

BUSINESS CENTER - HCE



connecting your construction site

BUSINESS CENTER – HCE™ Powered by Trimble

Business Center—Heavy Construction Edition (HCE) from Trimble is the only office software you need to manage, analyze and process site and highway construction data.



As part of the Connected Office solution, Business Center - HCE has powerful tools to help control data flow between the office and the field. You can easily combine and manage data from multiple sources to generate accurate, integrated results, and then share these results with the entire project team. Business Center—HCE can help you decrease costly mistakes and increase productivity in the office and on the construction job site.

IT'S EASY TO GET STARTED

Begin with the free Core Product, which makes managing data for Trimble 3D machine control and site positioning systems easier and more seamless than ever before. The free Core Product gives you the opportunity to try the power of Business Center - HCE at no charge.

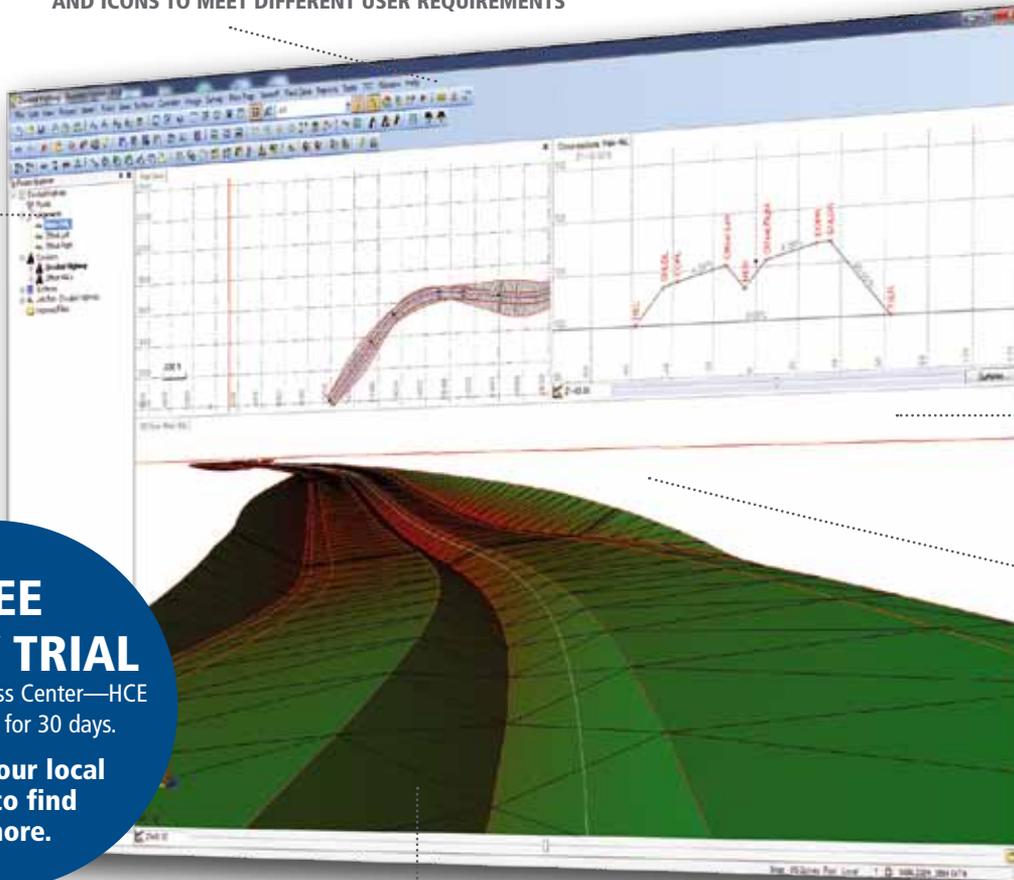
Then contact your local SITECH® Technology Distributor for information about additional modules to extend the software's functionality, or to schedule a solution demonstration.

Just go to www.trimble.com/powerofsoftware, enter your registration information and download the Core Product for free.



SIX MODES OF OPERATION ADJUST THE MENU ITEMS AND ICONS TO MEET DIFFERENT USER REQUIREMENTS

PROJECT EXPLORER AND VIEW FILTER MANAGER PROVIDES RAPID ACCESS TO DISPLAY AND SELECTION CONTROLS



INTERACTIVE VIEWS UPDATE IMMEDIATELY IN LINE WITH DATA MODEL CHANGES

MULTIPLE VIEW AND MULTI-SCREEN ENVIRONMENT SHOWS PLAN, PROFILE, CROSS SECTION, 3D, 3D DRIVE THROUGH, AND SPREADSHEET VIEWS

**FREE
30-DAY TRIAL**

Try all the Business Center—HCE modules FREE for 30 days.

