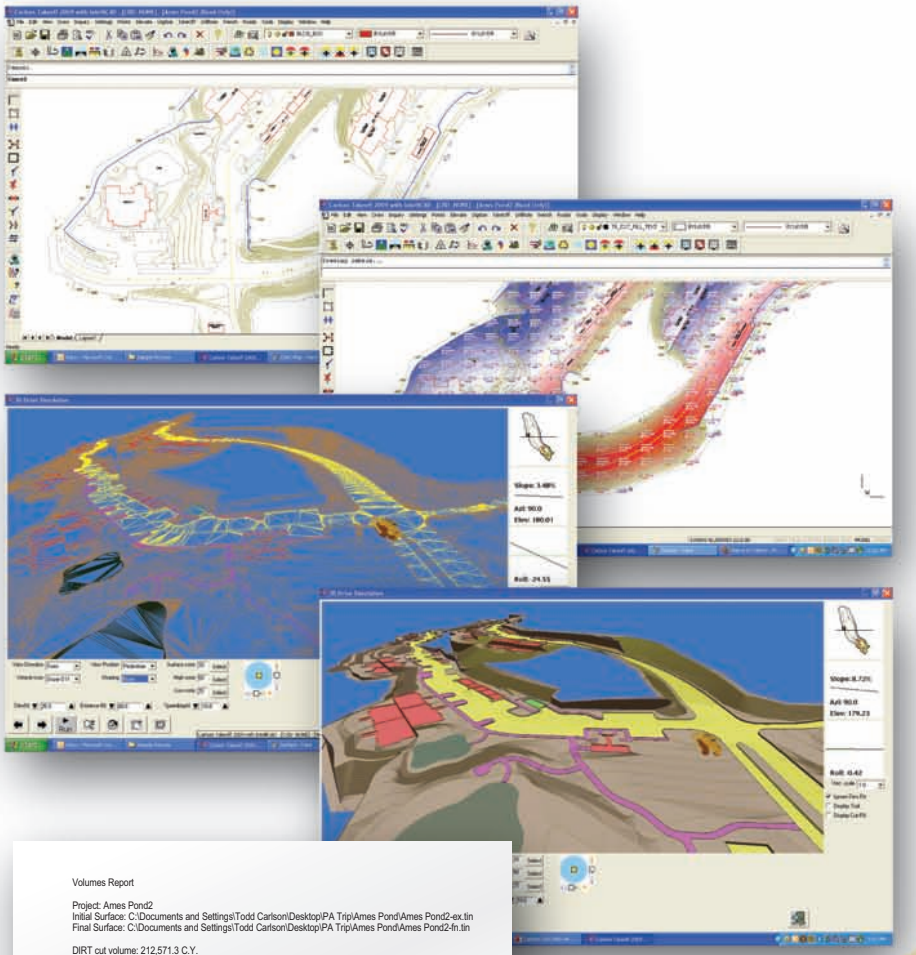
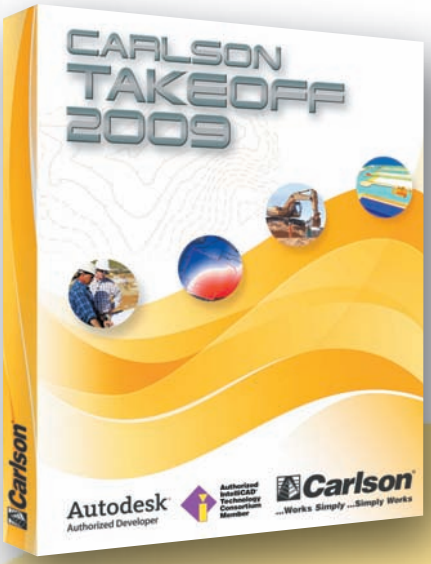
Carlson Takeoff – Save Time, Save Money

Reads CAD dwgs for all your data prep and estimating needs – *no more digitizing!*



Use Takeoff for Accurate Estimates

- Calculate site cut & fill and topsoil
- Differentiate strata volumes – rock vs. dirt
- Accurately determine asphalt quantity needed in a variety of measurement units
- Get precise curb work calculations
- Estimate trenching quantities
- Design roadways



Volumes Report

Project: Ames Pond2
Initial Surface: C:\Documents and Settings\Todd Carlson\Desktop\PA Trip\Ames Pond\Ames Pond2-ex.tin
Final Surface: C:\Documents and Settings\Todd Carlson\Desktop\PA Trip\Ames Pond\Ames Pond2-fn.tin

DIRT cut volume: 212,571.3 C.Y.
DIRT Area: 718,745.7 S.F., 16.50 Acres
DIRT Max Cut: 38.000 at -101834.736,893529.690
DIRT Avg Cut: 10.656
ROCK cut volume: 37,440.0 C.Y.
ROCK Area: 272,032.8 S.F., 6.25 Acres
ROCK Max Cut: 16.428 at -101523.758,893923.284
ROCK Avg Cut: 4.879
Other cut volume: 6,824.3 C.Y.
Total Cut volume: 256,835.6 C.Y.

Fill volume: 173,758.2 C.Y.

Max Cut: 38.389 at -101830.133,893529.687
Max Fill: 30.232 at -102878.374,893292.500

Area in Cut : 718,745.7 S.F., 16.50 Acres
Area in Fill: 627,053.3 S.F., 14.40 Acres
Total inclusion horiz area: 1,345,864.6 S.F., 30.90 Acres
Total inclusion slope area: 1,547,823.8 S.F., 35.53 Acres

Average Cut Depth: 9.65 feet
Average Fill Depth: 7.48 feet
Cut to Fill ratio: 1.48
Export Volume: 83,077.4 C.Y.
Elevation Change To Reach Balance: 1.667
Volume Change Per .1 ft: 4,984.7 C.Y.

