



**3D CONSTRUCTION**  
SOLUTIONS



## 3D CONSTRUCTION SOLUTIONS

Keep your projects on time and under budget. We have the leading-edge hardware, software, and mobile solutions you need to increase efficiency, improve productivity, and better manage resources.

Our extensive industry knowledge and expertise help you get the job done right and stay on top. Get accurate, flexible 3D construction solutions that:

- Reduce time in the field and improve material management
- Full ability for machines to remain productive anywhere on the job site
- Instant data transfer to or from active job sites

Get it right the first time, handle more jobs, and increase profit. Experience true “one and done” efficiency for excavation and grading with twice the speed of other 3D machines, and four times the speed of traditional equipment.

**WITH YOU ALL THE WAY.**







## Streamline Phases and Processes

Control each phase of your operation with technology and solutions that scale to handle the size and scope of any project, and easily manage tasks including:

- Scheduling and planning
- Clearing and grubbing
- Roughing in subgrade
- Utilities installation
- Finish subgrade
- Place base material
- Finish base material
- Trimming
- Paving
- Compaction
- Job site management
- Machine management
- Operator management





## Excavation

Move the correct amount of material to precisely designated areas, and increase safety on site - graphical mass haul planning software manages materials from the beginning, saving time and increases profit margins.

When paired with automated haul truck systems that control loads and dumps, you achieve a “virtual eye” of visibility at every project.

Hit the right depth every time, even when digging “in the blind” on deep trenching or underwater jobs. Our 3D excavator control systems feature clear audible alarms, LED light bars, and display real-time elevation and slope information.





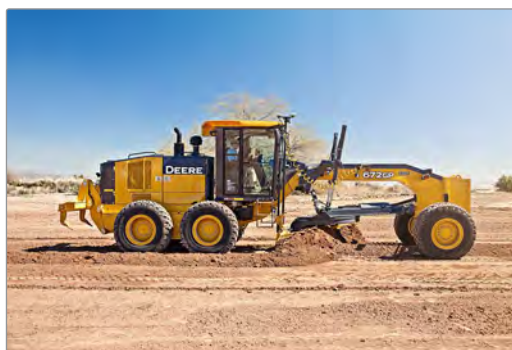


## Rough Grading

Control your machines and material from start to finish with end-to-end solutions that increase your speed, productivity, and efficiency. We help you accomplish rough grading projects like excavating trenches, dozing landfills, or hauling materials off site with more ease and greater profitability.

By combining equipment hardware with web-based technology, our 3D solutions give you better blade control and collect data as you cut to grade. Confidently measure the exact position, cross slope, and heading of your cutting edge on any surface, including steep slopes and complex surfaces.

With our 3D software solutions you're able to remotely view and manage your grading projects from anywhere. Whether your grading jobs are happening down the street or halfway around the world, you're always in control.





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## Fine Grading

Install our solutions to move more material in fewer passes at higher speeds, and confidently grade to even the most complex designs. Our automatic grade control systems cut to final grade quickly and accurately. We help you position base material and place final aggregate with reliable, intuitive operations that keep job site tolerances in mind.

For example, our 3D-MC solutions double the performance of any operator on any terrain compared to existing 3D systems, so you'll save time and fuel at every pass.

The combination of our inertial sensor technology with our GNSS receivers and antennas maximizes positional accuracy and allows you to perform at high speeds.





## Finishing

Stay in total control on each phase of your project. Our products are interchangeable and offer unique control and communication methods for various types of machines. From milling to asphalt and concrete paving to final compaction passes, we've got you covered. Building on our previous solutions gives you premier grade automation for asphalt and concrete pavers along with milling machines.

No more cranking—it's automatic, for enhanced rideability, increased production rates and compatibility. Our 3D milling solutions deliver precise 3D profiling from a 3D design model to establish milling depth.

We also offer "intelligent compaction" ready systems. Take the guesswork out of what the correct temperature is or how many times to roll the asphalt or soil. The system comes with a temperature sensor and stiffness sensor (accelerometer) that delivers results instantly on the screen, saving time and money for asphalt projects. With a proven combination of a temperature sensor, stiffness sensor, and secure connection to Sitelink3D, the system meets all DOT and Federal Highway standards for intelligent compaction.



### GX-30

#### Toggle between 2D and 3D

A smaller, more affordable in-cab display that reveals your position on the job site in real-time, and toggles easily between 2D and 3D operating modes for a variety of applications.