Contact your local dealer to find out more.

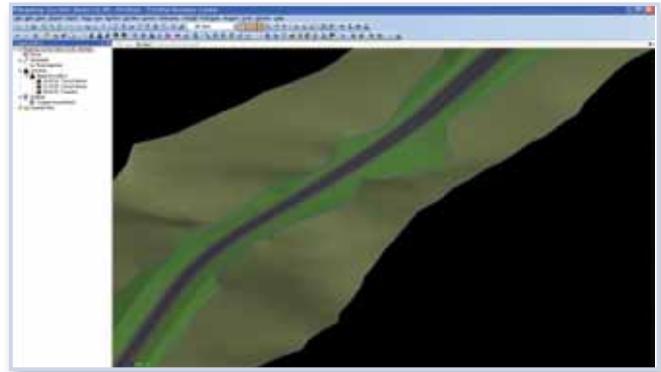
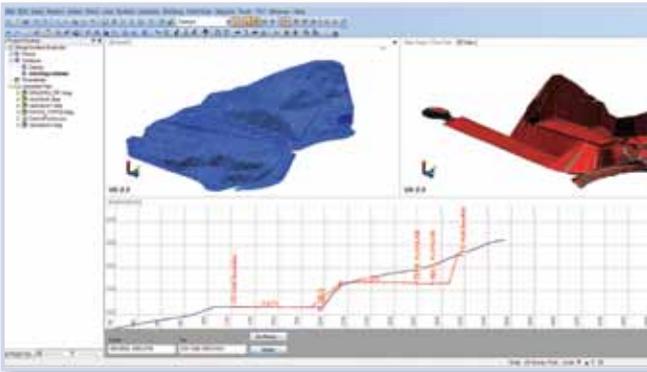
POWERFUL 3D VIEW AND 3D DRIVE THROUGH VIEWS ALLOW FOR RAPID MODEL ERROR IDENTIFICATION AND CORRECTION DIRECTLY FROM THE 3D VIEW



grows with your business

MODULAR SOFTWARE

From small site contractors to large projects, Business Center - HCE software offers modules to meet your needs.



FREE CORE PRODUCT

- Supports most digital data imports and exports
- Supports Trimble® SCS900 Site Controller Software and Trimble machine control technology
- Create road and rail corridor models
- Create and process data
- View data in plan, profile, cross-section, 3D and spreadsheet
- Generate numerous reports
- Manipulate point cloud data quickly and easily

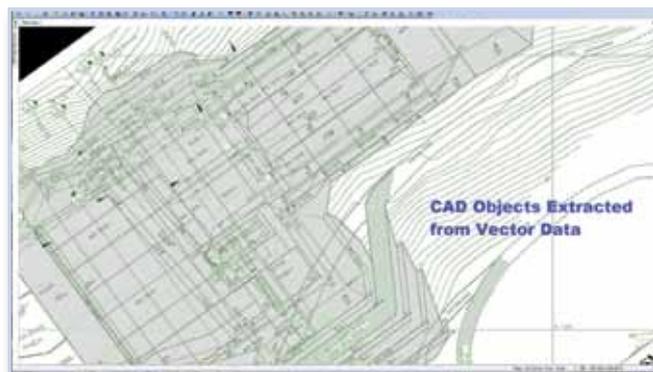


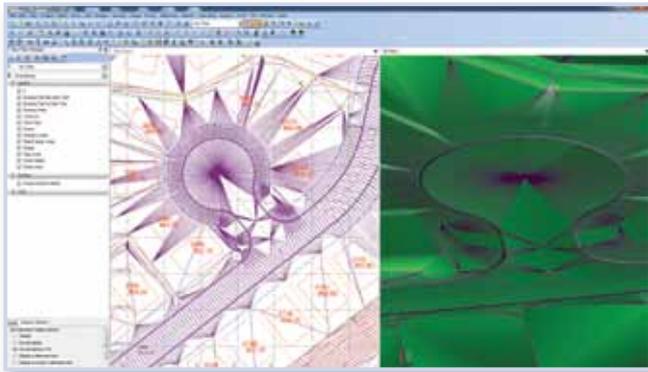
IMAGE MANAGER MODULE

- Import raster files or Adobe® PDF vector files and layers
- Georeference or place image files using scale and rotation
- Rapidly extract line work data from Adobe PDF vector files
- Provide a background for heads up digitizing of plans
- Drape image over surface for checking digitization
- Publish to Google Earth™ and Connected Community

