

CLOSE TO OUR CUSTOMERS



WIRTGEN GROUP



WITOS[®]
FleetView



WITOS[®] FleetView

The telematics solution from WIRTGEN GROUP

WHAT IS

WITOS® FLEETVIEW?





WIRTGEN GROUP TELEMATICS AND ON-SITE SOLUTIONS

With its intelligent telematics system WITOS® FleetView, WIRTGEN GROUP supports fleet and servicing management for WIRTGEN GmbH, JOSEPH VÖGELE AG and HAMM AG machines.

Thanks to system-based pre-processing, transmitting, visualising and evaluating of machine and position data, fleet and servicing management is becoming increasingly more efficient in day-to-day operations. WITOS® FleetView ensures that you always have a clear overview of your machine fleet.

WHAT DOES

WITOS® FLEETVIEW OFFER?

The service portfolio of WITOS® FleetView ranges from targeted monitoring of machines in their day-to-day operation to supporting maintenance and diagnostics processes.

Thanks to a comprehensive range of features, WITOS® FleetView is an ideal complement to the WIRTGEN GROUP Smart Service machine-specific inspection and maintenance agreements.



THE WITOS® FLEET VIEW BENEFITS AT A GLANCE

- > WITOS® FleetView keeps you informed of the location and operational state of your machines, any time and anywhere*
- > It simplifies scheduling and planning processes and helps avoid unnecessary machine transports
- > Intuitive user interface for efficient scheduling
- > Simplifies the entire maintenance process and saves time and effort in day-to-day operations
- > Minimises downtimes by facilitating timely service appointments
- > Faster response times in the event of faults
- > Detailed and targeted analyses of operational behaviour and usage patterns of the machines make service and maintenance easier and guarantee that your machines retain their value in the long term

*Data transmission is dependent on mobile network coverage.



PERFORMANCE CHARACTERISTICS

ASSET

- > Position data
- > Machine identification
- > Operating status
- > Fuel fill levels
- > Machine data

MAINTENANCE MANAGEMENT

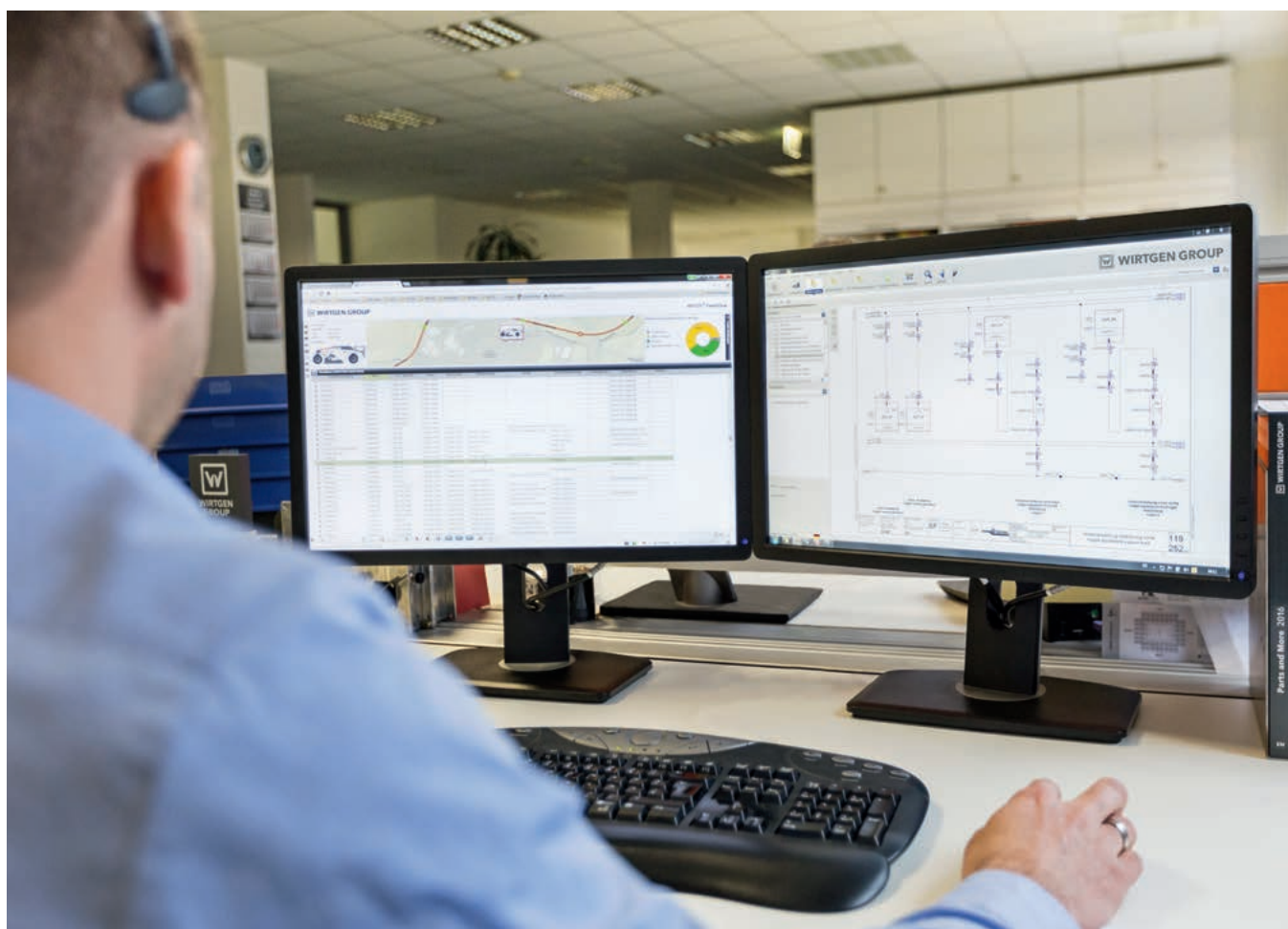
- > Maintenance schedules
- > Status indicators
- > Maintenance entries
- > Maintenance histories

