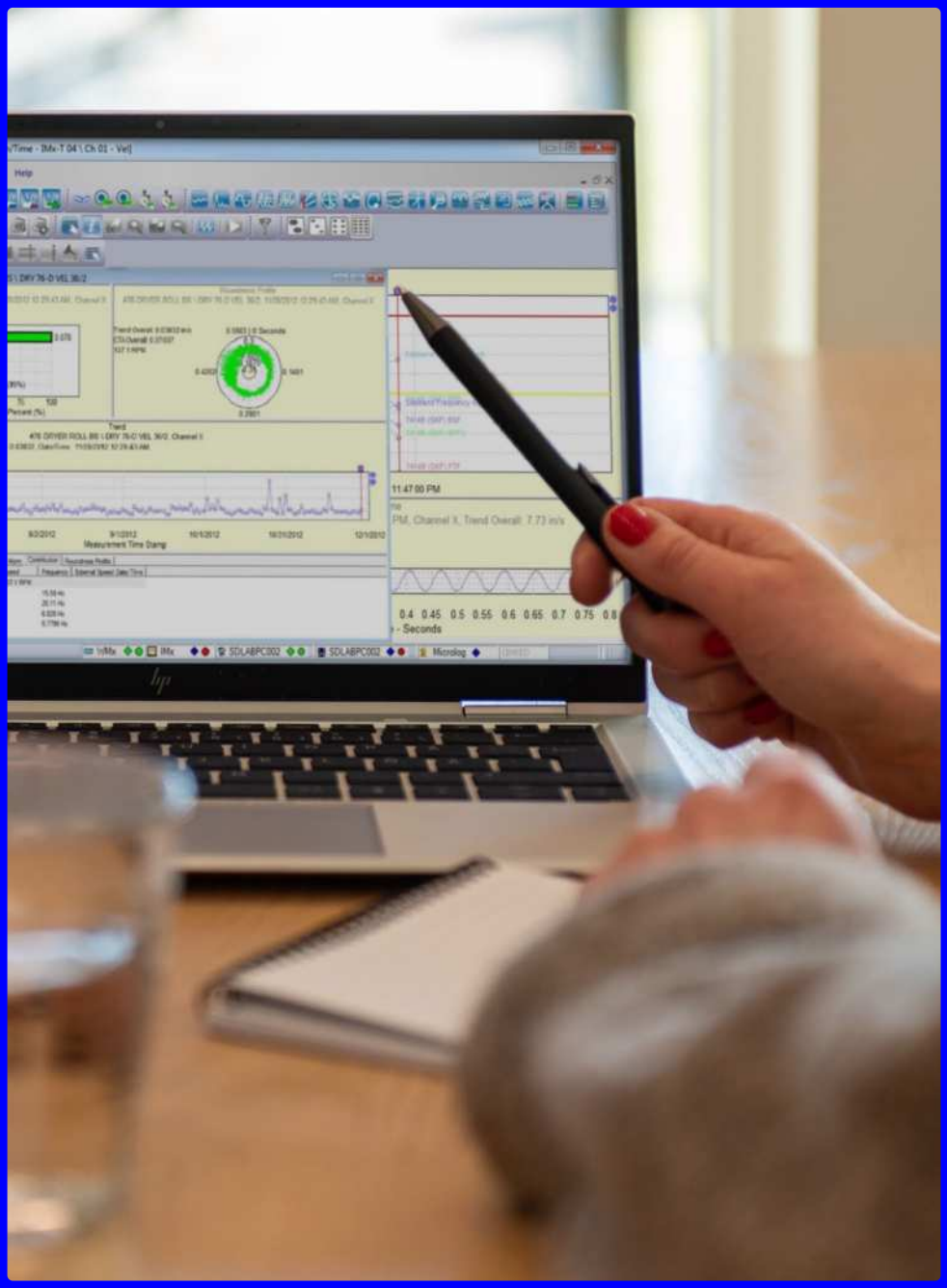
SKF

SKF @PTITUDE ANALYST

Intelligent and scalable software for enterprise-wide communications



Overview

SKF @ptitude Analyst is a comprehensive condition monitoring software solution for industrial assets. It manages vibration and process data and offers powerful diagnostic and analytical capabilities. SKF @ptitude Analyst provides fast, efficient and reliable storage, analysis, and retrieval of complex asset information and makes the information accessible throughout your organization. SKF @ptitude Analyst easily scales to your specific needs, whether it is condition monitoring data collection or in-depth vibration analysis and expert advice.

