SUPERVISION
Technical data sheet

Brand of ACOEM

SWB Plus
Engineering | Training | Site Services

OneProd

USE AND APPLICATIONS

SMART CONDITION MONITORING

With SUPERVISION, ONEPROD launches a new generation of more efficient, more accessible, yet more powerful Web applications.

SUPERVISION has been designed to allow anyone involved in the operating maintenance or the maintenance of industrial equipment to have access to the condition of their production assets in a clear format that is fully suitable with their occupation.

Condition monitoring results are then capitalised, instantly shared and made available to all for better involvement in the monitoring of industrial facilities and optimum maintenance.

REMOTE MONITORING

ONEPROD is innovative by offering a performing tool that is particularly well suited to the increasing demand for fast access to the relevant information relative to the equipment under monitoring. This relies on current communication technologies which make SUPERVISION:

- Available from any computer with an Internet connection
- Accessible regardless of the installation deployed on site (desktop, Web)
- Operating for any measuring instrument anywhere in the world
- Offering unrivalled remote operation performances based on the technical principle of double-cache information update.

MAIN APPLICATIONS

Relying on ACOEM's 25 years of experience (formerly 01dB-Metravib, S'tell Diagnostic, 01dB-Stell and then 01dB Acoustics & Vibration) in condition monitoring, SUPERVISION is well suited for the remote monitoring of any set of machines:

- No matter the quantity of elements under monitoring,
- For any type of monitoring (ONLINE, OFFLINE),
- Regardless of the control techniques (monitoring based on vibration, electrical, process, oil parameters...).

SUPERVISION is available for all industrial applications where ONEPROD-based condition monitoring is deployed:

- Wind power
- Oil & Gas
- Steel industry
- Mining
- Chemistry
- Petrochemistry
- Energy
- Cement works
- Paper industry
- Food industry
- Textile industry
- Car industry
- Defence
- Aeronautics
- Education/Research
- Other industries

UNRIVALLED REMOTE PERFORMANCE

AVAILABLE FROM ANYWHERE IN THE WORLD

Remote access to the machines' condition:	YES
Remote access to the condition of the measuring instruments:	YES
Connection required to the ONEPROD XPR server network:	NO
Connection required to the MVX instrumentation network:	NO

RECORD PERFORMANCE

Number of machines under monitoring:	unlimited
Display time for 1000 machines:	< 1s

PERMANENT UPDATE

Refreshing frequency of information on the server:	5 min
Refreshing frequency of client stations:	5 min
Latest update for the information on display:	< 10 min

THREE MODES OF VISUAL DISPLAY

Different views are available for the user, providing maximum relevant information on the set of machines under monitoring, regardless of his/her role in the company.

ALARM VIEW

The ALARM view allows the user finding all information required to monitor his/her equipment, by displaying, for each machine:

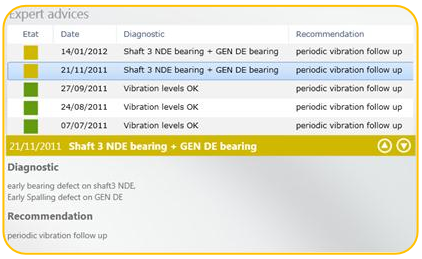
- Date and nature of the most recently stored alarm status
- Date and nature of the most recent expert's advice
- Number of alarms since the most recent expert's advice
- Measurement delay (no measurement transferred since...)

It also provides access to more detailed information:

- Measurement points with alarm status (most recent status alarm stored in the database)
- Values and alarm status of all parameters for each measurement point
- Values of operating parameters
- Operating condition associated to the measurement
- Trending plot over history (last 24 hours, week, month, year; whole history)
- Monitoring events log
- Link to the Online measuring instrument (in case of Online monitoring)

ADVICE VIEW

The ADVICE view allows transferring clear, accurate and relevant information to any user who is not familiar with the vibration domain in order to follow, understand, assess the efficiency and make relevant decision on the maintenance of the machines under monitoring, by displaying, for each machine:



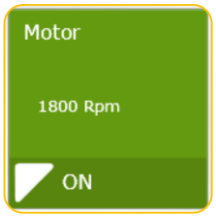
- Nature and date of the most recent expert's advice
- Nature of the 3 previous pieces of advice in chronological order

The following information can also be consulted:

- History of analyses
- The result of the diagnosis and recommendations associated with each analysis

LIVE VIEW

The LIVE view allows any operator to have a remote knowledge of the instantaneous operating status* of his/her equipment, by providing for each machine:



- The current operating condition
- The instantaneous value of the operating parameters
- The most recent instantaneous alarm status

And in more details:

- The instantaneous alarm status of each parameter and measurement point monitored by a ONEPROD MVX instrument

