



BOMAG

FAYAT GROUP

User Manual



BOMAG TELEMATIC

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 | 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.
 - <http://telematic.bomag.com>
 - <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.

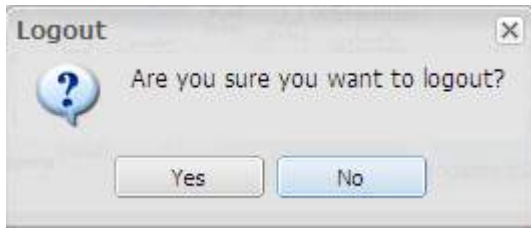


How to logout



- 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.

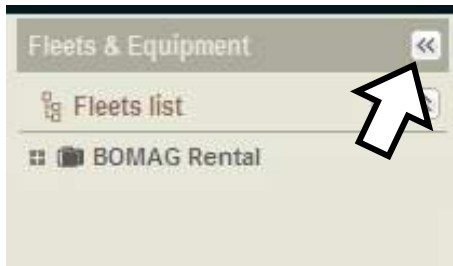


- Click on the “+” sign to show all machines of the fleet.



- Click on the “-” sign to hide the “Fleet list”.

General

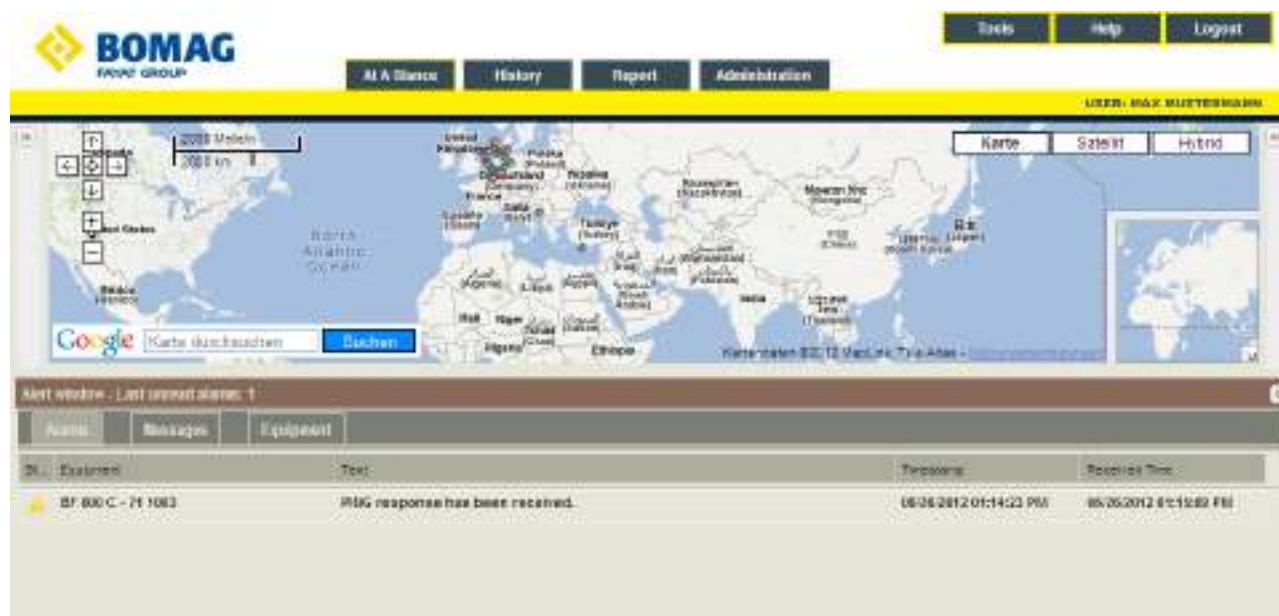


- Click on the “Minimize” button to hide the panel.

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

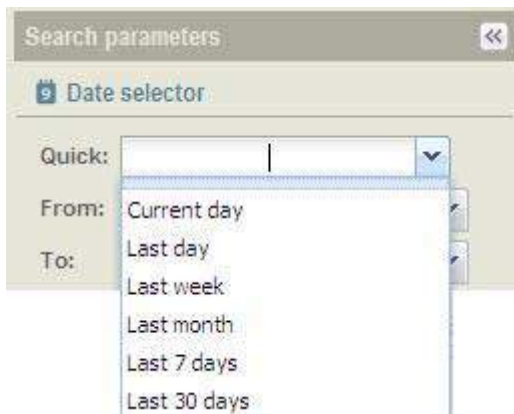
The “Date selector” panel is used in history and report screens to select a date and time period.



The screenshot shows a web interface titled "Search parameters" with a sub-section "Date selector". It contains three rows of controls: "Quick:" with a dropdown menu showing "Last month"; "From:" with a date field showing "05/01/2009" and a time field showing "12:00:00 am"; and "To:" with a date field showing "05/31/2009" and a time field showing "11:59:59 pm". Each date and time field has a small calendar icon to its left.

- | | |
|--------|---|
| 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



This screenshot shows the "Date selector" panel with the "Quick:" dropdown menu open. The menu lists several predefined time periods: "Current day", "Last day", "Last week", "Last month", "Last 7 days", and "Last 30 days". The "From:" and "To:" fields are visible but not the focus of this view.

1.5.2 Equipment / User selector panel

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

Search parameters <<

Date selector

Quick:

From: 05/01/2012 12:00:00 am

To: 05/31/2012 11:59:59 pm

Equipment selector

☒ BOMAG Rental

- ☐ BF 800 C - 66 1001
- ☐ BF 800 C - 66 1008
- ☐ BF 800 C - 71 1001
- ☒ BF 800 C - 71 1003
- ☐ BF 800 C - 71 1004
- ☐ BF 800 C - 71 1011
- ☐ BF 800 C - 71 1013
- ☐ BF 800 C - 71 1015
- ☐ BF 800 C - 71 1012

Create report All None

How to operate the “Equipment selector” panel

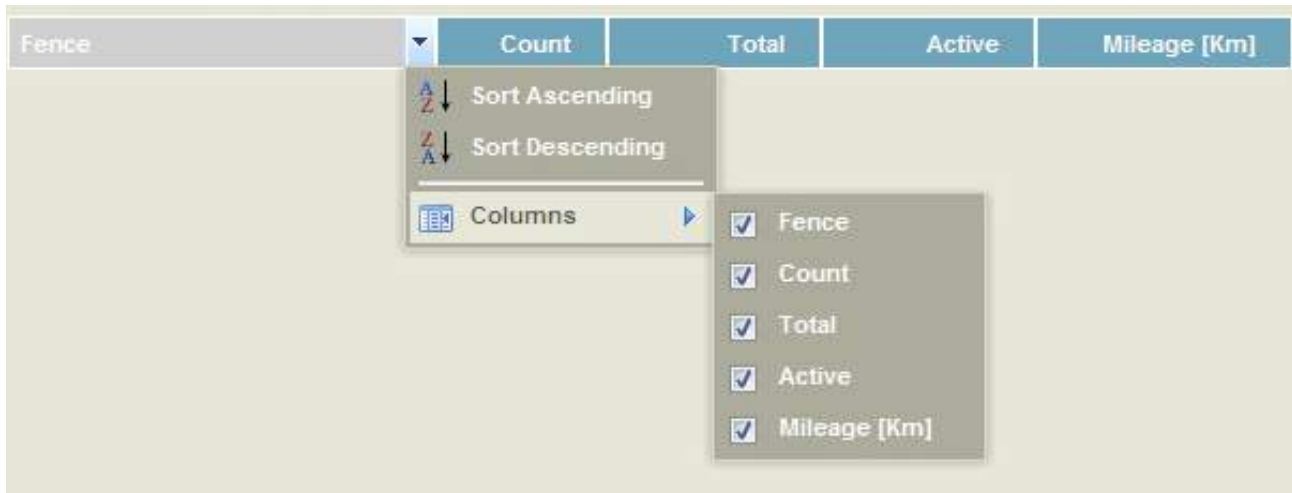
- Press the “+” sign to the left of the fleet name to show all machines in the fleet.
- To select all machines in the fleet, tag the check box to the left of the fleet name.
- To select individual machines, tag the check box to the left of each machine name.
- To select all machines in all fleets, click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

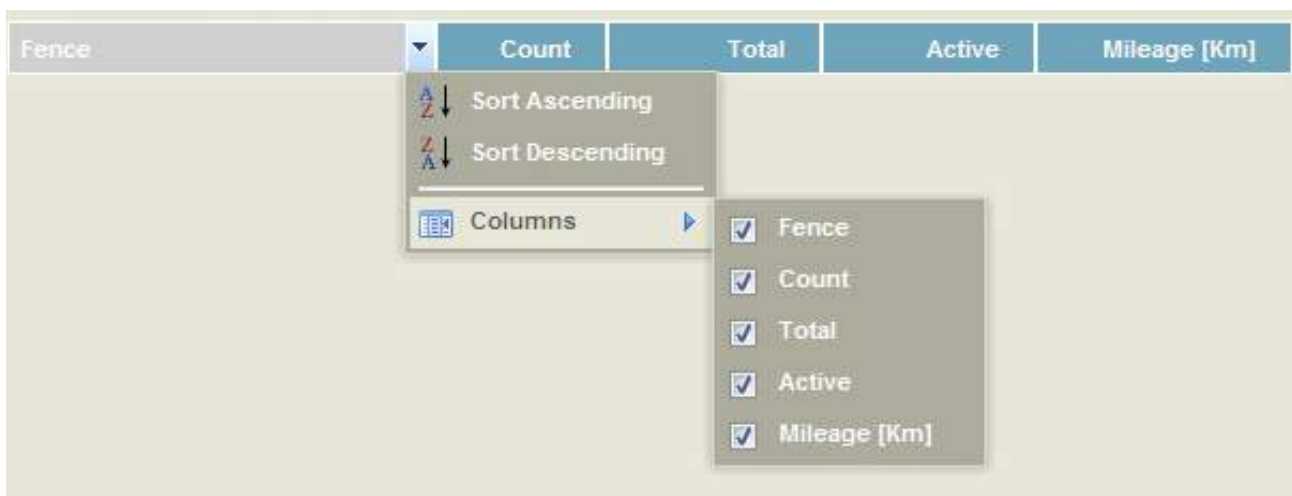
A lot of tables in “Reports” / “Administration” and in the “Alert window” can be filtered by means of column filters.



- 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".

2 At A Glance

2.1 Overview

① 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

Map

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 → Shape or Administration → 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.

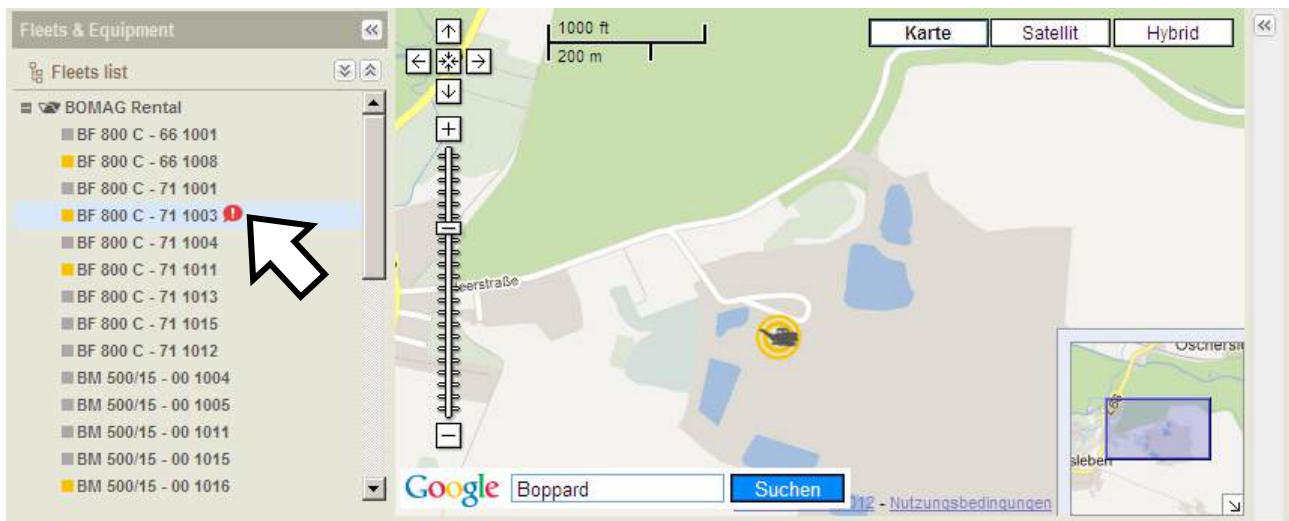
- Click with the right mouse button on the machine name again.
- Select “Cancel follow” from the pull down menu.



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.

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.

