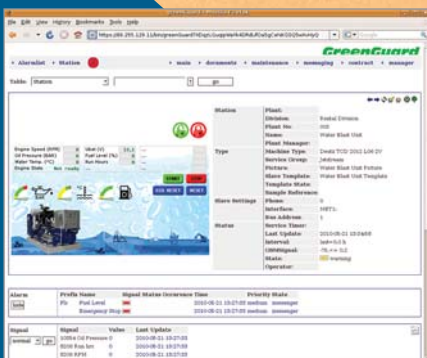


42TECHNOLOGY

GreenGuard

Fleet management system



Signal	Signal	Work	Last Update
OK	OK	OK	2010-08-21 10:07:08
OK	OK	OK	2010-08-21 10:07:08
OK	OK	OK	2010-08-21 10:07:08
OK	OK	OK	2010-08-21 10:07:08
OK	OK	OK	2010-08-21 10:07:08

GreenGuard (Fleet Management)

GreenGuard is a web based industrial fleet management system for various applications among engine driven installations such as CHP-plants, gen-sets, pumps, compressors, cranes and construction equipment as well as mobile phone cell sites.

GreenGuard allows you to remotely control, monitor and protect your fleet. The integrated maintenance and reporting functions enable an excellent information base to improve the overall performance of your equipment.

GreenGuard for mobile and stationary applications features:

- Remote supervision via GSM/GPRS or LAN
- Alert function via SMS and email to various addressees
- GPS position location and theft protection (geo fencing)
- Powerful reports and service forecasts
- Maintenance and service logs
- Rent-out contract handling with customer login and alerting

By using GreenGuard fleet management system you can profit from the following benefit:

- Maintenance forecast lowers service costs
- Condition monitoring for greater up time
- Improved service engineer availability
- Fuel consumption monitoring and control
- Fast on site intervention and staff allocation
- Automated service engineer scheduling
- Spare parts forecasting and dispatching
- Centralized service documentation
- Theft protection and unit allocation

Field of application



Basic Asset Localisation

- GPS-position
- Status supervision (binary in-/outputs)
- Geo-fencing
- Remote lockout function

Applications

Entry level system for mobile equipment such as construction machinery, mining, pumps, cars, trucks,... where localization and remote lockout functionality is sufficient.



Control, Protection and Supervision

- CAN J1939 supports more than 40 engine types
- Binary and analogue in- and outputs
- Fuel consumption measurement
- Hydraulic control
- Available as data logger

Applications

Off road machinery with electronic engines such as trains, vessels, piste bashers, wood processors... Available as passive data logger with black box functionality or with additional control functions and PLC.



Power Generation

- Protocol gateway to ComAp controllers
- GSM/GPRS or LAN connection
- GPS-position

Applications

Stationary and mobile supervision and control of engine applications.

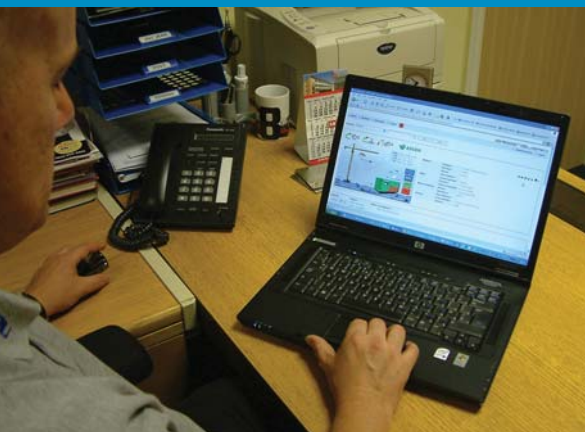


On-Road Vehicles

- CAN-FMS interface
- Binary and analogue in- and outputs
- Driver identification
- Fuel consumption

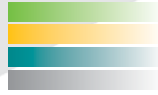
Applications

On road vehicles such as car, truck and bus.



GreenGuard Software Comparison

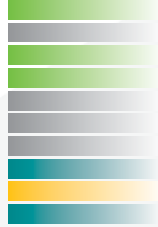
Full support
Limited functionality
Customer specific add on
Not supported



GreenGuard-Lite

Entry level fleet management

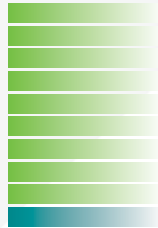
Intranet service
Internet service
Monitoring and control
Trends and charts
Contract management
Plant documentation
Maintenance plan
SMS/email alerting
Large fleet size
Expandable to customer requirements



GreenGuard

Fully fledged fleet management

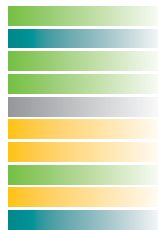
Intranet service
Internet service
Monitoring and control
Trends and charts
Contract management
Plant documentation
Maintenance plan
SMS/email alerting
Large fleet size
Expandable to customer requirements



GreenGuard SL (slope)

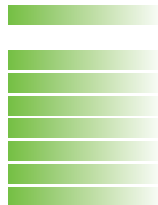
Specialized for the management of piste bashers in ski resorts

Intranet service
Internet service
Monitoring and control
Trends and charts
Contract management
Plant documentation
Maintenance plan
SMS/email alerting
Large fleet size
Expandable to customer requirements