MONITORING

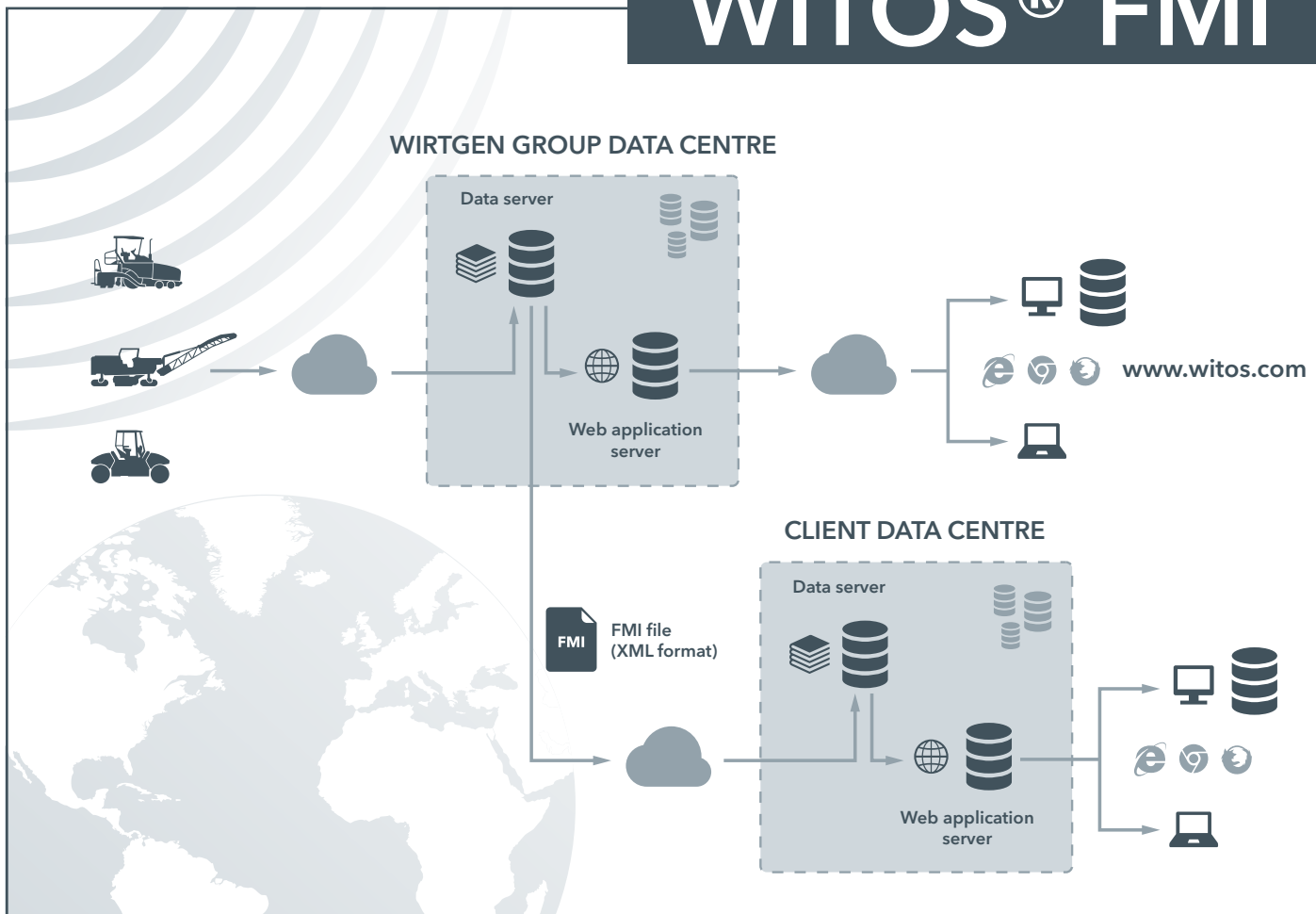
- > Position monitoring
- > Time fence monitoring
- > Maintenance monitoring
- > Movement monitoring
- > Error monitoring
- > E-mail notification

