

# MAGNET<sup>®</sup>

Your Work Connected



INTRODUCTION

IN THE  
FIELD

IN THE  
CLOUD

IN THE  
OFFICE

GETTING  
STARTED

ABOUT  
TOPCON

# Table of Contents

---

Navigate sections by clicking the buttons below.



**INTRODUCTION**

---

**IN THE  
FIELD**

---

**IN THE  
CLOUD**

---

**IN THE  
OFFICE**

---

**GETTING  
STARTED**

---

**ABOUT  
TOPCON**



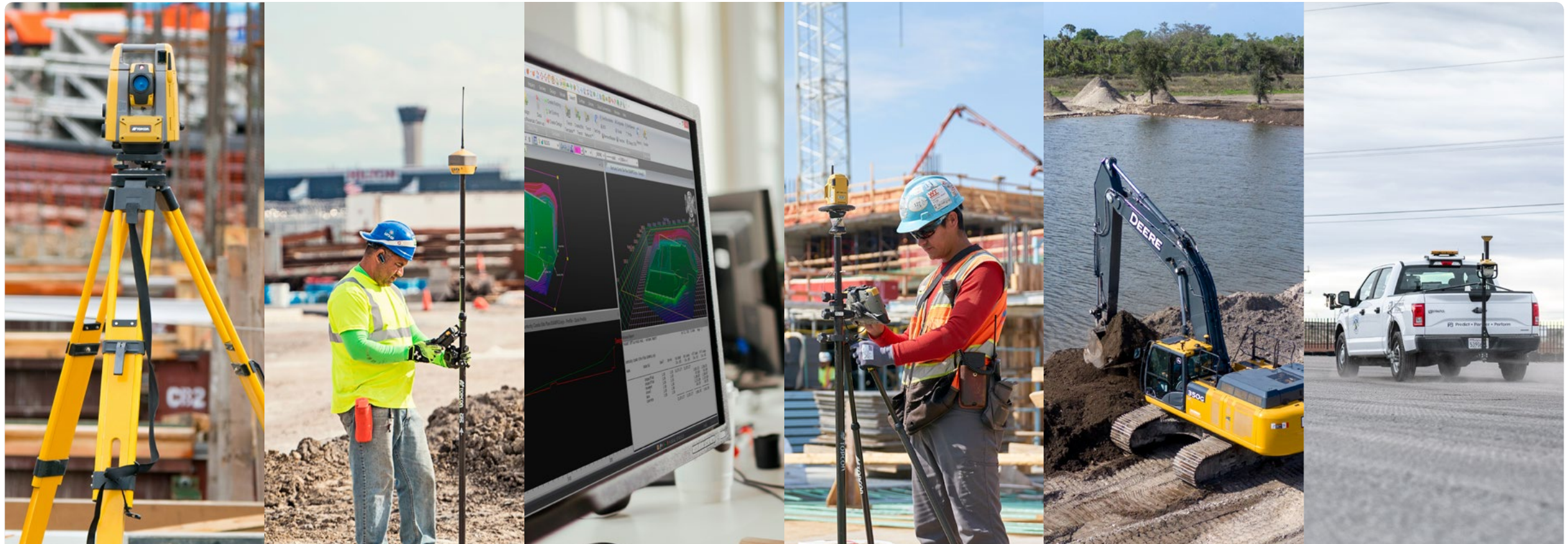
# MAGNET® Software Suite Field, Enterprise and Office

The construction industry is looking for new solutions to reduce the billions of dollars lost each year due to inaccurate and incompatible project data leading to rework and collaboration breakdowns.

The MAGNET® software suite addresses this need by streamlining workflows for contractors, surveyors, modelers, estimators and project managers across each stage of a construction project. When combined with our state-of-the-art instruments and machine control, this field, cloud and office software suite enables users to create and access the right data, in the right place, all the time.

MAGNET® is a comprehensive, connected and compatible solution that closes the gap between the survey and construction industries.





MAGNET<sup>®</sup> provides end-to-end infrastructure workflows.



**Earthmoving and paving**

Improve earthmoving and paving machine-control efficiency by quickly creating machine-ready constructible models and estimates to win more projects and save on materials. MAGNET<sup>®</sup> maximizes your data and resources from earthworks to concrete, asphalt paving and resurfacing applications.



**Stakeout and surveying**

Create highly productive workflows for stakeout and gathering survey and construction-location data in the field. Seamlessly transfer that data to the cloud and create finished digital terrain deliverables in the office. This connected workflow approach delivers successful and collaborative outcomes from initial field surveys to the finished project.

INTRODUCTION

IN THE FIELD

IN THE CLOUD

IN THE OFFICE

GETTING STARTED

ABOUT TOPCON



## Connected

---

A connected approach to your projects includes seamless field-to-office collaboration with one set of plans that are always up to date across the project team. Integrated field, office, machine, instrument and third-party software keeps your project team connected. That way they are on the same page and working more efficiently together toward a productive and profitable outcome.

## Compatible

---

Seamless integration eliminates boundaries, data silos and the limitations inherent in mixed-fleet situations, providing a totally compatible solution that just works. This makes it possible to combine drawings in multiple formats—including third-party data via a field-controller device or office software—with minimal conversion effort or data loss.

MAGNET® is compatible with more than 50 industry-standard drawing formats. Those formats can be imported to enable a jobsite to work with compatibility from survey and layout to machine control.



## In the Field

MAGNET® Field for Increased Accuracy and Efficiency

INTRODUCTION

IN THE  
FIELD

IN THE  
CLOUD

IN THE  
OFFICE

GETTING  
STARTED

ABOUT  
TOPCON



## The engine to field productivity

MAGNET® Field, the engine for our field-productivity package, is designed to accelerate productivity, increase accuracy and better connect project teams. The intuitive software is easy to learn and use and yet has the power to solve even the most complex positioning challenges. Surveyors and contractors alike use MAGNET® Field to collect data points, stake out road and site projects, lay out building components and perform land surveys.

### Field-based data management

The growing trend is for field personnel to handle data like control points, construction drawings, quality reports and as-built documentation directly from the field controller. In many cases, this can be done without the need for office software. Quickly set up your projects; store the information you need; share your daily work instead of sending the whole file back and forth each day; and securely back up the data to the cloud.

