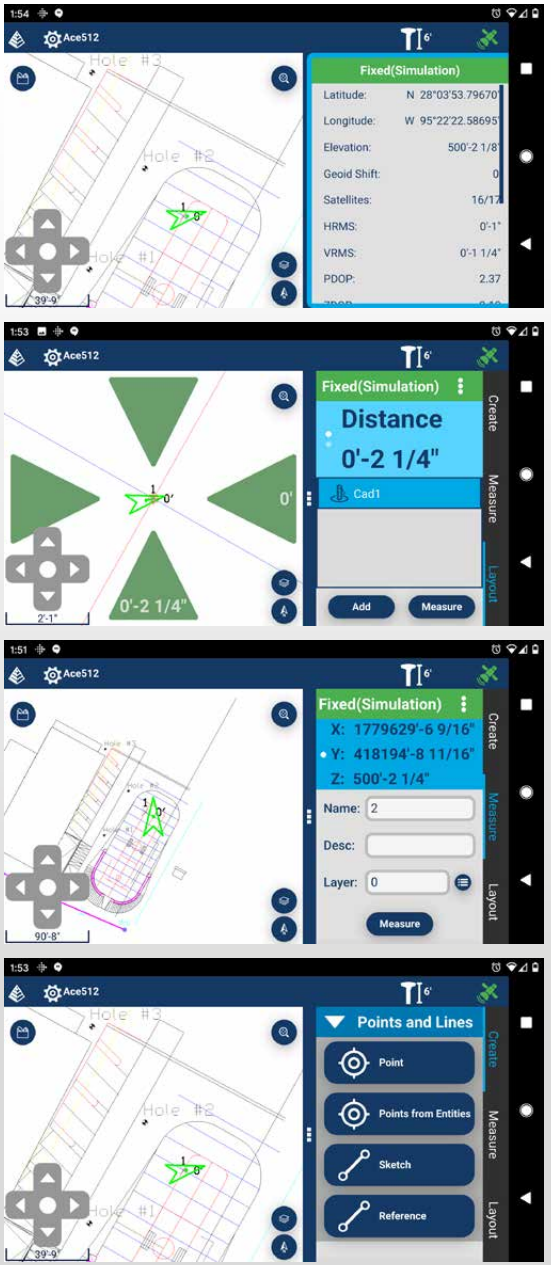
Carlson Layout®

Fast, Efficient Software for the Construction Layout Professional

Spend less time learning software and more time getting the job done with Layout's intuitive user experience

- **ANDROID BASED**
  The Android platform allows **stability** and **performance** while operating on a wide range of mobile and tablet options
- **THE LARGEST DRIVER LIBRARY ANYWHERE**
  With the full Carlson driver library, Layout delivers the widest range of hardware options available anywhere
- Full support for **DXF** and **DWG** files through the all-new mobile IntelliCAD engine
- Supports the full **Carlson projection library**
- Compatible with **Carlson CRD** and **CRDB** files
- Integration with **Google Drive** and other cloud storage for simple file handling
- Get **GPS RTK** connections from a cell phone, internal modem, internal radio, or external radio
- Simple, two-tap layout for points, lines, and surfaces
- Powerful reporting options to get your deliverables out the door
- Easily check surface or fixed elevations without creating points





Carlson RT4+

Rugged Tablet

The Carlson RT4+ is designed for surveying, stake out, construction layout and GIS mapping and is bundled with Carlson SurvPC – the Windows-based data collection program.

Key Features

- 16 GB RAM & up to 256 GB flash storage
- Intel N200 3.7GHz processor running Windows 11
- All-day battery runs up to 15 hours for minimal downtime
- Operates in extreme temperatures from -20°C to 50°C (-4 F to 122 F)
- Long-range Bluetooth® Smart Ready, Wi-Fi®, USB connectivity, 13 MP rear and 5 MP front cameras
- 4G LTE multi-carrier capable
- 135-channel GNSS receiver
- Dustproof & waterproof (IP68 rating)
- Designed to MIL-STD-810G for ultra-ruggedness
- 2-year warranty
- Large, 7-inch display for easy viewing
- Chemically-strengthened Dragontrail™ glass for excellent impact and scratch resistance

Carlson RT5

Rugged Tablet

The Carlson RT5 is a fast, rugged tablet designed for in-the-field use with Carlson SurvPC.