- 4.3 inch color, touch-screen display
- Heads up control for safe usage
- Future-ready upgradeable design

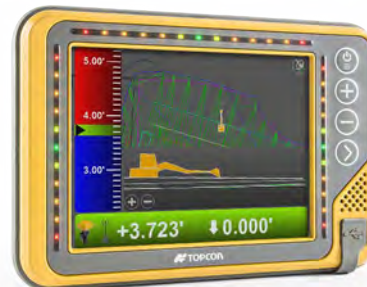


### GX-55

#### Tactile Control Box

Delivers the highest quality graphical interface experience for modern machine control. The GX-55 easily handles rugged field conditions while instantly displaying real time position and project design information.

- 6.5 inch sunlight readable color touch-screen display
- Integrated grade indicator LED's
- Easy-access USB port for data transfer



### GX-60

#### Touch-Screen Controller

Our in-cab touch-screen display reveals your position on the job site in real-time, providing constant cut/fill and grade verification at your fingertips.

- 6.5 inch color, touch-screen display
- Graphical and intuitive 3D-MC software
- Rugged, cast aluminum housing



## MC-R3/MC-G3

### GPS Receiver/Valve Controller

At the heart of our 3D-MC systems, the MC-R3/ MC-G3 offers an integrated GNSS receiver, multiple radio options and internal cellular modem, while delivering control to the system's valve drivers, all in a sturdy housing.

- Safe, in-cab mount
- Multiple radio and data communication options
- Upgradeable to dynamic budget and project needs



## MC-i4

### GNSS Receiver

The MC-i4 is fully equipped with all the sophisticated methods of radio communication including our superior LongLink™ (Bluetooth®) and cellular for precise indicate positioning.

- Direct communication for Local Positioning System (LPS) using LongLink radio
- Reliable cellular connection for Sitelink3D communications and RTK corrections
- Vanguard Technology™ for maximum satellite coverage and tracking



## 3D-MC<sup>2</sup>/TS-i3

### Inertial Measuring Unit/Tilt Sensor

Double your grading speed with near finished grade precision no matter how complex the design, with unmatched accuracy and speed. Stay on grade and eliminate string lines by adding the compact TS-i3.

- Unparalleled productivity
- Repeatable accuracy and smoothness
- Increase speeds up to 200%



## Pocket 3D

### Verify Grades, Stake Placements and Locate Utilities

Get the power of location based site management for foreman and grade checkers. Easily verify grades, reset stakes, and locate utilities on site.

- Check grade, verify cut and fill
- Calculate volume quantities and as-builts
- Secure connection to Sitelink3D for instant data transfer

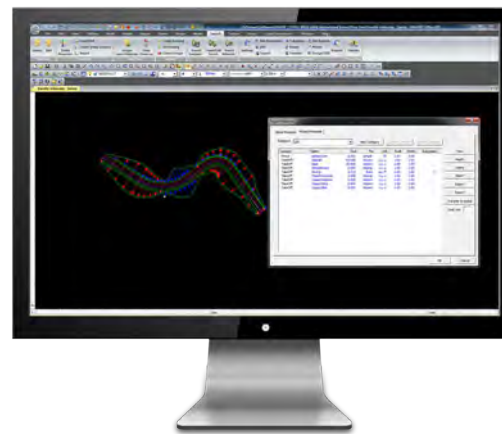


## MAGNET Office Takeoff

### Design and Estimating Software

Perform takeoff calculations and build a complete road design from one software module. All your cuts and fills are shown in 3D. Easily generate volume, price, and material reports, and export design files to machines in the field.

- Import and export multiple file formats
- Automated pad design with automatic site balance
- Direct connection to Sitelink3D service

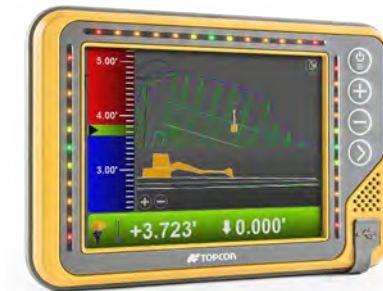


## 3D-MC

### Machine Control Software

As the centralized core software to all our machine control systems, 3D-MC gives you ultimate versatility for any job site. Move one control box to just about any piece of equipment with the ability to perform multiple applications.