Cut (C.Y.) / Area (acres): 8312.7
Fill (C.Y.) / Area (acres): 5623.8

Strata Depth Zone Volumes
Strata: ROCK

Zone Depth: 0.000 to 10.000
ROCK Cut volume: 972,239.84 C.F., 36,008.88 C.Y.
ROCK Area: 272,032.8 S.F., 6.25 Acres

Zone Depth: 10.000 to 20.000
ROCK Cut volume: 38,636.34 C.F., 1,230.98 C.Y.
ROCK Area: 14,237.0 S.F., 0.33 Acres

Zone Depth: 20.000 to 30.000
ROCK Cut volume: 0.97 C.F., 200.04 C.Y.
ROCK Area: 13.3 S.F., 0.00 Acres

"Carlson Takeoff brings in all of the contour lines and sets them at the right elevations."

— Tony Riter
Vice President
A. Crano Excavating,
Akron, Ohio

Use Takeoff Once You Get the Bid

- Analyze existing TOPO before you start
- Prepare the design info for exact staking
- Create a 3D model for machine control
- Evaluate for quantity and quality control
- Report volumes as you build

Takeoff 2009 will work for you!

- Digitize Less! Get the ability to turn scanned paper plans into CAD linework.
- Send jobs straight to Topcon MC. Exports both .tn3 (surface models) and now .ln3 (linework) files.
- Work with "bad CAD" more easily. With more functions in Drawing Cleanup.
- Get more Info. Volume Reports now include horizontal area and max cut/fill.
- See more. Improvements made to Cut/Fill Color Map and Contours.

Makes Design Plans Come to Life

800-989-5028 or
www.carlsonsw.com

For more information or to locate a dealer near you

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Carlson®

...Works *Simply* ...Simply *Works*

CARLSON TAKEOFF 2009 – AT-A-GLANCE

Standard Features

- Runs on IntelliCAD (built-in) or AutoCAD (sold separately)
- Streamlined traditional or "On-Screen" Digitizing routines
- Calculates Cut/Fill volumes and material quantities
- Cut/Fill Color Maps and labels
- Surfaces are modeled by the advanced triangulation method
- 3D Drive Over Simulation
- Easy to use: automated routines with reduced prompting

Top 5 Features:

- Run "Drawing Cleanup" to handle any CAD file
- 2D to 3D conversion routines for linework and spot elevations
- Robust verifying and visualization tools to check your work
- Easy-to-Use output options for stakeout and machine control
- Powerful Road Network capabilities

Building Pads:

- New Building Offset Extensions
- Draw Building Envelope: Added option for different offsets for each side

Digitizing:

- New Digitize Rectangle
- New 2D Scale
- Digitize Sections and End Areas: Added method to match a portion of one section to another section. Added snap tolerance of subgrades onto surface.

Drillholes:

- Calculate Site Strata quantities
- New Strata Polylines
- Draw Strata Contours and Surface: Added option to use inclusion/exclusion perimeters.

Surfaces:

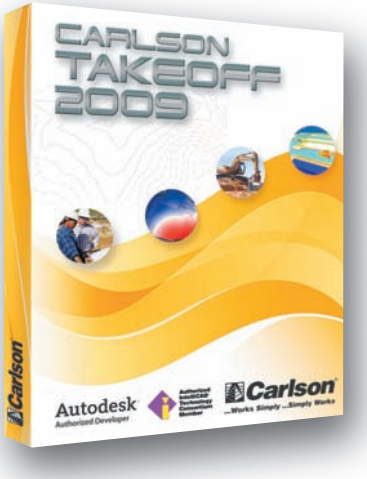
- New Draw Surface As Grid
- Merge Existing/Design Surfaces: Added option to save merged surface to separate surface file.
- Minimize Surface file for Machine Control

3D Linework:

- New 3D Polyline By Slope On Surface
- New Merge Crossing 3D Polylines
- New Fillet 3D Polylines
- New Join 3D Polylines
- New Add 3D Polyline Points At Elevation
- New Set Point Elevations By Surface Model
- New Set Point Elevations By 3D Polylines
- Layer Inspector: Added function to specify target surface for layers

Viewing Tools:

- 3D Viewer: Added axis icons, bounding box, auto-recall of settings and more image output formats.
- Hatch Areas Of Interest: More controls to select areas to hatch and colors
- Subgrade Zones: Added option to tie bottom of subgrade zones at tie slope to design surface
- Cut/Fill Contours: Added option to draw contour labels



Trench Networks:

- Added settings for pipe thickness and pipe shape as circle, box or ellipse for adjusting backfill quantities. Added option to assign multiple pipes in same trench. Added option for trench junction with no structure. Added ability to define target surface as existing ground, design surface, minimum of exist/design or structure rim elevations. Added routine to create centerline CL files from trench network.
- New method in Create Trench Structure for easy way to add laterals
- Standard Material Quantities Report: Improved report to combine material sub-totals with unit costs and added quantity sub-totals by material.

Sections:

- Highway Section Staging: Added support for subgrades.
- Calculate Section Volumes: Added subgrades to the report.

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...Works *Simply* ...Simply *Works*