Key Features

- Powerful Windows 10 for office-to-field use
- Plenty of memory - 8 GB RAM and 256 GB flash storage
- All-day battery runs 10+ hours for minimal downtime
- Optional 15+ hour battery
- 5-minute battery hot swap
- Long Range Bluetooth®, Dual-band Wi-Fi®, USB 3.0 connectivity, 4G LTE
- Operates in extreme temperatures from -10° C to 50° C (14 F to 122 F)
- Dustproof & water resistant (IP65 rating)
- Designed to MIL-STD-810G for ultra-ruggedness
- 3-year warranty
- Large, 8-inch display for easy viewing
- 800 nits (cd2/M) brightness provides extraordinary visibility
- Capacitive touch screen with digital pen support

Carlson RTk5

Lightweight, Powerful Tablet & GNSS Rover

The Carlson RTk5 adds an advanced GNSS solution featuring Carlson's RTK engine, Gama, to the RT5 ruggedized Windows data collector. Designed for surveying, stake-out, construction layout and GIS mapping, the RTk5 is a lightweight, versatile GNSS solution that can be used with the included survey pole and antenna or with a direct-connect antenna.

Powerful GNSS Capabilities

- Advanced multi-frequency, multi-constellation (GPS + GLONASS + Galileo + BeiDou + QZSS) RTK GNSS performance
- Carlson's Gama RTK engine provides the highest level of certainty

Performance

- Powerful Windows 10 for office-to-field use
- Plenty of memory - 8 GB RAM & 256 GB flash storage

Expandable Battery

- All-day battery runs 10+ hours for minimal downtime
- Optional 15+ hour battery
- 5-minute hot swap

A Superior Field Solution

- Balanced & ergonomic; 25+% lighter than typical GNSS setups – 6 lbs (2.7 kg) with tablet, cradle, pole, and antenna
- Gather live, centimeter-level positions directly into an Esri database with zero post processing
- Operate handheld without a pole (only 2.6 lbs/ 1.18 kg) using a direct-connect helix antenna for fast GIS work with cm-level accuracy
- Long Range Bluetooth®, Dual-band Wi-Fi®, USB 3.0 connectivity, 4G LTE
- Prism available for Hybrid+ surveying

Field-Tested Rugged

- Operates in extreme temperatures from 14F to 122F (-10° C to 50° C)
- Dustproof & water resistant (IP65 rating)
- Designed to MIL-STD-810G for ultra-ruggedness
- 3-year warranty

High-Visibility Display

- Large, 8-inch display for easy viewing
- 800 nits (cd2/M) brightness provides extraordinary visibility
- Capacitive touch screen with digital pen support

Carlson BRx7

The BRx7 is Carlson's flagship GNSS receiver

GNSS Technology

The BRx7 features best-in-class RTK performance provided by the Athena GNSS engine, supporting multi-frequency GPS, GLONASS, BeiDou, Galileo, QZSS, IRNSS, and Atlas L-band capability. Users will experience fast initialization to Fixed RTK, as well as stable and repeatable performance in varied conditions thanks to its SureFix® RTK quality indicating technology. Magnetic interference-free tilt capabilities allow flexible and accurate surveying, while the 11+ hours of battery life add versatility and productivity. The lightweight BRx7 receiver may be used as a Base or Rover on demand.

Wireless Communications

The BRx7 has an integrated dual-band UHF transceiver with spread spectrum technology, and a Quad-Band GSM LTE modem together with Wi-Fi and Bluetooth for modern wireless capabilities. Carlson's Listen-Listen service allows Base/Rover operation via the cellular modem for better correction transmission ranges. In addition, SurvPC provides the option to utilize the cellular modem or Wi-Fi in the hand-held computer via the SurvPC Data Collector Internet feature.

Field Software

Carlson's SurvPC or Layout software is combined with the BRx7 on an RT4+ or RT5/RTk5 tablet for a full field solution. SurvPC has full BRx7 configuration, system status and data logging via Bluetooth. For improved Quality Control and efficiency, SurvPC features an intuitive Live Digital Level with an auto record option when the BRx7 is level. With SurvPC, users leverage Carlson's expert team to expand features for quality and productivity.