Specific functionality

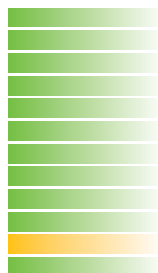
Fuel metering through CAN or with flow meter
Internet service
Position and route tracking
RPM supervision
Black-box data recording
Ski-slope work billing
Current status of slope preparation work
Driver identification



Vehicle Tracker System

Specialized for on road vehicle tracking,

Intranet service
Internet service
Route tracking
Fuel monitoring
CAN FMS data*
Improve and train driving skills of your staff
Geo fencing
Detect unauthorized use of the vehicles
SMS alerting
Large fleet size
Expandable to customer requirements
Rent or buy software



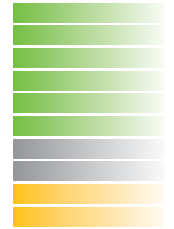
GreenGuard Communication Unit Comparison

Full support
Limited functionality
Function not supported



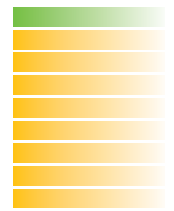
GM2220/4440 GPRS/GPS unit

GreenGuard integration
Vehicle tracking integration
Binary input/output
Analogue input (4440 only)
CAN-bus (4440 only)
Fuel counting (4440 only)
Engine protection
Engine control
Rugged
Tropicalized



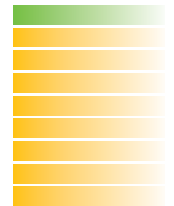
GM862-Lite GPRS/GPS unit

GreenGuard integration
Binary input/output
Analogue input
CAN-bus
Fuel counting
Engine protection
Engine control
Rugged
Tropicalized



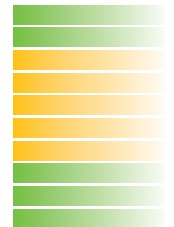
GM800 LAN unit

GreenGuard integration
Binary input/output
Analogue input
CAN-bus
Fuel counting
Engine protection
Engine control
Rugged
Tropicalized



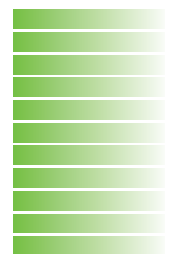
GM862 8/4 GPRS/GPS unit

GreenGuard integration
Binary inputs/outputs
Analogue inputs/outputs
CAN-bus
Fuel counting
Engine protection
Engine control
Run hour counter
Rugged
Tropicalized



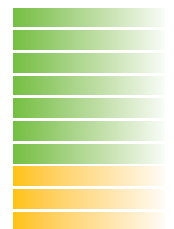
IntelliLog Mobile / IntelliMobile with internal GPRS/GPS

GreenGuard integration
Binary input/output
Analogue input
CAN-bus
Fuel counting
Engine protection
Engine control
Run hour counter
Rugged
Tropicalized
Available as pure data logger



IntelliLog data logger

GreenGuard integration
Vehicle tracking integration
Binary input/output
Analogue input
CAN-bus
Fuel counting
Engine protection
Engine control
Rugged
Tropicalized



GreenGuard

Fleet management system

SYSTEM REQUIREMENTS

Fleet integration	Project specific integration of fleet assets according to customer requirements using GreenGuard communication unit, ComAp controller (optional), interfacing panel and backup battery (optional)
Data communication	GSM/GPRS (requires SIM card per asset) or LAN/Internet, optional satellite terminal
Server operating system	Windows Server
Internet	Fixed IP address or DynDNS service
Extranet access	Internet access to GreenGuard through HTTPS/Security Token (optional)
Intranet access	Intranet-access to GreenGuard using HTTP
Operator terminal	PC with web browser

Features

Monitoring and control for industrial applications

- status supervision
- history recording
- configurable trend charts
- SMS/Email operator and service staff alerting
- monitor fuel consumption
- supervise fuel tank pilferage
- extensive reporting

Managing rent out equipment

- contract handling
- equipment scheduling
- customer login with access to the rented equipment
- SMS/Email customer alerting

GPS location

- overview of equipment location and status
- supervision of GPS position
- geo-fencing and remote lockout
- track object movements

Integrated document management

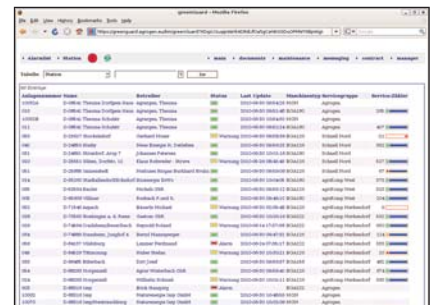
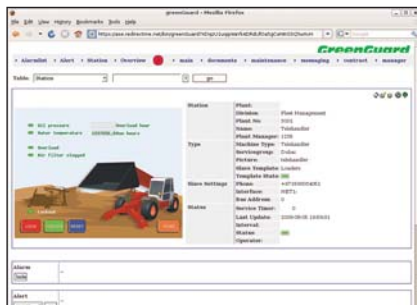
- organize manuals, schematic drawings and operating instructions
- interlink documents to all equipment of the same type
- interlink documents to individual stations

Maintenance plan

- service counter indication
- schedule maintenance events with the integrated rule engine
- combine events with working instructions (supports quality management such as ISO 9000)

Maintenance log

- integrated logbook
- register reminder notes or issues to follow up
- record the used spare parts
- trace the spare part usage e.g. on which systems was a certain part installed



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PARTNER

Features and specification are subject to change without prior notice