



Efficiency Through Information

CONSTRUCTION EQUIPMENT AND
ASSET MANAGEMENT SOLUTIONS



A COMPLETE SOLUTION FOR THE CONSTRUCTION INDUSTRY

TRIMBLE CONSTRUCTION MANAGER SOFTWARE ONE SOLUTION FOR MANAGING ALL OF YOUR CONSTRUCTION ASSETS



You invest millions of dollars in your construction equipment. You know how important it is to your job productivity. It's how you make money. In order to be profitable, you need to make informed decisions.

Now, you can confidently manage all of your assets, large and small, with advanced technology and powerful solutions from Trimble. It's simple—just a small piece of hardware sending key data to a central management software application—Trimble Construction Manager—and you get all of the information you need regarding equipment activity and location, right at your fingertips. For example, Trimble Construction Manager can alert you via email or text messaging when maintenance is due or when an asset moves out of a predefined area. It can tell you how many hours a dozer is working, idling, or switched off during the work day. It can tell you how long your cycle times are. It can even supply you with the specific information you need for accurately bidding future projects.

Empowering construction professionals to make highly informed decisions regarding equipment use in real-time, Trimble's construction asset management solution is flexible and highly versatile.

With Trimble Construction Manager, you select the Trimble hardware and monthly service plan that best suits your requirements for managing all of your machine, mobile and portable assets.

Trimble Construction Manager supplies quantitative information that you can use on a daily basis to analyze and improve your asset productivity and overall operations, saving you time and ultimately, money, simply by eliminating unnecessary project costs. Trimble Construction Manager helps improve the construction bottom line and

- Increase Equipment Productivity
- Manage Fuel Costs
- Report Emissions
- Ensure Preventative Maintenance
- Monitor Unauthorized Use

With Trimble Construction Manager software, you can:

- Centralize and simplify management of onsite operations
- Improve asset utilization and productivity
- Reduce fuel and maintenance costs
- Reduce project risks
- Improve safety
- Detect unauthorized use of equipment

Get real-time data to answer questions such as:

- What are my true load counts?
- How well is our equipment being utilized?
- How much fuel is being unnecessarily consumed?
- Where are my bottlenecks?
- Are we doing equipment maintenance at the right time?



MAXIMIZE YOUR RETURN ON INVESTMENT HARDWARE OPTIONS

Trimble Construction Manager supports two Data Communication Modules (DCM) for maximum flexibility in tracking and managing a range of heavy equipment, mobile and portable assets. Each device offers an integration of proven, reliable Trimble GPS technology with cellular-based communications.



TrimTrac

Compact, cost-effective device to monitor mobile and portable assets



CrossCheck

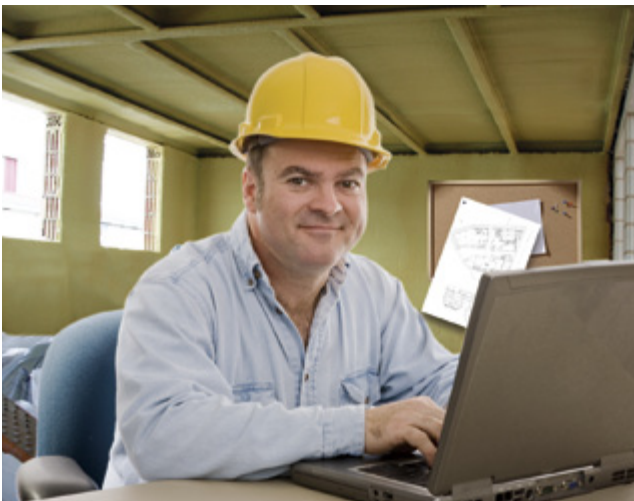
Powerful, versatile asset device for managing light to medium duty vehicles

Ingress Protection	IP55	IPxx
Onboard Geofences	No	40
MDT Support	No	Yes
Built-In GPS Antenna	Yes	No
Built-In Cellular Antenna	Yes	No
External GPS Antenna	Optional	Yes
External Cellular Antenna	No	Yes
Support for real time position query	No	Yes
GPS Accuracy (horizontal)	< 12 meters	< 10 meters
Back-up Battery	Onboard	No
Suggested equipment	Backhoe Skid loader Aerial lift Quad ATV Utility trailer Pickup truck Generator Compressor Light tower	Dozer Excavator Motor Grader Compactor Scraper Dump truck

TECHNOLOGY + INNOVATION = KNOWLEDGE

ASSET MANAGEMENT SIMPLIFIED

Trimble Construction Manager software is a powerful integration of GPS technology, software, wireless data communication and Internet connectivity. These technologies add up to one result—the information you need to get the job done effectively. Through unprecedented levels of asset management and utilization, you're certain to increase your productivity.



