

Soilmec DMS Drilling Mate System

IoT ecosystem for drilling equipment control, production supervision and fleet management developed and owned by Soilmec since the late '90s.

DMS product suite

Integrated solution embracing smart technology to optimise the use of machinery and increase efficiency on job sites. Soilmec DMS helps to gain unique insights into ground engineering and piling business by collecting, analysing and managing the most relevant information from the drilling equipment. The system is intended to support construction companies in daily operations and business processes by improving decision making and leveraging the potential of data analytics.

DMS ON BOARD

Built-in instrumentation for equipment supervision and performance control.

DMS PC

Licensed software for machine and production data processing and reporting.

DMS MANAGER 4.0

Cloud app for asset, fleet and site management.



DMS

drillingmatesystem



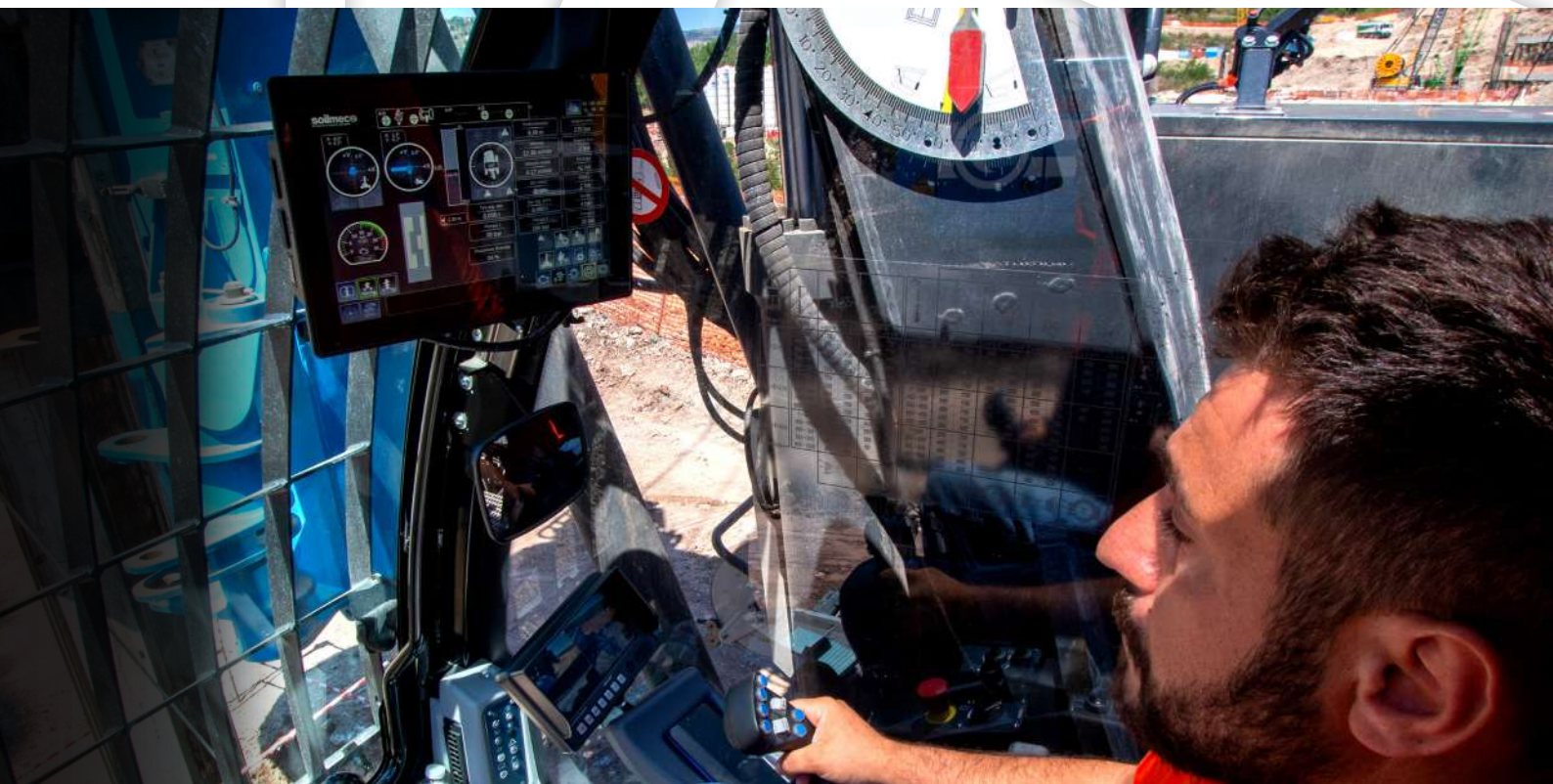
DMS | ON BOARD

Hi-tech instrumentation on Soilmec equipment designed and field-tested to increase drilling efficiency through improved operations control, automated drilling functions and job-aid tools.

DMS ON BOARD features advanced data collection devices, sensors and actuators, that are factory-installed and networked to machine performance. Effective operator display provides enhanced situational awareness ensuring better analysis and drilling execution. Operators can customize the DMS OB widget panel for optimized user experience and data-driven prioritization.

DMS ON BOARD is built in and allows the use of Soilmec automated solutions and job-aid tools (*on enabled machines*):

- main and auxiliary winch load sensing
- winch synchronization
- winch wire rope antislack system
- rotary discharge assistance system (spin off & click-click)
- automatic mast verticality setting
- swing control (turret slew limits)