SURFACE TOOLS MODULE

- Automate surface edge breaklines
- Create surface boundaries - holes and islands
- Create surface densification of corridors
- Create alignment-based surface models
- Tie sideslopes to surfaces
- Create uncompacted surface models for paving
- Create material texturing of surfaces
- Show 3D drive throughs for alignments and sites
- Create superelevations and subgrades for corridor models
- Merge surface models
- Drape lines over surfaces
- Create symbols to scale on points imported from SCS900



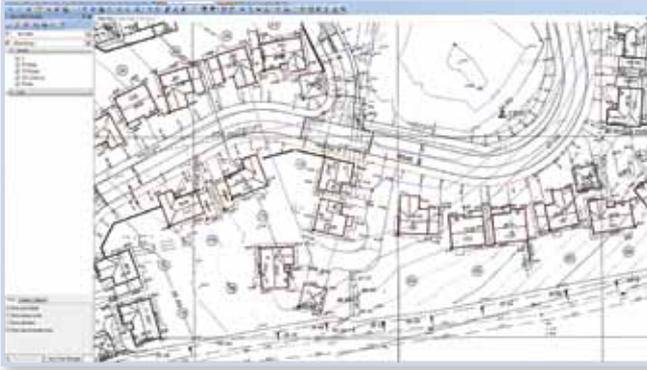


DATA PREP MODULE

- Clean up imported CAD data
- Use CAD tools to trim, extend and offset lines
- Elevate contours, pads, lines and points with high productivity elevating tools
- Create an earthworks model for grading
- Use advanced surface modeling and editing tools

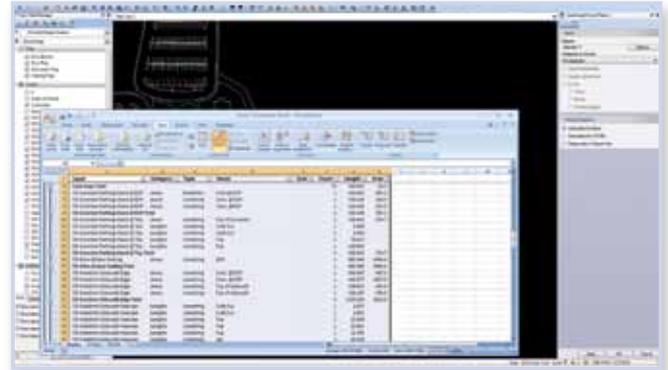


scalable functionality



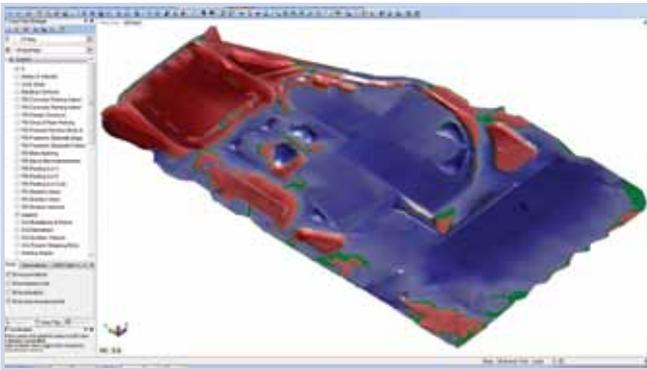
BASIC TAKEOFF MODULE

- Generate simple area, length, and count reports from imported CAD files



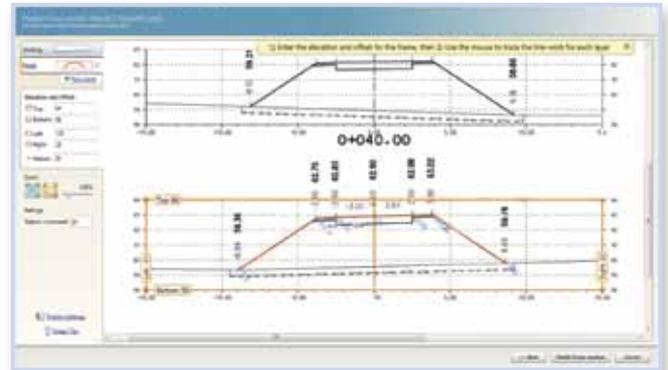
INTERMEDIATE TAKEOFF MODULE

- Generate simple reports incorporating area, length, count and subgrade adjustment quantities from imported CAD files
- Use finished grades and subgrades for concrete and asphalt