INTRODUCTION

IN THE  
FIELD

IN THE  
CLOUD

IN THE  
OFFICE

GETTING  
STARTED

ABOUT  
TOPCON

# MAGNET® Field Highlighted Features



## Easy to use and learn

Efficiently lay out and measure with dependable workflows that are easy to learn and use. MAGNET® Field menus can be customized to display only the necessary commands, including everyday terminology for your field crew.

## 3D layout

Create 3D layouts with a BIM interface that enables multiple floor views including filtering by level using the popular IFC file format. Create object-insertion points to lay out 3D objects directly in the field software.

## Data handling

Display project data faster and handle larger and more complex jobsite files using 3D viewing and filtering. Field users can lay out and collect points on even the most complicated infrastructure projects.

INTRODUCTION

IN THE  
FIELD

IN THE  
CLOUD

IN THE  
OFFICE

GETTING  
STARTED

ABOUT  
TOPCON



# MAGNET® Field Highlighted Features



## Professional field-based, quality reporting

Create professional reports and notated photographs directly from the field to immediately share positioning accuracy, tolerances and observations. Improve documentation to reduce the high cost of rework caused by undiscovered inaccuracies, poor data and miscommunication.



## Map-based workflows

Avoid lost time switching between screens thanks to flexible workflow options controlled directly from the map view. Workflow options include staking project data, adjusting layer settings, displaying backgrounds, adding data levels, viewing GNSS settings and showing visual offsets.



## Hybrid GNSS and total stations control

Hybrid technology includes a simultaneous connection to GNSS and optical sensors while the software optimizes measurements between the two technologies. This significantly increases productivity by allowing users to accurately capture points with fewer total-station set-ups even when the line of site is lost.

INTRODUCTION

IN THE FIELD

IN THE CLOUD

IN THE OFFICE

GETTING STARTED

ABOUT TOPCON



## MAGNET® Vision

See visual aids on smart glass lenses and control instruments via voice commands. This software lets users precisely lay out and measure points on a job site, increasing productivity and worker safety with hands-free operation. The system is an add-on to MAGNET® Construct field-controller software and utilizes third-party Vizux Blade smart glasses.