- assisted return to the borehole center after tool discharge
- auto rotary (CFA, DP/screw pile)
- auto drilling (drilling speed control for optimized feed rate with automatic pull-down, CFA)
- re boring (CFA)
- downtime control
- job planning
- visualization of the kelly locking points
- automatic extraction system (auger lifting in CFA, DP, CSP)
- concrete pump strokes radio sensing (CFA, DP, CSP & soilmix, TJ, TTJ)
- concrete pressure wireless sensor (CFA, DP, CSP)
- automatic treatment system (TJ, TTJ)
- excavation deviation correction (hydromill)
- directional correction flaps control (hydromill)
- automatic floating (hydromill)
- excavation re boring (hydromill)
- configurable ascent speed (hydromill)
- microdrilling data



DMS | ON BOARD

Data captured by DMS ON BOARD is stored internally and on a removable USB flash drive for subsequent elaboration and analysis on PC allowing to obtain detailed production reports.

DMS is equipped with a GSM 3G/4G-WiFi modem for automatic data transmission via Internet.

DMS ON BOARD design incorporates full safety system in compliance with EN standards.

DMS ON BOARD configuration is technology specific and may be password-protected to provide exclusive access for authorized personnel.

DMS also provides remote control allowing real time monitoring of machine performance and drilling phases supervision on mobile devices.



DMS | PC

Licensed software that displays and elaborates the data acquired by DMS ON BOARD to generate comprehensive reports and produce quality assessment results. This user-friendly reporting tool allows analyzing, processing and printing production data, while verifying rig performance and controlling usage of raw materials and fuel consumption.

Advanced production reports including listing and graphs can be tailored to the specific needs of each jobsite by selecting indicators set, scale, charts templates and color scheme.