DIAGNOSIS

- > Machine warning messages
- > Machine error messages
- > Engine messages
- > Message histories



WITOS® FMI



> The Fleet Management Interface (FMI) also allows you to import data from existing systems via a standardised server-2-server interface.

THE WITOS® FMI BENEFITS AT A GLANCE

- > By using the WITOS® FMI interface, machine data from WIRTGEN Road Technologies machines is measured, recorded and sent to the WITOS® servers.
- > The machine data can be accessed on the servers and imported and evaluated in your own telematics or ERP system.
- > The data volume for the WITOS® FMI interface is offered in different volumes. It is intended for use with AEMP Standard Version 1.2 and the WIRTGEN GROUP FMS Standard.
- > WITOS® FMI is included in the WITOS® FleetView supply package.

For integration in existing systems, please contact your WIRTGEN GROUP subsidiary.



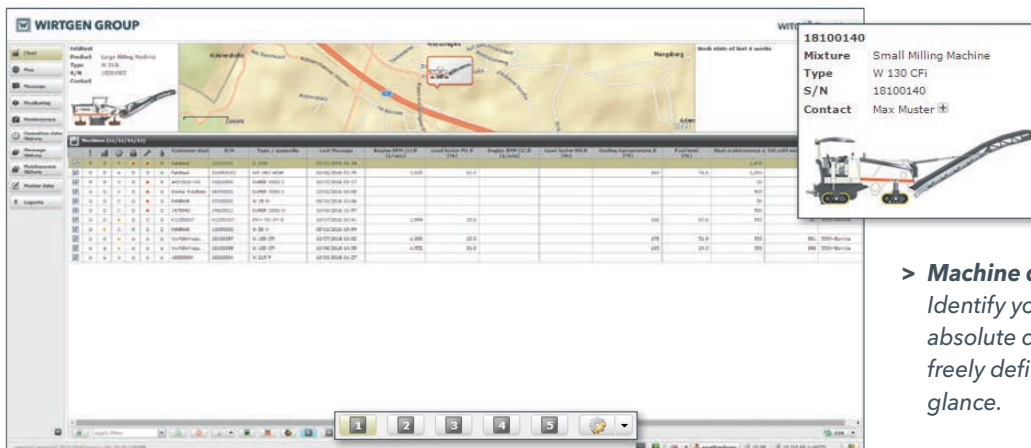
WITOS® FleetView

A LOOK AT THE APPLICATION

MACHINE OVERVIEW

The fleet overview provides a compact overview of the current operational state of your machines. You can select one or several machines for more detailed views and analyses. Comprehensive filtering and sorting functions will help you to customise the overview

to your requirements. You can pre-define up to five different views based on parameters defining your needs. Once customised and saved locally, this ensures that the information you want is always quickly available to you at a glance.



> Machine data

Identify your machines with absolute certainty and see your freely definable contact at a glance.

