Business Center - HCE

DATA PREPARATION PACK

ADVANCED TOOLS FOR EFFICIENT DATA PREPARATION

Preparing your data has never been easier with Business Center - HCE from Trimble. Efficient construction operations begin with accurate data preparation. Not only does Business Center - HCE ensure data is clean and delivered to the site in the right format, it can also be used to check and prepare data for bidding, estimating and earthworks management.

- ► Effectively clean, check, prepare and manage data for field operations
- Create 3D constructible models of your project from multiple data sources (Adobe® PDF, AutoCAD DXF/DWG, Microstation DGN and many more)

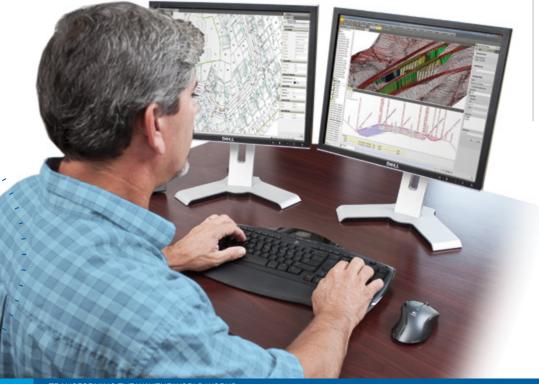
KEY FEATURES | MODULES

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 - HCF



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.

- Create accurate 3D models from Adobe®
 PDF data
- 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



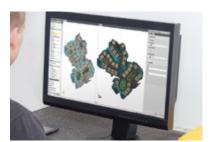
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Image Manager Module

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



Data Prep Module

Since surfaces and volumes can only be calculated once the data is properly elevated, the Data Prep Module quickly converts 2D or improperly elevated CAD data into objects that can be sent to the field for construction. The Project Cleanup command saves hours-to-days by cleaning up messy CAD data.

- Remove unused block definitions, layers, duplicate lines, unused text styles, zero length lines and similar data
- Join lines and filter vertices from lines that are not needed
- Clip, trim, extend and offset lines, and track region outline
- Create, rebuild and edit alignment labels
- Create points from spot elevations
- Elevate contour, contours by crossing, contours by label, lines and pads



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

Create and edit:

- Point cloud regions and points from CAD objects
- CAD points from scan points
- Cut/fill maps
- Linestrings from points

- Clip lines
- Densify an alignment-based surface
- Drape image objects over surfaces
- Process feature codes
- Stored cross sections
- Surface ties, edge breaklines and grids
- Station offset elevation reports
- Alignment superelevation

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