

APPLICATION OF A PROVEN BREAKTHROUGH TECHNOLOGY TO PREDICTIVE MAINTENANCE



MCM / MCMSCADA

MCM

APPLICATION OF A PROVEN BREAKTHROUGH TECHNOLOGY TO PREDICTIVE MAINTENANCE



- Provide early warning of faults.
- Prevent unexpected breakdowns.
- Reduce repair works & costs.
- Continuously monitor motors & processes.
- Comprehensive fault coverage. □
(Both electrical & mechanical faults)
- Increase productivity of □
maintenance & production.

MCM STATE OF THE ART TECHNOLOGY

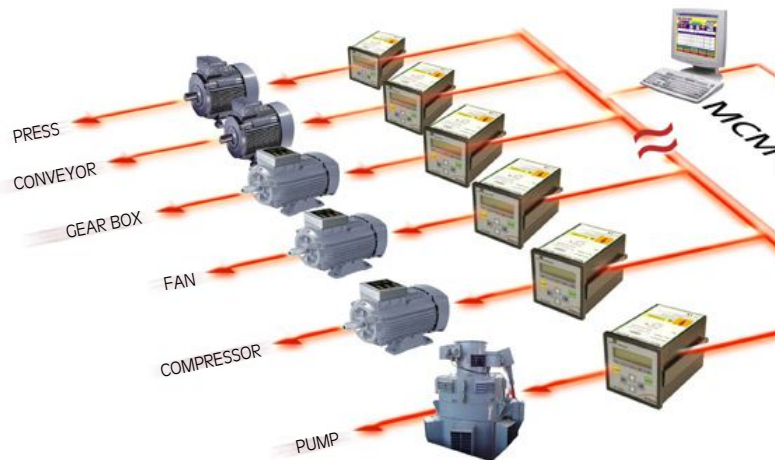
MCM, Artesis award winning* and patented product, gives early warning of developing faults in pumps, compressors, fans and similar electric motor based machinery, thus eliminating the need for unplanned repair and maintenance. Measuring only voltages and currents, MCM can detect conditions arising from faulty bearings, misalignment errors, load imbalance, isolation, and a variety of electrical and mechanical faults. Using the MCMSCADA software, MCM can be networked to a central host with the ability to provide real-time fault notification by e-mail.

The MCM technology is the culmination of a 17 year long research project first developed for the U.S. aerospace industries.

* 40 Best Products of 2000, Control Engineering Magazine, USA

UNIQUE COMBINATION OF FEATURES

- An ideal solution for inaccessible motors
- Continuous monitoring for maintenance scheduling
- Monitors both the motor and its driven system
- Energy quality measurements: □
Three phase RMS current and voltages, □
Three phase current and voltage balances, □
Power factor, □
Active power, □
Harmonic levels up to 13th harmonic and THD □
(Total Harmonic Distortion).
- Outputs are condition assessments rather than □
measurements.
- Can be used to assess the effectiveness of servicing.
- Easy to install (in the motor control panel).
- Detects both electrical and mechanical faults.
- Outputs are both repeatable and reliable.
- Events can be reported by e-mail using MCMSCADA.
- Devices can be networked.