INTRODUCTION

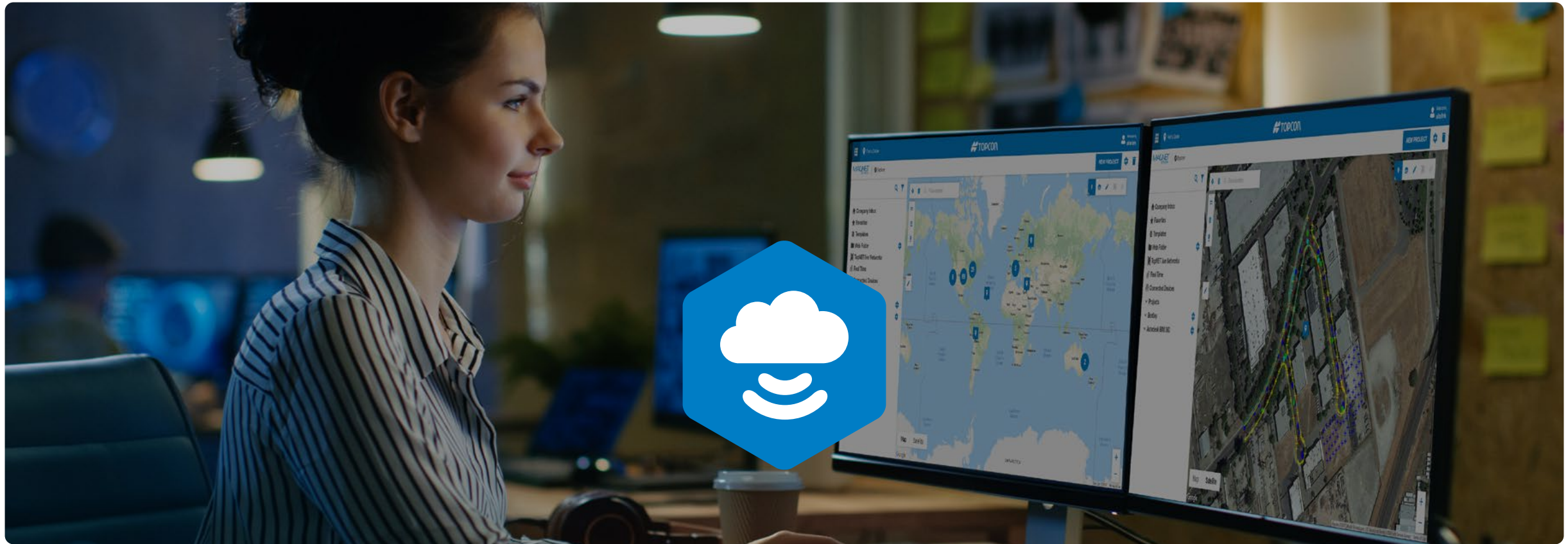
IN THE  
FIELD

IN THE  
CLOUD

IN THE  
OFFICE

GETTING  
STARTED

ABOUT  
TOPCON



INTRODUCTION

IN THE  
FIELD

IN THE  
CLOUD

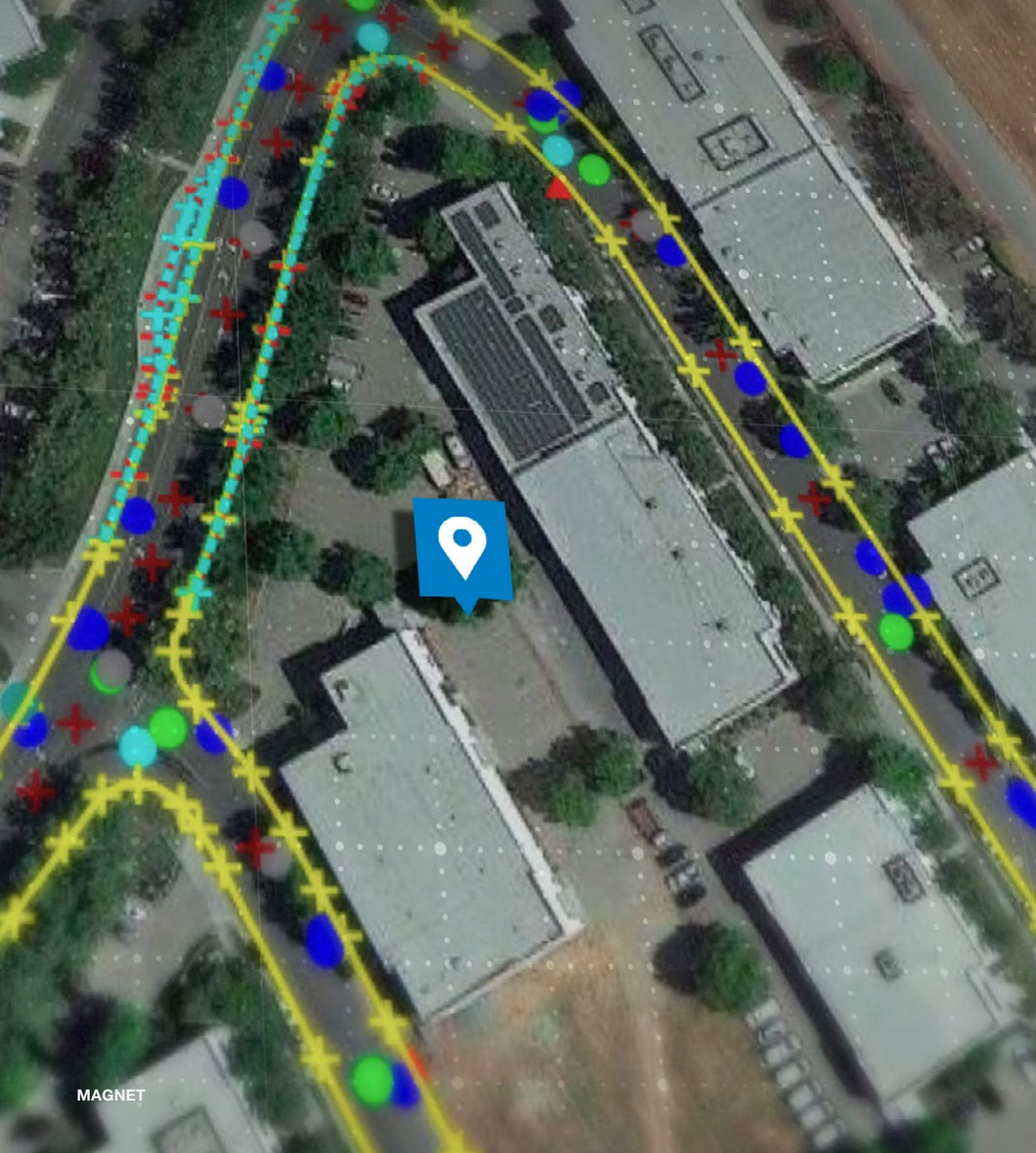
IN THE  
OFFICE

GETTING  
STARTED

ABOUT  
TOPCON

## In the Cloud

MAGNET® Enterprise for Efficiently Managing Geopositioning Data



## MAGNET<sup>®</sup> Enterprise

Store data and insights for access by field crews, machine operators and office team members using MAGNET<sup>®</sup> software, Sitelink3D, Autodesk or Bentley solutions. This web service provides seamless field-to-office connectivity for your projects, making a real-time connected data environment possible. Project data is saved to the map, and files can be instantly converted and shared with a field controller or machine. MAGNET<sup>®</sup> Enterprise improves productivity and minimizes downtime and do-overs by providing the entire project team with increased accessibility to accurate and consistent cloud-connected geopositioning data.

# MAGNET® Enterprise Highlighted Features



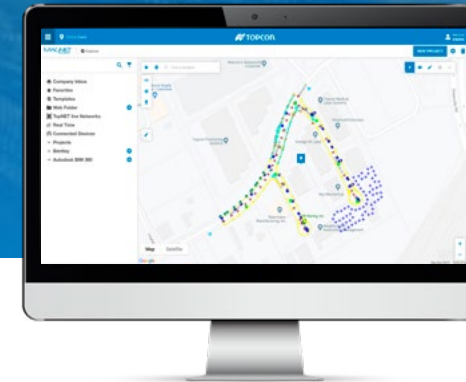
## All your projects on a web interface map

Connect the digital and the real worlds with a visual map of your project datasets directly georeferenced to the earth with background maps.



## Cloud-based data management

Keep the entire project team working on the latest plans, and benefit from single-click data conversion to share survey and constructible models directly to instruments and machines on site.



## Real-time collaboration

Annotate or redline the map or plans in the cloud browser to directly transfer instructions or notes to keep your field crew working at maximum efficiency.

# MAGNET<sup>®</sup> cloud integrations

Give your project team greater access and visibility to geopositioning cloud-connected data, whatever its format or source.



## Sitelink3D machines

Send machine models and design sets directly to the site; manage tasks and metadata; remotely control 3DMC machine settings; and view machines in real-time, all while working directly and conveniently from within MAGNET<sup>®</sup> Office.



## Topcon Exchange for Autodesk<sup>®</sup>

Topcon Exchange for Autodesk<sup>®</sup> installs a ribbon within the Autodesk<sup>®</sup> AutoCAD<sup>®</sup> and Revit<sup>®</sup> environments to create Topcon-proprietary machine-control or survey file formats, which can be transferred directly to the field via the cloud. The executable utility can be downloaded at myTopcon, and the user will need a MAGNET<sup>®</sup> Enterprise connection to enable functionality.