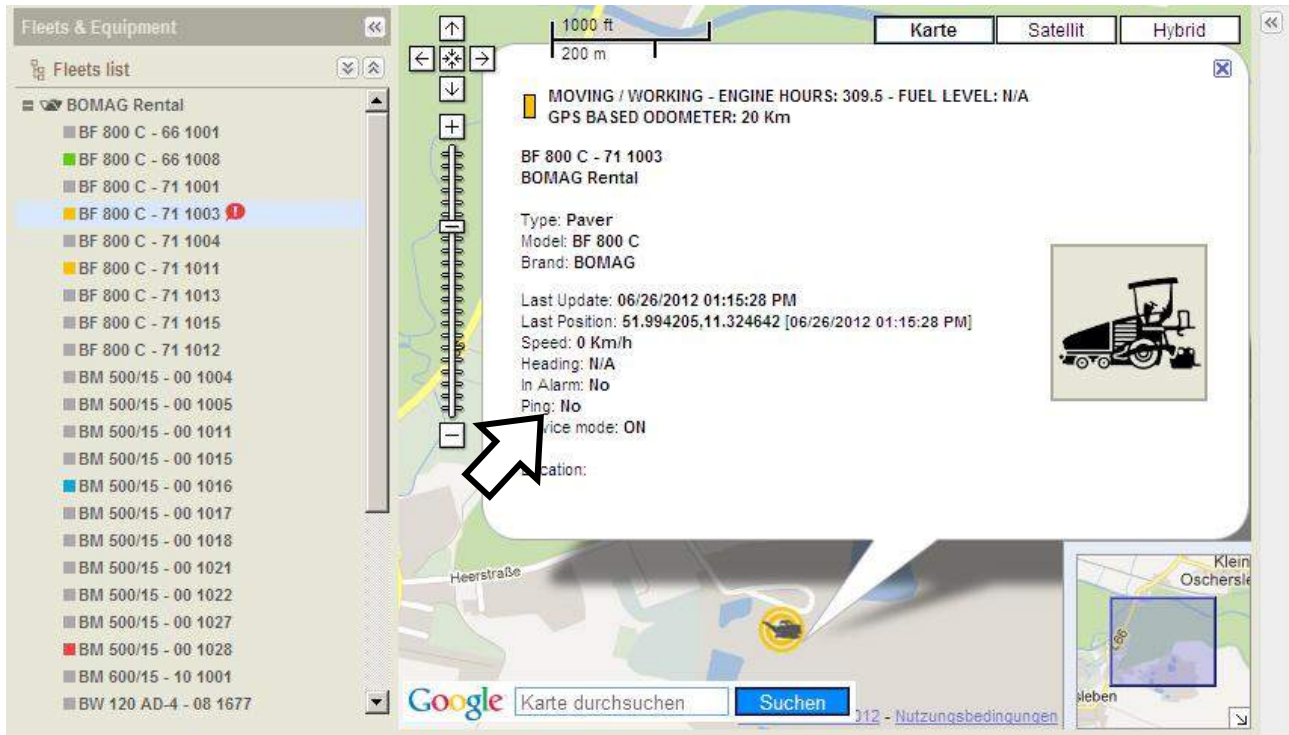
² SMS: Stands for short message service (aka text messaging) and is available through your wireless carrier. It is simply a method of communication that sends text between cell phones, or from a PC or handheld to a cell phone. The “short” part refers to the maximum size of the text messages: 160 characters (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



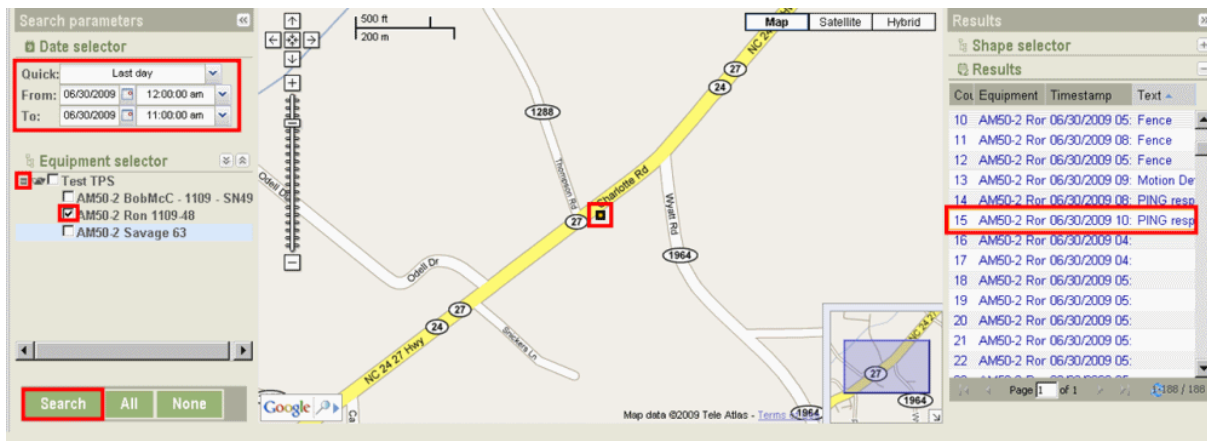
- Double click on the machine name.

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.

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.

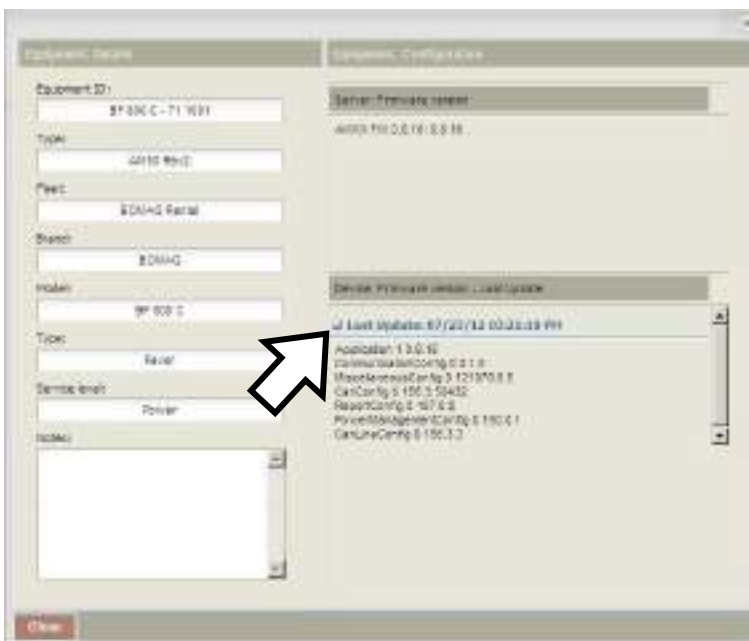
2.5 Machine details

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

✕


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

BF 800 C - 71 1003
BOMAG Rental

Type: Paver
Model: BF 800 C
Brand: BOMAG

Last Update: 06/26/2012 01:15:28 PM
Last Position: 51.994205,11.324642 [06/26/2012 01:15:28 PM]
Speed: 0 Km/h
Heading: N/A
In Alarm: No
Ping: No
Device mode: ON

Location:



- 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

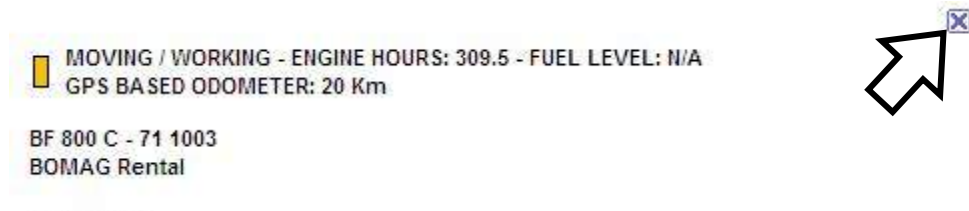
Device mode

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

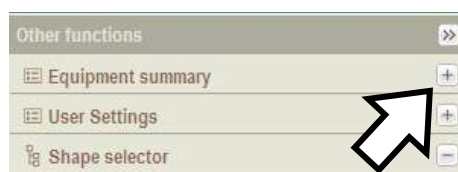
standby mode for a set period of time, as defined by the administrator in "Administration"-> "Power Management", "Standby interval".

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.



- 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)

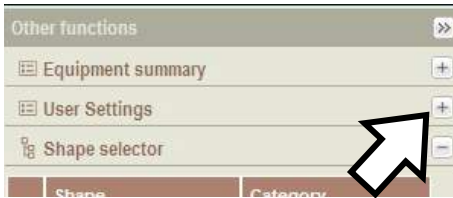
Note

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”.

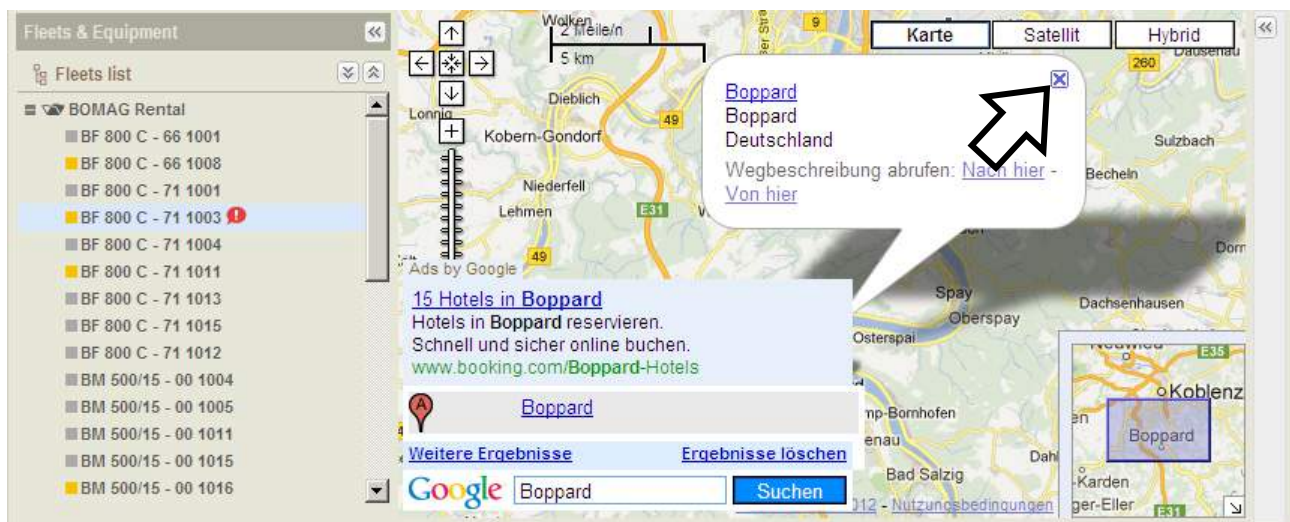
OR use the pan arrows, mouse wheel, keys and/or the zoom bar:

- 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
 - Name of city
 - Names of city and state, city and province or city and country
- Press the “Search” button.

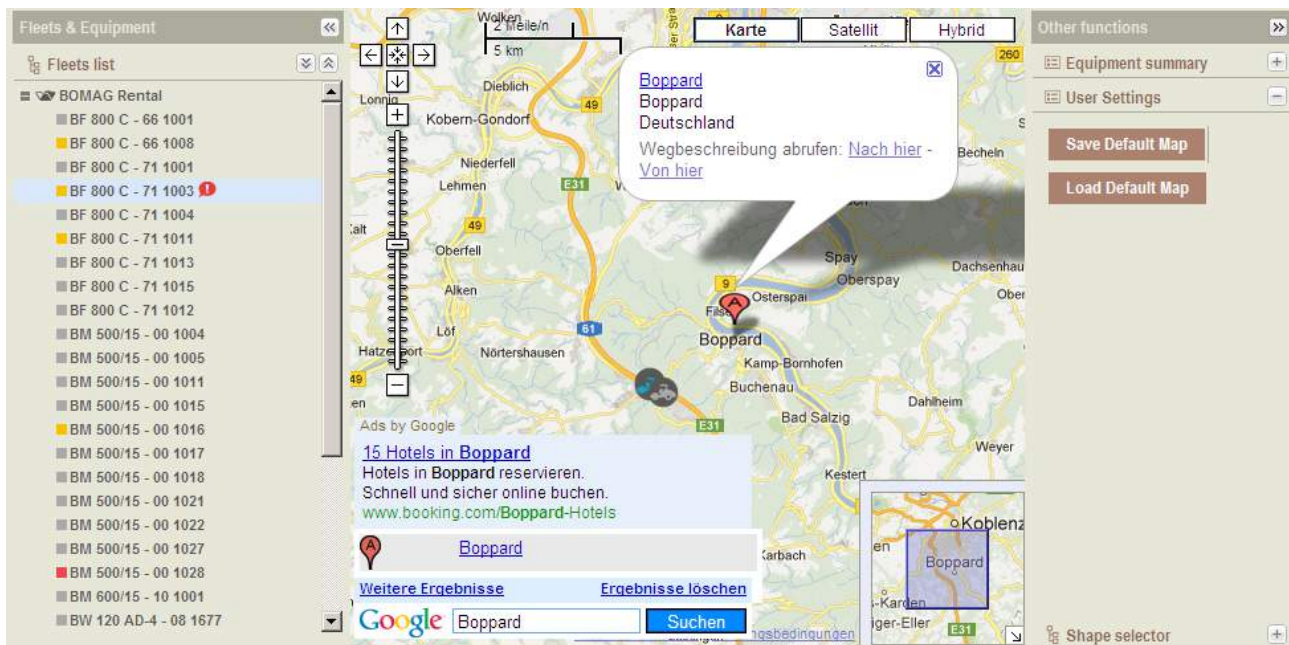


- When the “Get directions” pop-up screen appears click on the “Exit” button to close it.



- 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.

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.

3 History

3.1 Overview

The “History” screen is divided into 3 panels:



Search parameters

Date selector, equipment selector

Map

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 → Shape or Administration → GeoFencing” for further information.)

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

3.2 How to show a track (Breadcrumb trail)



- 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.