The BRx7 smart antenna expands GNSS capabilities for premium GNSS RTK performance with 800+ channels.

Key Features

- Multi-Frequency GPS, GLONASS, BeiDou, Galileo, QZSS, IRNSS, and Atlas® L-Band
- Best-in-class RTK performance with the Athena GNSS engine
- Internal tilt sensor corrects collected point coordinates to within 2 cm
- Dual, Hot-Swappable Lithium-Ion Batteries for 11+ Hours of Use
- Quad-Band LTE Modem, Wi-Fi, Bluetooth
- 8 GB Internal Memory

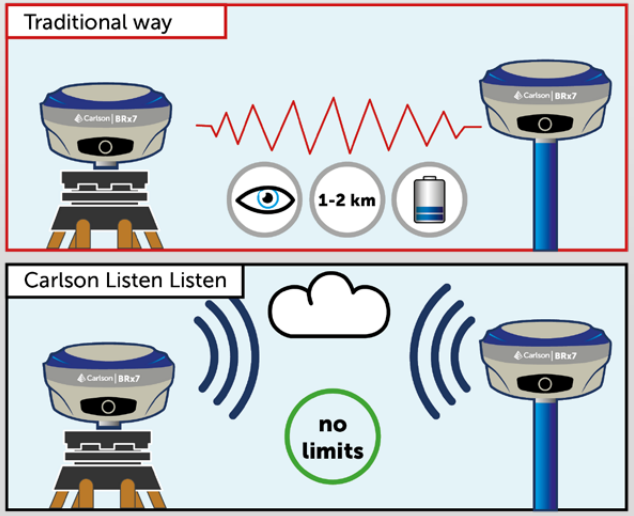
Carlson Listen-Listen

Cloud connect your base/rover

Carlson Listen-Listen is a cloud-based, low latency, high performance service. Carlson Listen-Listen utilizes an internet connection at the base and rover, thus eliminating traditional UHF radio limiting factors.

- Available to Carlson SurvCE/PC customers using Carlson's BRx7 GNSS receiver as a base station
- Multiple rovers can simultaneously connect to a base using Carlson Listen-Listen
- Hosted through Amazon Web Services for unlimited processing power, speed and bandwidth
- The system eliminates base line length restrictions encountered when using UHF radios

Carlson Listen-Listen is available by subscription and is easy to use and configure. The internet connection can be provided by fixed line broadband, a WiFi or MiFi dongle, or a gprs modem in the GNSS unit or data collector. A fixed or static IP address sims is not required.



Carlson SkyNet RTN

Annual RTK Correction Plans With Centimeter-Level Accuracy

Total GNSS Freedom – Nationwide Coverage, 1 Login, 1 Price

Carlson SkyNet RTN provides national RTK network coverage for Carlson SurvPC/CE and Carlson Layout users through annual plans, all with simple setup, high performance, and affordable pricing.

- Affordable, simple plans for RTK coverage in the US, EU, UK, CA and AU – global corrections from a single network
- Convergence times <5s
- 1400+ Base stations; 99.99% uptime
- 5-minute setup with a single NTRIP mountpoint
- Highest overall density of US corrections networks – top 50 US cities all have 4+ stations
- GPS, GLONASS, Galileo, BeiDou with 3-frequency support

SkyNet RTN

Free 14-day trial – test out SkyNet RTN in your area and conditions before any commitment!