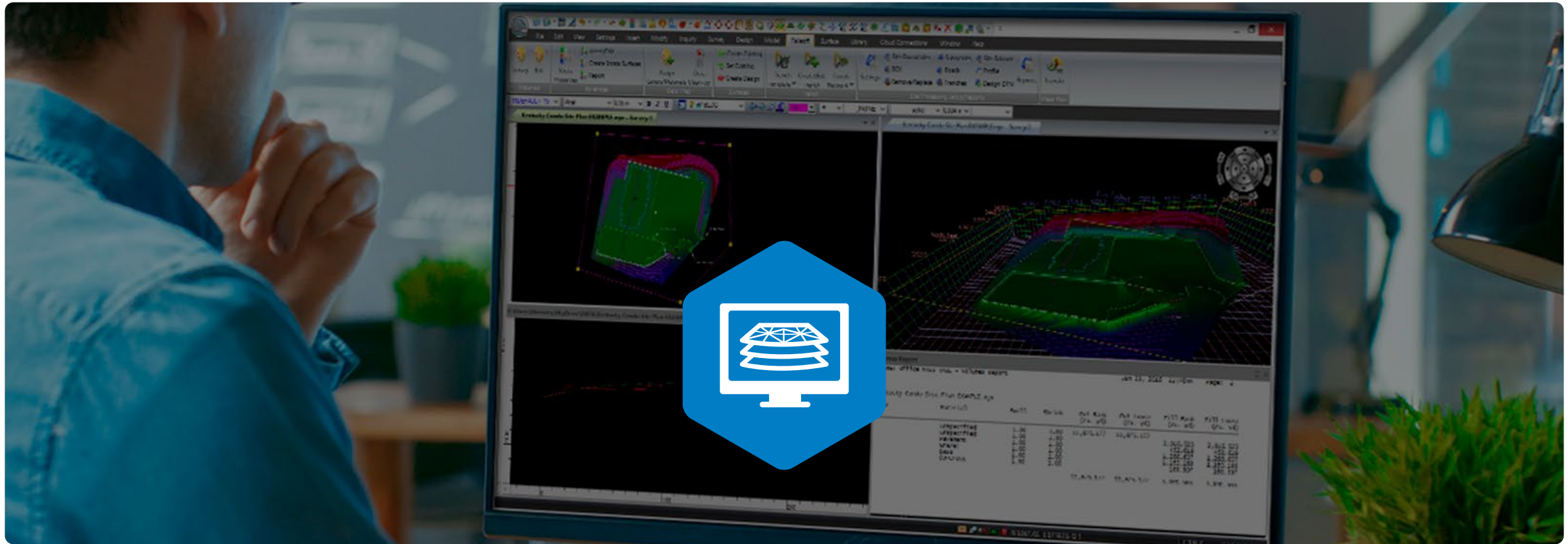
## Autodesk<sup>®</sup>

Autodesk<sup>®</sup> BIM 360 document files and project folder structures are directly accessible from the MAGNET<sup>®</sup> software suite in the field and office.



## Bentley

Bentley ProjectWise files and project folder structures are directly accessible from the MAGNET<sup>®</sup> software suite in the field and office.



INTRODUCTION

IN THE  
FIELD

IN THE  
CLOUD

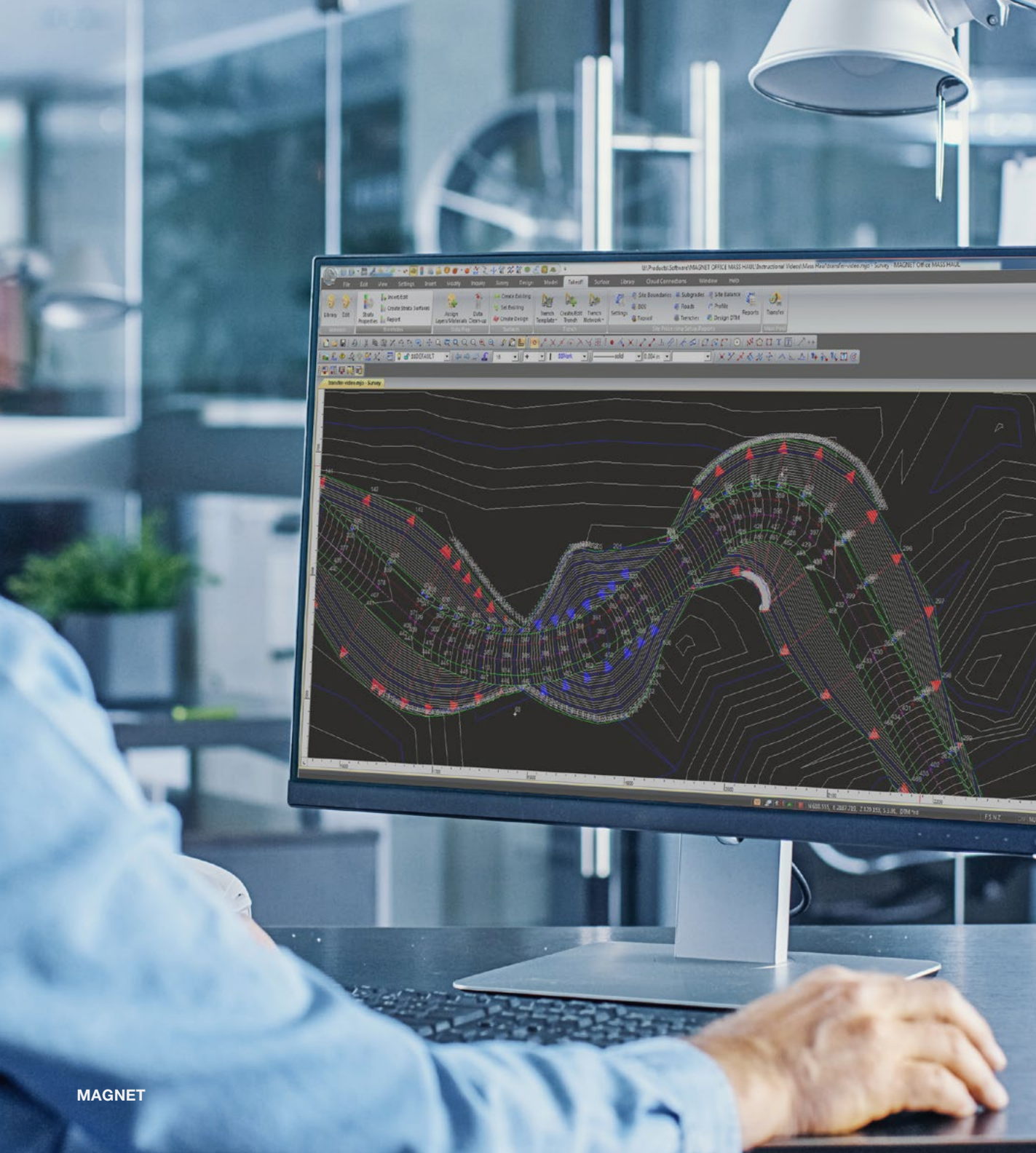
IN THE  
OFFICE

GETTING  
STARTED

ABOUT  
TOPCON

## In the Office

MAGNET® Office for Productive and Profitable Workflows



## MAGNET® Office

Stay in charge of your project data set. This office-software companion to our field-productivity solutions handles the data import-and-export needs and provides project insights for better site management and improved profitability. You can optimize digital-infrastructure workflows, including machine-control models, material takeoffs, final survey deliverables, point-layout files and paving resurfacing design.

These capabilities make MAGNET® Office particularly well-suited for earth-moving, paving and surveying applications.