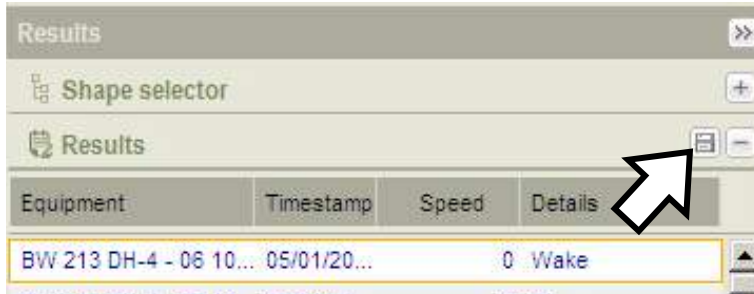
The query can generate a large amount of data. This data will be listed on multiple pages in the “Results” panel. To view all history in the map for the entire selected date/time period, you must scroll through the pages.

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

4 Reports

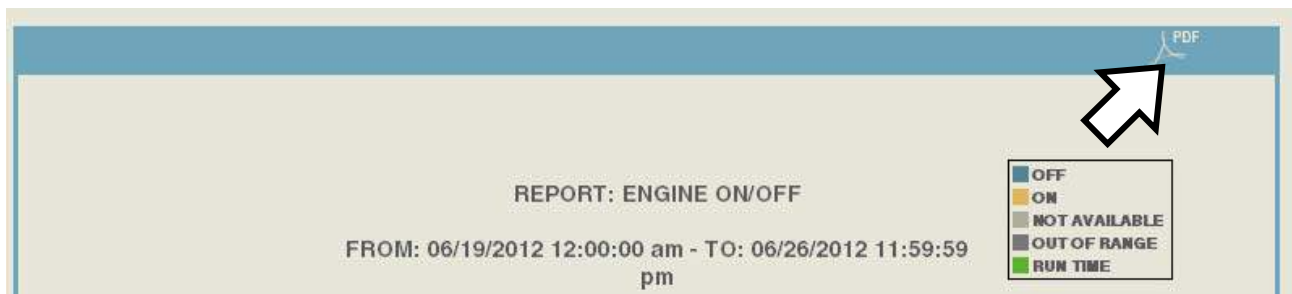
4.1 Export reports

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.

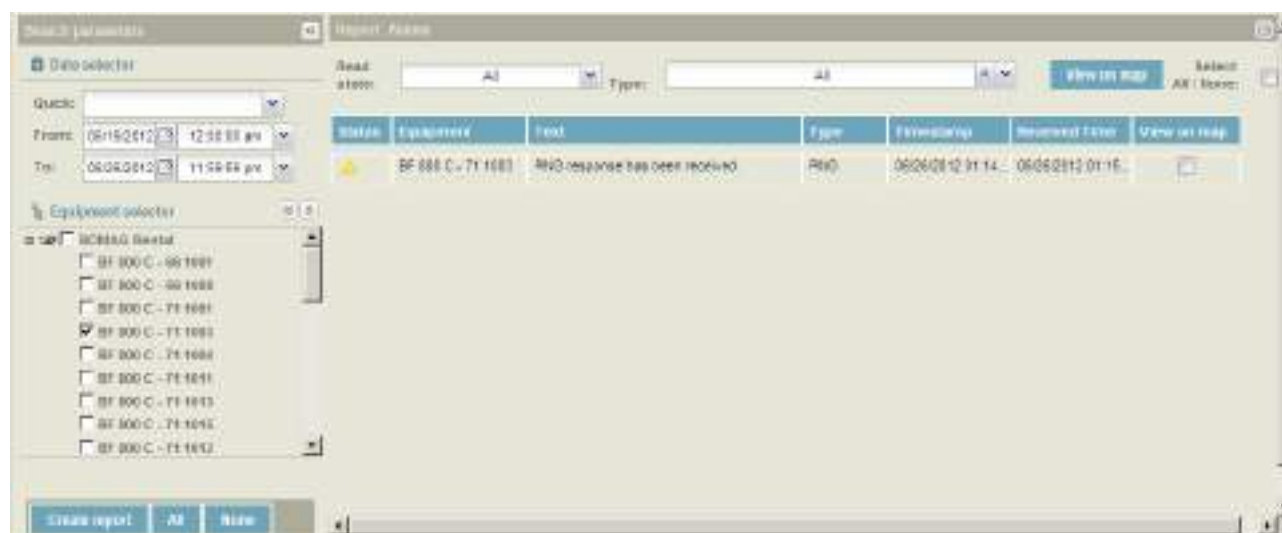


- Click on the “Export” icon to download.

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

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
View on map	View machine(s) in alarm on “Google® Maps”

How to change the alarm status from “Unread” to “Read”

- 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

Report: Alarms

Read state:

Type:

Read state dropdown:

- All
- Unread
- Read

Type dropdown:

- All
- Not Set
- Fence
- CAN
- PING
- Equipment not reporting
- Curfew
- Input
- Motion Detection
- SMS delivery error
- Maintenance

- 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.

Report: Alarms

Read state: Type:

- 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

Report: Alarms


Read state: Type:


Status	Equipment	Text	Type	Timestamp	Received Time	View on map
	BF 800 C - 71 1003	PING response has been received.	PING	06/26/2012 01:14...	06/26/2012 01...	<input type="checkbox"/>

- 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.

Report: Alarms

Read state: Type: Select All / None: ☐

Status	Equipment	Text	Type	Timestamp	Received Time	View on map
	BF 800 C - 71 1003	PING response has been received.	PING	06/26/2012 01:14...	06/26/2012 01:15...	<input type="checkbox"/>



- 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.

Equipment	Brand	Model	Type	Engine hours	Received Time	Inactive Time	Action
NO FILTER	NO FILTER	NO FILTER	NO FILTER	NO FILTER	NO FILTER	NO FILTER	NO FILTER
BF 800 C - 46 1001	BOMAG	BF 800 C	Power	5012	06/21/12 08:17:46 AM	5 days 05:45:00	set engine hours
BF 800 C - 46 1005	BOMAG	BF 800 C	Power	825	06/26/12 01:45:12 PM	00:00:00	set engine hours
BF 800 C - 71 1001	BOMAG	BF 800 C	Power	3514	06/11/12 12:00:11 PM	15 days 05:02:00	set engine hours
BF 800 C - 71 1005	BOMAG	BF 800 C	Power	9402	06/26/12 01:46:22 PM	00:00:00	set engine hours
BF 800 C - 71 1004	BOMAG	BF 800	Power	2255	06/26/12 02:12:11 AM	11:30:00	set engine hours
BF 800 C - 71 1011	BOMAG	BF 800 C	Power	2654	06/26/12 01:46:04 PM	00:00:00	set engine hours
BF 800 C - 71 1013	BOMAG	BF 800 P	Power	914	06/26/12 01:37:46 PM	06:00:00	set engine hours
BF 800 C - 71 1015	BOMAG	BF 800 C	Power	165	06/25/12 11:41:20 AM	1 day 02:21:00	set engine hours
BF 800 C - 71 1012	BOMAG	BF 800 P	Power	213	06/06/12 01:37:46 PM	49 days 00:25:00	set engine hours
BM 500/15 - 00 1004	BOMAG	BM 500/15	Gold planer	3375	06/22/12 10:25:40 AM	4 days 05:04:00	set engine hours
BM 500/15 - 00 1005	BOMAG	BM 500/15	Gold planer	4873	06/26/12 11:30:12 AM	02:40:00	set engine hours
BM 500/15 - 00 1011	BOMAG	BM 500/15	Gold planer	1517	06/26/12 11:24:54 AM	02:30:00	set engine hours
BM 500/15 - 00 1015	BOMAG	BM 500/15	Gold planer	2554	06/25/12 09:30:30 PM	17:20:00	set engine hours
BM 500/15 - 00 1016	BOMAG	BM 500/15	Gold planer	1747	06/26/12 01:43:11 PM	00:00:00	set engine hours
BM 500/15 - 00 1017	BOMAG	BM 500/15	Gold planer	220	06/26/12 04:26:45 PM	5 days 21:05:00	set engine hours

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”):

Brand	Model
NO FILTER	NO FILTER
<input checked="" type="checkbox"/> BOMAG	
<input type="checkbox"/> All	
<input type="button" value="None"/> <input type="button" value="Apply"/> <input type="button" value="Close"/>	
BOMAG	BW 213 DH-4 BVC

- 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.

4.5 “Maintenance” report

① 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:

Equipment ID	Fleet	Status	Last service	Next service	View on map
AM50-2 BobMcC - 1109 - S	Test TPS	Overdue	06/02/2009	06/21/2009	<input type="checkbox"/>
AM50-2 Ron 1109-48	Test TPS	Incomplete			<input type="checkbox"/>
AM50-2 Savage 63	Test TPS	Incomplete			<input type="checkbox"/>

Search parameters Equipment selector

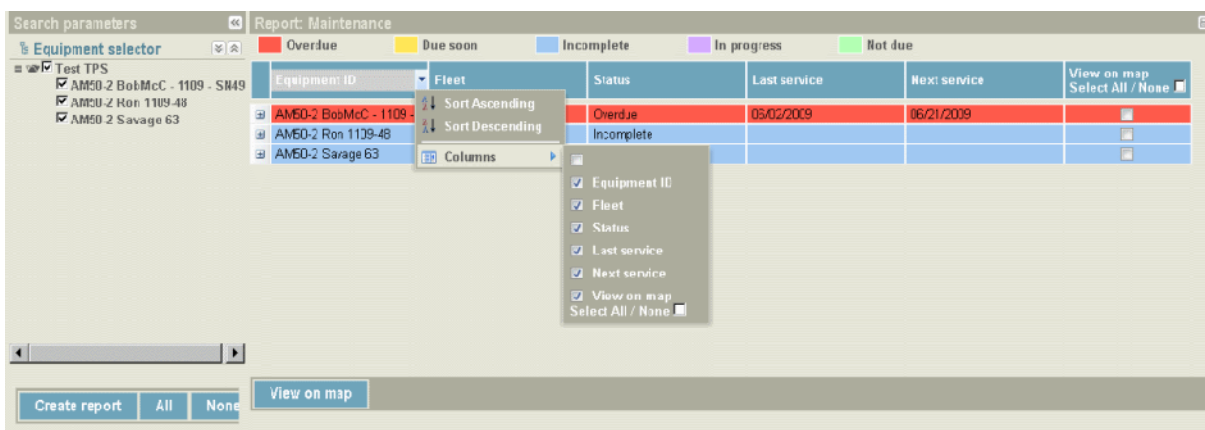
Report panel Report results

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.

Reports

How to create a report

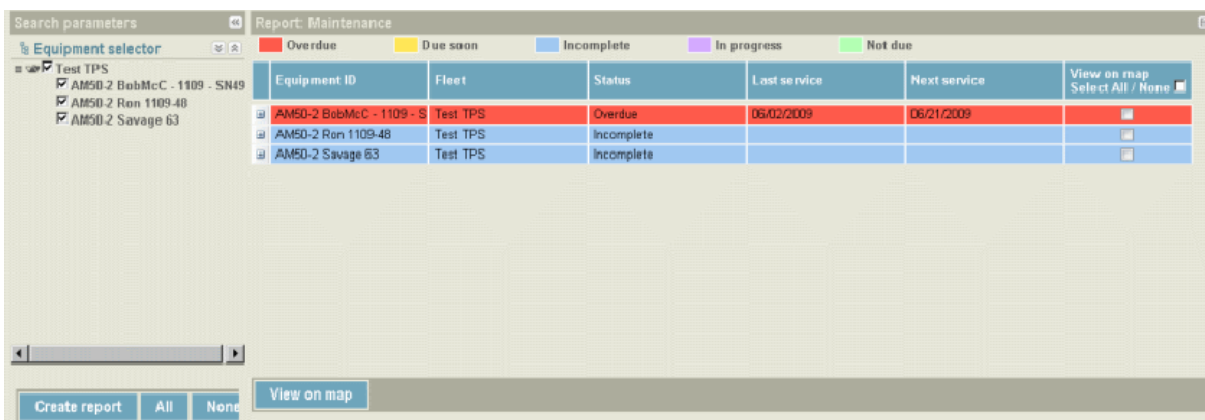


- Filter the report by using the column header filters.
- Select machine(s) from the “Equipment selector” panel.
- Press “Create report”.

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).

Search parameters: Equipment selector

Report: Maintenance

Overdue Due soon Incomplete In progress Not due

Equipment ID	Fleet	Status	Last service	Next service	View on map Select All / None										
AM50-2 BobMcC - 1109 - S	Test TPS	Overdue	06/02/2009	06/21/2009											
<table border="1"> <thead> <tr> <th>Type</th> <th>Status</th> <th>Last service</th> <th>Next service</th> <th>Option List</th> </tr> </thead> <tbody> <tr> <td>Timing Test hours</td> <td>Overdue</td> <td>06/02/2009</td> <td>06/21/2009</td> <td>Option List</td> </tr> </tbody> </table>						Type	Status	Last service	Next service	Option List	Timing Test hours	Overdue	06/02/2009	06/21/2009	Option List
Type	Status	Last service	Next service	Option List											
Timing Test hours	Overdue	06/02/2009	06/21/2009	Option List											
New service															
AM50-2 Ron 1109-48	Test TPS	Incomplete													
AM50-2 Savage 63	Test TPS	Incomplete													

Create report All None View on map

- Click on the “Options list” link and click on “New service”.