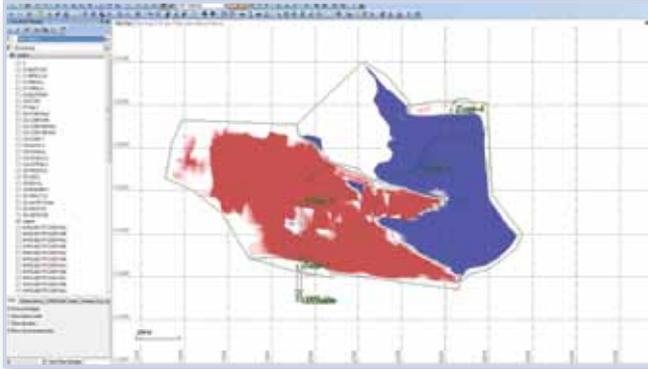
TAKEOFF MODULE

- Create a Materials and Site Improvements library
- Perform heads up digitizing from raster images or digitize from paper plans
- View multiple images with edge matching functionality
- Assign site improvements, topsoil stripping and replacement areas
- Create subsurface strata from drillhole data for subsurface earthen material strata quantities
- Account for overexcavation and create of Areas of Interest
- Rapidly map imported CAD or vector Adobe PDF data to your standardized layer system
- Balance site earthworks
- Create takeoff reports that include all material volumes
- Quickly evaluate if area-based site improvements are assigned correctly



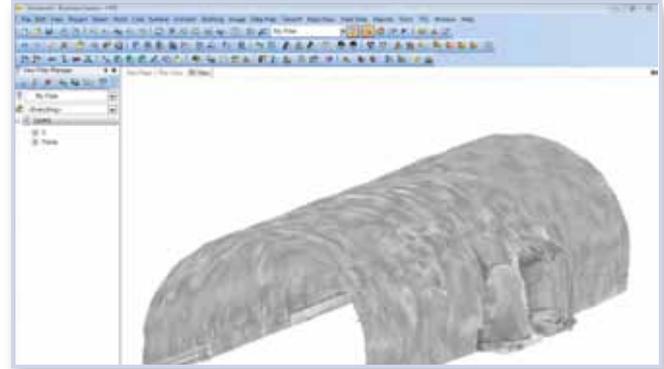
ROAD TAKEOFF TOOLS MODULE

- Digitize cross-section drawings from a raster image or an Adobe PDF vector file
- Convert cross-sections into a 3D model automatically
- Store cross-section objects with an alignment object
- Map original ground, finished design and multiple material layers (subgrades) to stored cross-sections distinguished by layer
- Easily extract required surfaces from complex CAD cross-sections
- Generate average end area earthwork reports



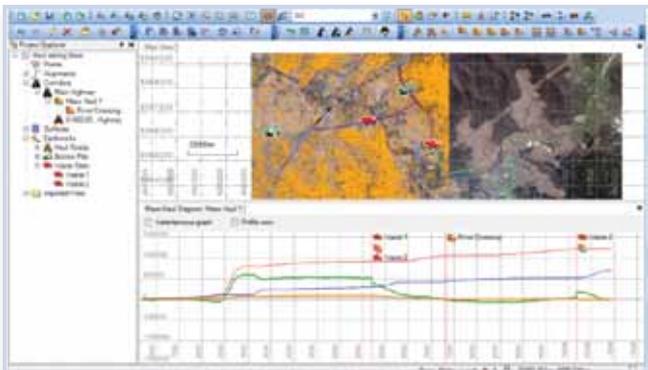
SITE MASS HAUL MODULE

- Define haul zones, haul roads and associated hauling costs
- Compute borrow and waste requirements
- Assign haul and material costs for earthworks bidding
- Compute mass haul for the site



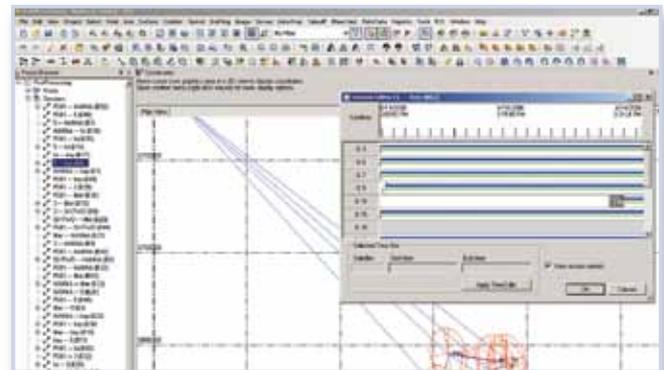
CORRIDOR TUNNELING MODULE

- Enter multiple tunnels on a single alignment with multiple layers for each tunnel
- Expand tunnel design for drilling and blasting
- Build a tunnel model and export to SCS900
- Create a tunnel surface model from point cloud data