INTRODUCTION

IN THE  
FIELD

IN THE  
CLOUD

IN THE  
OFFICE

GETTING  
STARTED

ABOUT  
TOPCON



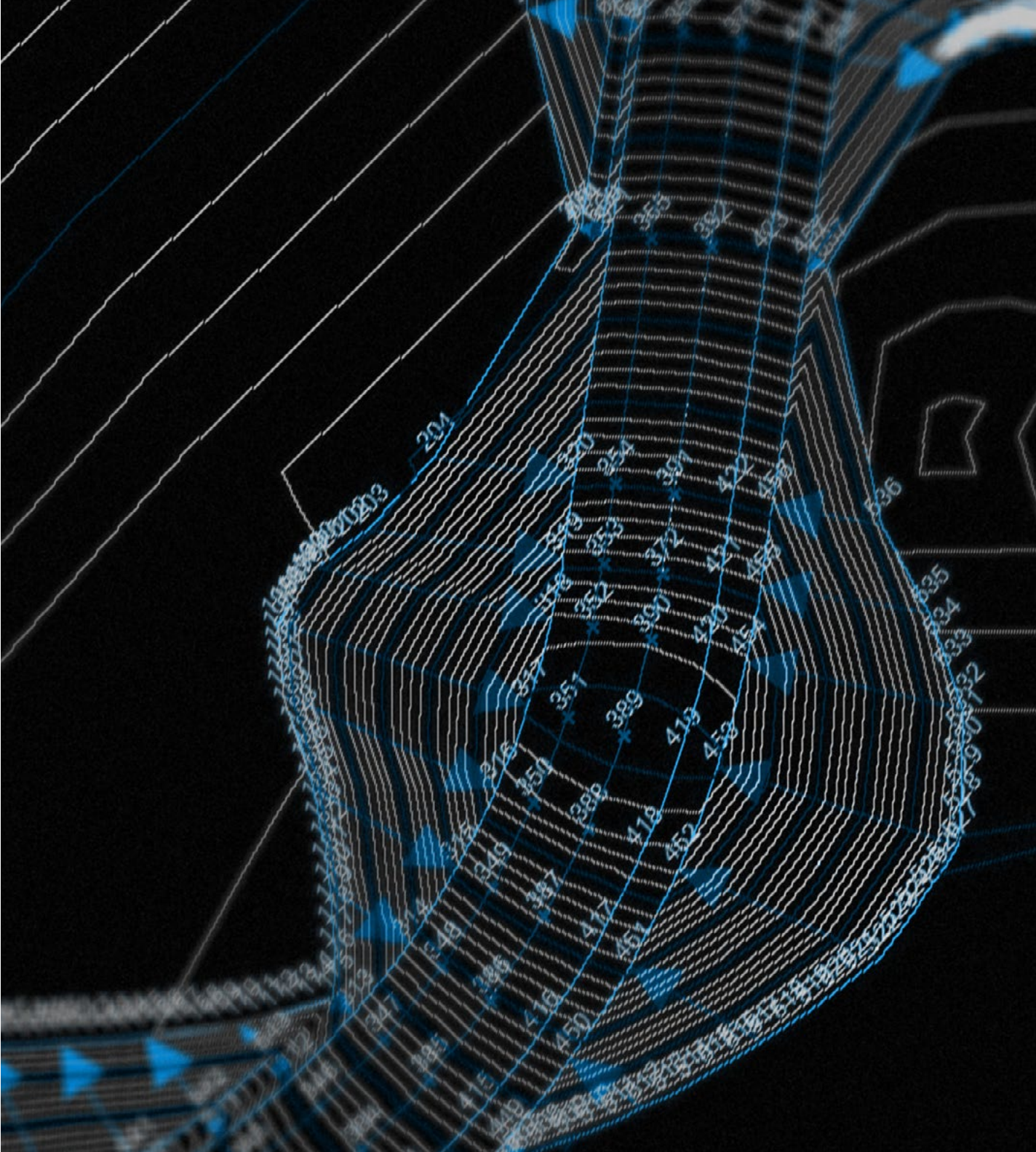
# Constructible digital terrain models

MAGNET® Office software enables you to efficiently combine plans and survey data to build machine-and-instrument-ready constructible 3D digital-terrain models for sitework, corridors, roads, paving and trenching. MAGNET® digital-terrain models can be directly transferred to machines, field personnel or project stakeholders for a better-connected project team. Triangulated digital-terrain models provide a data-efficient physical project representation making it possible to create topographical maps, extract cut-and-fill volumes, and provide progress reports for a bill of quantities, planning and scheduling.



# Digitize workflows with ease

Even if you are just starting your digitization journey, you can quickly work with improved machine control files, convert estimation methods from paper to 2D or 3D models or efficiently create survey deliverables. Digitize your everyday tasks, including setting up points for layout, converting PDFs to CAD files and calculating takeoff volumes.



INTRODUCTION

IN THE FIELD

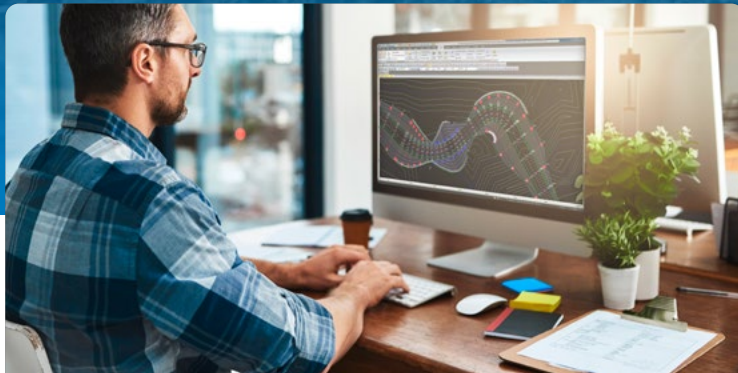
IN THE CLOUD

**IN THE OFFICE**

GETTING STARTED

ABOUT TOPCON

# MAGNET® Office for Earthmoving and Paving



## Model building, estimating and data preparation

Bring your construction plans to life with precision. Enter site-specific construction materials; quickly build design surfaces; create cost and volume reports; and develop 3D models. Bid and manage each project—including site work and large-scale road work—quickly, accurately and successfully.



## SmoothRide asphalt resurfacing workflow

MAGNET's easy-to-use digital-resurfacing design tool is designed for paving or milling projects. Quickly produce cross-slopes, transitions, smoothing, milling, lifts and IRI (International Roughness Index) calculations and send design files directly to the field.