- Works with dozers, motor graders, excavators, scrapers, trenchers, milling, paving machines, and compactors
- Intuitive graphical user interface
- Ability to connect to Sitelink3D service





## Sitelink3D™

### Job Site Management

From site to office, Sitelink3D gives you the connectivity and control to keep your jobs moving and on target. From your desk, you have remote access and support to every machine, file transfers to one or many, messaging, and advanced volume reporting.

- Constant connection to all active job sites
- Visibility and tracking
- Remote access and support



## Sitelink3D™ Enterprise

### Plan, Schedule and Report

Do more with your data and create customized reports from your desk. Sitelink3D gives you the ability to better manage your material in real-time. Plan, schedule, define machine tasks, and run customized reports to satisfy DOT requirements.

- Productivity reports
- Job site planning
- Track progress, run volume/haul reports



## DynaRoad

### Manage Earth Works

Provides quicker, more realistic, and accurate planning and analysis by building up from the map. DynaRoad gives you tools to efficiently manage the moving and placement of bulk earthwork materials in real space over time. Visualize complex project tasks for a clear vision of success

- Mass haul management
- Gantt chart schedules
- Resource planning





## 3D-MC<sup>2</sup>

### Double Your Speed and Accuracy

With speeds four times faster than standard dozers and twice that of other 3D models, our 3D-MC<sup>2</sup> machine accomplishes the work of two or three machine controlled dozers. Get smoothness and grading accuracy comparable to motor graders, with an easy user interface and familiar components you'll recognize in our other MC solutions.

Combine our GX-60 control box, GPS+ antenna, MC-R3 receiver and MC<sup>2</sup> sensor plus advanced control software for position updates up to 100 times per second. The MC<sup>2</sup> sensor combines a gyro, compass and inertial sensor to measure the dozer's X, Y and Z position, plus pitch, roll, yaw and acceleration. The result? The most stable, responsive control system that helps less experienced operators perform like experts.





