

Carlson Civil Suite 2008

The Complete Solution — Civil, Survey, Hydrology, GIS



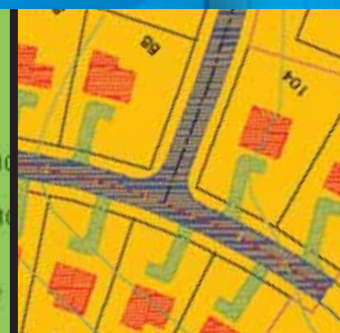
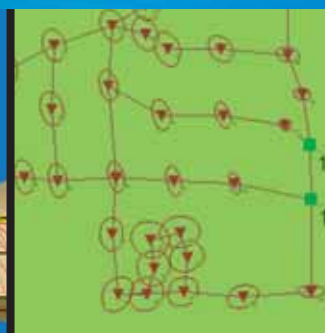
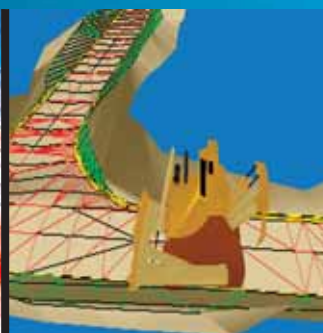
LotNet

SiteNet

RoadNet

SurvNet

StormNet



Autodesk®

Authorized Developer
Authorized Unique Application Reseller
Authorized ISV Partner



Carlson®

...Works Simply ...Simply Works

1983-2008 — 25 Years Providing Quality Software Solutions for Land Development Professionals



CIVIL, SURVEY, HYDROLOGY, GIS

Powerful Automation With the Flexibility You Need

Here's Carlson Software's most powerful collection of programs yet — a comprehensive set of design/drafting tools that automate all facets of the civil engineering project.

If you can imagine it,
Carlson Civil Suite has the industry-leading software tools to make it a reality.

Based on the AutoCAD engine and working in DWG, Carlson's Civil Suite's four solutions — Carlson Civil 2008, Carlson Survey 2008, Carlson Hydrology 2008, and Carlson GIS 2008 — form a complete offering for any civil designer, engineer, surveyor or land planner.

Choose the suite and save if you need all of its powerful solutions. Or, choose them individually, based on the demands of your business. However you use Carlson Software's civil solutions, you'll increase productivity and create better designs.

Work in AutoCAD

Nearly 20 years producing products that work inside AutoCAD from Autodesk® have allowed Carlson Software to produce a product line that works flawlessly inside 27 AutoCAD platforms, including AutoCAD, AutoCAD Map, Land Desktop, or Civil 3D, versions 2000-2008. In addition, Carlson Civil 2008 data can be seamlessly exchanged to and from other civil applications ensuring that your data transfers accurately and eliminating redundant data entry.

Tackle Complex Challenges

Technologically advanced, yet renowned for its ease of use, the Carlson Civil Suite will surprise you with how quickly you'll be able to tackle complex challenges in road, site and subdivision design, including 3D street intersections and cul-de-sacs, with fully integrated hydrology and storm sewer design.

Design Dynamically

The fully dynamic design environment in the Carlson Civil Suite means that changes made in one aspect of your design are reflected in other related aspects. The "Net" in RoadNet, LotNet, SiteNet and StormNet refers to this networking. You can set the controls of this functioning to Automatic, Prompt or turn it off completely. This dynamic response is accomplished with the use of standard AutoCAD entities, giving you a faster operation and a seamless exchange of drawings.





Carlson Software: Advanced Technology and Dedicated Customer Service

Founded in 1983 by Bruce Carlson, PE, PLS, Carlson Software specializes in CAD design, field data collection, and machine control products for the civil engineering, surveying, construction, and mining industries worldwide, providing its customers with one-source technology solutions from data collection to design to construction. Carlson Software is based in Maysville, Ky., with branch offices in Boston, Mass., Atlanta, Ga., Front Royal, Va., and Queensland, Australia. It is renowned for its personal service.

President and CEO Bruce Carlson once served as the primary software developer, salesman, and tech support for the innovative company. He now leads more than 75 employees worldwide and concentrates his efforts on new product design and on-site software demonstrations. Approaching its 25th anniversary, Carlson Software retains a culture of strong customer service and support based on intuitive and feature-rich software.



From the Prime Meridian to Maysville. Pictured here at the Prime Meridian at the Royal Greenwich Observatory in Greenwich, England, are (l. to r.) Dave Carlson, Executive Vice President of Development, Bruce Carlson, President and Founder, and Jim Carlson, Vice President of Sales and Support.

Get FREE Technical Support

Carlson Software continues working for its customers after the sale, providing unlimited technical support available by phone, email, discussion groups, and webcasts. Carlson Software supports all versions of all its products.