SKF @ptitude Analyst offers these benefits:

- One software program to manage asset condition data from portable and online devices
- Easy for novice or experienced users to learn and use
- Interconnectivity with multiple enterprise-wide software programs and systems
- Scalable and flexible to meet your unique needs

SKF @ptitude Analyst allows your operations, maintenance and reliability staff to view data from different sources using the same application to communicate information to other departments in a customizable format. SKF @ptitude Analyst integrates the SKF Microlog Analyzer dBX and SKF Multilog IMx-8 and IMx-16 data collection device ranges into one enterprise-wide software platform.

SKF @ptitude Analyst can also incorporate data from other sources, such as OPC servers. In this way, SKF @ptitude Analyst's integrated platform forms the hub to share information, foster teamwork, and facilitate consistent and reliable decision-making across functional departments. SKF @ptitude Analyst software is available on premises and on the cloud.

On-Premises

- The software product and database are installed locally at the location.
- For customers that have the capabilities and need to manage the software customer's installation, upgrades, and database maintenance.
- Data is stored locally at the customer and can be more easily shared across the internal network.

On Cloud

- The software product and database are located on a system connected to the internet (cloud). For SKF, this is Amazon Web Services.
- For customers who either do not have the capabilities or choose to have SKF manage their software installations, upgrades, and database maintenance.
- Customer data is available for local access but must be pulled from the cloud server for on-premise use.

Organization

Detailed information – efficiently organized

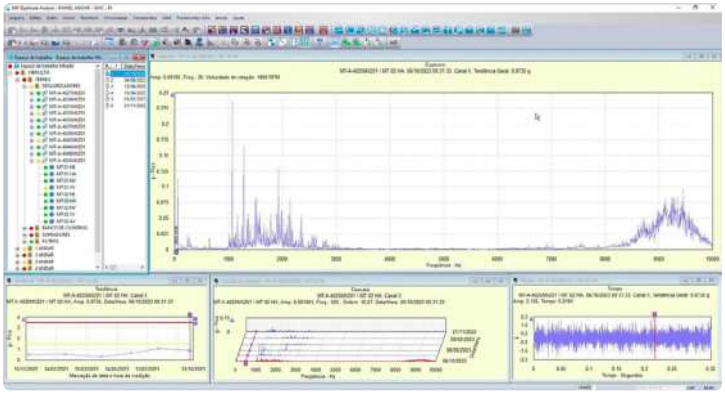
Screen displays such as data plot layout, color, size and position can be personalized and automatically updated. A customizable toolbar provides quick access to your most frequently used program features.

Asset data customized for your unique needs

With these powerful analysis tools, you are in complete control – from the way you set up hierarchy, filtered workspaces, routes, and analysis parameters, to the customized format for reporting. You can collect information based on location, machine type, frequency, or other selections. SKF @ptitude Analyst allows you to determine the appropriate limits for alarm conditions and how alarms are categorized to ensure you receive consistent, reliable data in the format that suits you best.

Automatically schedule reports to save time

The Scheduler Wizard enables you to automatically schedule a specific action, such as generating a report upon completion of a data collection upload, archiving measurement data at a specified time or other event-based actions. This capability helps to eliminate human error and allows you to focus on other pressing issues. Using SKF @ptitude Analyst throughout your organization allows collaboration and communication without losing control of your data.



