

User Manual



BOMAG TELEMATIC

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Preface

Preface

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1 General

1.1 Screen overview



1 Navigation Switches between different screens, you can select from four menus

2 Functions "Tools", "Help" and "Logout"

3 Screen content Displays content of the selected screen

4 Alert window Lists alarms and messages from each machine

Menus

Screens are part of four different menus:

- At A Glance
- History
- Report
- Administration

1.2 Login / Logout

How to login

- Navigate to the BOMAG TELEMATIC webpage by opening one of the following links in your internet browser.
 - o http://telematic.bomag.com
 - o https://telematic.bomag.com (for secure SSL connection)



- Enter "Username" and "Password".
- · Click on "GO!".

If username and password are correct, the "At A Glance" page is displayed.

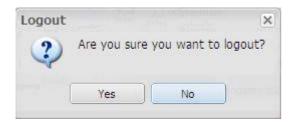


How to logout



• Click on the "Logout" button in the navigation.

General



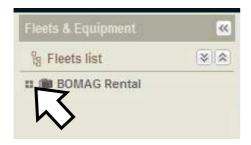
• Confirm the "Logout" dialog with "Yes".

1.3 View & hide a panel

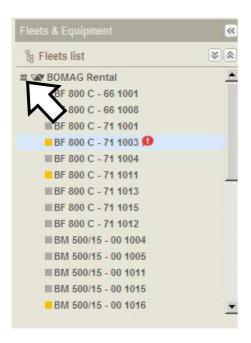
(e.g. "Fleets & Equipment")



• Click on the "Maximize" button to open the panel.



• Click on the "+" sign to show all machines of the fleet.



• Click on the "-" sign to hide the "Fleet list".

General



• Click on the "Minimize" button to hide the panel.

1.4 Alert window

The "Alert" window is located at the bottom of every screen. It comprises 3 tabs:

- "Alarms"
- "Messages"
- "Equipment"



Alarms

Lists the alarms received from all machines in the fleet during the last 7 days. The alarm list contains a maximum of the last 100 alarms received.

- Click into the "Alert" window bar to view alarms.
- In the "Fleet list" click with the right mouse button on the machine that generates the alarm to open a pull down menu and select "Mark as read".
- When a user selects "Mark as read", the alarm will not be visible for all users working in the same "Vista" (See "Vista" definition in the "Administration → Vistas" section).

Note

To view alarms older than 7 days, create an "Alarms report" (see chapter 4.2 - ""Alarms" report").

1.5 Data selector

1.5.1 Date selector panel

The "Date selector" panel is used in history and report screens to select a date and time period.

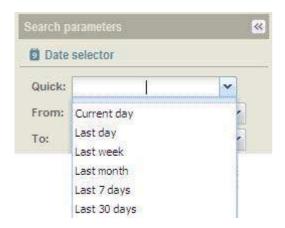


Quick Select a predefined time period

From Select a user defined start date and time

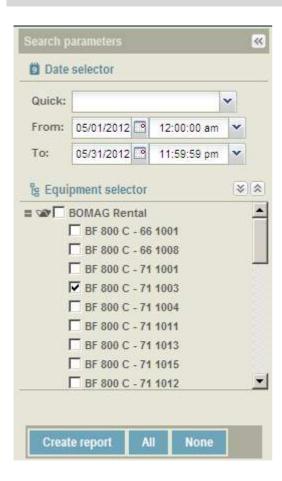
To Select a user defined end date and time

Predefined time periods



1.5.2 Equipment / User selector panel

The "Equipment selector" panel is used in history and report screens to select a machine.



How to operate the "Equipment selector" panel

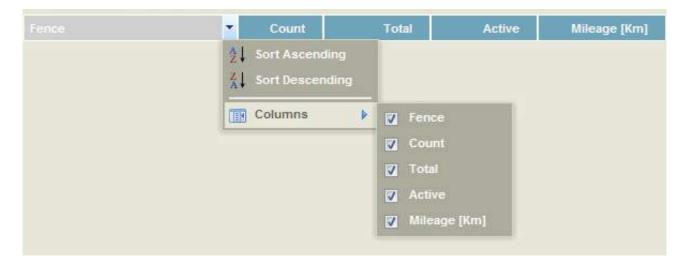
- Press the "+" sign to the left of the fleet name to show all machines in the fleet.
- To select all machines in the fleet, tag the check box to the left of the fleet name.
- To select individual machines, tag the check box to the left of each machine name.
- To select all machines in all fleets, click on the "All" button.

To deselect a machine from the "Equipment selector" list, untag the check box to the left of the machine or fleet name. To deselect all machines in all fleets, click with the left mouse button on "None".

1.6 Table functions

1.6.1 Column header filters

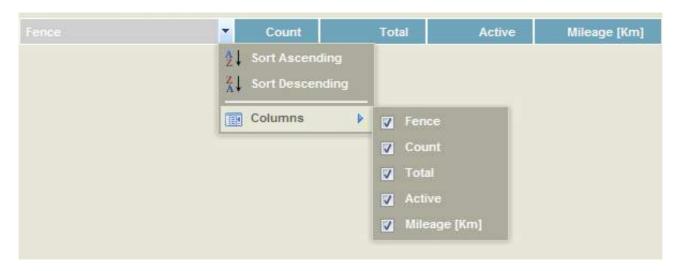
A lot of tables in "Reports" / "Administration" and in the "Alert window" can be filtered by means of column filters.



- Move the mouse over to the right of a column header (e.g. "Fence").
- · Click on the arrow for the drop down menu.
- Move the mouse over to "Columns".
- To select additional columns, tag the corresponding check boxes.
- To deselect columns, untag the corresponding check boxes.
- To remove criteria selections, click with the left mouse button a second time in the check box to the left of the selection.
- Close the drop down menu.

1.6.2 Data sorting in tables

Tabular data in "Reports" / "Administration" and in the "Alert window" can be sorted in ascending or descending order.



- Move the mouse over to the right of a column header (e.g. "Fence").
- Click on the arrow for the drop down menu.
- Select "Sort Ascending" or "Sort Descending".

General

2 At A Glance

2.1 Overview

Note

If you do not see the machine/fleet you are looking for, contact your Administrator.



Fleet & Equipment "Fleet list" This is where your fleet(s) and machines are listed

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The map showing the exact location of your machine(s).

Other functions

Equipment summary: Summarizes how many machines are in various states of operation (e.g., 3 machines = Off, 6 machines = On/Idling, 12 machines = Moving/Working, etc.).

User settings: Saves and loads your default map.

Shape selector: Lists all shapes belonging to the user company. (See Administration \rightarrow Shape or Administration \rightarrow GeoFencing for further information.).

2.2 Select, center & follow or cancel following a machine



To select a machine

Double-click with the left mouse button on the machine in the "Fleet list".

A machine icon will appear on the map to the right of the "Fleet list" section.

To center a machine

- Click with the right mouse button on the machine name in the "Fleet list".
- Select "Center" from the pull down menu.

If no position has been sent from the machine, the application will show an "Invalid position" message.

To follow a machine

- Right click on the machine name.
- Select "Follow me" from the pull down menu.



On the map, a box will be placed around the selected machine.

- Click with the right mouse button on the machine name again.
- Select "Cancel follow" from the pull down menu.



The "Follow me" box around the machine immediately disappears from the map.

2.3 Alarms

Alarm & Message Icons



If a machine has received an alarm or message, the "not read" icon appears next to the machine name in the fleet list. The type of alarm and all other information concerning the alarms are shown in chapter 4.2 - "Alarms" report.

How to reset alarms

This function marks all alarms from the machine and alert window as read.

- Click with the right mouse button on the machine name.
- Select "Reset alarms" from the pull down menu.

2.4 Ping

Ping¹ is based on SMS² service and works only when the device on the machine is in ON or Standby mode. If the device is in Sleep mode or OFF (Hibernate), then the SMS (Ping) will be stored for a maximum of four (4) days and will be forwarded the next time the device is turned ON. When the machine is ON, the SMS response is delivered within 1-2 minutes by your carrier. The Ping will be referenced on the "At A Glance" and "History" screens. (For "Device" mode definitions, scroll down to the "Machine details" section).

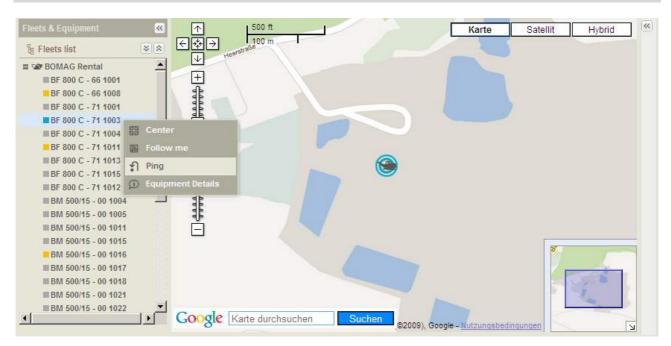
How to ping a machine

This function allows the user to establish a GPS contact to a machine in the fleet. With the click of a button, you communicate with the onboard GPS device to retrieve the current location, heading, speed, etc.

① Note

The number of Pings available is limited; please, refer to the BOMAG After Sales contact for further information on this subject.

The application does not permit sending more than one Ping request every 5 minutes.



- Click with the right mouse button on the machine you wish to ping (locate).
- Click with the left mouse button on "Ping" in the drop down menu.

¹ Ping: The term ping refers to a manual request of updated information of a machine. The ping allows the User to receive the information in addition to the normal update intervals.

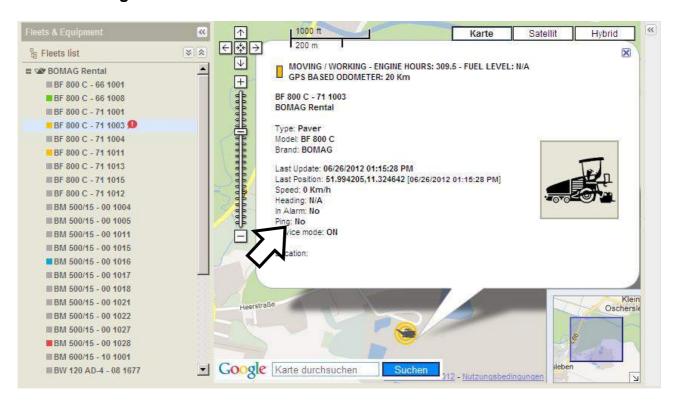
² SMS: Stands for short message service (aka text messaging) and is available through your wireless carrier. It is simply a method of communication that sends text between cell phones, or from a PC or handheld to a cell phone. The "short" part refers to the maximum size of the text messages: 160 characters (letters, numbers or symbols in the Latin alphabet). For other alphabets, such as Chinese, the maximum SMS size is 70 characters. But the 160-character limit is not absolute.

At A Glance



· Left mouse click on "OK".

To view a Ping on the "At A Glance" screen



• Double click on the machine name.

The machine appears on the map to the right of the "Fleet list".

• Click with the left mouse button on the machine shown in the map.

A box with machine details appears (e.g. "Ping").

To view a Ping in the "History" screen



- Select the date and time period from the "Date selector" panel.
- Select a machine from the "Equipment selector" panel.
- Select the desired machine by tagging the check box to the left of the machine name.
- Click on the "Search" button. The machine appears in the map and in the "Results" panel on the right.

① Note

To deselect a machine from the "Equipment selector" list, untag the check box to the left of the machine or fleet name or click on the "None" button.

• Scroll through the "Results" panel, until "PING" appears in the "Text" column.

OR filter the "Results" panel:

- Move the mouse over the column header, e.g., "Text".
- Click on the arrow for the drop down menu.
- In the drop down menu click with the left mouse mouse button on "Sort Ascending" or "Sort Descending".
- Click the desired "PING". The machine appears in the map.

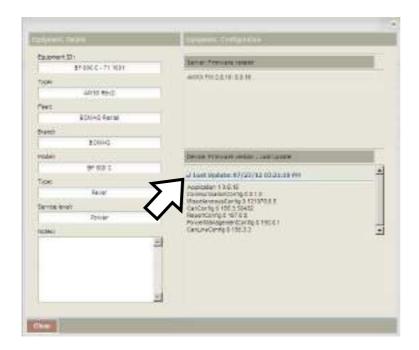
2.5 Machine details

This function shows details concerning equipment, firmware and location for each machine in your fleet(s).

To view details about equipment and firmware on a machine

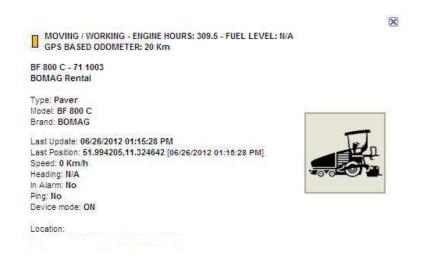


- Click with the right mouse button on the machine name.
- Select "Equipment details" from the drop down menu.



- To view "Device: Firmware version Last update" details, click with the left mouse button on the "+" sign.
- To exit, click on "Close" or the "X"-button.

To view machine location details



 Click with the left mouse button on the icon of a machine displayed in the map, a balloon shape will show the information

Machine information

- Type and serial number of the device installed on the machine
- Fleet name
- Machine type
- Model
- Brand
- Date and time of last update
- Latitude, longitude and heading of last updated position
- Speed
- Heading (if machine is not moving heading: will show "NA")
- In alarm
- Ping
- Device mode (see definition below)
- Location

Device mode

On Mode immediately after the ignition of the device is switched on and when the device is

properly working. (After the ignition has been switched on, the device will download the

firmware and any available updates.)

Standby Mode immediately after the ignition has been switched off. In this mode the device draws current from the battery of the machine (if connected) or from the internal battery of the device. It is able to respond to Ping requests, send motion detection alarms (if

enabled in "Administration->Power Management", "Motion detection" mode and "Sensitivity" settings), and will send wake-up information with each wake-up interval ("Administration->Power Management, Wakeup interval"). The device remains in

At A Glance

standby mode for a set period of time, as defined by the administrator in

"Administration"-> "Power Management", "Standby interval".

Sleep mode Occurs after the standby interval period has elapsed. The device minimizes current

consumption, stops using the machine's battery and starts using the device's internal battery. In this mode the device can wakeup just to send a wakeup information message or a motion detected message, as set in "Administration"->"Power Management",

"Motion detection" mode and "Sensitivity". The minimum amount of time that the sleep

interval can be set for is 24 hours.

Hibernate The device is completely isolated from the power supply.

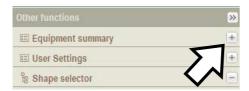
MOVING / WORKING - ENGINE HOURS: 309.5 - FUEL LEVEL: N/A GPS BASED ODOMETER: 20 Km



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• To exit "Machine details", click with the left mouse button on the "Close" button.

2.6 Equipment summary



Click on the "+" sign to view the status of all machines in the "Equipment summary" section.



Each status is represented by a color. The number to the right of the status color indicates how many machines currently have this status and informs about the "TOTAL EQUIPMENT" in the fleet.

Status definitions

Grey	OFF	any position sent from the device when the machine is OFF (i.e. motion detection)
Blue	ON / Idle	Machine ON, but in idle state, depending on the "Idle time threshold" as defined by the status profile used
Red	Long Idle	Machine ON, but exceeding the "Idle time threshold" as defined in the status profile used
Yellow	Moving / Working	Machine ON, but between "threshold A" and "threshold B" as defined in the status profile (bases on CAN)
Green	High workload	Machine ON, but exceeding "threshold B" as defined in the status profile (based on CAN)

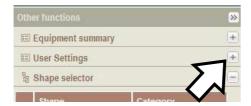
① Note

High workload is only available on machines equipped with CAN bus, after the status profile has been set to "Based on CAN" (only available with BOMAG TELEMATIC POWER).

• Click on the "-" sign to exit "Equipment summary".

2.7 User Settings

You may save a default map of your choice, which will then be loaded whenever you access the TELEMATIC application.



- Click on the word "User settings" or the "+" sign.
- To exit "User settings" click with the left mouse button on the "-" sign.

Find your location in the map

Option 1



- When moving the mouse across the map, the mouse pointer changes to a hand (1).
- Point the hand at a continent, country, state or city and double click with the left mouse button.
- To find the exact area, repeat the double click with the left mouse button until you see the area you would like to save as your "Default map".

OR use the pan arrows, mouse wheel, keys and/or the zoom bar:

- Pan left, right, up or down by clicking on the pan arrows (2) with the left mouse button.
- Zoom up, down, in, or out by clicking on the Zoom bar (3) with the left mouse button.

Option 2



- In the "Search the map" field of the "Google® Map Search" tool, enter the location. Most popular search choices are:
 - Name of state, province or country
 - o Name of city
 - Names of city and state, city and province or city and country
- Press the "Search" button.



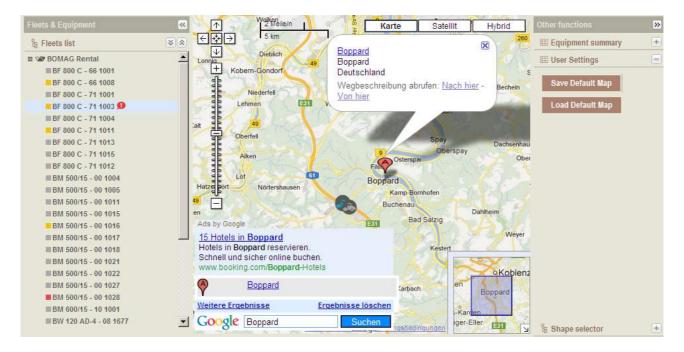
• When the "Get directions" pop-up screen appears click on the "Exit" button to close it.



- Remove the location icon by pressing the "Clear results" button in the "Google® Map Search" tool.
- If you need a more exact location, follow the instructions described in option 1.

At A Glance

Saving and loading a default map



- Click on the "Save default map" button at the right under "User Settings".
- Click on the "Load default map" button at the right under "User Settings".

2.8 Show, hide & filter shapes

Depending on your access rights you can show and hide shape files linked with your "Vista" (see how to create and manage a "Vista" in "Administration > Vistas" and/or see how to create and manage "Shapes" in "Administration > Shape").

Show & hide shapes

• Open the "Shape selector" by clicking on the "+"- sign.