Choose Maintenance as Needed

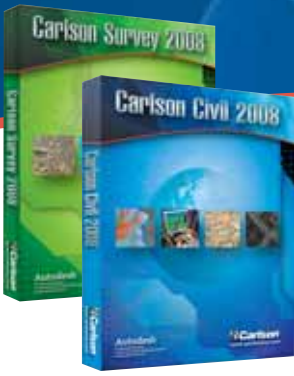
New releases of Carlson Software, filled with customer-driven enhanced features, are available to users on an annual basis. Carlson Software customers are given the choice of paying for an automatic upgrade or deferring that purchase until they deem the upgrade is needed, based solely on the merits of the software's added features.

“Our customers’ satisfaction is our goal. We listen to customer input in order to deliver better, improved software that does exactly what our users need.”

—**Bruce Carlson**, PE, PLS
President and Founder
Carlson Software

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Carlson Civil 2008 LotNet

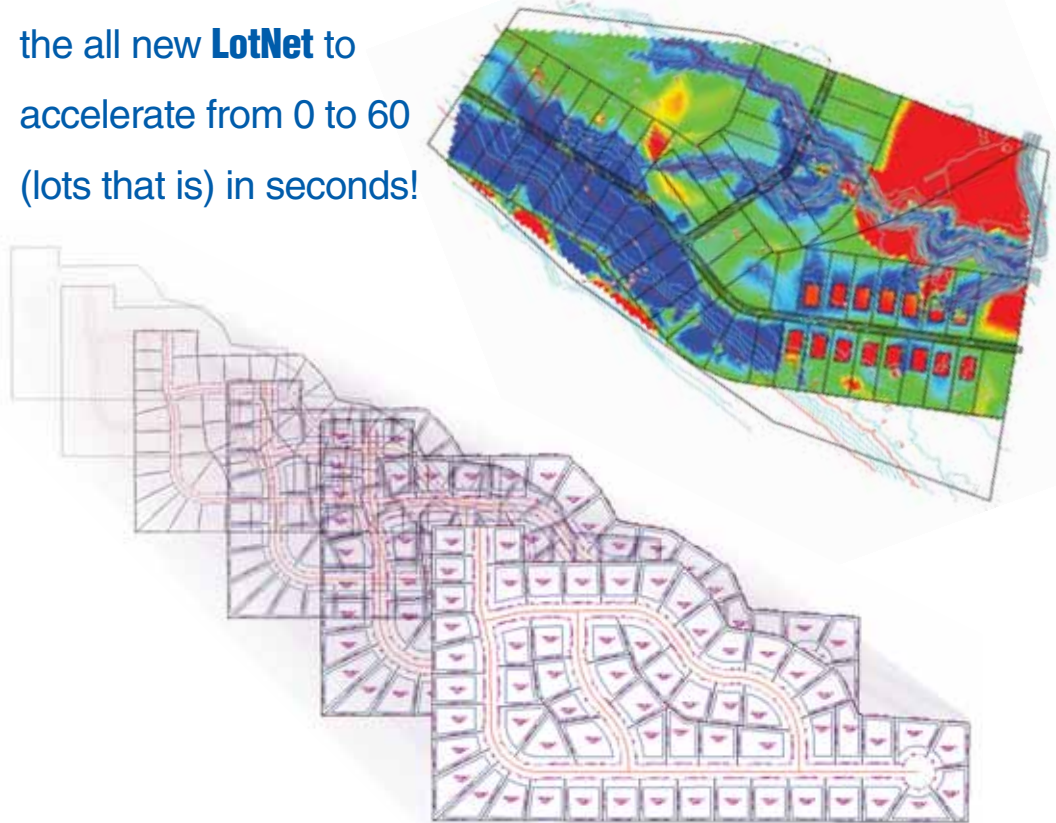
Found in both Carlson Civil and Survey 2008, LotNet is the most remarkable set of tools for automatic rule-based lot layout available anywhere.

Quickly define an entire subdivision of lots based on an outer boundary, interior ROW's or Centerlines, and a simple set of user-defined rules for lot area, frontage, and other key parameters. Pick "PROCESS," and the lots appear, defined and labeled.

Go ahead, change the rules and go from half-acre lots to one-acre lots. Just pick "PROCESS" and the recalculated lot layout is there. Once defined, you can then further edit any lots manually, deleting lot lines, adding lot lines, moving lot lines, and the layout and labeling instantly updates.

We call it the "LotNet Monster" because of its comprehensive, easy-to-use tools for creative area/lot layout, design, editing, reporting, and labeling. Use it to tame the challenge of subdivision planning and design.

Feel the rush as you use the all new **LotNet** to accelerate from 0 to 60 (lots that is) in seconds!