Fuel level AdBlue [%]	Engine RPM (1) 0 [1/min]	Cooling temperature 0 [°C]
0.0	1.885	34
0.0	900	54
0.0	926	40
66.8	1.264	47
86.0	1.528	52
48.0	971	61

> Operational data

Look inside your machines and see current data such as minimum, maximum and average operational data values.

Geo position (latitude longitude)	
Degree / minute / second	53°31'29.3814120
Degree / minute	53°31.4896902' 10
Degree	53.5248282 10.102

> Position data

Transmitted position data will tell you exactly where your machines are.

Machines (1966/1966/1966/1966)						
	!					S/N
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	15201096
<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	08190809
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	H2260092

> Data from WITOS® FleetView

Always able to act: compactly displayed machine statuses provide you with a fast overview of the operational state of your machines.

> Monitoring status, upcoming maintenance and current warning and error messages - the most important information is available at a glance, allowing a rapid response.

MAP

The map view shows the current location of one or several machines.*

The machine path function enables you to track the route that the machine takes during operation and transport.

You can use the radius search to select several machines or individual ones, such as those on a construction site. You can then look at the machines in more detail in other views, such as the fleet view, message view or history view.



WIRTTGEN GROUP WITOS® FleetView

Map (1 / 1966 / 1966)

18100140
S/N: 18100140
Type: W 130 CFI
Operating hours: 134 h

- Workstate: Off
- Communication status: Off
- Surveillance status: Alarm
- Information: Ok
- Report status: No error
- Service agreement: None

Contact info
Name: Muster
First name: Max
Email: torsten.frings@wirtgen.de
Phone: +49 2645 131 6648

Customer designation: 18100153
Serial number: 18100153
Interval: 116 17:42 - 12/20/2016 17:42

Radius (km): 1
Click on the map to activate

> Short machine information

The message window contains information on the machine's operational, error, monitoring and maintenance status.

* Brief information is available for individual machines to report on the status of the machine concerned.

WITOS® FleetView

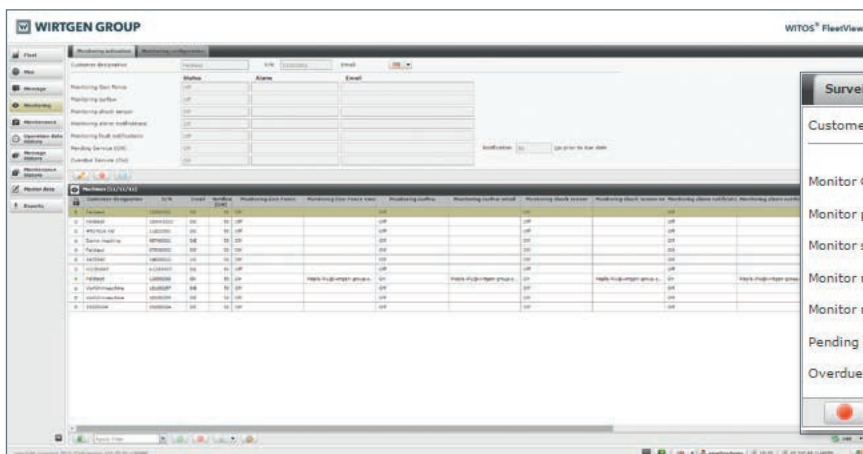
A LOOK AT THE APPLICATION

MONITORING

Define times and places when and where your machines are permitted to operate. By activating monitoring protection, you will receive immediate e-mail notification of unauthorised access to the machine. To minimise unnecessary downtimes for your machines, emails can notify

you of upcoming machine maintenance, allowing you to plan in the staff and material required in good time.

You can also be notified of error and warning messages by email.



Surveillance Activation	Surveillance Configuration
Customer description 18100140	
Status	
Monitor Geo-Fence	Off
Monitor power	Off
Monitor shock	Off
Monitor notification alarm	Off
Monitor notification disturbance	Off
Pending Service (OH)	Off
Overdue Service (OH)	Off

> Curfews

A notification is sent if the machine is switched on within the freely definable time curfew.

> Geo fencing

Receive a message the moment that the machine is outside the defined, permitted geo fence during monitoring.

> Motion sensor

The integrated motion sensor generates position messages even when switched off. This ensures that transport movements are documented.

> When the machine is shut off, the telematics unit can be "woken" if the motion sensor is triggered, automatically forwarding a message to designated persons. This means that you are instantly informed of any non-scheduled movements, for example.