You will see the list of shapes available in your "Vista".



- To select/deselect one or more shapes from the list, tag the check box to the left of the shape name.
- Press the "Refresh" button.

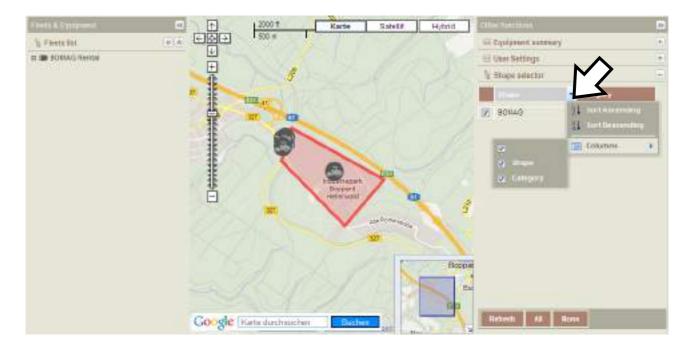
The map will immediately be updated with the shapes you selected/deselected.

• For quick selection/deselection, press the "All" button to see all shapes or press the "None" button to deselect all shapes.

Filter shapes

The "Shapes selector" may be filtered.

At A Glance



- Move the mouse pointer over to one of the column headings, then click the down arrow.
- Click with the left mouse button on "Columns".
- Select the columns you wish to view by tagging or untagging the corresponding check box.

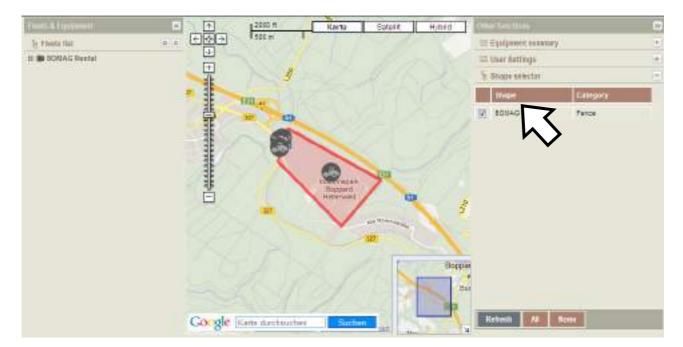
View a "GeoFence"

① Note

The device can manage up to 10 "GeoFences".

Each "GeoFence" behaves in accordance with each fence setting as defined by the Administrator in "Administration → GeoFencing → Create, Edit, Delete".

Fence breaks work when machines cross over the fence and alarms are only sent if the fence is set with a priority other than null.



• Double click on a shape in the shape list.

A shape will appear on the map.

At A Glance

3 History

3.1 Overview

The "History" screen is divided into 3 panels:



Search parameters

Date selector, equipment selector

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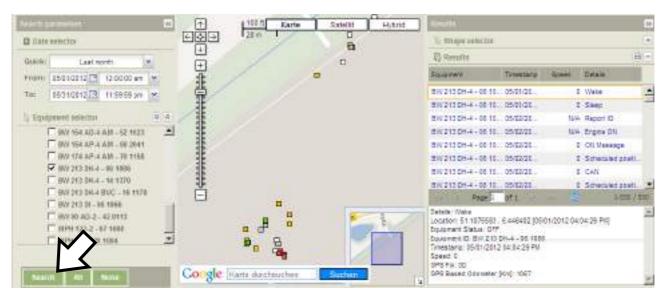
The map showing the location and activity of your machines

Results

The shape selector lists all of the job site shapes and fences. (See "Administration \rightarrow Shape or Administration \rightarrow GeoFencing" for further information.)

Results lists all the machine positions based on your search criteria.





- Select date and time period from the "Date selector".
- Select the machine from the "Equipment selector".
- Click the "Search" button.

The result is a path listed in the "Results" panel on the right side of the screen AND shown on the map with a sequence of little color coded squares; color coded squares represent the status the machine is in or was in at any given time, while switched ON (during the specified time period).

Note

If no data is available for the query, a "No data with current parameters" message will be displayed.

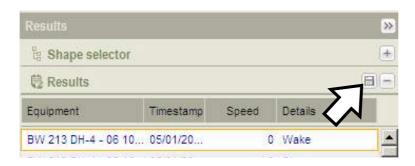
The query can generate a large amount of data. This data will be listed on multiple pages in the "Results" panel. To view all history in the map for the entire selected date/time period, you must scroll through the pages.

By selecting a position in the "Results" panel, the corresponding position on the map appears as a bold printed, color coded square.

If an alarm has been received for a specific position in the path, the corresponding field "Description" (in the "Result" panel) shows the reason for the alarm.

3.3 History export

As soon as the result of a history search is available, the web page provides the possibility to export the positions list.



• Click on the "Export" button to export a file.

The exported file is a text file with the following parameter:

- Field separator: semicolon (";")
- o Replacement character (every semicolon in a field is separated by this character): "|"
- Decimal separator: dot (".")
- o Thousands separator: comma (",")

4.1 Export reports

Reports can be exported either as "PDF" or "MS Excel"® files.

Export as PDF

① Note

You must have a PDF reader installed on your computer to be able to view this report.

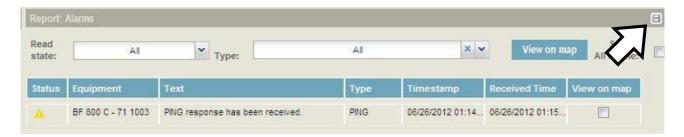


• Click on the "PDF" icon to export the report.

Export to MS Excel®

① Note

You must have MS Excel® installed on your computer to be able to export this report.

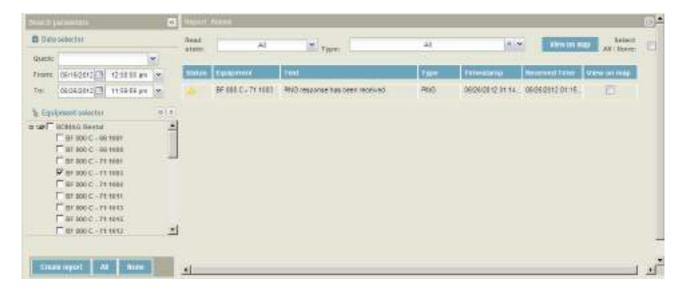


Click on the "Export" icon to download.

4.2 "Alarms" report

Report Overview

The "Alarms report" shows the status of "All", "Read" or "Unread" alarms received within a specified date and time period. See exemplary report below. To customize your reports please refer to the "How to filter a report" section.



Search parameters "Date selector", "Equipment selector"

Report panel "Report results", "Filter selection"

Report data

View on map

Status "Read alarms", "Unread alarms"

Equipment Machine designation

Text Text sent about alarm

Type Type of alarm sent

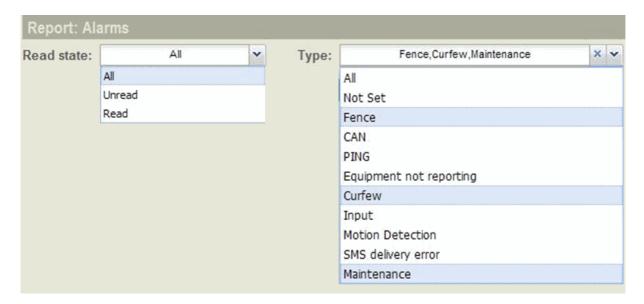
Received time Timestamp of when the alarm was received

How to change the alarm status from "Unread" to "Read"

View machine(s) in alarm on "Google® Maps"

• Click with the right mouse button on the "Unread" icon in the "Status" column and select "Mark as read". The "Unread" icon will change to the "Mark as read" icon.

How to filter a report



- Open the drop down menu of the "Read state" filter.
- Select "All", "Unread" or "Read".

Your selection will turn light blue and appear in the filter field.

- Open the drop down menu of the "Type" filter.
- Select "All" OR select each individual filter criterion required.

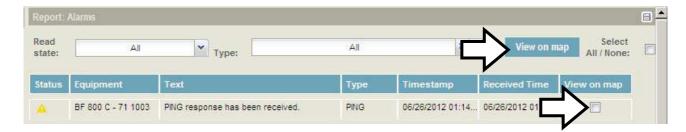
Your selection(s) will turn light blue and appear in the filter field.

 To deselect one or more of the selected criteria, click with the left mouse button a second time to deselect your selection.

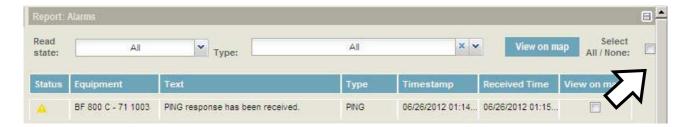


- To deselect all criteria at once, click with the left mouse button on the "X".
- Close the drop down menu.

How to view machines in alarm status in the map



- For each machine you wish to see on the map tag the check box in the "View on map" column.
- Click on the "View on map" button.
- To deselect machines in alarm status on the map, untag the corresponding check box in the "View on map" column.

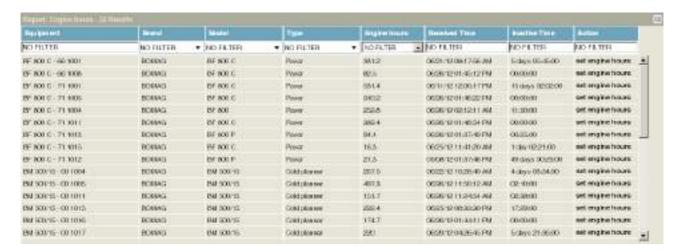


- To view all machines in alarm status on the map tag the check box "Select All / None".
- Click on the "View on map" button.
- To deselect all machines in alarm status, untag the "Select All / None" check box.

4.3 "Engine hours" report

Report Overview

The "Engine hours" report shows up-to-date total engine hours for all machines in your fleet(s). See exemplary report below. To customize your reports refer to the "How to Filter a Report" section.



Report data

Engine hours Total engine hours up to the last "Received time"

Received time Last position timestamp received from the machines

Inactive time Total time the machines were inactive (or in Off position) since the last "Received time".

Action Set current engine hours

How to filter a report

The "Engine hours" report can be filtered using filter fields in each column (e.g. "Brand"):



- Click the down arrow to the right of the "Brand" filter field.
- Select the "Brand" name(s) from the drop down menu by tagging the corresponding check box or click on the "All" button to select all "Brands".
- To deselect a "Brand" name, untag the corresponding check box.
- Click on the "Apply" button.

Filtered results immediately appear in the "Brand" column.

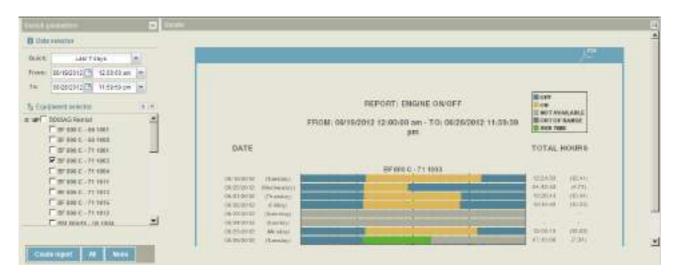
- Repeat the above steps for each additional filter you wish to set.
- To deselect all brand names click on the "None" button.

• Click on the "Close" button.

4.4 "Engine ON/OFF" report

Report overview

For the date and time period selected, the "Engine ON/OFF" report shows in graphical form how long each selected machine was ON, OFF or NOT AVAILABLE.



Search parameters "Date selector", "Equipment selector"

Details Report results

Definitions

OFF Key in OFF position
ON Key in ON position

NOT AVAILABLE No data has been received over the chosen period

OUT OF RANGE

RUN TIME

How to run a report

- Select the "Date" and "Time" period from the "Date selector" panel.
- Select machine(s) from the "Equipment selector" panel.
- Press "Create report" to create the report.

If no data is available for the query, a "No data with current parameters" message will be displayed.

How to export a report to PDF

① Note

You must have a PDF reader installed on your computer to be able to view this report.

Click on the PDF icon to export the report.

4.5 "Maintenance" report

Note

Please note that the system does not contain any BOMAG maintenance plans. To be able to use this feature you should create your own maintenance plans by referring to the maintenance instructions for your machine.

Report overview

The "Maintenance" report shows the maintenance status of every machine in your fleet in form of lines. To customize your reports refer to the section "How to filter a report".

The "Maintenance" report screen is divided into 2 panels:



Search parameters Equipment selector

Report panel Report results

Maintenance status legend

Red	Overdue	The next machine maintenance is overdue.
Yellow	Due soon	The machine is soon due for the next maintenance.
Blue	Incomplete	Maintenance has not been defined because initial maintenance setting is missing from the "Administration → Maintenance → Create, Edit, Delete" section.
Purple	In progress	Machine is "In progress" (being serviced).
Green	Not due	Machine maintenance is up-to-date. Service "Not due" yet.

How to create a report

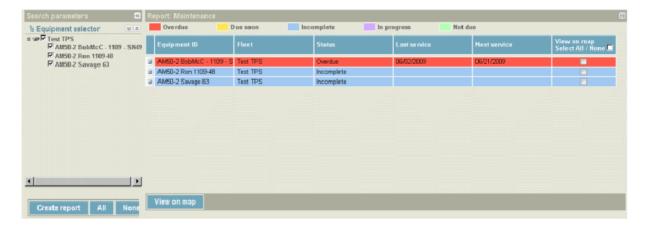


- Filter the report by using the column header filters.
- Select machine(s) from the "Equipment selector" panel.
- Press "Create report".

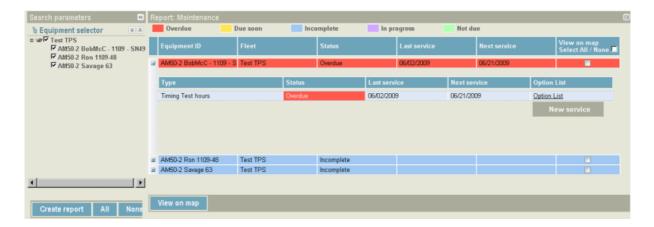
How to update a maintenance status

This section shows you how to change the status of each machine for which maintenance is to be performed. Two status scenarios are shown below; "Overdue" and "Incomplete".

Scenario "Overdue"



- · Create a report.
- Click on the "+" sign to the left of the Equipment ID name (machine name).



Click on the "Options list" link and click on "New service".



The status will immediately change to "In progress" (purple).

Once the service has been completed, click on the "Options link" and click on "Close service".



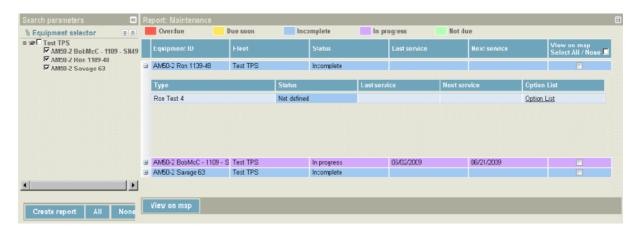
A window opens and displays a form to be completed.

- Enter the required data into the window:
 - o Close service date: The system shows today's date as default date to close the maintenance, but the user can change this date to the actual date of service.

- Engine hours: The system shows the actual engine hours at the end of maintenance, but the user can update these to the actual hour meter reading at the time of service. This meter reading will reset the clock for the next service due.
- o Cost: Enter the total cost of service. (Example in numeric format: 70.50.).
- Notes: Notes that have been entered by the user at the start or end of service will be stored in the database.
- Press the "Ok" button.
- Confirm that the "Save" process has been completed by clicking on the "Ok" button.

The status will immediately change to "Not due" (green).

To enter initial maintenance information for machines with "Not defined" status:

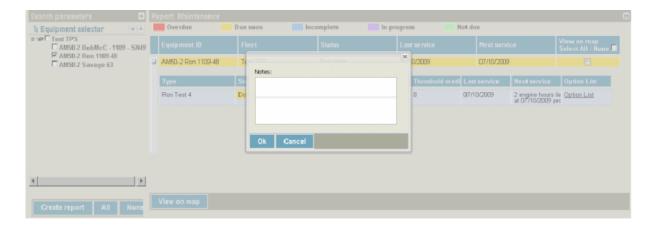


- Create a report.
- Click on the "+" sign to the left of the "Equipment ID" (machine name).
- Click with the left mouse button on the "Options list" link and click on "New service".
- Enter all required information.
- Press the "OK" button.
- Confirm "Save to database" by pressing the "OK" button.

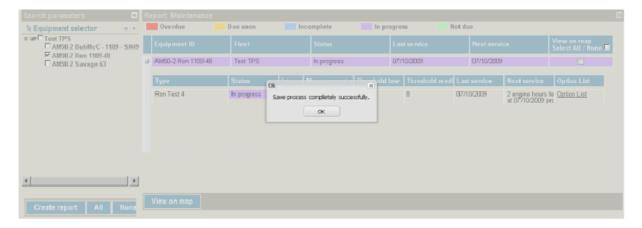


Note that the machine status has immediately changed to "Due soon" (yellow).

 To activate the start of service, click with the left mouse button on the "Options link" and click on "Active service".

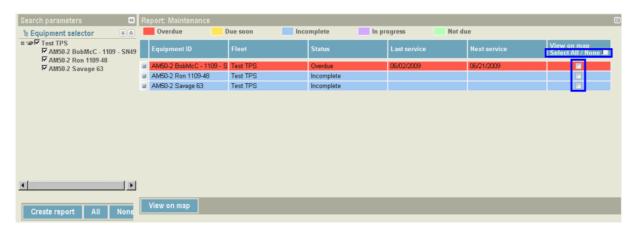


• Enter any notes you wish to add and press the "OK" button. Note that the machine status has immediately changed to "In progress" (purple).



Press the "OK" button to confirm the "Save" process.

How to view machines on the map



- To view all machines in a fleet or in fleets, tag the check box to the right of "Select All / None".
- To deselect all machines, untag the check box again.
- To view one or more machines in a fleet, select each machine by tagging the check box in the "View on map" column.

- To deselect, untag the checkbox in the "View on map" column.
- Press the "View on map" button.

Example of a map showing machines in a fleet



• Press the "Close" button to exit the map.

4.6 "Maintenance Notes/History" report

Report overview

The "Maintenance Notes/History" report shows all notes entered under "Administration \rightarrow Devices, Administration \rightarrow Equipment, Administration \rightarrow Maintenance", etc.