## Concrete paving machine control files

Create alignments for curb and gutter applications, or simply convert and clean up design data so it's ready for construction. Preparing machine-control files in-house gives you more flexibility and makes you more responsive, keeping your field crew at top efficiency.

INTRODUCTION

IN THE FIELD

IN THE CLOUD

IN THE OFFICE

GETTING STARTED

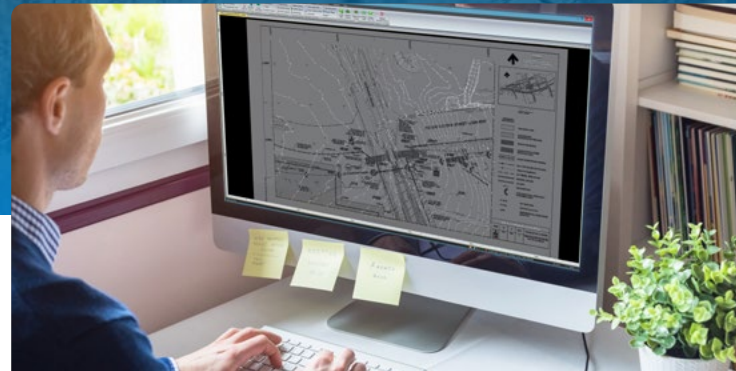
ABOUT TOPCON

# MAGNET® Office for Stakeout and Surveying



## Survey data post-processing

MAGNET® Tools lets you post-process and adjust field-survey data collected from total station and GNSS equipment. It also lets you visualize field work in Google Earth™ and directly export the data to popular 3D CAD software.



## Topographical map making

MAGNET® Office includes specific tool sets for survey and drafting, including creating finished survey CAD deliverables. Prepare and share your survey data for civil engineers, land surveyors or machine operators in the field.

INTRODUCTION

IN THE  
FIELD

IN THE  
CLOUD

IN THE  
OFFICE

GETTING  
STARTED

ABOUT  
TOPCON



## MAGNET® Collage

Process, combine and analyze multi-source point cloud data from traditional survey instruments and reality capture laser scanners, mobile mapping systems and UAVs. Easily export to industry-standard modeling or CAD software or directly publish online with MAGNET® Collage Web for improved collaboration among stakeholders.

INTRODUCTION

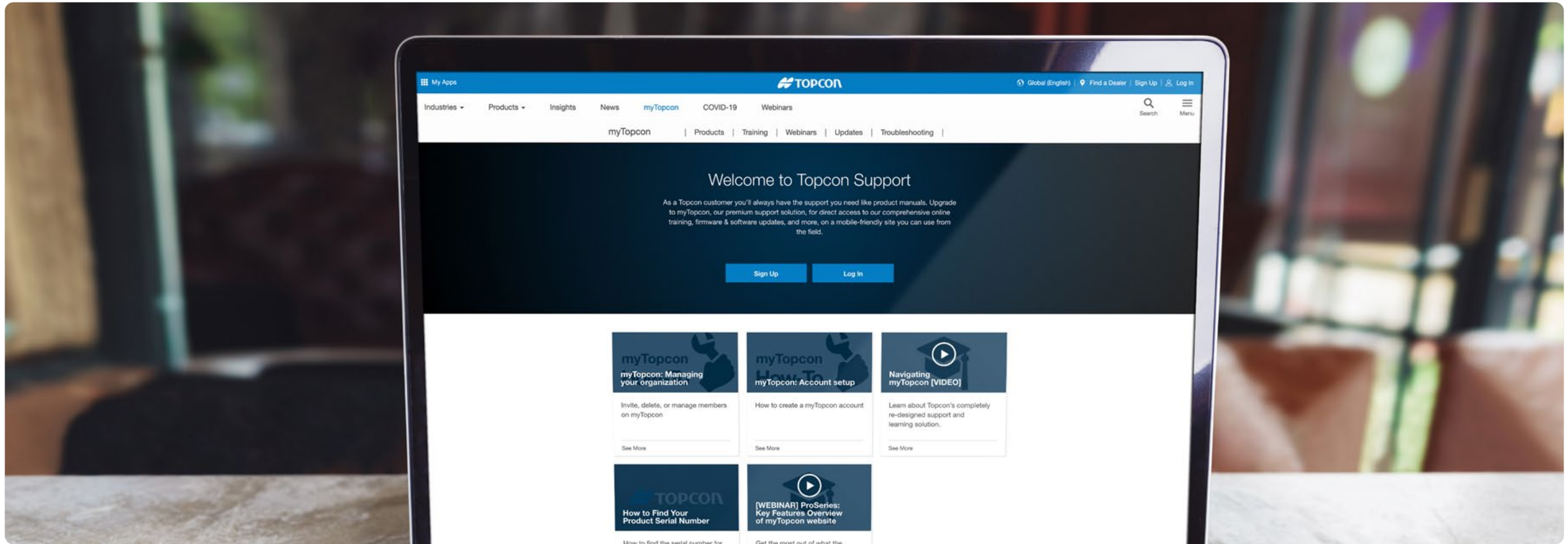
IN THE  
FIELD

IN THE  
CLOUD

IN THE  
OFFICE

GETTING  
STARTED

ABOUT  
TOPCON



INTRODUCTION

IN THE  
FIELD

IN THE  
CLOUD

IN THE  
OFFICE

GETTING  
STARTED

ABOUT  
TOPCON

## Getting Started

Get started by selecting the configuration needed for your project. Whether you “test drive” or purchase, you will benefit from our training content which is designed to maximize your experience and enhance your productivity.

We've Got You Cov

Try it for free

Test it out risk-free before you buy. Download our free demo version to see firsthand what makes this the industry-leading software solution.

**DOWNLOAD DEMO VERSION**

Re  
inf  
fir  
t

## MAGNET<sup>®</sup> Trials

There are two ways to access trials for Field and Office products to see the benefits upfront. You can download the software from [topconpositioning.com](https://www.topconpositioning.com) and use it in demonstration mode to test drive the software. Or, if you would like to try the complete software without limitation, contact a Topcon dealer for a 30-day trial license. Current MAGNET<sup>®</sup> users who want to try out MAGNET<sup>®</sup> Enterprise can find the cloud service directly on the Topcon website within the "My Apps" menu. MAGNET<sup>®</sup> Enterprise connectivity is included with a subscription or active license service package for MAGNET<sup>®</sup> Field or Office.