Carlson Civil 2008 SiteNet

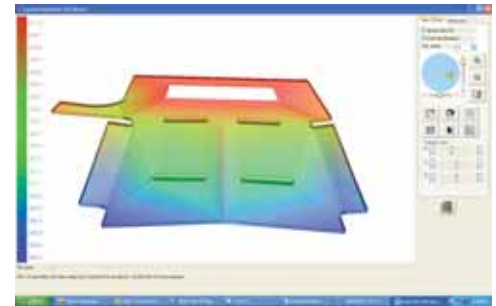
Here's Earthwork as you need it to be: automated, accurate and integrally linked to all of the other design tools in Carlson Civil 2008.

Simply define which drawing layers represent existing conditions, and which layers represent proposed design, and SiteNet generates each surface with a single menu click and calculates volumes with one more pick.

Specific areas of interest for reporting can be defined by closed polylines, as well as special treatments such as topsoil stripping or subgrade excavations. And, all new, you can apply grading rules to accurately balance your cut and fill – a true money saver.

An incredibly powerful aspect of Civil 2008, SiteNet is an intuitive layer-based surface generator and earthwork calculator that will elevate your estimating accuracy, saving you both time and money.

SiteNet is an intuitive layer-based surface generator and earthwork calculator that will accurately elevate your site.





Carlson Civil 2008 RoadNet

RoadNet puts quick, intuitive design tools at your fingertips, saving you time and effort in one of the most challenging areas of design.

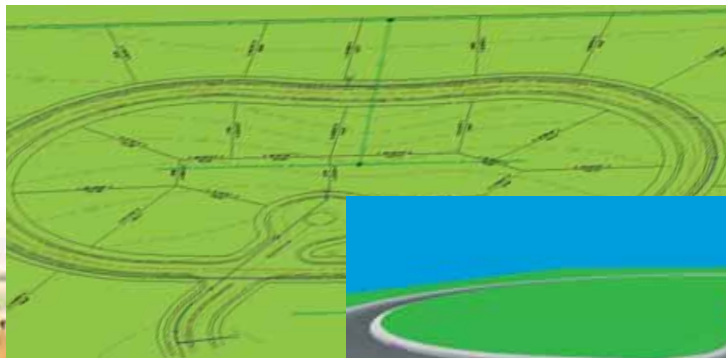
Use RoadNet's exclusive ability to lay out a collection of intersecting roads, process them all together, clean up all intersections and cul-de-sacs in 2D and 3D with a single click of the "PROCESS" button.

The magic continues with edits to the design, horizontal or vertical. Easily add roads, cul-de-sacs, or even roundabouts. Change the vertical alignment of a road and all other roads impacted by the change in the network are automatically updated, as are the corresponding profiles, cross sections, and volume calculations.

RoadNet 2008 allows you to instantly elevate all adjacent lot lines and/or internal pads based on the elevation of a selected feature of the road, like the edge of pavement. Edit the road, pick "PROCESS," and all lots and pads are adjusted!

Carlson Civil 2008 RoadNet – You'll be amazed at how functional and user-friendly it is and how quickly you'll be using it.

Build all roads, intersections and cul-de-sacs in 2D and 3D with a single click of the "PROCESS" button.





More Civil 2008 Highlights

All aspects of Carlson's civil engineering solution, from the most basic to the complex, reflect 25 years of input from a wide variety of professionals from DOTs, highway design firms, residential and commercial developers and designers, contractors, and even the mining industry.

Grading

Carlson Civil 2008 gives you a variety of tools for site grading, including point, 3D polyline, and contour commands, plus a grading mechanism known as Pad Template, which dynamically projects slopes onto an existing surface model. With Edit Pad Template, you get the ability to repeatedly change your design with all surfaces and volumes automatically updating in real time.

Profiles

Quickly generate Profiles of existing conditions in a variety of ways, then take it a step further and view proposed design with a simple and dynamic user interface. With a single screen pick you can add PVI's, and then explore "what if" design ideas with a simple drag and drop. Drawing Profiles uses as many profiles as you want to include – existing, proposed, pipes – followed by an in-depth array of presentation options. You can draw Profiles in Model Space, or span multiple Paper Space Layouts for Plan and Profile sheets.

Cross Sections

You'll be able to produce Cross Sections of existing conditions and proposed design at intervals along a Centerline or at special stations. Use Carlson's robust visual cross section editor or edit your drawn cross sections with standard AutoCAD editing

commands and then update all external data files with a single command. Analyze section data with section volumes, end areas and mass haul.