Search parameters "Date selector", "Equipment selector"

Report panel Report results

How to create a report

- Select the "Date" and "Time" period from the "Date selector" panel.
- Select machine(s) from the "Equipment selector" panel.
- Click "Create report" to create the "Maintenance notes/history" report.

Note

If no data is available for the query, a "No data with current parameters" message will be displayed.

How to export a report to MS Excel®

① Note

You must have MS Excel® installed on your computer to export this report. Click on the "Export" icon to download.

Click on the "Export" icon to download.

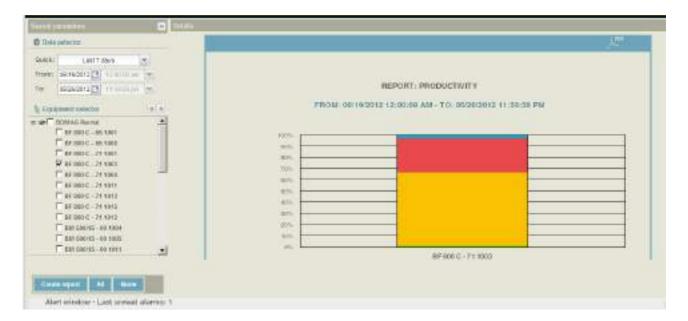
4.7 "Productivity" report

Report overview

Note

The difference between the "Productivity" report and the "Activity" report is the fact that the "Productivity" report only shows the working status of machines, whereas the "Activity" report shows the working status and OFF status of machines.

The "Productivity" report shows in graphical form and in percent how much time each selected machine has spent in each status over the time period selected.



Search parameters "Date selector", "Equipment selector"

Details Report results (see exemplary report below).

How to create a report

- Select the "Date" and "Time" period from the "Date selector" panel.
- Select machine(s) from the "Equipment selector" panel.
- · Click on "Create report".

Note

If no data is available for the query, a "No data with current parameters" message will be displayed.

How to export a report to PDF

① Note

You must have a PDF reader installed on your computer to be able to view this report.

• Click on the PDF icon to export the report.

4.8 "Equipment Utilization" report

Report overview

The "Equipment Utilization" report shows how much time each selected machine was ON, OFF or NOT AVAILABLE in form of lines for the chosen date and time period. See exemplary report below.



Search parameters "Date selector", "Equipment selector"

Reports panel Report results

How to create a report



Filter the report by using the column header filters.

- Select the "Date" and "Time" period from the "Date selector" panel.
- Select machine(s) from the "Equipment selector" panel
- Click on "Create report".

Note

If no data is available for the query, a "No data with current parameters" message will be displayed.

How to modify values

Note

Modify values before creating a report.



- Untag the check box "Used less than" and/or "Used more than".
- Enter the new value in the corresponding input field.
- Create the report.

How to export a report to MS Excel®

Note

You must have MS Excel® installed on your computer to be able to export this report.

• Click on the "Export" icon to export the report.

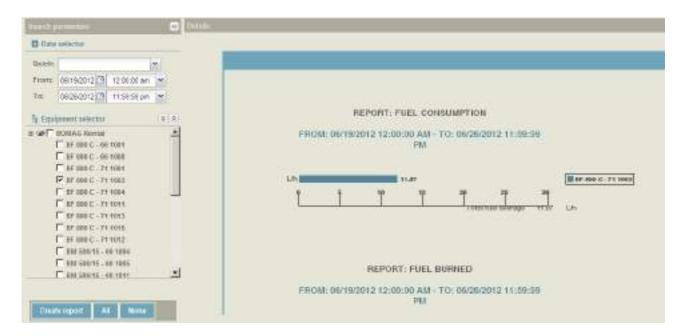
4.9 "Fuel Consumption" report

① Note

The "Fuel consumption" report is only available if you are using the CANbus profile with the "Engine fuel rate" activated for reports, transmitted by the machine (works only with BOMAG TELEMATIC POWER).

Report overview

The "Fuel consumption" report shows gallons or liters of fuel used by each selected machine per hour, in graphical form for the chosen date and time period.



Search parameters "Date selector", "Equipment selector"

Report panel Report results.

How to create a report

- Select the "Date" and "Time" period from the "Date selector" panel.
- Select machine(s) from the "Equipment selector" panel.
- Click on "Create report".

Note

If no data is available for the query, a "No data with current parameters" message will be displayed.

How to export a report to PDF

① Note

You must have a PDF reader installed on your computer to be able to view this report.

Click on the PDF icon to export the report.

4.10 "Job Costing" report

Report overview

This report feature contains 3 separate reports: "Detailed", "Aggregate - Equipment", and "Aggregate - Fence". These reports have been designed to enable the user to monitor all machine activities on a jobsite, and to create reports that help maximize productivity, minimize cost and track job costing expenses in a timely and efficient manner.



Search parameters "Date selector", "Equipment selector"

Report panel Report results

"Detailed" report

This report, in form of lines, provides detailed information about every working session performed by each chosen machine (or groups of machines), in each chosen fence, between the entry and exit date and time within the period you selected.



Report data

Equipment 1D	Machine designations
Fence	Designation of "GeoFence"
From	When selected machines have entered the fence

Machine decignations

To When selected machines have exited the fence

Total Total time the selected machines were present in the fence

Active The total time selected machines were in idle, long idle, working, and/or high workload

status

Mileage (km) Total miles or kilometers driven

Transit time

Transit mileage

(km)

"Aggregate - equipment" report

This report, in line format, provides detailed information about each selected working machine (or groups of machines), in each fence, between the entering and exit date and within the time period you selected. Every row lists a different machine with all related aggregate results.



Report data

Equipment ID Machine designations

Fence Designation of "GeoFence"

Count

Total Total time the selected machines were inside the fence

Active The total time the selected machines were in idle, long idle, working, and/or high

workload status

Mileage (km) Total miles or kilometers driven

"Aggregate - Fence" report

This report lists information about each working machine (or group of machines) in a specific fence (selected from the "Fence" filter), between entering and exit date, and within the time period you selected. Every line lists a different fence and all related aggregate results.



Report data

Fence name Designation of "GeoFence"

Count Number of times the selected machines have entered the fence

Total Total time the selected machines spent inside the fence

Active The total time the selected machines were in idle, long idle, working, and/or high

workload status

Mileage (km) Total miles or kilometers driven

How to create a report

Note

Before a "Job Costing" report can be created, a "GeoFence" must be set up (using the "Administration > GeoFencing" section) and assigned to the machines. In order to track all data needed for "Job Costing", machines must be started and then enter and exit the "GeoFence".



- Filter the report by using the column header filters.
- Select the "Date" and "Time" period from the "Date selector" panel.
- Select machine(s) from the "Equipment selector" panel.
- Select fences from the drop down menu "Fences" by clicking on each fence name you wish to include in your report. You can make single or multiple selections.
- Click the down arrow to return to the full screen.
- Select the report you wish to create by clicking on the tab: "Details, Aggregate Equipment", or "Aggregate Fence" (in upper middle of your screen).
- Click on "Create Report".

Note

If no data is available for the query, a "No data with current parameters" message will be displayed.

How to export a report to MS Excel®

Note

You must have MS Excel® installed on your computer to be able to export this report.

• Click on the "Export" button to export the report.

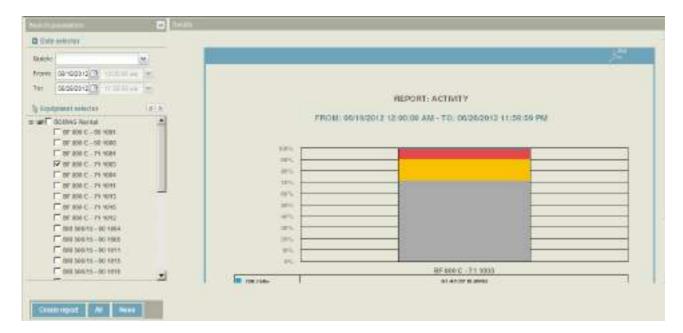
4.11 "Activity" report

① Note

The difference between the "Productivity" report and the "Activity" report is the fact that the "Productivity" report only shows the working status of machines, whereas the "Activity" report shows both the working status and the OFF status of machines.

Report overview

The "Activity" report shows in graphical form how long each selected machine was in the corresponding status.



Search parameters "Date selector", "Equipment selector"

Report panel Report results

How to create a report

- Select the "Date" and "Time" period from the "Date selector" panel
- Select machine(s) from the "Equipment selector" panel
- · Click on "Create Report".

① Note

If no data is available for the query, a "No data with current parameters" message will be displayed.

How to export a report to PDF

Note

You must have a PDF reader installed on your computer to be able to view this report.

• Click on the PDF icon to export the report.

4.12 "Idle vs. Work" report

Report overview

The "Idle vs. Work" report in form of lines informs about the time each machine was idling vs. working. Refer to the "How to filter a report" section to customize your report.



Search parameters "Date selector", "Equipment selector"

Report Report results (see exemplary report below).

Report data

Equipment Machine designations

Fleet Fleet designation

Brand Brand of machines

Model Model number of machines

Type Type of machine

Short Idle time Machine ON but in idle status, depending on the "Idle time threshold" as defined in the

status profile used

Long Idle time Machine ON but exceeding the "Idle time threshold" as defined in the status profile used.

Total Idle time The total time a machine was ON.

Moving / Working Machine ON but is exceeding "Idle time threshold" as defined in the status profile.

time

How to filter a report



· Filter the report by using the column header filters.

How to create a report

- Select the "Date" and "Time" period from the "Date selector" panel
- Select machine(s) from the "Equipment selector" panel
- Click on "Create report" to create the report

Note

If no data is available for the query, a "No data with current parameters" message will be displayed.

How to export a report to MS Excel®

Note

You must have MS Excel® installed on your computer to be able to export this report.

• To download, click on the "Export" button.

4.13 "CANbus data" report

Report overview

The CANbus data report in line form shows all data collected from the CANbus of selected machine(s) for the date and time period selected.



Search parameters "Date selector", "Equipment selector"

Report Report results

Report data selection Select report data

Report data

- Engine coolant temperature
- · Engine fuel rate usage
- Engine hours
- Engine oil pressure
- Engine percent load at current speed
- · Engine speed

How to create a report

- Select the "Date" and "Time" period from the "Date selector" panel
- Select machine(s) from the "Equipment selector" panel
- Click on "Search" to list the CANbus parameters with available data covering the search period.

① Note

If no data is available for the query, a "No data with current parameters" message will be displayed.

• Select the parameters you would like to view in the right panel.

How to export a report to MS Excel®

Note

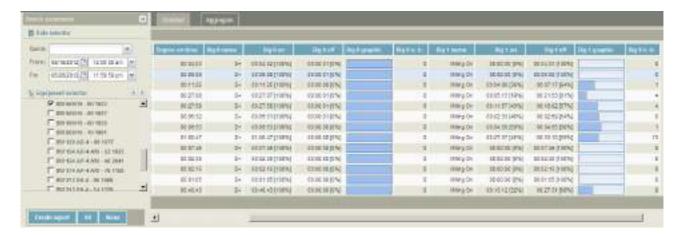
You must have MS Excel® installed on your computer to be able to export this report.

• Click on the "Export" button to download.

4.14 "Input/Output" report

Report overview

For the chosen date and time period, the "Input/Output report" in graphical form informs about the duration of digital input and counter readings for selected machines. This reporting feature contains 2 separate reports: "Detailed" and "Aggregate".



Search parameters "Date selector", "Equipment selector"

Report Report results

Report "Detailed"

This report, in form of line and in graphical format, provides detailed information about every working session spent by each selected machine (or groups of machines).



Report data

Equipment Machine designation(s)

From When selected machines have entered the fence

To When selected machines have exited the fence

Engine on time Total engine hours while on

Dig0 on Total time and percentage that Input0 was On
Dig0 off Total time and percentage that Input0 was Off

Dig0 graphic Graphical information showing how much time the input was on (dark blue) and off (light

blue)

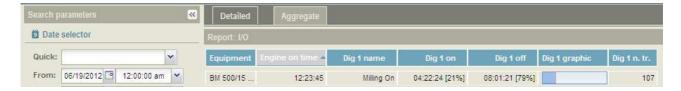
Dig0 n. tr Total number of changes between Off and On

Note

If Dig1 has been configured, the same information will be reported.

"Aggregate" report

This report, in form of lines and in graphical format, provides a single line summary for every working session of each selected machine (or groups of machines).



Report data

Equipment Machine designations

Engine on time Total engine hours while on

Dig0 on Total time and percentage that Input0 was On

Dig0 off Total time and percentage that Input0 was Off

Dig0 graphic Graphical information showing how much time the input was on (dark blue) and off (light

blue)

Dig0 n. tr Total number of changes between Off and On

① Note

If Dig1 has been configured, the same information will be reported

How to create a report

- Select a report type by clicking on either the "Detailed" tab or "Aggregate" tab.
- Select the date and time period from the "Date selector" panel.
- Select machine(s) from the "Equipment selector" panel.
- · Click on "Create report".

How to export a report to MS Excel®

① Note

You must have MS Excel® installed on your computer to be able to export this report.

Click on the "Export" button to download.

5 Administration

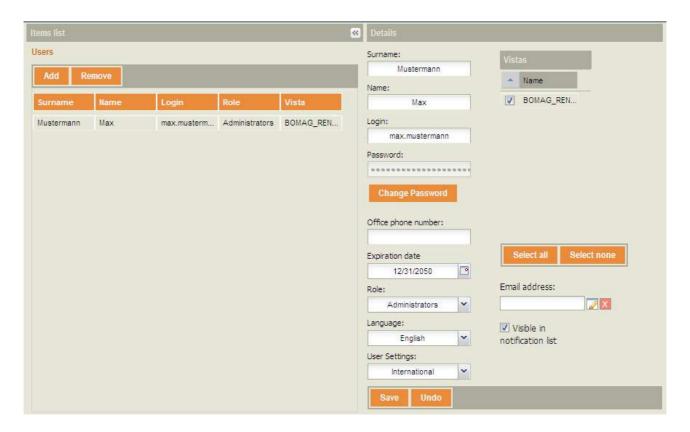
Administration

5.1 Administration - Users

Note

You must have administrator rights to create or modify user settings.

Overview



Items list The panel shows current users, their access right level (Group)

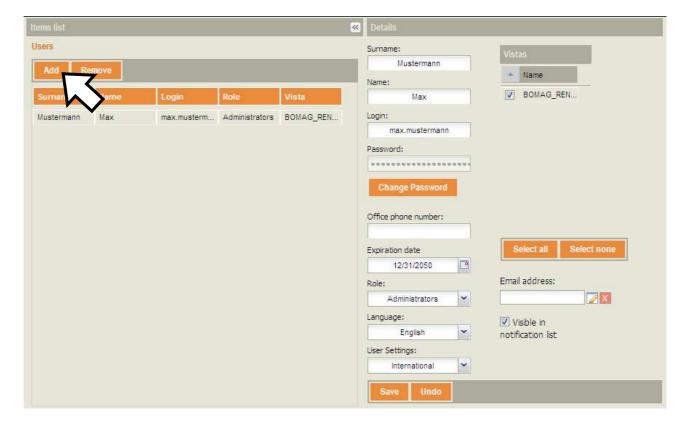
and the "Vista" they have been assigned to.

The "Add" button is located near the top of the panel.

Details This is where you will create, update or modify details about

each user's access right level.

How to add a new user



• Press the "Add" button.

A new line will be inserted at the top of the "Users list" (highlighted in a light blue).

• Add the following information in the "Details" panel:

Surname	User's last name
Name	User's first name
Login ID	To create a user's login, enter the name followed by a dot and the family name.
	Example: John Brown = john.brown
Password	Passwords are case sensitive
	 Suggested minimum number of characters is 8
	 System's maximum number of characters is 100
	 All alphabetic and numerical characters as well as symbols such as !, @, #, etc., are accepted
	Blank spaces are not accepted
Language	Select from the drop down menu
User settings	Select from the drop down menu
Office phone number	
Expiration date	Select date from drop down calendar
Vista	Select a Vista from the drop down menu to assign to the user.

Visible in notification list

Tag the check box if you want the user to appear in the "Items list".



Email address

- Press the "Edit" icon button.
- In the popup edit box, enter the Email address.
- Press "OK".



- To erase information entered or selected from drop down menus, click on the "Undo" button (before saving).
- · Click on "Save".
- Click on "OK" in the popup screen to confirm completion of the save process.

Email verification

Note

You must not have administrator access rights to verify your e-mail address.

A verification e-mail is sent to the user which has been created above.

Follow the instructions in the e-mail to verify your e-mail address in BOMAG TELEMATIC.

Dear Customer,

Thank you for registering your e-mail address in the BOMAG TELEMATIC System.

Your verification code is: 15858

Follow these steps to confirm your e-mail address:

- 1 Log into BOMAG TELEMATIC web (http://www.bomag.com/telematic).
- 2 Under Administration, click on Users Settings.
- 3 Select your User from the User list on the left.
- 4 In the details section on the right, click on the Red X box near to the e-mail address field.
- 5 Enter the verification code.
- 6 Click the Ok button.

The BOMAG TELEMATIC Team

How to deactivate a "User Profile"



- Select the user from the "Items list".
- Change the date in the field "Expiration date" to the date you wish the user account to be deactivated (any date from 'today" onwards).
- Click on "Save"

How to change a password



- Select the user from the "Items list".
- Click on the "Change Password" button in the "Details" panel.
- Enter the new password and click on "OK".
- Click on "Save".

5.2 Administration - Vistas

① Note

You must have administrator access rights to create or modify a Vista.

Overview

A "Vista" groups machines of different fleets or companies, which are visible in the BOMAG TELEMATIC (e.g. all machines of the same machine type).



How to add or remove a "Vista"

• Click on "Add" or "Delete" in the "Items list" to add / remove a "Vista".

After you have clicked on the "Add" button, the following picture appears:



- Open the drop-down menu and select the parent "Vista" for the new "Vista".
- · Click on "Select".



- Insert the "Vista" name
- Select the fleet(s) visible by this "Vista".
- Click on "Save".