INTRODUCTION

IN THE  
FIELD

IN THE  
CLOUD

IN THE  
OFFICE

**GETTING  
STARTED**

ABOUT  
TOPCON

# License Options

MAGNET® Field and MAGNET® Office are available as either a subscription or permanent license. Subscriptions to MAGNET® software offer benefits like transparent budgeting with low initial costs and access to the latest features in each software release. We offer a subscription manager to streamline administration and avoid any lapses in your subscriptions.



INTRODUCTION

IN THE  
FIELD

IN THE  
CLOUD

IN THE  
OFFICE

GETTING  
STARTED

ABOUT  
TOPCON



# MAGNET® Field Offering



## Field

Data-collection software

**Operating System:** Windows® 10

**Subscription includes all modules:**

- Robotic total station
- GNSS module (includes mmGPS)
- Roads module
- Piping & trenching module
- Hybrid-positioning module
- Scanning and imaging module



## Construct

Mobile app for control of total stations and GNSS

**Operating Systems:** Android™ and iOS

**Separate subscriptions:**

- MAGNET® Construct
- MAGNET® Construct with MAGNET® Vision app



## Field Layout

Guided layout field software

**Operating System:** Windows® 10

**Subscription includes all modules:**

- Robotic total station layout
- Scanning and imaging module



INTRODUCTION

IN THE FIELD

IN THE CLOUD

IN THE OFFICE

GETTING STARTED

ABOUT TOPCON

# MAGNET® Enterprise Offering



**Enterprise**

Cloud-based data storage  
connecting field and office teams

Enterprise is included in any MAGNET® subscription. One year of MAGNET® Enterprise is also included with a permanent license of MAGNET® Field or Office or with the purchase of a service plan or maintenance.



# MAGNET® Office offering

Functionality	<b>MAGNET® Office</b> Prep job files for machine control and grade management	<b>+Site Prep Module</b> Add advanced road, site and resurfacing design tools	<b>+Survey Module</b> Add finished CAD deliverables and data processing for surveyors
Sitelink3D and MAGNET® Enterprise connectivity	X		
Machine control data prep	X		
Layout data prep	X		
Road and site design		X	X
Corridor design		X	
2D PDF to 3D job file		X	
Take off and material quantities		X	
Paving resurfacing design		X	
Finished Survey CAD deliverables			X
MAGNET® Tools GNSS and optical processing			X

Note: Add-on product Topcon Project is available for mass haul planning, optimization, and location-based scheduling.

“

The strength of the MAGNET Field software is taking the plans of what you are trying to accomplish and seeing it accurately and productively come to fruition. MAGNET'S biggest draw is how it integrates everything together. If you are not working with integration in the future, you are left behind.

”

— Scott Schumacher, Pyramid Contractors

INTRODUCTION

IN THE  
FIELD

IN THE  
CLOUD

IN THE  
OFFICE

GETTING  
STARTED

ABOUT  
TOPCON

“

The data and the workflow is more efficient... machine control 3D modeling helps us catch mistakes before they become mistakes.

— Steven Baxter, *Accurate GPS Modeling*

”

INTRODUCTION

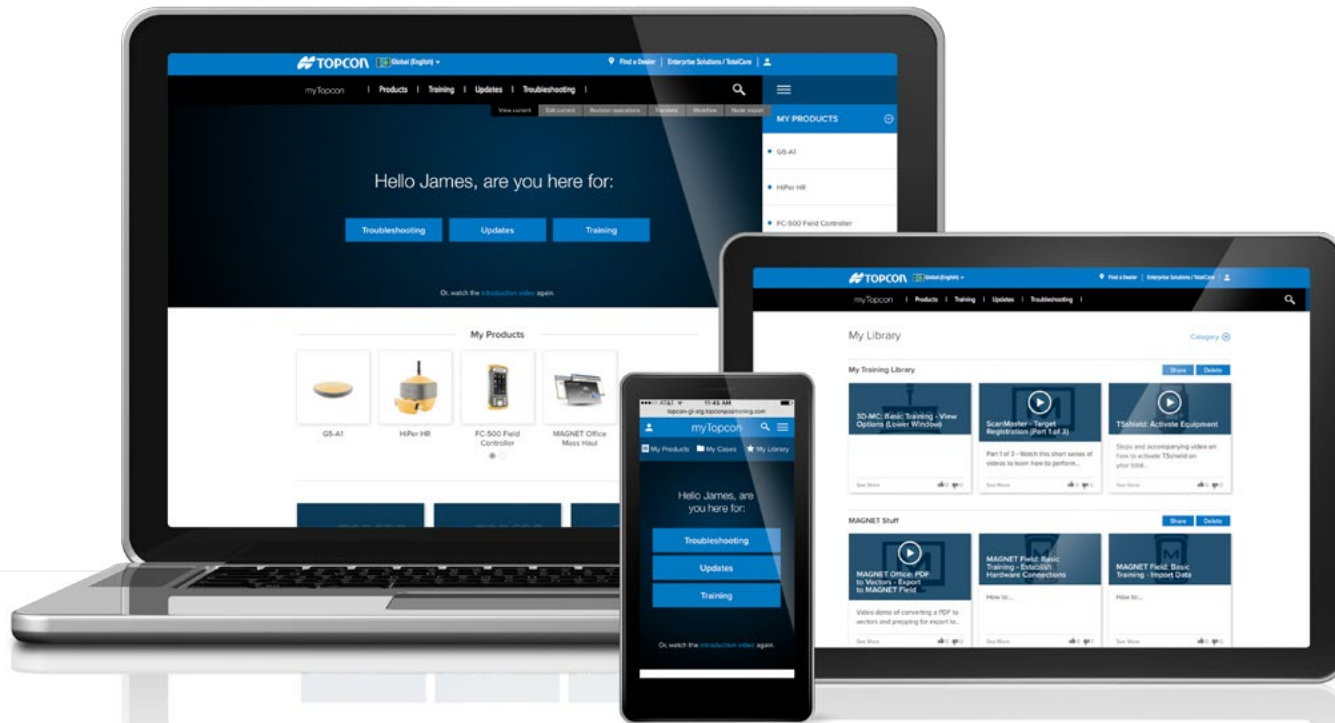
IN THE  
FIELD

IN THE  
CLOUD

IN THE  
OFFICE

GETTING  
STARTED

ABOUT  
TOPCON



# Support

We offer a comprehensive array of support options, including direct access to a comprehensive library of myTopcon training and support content in a mobile-friendly format. With single sign-on access, you can browse by product for informative, quick guides and training videos. View the latest webinar or E-learning content to advance your professional knowledge and stay on top of the productive digital workflows that advance your business.