Search parameters: Equipment selector

Report: Maintenance

Overdue Due soon Incomplete In progress Not due

Equipment ID	Fleet	Status	Last service	Next service	View on map Select All / None																		
AM50-2 BobMcC - 1109 - S	Test TPS	In progress	06/02/2009	06/21/2009																			
<table border="1"> <thead> <tr> <th>Type</th> <th>Status</th> <th>Interval</th> <th>Measurement u</th> <th>Threshold low</th> <th>Threshold med</th> <th>Last service</th> <th>Next service</th> <th>Option List</th> </tr> </thead> <tbody> <tr> <td>Timing Test hours</td> <td>In progress</td> <td>3</td> <td>Engine Hours</td> <td>56</td> <td>8</td> <td>06/02/2009</td> <td>8 engine hours lie at 06/21/2009 prc</td> <td>Option List</td> </tr> </tbody> </table>						Type	Status	Interval	Measurement u	Threshold low	Threshold med	Last service	Next service	Option List	Timing Test hours	In progress	3	Engine Hours	56	8	06/02/2009	8 engine hours lie at 06/21/2009 prc	Option List
Type	Status	Interval	Measurement u	Threshold low	Threshold med	Last service	Next service	Option List															
Timing Test hours	In progress	3	Engine Hours	56	8	06/02/2009	8 engine hours lie at 06/21/2009 prc	Option List															
AM50-2 Ron 1109-48	Test TPS	Incomplete																					
AM50-2 Savage 63	Test TPS	Incomplete																					

Create report All None View on map

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”.

Search parameters: Equipment selector

Report: Maintenance

Overdue Due soon Incomplete In progress Not due

Equipment ID	Fleet	Status	Last service	Next service	View on map Select All / None																		
AM50-2 BobMcC - 1109 - S	Test TPS	In progress	06/02/2009	06/21/2009																			
<table border="1"> <thead> <tr> <th>Type</th> <th>Status</th> <th>Interval</th> <th>Measurement u</th> <th>Threshold low</th> <th>Threshold med</th> <th>Last service</th> <th>Next service</th> <th>Option List</th> </tr> </thead> <tbody> <tr> <td>Timing Test hours</td> <td>In progress</td> <td>3</td> <td>Engine Hours</td> <td>56</td> <td>8</td> <td>06/02/2009</td> <td>8 engine hours lie at 06/21/2009 prc</td> <td>Option List</td> </tr> </tbody> </table>						Type	Status	Interval	Measurement u	Threshold low	Threshold med	Last service	Next service	Option List	Timing Test hours	In progress	3	Engine Hours	56	8	06/02/2009	8 engine hours lie at 06/21/2009 prc	Option List
Type	Status	Interval	Measurement u	Threshold low	Threshold med	Last service	Next service	Option List															
Timing Test hours	In progress	3	Engine Hours	56	8	06/02/2009	8 engine hours lie at 06/21/2009 prc	Option List															
AM50-2 Ron 1109-48	Test TPS	Incomplete																					
AM50-2 Savage 63	Test TPS	Incomplete																					

Create report All None View on map

Close service date: 07/13/2009

Engine hours: 20.1 Cost (\$): 0

Notes:

Ok Cancel

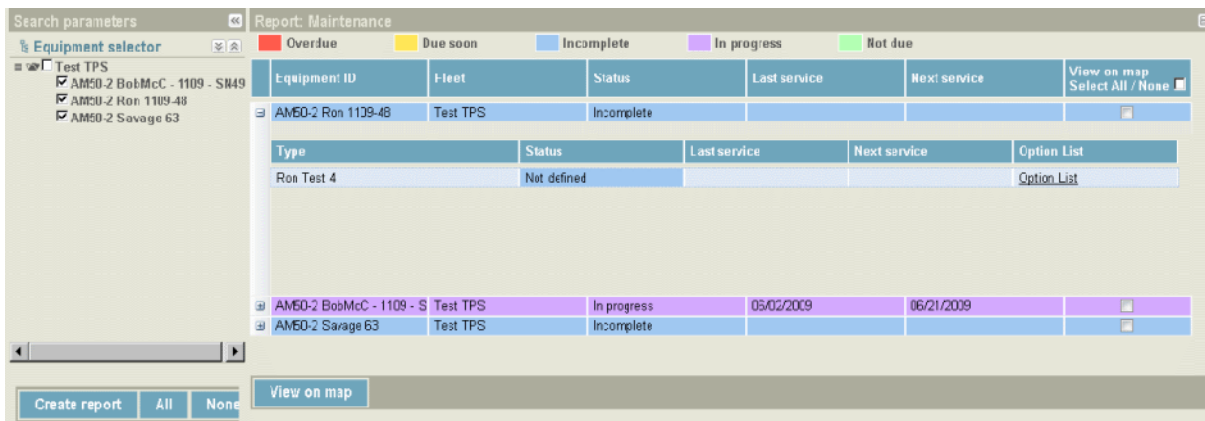
A window opens and displays a form to be completed.

- Enter the required data into the window:
 - 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.

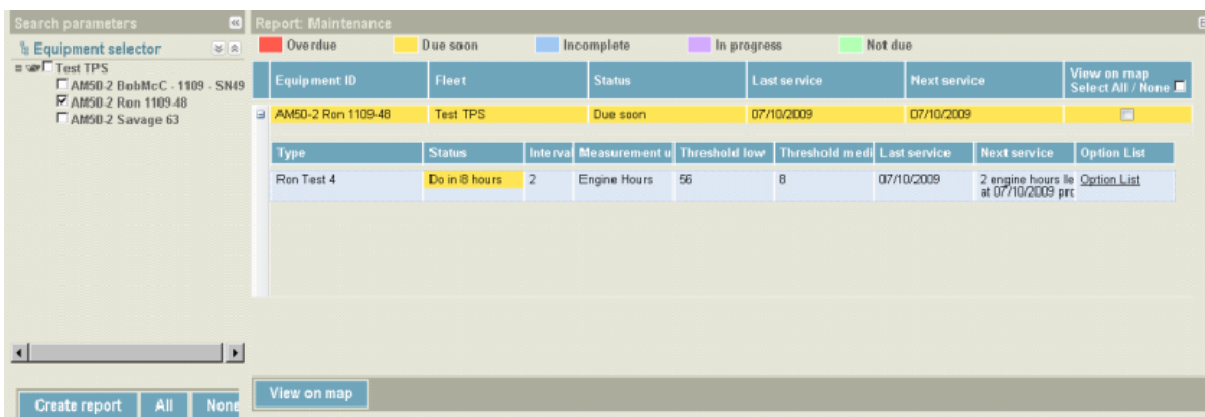
Reports

- 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.
 - 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:

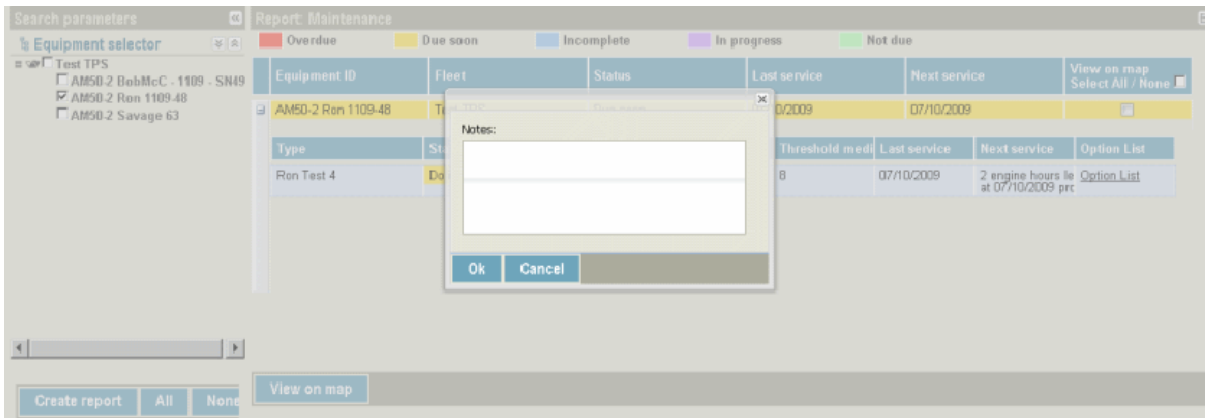


- Create a report.
- Click on the “+” sign to the left of the “Equipment ID” (machine name).
- Click with the left mouse button on the “Options list” link and click on “New service”.
- Enter all required information.
- Press the “OK” button.
- Confirm “Save to database” by pressing the “OK” button.

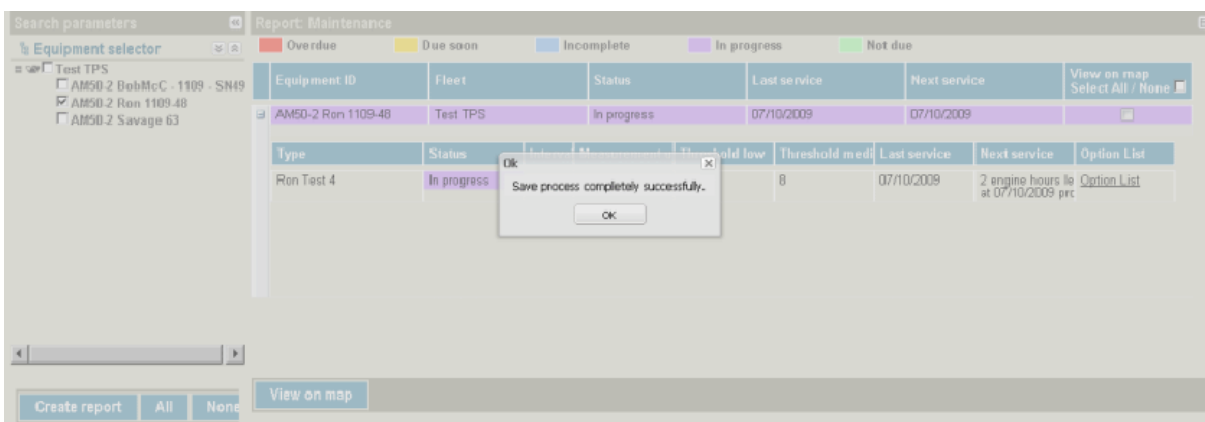


Note that the machine status has immediately changed to “Due soon” (yellow).

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

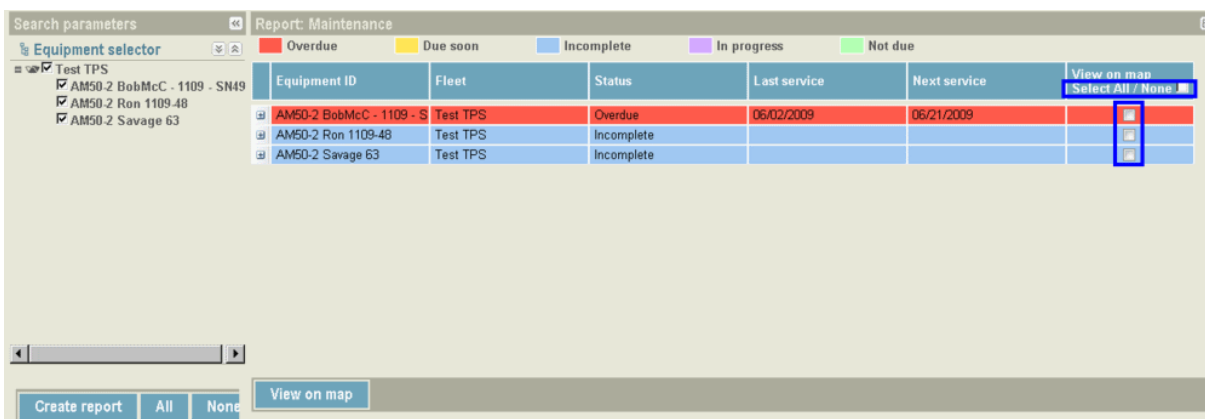


- Enter any notes you wish to add and press the “OK” button. Note that the machine status has immediately changed to “In progress” (purple).



- Press the “OK” button to confirm the “Save” process.

How to view machines on the map

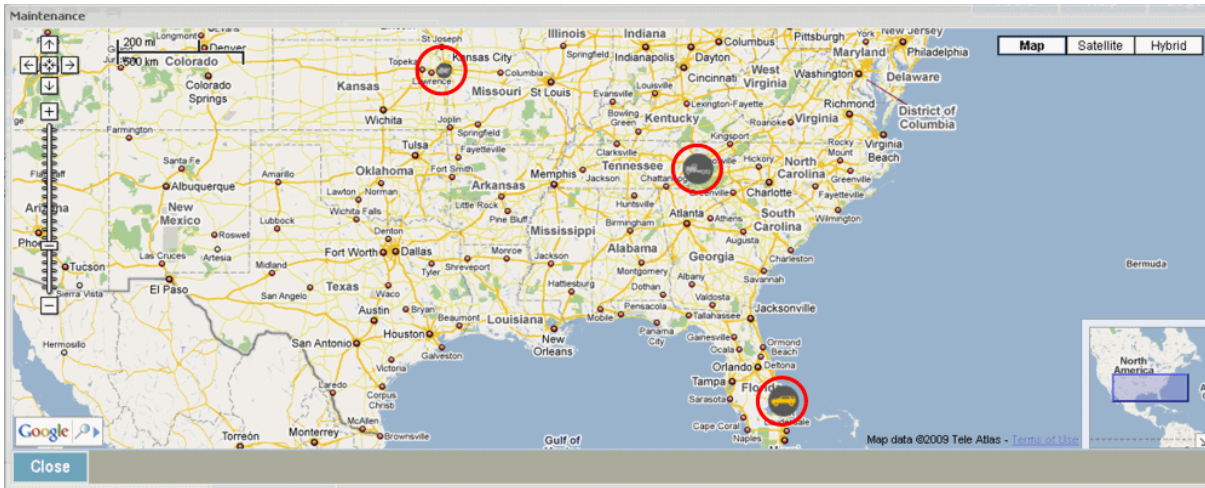


- To view all machines in a fleet or in fleets, tag the check box to the right of “Select All / None”.
- To deselect all machines, untag the check box again.
- To view one or more machines in a fleet, select each machine by tagging the check box in the “View on map” column.