** most recent value communicated by the ONEPROD MVX instrument to the ONEPROD XPR server (i.e. 10-min old max.)*

THREE TIMES MORE EFFICIENT NAVIGATION

3 TYPES OF DISPLAY

For an easier navigation within a set of machines under monitoring, different types of display are provided to the user, each having its own assets:

- Display on a map or image for a navigation that is as visual and intuitive as possible
- Display as icons for a better balance between detailed information and visual information
- Display as a list, for maximum details and multiple sorting possibilities for the available information

3 WAYS TO NAVIGATE THROUGH THE MACHINES

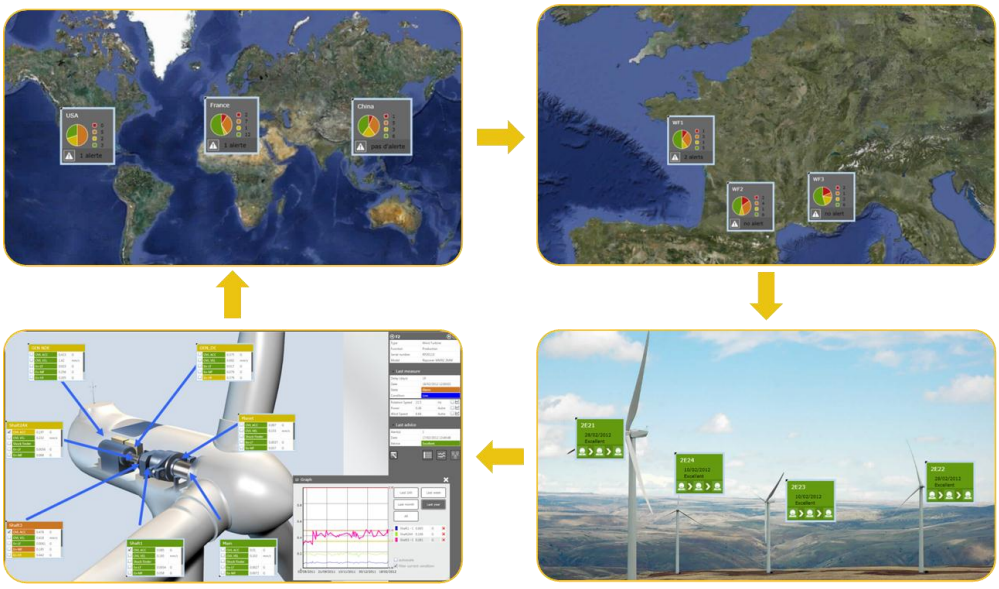
For a closer compliance with the requirements and habits of the user, 3 navigation modes are available:

- A Windows 7-type navigation bar that allows going back to any level of the database by a simple click on the corresponding element.
- A classic location tree structure that allows going quickly from one location to another, regardless of their position in the database
- Most possible intuitive navigation through exploration of the elements displayed on screen.

3 RELEVANT INDICATORS

SUPERVISION was designed to quickly direct the user to the machines that need to be examined first. Relevant indicators are then immediately available as:

- Synthetic representation as a pie chart indicating the number of machines per status (alarm or advice)
- Counter for the new alarms since the most recent expert's advice
- Counter for delayed measurements



EVER MORE PRODUCTIVE

ALL YOUR MACHINES IN A SINGLE VIEW

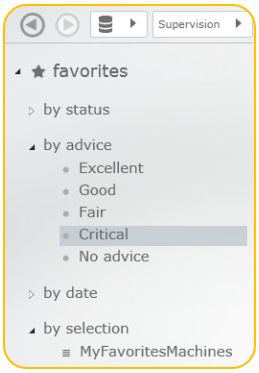
With the new "flat" data representation mode, all machines can now be displayed in a single view, regardless of their distribution in the different locations and sub-locations... One can then scroll through several hundreds, even thousands of machines in a few seconds.

ONE-CLICK ACCESS

The supervision of a great number of machines cannot be efficient without the appropriate tools. SUPERVISION provides the user with filters that allow, in a single click, and without prior navigation, for the instant display of the machines of interest, regardless of the size of the fleet and the complexity of the database structure.

2 types of filters are available:

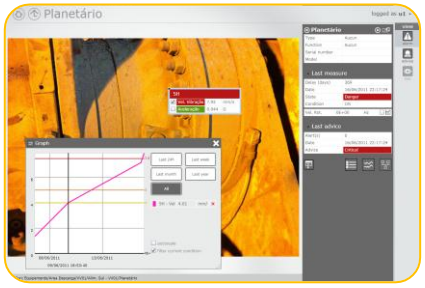
- Dynamic filters: each machine fulfilling the selected criterion is automatically displayed, the view is updated dynamically:
  - per alarm status (OK, pAL, AL, DG)
  - per expert's advice (excellent, good, tolerable, not acceptable)
  - per measurement delay (late, updated)
- Static filters: fixed list customised by the user. Only user-selected machines are displayed, regardless of their status.