carlsonsw.com/skynet

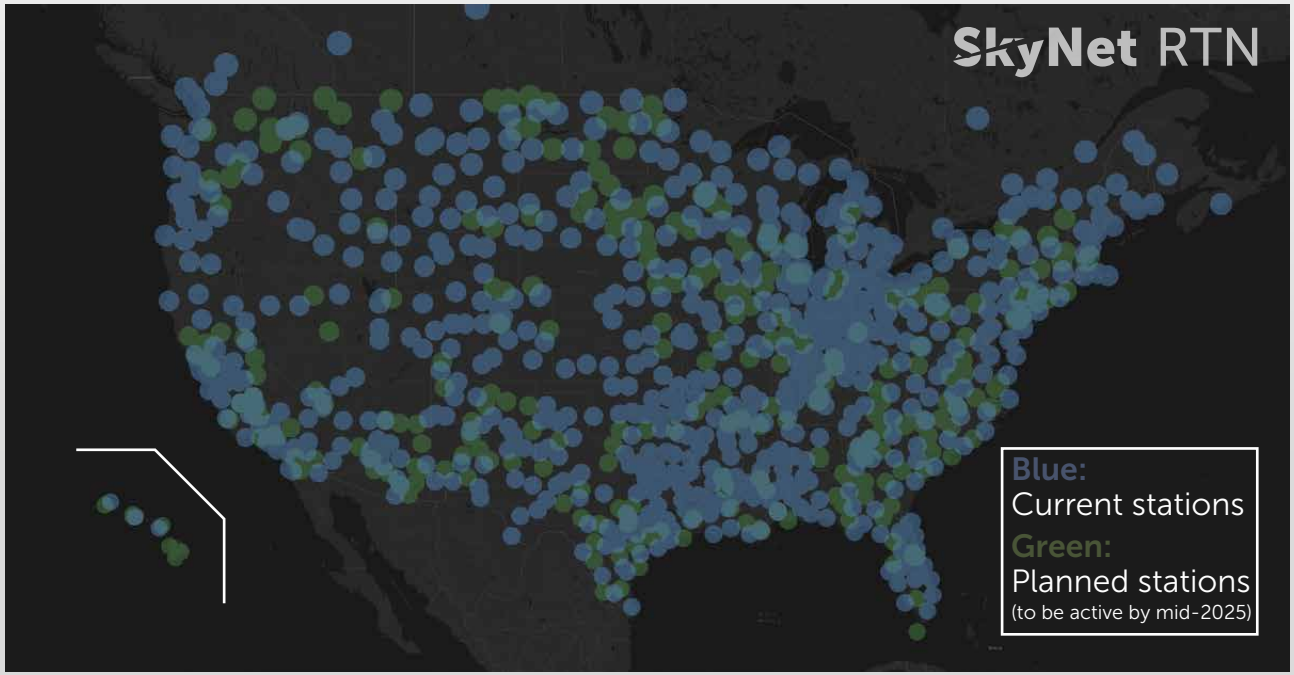


Photo Courtesy Andrew Yamashita, PLS
Becker & Miyamoto, Inc., Los Angeles, CA


Carlson

Carlson CRx Series
Robotic Total Stations

Advanced Technology

With a 5” touch screen, a more powerful processor for large files, automatic data backup, and the advanced positioning technology of STReAM360, Carlson’s super-reliable CRx robotic total stations provide the most efficient way to survey.

- X-MOTION™ Hybrid Drives
- Scout: Quickly search for passive prisms
- Full Connectivity
- Robust, field-proven package
- accXess™ EDM Technology
- 1”, 2”, 3”, and 5” options

Made for Carlson SurvPC

The CRx series robotic total stations work flawlessly with SurvPC data collection software, and come with an integrated copy of SurvCE installed.

Focused on Productivity

The Carlson CRx series robotic total stations are quick to set up, and are packed with easy-to-use functions that simplify your surveying workflows and provide powerful tools to make you more efficient and more accurate.

Carlson Scan3D

Accurate, Handheld 3D Scanning

Carlson Scan3D is a scanning solution that accurately captures 3D environments using a LiDAR-equipped Apple iOS device or Carlson's RT5 or RTk5 tablets and a RealSense™ depth camera.

Accurate 3D Scanning with Your Carlson RT5, RTk5, or iOS Device

- Instant, mobile 3D scanning of rooms, spaces, equipment, and more
- Highly accurate point cloud data sets comparable to and compatible with larger scale 3D scanning devices (terrestrial, aerial, mobile mapping)
- Advanced targeting and optimization capabilities for highly accurate results
- All local processing! No internet connectivity or cloud computing required