Reports

- 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 → Devices, Administration → Equipment, Administration → Maintenance”, etc.

Equipment ID	Type	Engine hours	Service date	Activation user	Activation notes	Active service date	Closure user	Closure notes	Close service date
AM50-2 BobbMc...	service	97.74	05/21/09	Sanger	Test for User Manua...	05/21/09	Sanger	Test for User Manua...	05/21/09
AM50-2 BobbMc...	service	97.74	05/21/09	Sanger	Test for User Manua...	05/21/09	Sanger	Test for User Manua...	05/21/09
AM50-2 BobbMc...	service	194.74	05/21/09	Sanger	Test for User Manua...	05/21/09	Sanger	Test for User Manua...	05/21/09
AM50-2 BobbMc...	service	97.74	05/21/09	Sanger	Test for manual - nms	05/21/09	Sanger	Test close for manu...	05/21/09
AM50-2 Ront. - ...	4 Hour Test	128.30	05/19/09	Ludchak		05/19/09	Ludchak		05/19/09
AM50-2 Ront. - ...	4 Hour Test	125.20	05/19/09	Ludchak		05/19/09	Ludchak		05/19/09
AM50-2 Ront. - ...	General insp.	125.20	05/17/09	Ludchak		05/19/09	Ludchak		05/19/09
AM50-2 Ront. - ...	General insp.	130.86	05/21/09	Sanger		05/21/09	Sanger	Test for User Guide ...	05/21/09
AM50-2 Ront. - ...	General insp.	129.27	05/19/09	Ludchak	Started Test Service	05/20/09	Ludchak	Test Completed	05/20/09
AM50-2 Ront. - ...	Oil service	101.10	05/10/09	Ludchak	Test	05/10/09	Ludchak		05/10/09
AM50-2 Ront. - ...	Oil service	122.81	05/25/09	Ludchak		05/19/09	Ludchak		05/19/09
AM50-2 Ront. - ...	Oil service	102.31	05/10/09	Ludchak		05/11/09	Ludchak		05/19/09
AM50-2 Ront. - ...	Oil service	122.81	05/17/09	Ludchak		05/19/09	Ludchak		05/19/09
AM50-2 Ront. - ...	Oil service	123.20	05/15/09	Ludchak		05/19/09	Ludchak		05/19/09
AM50-2 DickS - ...	Oil service	319.60	05/10/09	Savage	Test	07/20/09	Ludchak		05/11/09
AM50-2 DickS - ...	Oil service	200.00	05/25/09	Savage	Done Test 2	05/25/09	Savage	Done Test 2	05/25/09
AM50-2 DickS - ...	Oil service	205.00	05/25/09	Savage	Activation Test.	05/25/09	Savage	All done test.	05/25/09
AM50-2 DickS - ...	service	200.00	05/27/09	Savage		05/25/09	Savage		05/25/09
AM50-2 DickS - ...	service	200.00	05/25/09	Savage	Done Test 1	05/25/09	Savage		05/25/09

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®

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.

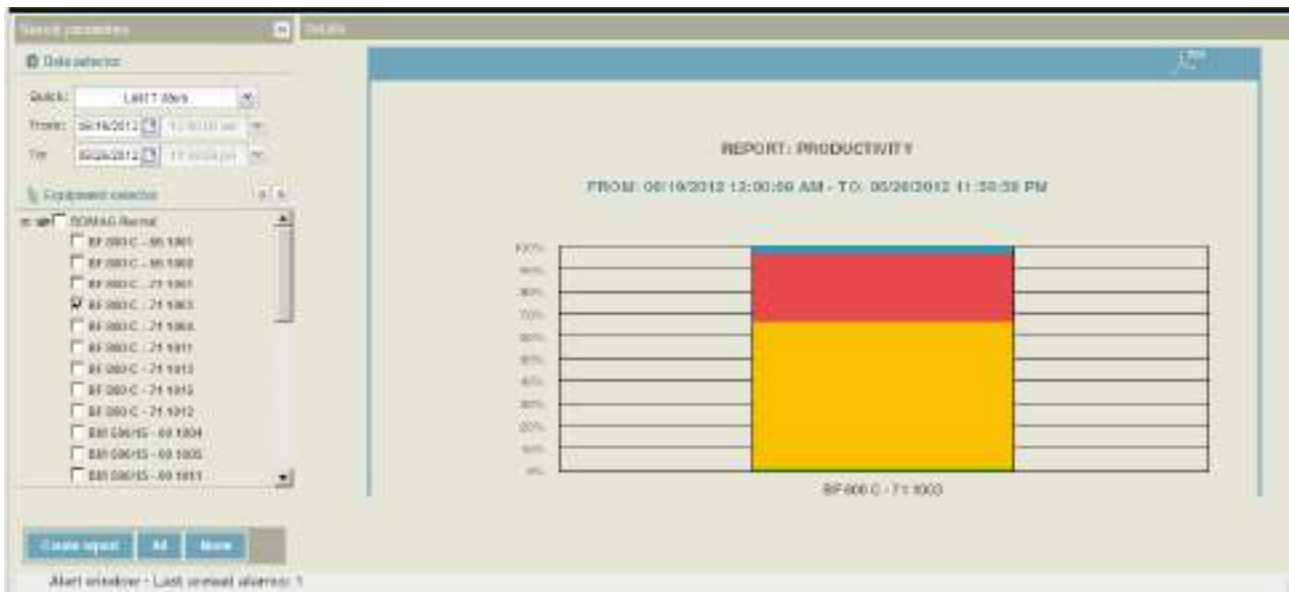
4.7 “Productivity” report

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

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.

Equipment	Brand	Model	Type	Utilization
BF 800 C - 71 1003	BOMAG	BF 800 C	Roller	57 h - 25 m
BW 213 DH-4 SVC - 16 1178	BOMAG	BW 213 DH-4 SVC	Single Drum Roller	28 h - 18 m
BW 154 AP-4 AM - 80 2041	BOMAG	BW 154 AP-4 AM	Tandem Roller	8 h - 17 m
MPH 125 - 20 1004	BOMAG	MPH 125	Recycler	2 h - 55 m

Search parameters “Date selector”, “Equipment selector”

Reports panel Report results

How to create a report

- Filter the report by using the column header filters.

Reports

- 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 modify values

① Note

Modify values before creating a report.



The screenshot shows a report titled "Report: Equipment Utilization". Below the title, there are two filter criteria, each with a checked checkbox. The first criterion is "Used less than" followed by an input field containing the number "2", the word "Hours", and a red square icon. The second criterion is "Used more than" followed by an input field containing the number "30", the word "Hours", and a blue square icon.

- 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®

① 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.

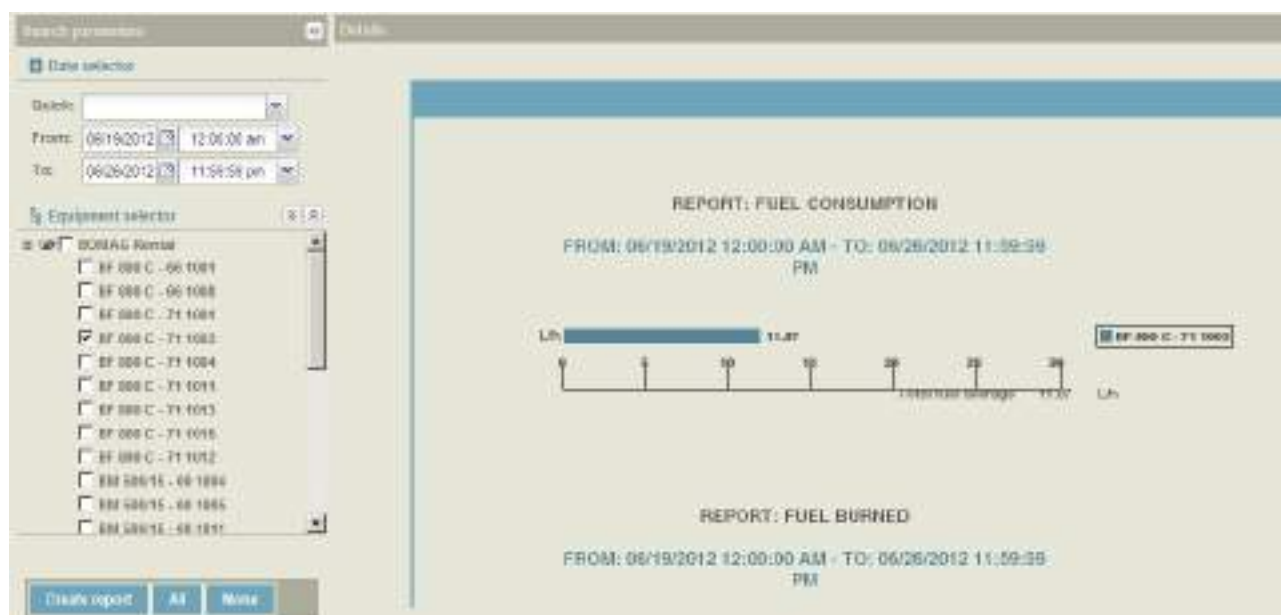
4.9 “Fuel Consumption” report

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”.

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

① Note

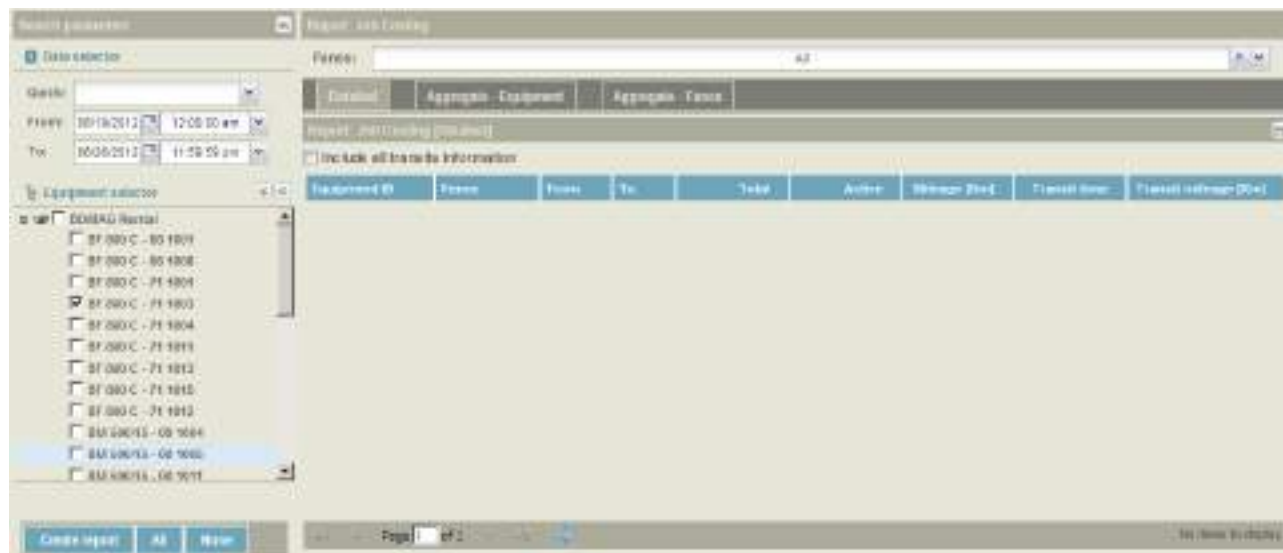
You must have a PDF reader installed on your computer to be able to view this report.

- 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.

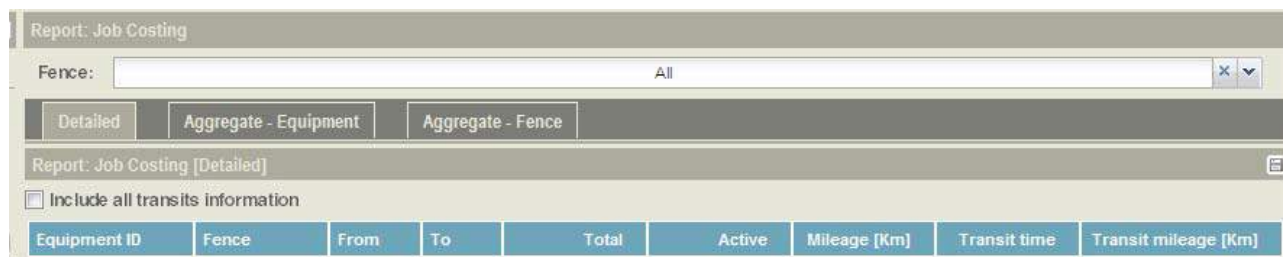


Search parameters “Date selector”, “Equipment selector”

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 ID	Machine designations
Fence	Designation of “GeoFence”
From	When selected machines have entered the fence
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: Job Costing

Fence:

Report: Job Costing [Aggregate - Equipment]

Equipment ID	Fence	Count	Total	Active	Mileage [Km]
--------------	-------	-------	-------	--------	--------------

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.