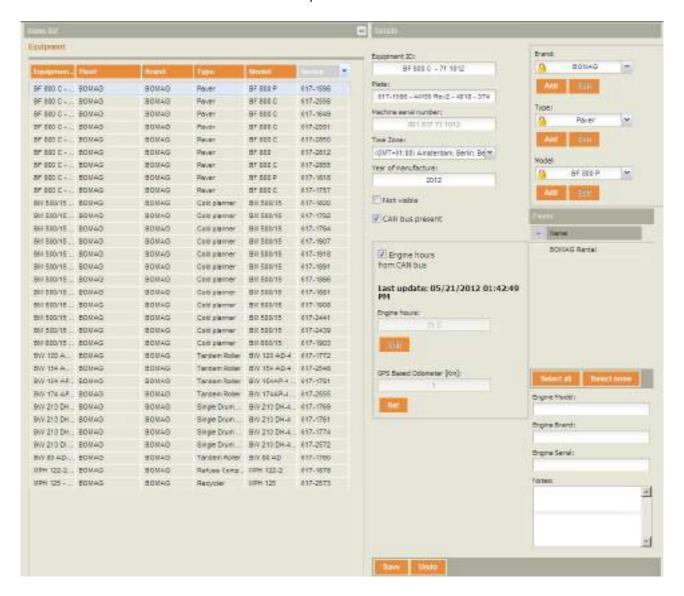
5.3 Administration - Equipment

① Note

You must have administrator access rights to create or modify an Equipment profile.

Overview

• In this section the administrator can create a profile for each machine in his fleet.



up.

The number in the "Device" column is the number of the TELEMATIC

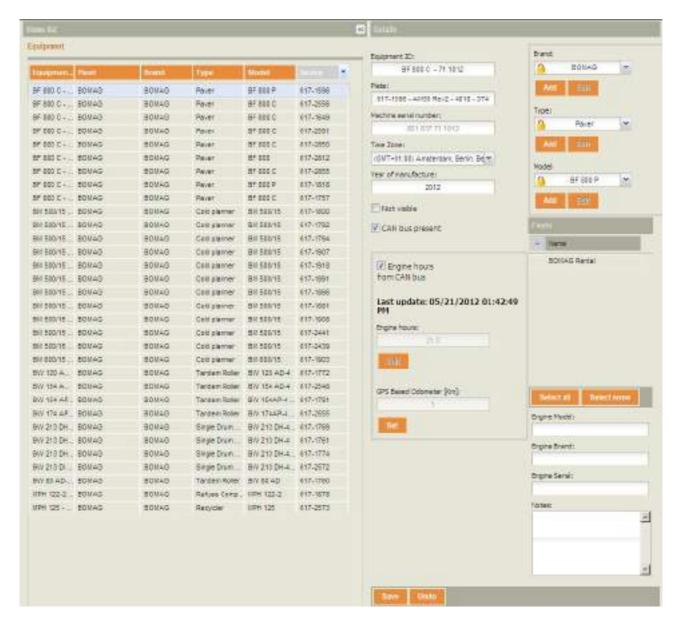
module.

Details Here you enter (and edit) information about each machine in your fleet.

You can display detailed data for individual machines by clicking on any

machine in the "Items list"

How to create an equipment profile



- Select the machine from the "Items list".
- Add the following information in the "Details" panel:

Equipment ID This is the name that you assign to the machine in your fleet. The name will be

used throughout the application

Plate: The license plate number of your machine

Machine Serial

Number

The machine serial number

Fleets The name of the fleet this machine belongs to

Time Zone Insert the time zone of the area where your machine is used, so that any alarms

will be stamped with the correct time zone.

The "Time Zone" (local time) you select will be used throughout the application

(e.g. "At a glance", "Ping", "History", "Reports", etc.)

Year of manufacter Year of manufacture of the machine

Not visible You can optionally hide this in the fleet list.

Selected = hide

Deselected = display

CANbus present The "CANbus present" check box is used to note whether CANbus is present on

an AM50 device and whether this is SAE J1939 compliant (only available with

BOMAG TELEMATIC POWER).

Engine hours from CANbus

The machine engine hours transmitted via CANbus.

Last update Last update regarding GPS odometer and engine hours received from the device.

You can manually set this value with the edit button.

Engine hours A field where you can change the operating hours of the engine.

GPS based odometer

The GPS based odometer is automatically updated by GPS. Should this value be disaligned (i.e. GPS signal missing), you can set it up manually by clicking on the

"Set" button.

Please consider that the value received from the GPS odometer is less accurate

than the value provided by the odometer of the machine.

Brand The brand of machine (e.g. BOMAG).

Type The type of machine (e.g. tandem roller).

Model The model of the machine (e.g. BW 174 AP-4).

Engine Model The model of the machine's engine.

Engine Brand The brand of the machine's engine.

Engine Serial The serial number of the machine's engine.



- Click on "Undo" to clear all fields and selections.
- Click on "Save".

The "Equipment profile" information appears in the "Items list".

How to filter data



Filter the "Items list" by using the column header filters.

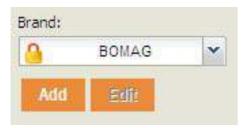
Example: You have multiple fleets and wish to see all data for the fleet named "BOMAG":

• Enter the first two or three characters of the fleet name in the input field.

The "Items list" will immediately fill up, only with the machines from the "BOMAG" fleet.

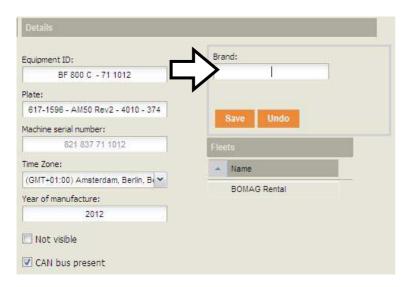
How to add a new brand, type or model

If the brand, type and/or model of a machine you are looking for cannot be found in the list, you can add it to the drop down menu in the "Details" panel.



Using "Brand:" as an example:

- Select the machine you wish to add the new brand for from the "Items list"
- Click on the "Add" button for "Brand" in the "Details" panel.



- In the "Brand:" field, enter the missing brand name.
- If necessary, select a different type from the "Type:" drop-down menu.
- Click on the "Add" button under the "Type:" field.
- Click on "Save" or "Undo" to cancel changes.

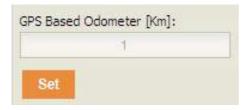


- Click on "Save". The new brand is immediately added to the drop down menu.
- To add a new "Type" or "Model", repeat the steps above.

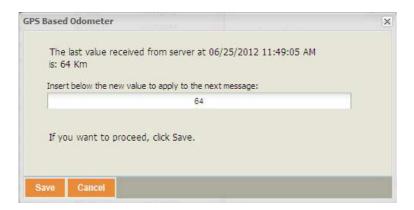
How to set up the GPS odometer

The GPS based odometer is automatically updated by GPS. In case this value is disaligned (i.e. GPS signal missing), you are allowed to set up it manually.

Please consider that the value provided by the GPS odometer is not as accurate as the value provided by the machine's odometer.



- · Select the machine from the "litems list".
- Click on "Set". (The "Set" button is only available when the machine is running).



- Enter the new value.
- Click on "Save".

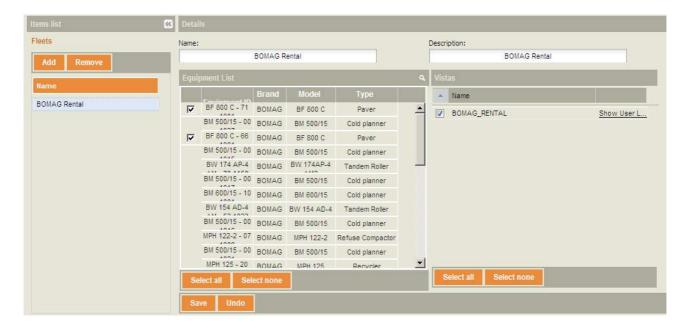
The new value will be applied to the next message.

5.4 Administration - Fleets

① Note

You must have administrator access rights to create or modify a Fleet.

Overview



Items list

The panel shows a list of existing fleets that have already been set up

Details

The panel shows details about each fleet and contains the "Save" and "Undo" buttons.

How to add or remove a fleet

- Click on "Add" or "Remove" in the "Items list".
- Enter fleet name and description.
- Link the new fleet to the "Vistas".

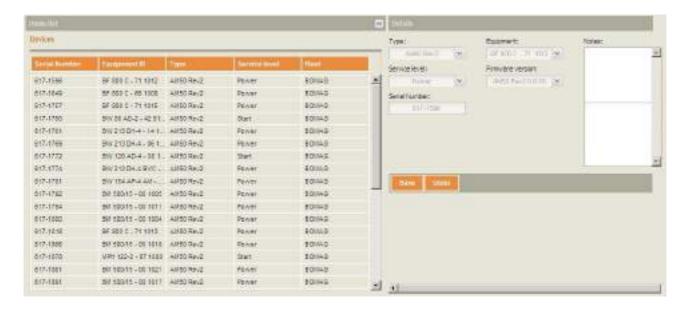
With this operation the user associated with the selected "Vista", will see the selected fleet.

Click on "Save".

5.5 Administration - Devices

Overview

In this section the user can view device details. Editing data is not possible. However, "Notes" may be added.



up.

The number in the Serial number column is the serial number of the

machine.

Details The panel shows details about each device and enables the addition of

notes and contains also the "Save" and "Undo" buttons.

Details

Type The model number of the installed device.

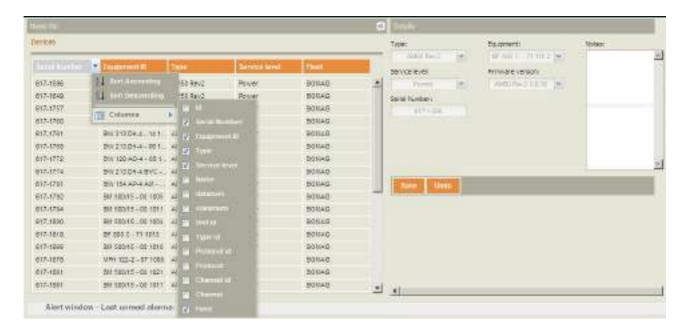
Service level The subscription level; Power and Start.

Serial Number The serial number of the installed device.

Equipment This is the name that you assign to the machine in your Fleet.

Firmware version The current firmware version on the installed device.

How to hide / show devices



• Filter the Items list by using the column header filters.

How to add device notes

- Select a machine from the "Items list".
- Enter the desired notes into the "Notes:" field.
- · Click on "Save".

5.6 Administration - Company data

Note

You must have administrator access rights to create or modify the "Company" profile.

Overview

In this section the administrator enters data about his company.



Items list This panel shows a list of existing "Company" names that have already

been set up.

Details Here you enter specific information about your company, as shown below.

How to enter / modify data

- To modify existing company and user data, highlight the data you wish to change, then either delete these or overwrite them.
- To undo all information (before saving), click on the "Undo" button.
- Click on the "Save" button to save the changes.

5.7 Administration - User Settings

① Note

You must have administrator access rights to create or modify the settings of another user.

The following settings may also be made or modified in the "Administration →Users" section:

- Language
- Time zone
- Password
- Email address.

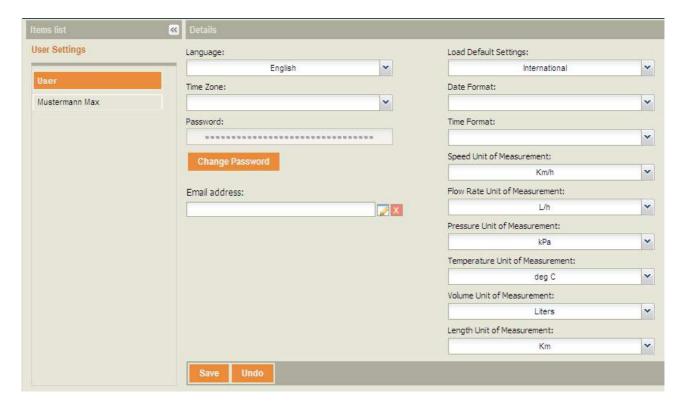
If these settings are added or modified in the "Users" section, they will be reflected in this section and if added or modified in this section, they will be reflected in the "Users" section.

Overview

In this section the administrator can modify default "User Settings".

With the exception of the "Date & Time" format fields, the application automatically selects the correct unit of measurement system (e.g., Mph vs. Kmph, Gph vs. Lph, etc.) based on the "User Settings" criteria you selected from the drop down menus in the "Administration→ Users" profile section.

The measuring units will be used throughout the application on screens and in the reports you create.



Items list This panel shows a list of existing "Company" names that have already

been set up.

Details Here you can modify default values for each user.

How to modify default User Settings

- Select a user from the "Items list".
- In the "Details" panel click on the drop down arrow to the right of each setting you wish to modify, then select a setting by clicking on it with the left mouse button.
- Click on "Undo" (before saving) to undo information selected from drop down menus.
- · Click on "Save".

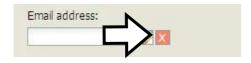
Passwords

- · Passwords are case sensitive.
- Suggested minimum number of characters is 8.
- System's maximum number of characters is 100.
- All alphabetical and numerical characters as well as symbols such as !, @, #, etc., are accepted.
- Blank spaces are not accepted.

To modify or add an Email address



- Click on the "Edit" button.
- In the popup edit box, enter Email address.
- · Click on "OK".
- Access your email account and locate the verification email. Copy the verification code (refer to chapter 5.1 "Administration - Users")



- Click on the "Status" button.
- Paste or enter the verification code from the Email
- · Click on "OK".

The button will immediately change to the button.

5.8 Administration - "GeoFencing"

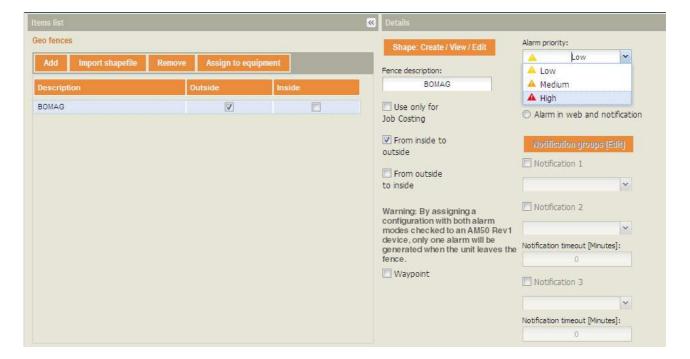
5.8.1 "GeoFencing" - create, edit, delete

Note

You must have administrator access rights to create, edit or delete a GeoFence profile.

Overview

The "GeoFencing" function gives the Administrator the possibility to define a virtual geographical area on the map and receive information when machines exit or enter into the area. If a designated boundary is crossed, a notification or alert can be transmitted by email or text or web notification.



Items list The panel shows a list of existing "GeoFences" that have already been

set up, as well as buttons for creating "GeoFences" from existing shapes; or create "GeoFences" from a new shape, remove a "GeoFence" and a

shortcut to assign "GeoFences" to equipment.

Details Here the administrator creates, edits or deletes a "GeoFence"

and uses the (alarms) "Notification groups [Edit]" function, adds, edits, deletes and assigns a system user or external user to a

notification group.

Items list - button definitions

"Import shapefile" Allows you to add a new fence based on an existing shape. (An existing

shape is one that has already been set-up in the "Administration → Shape"

section.) Refer to the "GeoFence" editor paragraph for details.

"Add" Allows you to add a new fence by drawing a new shape into the map. The

"GeoFence" editor's map window will be displayed to the administrator.

(Scroll down to the "GeoFence Editor" paragraph for details).

"Remove" Allows you to remove a fence from the list. However, the fence will not be

removed from the list if it has been assigned to a machine and has

produced an alarm or "Job Costing" results. The fence will be disabled but

past data will be accessibile.

"Assign to equipment" Is a short cut to the sub-section "GeoFencing → Assign to equipment".

Items list - column header definitions

Description The fence description or the fence name.

Shape The shape name.

Alarm priority The alarm priority assigned to the fence.

Outside If tagged and the priority is unequal null (none), it means that the fence will

produce an alarm when the machine is exiting the fence. For more details,

refer to the "GeoFence and Devices" paragraph.

Inside If tagged and the priority is unequal null (none), it means that the fence will

produce an alarm when the machine is entering the fence. For more details,

refer to the "GeoFence and Devices" paragraph.

Details - button definitions

"Shape:Create/View/Edit"

button

"Notifications groups [Edit]"

button

Allows you to create / view or edit a shape in the map.

Allows you to add, remove, and edit notification groups and to add, remove and edit users in one or more notification groups. Refer to the "How to use

the notification groups [Edit]" paragraph for details.

Details - field and box definitions

Fence description The name you assign to the Fence.

Use only for Job Costing No alarm will be produced if this box is tagged. Data captured will be

reflected in the "Job Costing Report".

From Inside to Outside

(Alarm Mode)

If tagged and the priority is unequal null, the fence will produce an alarm when the machine is exiting the fence. Refer to the "GeoFence and

Devices" paragraph for details.

From Outside to Inside

(Alarm Mode)

If tagged and the priority is unequal null, the fence will produce an alarm when the machine is entering the fence. Refer to the "GeoFence and Devices" paragraph for details.

 Note: Alarms are sent once per "Key On"/"Key Off" session if the alarm priority is unequal null and if an "Alarm Notification" with the same priority has been set up in "Administration→ Alarm Notification".

Waypoint: If tagged denotes a "circular" GeoFence. If you want alarm notification, also

select one or both of the "Alarm Modes" listed above.

Alarm priority There are four "Alarm Priorities" available to choose from:

Low (Yellow)	The fence will be used to provide data for "Job Costing" and to send out alarms when the machine violates a fence.
Medium (orange)	The fence will be used to provide data for "Job Costing" and to send out alarms when the machine violates a fence.
High (red)	The fence will be used to provide data for "Job Costing" and to send out alarms when the machine violates a fence.

Note

The above color coding of "Alarm Priorities" is only a label and is intended for your convenience. You may assign Low, Medium, and High as you wish. The color coded alarm priority will appear in the "Status" column of the "Alert window - Alarms".