Software

Trimble Construction Manager software provides an intuitive interface that connects assets in the field to decision-makers in the office, making it easy to evaluate construction operations and take action in real-time. A variety of easy-to-understand charts, reports, and dashboards provides valuable information regarding the activity of your asset, enabling you to drastically improve asset productivity.

Mapping And Tracking Assets

Trimble Construction Manager also employs Google Maps street, terrain, hybrid and satellite imagery as background for mapping sites and tracking construction assets.

GPS Technology

Each asset is equipped with reliable Trimble GPS technology (in the form of a small piece of hardware) to provide immediate location information, even in the harsh environment typically found on a construction site. Several hardware options are available to ensure that you have the right solution for each asset.

Wireless Data Communication

Information is transmitted between your assets and the Trimble Construction Manager software platform over cellular networks. Select from a variety of providers and service plans to access the data you need, when you need it and how often you need it—for example, once or twice a day for a portable asset like a compressor or once every minute for a mobile asset like a dump truck.

Internet Connectivity

The Internet provides connectivity for the Trimble Construction Manager software to access the most up-to-date maps commercially available. This also eliminates the need for users to install map data on each computer. It also means that you can access important information about your construction sites and equipment from practically any Internet-enabled computer. Asset data is securely stored on data servers. Access to that data is protected by log-in and password authentication, ensuring that your data is safe, yet easily accessible, whenever you need it.

“ My primary focus is protecting our investment in equipment. I need automated monitoring of actual equipment use and immediate notification when a piece of equipment needs preventative maintenance in order to ensure its longevity.”

– Construction Equipment Manager

“ The profitability of my business is dependent upon using all of our equipment as efficiently as possible, and getting the job done on time and within budget. I want to know how well we're doing across all of our projects, in one snapshot.”

– Construction Business Owner



Track All of Your Construction Assets in Three Easy Steps

1. A Data Communications Module (DCM) —TrimTrac or CrossCheck— is installed on each construction asset. The hardware acquires position coordinates from the GPS satellites and stores the coordinates in memory.
2. The DCM then wirelessly sends packets of data to the central data server via cell phone tower.
3. Information on the central data server is accessed via Trimble Construction Manager software from any Internet-connected computer. Trimble Construction Manager software stores the data and conveniently organizes it for the user into asset groups for map views, reports, charts and dashboards. Alerts and events can be set up to notify users of expected (and unexpected) activity.

Technology and Innovation

Knowledge is the key to profitability. If you don't know what is going on at your job sites, how do you know if you're profitable? With Trimble Construction Manager software, you always know what it is happening on the job site. And, you can turn that knowledge into increased profits.

Additional Information: The data collection frequency and the amount of data sent to the server depend upon the type of service plan and hardware purchased.

TRACK PRODUCTIVITY; IMPROVE EFFICIENCY; INCREASE PROFITABILITY

KNOW WHAT IS HAPPENING AT YOUR CONSTRUCTION SITES AT ALL TIMES

Manage all of your mobile, machine, and portable assets from one centralized software interface. Trimble Construction Manager software provides maximum flexibility by enabling users to receive information only when their pre-determined criteria are met.

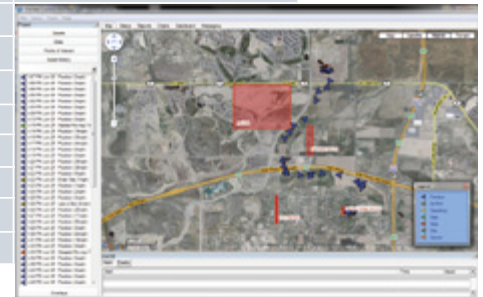


Trimble Construction Manager software provides an intuitive interface that easily connects assets in the field to decision-makers in the office. A variety of easy-to-interpret charts, reports and dashboard views provides you with the information you need to analyze and evaluate construction operations and take action in real time.

In addition, Trimble Construction Manager software allows you to “manage by exception.” Automating many of the day-to-day tasks can improve efficiency and eliminate the need for additional staff. You can provide access to the exact information that each manager needs. They can then spend more time focusing on exceptions, with the goal of reducing operational risk. Both the problem and the resolution can be prioritized, in line with the demands of the business, which results in both minimized cost and a reduction in risk.

A variety of dashboards, reports, and charts make it easy for you or your managers and supervisors to find the precise information required in order to maximize asset productivity across all of your company’s construction sites.