## Millimeter GPS

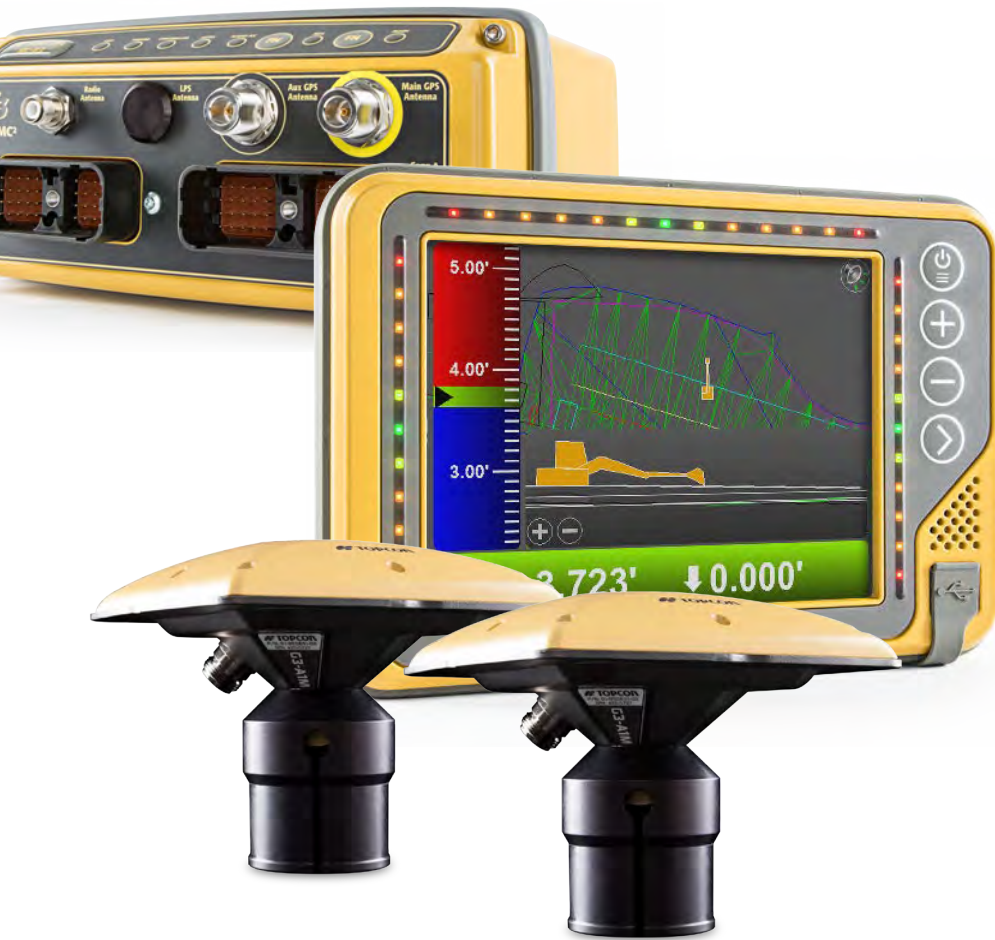
### Millimeter Laser Accuracy

For millimeter accuracy our GNSS technology combined with land-based laser transmitters give paving, fine grading, and concrete jobs an instant upgrade. To get high precision grade verification, simply add a Millimeter GPS system to instantly gain the highest in vertical repeatability on each phase of your project.

Transform your GNSS system into an ultra precise measuring solution that rivals the accuracy of a robotic total station at a fraction of the cost, while expanding to multi-user situations.

A true zone of productivity — our Millimeter GPS system broadcasts an entire zone of light spreading in all directions, confidently broadcasting your project site's vertical control. As each sensor sees and captures this light, you instantly gain the highest level of vertical accuracy available, while maintaining speed.





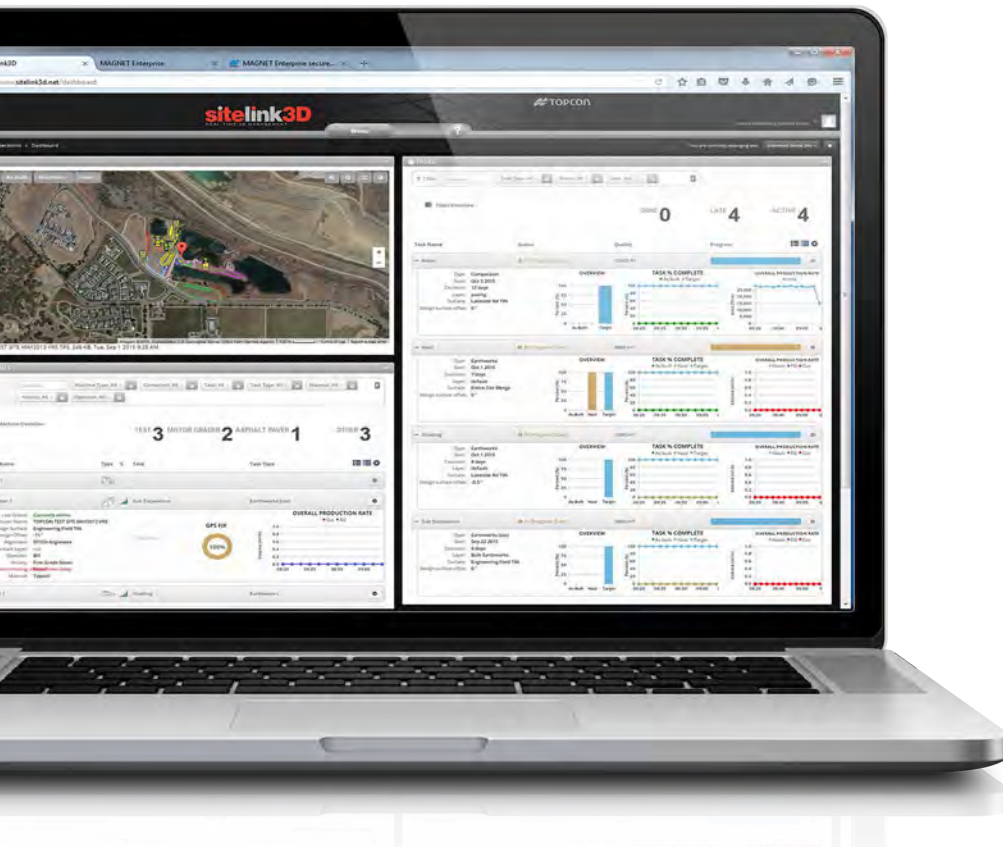
## X-53

### 3D Excavator System

Conquer all excavation jobs with the versatile X-53 system. Whether you are digging a utility trench, cutting building pads, or repairing a landslide, the X-53 system keeps your bucket on grade anywhere on the job site. The elevation and location of the cutting edge is constantly tracked using the combination of our proven GNSS receivers, antennas, precise tilt sensors, and graphical 3D-MC software. The fusion of these main components form a rock solid system that increases the operators productivity and optimizes material management, keeping you ahead of the game.