Centerlines

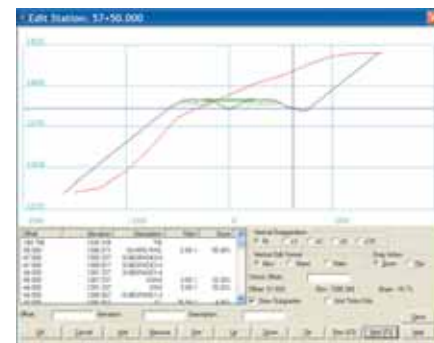
Define alignments with curves and spirals with on-screen design or dialog data entry routines or from selected polylines. Dynamic alignment labels update when the alignment is changed. Centerline tools include creating points by station-offset, labeling and reporting station-offset positions.

Templates

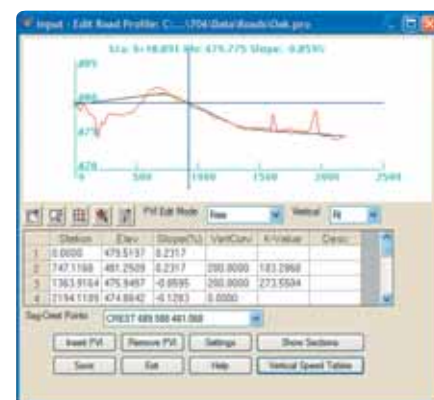
Makes complex template design easier with intuitive icons – pick the element to add, fill in the critical design parameters, and you'll immediately see the revised template as you go. Symmetrical or asymmetrical, customized curbs, multiple subgrades, medians, ditches, berms, simple or complex cut/fill parameters – whatever you need. Once your design is completed, the Draw Template command creates a fully dimensioned and annotated version in your drawing for you.

Pipes

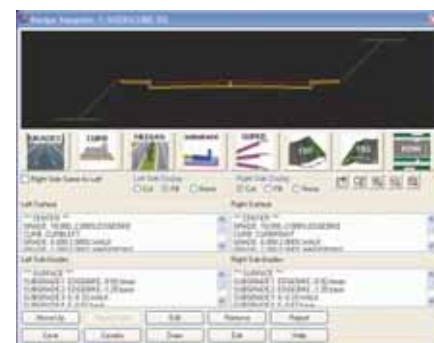
Design and draft pipe runs directly on a road profile or based upon a polyline in plan view. You'll simply enter stations for structures, along with invert elevations, depths, or pipe slopes. Edit with a double click and change the design in any way. Click save and the profile is redrafted using saved settings for the appearance and labeling of all structures and pipes. For a more comprehensive solution, use Carlson Hydrology for its state-of-the-art design and drafting of storm and sanitary pipe systems



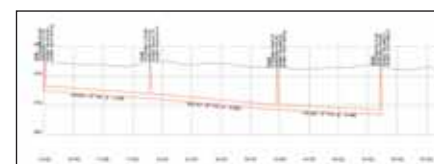
Cross Sections



Profiles



Templates



Pipes



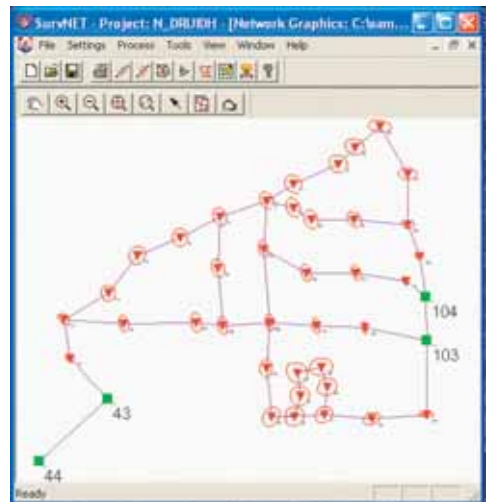
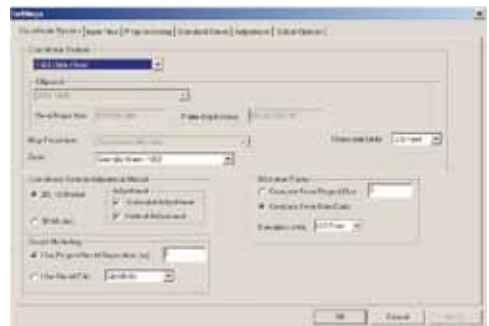
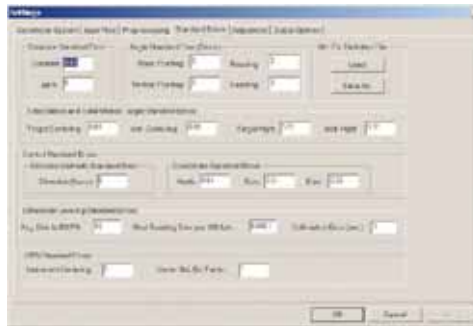
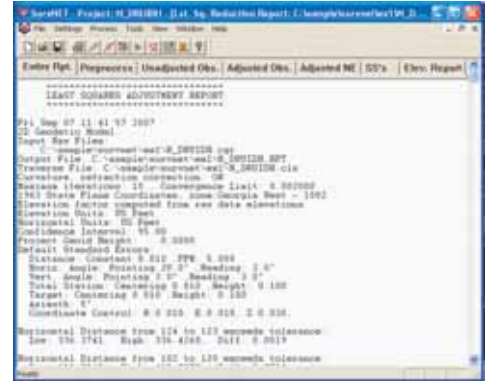
Carlson Survey 2008 SurvNet