Connectivity

Staying connected is easy with SKF @ptitude Analyst

Today's data collector systems must support a great variety of data connection methods. SKF @ptitude Analyst supports data collector connections via USB. For remote users in a Wide Area Network or users with low bandwidth connection, the Thin Client Transfer application may be used to provide a remote but direct access to the database. In addition, this supporting application also permits completely disconnected data collectors to transfer route and vibration data using an email file attachment. On-line systems with Ethernet connections are supported and can be routed through gateways and firewalls. Services dedicated to each monitoring device or monitoring chain ensure data collection with a high throughput and thus quick live updates. Stay informed 24/7 of your condition monitoring program progress and machine condition changes by using SKF @ptitude Analyst's email and SMS support.

SKF @ptitude Analyst also supports OPC, or OLE for Process Control. With the OPC client interface for SKF @ptitude Analyst, common machinery information, such as load, speed, energy usage, and other important process data, can be obtained and stored in the database for side-by-side analysis. Export of Hierarchy nodes in CSV (comma-separated value) file format is also supported in SKF @ptitude Analyst. The CSV output includes full Hierarchy information, POINT setup settings, overall and dynamic values and inspection messages. XML (Extensible Markup Language), is an open data format supported by SKF @ptitude Analyst. Using this format, a flexible data stream can be set up for automatic import or exports of selected data types. XML data can be imported in Excel or other software with little programming, hence making SKF @ptitude Analyst a truly open system.

Diagnosis and analysis

Robust and easy to use analytical and diagnostic capabilities

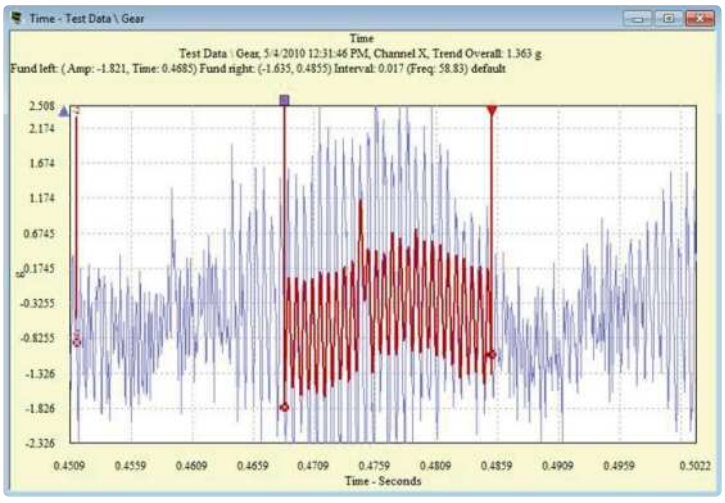
SKF @ptitude Analyst continues to deliver class leading functionality by incorporating innovations such as derived functions, CTA (Cyclic Time Average) overlay, and HAL (Harmonic Activity Locator) analysis to its users (CTA and HAL are SKF patented algorithms). SKF @ptitude Analyst supports many standard graphs and combination graphs that quickly visualize problem areas. Graph overlays provide cursor functions to obtain special information such as frequency band details, average and standard deviation values, skew or kurtosis.

Frequency analysis overlays can be used for spectrum graphs to quickly identify common bearing or other fault source frequencies. Implementation of HAL provides harmonic series recognition whereby impact failures are recognized and prioritized by likelihood. In some cases, the actual stream of information is not directly acquired but rather must be computed based on a combination of acquired values. Therefore, SKF @ptitude Analyst supports Derived Points, which act like virtual data collection points computed by a user programmable macro that operates on any other data stream.

For example, you may calculate potential savings from air leaks in a compressed air system by implementing a derived calculation that multiplies the severity of a measurable air leak in a pipe by the cost to generate each unit.

Automated features simplify configuring and fine-tuning alarms

Since similar machines often use similar alarms, the Alarm Database provides user-defined alarms that can be applied to create alarm settings for multiple measurement points. An Alarm Wizard assists in creating Statistical Alarms to set alarms for your most important machinery with minimal research and effort. SKF @ptitude Analyst considers historical data and natural variation in machinery vibration levels and generates reliable alarm criteria tailored to the specific machine. SKF @ptitude Analyst's variable speed alarming features accommodate normal fluctuations in machine speed and function. Alarm limits are automatically reset as speed changes, preventing false alarms. SKF @ptitude Analyst also supports overdue alarms that notify you if monitoring data was not collected as expected.