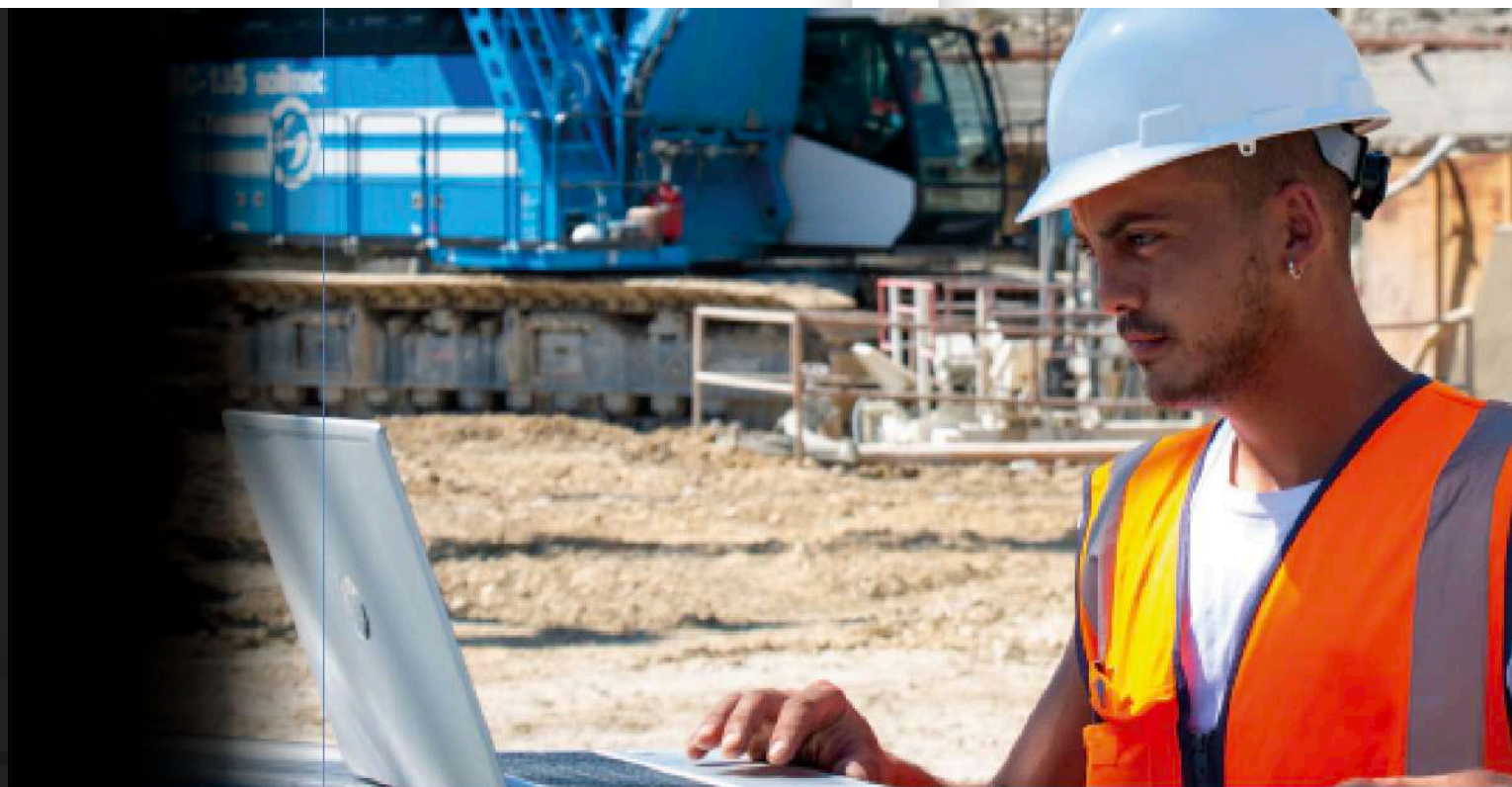
DMS PC allows using local or cloud storage offering organizations the maximum flexibility on how to store and access drilling data.

The data may be imported/synchronized via a removable USB key (used to store the production data on the machines), transferred automatically via e-mail (if enabled) or uploaded to cloud through DMS Manager 4.0.

The data archive is organized in working technologies, jobsites and machines, allowing for multiple search paths.

DMS PC includes optional features:

- DMS 3D: virtual reconstruction of drilling process in three-dimensional models (hydromill).
- Job planning: project-specific drilling plan generated by DMS PC and synchronized with the DMS On board synchronized with the DMS On Board automatically through DMS Manager.