The heart and soul of any surveying software package is its data processing and you'll find SurvNet is state-of-the-art.

With SurvNet, you can simultaneously process and adjust networks of traverse, level and GPS data, handling the special conditions of triangulation, resection and trilateration. Plus, SurvNet gives you the ability to process Least Squares Loops and Networked Least Squares Loops in both 2D and 3D. You'll also be able to produce easy-to-understand statistical reports including traverse closures with SurvNet. Graphic windows show traverses, GPS vectors and error ellipses.

Sophisticated blunder detection tools help you track down errors in your raw data. ALTA reports let you know immediately if your survey meets ALTA standards. Raw data editing and data collector interfaces round out this solid, sophisticated program

With **SurvNet**, you can simultaneously process and adjust networks of traverse, level, and GPS data.

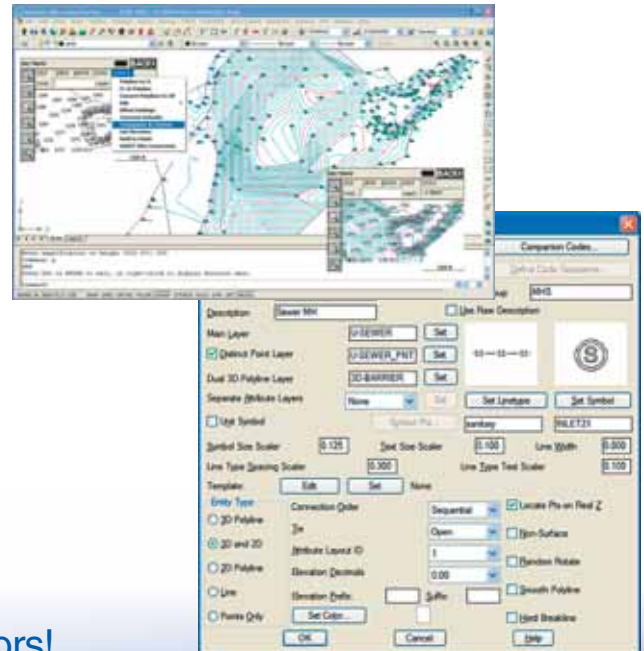




Carlson Survey 2008

When Carlson Software began in 1983, its first goal was to develop the absolutely best software solution for surveyors. Carlson Survey 2008 represents the culmination of 25 years of progress in this complex and precise field of work. With Carlson Survey 2008, you'll get:

- Drivers to connect to essentially every manufacturer's proprietary hardware and software;
- Versatile and intuitive raw data editing and processing;
- Traverse adjustment;
- The easiest and most powerful Field-to-Finish utility for automatic generation of linework and symbol placement;
- Legal description and deed writing and reading; and
- A full compliment of powerful COGO tools for every survey application.



Available in both a 'Standalone' or 'For AutoCAD®' versions, **Carlson Survey 2008** does it all for surveyors!





Carlson Hydrology 2008 StormNet

Let it rain! Your project will be ready when you design a system-wide solution with your choice of fully customizable pipe and structure libraries with Carlson's exclusive StormNet.

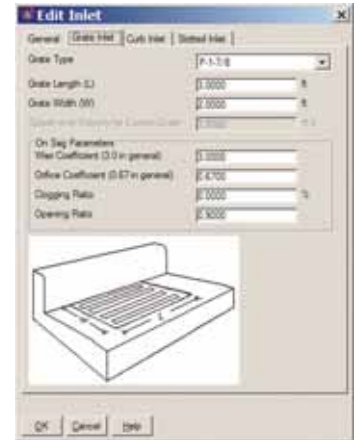
Carlson Hydrology has moved into uncharted territories of automation with StormNet. Add, remove, or move structures, plus change pipe slopes and sizes, and invert elevations, then save those changes and have the profile precisely redrafted while keeping the appearance and labeling you set for all structures and pipes.