The CTA overlay enhances time waveform analysis when diagnosing broken near teeth.

Enhanced alarm view saves valuable time

Alarm View window displays all points that require immediate attention to help you quickly identify and prioritize follow-up activities and acknowledge alarm conditions. The Alarm Details window offers a comprehensive list of the specific points in alarm and the level and type of alarm, all in one convenient view. Auto Linking makes it easy to view individual alarms as data plots and alarm details change automatically when you select new points, saving time and simplifying the analysis process.

Versatile viewing options for multi-parameter analysis

For fast, easy comparison of two or more readings across multiple points, SKF @ptitude Analyst allows you to select a measurement and drag and drop it into the plot, providing convenience and saving time. The SKF @ptitude Analyst frequency analysis feature helps to identify specific bearing and gearbox frequency sets for rapid detection and correction of probable bearing and machine problems.

SKF @ptitude Analyst's on-line data view automatically refreshes to display the latest information, point status and alarm details. Live views provide immediate update of displayed data while the Event Log documents specific occurrences over time. The System Information view provides one-stop navigation between different views, such as Event Log, On-line Data view, individual routes and workspaces. SKF @ptitude Analyst's database management tools allow you to closely track machine problems to recreate events for predictive maintenance and to perform root cause failure analysis.

Scalability through application add-ons

Feature and deployment scalability

SKF @ptitude Analyst software is configured using license keys. These keys automatically activate or add new functionality to the base application, hence the name “add-on”. The SKF @ptitude Analyst software can be deployed as a standalone application on a single workstation or as a fully networked, distributed application whereby data storage and business logic are kept on separate application servers to help ensure high throughput and availability.

SKF @ptitude Analyst software fully supports virtualization environments. These environments allow SKF @ptitude Analyst to be installed and published onto an enterprise system from a centralized location. Data connections can be made through the virtualization environment or through Thin Client Transfer, which provides fast and secure network connectivity.

Improved performance

The 2025 Edition of SKF @ptitude Analyst Thin Client Transfer software is significantly faster while providing much more feedback for the operators. These improvements and enhancements include; faster upload speed, new user notifications, status updates and progress animations. This increased efficiency puts more time back into the hands of the user, while providing the most important information about the progress of the transaction; gives your team in the field the peace of mind that their important data has been processed and successfully transferred to the SKF @ptitude Analyst software.

Transient analysis (Run up Coast down)

The Transient Manager is a standard add-on to the SKF @ptitude Analyst that allows you to manage and display all transient hierarchy views. Depending on transient view properties, the transient event may be automatically captured at defined speed changes and other parameters to provide accurate analysis, such as a turbine coast down event. Transient events may be displayed in live or trend (historical) mode using the following graphs:

- The Topology graph illustrates a series of spectra (similar to Campbell plots) using a user-defined color scheme to easily visualize amplitude peaks. This graph also features vector compensation.
- The Bode graph with Damping Cursor is a dual plot consisting of phase and amplitude as a function of rotational speed. The damping cursor enables you to identify resonance information at critical speed when performing transient event analysis.
- The Nyquist graph plots the shaft’s movement during a transient event and is similar to a Bode graph but using polar notation. This graph also features vector compensation and optional rotational speed labels.
- The Cascade graph plots data over running speed and features data filtering options for optimal event presentation.

Access and security

Advanced security system protects data

SKF @ptitude Analyst enables security through the use of security roles. A security role is comprised of many individual security levels that control access rights to data, viewing, reporting, graphing, and more. Assigning users a security role instantly defines the access rights for that user. Changing the security role definition updates the access rights for all assigned users; this is a time-savings feature when managing several users. SKF @ptitude Analyst comes with four default roles, however an unlimited number of roles can be defined.