Alarm in web only If tagged, no alarm notification will be sent via Email. The user can only view

alarms on the web site

Alarm in web and If tagged, the user will be able to view alarms on the web site and, notification

depending on whether an email address was entered in the "User" or "User

Settings" profile setup, receive an alarm notification via e-mail.

Notification 1 If tagged, an alarm notification will be send as per user's profile setup; via e-

mail.

Notification 2 & Notification timeout

[Minutes]

[Minutes]

Notification 3 & Notification timeout If notification 2 is enabled and the alarm is not marked as read before the "Notification 2 timeout", the system notifies users aligned to the notification 2 group. For details, refer to the next sub-section "How to use the notifications

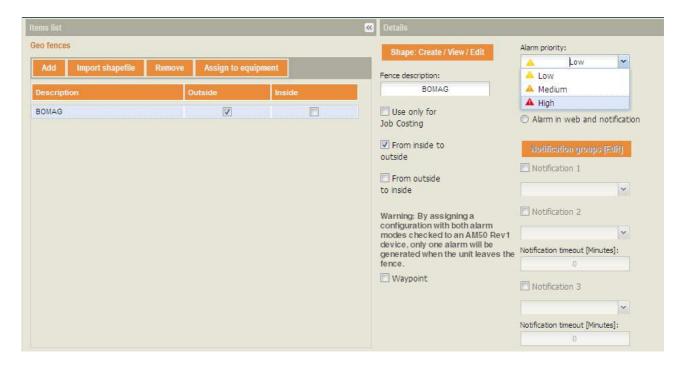
group [Edit] function".

If Notification 3 is enabled and the alarm is not marked as read before the "Notification 3 timeout", the system notifies users aligned to the notification 3 group. For details, refer to the next sub-section "How to use the notifications group [Edit] function".

5.8.2 "GeoFence" editor

The "GeoFence Editor" is where the Administrator creates or modifies a shape in the map. By zooming with the upper left slider or by using the search tool available in the bottom left corner, the user selects the portion of the map where the Geofence will be located. (If you are new to navigating through Google® maps, see chapter 2.7 - "User Settings").

How to create a new fence using an existing shape



- Click on the button "Create from existing shape". (An existing shape is one that has already been set-up in the "Administration→ Shape" section.)
- Click on the drop down arrow to select an existing shape then press "Create".

In the details page:

- Enter the fence description
- Press the drop down arrow to select an alarm priority (low, medium or high).
- To select an alarm mode, tag the check box to the left of "From inside to outside" or "From outside to inside".
- To create a fence with a waypoint, tag the check box to the left of "Waypoint". (A Waypoint fence must be circular.)
- Click on "Save".

The description of the fence and the alarm criteria are saved and appear in the "Items list".



Click on the "Shape: Create/ View / Edit" button.

-

³ A Waypoint is a cycle time tool for measuring productivity. Unlike the typical GeoFence, which is used to provide alerts, Waypoints are used to count how many cycles have occurred over a user defined period of time.

If you select "Polygonal shape"



- · Click on "Start edit".
- Click each point or corner you wish to edit and drag it to the desired location.
- Click on the "Stop edit" button once you have made all of your changes.
- Click on "Save and Close".

Your work has been saved and you will be taken back to the main "GeoFences" screen.

- To remove the modified shape, click on the "Remove" button and select "Yes" to confirm shape deletion.
- Click on "Save and close".

If you select "Circular shape"



- To reset the center of the circle, tag "Click the map to set the center position of the circular shape"
- OR tag "WGS84⁴ coordinates:" then enter new longitude and latitude coordinates.
- Enter the new radius of the circle (depending on users settings, the radius measurement will either be in miles or kilometers).
- · Click on "Ok".
- Click on "Save and close".

•

⁴ The World Geodetic System (WDS84) is a standard for use in cartography, geodesy, and navigation. It comprises a standard coordinate frame for the Earth, a standard spheroidal reference surface (the datum or reference ellipsoid) for raw altitude data, and a gravitational equipotential surface (the geoid) that defines the nominal sea level.

The latest revision is WGS 84 (dating from 1984 and last revised in 2004), which will be valid up to about 2010. Earlier schemes included WGS 72, WGS 66, and WGS 60. WGS 84 is the reference coordinate system used by the Global Positioning System.

Note

The "Cancel" button closes the window without saving last changes.

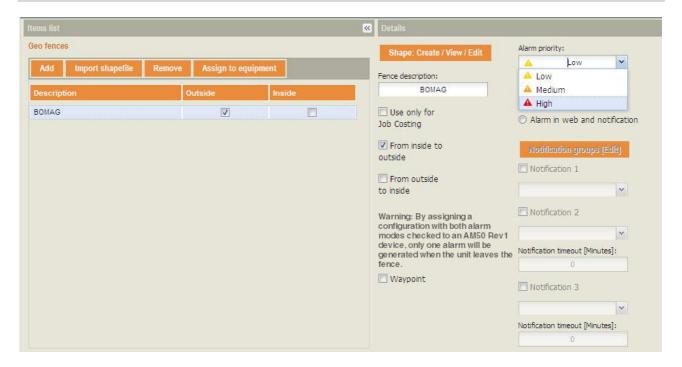
The "Clear" button clears the shape from the map.

How to create a new fence

"GeoFence" Tip

Fences drawn too tightly around a perimeter can produce undesired behavior. Too small fences may produce unexpected behavior. The device needs about 30 seconds to confirm that the machine has entered/exited a fence. The device must perform this action in order to avoid recording an inaccurate fence violation. Example: A machine that drives near the GeoFence border.

It is suggested that a buffer is used around a perimeter in order to eliminate excess "GeoFence" alerts.



Click on the "Add" button.



Pan and zoom to find the desired location in the Google® Map.

- Click on the "Start Draw" button
- Select either a "Polygonal" or "Circular" shape.

If a "Polygonal shape" is selected

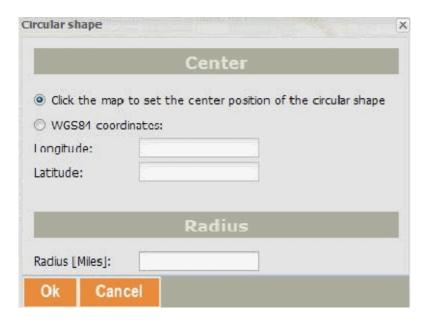
Click on the map for each point needed (maximum of 30 points).

① Note

The polygon⁵ does not need to be closed; it will be closed by clicking on the "Stop Draw" button, then clicking on "Polygonal shape". An almost transparent color will fill the inside of the new shape drawn.

 $^{^{\}rm 5}$ A Polygon is a closed shape bounded by straight lines.

If a "Circular shape" is selected



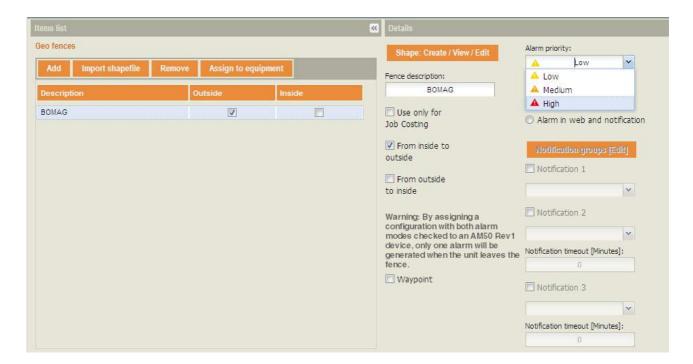
- To set the center of the circle, either click on the radio button in front of "Click the map to set the center position of the circular shape"
- OR click on the radio button for "WGS4 coordinates", then enter longitude and latitude coordinates.
- Enter the radius of the circle (depending on users settings, the radius measurement will either be in miles or kilometers).
- · Click on "Ok".

Note

The "Cancel" button closes the window without saving last changes.

The "Clear" button clears the shape from the map.

Before you can save and see the "GeoFence" you just created, you will need to name it and assign alarm priority to it.



- Enter a "Fence description".
- Select an "Alarm priority" from the drop-down menu. Choices are: Low, Medium, High
- Select an "Alarm mode" by tagging one of the check boxes.
- Press "Save".

The new GeoFence appears at the top of the GeoFence list on the left side of the screen.

How to remove a fence

- Select the fence you wish to remove by clicking with the left mouse button on text in one of the columns "Description", "Shape" or "Alarm Priority".
- Click on the "Remove" button.

A confirmation window opens.

• Click on the "Yes" button.

The fence is immediately removed from the list.

Note

The fence will not be removed from the list if it has been assigned to a machine and has produced an alarm or Job Costing results. The fence will be disabled, but past data will be accessible.

To view the right side of the screen ("GeoFence Editor" paragraph) again, click with the left mouse button on any of the fence names shown on the left side of the page under the GeoFences list.

How to Setup Alarms Notifications

Using the "Notification groups [Edit] function" enables the administrator AND user (by GeoFence) to add or remove alarm notification groups and add, edit, delete and assign system users and external users to/from each "Notification group".

See chapter 5.15- " (Alarm) "Notification groups [Edit]" function" for further information.

5.8.3 GeoFencing - assign to equipment

Notes

You must have administrator access rights to create or modify settings.

Overview

In this section the administrator can assign a GeoFencing profile created in the "Administration \rightarrow GeoFencing \rightarrow Create, Edit, Delete" section to each machine.

How to Filter Equipment

 By filtering the fleet, brand, and/or type columns, the administrator may assign multiple "GeoFencing" profiles at one time.

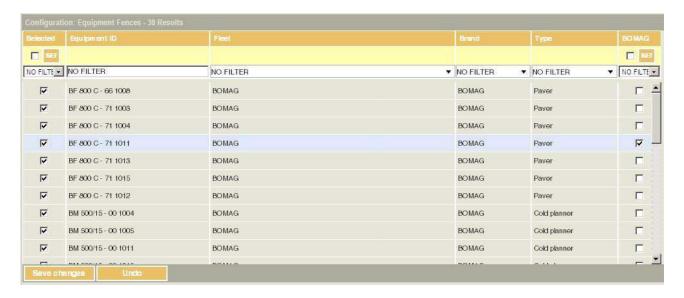


- From the drop down menu under the fleet, brand and/or type column headers, tag or untag the check box to select or deselect a criterion
- OR click on "All".
- · Click on "Apply".

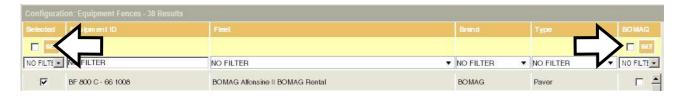
Once you click on "Apply", the drop down menu automatically closes.

• If you wish to close the drop down menu without applying changes, click on the "Close" button.

How to assign GeoFencing profiles to equipment



- Filter the machines.
- Deselect the machine(s) that you do NOT wish to assign to the profile by untagging the corresponding check boxes.
- Select the machine(s) that you wish to assign to the profile by tagging the corresponding check boxes.



Tag the check box in the header of the first column and press "SET".

Tag the check box in the header of the fence column and click on "SET"

This quickly matches all equipment selected in the first column to the profile.



- To cancel selections made in the fence column(s), click on the "Undo" button and wait a few seconds for the application to refresh the screen.
- Click on "Save changes"
- Click on the "Ok" button to confirm changes.

5.9 Administration - CANbus

5.9.1 CANbus - create, edit, delete

Note

You must have administrator access rights to create or modify settings.

Overview

In this section the administrator can create different CANbus profiles for each user. The panel on the left, "Items list": is the only panel you see on your screen, until you create and save at least one "CAN bus" profile.

Note

The profiles created will be assigned to the machines in the "Administration \rightarrow CANbus \rightarrow Assign to equipment" section (see chapter 5.9.2 - CAN bus - Assign to equipment).

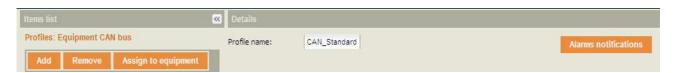


The "Add" and "Remove" buttons are used to create and remove profiles

Details This is where you will create, or modify information about each machine's

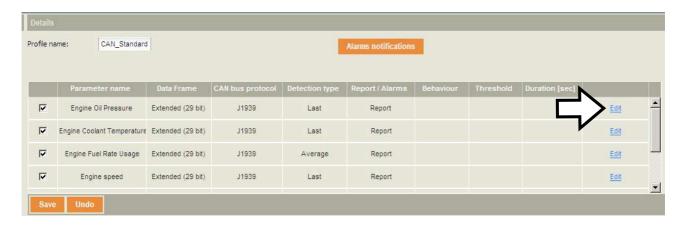
CANbus profile as well as set the Alarm notification

How to add a new CANbus profile



- Click on the "Add" button in the "Items list".
- Enter a profile name in the input field "Profile name:"
- Click on "Save".

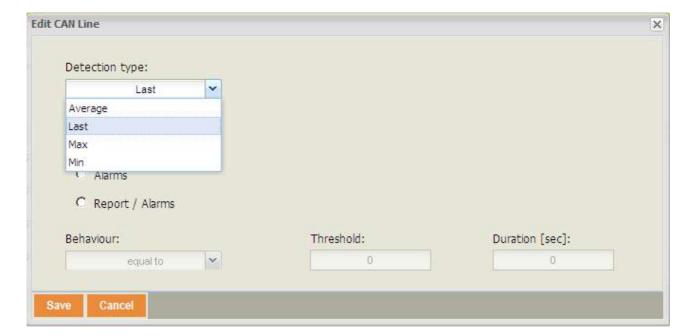
After you have created the new profile, you must choose the parameters:



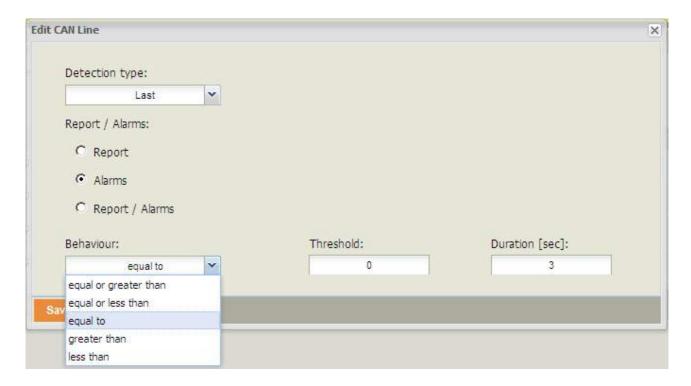
Tag the check box to the left of each CANbus parameter you wish to be monitored.

After you have chosen a parameter the "Edit" button appears.

Click on the "Edit" button.



• Choose the "Detection Type" (Average, Last, Max, Min) from the drop-down menu.



- From Report / Alarms select Reports, Alarms or Report / Alarms.
- For each selected parameter choose the behaviour (this option is only available when the option "Alarms" or "Report / Alarms" is selected).
- Enter the "Threshold" (in numericals).
- Enter the "Duration" (in seconds).

① Note

Before sending the alarm, the device will check the alarm's condition continuously over the specified duration. The minimum number of seconds is 3.

- To undo information entered or selected from drop-down menus (before saving), click on the "Undo" button.
- Click on "Save".

A "Save process completed successfully" message appears confirming that your data has been saved.

Note

The "Engine Fuel Rate Usage" parameter is detected by default using the "Average" detection type, in order to provide the right input for the Fuel Report. If you want to change the detection type for this parameter, then the Fuel Report will be impacted.

How to Modify or Remove a CAN bus Alarms Profile

To modify a profile

Select the Profile name that is to be modified in the "Items list".

In the "Details" panel all the details about the Profile name you have selected are displayed.

• For text fields, highlight and delete existing information, then enter new information.

- For drop down menu items, click the drop down arrow and click on the new choice.
- To undo information entered or selected from drop down menus, click the "Undo" button (before saving).
- Click the "Save" button

A "Save process completed successfully" message appears confirming that your data has been saved.

To remove a profile

- Select the Profile name that is to be removed in the "Items list".
- Press"Remove".
- Press the "Yes" button in the "Confirm deletion" text box.

Profile is removed from the "Items list".

How to Setup Alarms Notifications

Using the "Notification groups [Edit] function" allows the Administrator AND User (by GeoFence) to add or remove alarm notification groups and add, edit, delete and assign System Users and External Users to/from each Notification group.

See chapter 5.15- " (Alarm) "Notification groups [Edit]" function" for further information.

5.9.2 CAN bus - Assign to equipment

Overview

Note

Available only with BOMAG TELEMATIC POWER.

In this section the Administrator can assign, to each machine, a CANbus Alarms profile created in the "Administration—CANbus alarms—Create, Edit, Delete" section (see chapter 5.9.1- "CANbus - create, edit, delete").

How to filter equipment

By filtering the fleet, brand, and/or type columns, the administrator can assign multiple CANbus alarm profiles at a time.



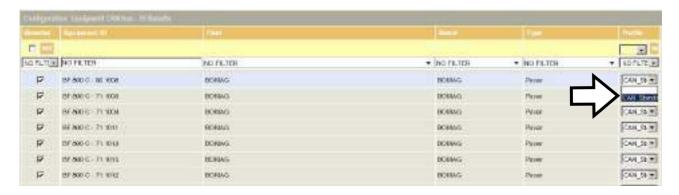
- From the drop down menu under the fleet, brand and/or type column headers, tag ort untag the check box to select or deselect a criteria.
- OR click on "All".
- Click on "Apply".

Once you press "Apply", the drop down menu automatically closes.

If you wish to close the drop-down menu without applying changes, click on the "Close" button.

How to assign CANbus alarm profiles to equipment

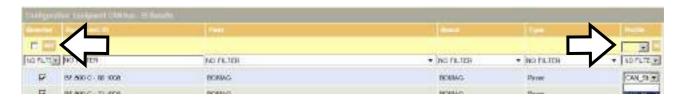
To assign a status profile to one or more (but not all) machines



- Select the machines by tagging the check boxes to the left of each machine name.
- Select a profile name from the drop-down menu underneath the Profile column.
- Click on the "SET" button located in the very last column.
- To cancel selections, click on the "Undo" button (before saving).
- Click on "Save changes".

To assign a CANbus alarm profile to all machines

- Filter the machines.
- Select the machines by tagging the check boxes to the left of each machine name.



- Tag the check box in the header of the first column and press "SET".
- Select a profile name in the header of the profile column and press "SET".