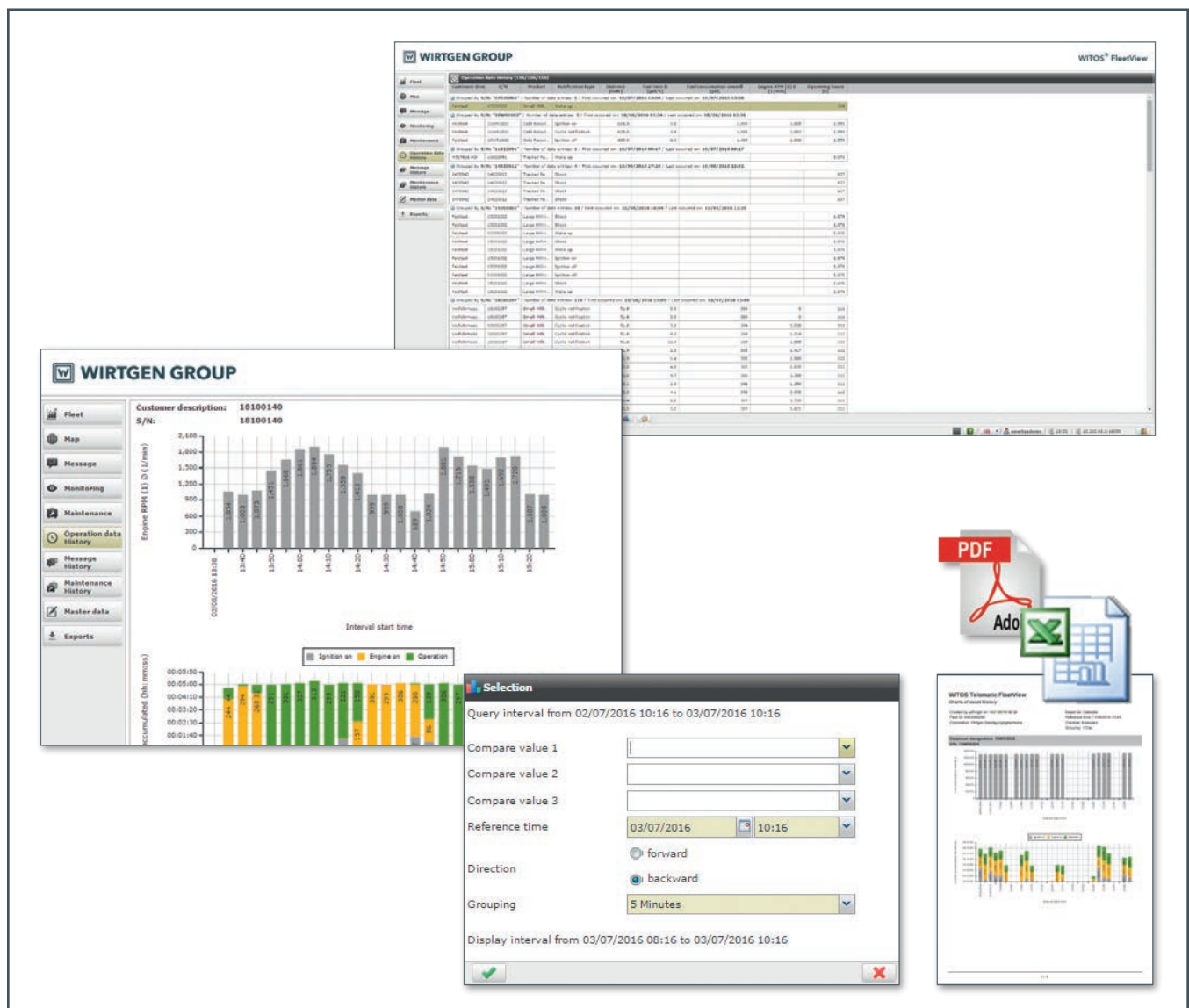
Surveillance Activation	Surveillance Configuration
Customer description	18100140 S/N
Radius	0.0 + - km
Work day start	
Sunday	hh:mm
Monday	07:00 + - hh:mm
Tuesday	07:00 + - hh:mm
Wednesday	07:00 + - hh:mm

OPERATIONAL DATA / HISTORY

Take a look back into the past of your machines. The history view allows you to display operational and position data for your machines over a freely definable period in a clear and easily readable layout.

Depending on your selection, you can also display up to three additional parameters in graphic form on the operating status indicator and generate them in PDF format.