Reports



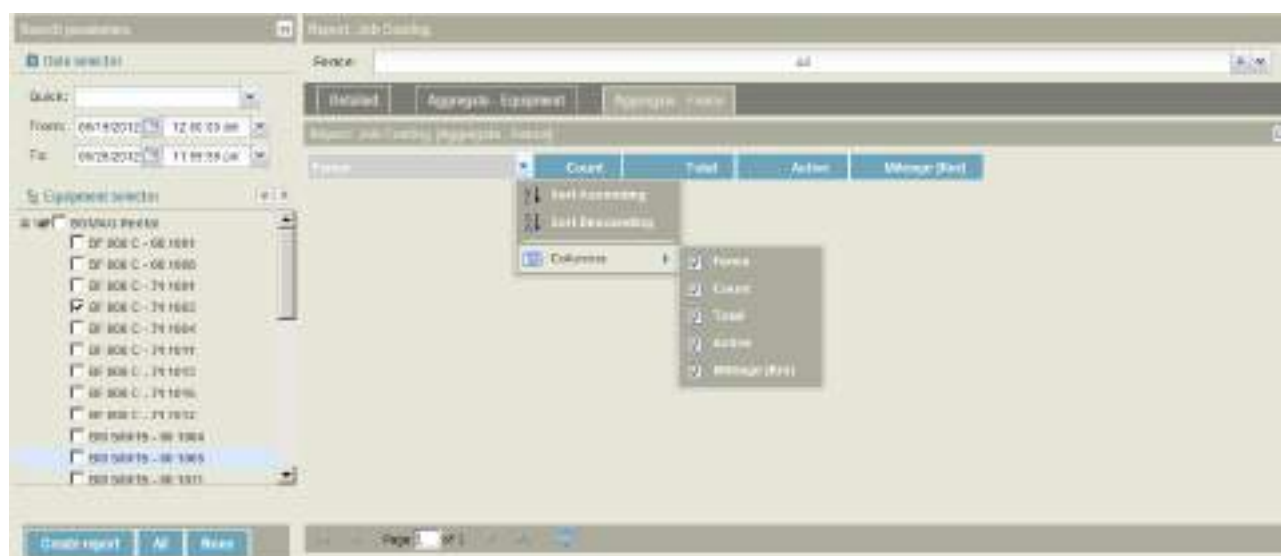
Report data

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”.

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 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 export the report.

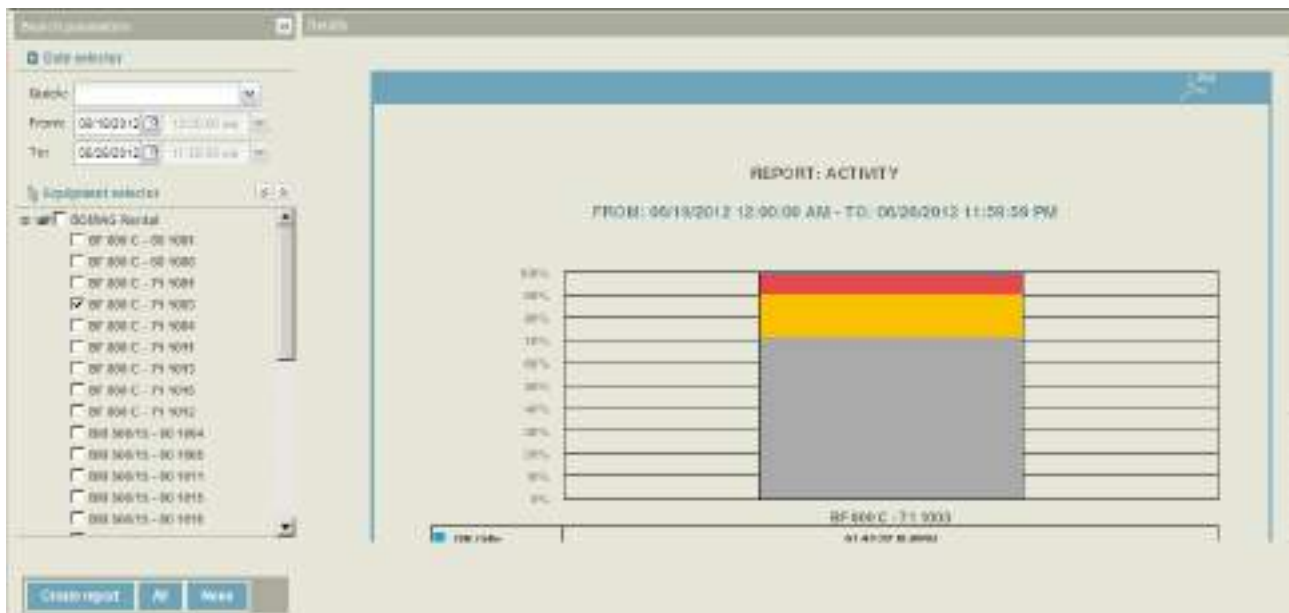
4.11 “Activity” report

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

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.

4.12 “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.

Equipment	Brand	Model	Type	Short Idle	Long Idle	Total Idle	Moving / Working	High Working
BP 200 C - 71.1	BOMAG	BP 200 C	Roller	1h 42m 27s	17h 34m 42s	18h 17m 10s	1h 12m 16m 16s	2h 22m 43s
BM 500/15 - 02	BOMAG	BM 500/15	Compactor	0h 50m 55s	2h 50m 34s	3h 20m 32s	1h 22m 32s	7h 24m 34s

Search parameters “Date selector”, “Equipment selector”

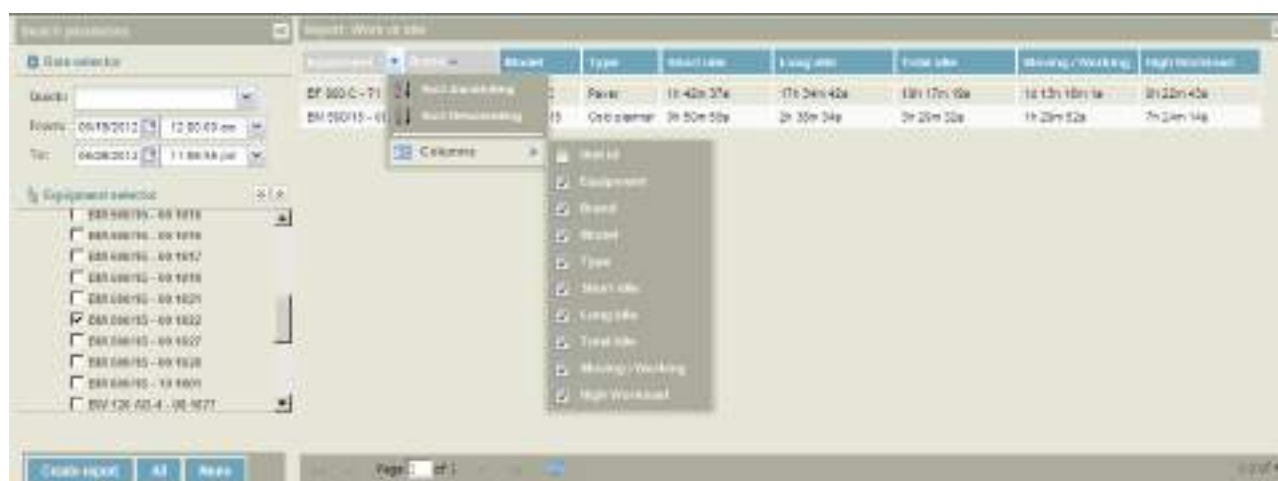
Report Report results (see exemplary report below).

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

Reports

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

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 MS Excel®

① 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.

Type	Date	Engine Codes	Engine Fuel Use	Engine Hours	Engine Oil Pressure	Engine Speed
BT 000...	05/...	02.0000	18.7000	201.2100	448.0000	
BT 000...	04/...	03.0000	17.0000	343.0000	444.0000	
BT 000...	05/...	02.0000	18.7000	201.2100	448.0000	
BT 000...	05/...	02.0000	12.1000	203.7900	408.0000	
BT 000...	05/...	02.0000	12.1000	201.9000	400.0000	
BT 000...	04/...	01.0000	18.2000	342.0000	436.0000	
BT 000...	04/...	03.0000	8.4000	204.2000	402.0000	
BT 000...	04/...	03.0000	18.2000	344.4000	404.0000	
BT 000...	05/...	01.0000	18.9000	204.1000	376.0000	
BT 000...	04/...	03.0000	14.0000	384.7000	408.0000	
BT 000...	05/...	03.0000	12.0000	204.0000	444.0000	
BT 000...	05/...	02.0000	18.7000	200.2000	436.0000	
BT 000...	05/...	01.0000	11.2000	200.2000	384.0000	
BT 000...	04/...	02.0000	18.4000	300.0000	436.0000	
BT 000...	05/...	01.0000	8.9000	200.0000	388.0000	

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.

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

Reports

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).

Search parameters		<<		Detailed		Aggregate						
Date selector		Report: I/O										
Quick:	<input type="text"/>			Equipment	Engine on time	Dig 1 name	Dig 1 on	Dig 1 off	Dig 1 graphic	Dig 1 n. tr.		
From:	06/19/2012		12:00:00 am			BM 500/15 ...	12:23:45	Milling On	04:22:24 [21%]	08:01:21 [79%]		107

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

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®

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

5.1 Administration - Users

① Note

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

Overview

The screenshot displays the BOMAG Users Administration interface. It consists of two main panels: 'Items list' and 'Details'.

Items list: This panel shows a table of current users. The table has columns for Surname, Name, Login, Role, and Vista. Below the table are 'Add' and 'Remove' buttons.

Details: This panel is used to create, update, or modify user details. It includes the following fields and controls:

- Surname:** Text input field (e.g., Mustermann).
- Name:** Text input field (e.g., Max).
- Login:** Text input field (e.g., max.mustermann).
- Password:** Password input field with a 'Change Password' button.
- Office phone number:** Text input field.
- Expiration date:** Date picker (e.g., 12/31/2050).
- Role:** Dropdown menu (e.g., Administrators).
- Language:** Dropdown menu (e.g., English).
- User Settings:** Dropdown menu (e.g., International).
- Vistas:** Section for assigning access rights, including a 'Name' dropdown and a list of rights (e.g., BOMAG_REN...) with checkboxes.
- Email address:** Text input field with a 'Select all' and 'Select none' button.
- Visible in notification list:** Checkbox.
- Buttons:** 'Save' and 'Undo' buttons at the bottom.

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

The screenshot shows a web interface for user management. On the left, under the 'Items list' tab, there is a 'Users' section with an 'Add' button highlighted by a white mouse cursor. Below the button is a table with columns: Surname, Name, Login, Role, and Vista. The table contains one entry: Mustermann, Max, max.musterm..., Administrators, BOMAG_REN... On the right, under the 'Details' tab, there are input fields for Surname (Mustermann), Name (Max), Login (max.mustermann), Password (masked with dots), Office phone number, Expiration date (12/31/2050), Role (Administrators), Language (English), and User Settings (International). There is also a 'Change Password' button. On the far right, there is a 'Vistas' section with a 'Name' dropdown and a checkbox for 'BOMAG_REN...'. At the bottom right, there are 'Select all' and 'Select none' buttons, an 'Email address' field, and a checkbox for 'Visible in notification list'. At the bottom of the details panel, there are 'Save' and 'Undo' buttons.

- 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	<ul style="list-style-type: none"> • 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.

Administration

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.

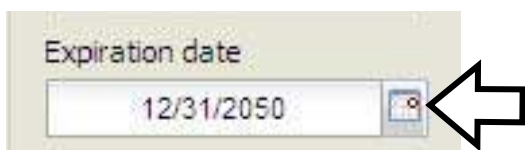
Dear Customer,
Thank you for registering your e-mail address in the BOMAG TELEMATIC System.

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

A screenshot of a web form for changing a password. It features a label "Password:" above a text input field. The input field contains a series of dots, indicating that the password is masked. Below the input field is an orange button with the text "Change Password" in white.

- 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.

