



Business Center - HCE

ROAD TAKEOFF TOOLS PACK PLUS

THE COMPLETE TOOLBOX FOR ROAD TAKEOFF AND ESTIMATING

Business Center - HCE from Trimble saves time, reduces rework and increases bidding accuracy. The Road Takeoff Tools Pack Plus gives you the ability to form a corridor model to allow you to quickly see locations and quantities of materials. Containing all of the tools needed for road takeoff and estimating, this pack is designed for the requirements of roadway construction and ideal for road projects of all kinds.

Enhanced tools for Site Data Managers and GPS Managers enable users to select, create, edit data, as well as generate reports and plots or publish information.

- ▶ Easily model and check corridor data from multiple data sources including Adobe® PDF cross section data
- ▶ Use intuitive tools to create surfaces for your corridor models and manage aerial image data
- ▶ Includes mass haul analysis tools for the management of in situ and construction grade materials using borrow and waste sites, and processing locations

KEY FEATURES

Core Product Functionality

Business Center - HCE software core functionality does much more than just import and export.

- ▶ Creation, editing and visualization commands
- ▶ Import AutoCAD DXF/DWG, Microstation DGN, ICM, LandXML, ASCII points, files from many Trimble systems or other third party systems
- ▶ Create and edit alignments, site calibration, surfaces and points, and breaklines to refine surfaces
- ▶ Calculate volumes between surfaces and measure the bearing and distance between objects
- ▶ Cost-efficiently find and fix errors before they are sent to the field by visualizing and editing in 3D
- ▶ Export to many file formats for maximum versatility

The Core Product is available as a free download, add-on modules extend the functionality of Business Center - HCE.



Key Benefits

Business Center - HCE contains powerful tools to help you quickly and easily create accurate, integrated 3D constructible models for sites, corridors and marine applications. Make better decisions, decrease costly mistakes, and increase efficiency in the office and on the job site.

- ▶ Speed up your process by rapidly converting digital CAD cross-sections, extract cross-sections from Adobe® PDF vector files and quickly determine locations and material quantities for road takeoff
- ▶ Rapidly create and edit, generate reports and publish information
- ▶ Reduce rework by ensuring data is clean, up-to-date and delivered in the right format to get the job done
- ▶ Win more bids by preparing earthwork and construction models quickly and accurately with expanded levels of detail
- ▶ Increase profit by optimizing the creation of site and corridor models
- ▶ Reduce drive time by effectively and seamlessly managing data between the office and field
- ▶ Works seamlessly with Trimble® SCS900 Site Controller Software, Trimble GCS900 Grade Control System, Trimble Earthworks Grade Control Platform, Trimble PCS900 Paving Control System, Trimble CCS900 Compaction Control System and Cat® AccuGrade™ Grade Control Systems



Modules

KEY FEATURES

Corridor Mass Haul and Intersection Design Module

The Corridor Mass Haul and Intersection Design Module offers a unique workflow which allows the automated generation of fully parametric corridor intersections, roundabouts and cul-de-sacs. This unique workflow reduces the complex and labor-intensive design task to minutes. Quickly define turn lanes, rapidly adjust the configuration and see the results of the fully 3D intersection object as changes are made.

Define haul roads and costs, compute borrow and waste requirements. Assign haul and material costs for earthworks bidding, and compute mass haul for specific sites and corridors to ensure that you operate at maximum efficiency for maximum profitability.

With this module, your mass haul plan can consider ground strata, waste and borrow areas, construction barriers, equipment haul ranges and the processing of excavated materials into useful fill materials.

Once planned, share the cut and fill areas with Trimble VisionLink and any field devices to minimize rework and errors, and get everyone on the same page. Move material once, know how much is needed and how much is moved to save time and money.

- ▶ Load intersection template
- ▶ Rotate intersection legs
- ▶ Check intersection geometry
- ▶ Corridor mass haul diagram and report
- ▶ Archive and auto-balance mass haul
- ▶ Mass haul balance view and editor
- ▶ Refresh Mass Haul Analysis
- ▶ Balance line reports and mass haul at grade point

Create, edit and define:

- ▶ Intersections
- ▶ Corridor boring logs and mass haul analyses
- ▶ Material processing reports
- ▶ Earthworks sites
- ▶ Haul ranges and haul roads
- ▶ Mass haul barriers, exports and imports
- ▶ Corridor strata and site materials



Road Takeoff Tools Module

Convert digital CAD cross-sections, rapidly extract cross-section information from Adobe® PDF vector files to create corridor models and quickly see locations and quantities of materials. Save time, reduce rework and increase bidding accuracy with Business Center - HCE.

The Road Takeoff Tools module provides additional commands to help with data processing. Adobe® PDFs can be converted and displayed for orientation and material layers can be extracted with on-screen digitization. Cross-sections can be added to the corridor definition, and volume/area reports can be created and used for initial mass haul analysis.

- ▶ Digitize, edit and track cross-sections
- ▶ Create and edit Corridor Boring Logs
- ▶ Material and Site Improvement Manager
- ▶ Define corridor strata



Image Manager Module

The Image Manager Module provides the ability to import, georeference and place images. Imported images can be draped onto surfaces and generate 3D views and presentations of your project. Adobe® PDF files can be quickly converted to CAD data to allow for fast model creation.

- ▶ Georeference and automatically convert Adobe® PDF files to CAD, including vectors
- ▶ Toggle background map to visualize how your design interacts with Mapbox, OpenStreetMap
- ▶ Add/remove image boundaries to easily merge data from multiple Adobe® PDF sheets
- ▶ Automatically tile images to increase display speed
- ▶ Capture 3D and screen images for use in other applications
- ▶ Copy View to clipboard



Surface Tools Module

The Surface Tools Module adds functionality for creating and editing both surfaces and alignments, essential to find and fix errors before they are sent to the field for construction.

- ▶ Add and remove surface boundaries for accurate volume calculations
- ▶ Review as-staked corridor reports
- ▶ Update cut/fill volumes automatically and quickly, even with large data sets
- ▶ Clip lines
- ▶ Densify an alignment-based surface
- ▶ Drape image objects over surfaces
- ▶ Process feature codes

Create and edit:

- ▶ Point cloud regions and points from CAD objects
- ▶ CAD points from scan points
- ▶ Cut/fill maps
- ▶ Linestrings from points
- ▶ Stored cross sections
- ▶ Surface ties, edge breaklines and grids
- ▶ Station offset elevation reports
- ▶ Alignment superelevation

TRIMBLE CIVIL ENGINEERING AND CONSTRUCTION
 10368 Westmoor Drive
 Westminster CO 80021 USA
 800-361-1249 (Toll Free)
 +1-937-245-5154 Phone
 construction_news@trimble.com