At the push of a button all tabulated data can easily be generated as CSV file.



WITOS® FleetView

A LOOK AT THE APPLICATION

MESSAGES / HISTORY

All current and past messages from the machines at a glance: See a summary and specify which detailed information shall be displayed with the messages.

All messages are displayed and described exactly as they are on the machines. Clear message categorization and documented display/deactivation times enable you to draw significant conclusions regarding the machines' service statuses.



The screenshot shows the WITOS FleetView application interface. It displays a list of messages with columns for S/N, Reported, and Reported until. The messages are categorized by color: Blue, Yellow, and Red. The interface includes a search bar and a filter button.

> **Blue messages** indicate particular non-critical states of the machine system that must be taken into account when operating the machine.

> **Yellow messages** represent an abnormal and impending critical state, allowing you to specifically monitor it and avoid subsequent damage to the machines.

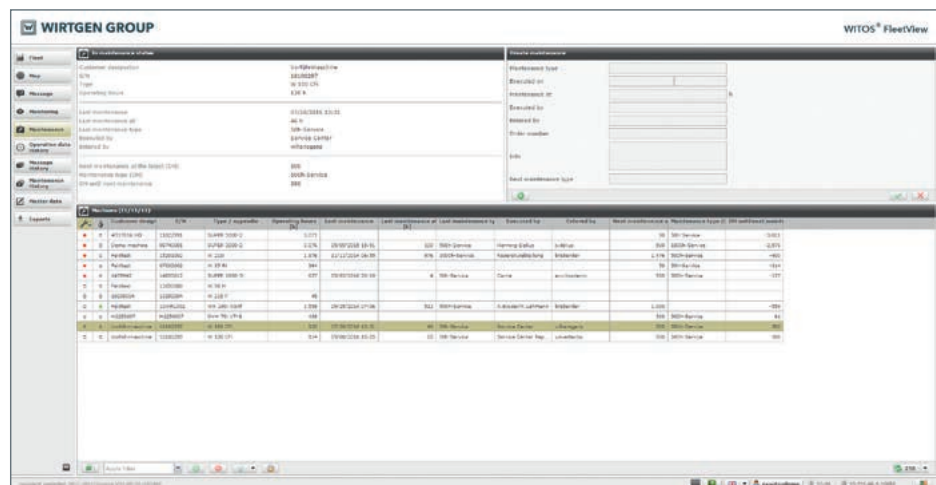
> **Red messages** indicate critical states that require the machine to be stopped immediately.

> **White messages** keep you informed of the machine's drive engine status and are shown in SPN/FMI code.

SERVICE / HISTORY

The history view of the maintenance section contains all the information you need to ensure optimally maintained machinery. From maintenance reports on previous workshop visits to information on the type and

schedule of upcoming maintenance work, the service functions reliably ensure that your machines remain operational.



Create service	
Service type	500h-Service
Executed on	03/07/2016 11:18
Serviced at	498 + - h
Executed by	Max Muster
Entered by	wifringst
Order number	123456
Info	
Next service type	1000h-Service

Maintenance History			
Maintenance type	Executed on	Maintenance at [h]▼	Executed by
250h-Service	11/11/2014 06:53	976	Reperaturabteilung
1000h-Service	11/11/2014 06:55	976	Reperaturabteilung

WITOS® FleetView

A LOOK AT THE APPLICATION

MASTER DATA

A client-specific machine ID can be added to the master data. There is also the option of indicating a contact person for each machine, such as the machine operator (1).

Owners can transfer or lend the machine to other WITOS® FleetView users. The machine then appears in the new user's WITOS® FleetView system for the time period specified by the owner (2).

The starting value can be individually configured in the operating hours calculation (3). In the case of machines without CAN bus connection, WITOS® FleetView can count the number of hours that a machine has operated based on the D+ alternator signal.