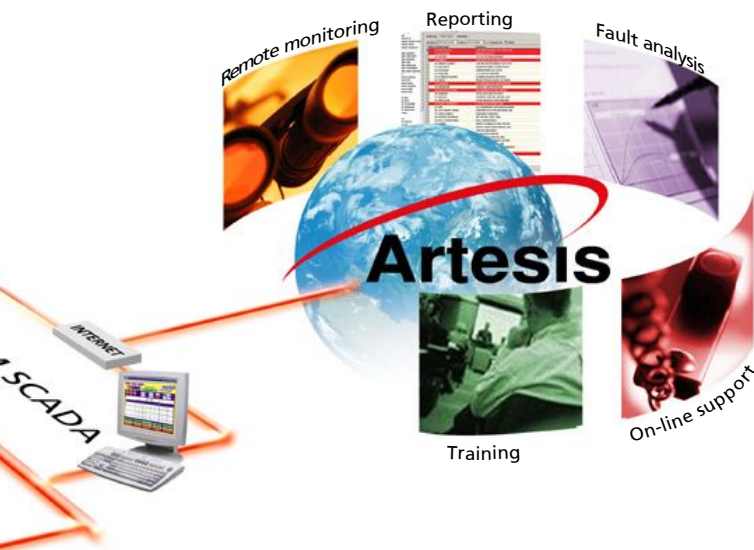


TECHNICAL SPECIFICATIONS

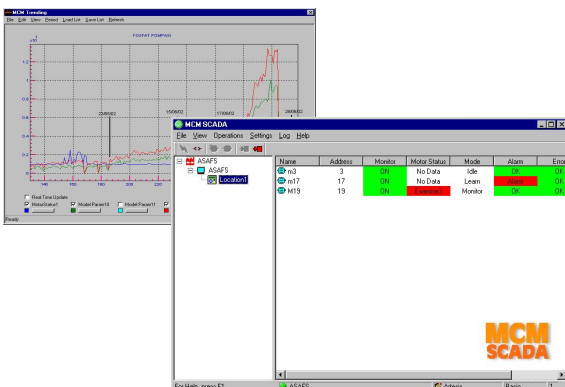
MCM PRODUCTS	
Dimensions:	96 mm x 96 mm x 130 mm (W x H x L)
Enclosure:	Aluminium, RAL 7032 surface protection
Operations:	Continuous
Ambient temperature:	0-40°C
Class:	IP 20
Applicable power range:	Low, medium and high voltage ranges
Interfaces:	RS 485 Serial I/O, Modbus, Artebus
Digital outputs:	1 assignable relay output, user programmable (1A, 30 VDC)
Update period:	60-120 sec.
Maximum input current:	5A
Maximum input voltage:	350 V
Applicable standards:	EN 61000, EN 60950
NATO stock number:	6625270131535
* MCM models are available for 3 phase squirrel cage and slipping motors	

NEXT GENERATION TECHNOLOGY

MCMSCADA™ is the software package for viewing and displaying data from one or more of Artesis award winning MCM™ units. With its graphical interface, MCMSCADA enables the user to obtain and display data in real-time from networked devices, to configure the performance of the devices and to save and subsequently retrieve data for display from its database, in a transparent and intuitive manner.



With MCMSCADA, many MCM devices can be monitored and controlled individually over a serial RS485 network using Modbus RTU protocol. The data obtained can be stored in a database and displayed to reveal both long and short-term trends.



MCM SCADA

CUTTING EDGE SOFTWARE

MCMSCADA harnesses the power afforded by modern networking techniques and allows remote access to the database so that the status of motors monitored by MCM can be viewed from within the local area network. Using MCMSCADA's database, the past history of each parameter from a monitored motor can be trended and used as a basis for maintenance scheduling and fault diagnosis. When developing motor faults occur they can be automatically reported by e-mail to selected users in real-time.

Artesis have gone to great lengths to ensure that MCMSCADA uses the most up to date technologies available anywhere.

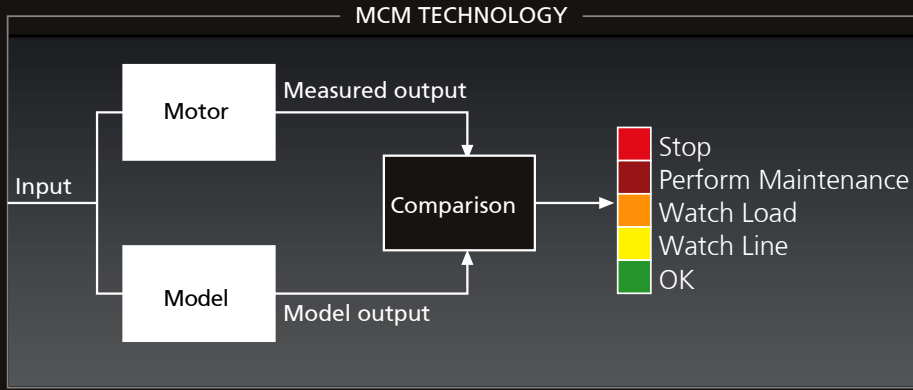
Built around the MS Windows NT™ operating system MCMSCADA utilizes the Distributed Common Object Model (DCOM) protocol for communications to networked or remote systems. Given the correct access permissions it is possible to log in to MCMSCADA from any remote PC and to get real-time updates from any location in the world. The database used is fully compliant to both SQL and ODBC standards and can be accessed easily to share information with other systems.

MCMSCADA features an intuitive display of the locations of all monitored motors based around the Windows Explorer™ model familiar to all who use Microsoft operating systems. Complete with on-line help and individual configuration capabilities, MCMSCADA offers in-depth power for maintenance scheduling with the familiar look and feel of modern advanced software applications.

When motors or the systems the motors drive begin to fail, it is vital to relay this information to the responsible individuals in the shortest possible time and in as effective manner as possible. MCMSCADA has several mechanisms for this function, ranging from audible and visible alarms on the host PC to html messages sent by email as the condition develops.

MCM PRODUCTS

- MCM LV Line : Low Voltage Linedriven Motors
- MCM LV Inverter : Low Voltage Inverterdriven Motors
- MCM MV & HV : Medium & High Voltage Motors



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