- To cancel selections click on the "Undo" button and wait a few seconds for the application to refresh the screen.
- Click on "Save changes"

• Click on "Ok" to confirm changes.

5.10 Administration - Status

5.10.1 Status - create, edit, delete

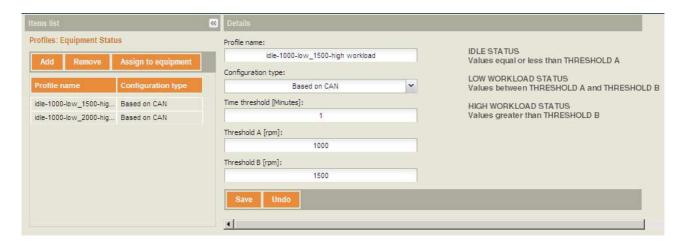
① Note:

Creation of a CANbus profile based on RPMs is only available with BOMAG TELEMATIC POWER.

You must have administrator access rights to create or modify status.

Overview

In this section the Administrator can create one or more status threshold profiles for each machine or group of machines in the fleet. The created profiles will be assigned to machines in the "Administration→Status→Assign to equipment" section (see chapter 5.10.2 − "Status - assign to equipment").



Items list The panel shows a list of existing profiles that have already been set up.

The "Add" and "Remove" buttons are located near the top of the panel.

Details Here you set up the "Status profiles" for each machine.

Available status profiles

Based on CAN CANbus RPM data

Based on digital input a digital input

Based on speed a speed threshold

Based on speed and digital input a speed threshold and a digital input

Status definitions

Grey OFF Any position sent from the device when the machine is OFF (i.e.

motion detection).

Blue ON / Idle Machine ON, but in idle state, depending on the "Idle time

threshold", as defined by the status profile used

Red Long Idle Machine ON, but exceeding the "Idle time threshold" as defined

in the status profile used.

Yellow Moving / Working Machine ON, but between "threshold A" and "threshold B" as

defined in the status profile used.

Green High workload Machine ON, but exceeding the "threshold B" as defined in the

status profile used.

How to create, edit or delete a status profile "based on CANbus RPM-data"

① Note:

Only available with BOMAG TELEMATIC POWER.

To create a new profile



• Click on the "Add" button in the "Items list".

In the "Details" panel:

• Enter the "Profile name".

① Note

Profile name: For easy assignment to configuration settings and because the engine speed threshold depends on the machine type, we suggest that you include the type and brand name of the machine in the profile name, e.g., Tandem Roller, BOMAG.

- Select "Based on CAN" from the drop down menu "Configuration type".
- Enter "Time threshold" in minutes.
- Enter RPM in "Threshold A".
- Enter RPM in "Threshold B".
- Click on "Save" to save profile in the database.

To remove a profile

- Select the profile name you wish to remove in the "Items list".
- · Click on the "Remove" button.
- Click on the "OK" button to confirm deletion.

The Profile will be removed.

Note

To view the "Details" panel after deleting a profile, click on one of the profile names in the "Items list".

How to create, edit or delete a status profile "Based on speed"

To create a new profile



• Click on the "Add" button in the "Items list".

In the "Details" panel:

• Enter the "Profile name".

Note

Profile name: For easy assignment to configuration settings and because the threshold of the engine speed depends on the machine type, we suggest that you include the type and brand name of the machine in the profile name, e.g., Tandem Roller, BOMAG.

- Select "Based on speed" from the drop down-menu "Configuration type".
- Enter the time threshold in minutes.

① Note:

Time threshold: If the speed of the machine is lower than the specified speed threshold, the status is idle; if the machine is in idle state for longer than the specified time threshold, idle becomes a long idle. Long idle is an undesired condition.

• Enter the speed threshold in miles per hour or kilometers per hour.

① Note:

Speed threshold: When the speed overrides the specified threshold, the status becomes Working/Moving.

· Click on "Save".

To delete a profile

- Select the profile name you wish to remove from the "Items list".
- Click on the "Remove" button.
- Click on the "OK" button to confirm deletion.

The Profile will be removed.

Note

To view the "Details" panel after deleting a profile, click on one of the profile names in the "Items list".

How to create, edit or delete a status profile "Based on digital input"

To create a new profile



· Click on the "Add" button in the "Items list".

In the "Details" panel:

• Enter the profile name

Note

Profile name: For easy assignment to configuration settings and because the threshold of the engine speed depends on machine type, we suggest that you include the type and brand name of the machine in the profile name, e.g., Tandem Roller, BOMAG.

- Select "Based on digital input" from the drop down menu "Configuration type".
- From the "Input" drop down menu, select either Input 1 or Input 2.

① Note

Input: Configuration of the digital input is the responsibility of the installer (see "Administration > Input/Output").

• Enter the time threshold in minutes.

Note

Time threshold: If the selected digital input is lower than the specified speed threshold, the status is idle; if the machine is in idle state for more than the specified time threshold, idle becomes a long idle. Long idle is an undesired condition.

Click on "Save".

To delete a profile

- Select the Profile name you wish to remove from the "Items list".
- Click on the "Remove" button.
- Click on the "OK" button to confirm deletion.

The profile will be removed.

Note

To view the "Details" panel after deleting a profile, click on one of the Profile names in the "Items list".

How to create, edit or delete a status profile "Based on speed & digital input"

To create a new profile



• Click on the "Add" button in the "Items list".

In the "Details" panel:

Enter the "Profile name".

Note

Profile name: For easy assignment to configuration settings and because the threshold of the engine speed depends on machine type, it is suggested that you include the type and brand name of the machine in the profile name, e.g., Tandem Roller, BOMAG.

- Select "Input" from the "Configuration type" drop down menu.
- Select either Input 1 or Input 2 from the drop-down menu "Input".

Note

Input: Configuration of the digital input is the responsibility of the installer (see "Administration \rightarrow Input/Output").

• Enter the time threshold in minutes.

Note

Time threshold: If the selected digital input is lower than the specified speed threshold, the status is idle; if the machine remains is in idle state for more than the specified time threshold, idle becomes a long idle. Long idle is an undesired condition.

Enter the speed threshold in miles per hour or kilometers per hour.

Note

Speed threshold: When the Speed overrides the specified threshold or the digital input becomes high, the status changes to Working/Moving.

· Click on "Save".

To delete a profile

- Select the Profile name you wish to remove from the "Items list".
- Click on the "Remove" button.
- Click on the "OK" button to confirm deletion.

The profile will be removed.

Note

To view the "Details" panel after deleting a profile, click on one of the profile names in the "Items list".

5.10.2 Status - assign to equipment

Note

You must have administrator access rights to create or modify a status profile.

Overview

In this section the administrator assigns the status profiles created in "Administration-→Status→Create, Edit, Delete" to each machine (see chapter 5.10.1 – "Status - create, edit, delete").

How to filter equipment

By filtering the fleet, brand, and/or type columns, the administrator can assign multiple alarm profiles at a time.



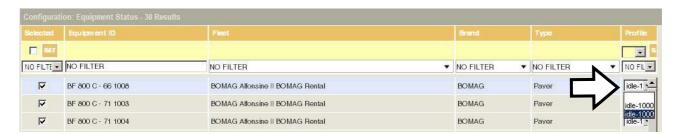
- From the drop down menu under the fleet, brand and/or type column headers, tag or untag the check box to select or deselect a criterion.
- OR click on "All".
- Click on "Apply".

Once you clicked on "Apply", the drop down menu closes automatically.

• If you wish to close the drop-down menu without applying changes, click on the "Close" button.

How to assign a status profile to equipment

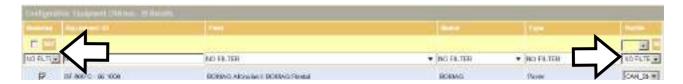
To assign a status profile to one or more (but not all) machines



- Select the machines by clicking on the check boxes to the left of each machine name.
- Select a profile name from the drop-down menu underneath the profile column.
- Click on the "SET" button located in the last column.
- To cancel selections, click on the "Undo" button (before saving).
- Click on "Save.

To assign a status profile to all machines

- Filter the machines.
- Select the machines by clicking on the check boxes to the left of each machine name.



- Tag the check box in the header of the first column and press "SET".
- Select a profile name in the header of the profile column and press "SET".



- To cancel selections click on the "Undo" button and wait a few seconds for the application to refresh the screen.
- Click on "Save changes"
- Click on "Ok" to confirm changes.

5.11 Administration - Power Management

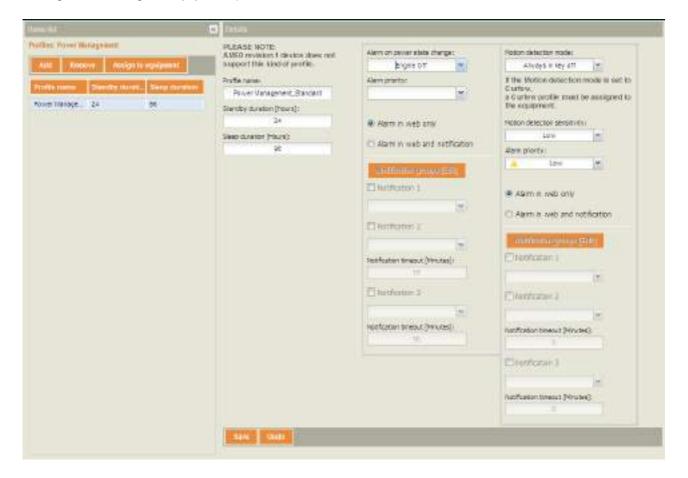
5.11.1 Power Management - create, edit, delete

Notes

You must have administrator access rights to create or modify settings.

Overview

In this section the administrator will create power management profiles that will be assigned to the machines in the "Administration \rightarrow Power Management \rightarrow Assign to equipment" section (see chapter 5.11.2 – "Power management - assign to equipment").



Items list

This panel shows a list of the existing profiles that have already been set up, as well as buttons for creating new or removing power management profiles.

Details

The administrator uses this panel to create, edit or delete a power management profile and, by using the "(Alarms) Notification groups [Edit]" function, manage the alarm policy for the current power management profile simply by adding, editing, deleting and assigning system users and/or external users to a notification group.

Profiles

Profile name This is the name you assign to the profile

Standby duration (Hours) Length of time the device remains in standby, waiting for Ping,

and erasing logged data. Minimum 1 hour, maximum 49 days

(expressed in hours)

Sleep duration (Hours)

Length of time the device remains in sleep mode. In this mode

only the motion detection and scheduled wakeup are activated. Minimum 24 hours, maximum 30 days (expressed in hours)

Motion detection mode Never deactivated

Always in Keyoff always activated

Curfew only activated if selected and if a curfew profile

has been set up under

"Administration > Curfew > Create, Edit, Delete"

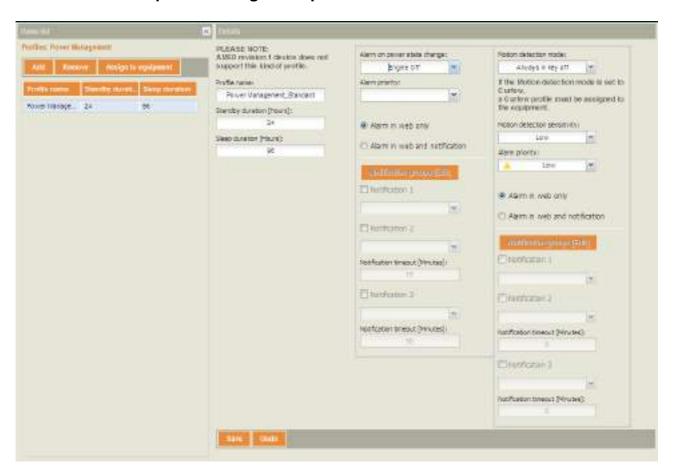
and "Administration→Curfew→Assign to

equipment"

Motion detection sensitivity Enables monitoring of motion detection by selecting a "Low",

"Medium" or "High" sensitivity level (acceleration perceived by the accelerometer) and setting alarm priority and alarm notification.

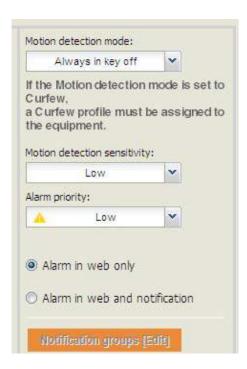
How to add a new power management profile



• Click on the "Add" button in the "Items list".

In the "Details" panel:

- Profile name: Enter a "Profile name" in the text field.
- Standby duration [Hours]: Enter a numeric value.
- Sleep duration [Hours]: Enter a numeric value.
- Alarm on power state change: Click on the drop down arrow, then select one of the options.
 - o "Never"
 - o "Engine Off"
- Alarm priority: Click on the drop down arrow then select one of the options.
 - o "Low"
 - o "Medium"
 - o "High"



- Motion detection mode: Click on the drop down arrow then select one of the options.
 - o "Never"
 - o "Always in key off"
 - o "Curfew"
- Motion detection sensitivity: Click on the drop down arrow then select one of the options.
 - o "Low"
 - o "Medium"
 - o "High"
- Click on "Save.

How to remove a power management profile



- Select the profile name you wish to remove from the "Items list".
- Click on "Remove".
- Click on "Yes" to confirm item deletion.

How to setup alarm notifications

The "Notification groups [Edit] function" enables the administrator AND users (by GeoFence) to add or remove alarm notification groups and add, edit, delete and assign system users and external users to/from each "Notification group".

See chapter 5.15- "Notification groups [Edit] function}" for further information.

5.11.2 Power management - assign to equipment

Notes

You must have administrator access rights to create or modify a profile.

Overview

In this section the administrator assigns the power management profiles created in "Administration → Power Management → Create, Edit, Delete" to each machine (see chapter 5.11.1 – "Power Management - create, edit, delete").

How to filter equipment

By filtering the fleet, brand, and/or type columns, the administrator can assign multiple power management profiles at a time.



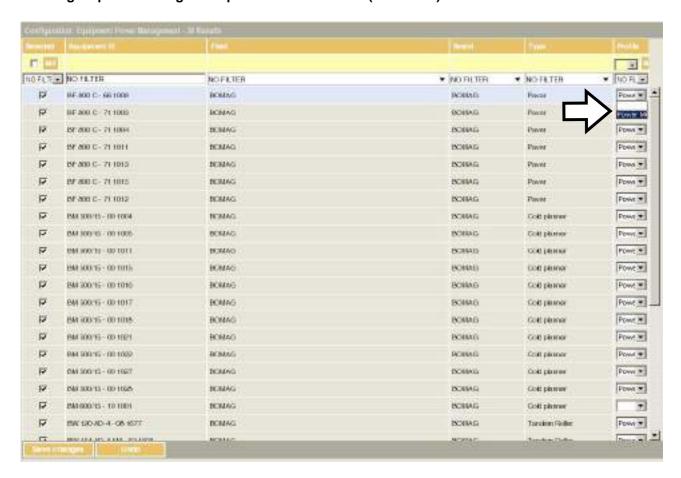
- From the drop down menu under the fleet, brand and/or type column headers, tag or untag the check box to select or deselect a criterion.
- OR click on "All".
- Click on "Apply".

Once you clicked on "Apply", the drop down menu automatically closes.

• If you wish to close the drop-down menu without applying changes, click on the "Close" button.

How to assign power management profiles to equipment

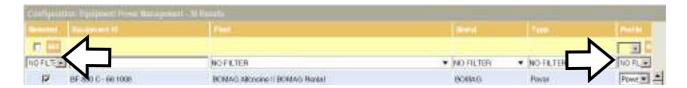
To assign a power management profile to one or more (but not all) machines



- · Select the machines by tagging the corresponding check boxes.
- Select a profile name from the drop down menu.
- Click on the "SET" button
- To cancel selections, click on the "Undo" button.
- Click on "Save changes".

To assign a power management profile to all machines

- Filter the machines.
- Select the machines by tagging the check boxes to the left of each machine name.



- Tag the check box in the header of the first column and press "SET".
- Select a profile name in the header of the profile column and press "SET".



- To cancel selections click on the "Undo" button and wait a few seconds for the application to refresh the screen.
- Click on "Save changes"
- Click on "Ok" to confirm changes.

5.12 Administration - Input/Output

5.12.1 Input/output - create, edit, delete

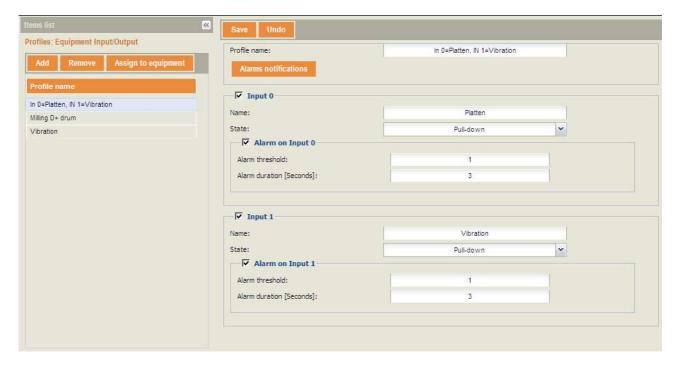
Note

You must have administrator access rights to create or modify settings.

Overview

In this section the administrator and users can create different Input/Output profiles. The profiles created will be assigned to the machines in the "Administration → Input/Output - Assign to Equipment" section (see chapter 5.12.2 – "Input/output – assign to equipment").

The panel on the left, "Items list - Profiles Equipment Input/Output" will be the only panel you see on your screen, until you create and save at least one "Input/Output" profile.



Items list

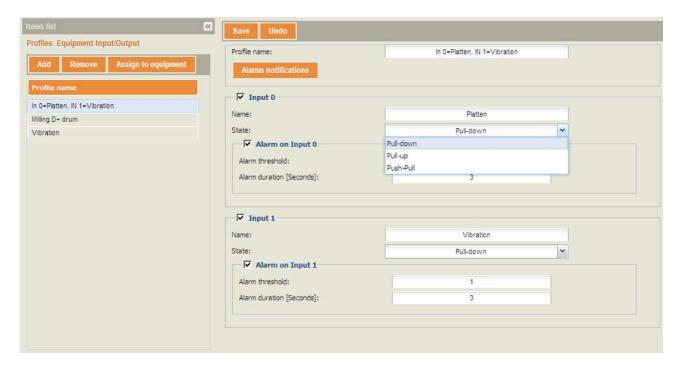
The panel displays current profile names as well as buttons for creating or removing an Input/Output profile

Details

Here you create or modify information about each machine's Input/Output profile and, using the "Alarms notifications" function, manage the alarm policy for the current Input/Output profile by adding, editing, deleting and assigning system users and/or external users to a notification group.