Finally, the "unified theory" of DTM, layer recognition and hydrology and hydraulic calculations are available in Carlson Hydrology '08. You don't fill out the blanks to do calculations – now you place your stormwater inlets on the drawing guided by watershed low point and flow line analysis, and let the program compute runoff coefficients from layers, compute the exact catchment area from the 3D model, and run rainfall events through the fully designed system.

So you just don't draw pipes in CAD, you review bypass flow and gutter flow depths, energy and hydraulic grade lines, and "know" that they will work. The dimensioning and design of the inlets and manholes appear in the plan and profile sheets, so all final deliverables are as real as the calculations behind them. Everything views in 3D, and collisions are systematically reported and avoided.

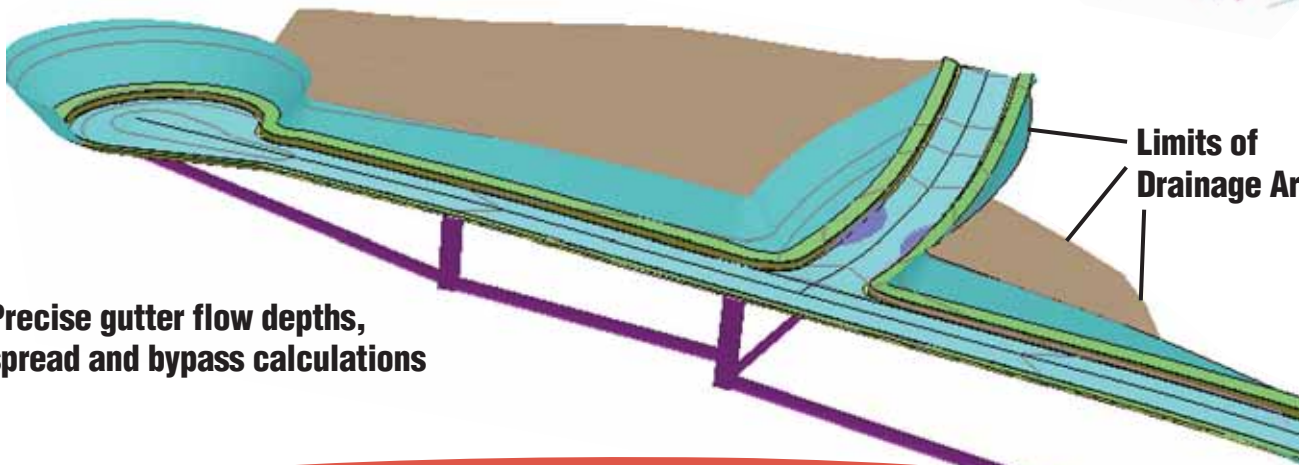
Here's the automation you've been looking for! Full 3D road and lot design feeds directly into flow calculations and drainage design – Carlson Hydrology 2008 means the end of hand entry of runoff coefficients and manual estimates of flows over surfaces.

- Start with Carlson Civil for 3D Street Intersections, Cul-de-sacs, Lot Grading, and Pond/Channel Design.
- Let Carlson Hydrology calculate Runoff Coefficients based on Layers for various road and lot surfaces.
- Continue with Carlson Hydrology to Find Low Points, Locate Storm Inlets and Structures, and calculate precise flows to each inlet based on the Design

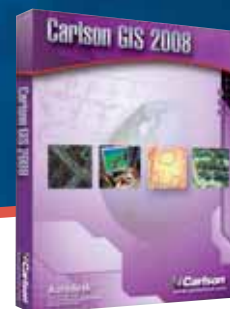


Complete Inlet Library

Layer-Based Runoff Calculations (Q=CIA or "SCS" Methods) combine with DTM-Based Flow



