ZOOM® SOFTWARE SUITE

Version 7.4

The ZOOM Software Suite is a complete machine monitoring software environment that offers a graphical user interface to view and analyze data, manage alarms from multiple acquisition units, display collected information in real-time, and communicate with an external SCADA control system. Installed in a server-client configuration, the ZOOM software suite provides a wide set of tools for monitoring, analyzing, and understanding critical machine condition parameters.

Main New Features

- A new export functionality is now provided to simplify the process of forwarding data for RIS reports
- Improved management of filters and revised, more efficient display of the Polar graph
- New functionality to export a graph's filtered data to a .CSV file
- A new functionality on the existing FIM(LF) vibration module associated with the FOA Series accelerometers allows monitoring of velocity on mills used in the mining industry
- New Hanning windowing function added to the Flat top and Rectangular windowing functions already available in the FFT graph
- A new contextual menu in the FFT graph allows converting the acceleration scale into a velocity scale
- A new function allows the conversion of the displayed units in Trend, XY-sampling, XY-poles and FFT-Poles graphs
- ZOOM Modbus communicates with new hardware (STATE-300) for the acquisition of slow evolving parameters
- The delay on each of the two levels of alarm (Alert and Danger) can now be adjusted independently
- Selection of a spectral band now allowed as source in conditional measurements with Smaller or Greater as condition type

Software Applications

The ZOOM software suite is composed of the following core software applications:

ZOOM Server	To create new databases, manage existing ones, control communication between the various software and manage all measurement requests.
ZOOM Configuration	Used to describe equipment configurations within the monitoring system, set alarms and event thresholds, as well as set the intervals on which automatic measurements will be taken.
ZOOM Application	Offers a variety of tools and features used for taking manual measurements, acknowledge alarms, display results, monitor equipment status, and automatically send out notifications.
ZOOM Server Status	Used to monitor and annunciate the status of the ZOOM software suite at the server level.
ZOOM Update	Used to update databases and configurations to new versions as well as updating hardware firmware remotely or by USB key.

Optional Acquisition Services

The ZOOM core software applications are complemented by data acquisition equipment services. These services operate continuously in the background.

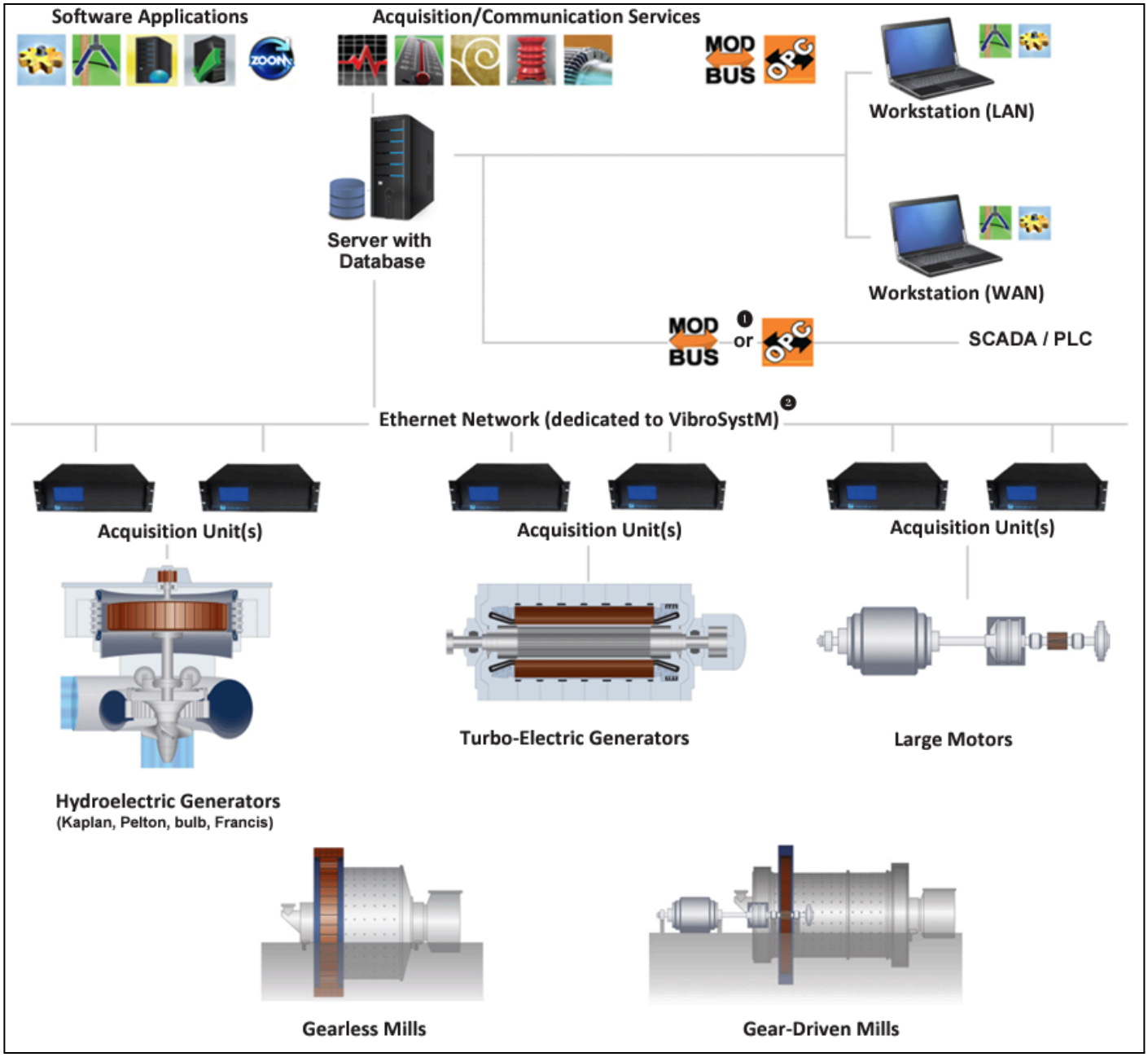
ZOOM ZPU5000	Used for fast data acquisition, machine protection, and advanced data analysis. Related equipment: ZPU™-5000 acquisition unit (sold separately).
ZOOM ThermaWatch® Stator	Used to monitor trends and alarms for stator temperature. Related equipment: HAVSM™ for TWS™ sensors (sold separately).
ZOOM Look	Used to monitor trends and alarms for slow-evolving parameters. Related equipment: PCU-100, STATE™-100 / 200 (sold separately).
ZOOM SFA	Adds the possibility to display, analyze, and trigger alarms on inter-turn short-circuits for turbo electric generators. Related equipment: SFA-200™ (sold separately).