How to add & configure a new input/output profile

To add a new profile



· Click on the "Add" button in the "Items list".

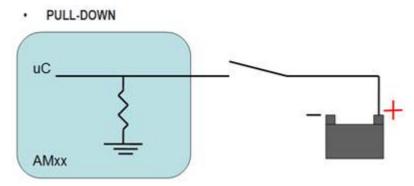
A profile configuration table will appear on the right.

Enter the input/output profile name in the text box to the right of "Profile name".

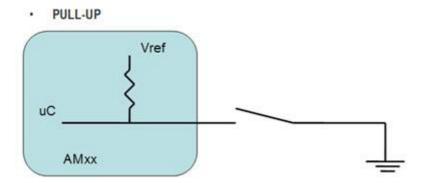
A new line will be added to the top of the "Items list".

In the panel on the right:

- Click on the check box to the left of Input 0 or Input 1.
- Click on the name of the selected input. (The mame should help you to remember the device or function connected with the selected input.)
- Select the input state from the "State" drop down menu by clicking on it. The drop down menu offers three options:
 - Pull-down: Select the "Pull-down" option to read a switch connected to power (voltage from 5 to 32 Vdc) when closed.



o Pull-up: Select the "Pull-up" option to read a switch connected to GND when closed



 Push-Pull: Select the "Push-Pull" option to read a digital input (an input can range from 0 Vdc to 32 Vdc).

Notes

When selecting this option the digital hardware input is Low (0) when the external voltage is less than 4 Vdc and High (1) when the external voltage is higher than 6 Vdc.

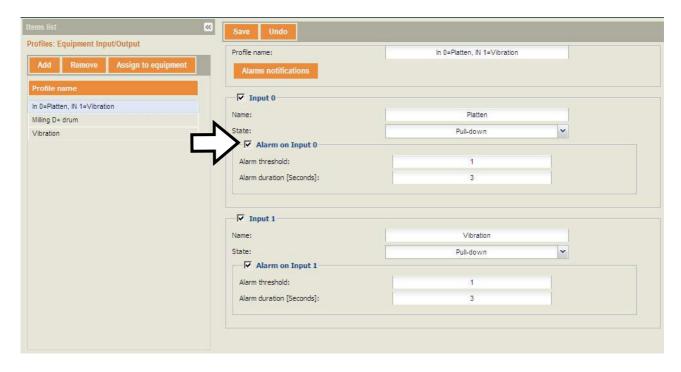
The push-pull logic is similar to tpPull-up. The only difference is that with Push-pull there is no switch, but there is a voltage value. On = voltage value <1,0V and Off = voltage value >1,5V.

Click on "Save".

A "Save process completed successfully" message is displayed confirming that your data have been saved.

• Repeat above steps for input 1.

How to add an alarm profile for input 0 (or input 1)



- Tag the check box to the left of "Alarm on Input 0".
- Alarm threshold: Enter the Alarm threshold value. When selecting a digital ilnput, the only valid values are "1" and "0". If the Alarm threshold value is set to "1" an alarm is detected whenever the digital input goes High. If the Alarm threshold value is set to "0" an alarm is detected when the digital input goes Low.

- Alarm duration [Second]: Enter the alarm duration value (in seconds). An alarm condition is detected if its duration in time is at least equal to the selected alarm duration value.
- Click on "Save"

A "Save process completed successfully" message is displayed to the right of the "Undo" button confirming that your data have been saved.

• Repeat the above steps for Input 1.

How to remove an existing input/output profile

To remove a profile



- Select the profile name that you wish ro remove from the "Items list".
- Click on the "Remove" button.
- Click on the "Yes" button in the "Confirm deletion" text box.

The profile is immediately removed from the "Items list".

How to setup alarm notifications

Using the "Notification groups [Edit] function" enables the administrator AND user (by GeoFence) to add or remove alarm notification groups and add, edit, delete and assign system users and external users to/from each "Notification group".

See chapter 5.15- " (Alarm) "Notification groups [Edit]" function" for further information.

5.12.2 Input/output – assign to equipment

① Notes

You must have administrator access rights to create or modify a maintenance profile.

Overview

In this section the administrator assigns the input/output profiles created in

"Administration→Input/Output→Create, Edit, Delete" to each machine or groups of machines (see chapter 5.12.1 – "Input/output - create, edit, delete").

How to filter equipment

By filtering the fleet, brand, and/or type columns, the administrator can assign multiple input/output profiles at a time.



- From the drop down menu under the fleet, brand and/or type column headers, tag or untag the check box to select or deselect a criterion.
- OR click on "All".
- Click on "Apply".

Once you clicked on "Apply", the drop down menu automatically closes.

• If you wish to close the drop-down menu without applying changes, click on the "Close" button.

How to assign an input/output profile to equipment





- Select the machines by tagging the check boxes to the left of each machine name.
- Select a profile name from the drop down-menu in the profile column.
- Click the "SET" button located in the profile column.
- To cancel selections, click on the "Undo" button.

Click on "Save changes".

To assign an input/output profile to all machines

- Filter the machines.
- Select the machines by tagging the check boxes to the left of each machine name.



- Tag the check box in the header of the first column and click on "SET".
- Select a profile name in the header of the profile column and click on "SET".



- To cancel selections click on the "Undo" button and wait a few seconds for the application to refresh the screen.
- Click on "Save changes"
- Click on "Ok" to confirm changes.

5.13 Administration - Curfew

5.13.1 Curfew - create, edit, delete

Notes

You must have administrator access rights to create or modify a Curfew profile.

Overview

In this section the administrator or operational user can create, edit or delete a "Curfew profile" for each machine in the fleet.

The profile created will be assigned to the machine in "Administration→ Curfew → Assign to equipment" (see chapter 5.13.2 - Curfew - assign to equipment).



Items list

The panel displays a list of existing machine(s) that have already been set up with "Curfew profiles" as well as buttons for creating a new or removing a "Curfew".

Details

Here the administrator creates, edits or deletes a Curfew profile and, using the "Alarms notifications" function, manage the alarm policy for the current curfew profile by adding, editing, deleting and assigning system users and/or external users to a notification group

How to add a new curfew profile



- Click on the "Add" button in the "Items list".
- In the "Details" panel, enter a profile name and double check that the time zone is correct.

Note

The default time zone is the user's time zone as set in "Administration → User Settings".

· Click on "Save".

The system confirms that the "Save" process has successfully completed. Your new profile name will be added to the "Items list".

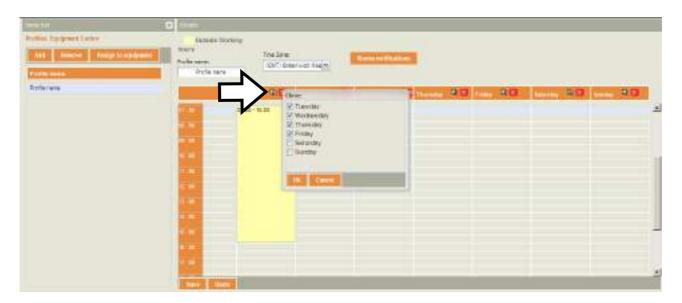
To set curfew periods



- Select the Profile name you wish to set Curfew periods for in the "Items list".
- In the time column, locate the time you wish to start the Curfew period. Move your mouse across the screen (on the light blue line) until you are under the work day. Click in the cell.

The cell turns yellow and the Curfew time period is displayed.

• To extend the Curfew time period, move your mouse to the right side of the yellow cell, until your pointer turns into an up/down (1) arrow. Click and drag the arrow down to the time, when the Curfew period should come to an end.



- To clone the same Curfew time period for other days, click on the "Clone" button The "Clone" screen is displayed.
- Tag any or all of the check boxes to the left of each day you wish to clone, then click on the "Ok" button. The "Curfew" periods are immediately displayed.



- To remove all "Curfew" periods inserted in a day, just click on the "Delete" button, then click on "Yes" to confirm deletion.
- · Click on the "Save" button.
- Click on the "Undo" button to return to the last saved Curfew periods.

How to remove a "Curfew profile"



• Select the profile name you wish to remove in the "Items list".

- Click on the "Remove" button.
- · Confirm item deletion by clicking on "Yes".

How to setup alarm notifications

Using the "Notification groups [Edit] function" enables the administrator AND user (by GeoFence) to add or remove alarm notification groups and add, edit, delete and assign system users and external users to/from each Notification group.

See chapter 5.15- " (Alarm) "Notification groups [Edit]" function" for further information.

5.13.2 Curfew - assign to equipment

Notes

You must have administrator access rights to create or modify settings.

Overview

In this section the administrator can assign, to each machine, a Curfew profile created in the "Administration→Curfew→Create, Edit, Delete" section (see chapter 5.13.1 - "Curfew - create, edit, delete").

How to filter equipment

By filtering the fleet, brand, and/or type columns, the administrator can assign multiple "Curfew profiles" at a time.



- From the drop down menu under the fleet, brand and/or type column headers, tag or untag the check box to select or deselect a criterion.
- OR click on "All".
- Click on "Apply".

Once you have clicked on "Apply", the drop down menu automatically closes.

• If you wish to close the drop-down menu without applying changes, click the "Close" button.

How to assign "Curfew" profiles to equipment

To assign a "Curfew" profile to one or more (but not all) machines



- Select the machines by tagging the check boxes to the left of each machine name.
- Select a profile name from the drop down menu in the profile column.
- Click on the "SET" button located in profile column.
- To cancel selections, click on the "Undo" button
- Click on the "Save changes" button.

To assign a "Curfew" profile to all machines

- Filter the machines.
- Select the machines by tagging the check boxes to the left of each machine name.



- Tag the check box in the header of the first column and click on "SET.
- Select a profile name in the header of the profile column and click on "SET".



- To cancel selections click on the "Undo" button and wait a few seconds for the application to refresh the screen.
- Click on "Save changes"
- Click on "Ok" to confirm changes.

5.14 Administration - Maintenance

5.14.1 Maintenance - administration

Note

You must have administrator access rights to modify maintenance administration profiles.

Tip: To resize column widths, move the mouse over the right column border in the column header and drag to the width you desire. (Your cursor will change to

Note

Please note that the system does not contain any BOMAG maintenance plans. To be able use this feature you should create your own maintenance plans by referring to the maintenance instructions for your machine.

Overview

In this section the administrator can quickly view the maintenance status of the fleet(s).



Items list This panel shows a list of existing maintenance profiles and provides an "At A Glance"

view of each machine's maintenance status, e.g., Incomplete, Overdue, etc.

To filter data in this panel, refer to the "How to filter data in items list – maintenance

panel".

Details This panel provides maintenance details for each machine.

To filter data in this panel, read further down "How to filter data in details panel".

How to filter data in "Items list - maintenance"

You can filter data in the "Items list" by using the filters for column headers.

Scenario: You have multiple maintenance profiles and would like to see only the maintenance status for these machines using a specific profile:

- Move the mouse over the column header named "Profile", then click the down arrow.
- Move your mouse down to "Filters" and over into the blank field.
- Enter the equipment ID.

The "Items list" will immediately be filled uip with the machine data for that profile name.

- To close the drop down menu, click anywhere on your screen outside of the drop down menu.
- To return to the original "Items list" showing all profile names and respective data, deselect the check box "Filters".

How to add information in "Details" panel

• You can add or hide columns in the table by using the column header filters.

How to activate & close service



Select the machine name you wish to activate a service for in the "Items list".

① Note

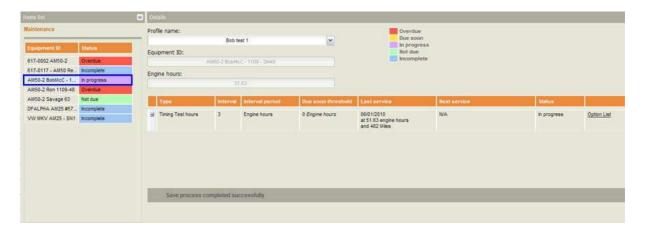
A service can be activated if it is in one of the following states: Not due, Due soon, Overdue.

In the "Details" panel:

- Click on the "Options List" link.
- · Click on "Activate".

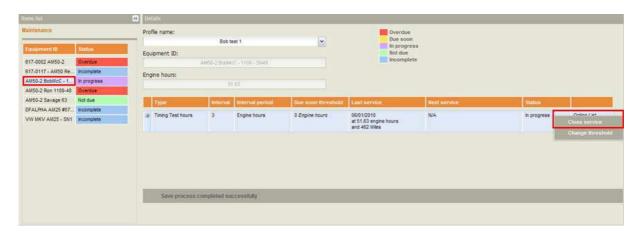


- In the popup window enter any notes you wish to save in the data base.
- Click on "Ok".



As shown above, the status in the "Items list – Maintenance" panel has changed from "Not due" to "In Progress".

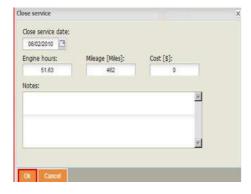
How to close service



- In the "Items list", click on the machine name you wish to close service for.
- A service can be closed if it has been opened before, so if the status is "In progress".

In the "Details" panel:

- Click on the "Options List" link.
- Click on "Close service".

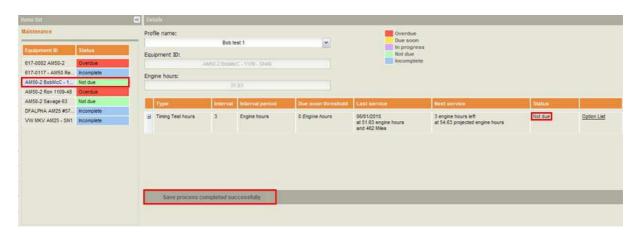


In the pop-up window:

Note

Values shown above are automaticxally filled in by the system. You may change any of the values.

- Close service date: If the date is different from the current date shown, click the calendar-icon to select a new date.
- Engine hours: To change, simply highlight the value and enter a new value.
- Mileage [Miles]: To change, simply highlight the value and enter a new value.
- Cost: Enter any cost associated with the service. Numeric format: 0.00. The currency depends on the Company's currency.
- Notes: Enter any notes you wish to save in the data base.
- Click on the "Ok" button.



As shown above, the *Status* in the "Items list - Maintenance" panel has changed from "In Progress" to "Not due" and the same is reflected in the "Details" panel.

At the bottom of the "Details" panel, the application confirms that all data has been successfully saved in the database.

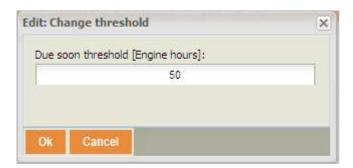
How to edit due soon thresholds in "Details" panel



• Select the machine you wish to edit from the "Items list".

In the "Details" panel:

- Click on the "Options List" link for the service you wish to edit.
- Click on "Change threshold".



- In the popup window, enter the new value for engine hours, days, months, miles or km (depending on the servce type) for the "Due soon threshold".
- Click on the "Ok" button.

How to view status details of a machine



- Select the machine you wish to edit in the "Items list".
- In the "Details" panel, click on the "+" sign to expand each maintenance type. A more detailed description of type and interval period is displayed.
- To hide details click on the "-" sign.

5.14.2 Maintenance - create, edit, delete

① Note

You must have administrator access rights to create or modify Maintenance profiles.

To close this screen, click on the "X" in the upper right corner or press the Esc key.

Tip: To resize column widths, move the mouse over the right column border in the column header and drag to the width you desire. (Your cursor will change to

Overview

In this section the administrator will create equipment maintenance profiles, which match the type of maintenance that will be applied to a machine, or groups of machines in the "Administration → Maintenance → Assign to equipment" section (see chapter 5.14.3 – "Maintenance – assign to equipment").

A maintenance profile represents a set of maintenance services.



Items list

This panel shows a list of existing equipment maintenance profiles, which have already been set up. The "Add" and "Remove" buttons are also located here.

Details

Here you create, edit or remove equipment maintenance profiles.

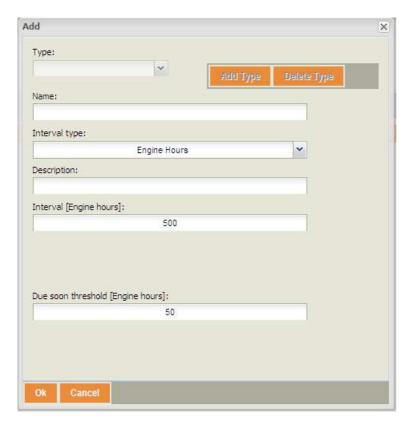
How to create equipment maintenance profile & add a new "Type"



• Click on the "Add" button in the "Items list".

In the "Details" panel (on the right):

- Enter a "Profile name".
- Click on the "Add" button (under "Profile name").



• Click on the "Add Type" button.

• You have three (3) add-type options to select from; "Engine Hours", "Calendar Time: Days/Months", and "Distance: Km/Miles".

Set-up an "Engine Hours" based maintenance service

- Interval type: Select "Engine Hours" from the drop down menu".
- Name: Enter a name for the new maintenance service type based on Engine Hours, e.g., oil change.
- Description: Enter a description for the new maintenance service type.
- Interval [Engine hours]: Enter a numeric value into the "Interval [Engine hours]:" text field.
- Due soon threshold (Engine Hours): Enter a numeric value.
- By default, this value is set to 50 engine hours before service is due.

Note

When the threshold is reached, the system generates a medium priority alarm (orange icon in the alert window) to inform the user that service is due soon.

Click on "Ok".

Set-up calendar time: Days/Months

- Interval type: Select "Calendar time: Days/Months" from the drop down menu.
- Name: Enter a name for the new maintenance service type based on a calendar, e.g., oil change.
- Description: Enter a description for the new maintenance service type.
- Date interval: Enter a numeric value.
- Date format: Select either days or months by clicking on one or the other.
- Due soon threshold (days): Enter a numeric value. By default, this value is set to 14 days before the service date.