CORRIDOR MASS HAUL MODULE

- Perform comprehensive mass haul analysis
- Find the best borrow and waste sites for the lowest cost
- See graphical representations and geographic location of borrow pits, waste sites and haul roads
- Place barriers to mass haul along the alignment and optimize to haul around barriers
- Assign import or export locations with cost analysis and volumes
- Define multiple haul ranges and balance haul at stations
- Create mass haul diagrams with multiple charts to see mass haul and instantaneous cuts and fills in relation to the design profile



TOTAL STATION AND GNSS PROCESSING MODULE

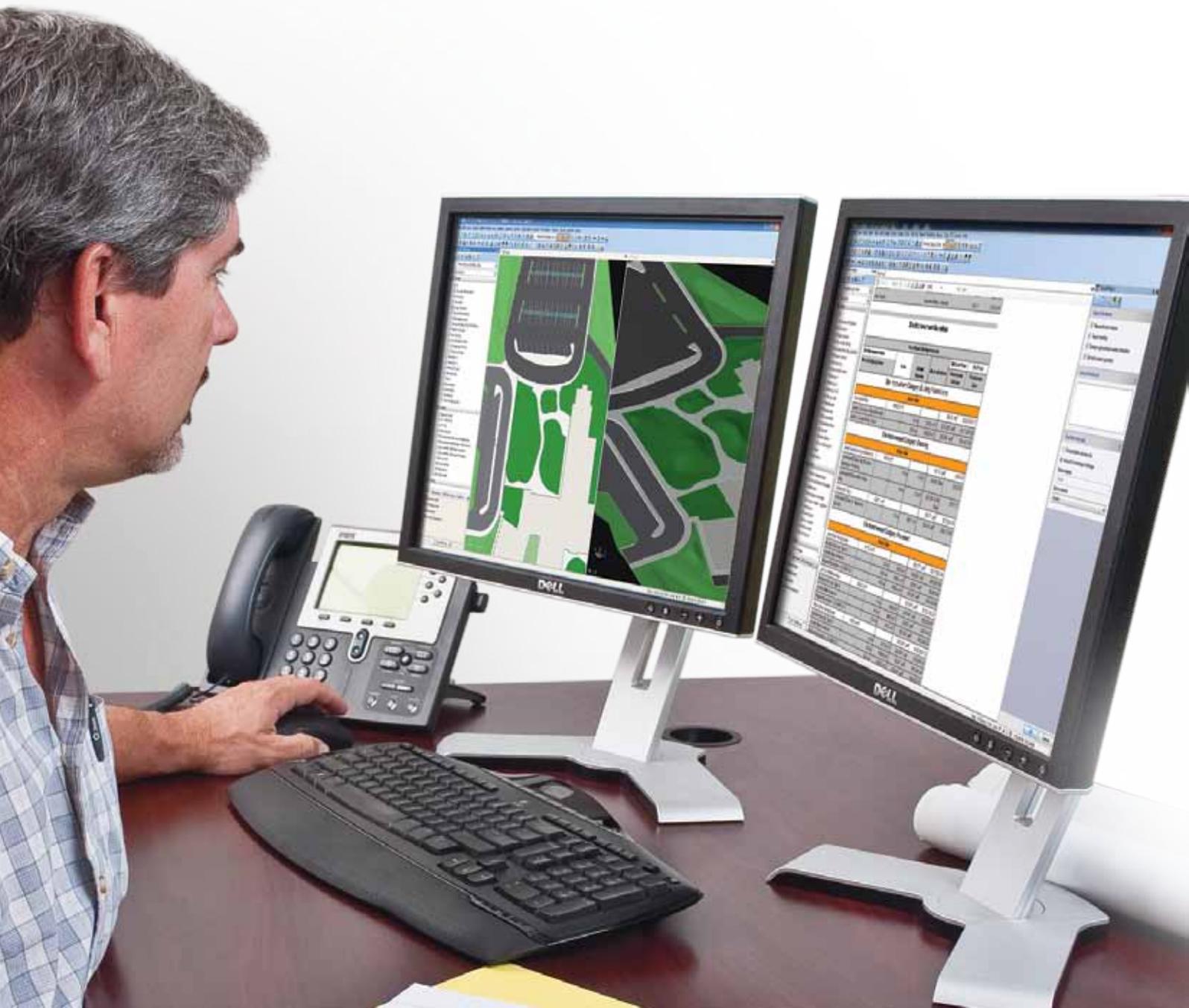
- Full management of digital level, total station and GNSS / GPS data
- Calculate least squares network adjustments
- Supports geodetic transformations
- Compute integrated optical, GNSS and digital level networks

tailored layouts

MENU LAYOUTS SIMPLIFY USE

Menu layouts simplify the user interface by changing menu and toolbar layouts to make using and navigating the program easier and more efficient. Additionally, improved workflow guides reduce the learning curve by guiding the user through workflows that match the menu layouts.