STANDARD REPORT NAME	STANDARD CHART NAME
Asset Properties	Asset Activity Timeline
Asset Usage	Asset Idle and Working Time
Asset Utilization	Asset Working Utilization
California Emissions	Maintenance Pie Chart
Congregations	Mileage Bar Chart
Daily Activity Summary	Runtime Hours
Engine Idle Time (> 5 minutes)	Site Runtime Pie Chart
Events & Positions	Speeding Bar Chart
Maintenance	
Mileage & Hours	
Operator Usage	
Site Runtime	
Sites Visited	
Speeding Periods	
Start Times	
State Mileage	
Stop Periods	



Monitor Asset Location and Movement

- Know precisely when assets enter/exit sites
- Know the exact location of an asset at all times
- Track assets moving from one location to another to get accurate turn times
- Define areas of interest (called Sites) and set up boundaries using invisible fences (called Geofences)
- Add high resolution map imagery

Centralize and Simplify Management of Onsite Operations

- Easily manage all onsite assets from one software program
- Improve your understanding of construction site operations
- Check the status of all onsite assets in real time
- Utilize easy-to-read reports to automatically determine individual asset activity on each site for accurate project billing
- Integrate Enterprise Resource Planning (ERP) systems such as payroll, financials and projects



Improve Asset Productivity

- Increase cycle times by identifying and eliminating workflow inefficiencies
- Get the critical data you need in order to maximize your assets and make informed decisions
- Reduce overtime and improve employee productivity
- Set up alerts to be notified when sensors such as low fuel are activated, enabling a quick response and reduction in downtime
- Communicate with equipment operators on the construction site via two-way messaging service



Preventative Maintenance Report									
Report From: 01/01/2012 To: 01/31/2012									
Assets Report Results									
Asset	Category	Last Maintenance	Total Mileage	Maintenance Interval	Hours Since Last Maintenance	Miles to Next Maintenance	Days to Next Maintenance	Days to Next Maintenance	Days to Next Maintenance
Excavator 101	Excavator	01/01/2012	10000	10000	0	10000	0	0	0
Excavator 102	Excavator	01/01/2012	10000	10000	0	10000	0	0	0
Excavator 103	Excavator	01/01/2012	10000	10000	0	10000	0	0	0
Excavator 104	Excavator	01/01/2012	10000	10000	0	10000	0	0	0
Excavator 105	Excavator	01/01/2012	10000	10000	0	10000	0	0	0
Excavator 106	Excavator	01/01/2012	10000	10000	0	10000	0	0	0
Excavator 107	Excavator	01/01/2012	10000	10000	0	10000	0	0	0
Excavator 108	Excavator	01/01/2012	10000	10000	0	10000	0	0	0
Excavator 109	Excavator	01/01/2012	10000	10000	0	10000	0	0	0
Excavator 110	Excavator	01/01/2012	10000	10000	0	10000	0	0	0

Reduce Maintenance and Fuel Costs; Extend Asset Life Cycle

- Get timely and accurate information including automated reports containing engine hours and current mileage
- Receive alerts when next scheduled maintenance is due
- Reduce unnecessary fuel consumption by viewing charts indicating when machine is on but not working
- Set alerts for machine idle time and unauthorized use

Improve Safety and Reduce Project Risk

- Use alerts to notify appropriate personnel whenever pre-determined criteria are met such as speeding, after-hours movement, or when an asset enters a hazardous site
- Document asset usage, driving safety, and worker compliance
- Know precisely when an asset is in use at each site for accurate project billing
- Monitor mobile asset movement across states or across wide geographical areas
- Reduce equipment rental
- Automate the recording of mileage per vehicle for road state tax reporting
- Record and archive detailed asset location, activity data, and operator information for future reference (up to 90 days)



Unauthorized Use Detection

- Use alerts to notify appropriate personnel when unexpected activity occurs
- Know precisely where your assets are at all times



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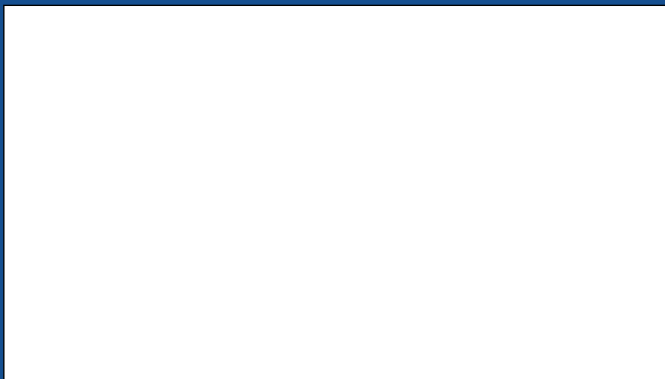
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