WIRTSCHAFTS GROUP WITOS® FleetView

Machine Maintenance Configuration

Customer designation: Demo machine Name: Mustermann
S/N: 08760001 First name: Max
S/N TCU master data: support@witos.com
Type / appendix: SUPER 3000-2 Email: +49 2645 131 9999

Headquarters: Joseph Vögler AG
Subsidiary:
Dealer: Stammwerk Vögler Konstruktion
Service s.:
Responsible service s.:
Owner: Training Mensch (00040-00070)
Holder:

Machines (11/11/11)

Customer designation	S/N	Product	S/N TCU machine	S/N TCU master data	S/N No Machine	S/N No Monitor	Type / appendix	Operating hrs [h]	Name	First name	Email	Phone	Brand	Model
Feldtest	13201001	Large Hilti	01-A050K1	01-A050K1*144H	0931440000	W 210		1.676					Wirtgen GmbH	Wirtgen
Feldtest	10VR1002	Cold Recycl.	01-A050K1	01-A050K1*144H	0931440000	W 240 AGH		1.559					Wirtgen GmbH	Wirtgen
rt17616 H/D	11122991	Tracked Pa.			0931440000	SUPER 1800-2		5.071					Joseph Vögler AG	Joseph V
Demo machine	08760001	Tracked Pa.			0931440000	SUPER 3000-2		3.076	Mustermann	Max	support@witos.com	+49 2645 131 9999	Joseph Vögler AG	Joseph V
Feldtest	07030001	Small Hilti	01-A050K1		0931440000	W 25 H		264					Wirtgen GmbH	Wirtgen
14010001	14010001	Tracked Pa.			0931440000	SUPER 1800-2		637					Joseph Vögler AG	Joseph V
W2200007	W2200007	Front Steer.	01-A050K1	A050K1	0931440000	W 25 H		420					Wirtgen GmbH	Wirtgen
Feldtest	13201008	Small Hilti	01-A050K1		0931440000	W 25 H		120					Wirtgen GmbH	Wirtgen
Vorfühmaschine	13100297	Small Hilti	01-A050K1	A050K1	0931440000	W 100 CFI		114					Wirtgen GmbH	Wirtgen
Vorfühmaschine	13100299	Small Hilti	01-A050K1	A050K1	0931440000	W 130 CFI		114					Wirtgen GmbH	Wirtgen
13200004	13200004	Large Hilti	01-A050K1		0931440000	W 210 F		45					Wirtgen GmbH	Wirtgen

Machine Service Oh. calculation Configuration

Customer designation: 10100140 Name: Muster
S/N: 10100140 First name: Max
S/N TCU master data: support@witos.com
Type / appendix: W 130 CFI Email: +49 2645 131 9999

Distribute

Number of machines: 1
Owner (Fleet ID):
Owner (Name):
Distribute up to:
Ok Abort

Machine Service Oh. calculation Configuration

Customer designation: S/N:
Oh. calculation: Operating hours
Setpoint: Setpoint delta
New setpoint: Last setpoint change



ADVANTAGES FOR CUSTOMERS, CUSTOMER SERVICE & HIRERS

CUSTOMERS

- > Comprehensive, single-source fleet management
- > Greater availability thanks to fast machine status detection
- > Fewer downtimes thanks to fuel monitoring
- > Optimum machine scheduling thanks to GPS position and machine status
- > Surveillance to prevent unauthorised access to the machine
- > Greater availability thanks to predictive maintenance work planning

CUSTOMER SERVICE

- > Predictive planning for maintenance work
- > E-mail notification when servicing is due
- > Prioritisation of maintenance operations
- > Faster telephone troubleshooting thanks to machine messages
- > Target-oriented preparation of servicing operations thanks to fault localisation
- > Precise information on machine position for service technician deployment

HIRER

- > Precise machine location detection
- > Reports on the machine's usage
- > View of machine handling history
- > Clear basis for calculating machine hire

The WITOS® FleetView telematics system with WITOS® FMI includes the WITOS control unit (TCU), use of the web-based fleet management system and the WITOS maintenance fee for 3 years from start-up (further free use of the system is possible after this term has elapsed, but cannot be guaranteed due to changes to mobile phone standard (e.g. from 2G to 3G), network coverage problems or similar).





WIRTGEN GROUP

WITOS®
FleetView



WIRTGEN GmbH

Reinhard-Wirtgen-Str. 2
53578 Windhagen
Germany
T: +49 2645 / 131 0
F: +49 2645 / 131 392

► www.wirtgen.de

HAMM AG

Hammstr. 1
95643 Tirschenreuth
Germany
T: +49 9631 / 80 0
T: +49 9631 / 80 111

► www.hamm.eu

JOSEPH VÖGELE AG

Joseph-Vögele-Str. 1
67075 Ludwigshafen
Germany
T: +49 621 / 8105 0
F: +49 621 / 8105 469

► www.voegele.info