Consistency and speed on projects are key. Our modern GX-55 control box delivers multiple methods to achieve the highest degree of repeatability and safety using audible alarms as well as bright LED lights to guide you to grade. Document the progress of your excavator tasks and communicate the status in real-time to the office right from your cab using the Sitelink3D access on your control box.





## Sitelink3D™

### Site Management System

No more driving to job sites to deliver change orders or new job files. Just send them directly to machinery electronically and troubleshoot issues remotely. Easily view machine progress and production rates from anywhere in the world and customize reports to match your management style.

View and manage job site machinery in action. You get tabular views of your project crews, their exact position, activities, and files in use.

- Text messaging and file transfer
- Visibility and tracking
- Remote access and support

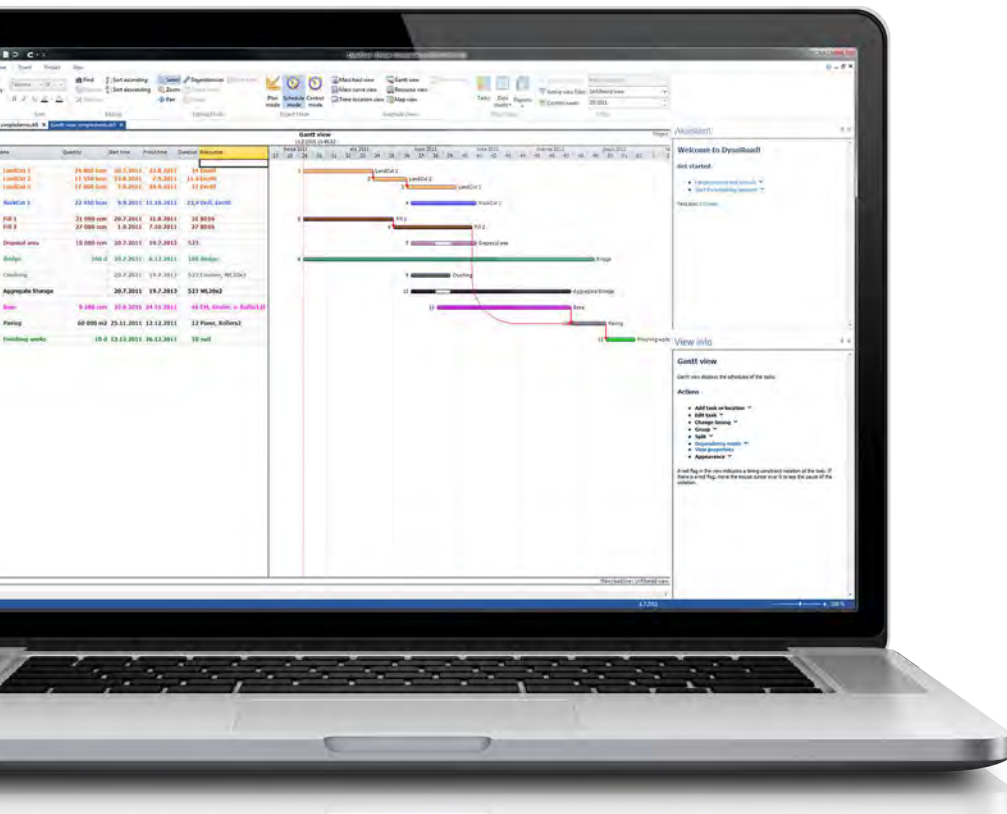
#### Enterprise Version

Sitelink3D Enterprise is an advanced package you can purchase for the desktop and laptop versions. You get the extra abilities to:

- Generate intelligent compaction reports
- Create and better manage tasks
- Produce real-time as-built layers, and more...