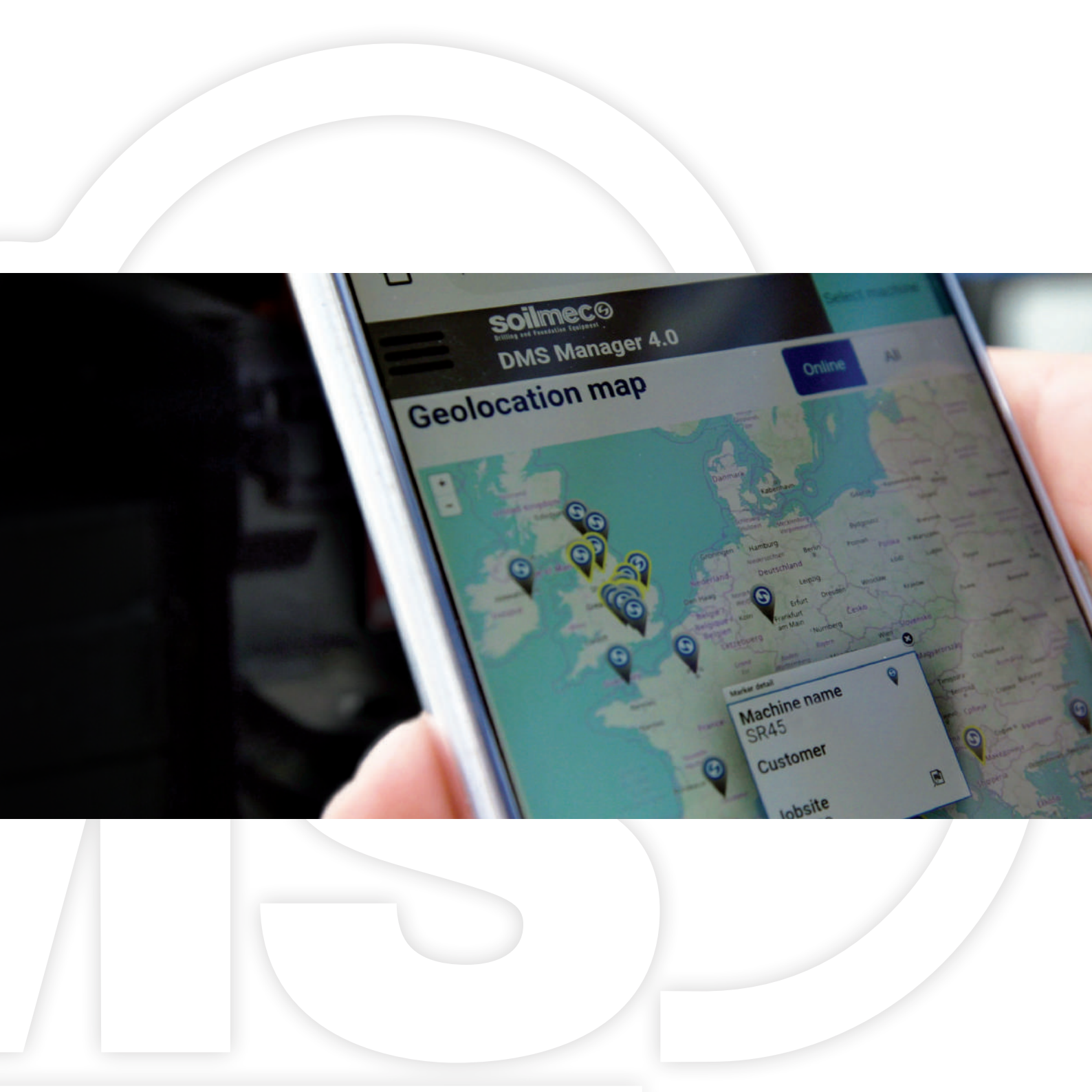


DMS | MANAGER 4.0

Soilmec cloud-running application for remote, centralized supervision of the rig fleet, workforce and productivity in real time. This advanced telematics solution is powered by IoT technology enabling maximized asset uptime, optimized fleet management and integrated service support. DMS MANAGER provides a comprehensive overview of the entire fleet performance, whereabouts and service needs, consolidating information from DMS ON BOARD and DMS PC.