Note

When the threshold is reached, the system generates a medium priority alarm (orange icon in the alert window) to inform the user that service is due soon.

The system also generates a high priority alarm (red icon in the alert window) to inform the user that service is over due. This alarm occurs when the interval since the last service is elapsed.

· Click on "Ok".

Set-up distance: Km/Miles

- Interval type: Select "Distance: Km/Miles" from the drop down menu
- Name: Enter a name for the new maintenance service type based on a distance.
- Description: Enter a description for the new maintenance service type.
- Interval [miles or km]: Enter a numeric value. The unit of measurement depends on the user settings.
- Due soon threshold [miles or km]: Enter a numeric value. The unit of measurement depends on the user settings. By default, this value is set to 150 km/93 miles before the service date.

① Note

When the threshold is reached, the system generates a medium priority alarm (orange icon in the alert window) to inform the user that service is due soon.

The system also generates a high priority alarm (red icon in the alert window) to inform the user that service is over due.

· Click on "Ok".



At that point the new maintenance service type has been saved and it is available for future use in other maintenance profiles.

· Click on "Save".

The application immediately confirms that the new maintenance profile has been saved (center bottom) and the new profile name appears in the "Items list".

How to edit a maintenance "Service" in a maintenance "Profile"



- Select the profile name from the "Items list".
- In the "Details" panel, press the "Edit" icon for the maintenance service you want to edit.
- In the pop-up screen, select or enter a new value in any of the fields you wish to change.
- Click on the "Ok" button. Your changes are immediately recognized.
- Click on "Save".

The application confirms that your changes have been saved. The changes in a profile will be applied to any user who is using the profile.

How to delete a maintenance "Service" in a maintenance "Profile"



• Select the profile name from the the "Items list".

- In the "Details" panel, press the "Delete" icon for the maintenance service you wish to delete.
- Click on the "Yes" button in the "Confirm item deletion" screen.

If the type is not used by any machine, the service "Type" is immediately removed from the "Type" list for the profile name you had selected.

· Click on "Save".

The application immediately confirms that your changes have been saved.

How to remove a profile



- Select the Profile name you wish to remove from the "Items list".
- Click on the "Remove" button.
- Click on the "Yes" button in the "Confirm item deletion" screen. The "Profile name" you selected is removed from the "Items list", if it is not assigned to any machine.

How to add information in the "Details" panel

You can add further columns by using the column header filters.

5.14.3 Maintenance – assign to equipment

① Note

You must have administrator access rights to create or modify a maintenance profile.

Overview

In this section the administrator assigns the maintenance profiles created in "Administration → Maintenance → Create, Edit, Delete" to each machine or groups of machines (see chapter 5.14.2 – "Maintenance - create, edit, delete").

How to filter equipment

By filtering the fleet, brand, and/or type columns, the administrator can assign multiple alarm profiles at a time.



- From the drop down menu under the fleet, brand and/or type column headers, tag or untag the check box to select or deselect a criterion.
- · OR click on "All".
- Click on "Apply".

Once you have clicked on "Apply", the drop down menu automatically closes.

• If you wish to close the drop-down menu without applying changes, click on the "Close" button.

How to assign a maintenance profile to equipment

To assign a maintenance profile to one or more (but not all) machines:



- Select the machines by tagging the check boxes to the left of each machine name.
- Select a profile name from the drop down menu in the profile column.
- Click on the "SET" button located in the profile column.
- To cancel selections, click on the "Undo" button

Click on the "Save changes" button.

To assign a "Curfew" profile to all machines

- Filter the machines.
- Select the machines by tagging the check boxes to the left of each machine name.



- Tag the check box in the header of the first column and click on "SET".
- Select a profile name in the header of the Profile column and click on "SET".



- To cancel selections click on the "Undo" button and wait a few seconds for the application to refresh the screen.
- Click on "Save changes"

Click on "Ok" to confirm changes.

5.15 (Alarm) "Notification groups [Edit]" function

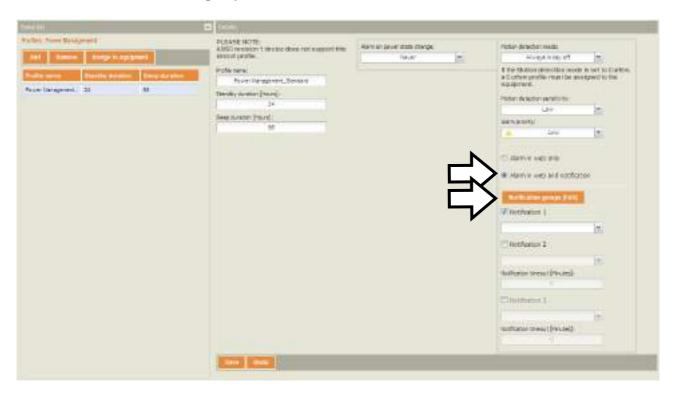
Using the "Notification groups [Edit] function" enables the administrator and user to add or remove alarm notification groups and add, edit, delete and assign system users and external users to/from each "Notification group".

The function is used in different dialogs. The example below describes the configuration based on "Administration → Power Management".

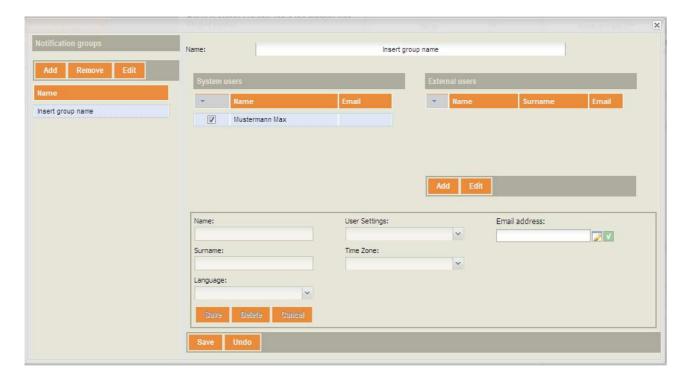
Definitions

- System users are company personnel who have access to and will use the BOMAG TELEMATIC web application.
- External users are company personnel such as "Security", who do not have (or need) access to the BOMAG TELEMATIC web application. However, in case of theft, they require short-term notification via an alarm notification.

To create a new "Notification group"



- In the "Items list", select the profile name (or description) to which you would like to add a new "Notification group".
- To activate the "Notification groups [Edit]" button, click on the radio button to the left of "Alarm in web and notification".
- Click the "Notification groups [Edit]" button. The "Notification groups" popup screen appears.



• In the "Notification groups" section, click on the "Add" button.

A new line [Insert group name] is added to the top of the list of "Notification groups".

- Enter a new "Notification group name" at the top of the screen.
- In the "Systems user" section, select at least one system user by tagging the check box to the left of the name and tag also the "SMS" and/or "Email" box(es).

① Note

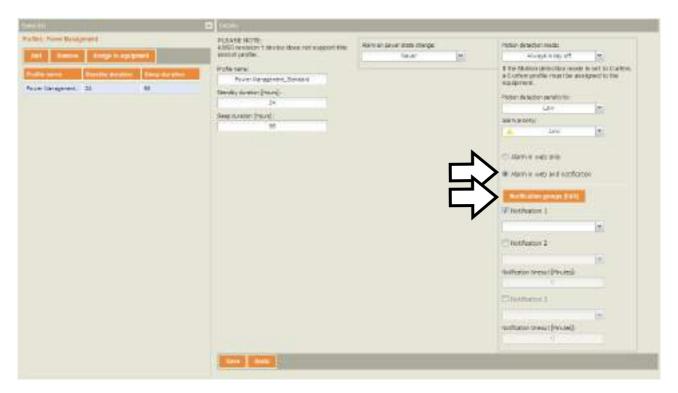
All System users granted access to the application will be listed in the "System users" section.

If the e-mail address has not been verified by the system, the "Email" box will not be visible in the list of "System users".

To verify a system user's e-mail address you need to set him up either under the "Administration → User" or "Administration → User Settings" sections.

- Click on "Save".
- Click on "Ok" to confirm save process has successfully completed.

To remove a "Notification Group"



- In the "Items list", select the profile name (or description).
- From the "Items list", select the "Profile name" (or description) you would like to delete by clicking on the cell.
- Click on the radio button to the left of "Alarm in web notification".
- Click on the "Notification groups [Edit]" button.



- Under the "Notification groups" section (upper left), select the notification group you wish to remove.
- Click on the "Remove" button.
- Click on "Ok" on the popup "Confirm item delete" screen.

The "Notification group" is immediately removed.

To assign "System Users"

- In the "Items list", select the profile name (or description).
- Click on the radio button to the left of "Alarm in web notification". This activates the "Notification groups [Edit]" button.
- Click on the "Notification groups [Edit]" button.

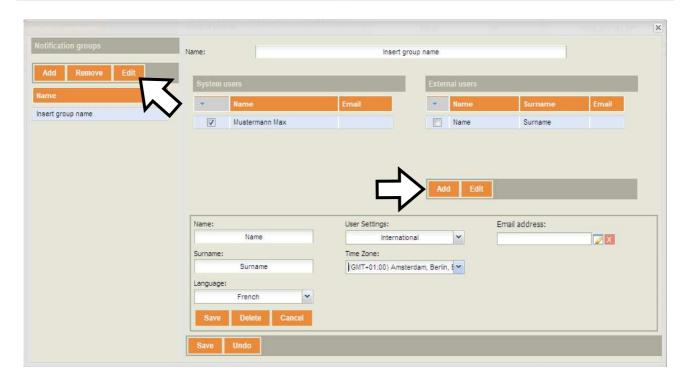


- Click on the name of the "Notification group" you wish to add a system user to.
- Click on the "Edit" button.
- Under the "Systems user" section, tag the box to the left of the system user's name and tag the checkbox "Email".

You may select as many names as you wish to add.

To add "External Users"

- In the "Items list", select the profile name (or description).
- Click on the radio button to the left of "Alarm in web notification". This activates the "Notification groups [Edit]" button.
- Click on the "Notification groups [Edit]" button.



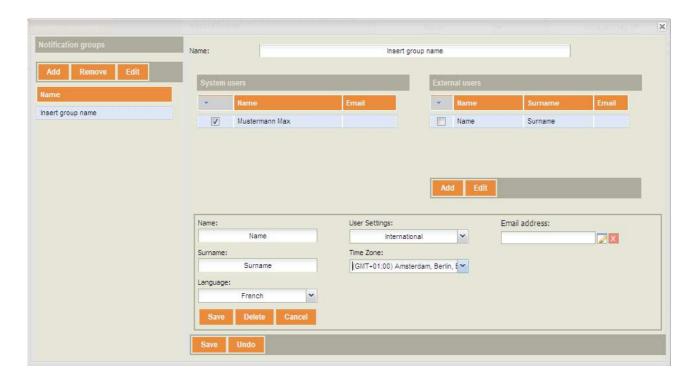
- Click on the name of the "Notification group" you wish to add a new external user to.
- Click on the "Edit" button.
- In the "External users" section, click on the "Add" button. This activates the "User Settings:" section.
- In the "User Settings:" section, enter information concerning the external user and select from drop down menus.

To add an Email address



- o Click on the "Edit" icon.
- o In the popup edit box, enter the email address, click on "OK".
- o Access your email account and locate the verification Email.
- o Copy the verification code.
- Click on the icon.
- o Paste or enter the verification code from the email into the verification code popup screen.
- o Click on "OK".

The icon will immediately change to the icon.



- To cancel changes click on the "Cancel" button.
- To add other new external users, repeat the above steps.
- Click on the "Save" button.
- Click on "Ok" to confirm verification has complete successfully.
- Click on the "Save" button at the bottom of the screen.

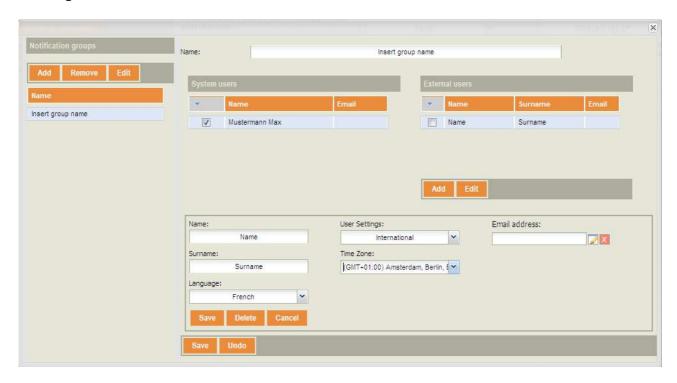
Note

All System users granted access to the application will be listed in the "System users" section.

If the e-mail address has not been verified by the system, the "Email" box will not be visible in the list of system users.

To verify the e-mail address of a system user you need to set it up in either the "Administration → User" or "Administration → User Settings" sections.

To assign "External Users"



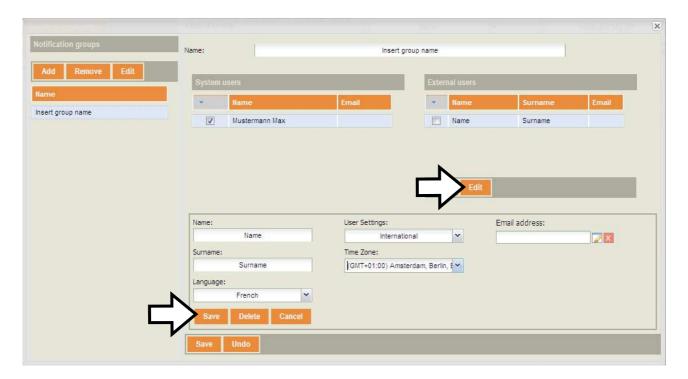
- In the "System user" section, you must select at least one system user by tagging the box to the left of their name.
- In the "External user" section, tag the box to the left of the external user's name and tag also the "SMS" and/or "Email" box(es).

Note

If the e-mail address has not been verified by the system, the "Email" box will not be visible.

- Click on the "Save" button at the bottom of the screen.
- To assign other external users to the same alarm notifications group, repeat the above steps.

To edit "External User" information



- Click on the "Edit" button to activate the fields "Systems users" and "External users".
- Under "External users", click on the name of the User you wish to edit then click on the "Edit" button below the list of names. The "User Settings" section is activated.
- In the "User Settings:" section, enter information concerning the external user and select from drop down menus.
- To cancel changes simply click on the "Cancel" button.
- Click on "Save"
- Click on "Ok" to confirm verification has been completed successfully.
- Click on the "Save" button at the bottom of the screen.

To delete an "External User"



- Click on the group "Name" the user you want to delete is assigned to.
- Click on the "Edit" button to activate the fields "Systems users" and "External users".
- Under "External users", click on the name of the User you want to delete and click on the "Edit" button.

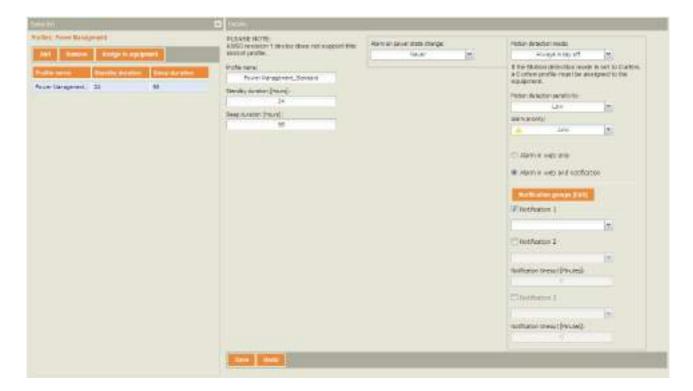
The "User Settings" section is activated.

 Click on the "Delete" button at the bottom of the "User Settings" section then click on "Ok" to confirm deletion.

The "External User" is removed.

Set the alarm

Now that you have setup your (alarm) notification groups, system users and external users, it is time to set the alarm.



- In the "Items list" select the profile name you want to set the alarm for.
- Select an "Alarm priority:" from the drop down menu. There are four "Alarm Priorities" available to select from:
 - o Null: The fence will be used only to provide data used for "Job Costing Report".
 - Low: The fence will be used to provide data for "Job Costing" and to send out alarms when the machine breaks a fence.
 - o Medium: The fence will be used to provide data for "Job Costing" and to send out alarms when the machine breaks a fence.
 - High: The fence will be used to provide data for "Job Costing" and to send out alarms when the machine breaks a fence.

Note

The color coding of the above "Alarm Priorities" only serves as a label and is provided for your convenience. You may assign Low, Medium, and High as you so desire.

The color coded alarm priority will appear in the "Status" column of the "Alarms window" at the bottom of every screen in the application.

- Select one alarm notification method by clicking on the radio button to the left. Your choices are:
 - o Alarm in web only: If selected, alarm notification via e-mail will not be sent. The User and/or notification group(s) will only be able to view alarms on the web site.
 - Alarm in web and notification: If selected, the User and/or notification group(s) will be able to view alarms on the web site and, depending on whether or not an email address was entered in their "User" or "User Settings" profile setup, will determine how they receive an alarm notification; via e-mail.
- Select who is to be notified and how many times an alarm notification is sent. Your choices are:

Notification 1:

If selected, an alarm notification will be sent as per the user's profile setup; via e-mail.

- Tag the check box to the left of Notification 1, then click on the drop down arrow to select the notification group.
- o If this is the only notification you will be setting, click the "Ok" button in the lower left corner, otherwise, continue below.

Notification 2 & Notification timeout [Minutes]:

If notification 2 is enabled and if no one marks the alarm as read before the "Notification 2 timeout", the system notifies Users assigned to notification 2 Group

- Tag the check box to the left of Notification 2 then click on the drop down arrow to select the notification group.
- o Enter the number of minutes for notification timeout.
- o If you have finished setting your notifications, click on the "Ok" button, otherwise continue below.

Notification 3 & Notification timeout [Minutes]:

If Notification 3 is enabled and if no one marks the alarm as read before the "Notification 3 timeout", the system notifies users assigned to notification 3 Group.

- Tag the check box to the left of Notification 3 then click on the drop down arrow to select the notification group.
- o Enter the number of minutes for notification timeout.
- o Click on "Ok".
- Click on "Save".

Note

If you require further information please contact:

E-Mail: service.telematic@bomag.com