INTRODUCTION

IN THE FIELD

IN THE CLOUD

IN THE OFFICE

GETTING STARTED

ABOUT TOPCON



# Trust Topcon

We are the ideal partner for developing advanced solutions for your positioning and machine control challenges. Our experience, technical expertise and overall company strength make us uniquely qualified to provide enhanced automation technology and ultimately drive your customers' productivity – along with your market share – to ever higher levels.

INTRODUCTION

IN THE FIELD

IN THE CLOUD

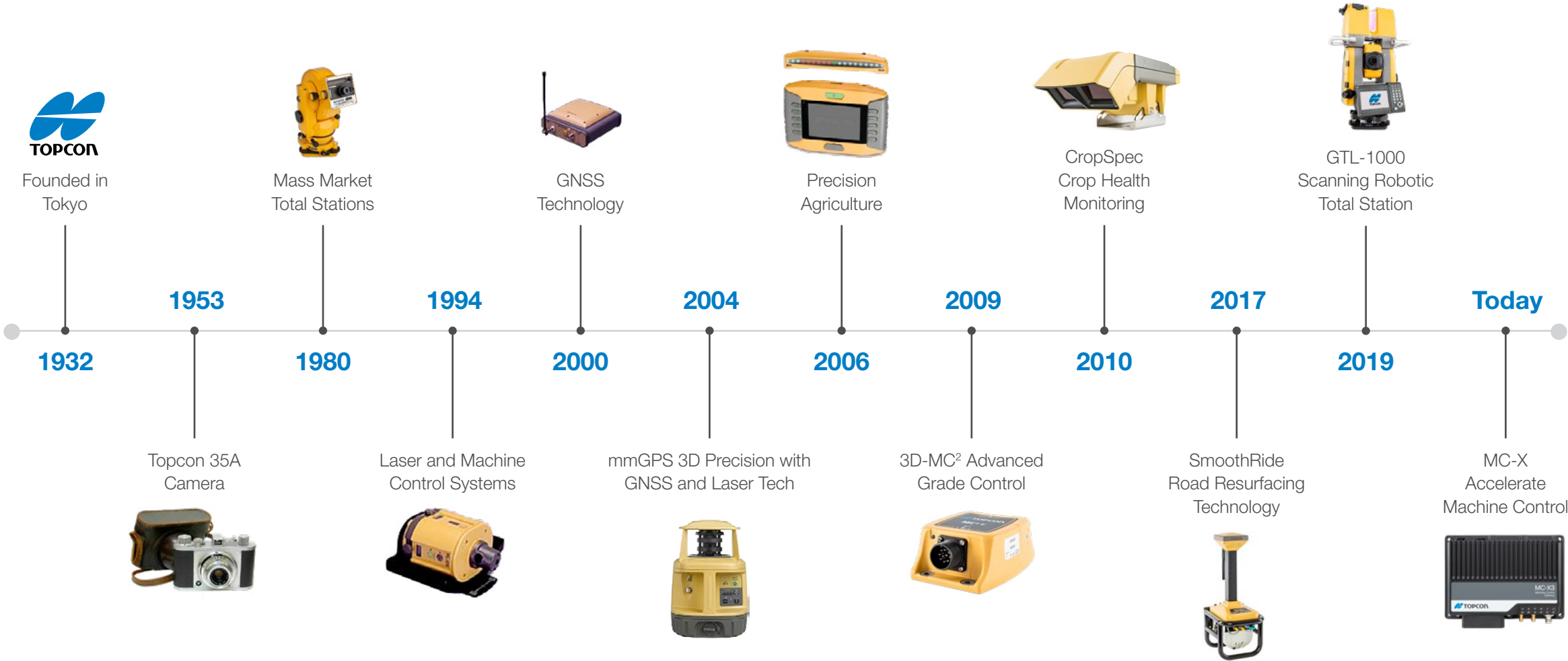
IN THE OFFICE

GETTING STARTED

ABOUT TOPCON

SPEED TO MARKET | GLOBAL NETWORK | EXPERIENCED OEM TEAM

# A History of Topcon Corporation



INTRODUCTION

IN THE FIELD

IN THE CLOUD

IN THE OFFICE

GETTING STARTED

ABOUT TOPCON



Trust Topcon to get you there faster with high-quality positioning and automation solutions tailored to your product strategy.

**Independent solutions**

In an industry with many contractual alliances, we remain independent. We have the freedom to develop technologies that best fit your unique goals. Our custom OEM solutions are all clean-sheet designs, providing more opportunities to differentiate your product from the competition.

**Speed to market**

Product development carries an inherent pressure to do everything faster and better than before, particularly since technology is only viewed as innovative if it arrives before the competition. Our experience helps simplify and shorten the design process, allowing you to go to market with your product faster – and with the utmost confidence.



Topcon Training Center,  
Livermore, CA

Topcon Technology  
Roadshow Truck

Topcon Positioning Systems Headquarters,  
Livermore, CA

INTRODUCTION

IN THE  
FIELD

IN THE  
CLOUD

IN THE  
OFFICE

GETTING  
STARTED

ABOUT  
TOPCON



4900+ Employees | 2150+ Patents



INTRODUCTION

IN THE  
FIELD

IN THE  
CLOUD

IN THE  
OFFICE

GETTING  
STARTED

ABOUT  
TOPCON

## Global Network

With an extensive worldwide network of corporate offices, R&D centers and technical groups, we have an unmatched capability to assist any manufacturer, no matter where they are located, with fully integrated machine automation solutions. This also positions us to create programs to assist and support dealer networks directly or through extensive training programs.

## Experienced OEM Team

Our experienced OEM team knows what questions need to be answered first and the potential pitfalls to avoid along the way. Their first objective is to make sure our technology is the right fit for your application and will be your partner every step of the way.



[topconpositioning.com](https://topconpositioning.com)

Specifications subject to change without notice.  
© 2023. Topcon Corporation. All rights reserved. Rev C 03/23

INTRODUCTION

---

IN THE  
FIELD

---

IN THE  
CLOUD

---

IN THE  
OFFICE

---

GETTING  
STARTED

---

ABOUT  
TOPCON