Precise gutter flow depths, spread and bypass calculations



Carlson GIS 2008

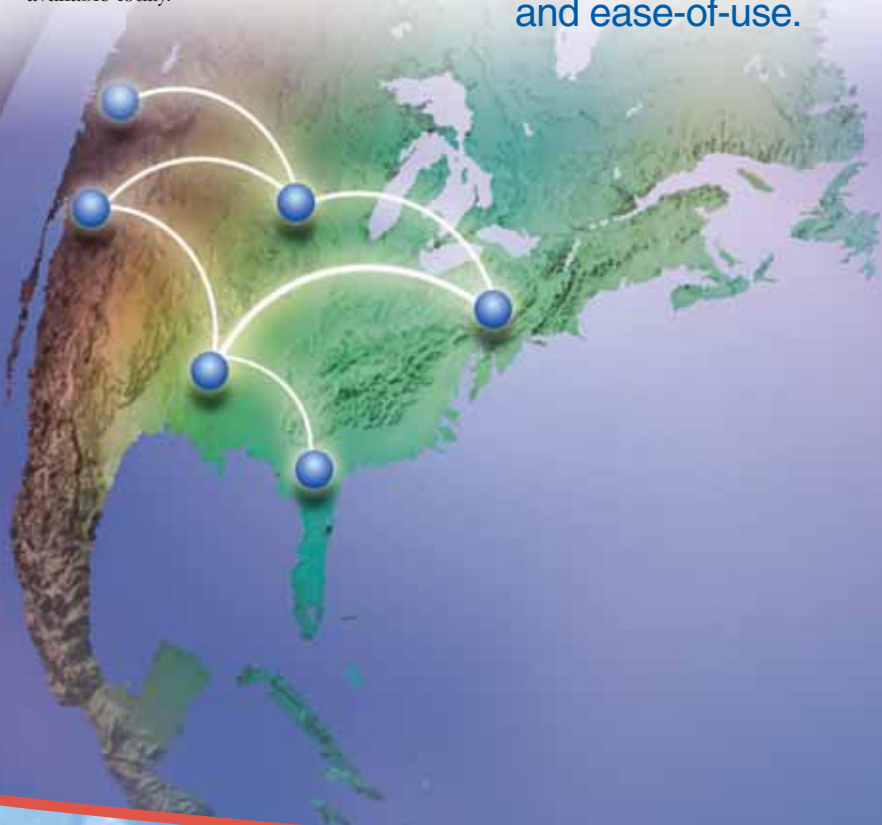
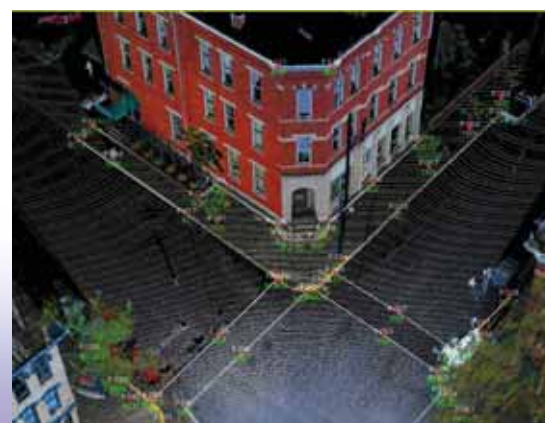
Providing enhanced tools for data capture and linking, data labeling, import/export of SHP files, polygon topology creation and analysis, and more, Carlson GIS 2008 is an all-purpose tool for the surveyor or engineer.

Combined with Carlson Civil 2008, Carlson GIS enables users to obtain data directly from ESRI users who often manage county databases. You can obtain topographic and planimetric features from these databases and they allow you to immediately perform preliminary engineering studies, hydrological studies and planning analysis.

Gain from Carlson's years of experience in creating software for land development professionals in the overlapping markets of survey, construction and mining to get the highest level of robust automation and ease-of-use of any GIS processing solution available today.



Gain from Carlson's experience and get the highest level of robust automation and ease-of-use.





More...

Project Data Management – Define and Assign... Carlson Civil 2008 allows you, the end user, to define your project folder structure in the way that makes sense to you and your organization, with as little or as much complexity as suits your needs, and then assign the data types used in the Carlson Civil Suite to the folders you've defined. At Carlson Software, we know that this is a critical key to your successful implementation of the software, so we let you design it yourself!

Points – Organize your point data with these valuable tools for setting, managing, modifying and reporting point data.

Surface Modeling – Develop and analyze surfaces and their respective contours and labels in just one step. This tool eliminates the need to run a complex series of commands to perform this oft-needed function. External and sharable files are stored, various analyses are performed to ensure data integrity and automatic labeling guarantees that all contours are appropriately labeled with reactive annotation precisely as the user wishes.

Annotation – Produce clean, well-documented project plans fast and efficiently with precise tools that use Carlson Civil 2008's library of annotation features. Carlson Civil allows you to introduce your own annotation style to personalize your drawing and provides the tools to quickly clean up complicated annotation challenges in dense drawings. Text overlaps are automatically checked and you have the option of allowing the software to correct it or choose the correction you prefer.

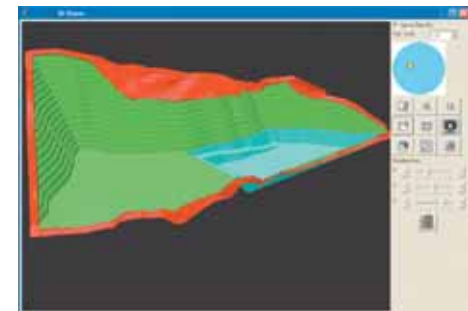
Volumes – The Civil Suite's volume computations use the industry's most accurate algorithms and can be based directly on the source data, thereby eliminating any inaccuracies found in other algorithms. Detailed reports in a variety of ways, plus cut/fill labels, color maps and centroids in the drawing file can be produced, all with easy-to-use tools.