All of the menu layouts require the free Core Product software. The basic functionality offered by the Core Product can be extended by licensing add-on modules to broaden the product's scope and provide increased productivity. Some of the menu layouts require additional, add-on modules.



FIELD DATA

A part of the Core Product software, the Field Data menu layout makes managing your field data easier than ever before. Field Data is designed to work seamlessly with Trimble SCS900 Site Controller Software and machine control technology.

DATA REVIEW

The Data Review mode of operation is part of the Core Product software and provides enhanced tools for Site Data Managers and GPS Managers. Data Review gives you the ability to select, create, edit and draft data, as well as generate reports and plots, or publish information.

DATA PREP

Efficient construction operations begin with accurate data preparation. Business Center - HCE helps ensure data is clean, up-to-date and delivered in the right format to get the job done.

Add-on modules needed: Data Prep

Optional modules: Image Manager • Surface Tools

SITE TAKEOFF

Prepare earthworks and construction material quantity takeoffs quickly with expanded detail and sharper accuracy—helping you win more business. Takeoff is available in three different modules with varying levels of functionality to suit all your needs.

- Takeoff - full-featured takeoff application
- Takeoff Basic - areas, lengths and counts
- Takeoff Intermediate - areas, lengths and counts of flat materials, including finished grades and subgrades

Add-on modules needed:

Takeoff, Takeoff Basic or Takeoff Intermediate

Optional modules:

Data Prep • Site Mass Haul • Image Manager • Surface Tools • Road Takeoff Tools



ROAD TAKEOFF

New and improved Business Center - HCE functionality gives you the ability to convert digital CAD cross-sections, rapidly extract cross-section information from Adobe PDF vector files and quickly see locations and quantities of materials. Save time, reduce rework and increase bidding accuracy with road takeoff from Business Center - HCE.

Add-on modules needed:

Road Takeoff Tools

Optional modules:

Data Prep • Corridor Mass Haul • Image Manager • Surface Tools • Corridor Tunneling

CONSTRUCTION AND SURVEY

Complete access to all construction and survey functionality including total station and GNSS data post processing and network adjustment.

Add-on modules needed:

Data Prep • Takeoff • Site Mass Haul • Corridor Mass Haul • Image Manager • Surface Tools • Road Takeoff Tools • GNSS and Total Station Processing

connect for more profit

CONNECTED SITE SOLUTION COMPONENTS



Connected Office

The Trimble Connected Office solution allows contractors to create 3D construction models, perform data preparation and takeoff, wirelessly sync data, monitor site productivity, and manage fleets and assets. The 3D design model created in the office can be sent to machines and controllers in the field, increasing efficiency, reducing rework and saving money. Additionally, a complete view of site productivity including materials quantity and movement, volume and compaction data, and fleet and asset management information can be shared across the organization to enable rapid decision-making and better communication.