DMS MANAGER 4.0 key features include:

- GPS location tracking and logging
- live machine data (deployment and utilization)
- machine downtime tracking
- actual time alerts, event monitoring and equipment diagnostics
- production data and consumption control in real time
- technology-specific machine and production parameters
- operating times recording
(drilling and concreting time counter, downtime and production stops)
- machine diary and service history
- remote technical assistance
- data storage for statistical analysis
- comprehensive data visualization (pie charts and graphs)
- customized and easily designed dashboards
- connection via any device over a web browser
- mobile interface (iOS & Android)



DMS | MANAGER 4.0

- Remote view of the operator's screen in live mode
- Custom notification manager for real-time updates
- Job planning for each job with instant data syncing
- Production reports (*work scheduling, status updates, daily logs and advance percentage, job progress reports, disruptions and delays alerts*)
- Selectable information for data export in CSV
- Maintenance planner including parts forecast, operations checklists, preset reports and event logs
- Analytics, KPI and essential technology metrics
- Health monitoring and condition-based maintenance
- REST APIs for seamless integration with other apps
- Enhanced collaboration with Telegram instant messaging
- My company console for efficient account configuration and management

DMS MANAGER is a reliable and convenient tool that allows handling complex information for enhancing machine life, improving drilling operations and project viability.

DMS PRODUCT SUITE connects operational needs and ensures agile business development by optimising tasks, processes and projects. It improves communication between the field and office and provides higher machine utilisation, productivity and profitability.

Your data. Your choice.



Technical Data

DMS Drilling technologies:

- LDP (large diameter piles)
- CFA (continuous flight auger piles)
- CAP/CSP
(cased augered/cased secant piles)
- DP (displacement piles)/TCT/screw pile
- SM/TJ/TTJ
(soil mixing, turbojet/twin-turbojet)
- DW (diaphragm wall: grab, hydromill)
- Pile driving
- Dynamic compaction
- Crane (lifting) operations
- MP microdrilling rig

Communication & Connectivity:

- GSM 3G/4G/5G (coming soon)
- WiFi
- Cloud & IoT

On-Board Display:

- Active matrix
- Touch screen
- Hi-resolution
- Multi-language
- Intuitive user interface
- Easily programmed
- Customized work pages
- Adjustable monitor stand

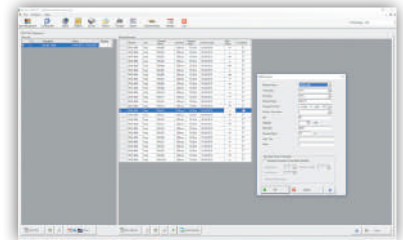
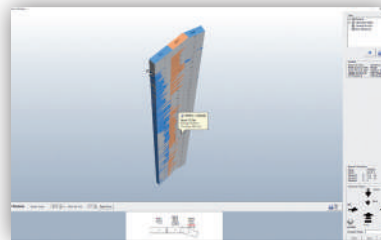
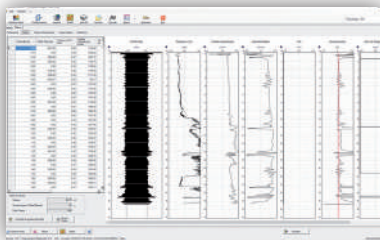
DMS MANAGER 4.0 Security Standards:

- Certified
ISO 27001, ISO 14001 and ISO 9001
- Aligned with
NIST 800-53 and FEdRAMP
- SSAE 16
audited for the United States,
and ISAE 3402 internationally
- SOC 2 Type II
- Disaster recovery with
backups streamed offsite
- 24x7 data center, server
and security level monitoring

DMS ON BOARD



DMS PC



DMS MANAGER 4.0



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