Active directory and single sign-on

Active directory and single sign-on: Leverage your existing Active Directory credentials to verify access - no extra passwords needed. @ptitude Analyst v9 MR4 onwards, whether you are working locally or in the cloud, our Single Sign-On (SSO) support will streamline your login experience, enhance security, and boost productivity by reducing login time and eliminating password fatigue.

Note: To unlock these benefits, SSO and Active Directory integration must first be enabled and configured by your IT/Cloud administrators. Once set up, users can enjoy effortless, secure access across platforms.

Setup data change log

Measurement setup greatly defines how effectively the entire system monitors your assets. For audit purposes, SKF @ptitude Analyst provides a log of changes made to the most important measurement setup details, logging date, responsible person and change detail.

Customized reports

Extensive report customization features let you control the specific kinds of machine information to be communicated throughout the organization. You can customize the templates or design an entirely new report including data plots, supplemental information and digital images. Additionally, the Report Manager allows you to maintain a history of reports and pre-configure report content and format to share with selected users.

Features and capabilities

Device support

- SKF Microlog Analyzer dBX
- SKF Multilog IMx-8 and IMx-8 Plus
- SKF Multilog IMx-16, IMx-16 Plus

Human Machine Interface (MHI)

- Integrated HMI

Diagnostics

- Spectrum
- Time waveform
- Analysis and Reporting Manager
- Transient analysis

Alarm types

- Overall forecast
- Overall percent change
- Unlimited spectral band (overall and peak)
- Spectral envelope
- Phase angle
- Overall
- Variable speed alarms
- BOV alarming
- Statistical alarm calculation wizard with outlier removal
- Statistical band alarm calculation wizard with outlier removal
- Harmonic Activity Locator (HAL) alarm

Graph displays

- Trend
- Spectrum
- Time domain
- Waterfall
- Cascade
- Topology
- Orbit
- Shaft centerline
- Bode
- Nyquist
- HAL trend
- Combination graphs:
- Live views / live bars (SKF Multilog)
- Multiple hierarchy support
- Transient analysis graphs

Display tools

- Baseline spectrum storage
- Waterfall spacing (time / date) based or event
- On-screen integration / differentiation
- Graph linking

Storage, file formats and networking

- Microsoft SQL Server support
- Binary importing and exporting (.MAB)
- CSV (Excel) exporting
- XML importing and exporting
- Support for LAN and WAN
- Support for Thin Client (Terminal) environments
- Operates with Citrix, Terminal Server, and Microsoft Windows 2016 application server
- Unlimited number of hierarchies, collection points, measurements and workspaces

General

- Email and SMS support
- Multiple languages available
- True multi-processing operating environment allowing simultaneous background and foreground processing. Consistent with Microsoft Windows functions
- Allows for complete integration of third-party applications
- User preferences to allow customization
- Complete user and installation manuals included in the installation package
- Product Support Plans (PSP) available
- Optional interfaces available: OPC Client
- Measurement archiving

Measurement types

- Acceleration, Velocity, Displacement
- Amps, Volts (AC or DC)
- Acceleration Enveloping (gE)
- Temperature
- Flow (GPM, LPM)
- High Frequency Detection (HFD, DHFD)
- Operating hours
- Operating time (Elapsed and accumulative) (SKF Multilog)
- Pressure (PSI and Bar)
- Machine speed
- Bias output voltage (BOV) (IMx)
- Logic (IMx)

Measurement attributes

- Control POINTs
- Support for Multi-Point Automation (MPA)
- Triaxial sensor support
- Multi-channel support
- Alternative time zone support for on-line devices located across a wide area
- Display and storage of non-collection events

Reporting

- Customizable report content
- Report templates for quick and easy configuration
- Preserved reports
- Shared reports
- Emailing of reports with PDF attachment
- Send reports to screen, HTML file, printer
- HTML file can be posted to internet, intranet, emailed
- HTML files can be opened and modified further using Microsoft Office products, such as Word, Excel, PowerPoint
- Data plots, supplemental information, and digital images can be included in reports
- Alarm acknowledgment comments / notes