Equipment List:

Equipment	Fleet	Brand	Type	Model	Device
BF 880 C	BOMAG	BOMAG	Power	BF 880 P	617-1598
BF 880 C	BOMAG	BOMAG	Power	BF 880 C	617-2556
BF 880 C	BOMAG	BOMAG	Power	BF 880 C	617-1849
BF 880 C	BOMAG	BOMAG	Power	BF 880 C	617-2001
BF 880 C	BOMAG	BOMAG	Power	BF 880 C	617-2050
BF 880 C	BOMAG	BOMAG	Power	BF 880 C	617-2012
BF 880 C	BOMAG	BOMAG	Power	BF 880 C	617-2055
BF 880 C	BOMAG	BOMAG	Power	BF 880 P	617-1813
BF 880 C	BOMAG	BOMAG	Power	BF 880 C	617-1757
BR 580/15	BOMAG	BOMAG	Cold planer	BR 580/15	617-1800
BR 580/15	BOMAG	BOMAG	Cold planer	BR 580/15	617-1792
BR 580/15	BOMAG	BOMAG	Cold planer	BR 580/15	617-1764
BR 580/15	BOMAG	BOMAG	Cold planer	BR 580/15	617-1907
BR 580/15	BOMAG	BOMAG	Cold planer	BR 580/15	617-1818
BR 580/15	BOMAG	BOMAG	Cold planer	BR 580/15	617-1991
BR 580/15	BOMAG	BOMAG	Cold planer	BR 580/15	617-1886
BR 580/15	BOMAG	BOMAG	Cold planer	BR 580/15	617-1661
BR 580/15	BOMAG	BOMAG	Cold planer	BR 580/15	617-1905
BR 580/15	BOMAG	BOMAG	Cold planer	BR 580/15	617-2441
BR 580/15	BOMAG	BOMAG	Cold planer	BR 580/15	617-2439
BR 580/15	BOMAG	BOMAG	Cold planer	BR 580/15	617-1903
BW 120 A	BOMAG	BOMAG	Tandem Roller	BW 120 AD-4	617-1772
BW 154 A	BOMAG	BOMAG	Tandem Roller	BW 154 AD-4	617-2546
BW 154 A	BOMAG	BOMAG	Tandem Roller	BW 154 AD-4	617-1791
BW 174 A	BOMAG	BOMAG	Tandem Roller	BW 174 AD-4	617-2655
BW 210 DH	BOMAG	BOMAG	Single Drive	BW 210 DH-4	617-1768
BW 210 DH	BOMAG	BOMAG	Single Drive	BW 210 DH-4	617-1761
BW 210 DH	BOMAG	BOMAG	Single Drive	BW 210 DH-4	617-1774
BW 210 DH	BOMAG	BOMAG	Single Drive	BW 210 DH-4	617-2572
BW 88 AD	BOMAG	BOMAG	Tandem Roller	BW 88 AD	617-1780
MPH 122-2	BOMAG	BOMAG	Refuse Comp	MPH 122-2	617-1876
MPH 125	BOMAG	BOMAG	Recycler	MPH 125	617-2573

Equipment Details:

Equipment ID: BF 880 C - 71 1012

Plate: 617-1598 - 4015 Rev2 - 4015 - 374

Machine serial number: 001 817 71 1012

Time Zone: (GMT+01:00) Amsterdam, Berlin, Bonn

Year of manufacture: 2012

☐ Not visible

☒ CAN bus present

☒ Engine hours from CAN bus

Last update: 05/21/2012 01:42:49 PM

Engine hours: 21.2

GPS Based Odometer [km]:

Form Fields:

Brand: BOMAG

Type: Power

Model: BF 880 P

Engine Model:

Engine Brand:

Engine Serial:

Notes:

Items list

The panel shows a list of existing machines which have already been set 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

The screenshot shows the 'Equipment' management interface. On the left is a table of existing equipment. The middle section shows the details for the selected machine, 'BF 888 C - 71 1012'. The right section contains a form for adding new information, including fields for Brand, Type, Model, Year of manufacture, and various checkboxes for CAN bus and engine hours.

Equipment	Fleet	Brand	Type	Model	Serial
BF 888 C - 71 1012	BOMAG	BOMAG	Roller	BF 888 P	617-1598
BF 888 C - 71 1013	BOMAG	BOMAG	Roller	BF 888 C	617-2558
BF 888 C - 71 1014	BOMAG	BOMAG	Roller	BF 888 C	617-1648
BF 888 C - 71 1015	BOMAG	BOMAG	Roller	BF 888 C	617-2001
BF 888 C - 71 1016	BOMAG	BOMAG	Roller	BF 888 C	617-2850
BF 888 C - 71 1017	BOMAG	BOMAG	Roller	BF 888	617-2612
BF 888 C - 71 1018	BOMAG	BOMAG	Roller	BF 888 C	617-2855
BF 888 C - 71 1019	BOMAG	BOMAG	Roller	BF 888 P	617-1818
BF 888 C - 71 1020	BOMAG	BOMAG	Roller	BF 888 C	617-1757
BF 888 C - 71 1021	BOMAG	BOMAG	Roller	BF 888	617-1800
BF 888 C - 71 1022	BOMAG	BOMAG	Roller	BF 888	617-1792
BF 888 C - 71 1023	BOMAG	BOMAG	Roller	BF 888	617-1784
BF 888 C - 71 1024	BOMAG	BOMAG	Roller	BF 888	617-1907
BF 888 C - 71 1025	BOMAG	BOMAG	Roller	BF 888	617-1918
BF 888 C - 71 1026	BOMAG	BOMAG	Roller	BF 888	617-1991
BF 888 C - 71 1027	BOMAG	BOMAG	Roller	BF 888	617-1886
BF 888 C - 71 1028	BOMAG	BOMAG	Roller	BF 888	617-1881
BF 888 C - 71 1029	BOMAG	BOMAG	Roller	BF 888	617-1905
BF 888 C - 71 1030	BOMAG	BOMAG	Roller	BF 888	617-2441
BF 888 C - 71 1031	BOMAG	BOMAG	Roller	BF 888	617-2439
BF 888 C - 71 1032	BOMAG	BOMAG	Roller	BF 888	617-1903
BF 888 C - 71 1033	BOMAG	BOMAG	Roller	BF 888	617-1772
BF 888 C - 71 1034	BOMAG	BOMAG	Roller	BF 888	617-2548
BF 888 C - 71 1035	BOMAG	BOMAG	Roller	BF 888	617-1791
BF 888 C - 71 1036	BOMAG	BOMAG	Roller	BF 888	617-2655
BF 888 C - 71 1037	BOMAG	BOMAG	Roller	BF 888	617-1769
BF 888 C - 71 1038	BOMAG	BOMAG	Roller	BF 888	617-1791
BF 888 C - 71 1039	BOMAG	BOMAG	Roller	BF 888	617-1774
BF 888 C - 71 1040	BOMAG	BOMAG	Roller	BF 888	617-2572
BF 888 C - 71 1041	BOMAG	BOMAG	Roller	BF 888	617-1780
BF 888 C - 71 1042	BOMAG	BOMAG	Roller	BF 888	617-1876
BF 888 C - 71 1043	BOMAG	BOMAG	Roller	BF 888	617-2573

Equipment ID: BF 888 C - 71 1012

Plate: 617-1598 - 4015 Rev.2 - 4015 - 374

Machine serial number: 617 888 71 1012

Time Zone: (GMT+01:00) Amsterdam, Berlin, Bonn

Year of manufacture: 2012

☐ Not visible

☒ CAN bus present

☒ Engine hours from CAN bus

Last update: 05/21/2012 @1:42:49 PM

Engine hours: 21.5

GPS Based Odometer (km): 1

Brand: BOMAG

Type: Roller

Model: BF 888 P

Fleet: BOMAG Rental

Engine Model:

Engine Brand:

Engine Serial:

Notes:

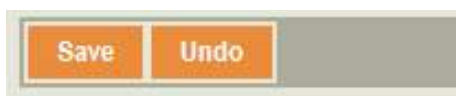
Save **Undo**

- 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

Administration

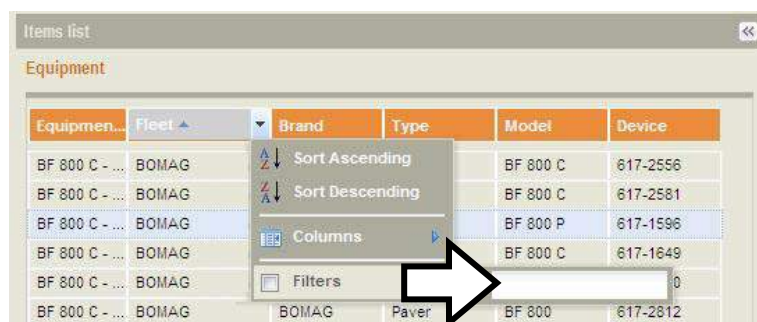
	(e.g. “At a glance”, “Ping”, “History”, “Reports”, etc.)
Year of manufacturer	Year of manufacture of the machine
Not visible	You can optionally hide this in the fleet list. Selected = hide Deselected = display
CANbus present	The “CANbus present” check box is used to note whether CANbus is present on 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.

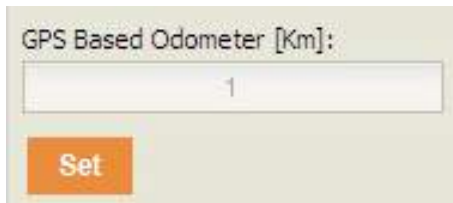
- In the “Brand:” field, enter the missing brand name.
- If necessary, select a different type from the “Type:” drop-down menu.
- Click on the “Add” button under the “Type:” field.
- Click on “Save” or “Undo” to cancel changes.

- 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

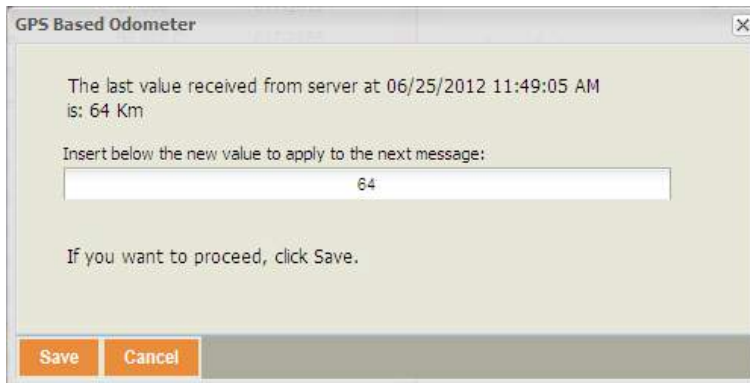
The GPS based odometer is automatically updated by GPS. In case this value is disaligned (i.e. GPS signal missing), you are allowed to set up it manually.

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



A screenshot of a web interface showing a text input field labeled "GPS Based Odometer [Km]:". The input field contains the number "1". Below the input field is an orange button labeled "Set".

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



A screenshot of a dialog box titled "GPS Based Odometer". The dialog box contains the following text: "The last value received from server at 06/25/2012 11:49:05 AM is: 64 Km". Below this text is a label "Insert below the new value to apply to the next message:" followed by a text input field containing the number "64". At the bottom of the dialog box, there is a message "If you want to proceed, click Save." and two buttons: "Save" and "Cancel".

- 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

The screenshot displays the 'Fleets' management interface. The 'Items list' panel on the left contains 'Add' and 'Remove' buttons. The 'Details' panel in the center shows the 'Name' and 'Description' fields for a fleet named 'BOMAG Rental'. Below these fields is an 'Equipment List' table with columns for Equipment ID, Brand, Model, and Type. The 'Vistas' panel on the right shows a list of users, with 'BOMAG_RENTAL' selected. At the bottom, there are 'Select all', 'Select none', 'Save', and 'Undo' buttons.

Equipment ID	Brand	Model	Type
BF 800 C - 71	BOMAG	BF 800 C	Paver
BM 500/15 - 00	BOMAG	BM 500/15	Cold planner
BF 800 C - 66	BOMAG	BF 800 C	Paver
BM 500/15 - 00	BOMAG	BM 500/15	Cold planner
BW 174 AP-4	BOMAG	BW 174 AP-4	Tandem Roller
BM 500/15 - 00	BOMAG	BM 500/15	Cold planner
BM 600/15 - 10	BOMAG	BM 600/15	Cold planner
BW 154 AD-4	BOMAG	BW 154 AD-4	Tandem Roller
BM 500/15 - 00	BOMAG	BM 500/15	Cold planner
MPH 122-2 - 07	BOMAG	MPH 122-2	Refuse Compactor
BM 500/15 - 00	BOMAG	BM 500/15	Cold planner
MPH 125 - 20	BOMAG	MPH 125	Reclaimer

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.



Items list

The panel shows a list of existing machines that have already been set 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.

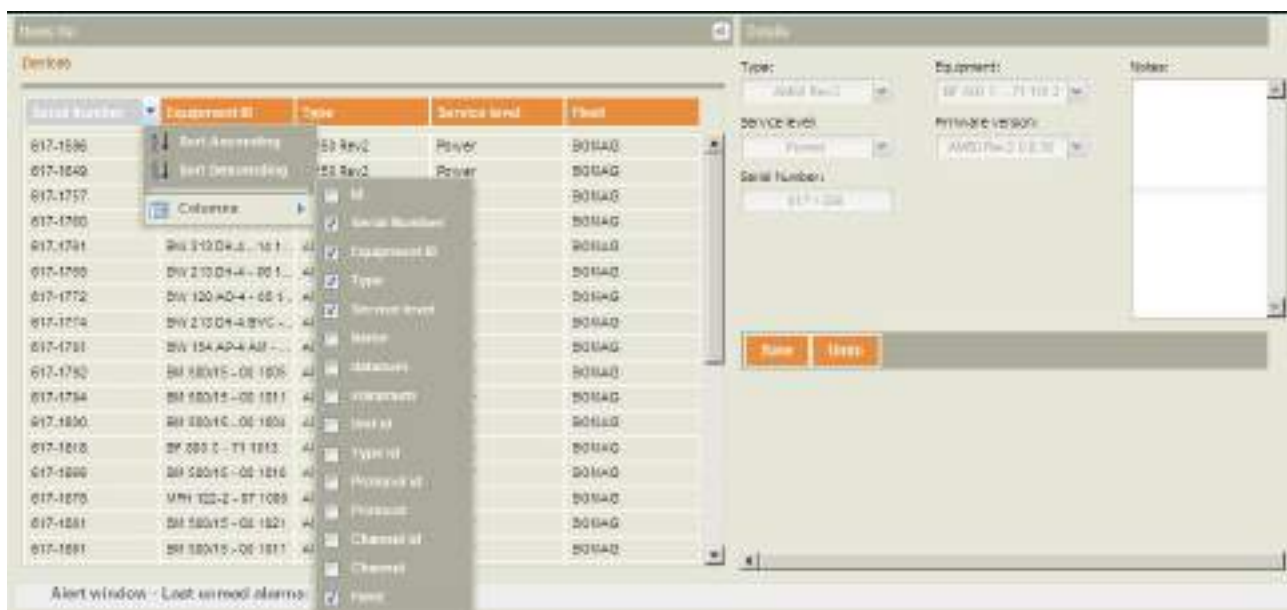
Equipment

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

① 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.