REVIEW OF THE EQUIPMENT HIERARCHY

Once the detailed view is displayed, you do not have to go back to the upper level to scan another machine, and this regardless of the type of information on display (Alarm, Advice, LIVE).

You can scroll directly through the machines using the “previous machine” / “next machine” buttons available in the detailed view. This is essential for a real review of the machines under monitoring.

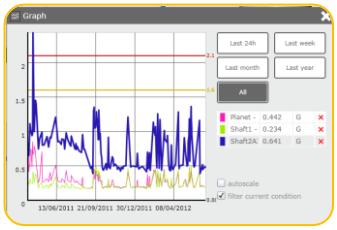


EXPORT TO EXCEL

SUPERVISION is a communicating tool that allows the user to export in Excel format any list-type view, as displayed on screen, thus multiplying the ways of sharing and following up relevant information for optimum operating maintenance.

FIRST ANALYSIS LEVEL AVAILABLE

Supervising a machine does not only mean consulting its condition at a given moment, but also observing how it has been behaving in time in order to prevent any abnormal evolution that could be harmful to the machine or to the process to which it belongs. Therefore, SUPERVISION provides the user with a first level of analysis based on the trend plotting tool:



- Customisable time scale (24 hours, 1 week, 1 month, 1 year, whole history)
- Information cursor: date/amplitude of the point selected on the active curve
- Possible filtering on operating condition (required for machines with variable operating conditions)
- Display of the alarm thresholds associated with the trend follow-up function
- Autoscale function available, allowing for a better use of the graphic area (automatic zoom on the y axis for a better follow-up of the amplitude variations)
- Possible superposition of trend curves (up to 5 curves in the same plotting area)

KEEP AN EYE ON YOUR INSTRUMENTS

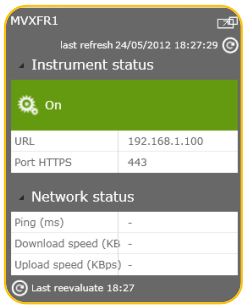
OPERATING STATE OF THE REMOTE MEASURING INSTRUMENTS

The guarantee to have machines under monitoring implies controlling the perfect transfer of measurement data. SUPERVISION allows the user to have access to essential information from anywhere:

- prodiving a global view of the measuring MVX instruments, thus offering complete control of the operating state of the instrument fleet in a single view
- giving detailed information about each instrument to diagnose the origin of a problem without having to go on-site and check
- displaying the status of the Xcom driver, which guarantees the connection between the instruments and the database

STATUS OF THE REMOTE COMMUNICATION NETWORK

Very often, the origin of a problem regarding the transfer of Online measurement data is difficult to determine remotely since it can be shared between the Online measuring instrument and the communication network. SUPERVISION provides then the user with not only the operating state of the instruments, but also the status of the communication network:



- Status of the network per instrument (ping, upstream rate, downstream rate)
- Communication test command per instrument
- Single communication test command for all instruments

FULL INTEGRATION INTO THE ONEPROD SYSTEM

ONEPROD DATA STRUCTURE

SUPERVISION allows rereading data as they were described in the ONEPROD XPR predictive maintenance platform in order to convert them into a format that is accessible to all users in the company.

INFORMATION SHARING

By allowing for instant sharing of monitoring and analysis results in a way suited to each user profile, SUPERVISION is a real portal for predictive maintenance. SUPERVISION allows for a real highlighting of the work achieved by the predictive maintenance department in order to ensure the involvement of all in this activity.

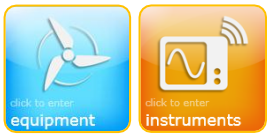
However, predictive maintenance can lead to tests that have no interest in being shared with everyone. It is also possible to opt not to share the monitoring of some targeted machines within a database and thus to hide them so that they are not seen in SUPERVISION.

DATA SECURISATION

In order to guarantee the integrity of all presented data SUPERVISION offers a read-only access to predictive maintenance information..

Each user, identified with his/her username and password, has access only to the databases assigned to him/her by an administrator.

ACCESS CUSTOMISATION



The information available in SUPERVISION can be adjusted to the user profile using the different views and modules available.

Each user will have access to modules and/or views in accordance with his/her profile, in order to ensure that he/she is always faced with information that he/she can understand.

The customisation of the access to the different modules, views or other advanced functions is achieved from the ONEPROD administration module.