Hardware requirements

Configuration	Minimum requirements	Recommended requirements
Stand alone configuration • Running SKF @ptitude Analyst • Running Microsoft SQL Server database management system • Storing data: USB port for SKF Microlog / SKF Microlog Inspector transfer and serial port for SKF Multilog IMx configuration.		
Operating system [1]	Windows 10	Windows 10 or 11
Processor [2]	Intel 2.0 GHz, 64-bit or better	Intel Quad-core processor 64-bit
RAM	16 GB	32 GB or more
Disk space available for standalone computer [3]	60 GB (SSD)	500 GB or more (SSD)
Database support – Microsoft SQL Server [5]	SQL Server 2014 SP1	SQL Server 2014 SP1/2016/2019/2022 (SQL Server recommends NTFS file format)
Network configuration – Database server • Running Microsoft SQL Server database management system • Storing data: Network configuration for up to 35 Clients and one database. Installations of 50 Clients or greater will require an on-site assessment by our Field Service Engineers.		
Operating system	Windows Server 2016	Windows Server 2016/2019/2022. SKF @ptitude Analyst V9 MR2 and newer versions have been compatibility tested with Windows Server 2016/2019/2022. To gain updated information on the compatibility of different SQL Server versions with these servers, please visit Microsoft forums like https://support.microsoft.com/en-us/help/2681562/using-sql-server-in-windows-8-and-later-versions-of-windows-operating
Processor [2]	Intel 2.0 GHz, 64-bit or better	Intel Quad-Core I7 Processor 64-bit
RAM	16 GB	32 GB or more
Quantity of hard drives [4]	3	5
Disk space available for standalone computer [3]	100 GB (SSD)	500 GB or more (SSD)
Database support – Microsoft SQL Server	SQL Server 2014 SP1	SQL Server 2014 SP1/2019/2022 (SQL Server recommends NTFS file format)
Network configuration – Network Client • Running SKF @ptitude Analyst • Running database client software Network configuration for up to 35 Clients and one database. Installations of 50 Clients or greater will require an on-site assessment by our Field Service Engineers. USB port for SKF Microlog transfer and serial port for SKF Multilog IMx configuration.		
Operating system [1]	Windows 10	Windows 10 or 11
Processor [2]	Intel 2.0 GHz, 64-bit or better	Intel Quad-core processor 64-bit
RAM	16 GB	32 GB or more
Disk space available for standalone computer	60 GB (SSD)	500 GB or more (SSD)
Database support – Microsoft SQL Server	SQL Server 2014 SP1	SQL Server 2014 SP1/2019/2022 (SQL Server recommends NTFS file format)
Network configuration – Application server • Running SKF @ptitude Analyst Network configuration for up to 35 Clients and one database. Installations of 50 Clients or greater will require an on-site assessment by our Field Service Engineers.		
Operating system [1]	Windows Server 2016	Windows 10 or 11 or Windows 2016/2019/2022. SKF @ptitude Analyst V9 MR2 and newer versions have been compatibility tested with Windows Server 2016/2019/2022.
Processor	Intel 2.0 GHz, 64-bit or better	Intel Core 2 Duo, 3.0 GHz, 64-bit, or better
RAM	32 GB	64 GB or more
Disk space available for standalone computer	60 GB (SSD)	500 GB or more (SSD)

1: Microsoft.NET Framework 4.0, Windows 4.5 Installer and Windows Mobile Device Center 6.1.
2: These requirements apply to SKF @ptitude Analyst complete with database management system. Other applications running simultaneously may degrade performance. Hyper-threading should be disabled in some systems.
3: These requirements ONLY apply to SKF @ptitude Analyst complete with database management system. Additional storage disk space is required for data.
4: There are multiple RAID setups to protect data and Microsoft recommends RAID 10 to allow for better data protection. Disk / file configuration should ONLY be handled by an SKF Field Service Technician certified on SKF @ptitude Analyst.
5: Running SKF Multilog On-line System devices to monitor transient events requires full database support. Express versions will not meet performance requirements for the system.

Notice: If running other system configurations, please contact your local SKF Representative to inquire about compatibility.