Optional Communication Services

The ZOOM software applications may also be complemented by services that act as gateways and allow the ZOOM software to connect with external control systems. These communication services operate continuously in the background.

ZOOM Modbus	A bidirectional communication gateway that collects data from the plant's control system while making ZOOM "trending" data available. Communication protocol: Modbus® RTU or TCP. Related equipment: STATE-300 (optional, sold separately).
ZOOM OPC	A bidirectional communication gateway that collects data and event messages from the plant's OPC server while making ZOOM "trending" data and alarms available through VibroSystM OPC Server. Communication protocol: OPC® DA 2.05a and OPC AE 1.10 over Ethernet.

System Overview



❶ *Trends are shared between the server and ZPU-5000 through the Modbus and OPC communication protocols.*

❷ *Various equipment are available for covering specific functions. Currently available equipment are: ZPU-5000, SFA-200, HAVSM for TWS sensors, and STATE-100, STATE-200, and STATE-300.*

Hardware Requirements

For a Server

Operating System	Recommended Database Engine	Recommended Hardware
Windows Server 2008 R2	• Microsoft SQL Server 2008 standard and R2	• Server type computer • 2 GHz or faster, 64-bit, multi-core processor • Minimum 4 GB of system memory • Dual Ethernet network card for LAN/WAN settings • SVGA at 1280x1024, 32-bit color • 4 GB of free space on installation drive • Minimum 250 GB of free disk space for databases • 3 available USB ports
Windows Server 2012	• Microsoft SQL Server 2008 standard and R2 • Microsoft SQL Server 2012 standard • Microsoft SQL Server 2014 standard	
Windows Server 2016	• Microsoft SQL Server 2014 standard • Microsoft SQL Server 2016 standard • Microsoft SQL Server 2017 standard	
Windows Server 2019	• Microsoft SQL Server 2014 standard • Microsoft SQL Server 2016 standard • Microsoft SQL Server 2017 standard • Microsoft SQL Server 2019 standard	
Windows Server 2022	• Microsoft SQL Server 2019 standard • Microsoft SQL Server 2022 standard	

For a Workstation

Operating System	Recommended Hardware
• Windows 7 • Windows 8 • Windows 10 • Windows 11	• 1 GHz or faster, multi-core processor • Minimum 2 GB of system memory • Ethernet network card • SVGA at 1280x1024, 32-bit color • Minimum 2 GB of free disk space on the installation drive

Network requirements

While DHCP-managed networks are supported, we recommend using fixed IP addresses within private IP ranges, ideally from 172.16.0.0 to 172.31.255.255. An alternative is to use addresses from 10.1.1.1 to 10.255.255.255, but note that 10.0.xxx.xxx should be avoided due to potential minor conflicts.

Using link-local addressing (169.254.xxx.xxx) is not recommended.

Available Languages

User interface is available in three languages: English, French, and Spanish.

The online help may display the text for newer features in English only.

Product Identification

Product Number	Description
VSM-Z74- ①①..②	ZOOM 7.4 Software Suite by ftp (92SP-ZMPE1-74)

① Optional acquisition and communication service module(s) included:

- F = ZOOM SFA
- L = ZOOM Look
- M = ZOOM Modbus
- O = ZOOM OPC
- T = ZOOM ThermaWatch Stator
- Z = ZOOM ZPU5000

② Number of user license(s) included

Examples:

VSM-Z74-ZFT2: ZOOM 7.4 Software Suite by ftp, includes ZOOM 7.4 software applications (ZOOM Application, ZOOM Configuration, ZOOM Server, ZOOM Server Status, and ZOOM Update), ZOOM ZPU5000, ZOOM SFA, ZOOM ThermaWatch Stator, and 2 User Licenses.

VSM-Z74-ZM5: ZOOM 7.4 Software Suite by ftp, includes ZOOM 7.4 software applications (ZOOM Application, ZOOM Configuration, ZOOM Server, ZOOM Server Status, and ZOOM Update), ZOOM ZPU5000, ZOOM Modbus, and 5 User Licenses.

The purchase of a ZOOM 7.4 Software Suite package provides a unique Product key with a set number of User Licenses attached. One (1) User License allows installation of all the ZOOM software applications (ZOOM Application, ZOOM Configuration, ZOOM Server, ZOOM Server Status, and ZOOM Update) on the server which is hosting the database.

The number of users that are allowed simultaneous access to the database through ZOOM Application is determined by the number of additional User Licenses ordered. For example, four (4) User Licenses will allow simultaneous access to the database by four different users, the first user working on the server, and the three additional users working on remote workstations.

If several users are distributed over more than one server, an additional Product key with the appropriate number of User Licenses is required for each additional server.