AVAILABLE KITS

All SUPERVISION functions cannot be applied to the OFFLINE monitoring mode. The SUPERVISION modes and functions that respectively apply to ONLINE monitoring and OFFLINE monitoring are recalled below:

	ONLINE	OFFLINE
ALARM VIEW	●	●
ADVICE VIEW	●	●
LIVE VIEW	●	○
FILTERS	●	●
FLAT MODE	●	●
TRENDING PLOT	●	●
INSTRUMENTS MODULE	●	○

● *Included* ○ *Not accessible*

DELIVERABLES

Any SUPERVISION kit systematically includes the following elements:

- SUPERVISION software
- User manual (FR, GB, PT, CN)
- User Memo Sheet (FR, GB, PT, CN)
- A specific demonstration database (Wind Power application)
- Demonstration video (FR, GB, PT, CN)
- SUPERVISION pictures

TECHNICAL SPECIFICATIONS

Nature of the ONEPROD information on display	
Vibration	YES
ESA (Electrical)	YES*
Process	YES
OPC process	YES
Oil (Online)	YES
Oil analysis (laboratory)	NO
Thermography	NO
Expert report	YES
Available types of views	
Per alarm status	YES
Per expert's advice	YES
Per instantaneous status	YES
Available types of displays	
Display as icons	YES
Display as lists	YES
Display on map or image	YES
Data representation modes	
Structured mode	YES
Flat mode	YES
Full screen mode	
Global view as icons	NO
Global view as list	NO
Global view on map or image	YES
Detailed ALARM view	YES
Detailed ADVICE view	NO
Detailed LIVE view	YES
Graphic tools to plot trends	
Simple cursor	YES
Selection of time scale	YES
Filter on operating conditions	YES
Display of alarm thresholds	YES
Autoscale	YES
Superimposition of curves	up to 5 plots
Plot of raw signals	NO
Advanced analysis functions	NO
Machine filters	
Per alarm status	YES
Per expert's advice	YES
Per measurement delay	YES
Per customised list	YES
Filter combination	NO
Multiple-database navigation	
Multiple-base view	NO
Multiple-base switch without re-identification	YES
Definition of access rights per user*	
Selection of accessible databases	YES
Selection of accessible modules	YES
Selection of accessible views	YES
Selection of accessible filters	YES
Data securisation	
READ-ONLY access only	YES
Required authentication	YES
Password-based security	YES
Possibility to hide selected machines	YES
Sending of notifications	
E-mail	YES**
SMS	YES**

Type of compatible monitoring
Online with ONEPROD MVX
Offline with ONEPROD MVP, MVP2C, MVP2EX

Compatible versions of ONEPROD XPR
ONEPROD XPR WEB from v4.5.1
ONEPROD XPR DESKTOP from v4.5.1
Versions EASY, ADVANCED, PREMIUM, ESA, EVA

Compatible Client OS:
Windows XP SP3
Windows 7, 32 and 64 bits
MAC OS Lion X

Compatible browsers
Internet Explorer 8 or higher
Google Chrome 12 or higher
Mozilla Firefox 5 or higher
Safari 4 or higher

Required components on client station
Plugin Microsoft Silverlight 5.0***

Minimum hardware requirements for client station
Any standard notebook available on the market
Minimum resolution: 1200*800

Required components on server station
Plugin Microsoft Silverlight 5.0***
Oracle ODAC 11g***
Microsoft .NET Framework 4.0***

Compatible server OS
For XPR 4.5.1:
Windows XP Professional SP3
Windows Server 2003 Standard Edition

From XPR 4.5.2:
Windows XP Professional SP3
Windows 7 32 bits or 64 bits
Windows Server 2003 Standard Edition
Windows Server 2008 R2 (64bits)

Minimum hardware requirements for server station:
Processor: Intel® Xeon X3430, 4C, 2.40GHz
Video: 64 MB – 32 bits TrueColor
RAM for Offline Server: 2 GB
RAM for Offline Server: 3 GB + 1GB/10 MVX
Network Ethernet 100Mb/s or 1Gb/s
Ports: 1 parallel or USB (for Sentinel hardlock)
DVD Read/Write: Required for installation

Minimum connection requirements
3G operation

Languages (documents + software)
French
English
Portuguese (Brazil)
Simplified Chinese

** Except measurement point details*
*** from ONEPROD XPR*
**** Component automatically installed if absent*

ACOEM
Smart monitoring, diagnosis & solutions

ACOEM offers comprehensive products and services comprising smart monitoring, diagnosis and solutions, drawing upon its unique expertise in the field of vibrations and acoustics.

ACOEM contributes to the improvement of:

- quality of life and risk prevention in urban and industrial environments
- productivity and the reliability of industrial processes
- the design of robust and high-performance products with low noise levels
- protection of sites, vehicles and people in hostile environments

With its 01dB, METRAVIB and ONEPROD brands, ACOEM works with decision-makers in industry, defence and the environment throughout the world.

For more information, visit our website at www.acoemgroup.com

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