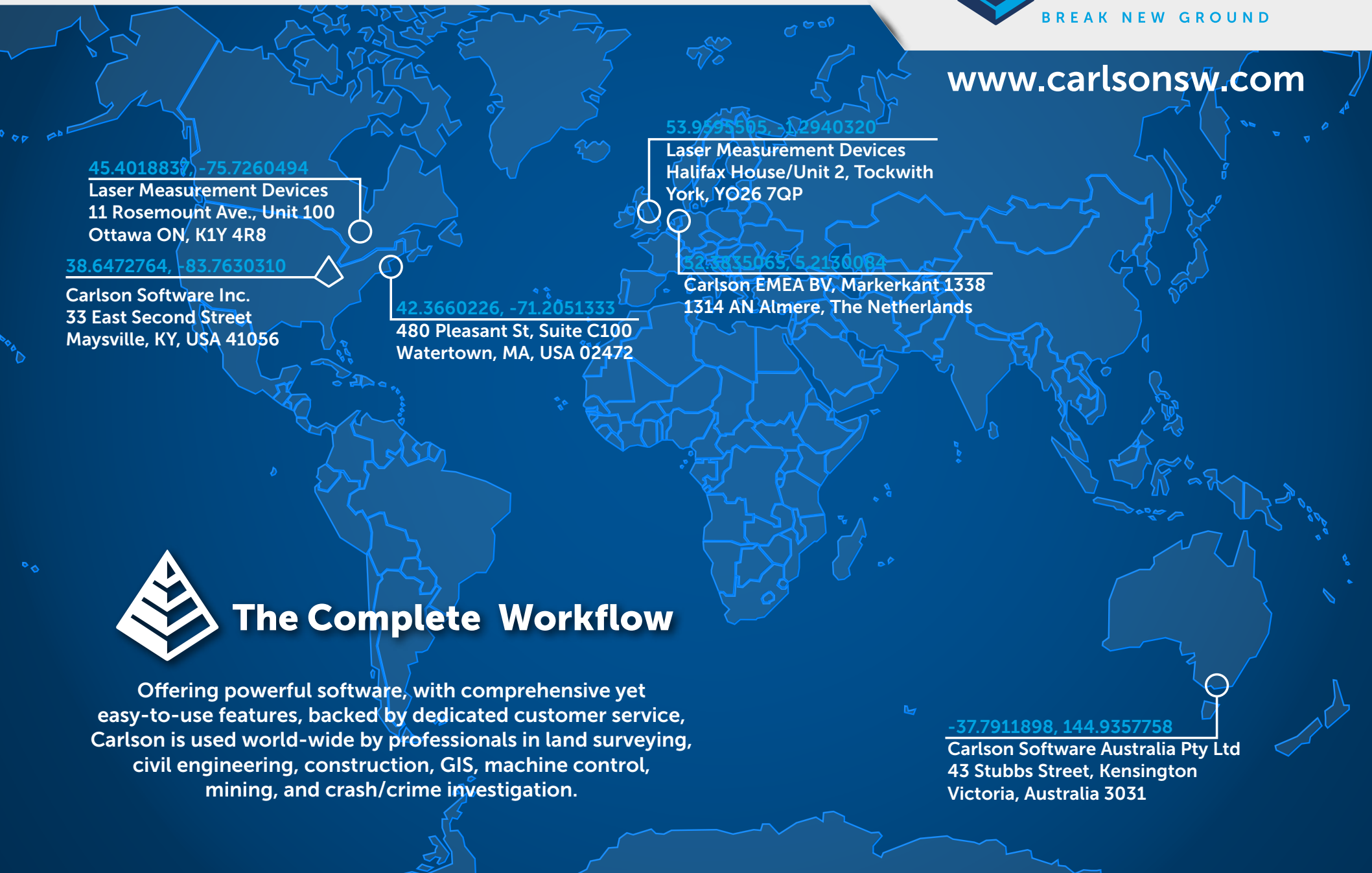
Core Features

- Real-time 3D reconstruction with live quality feedback
- Local data optimization (post-processing) for highly accurate results
- Automatic AprilTag targeting for intelligent accuracy improvement
- Planarity constraints, HD photo capture, and scan-time annotation
- Optional targeting workflows to reference known measurements/coordinates
- Precise, savable measurements of distance, area, volume, and more
- Convenient 3D editing with cropping, filtering, and coordinate system management
- Direct color 3D point cloud export:
- DP, E57, RCS, LAS, LAZ, PTS, PTX, PLY, PTG, POD (RCS & POD Windows only)

Carlson Works for You

Carlson
BREAK NEW GROUND

www.carlsonsw.com



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The Complete Workflow

Offering powerful software, with comprehensive yet easy-to-use features, backed by dedicated customer service, Carlson is used world-wide by professionals in land surveying, civil engineering, construction, GIS, machine control, mining, and crash/crime investigation.