

GPS Tracking, Geofences, Boundaries

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GPS Tracking is essentially BoldTrak integrated into Manitou. It is a tool used to establish boundaries and track devices. With GPS Tracking you can:

- Track and monitor anything from people to vehicles to devices.
- Pinpoint any location on its built-in map.
- Respond to remote and independent alarms and incidents.
- Locate users and devices.
- Configure device settings (speed dials, speed travel restrictions, and so on).
- Manage device and user location.
- Locate addresses and geographical sites.
- Create geological boundaries (to keep people and devices in or out of an area).

Functions

GPS Tracking consists of two main functions, GeoFences and Tracking.

- GeoFences consists of the following:
 - GeoFences and Groups
 - Devices
 - Mapping
- Tracking consists of the following:
 - Devices
 - Legend
 - Filter
 - Mapping

Important:

- Data is not present in GPS Tracking until GeoFences and devices are set up properly.
- For U.S. maps, download and install the Shapefile from the U.S. Census Bureau for mapping to work. And for other countries, you need to download a similar file.

Prerequisites

- You must have the proper BoldTrak licensing in place.
- All machines that will be using BoldTrak must have active internet access to work properly.

Permissions

You must set up user Permissions in the Manitou Supervisor Workstation for GPS Tracking to work properly.

To set user Permissions, do the following:

1. Open the Manitou Supervisor Workstation.
2. Click Maintenance | Setup | Permissions.
3. The following minimum Permissions must be designated as described:

Note: Although you can grant more user Permissions than those described, granting fewer Permissions could result in degraded functionality.

- GeoFences – Expand the Maintenance node and then expand the General node. You must designate Manitou 2.0 Permissions for GeoFences as Visible.
- Customer – Expand the Maintenance node and then select Customer. You must designate Manitou 2.0 Permissions for Customer as Visible.
- Activity Log – Expand the Maintenance node and then expand Customer. You must designate Manitou 2.0 Permissions for Activity Log as Visible.
- Alarms and Signals – Expand the Maintenance node and then expand Customer. Expand Activity Log. You must designate Manitou 2.0 Permissions for Alarms and Signals as Visible.
- Systems – Expand the Maintenance node and then expand Customer. You must designate Manitou 2.0 Permissions for Systems as Visible.
- Areas – Expand the Maintenance node and then expand Customer. Expand the Systems node. You must designate Manitou 2.0 Permissions for Areas as Visible.
- Areas Description – Expand the Maintenance node and then expand Customer. Expand the Systems node and then expand the Areas node. You must designate Manitou 2.0 Permissions for Description as Visible.
- Transmitters – Expand the Maintenance node and then expand Customer. Expand the Systems node. You must designate the Manitou 2.0 Permissions for Transmitters as Visible.
- Transmitters Description – Expand the Maintenance node and then expand Customer. Expand the Systems node and then expand Transmitters. You must designate Manitou 2.0 Permissions for Description as Visible.

GeoFences Option

A GeoFence is a virtual barrier that you use to trigger an alarm when someone or something enters and/or exits the perimeter of the GeoFence.

If you search for and/or select a Customer, and then click GPS Tracking, the GPS Tracking function appears. With the GeoFences option, you can add, edit, and delete GeoFence specification information by clicking the related icon on the GeoFences and Groups card.

Adding Groups, GeoFences, and Boundaries

Depending on how you're logged on – Company, Dealer, or Customer – you can add a Group and GeoFence to that user category.

Groups

- When you click the add icon the Add GeoFence/GeoFence Group card appears.
 - You must first establish a Group when adding a GeoFence, so leave the Group option selected.
- Group Name – Use this field to add a label for the Group. Bold Technologies recommends making the Group name directly relatable to the Group information for easy reference. Example: If setting up a Group for ABC Corp drivers, consider "ABC Corp" or "ABC Corp Drivers" as the Group name.
- Enabled – This option is selected by default. Selecting or clearing this check box indicates whether or not you want the Group to be enable or disabled within the system.
- Auto-Include Dealer/Global Groups – This option is selected by default. If the system should not show the Dealer and Global Groups associated with this Group, clear this check box.

Geofences

- When you click the add icon the Add GeoFence/GeoFence Group card appears.
 - Once you have added a Group, next you need to add a related GeoFence by selecting the GeoFence option.
 - For Group – Use this field to select the Group to which you want to associate the GeoFence.
 - GeoFence Name – Use this field to add a label for the GeoFence. Bold Technologies recommends making the GeoFence name directly relatable to the GeoFence information for easy reference.
- GeoFence Type – Select Polygon or Circle for the click-and-define boundaries.
- Enabled – This option is selected by default. Selecting or clearing this check box indicates whether or not you want the GeoFence to be enable or disabled within the system.
- Area ID (Optional) – You can give the GeoFence a unique identifier. This must be in hexadecimal format.
- Max Speed (Optional) – The maximum speed allows a top speed limit to be set. While within the GeoFence, if a vehicle exceeds the maximum speed settings, an alarm triggers.
- Alarm Condition – Select whether the GeoFence will notify upon entry into the boundary, exit out of the boundary, or both.

Boundaries

- Once you have established a Group and GeoFence, you return to the map and the pointer becomes crosshairs, where you can:
 - Click and drag to create a circle around the GeoFence boundary or click the map for each point in the polygon. Once you've completed the boundary, press the mouse button to set the circle GeoFence or to close the polygon, click on the starting point again.
- Use the available map functions while designing the GeoFence as follows:
 - Move the map by clicking and holding the cursor and dragging the map position across the screen.
 - Use the Zoom In and Zoom Out functions by clicking the plus or minus buttons.
 - Use the Enter Address (magnifying glass) function to locate a specific area quickly.
- The GeoFence will show under the group with which it is associated. It will also show whether the GeoFence is an entrance, exit, or cross boundary.
- On the map, you can change the view and themes if you pause your pointing device over the view icon and select from the options.

Adding Devices

A device is any piece of security equipment supported by the GPS Tracking feature. You must first create a device as a GPS Transmitter in the Systems of a Customer Account. See [Adding a Transmitter](#), for more information.

Note: Because devices might be moving in and out of several different GeoFences, you can only assign devices to Groups.

Once you've established a GPS Transmitter, it displays on the Devices card. To link a Device, select a Device from the Devices card then select the Group from the GeoFences and Groups card. Next you would click **Link** to establish the link between the Device and the Group. (And you click **Unlink** to remove the Device/Group relationship.)

Tracking Option

You can use the map to track the location of devices for determining where a device is or what device may be closest to a particular incident or event. To track a device, click **Tracking** above the map area.

From the list of Devices on the Devices card, click the appropriate Device for tracking.

Alarms

Once a person or vehicle violates an established boundary in a GeoFence, Manitou 2.0 generates an alarm, allowing you to handle it according to normal processing procedures. GPS Tracking will show the location of the device and GeoFence information at the time the violation was committed.

Devices

From the list of Devices on the Devices card, click the appropriate Device for tracking. The map will zoom in on the appropriate device. On the map you can change the view and themes if you pause your pointing device over the view icon and select from the options.

When you create a Transmitter for a Device, Manitou 2.0 assigns a color for that device. When you select the Device from the Devices card, the Legend icons change to the assigned color for that Device.

Legend

The Legend card defines the icons that can appear on the map.

Filter

You can use the Filter card and related Change Filter to narrow the list of Locates, Signals, and Alarms for a Selected Device or Other Devices. When you click Change Filter the Tracking Filter card displays from where you can filter by number of and/or date range for Locates, Signals, and Alarms.

Speed Monitoring

Just as with GeoFence violations, speed violations will send in an alarm as well.