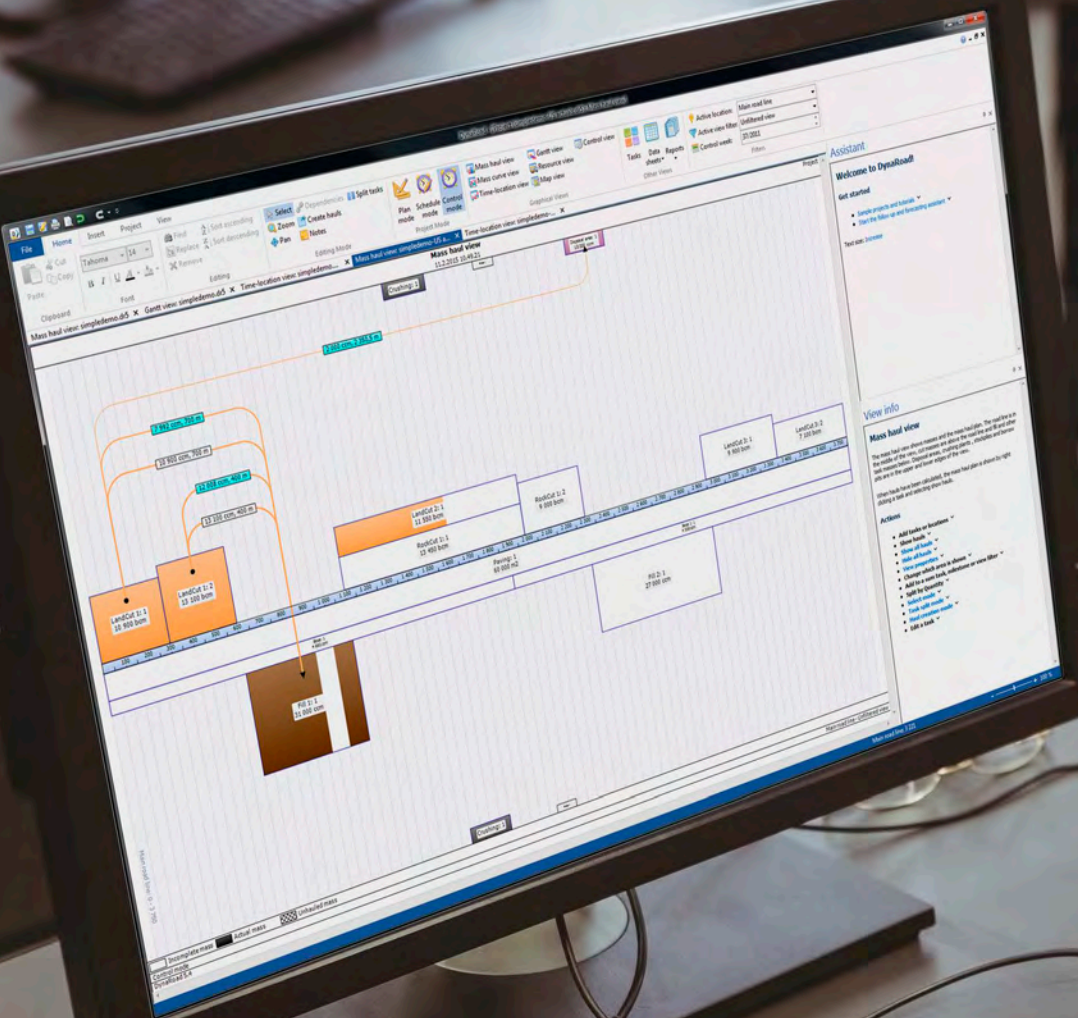
## DynaRoad

### Scheduling, Production and Earth Moving Management

Begin your project with a clear and defined path to success. Building up from the map gives you planning and analysis that's quicker, more realistic, and accurate. Earthwork is all about moving and placing material in real physical space over time, and DynaRoad gives you tools especially built to maximize efficiency for doing just that.

Graphic visualizations allow you to display complex interacting variables over time in an easily understood manner. Most importantly, it gives you better control of your outcomes.

- Map-based planning
- Automatic mass haul calculation
- Cut/fill balancing
- Gantt chart schedules
- Intelligent product forecasts
- Optimized traffic planning
- Import multiple PDF plans





## MAGNET®

### Suite of Software Solutions

Control your business and improve your profit with MAGNET® software. A customizable, integrated full range of software solutions that help you increase productivity at every stage of your project.

The MAGNET system of software solutions works seamlessly with our 3D products and helps streamline your jobs.

Plan, manage, and oversee projects to better track and oversee your assets. Through the MAGNET system, there are automatic connections to Autodesk software — single file transfer from Civil 3D environment out to Topcon construction and survey solutions. Simplify processes, and reduce chances for errors.





## With You All The Way

No matter what size your company is, what role you have, or what phase of a project you are working on — we've got the solutions and services to help you get the job done right the first time.

## Topcon Enterprise

We're dedicated to helping you solve your workflow challenges, and get the most out of your Topcon solutions.

Topcon Enterprise gives you access to a large collection of online materials, software and firmware updates, current publications, tech tips, and guidance from the experts - all from your computer or mobile device.





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**Shaping New Dimensions**

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