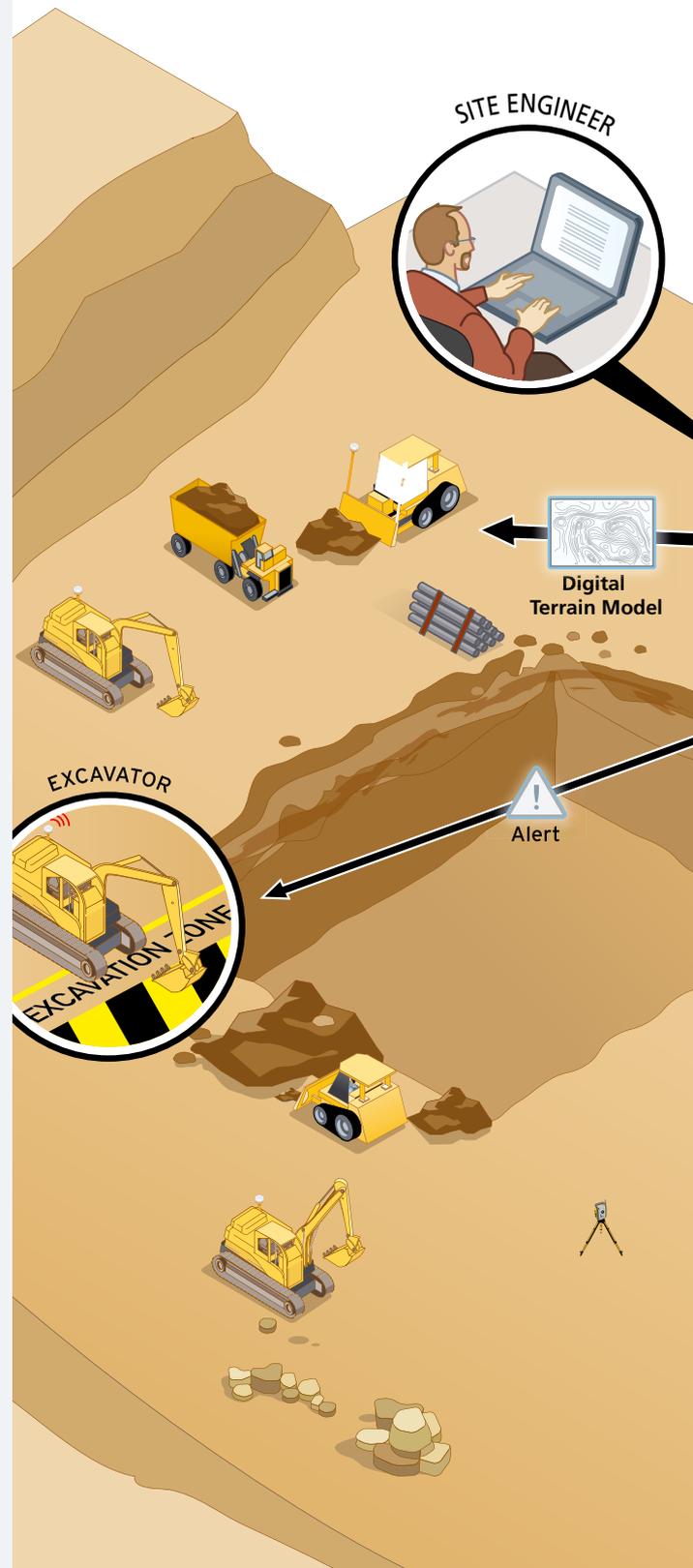
Connected Controller

The Trimble Connected Controller solution wirelessly syncs Trimble Site Positioning Systems in the field with the office and allows the Trimble Controller to receive GNSS corrections via the Internet. A grade checker can receive the design model, create new measurements and then send the measurement and stakeout results back to the office for review. Design changes originating in the office can also be sent to the controller so field crews are rapidly updated with current information. All of this is accomplished without personnel ever leaving the site or their desk, dramatically increasing productivity and reducing costs.