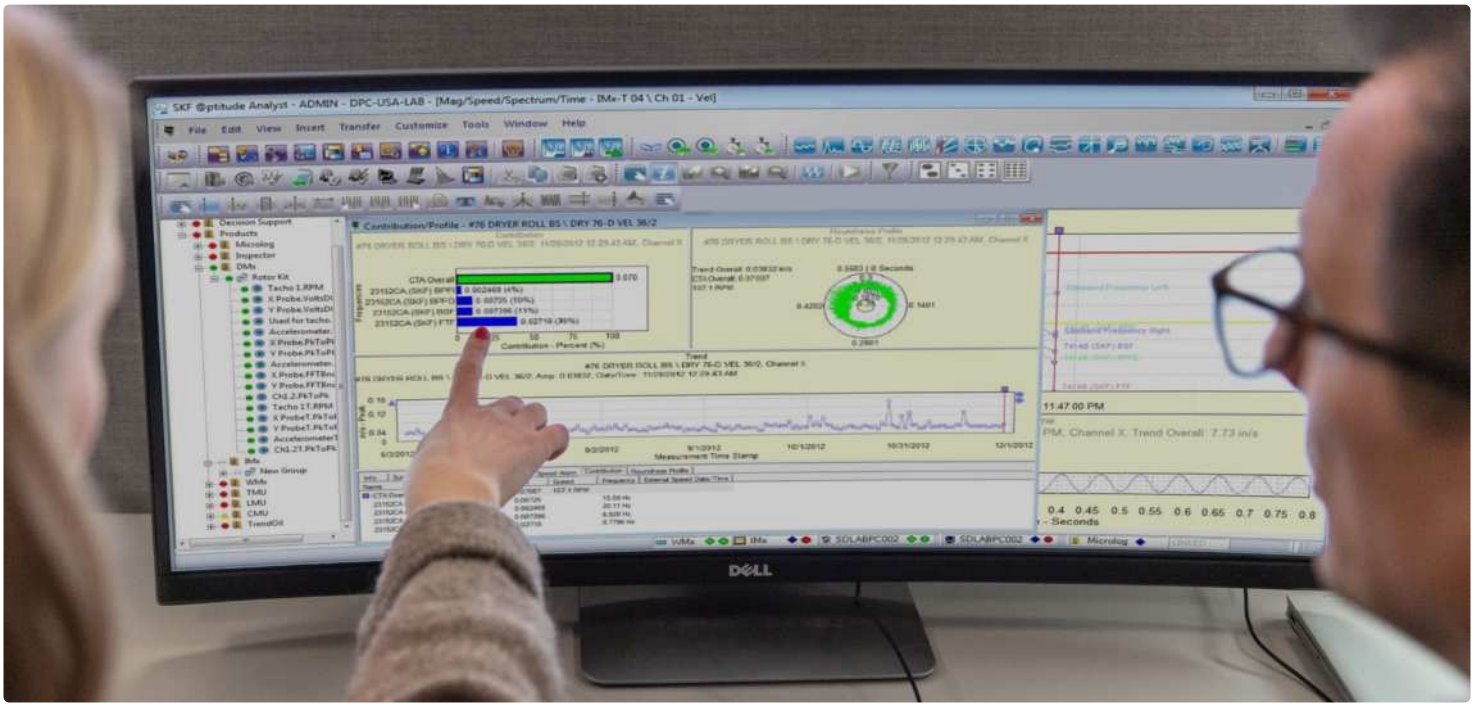
Ordering information

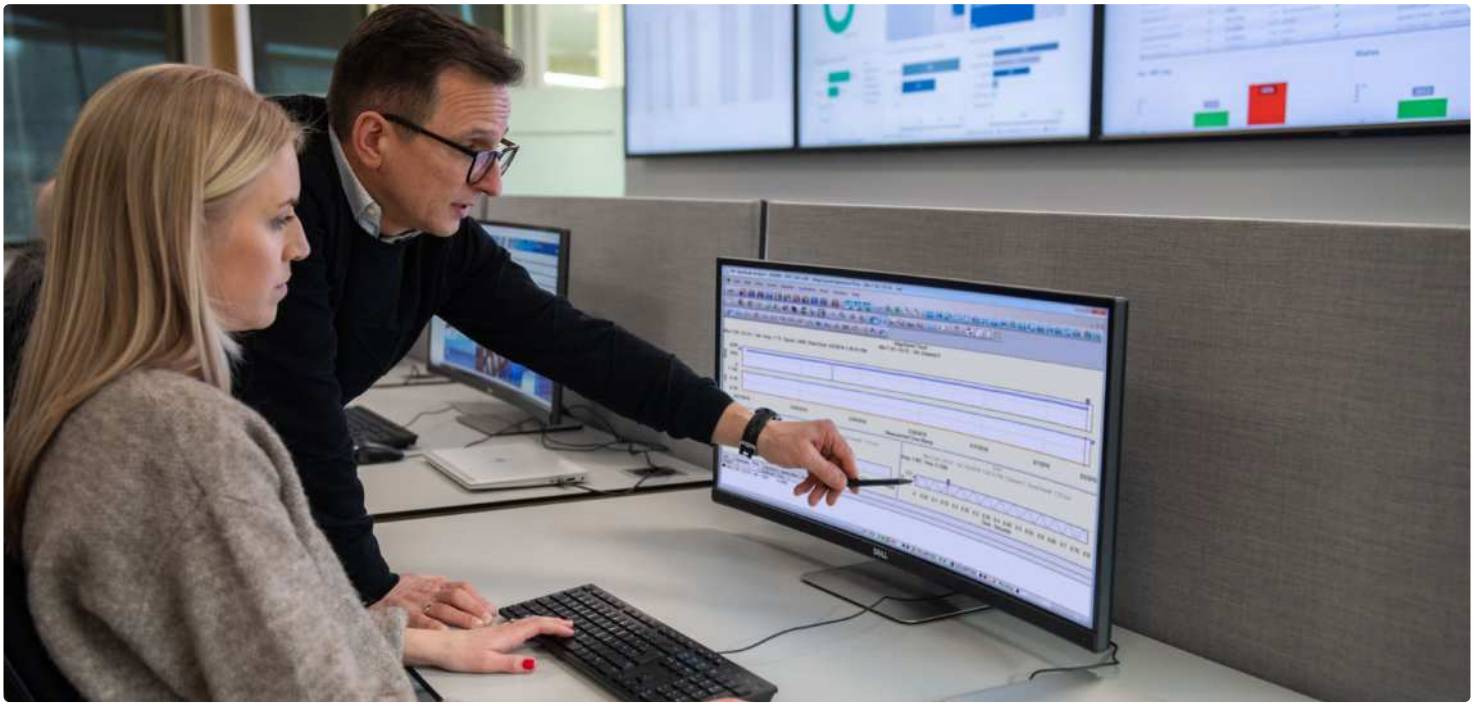
On-Premises or On-Cloud

Please contact your local SKF representative for ordering information and support for specific configurations, site licenses and upgrades.

Your local SKF representative can also provide information on Product Support Plans (PSP), installation and training services.

Alternatively, contact SKF Technical Support Group:
www.skf.com/cm/tsg





SKF Product Support Plans

SKF is committed to customer support excellence. The goal of an SKF Product Support Plan (PSP) is to help you increase and optimize your return on investment in SKF products. This includes extending the life of their product and facilitating the success of their program. This allows you to compete in your industry, save downtime and be on the cutting edge of technology.

SKF Product Support Plans give you full confidence that your equipment is maintained to the SKF quality standards. Condition monitoring products are an investment and there is no better way to protect your investment for years than with an SKF Product Support Plan.

Greater peace of mind

- Unlimited telephone technical support
- E-mail/web-based technical support
- Live chat technical support
- Software maintenance releases
- Software updates
- Remote Workstation access
- SKF Technical Support Self-Help Portal access
- Web-based e-Learning courses

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