

TerraRover

GPS SYSTEMS



Systems and Software
For Cranes and Heavy Excavation Vehicles

Provided by

LogicAll Solutions
LLC

LogicAll Solutions

LAS TerraRover GPS Systems

Introduction

Modern technology is rapidly changing the way business is conducted at all levels. The LogicAll Solutions (LAS) TerraRover GPS systems will revolutionize the way aggregate and surface mining companies operate, bringing higher levels of productivity and efficiency resulting in accelerated profits. These systems utilize a ruggedized sunlight-readable touch screen operator interface PC which incorporates the cutting edge GPS hardware and cabling necessary to run the TerraRover products. GPS hardware included with each system is preconfigured to mate up to the PC and provide coordinate information to the LogicAll Solutions software suite. The systems are specifically designed to be used in heavy equipment such as dredges, dragline cranes, drill rigs, and any other vehicles used at mining sites and other industrial facilities. These products use GPS coordinates to assign production lines and exact drilling patterns for vehicles to follow to be more productive. The TrailBlazer system can be used for any type of auxiliary vehicle.

Efficiency / Productivity

Maximize your resources with informative displays which help operators navigate and follow assigned production lines and drill patterns through the use of GPS data. These displays include assigned production lines or patterns, current position, and distance the boom tip or drill head from the current dig-line pile or drill marker. Multiple production points or lines can be assigned to each system, eliminating the need to stop production to locate the next point or line to follow. Production lines or drilling patterns can be assigned directly on the PC or assigned by a dispatcher and delivered via a USB thumb drive.



Ease of Use

Hardware installation is painless. Start-up is as simple as pushing the power button on the computer and then entering your unique user id using the touch-screen display. Loading the production lines or drilling patterns can be accomplished using the USB thumb drive which can be accessed on the front of the computer or you can pick up where you left off on your last day of work. All the information needed to get the job done is presented on a 12" or 15" display using large, easy to read buttons and menus to access system functions.



Reliability

The hardware platform for the LAS TerraRover GPS System utilizes a ruggedized PC and industrial grade GPS hardware from Trimble Navigation. All devices are COTS so downtime waiting for replacement parts is greatly reduced. With operating temperatures ranging from **32°F to 122°F** and non-operating ranging from **-40°F to 149°F** the computer can withstand most extreme conditions.

Safety

Say goodbye to the old ways – no more need to have employees trudging through the field manually marking places to drill and spotting for the rig driver as he moves into position. With the LAS TerraRover GPS Systems, the production lines and blast patterns will be defined using GPS coordinates entered and stored in an easy to use database. Reducing the number of man hours and employees in the field equals a safer and more cost effective operation.

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Boom Monitor



The Boom Monitor product is intended for use on vehicles with a boom. If there is no need to record weight and/or production information, this is the perfect system for you. This system is perfect for cranes which have "keep out" zones to be aware of. The zones may be displayed on the screen and the operator can see real-time where the tip of the boom is in relation to the zones. Operators can also mark the current position of the boom's tip and can use this as an additional visual indicator to set their own limits.

Features:

- Displays the current position and orientation of the boom and its tip
- Displays production lines and distance from the currently selected line
- Unlimited number of production lines (toe of pile and no-entry zones) can be established ranging from parallel lines to grid formations



Dragline Monitor LT



The Dragline Monitor LT is an innovative product designed for use in dragline cranes. The system monitors dual high accuracy GPS receivers and displays the position and orientation of the boom real-time to assist operators in maximizing the efficient use of their vehicle. A button is displayed on the screen for the operator to track bucket counts. Tonnage is calculated at 50-100% of the maximum capacity of your bucket or can be a fixed value. Production reports are available for on-screen viewing and log files are easy to collect for reporting.

Features:

- All of the functionality of the Boom Monitor **plus:**
- Monitors and reports accumulated tons processed (based on capacity)
- Operator login with time stamp and tons produced by each operator

Dredge Monitor



The Dredge Monitor is an innovative application ideal for dredges and water borne vehicles. The system monitors a single GPS receiver and automatically calculates the current location of the dredge. Position and orientation are displayed real-time to assist operators to make the most effective and efficient use of their vehicle. The product is well suited for use in dredges to increase productivity and provide accountability. Reporting options allow the user to provide documented proof of compliance to permitting in regards to where your dredges have been. Great for keeping the oversight organizations satisfied.

Features:

- Displays production lines and the distance from the currently selected line
- Unlimited production lines can be established ranging from parallel lines to grids
- Upload and download control and production information

DrillRig Monitor



The DrillRig Monitor utilizes a dual high-accuracy GPS based navigation product designed for use in drill rig mining applications. This compact yet sophisticated system is used to position a drill rig's drill shaft over predetermined drilling locations, providing for the creation of precise, reliable drilling patterns to maximize the effectiveness of personnel and blasting materials. Drilling patterns are generated by the user in an office setting. These patterns can easily be transferred to the system by drill rig operators, saving time and eliminating many of the manual aspects and potential errors associated with drilling and blasting applications.

Features:

- Displays vehicle's current position on map
- Drill shaft location is derived from GPS receiver feedback
- Displays drilling location waypoints and the distance of the rig's drill shaft from the currently selected waypoint
- Unlimited number of drilling locations can be established, and operators have the option to continue with a previous map if the blast pattern was not finished
- Upload and download control and production information

TrailBlazer



The TrailBlazer product is a tool to help vehicle operators navigate light industrial and off-road vehicles to designated locations by displaying their current position relative to their destination anywhere on the globe. Perfect for designating key locations along with the routes to and from those locations. As the vehicle travels, a trail of markers is displayed on the screen to include the generation of a recorded manifest traveled by the vehicle. The user may save this trail with the click of a button and then reload the trail to easily find their way back. Ideal for wooded environments and vast open areas where landmarks are scarce.

Features:

- Displays current position on map — blazing a trail on the screen where the vehicle travels. This trail may be saved and reloaded to help the user retrace their route.
- View location on screen relative to waypoints, hazards, and a selected route.
- Unlimited number of waypoints and site specific routes can be established. The professional version of the software allows designation of lines for vehicles to follow.
- Upload and download control and production information

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	Sub-Meter GPS	Global
Boom Monitor	Two	YES
Dragline Monitor LT	Two	North America
Dredge Monitor	One	YES
DrillRig Monitor	Two	YES
TrailBlazer	One 3-5 Meter	YES

Custom system configurations available on request.

The LAS TerraRover GPS systems include a rugged PC with a IP65-rated vesa-mountable enclosure, a 12.1-inch 1024 x 768 resolution LCD monitor with a brightness rating of 450 nits and a resistive touch screen. Also provided with the systems is the LAS GPS Module interface which includes the GPS antennas and all necessary cables. Systems utilize 120 VAC to power the PC and the LAS GPS Module. Custom configurations are available.

Contact your local representative or visit our website for more information. All products are available for purchase directly from the website. Get yours today!

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