Annotation



Points



Volumes





Companion Products

Goes From Field to Office and Back Again. For surveying, engineering, or construction, Carlson Software is the one place to find the complete software solution for the entire lifecycle of your projects.

Carlson SurvCE 2.0 – Get support of the widest range of popular and new release RTK GPS and conventional/ robotic total stations with Carlson SurvCE2.0, which gives advanced functionality, making it the first choice in data collection software.



Carlson Roads – Get the powerful road, sewer and pipe design features of Carlson Civil with this Carlson “standalone” product that is built around the standard AutoCAD command set.



Carlson Field – Works on ruggedized computers and gives you full data collection inside AutoCAD. Skip rework and data conversions as Carlson SurvCE and Carlson Field quickly translate the design data.



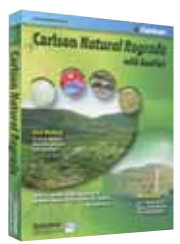
Carlson PointCloud – Field scan to finished plat seamlessly with this unique, modular program that gives laser scanner users the ability to process millions of data points with the renown Carlson ease-of-use.



Carlson Takeoff 2.0 – For fast and accurate project estimating, use Carlson Takeoff 2.0, which is an AutoCAD-based site-estimating solution, enhanced with more than 30 improvements, including the addition of Carlson Civil’s versatile RoadNet.



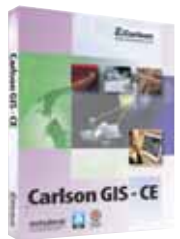
Carlson Natural Regrade – Design stable, natural-acting, maintenance-free surfaces like Mother Nature would with this software phenomenon that enables users to return land to a natural form after it has been disturbed by development or mining.



Carlson Grade – Utilize this unique machine guidance product to brings the design model onto a wide range of equipment – from dozers, to graders, barges, drills, shovels, trucks and more. Know your grade and location without the need for stakes or when view is obscured.



Carlson GIS-CE – Store points on an aerial photo background, view and work with geo-referenced TIF files and much more with this powerful, easy-to-learn and -use data collection program.





Carlson Civil Suite 2008

Demo CD / Movie



“Over the past 25 years, the goal for all of us at Carlson Software is, as it has always been, to develop and supply technologically superior software solutions for land development professionals. We began with the surveying industry and have expanded to serve the related industries of civil engineering, construction, and mining. We are pleased to be meeting that goal as we enter our next 25 years. We will continue to give our users the safe, service-oriented, technologically advanced, independent choice they have come to expect from Carlson Software and to provide our renowned, industry-leading customer service and support.”

— **Bruce Carlson, PE, PLS**
President and Founder
Carlson Software

Sales Information

800-989-5028

National Sales Office

www.carlsonsw.com

Find Carlson Software sales representatives, authorized resellers, technical specialists, and programmers throughout the United States and the world.

Sales By Region

Corporate Sales	800-989-5028
International Sales	001 606-564-5028
New England	877-221-6199
Northeast & Mid-Atlantic	800-283-0023
South Atlantic	704-824-7175
Southeast	904-292-1607
Great Lakes Region & Ontario, Canada	585-737-1800
Ohio	800-989-5028
South Central	817-310-3770
Midwest	877-435-2925 or 563-583-8552
Southwest	480-726-3695
Rocky Mountain Region	303-482-1836
Northwest	253-921-6838
Australia, New Zealand, Oceania, Southeast Asia, and Africa Sales	+61 755 984 886

Carlson College

Learn to be an Expert from the Experts

Carlson College, a division of Carlson Software Inc., conducts training classes for all Carlson Software products, which include Civil, Survey, Mining, Takeoff, Hydrology, Grade, Road, and more, plus the Autodesk Civil/Survey products MAP, Raster Design, Civil 3D, and Land Desktop. Carlson College also conducts training on data-prep for GPS-guided machine control and 3D modeling.

When education and training come together, the result is:

- A highly productive employee
- Answers from your staff that you can trust
- More effective production times
- No trial-and-error learning
- Increased industry expertise
- Optimum ROI

Carlson College training "Direct from the Manufacturer" is hands-on and allows attendees to be production-ready immediately following training. Carlson College is an IACET Authorized Provider and may award IACET Continuing Education Units (CEUs) to the engineers, surveyors, and other professionals who successfully complete their training classes.

Training sites for Carlson College are in Virginia, Kentucky, and Massachusetts, plus regional and special on-site training throughout the U.S. can be scheduled.

For more information about Carlson College, visit www.carlsonsw.com/training or call 800-989-5028 or email Harry Ward or Reiko Lewis at training@carlsonsw.com.

Carlson Software

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Carlson

...Works Simply ...Simply Works