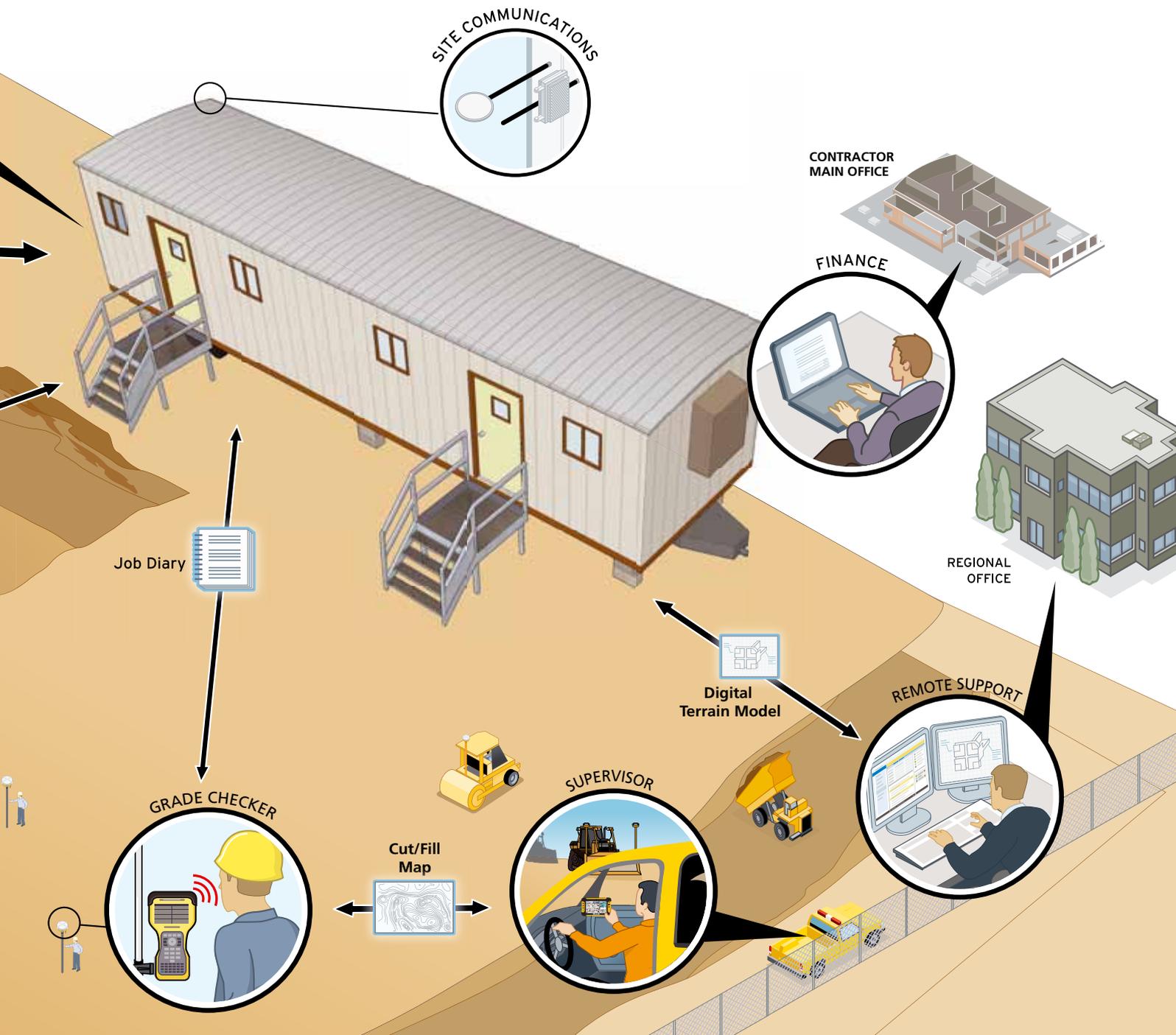
Connected Machine

Now standard in all Trimble Grade Control Systems, the Trimble Connected Machine solution helps contractors manage their assets and see what machines are doing. Machines can collect as-built measurement data for office delivery, and receive GNSS corrections using the Internet. A 3D design created in the office can be sent to the machine operator for faster, more precise grading and earthmoving. Additionally, the machine can be used for volume measurements, so expensive measurements by grade checkers occur less frequently. Drive time and rework are also minimized, as both the office and machines in the field are kept up-to-date with the latest information.



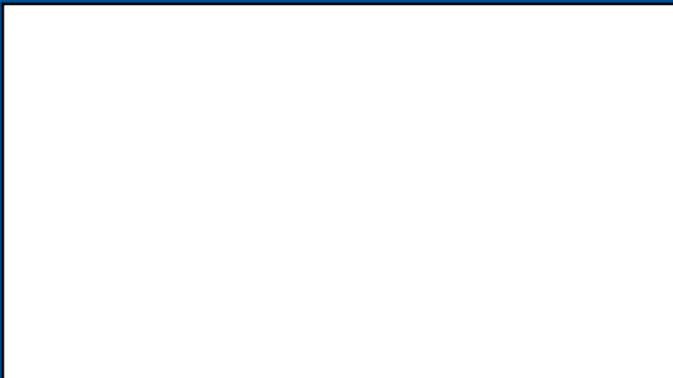
THE TRIMBLE CONNECTED SITE

When used together, Connected Office, Connected Controller and Connected Machine solutions revolutionize the way construction is done and create the Trimble Connected Site®. The Trimble Connected Site transforms the construction industry by utilizing technology to improve efficiency and productivity, while minimizing waste and expense. With the potential to save time and cost at every stage, and virtually eliminate steps in the plan design, construct and operate process, the Trimble Connected Site can improve the efficiency and sustainability of construction projects, resulting in the earlier completion of a higher quality project at a lower cost.



TRIMBLE: THE CONSTRUCTION TECHNOLOGY STANDARD

Trimble provides the tools and support to let you integrate planning, design, site positioning, machine control and asset management information throughout the construction life cycle for more efficient operations and higher profits. Visit your SITECH® technology dealer today to learn how easy it is to utilize technology that makes significant improvements in project workflow, dramatically increases your production, improves your accuracy and lowers your operating costs.



YOUR SITECH® HEAVY CIVIL CONSTRUCTION TECHNOLOGY PROVIDER



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