The screenshot displays a web application interface for managing company data. It features two main panels: 'Items list' on the left and 'Details' on the right. The 'Items list' panel shows a table with one entry, 'BOMAG Rental', under the heading 'Company name'. The 'Details' panel contains several input fields for company information: 'Company name' (pre-filled with 'BOMAG Rental'), 'Email address' (pre-filled with 'service.telematic@bomag.com'), 'Phone number', 'Notes' (pre-filled with '1.5 BOMAG Rental'), 'Address', 'Zip code', 'City', and 'Country' (a dropdown menu currently showing 'Germany'). At the bottom of the 'Details' panel are two buttons: 'Save' and 'Undo'.

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. Km/h, 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

① 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.

The screenshot displays the 'GeoFencing' administration interface. On the left, the 'Items list' panel shows a table with columns 'Description', 'Outside', and 'Inside'. A single entry 'BOMAG' is listed with a checked 'Outside' checkbox. Above the table are buttons for 'Add', 'Import shapefile', 'Remove', and 'Assign to equipment'. On the right, the 'Details' panel is titled 'Shape: Create / View / Edit'. It contains a 'Fence description' field with 'BOMAG'. Below this are checkboxes for 'Use only for Job Costing', 'From inside to outside' (checked), 'From outside to inside', and 'Waypoint'. A warning message states: 'Warning: By assigning a configuration with both alarm modes checked to an AM50 Rev1 device, only one alarm will be generated when the unit leaves the fence.' To the right of these options is an 'Alarm priority' dropdown menu set to 'Low', with options for Low, Medium, and High. Below the priority is a radio button for 'Alarm in web and notification'. Further down is a 'Notification groups [Edit]' section with three notification slots. Each slot has a checkbox, a dropdown menu, and a 'Notification timeout [Minutes]' field set to 0.

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 accessible.
“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	Allows you to create / view or edit a shape in the map.
“Notifications groups [Edit]” button	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)	<p>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.</p> <ul style="list-style-type: none"> 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 notification	If tagged, the user will be able to view alarms on the web site and, 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]	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”.
Notification 3 & Notification timeout [Minutes]	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

The screenshot displays the BOMAG administration interface. On the left, the 'Items list' shows a table for 'Geo fences' with columns 'Description', 'Outside', and 'Inside'. The 'Details' panel on the right contains the following elements:

- Shape: Create / View / Edit** button.
- Fence description:** A text field containing 'BOMAG'.
- Alarm priority:** A dropdown menu with options: Low (selected), Medium, and High.
- Alarm in web and notification:** A radio button option.
- Notification groups [Edit]:** A section with three notification groups, each with a dropdown menu and a 'Notification timeout [Minutes]' field.
- From inside to outside:** A checked checkbox.
- From outside to inside:** An unchecked checkbox.
- Waypoint:** An unchecked checkbox.
- Warning:** A text block stating: 'Warning: By assigning a configuration with both alarm modes checked to an AM50 Rev1 device, only one alarm will be generated when the unit leaves the fence.'

- 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”³. (A Waypoint fence must be circular.)
- Click on “Save”.

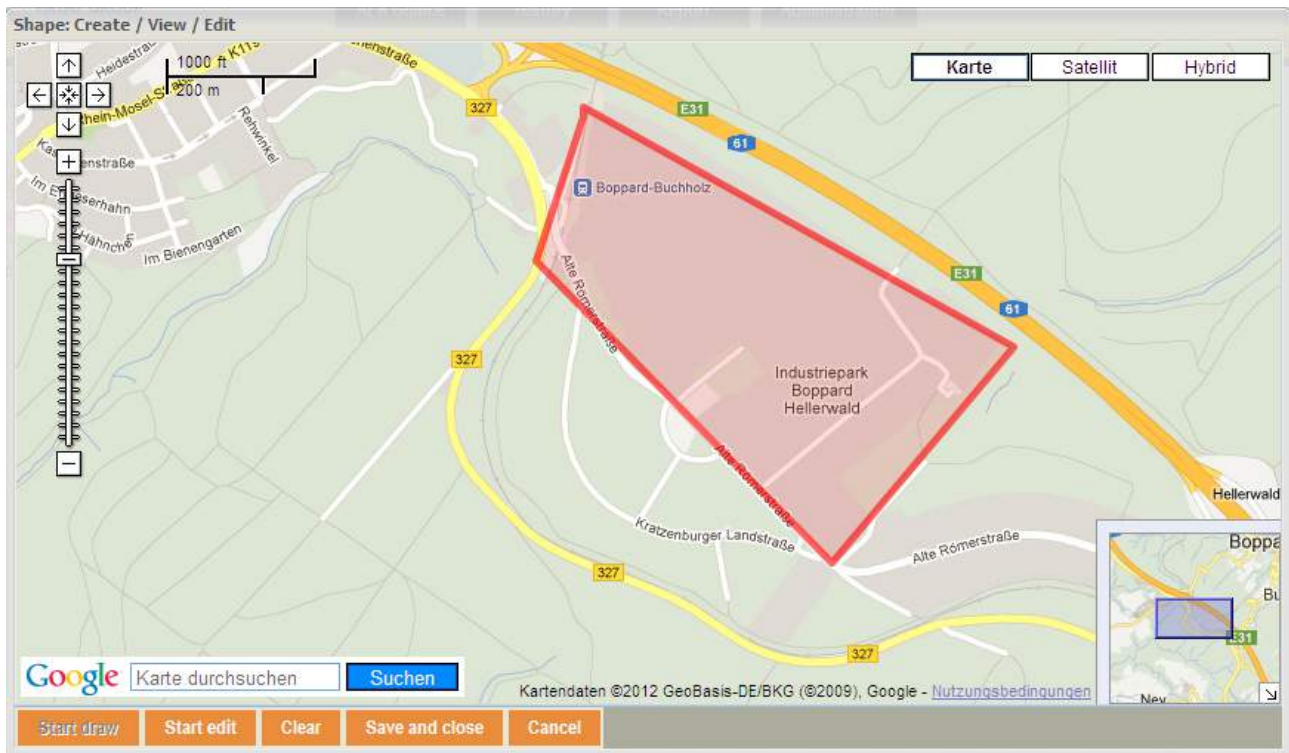
The description of the fence and the alarm criteria are saved and appear in the “Items list”.



- 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”

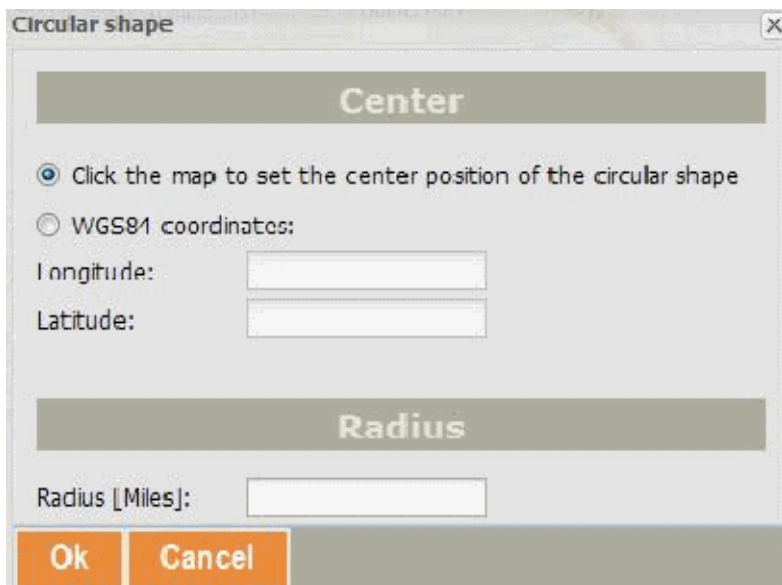


- Click on “Start edit”.
- Click each point or corner you wish to edit and drag it to the desired location.
- Click on the “Stop edit” button once you have made all of your changes.
- Click on “Save and Close”.

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.

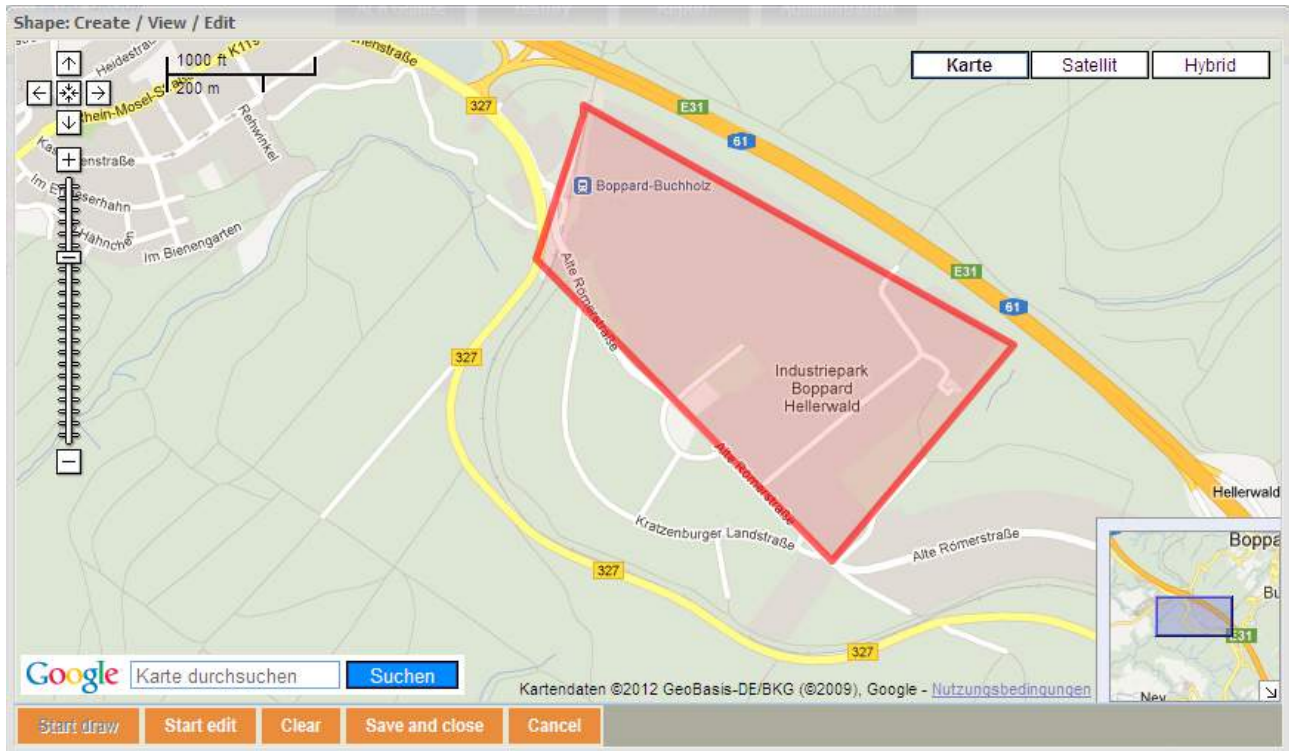
The “Clear” button clears the shape from the map.

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.

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

① 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 → GeoFencing → 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

Configuration: Equipment Fences - 30 Results

Selected	Equipment ID	Fleet	Brand	Type	BOMAG
<input type="checkbox"/> SET					<input type="checkbox"/> SET
NO FILTER	NO FILTER	NO FILTER	NO FILTER	NO FILTER	NO FILTER
<input checked="" type="checkbox"/>	BF 800 C - 66 1008	BOMAG	BOMAG	Paver	<input type="checkbox"/>
<input checked="" type="checkbox"/>	BF 800 C - 71 1003	BOMAG	BOMAG	Paver	<input type="checkbox"/>
<input checked="" type="checkbox"/>	BF 800 C - 71 1004	BOMAG	BOMAG	Paver	<input type="checkbox"/>
<input checked="" type="checkbox"/>	BF 800 C - 71 1011	BOMAG	BOMAG	Paver	<input checked="" type="checkbox"/>
<input checked="" type="checkbox"/>	BF 800 C - 71 1013	BOMAG	BOMAG	Paver	<input type="checkbox"/>
<input checked="" type="checkbox"/>	BF 800 C - 71 1015	BOMAG	BOMAG	Paver	<input type="checkbox"/>
<input checked="" type="checkbox"/>	BF 800 C - 71 1012	BOMAG	BOMAG	Paver	<input type="checkbox"/>
<input checked="" type="checkbox"/>	BM 500/15 - 00 1004	BOMAG	BOMAG	Cold planner	<input type="checkbox"/>
<input checked="" type="checkbox"/>	BM 500/15 - 00 1005	BOMAG	BOMAG	Cold planner	<input type="checkbox"/>
<input checked="" type="checkbox"/>	BM 500/15 - 00 1011	BOMAG	BOMAG	Cold planner	<input type="checkbox"/>

Save changes Undo

- 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.

Configuration: Equipment Fences - 30 Results

Selected	Equipment ID	Fleet	Brand	Type	BOMAG
<input type="checkbox"/> SET					<input type="checkbox"/> SET
NO FILTER	NO FILTER	NO FILTER	NO FILTER	NO FILTER	NO FILTER
<input checked="" type="checkbox"/>	BF 800 C - 66 1008	BOMAG Allonsine II BOMAG Rental	BOMAG	Paver	<input type="checkbox"/>

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.

Save changes Undo

- 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.