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Maximo® IT Service Management: Leveraging ITIL

Best Practices for True

Service-Delivery

Implementation

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Maximo® IT Service Management: Leveraging ITIL

Executive Summary

Until recently, internal IT departments have been relatively insulated from the corporate concerns of "staying ahead of the competition." Certainly, IT has always existed in support of competitive advantage; but that support has been largely tactical, given that IT has historically been viewed as a cost center, not a strategic business unit. Things have changed dramatically in the last several years however. According to Gartner, "…more and more businesses are moving out of a cost-centric view of IT's potential to a realization that IT can transform business processes."[1] This phenomenon is largely driven by increased competition in the marketplace, and the understanding that moving toward an IT-driven customer-centric business approach isn't a luxury—it's imperative. IT is increasingly expected to operate as a business unit, and with this expectation comes a slew of new challenges: improving performance, reducing operational costs, driving effective organizational change (via new processes and technology) to support IT's bid to succeed in this new role, and demonstrating the business impact of the department.

Yet, how does a legacy IT department transform itself into a business unit capable of delivering proactive, on-demand service management across the organization? How does it provide not only the technology, but the services, budgeting forecasts, and metrics required to support the business goals of the company? Failure can mean IT remains a non-strategic cost center and its leader—the CIO—has no voice in strategic business decisions, or as is the trend recently, IT is outsourced completely. It's a case of evolve or die, and the stakes are high for both the department and the organization it supports.

Fortunately, Information Technology Infrastructure Library (ITIL) has paved the way by providing a non-proprietary, concrete framework for implementing service management best practices appropriate with overall business objectives. Basing IT processes on ITIL guidelines enables organizations to effectively manage IT changes, assets, personnel, and service levels—going beyond simple IT asset management and service desk applications to deliver proactive IT business improvement. A well-implemented service can reduce the occurrence of IT failures, improve service levels and customer satisfaction, and reduce fixed and variable costs. This enables IT to develop credibility, improve performance, reduce costs and achieve business effectiveness and efficiency in the use of information systems.
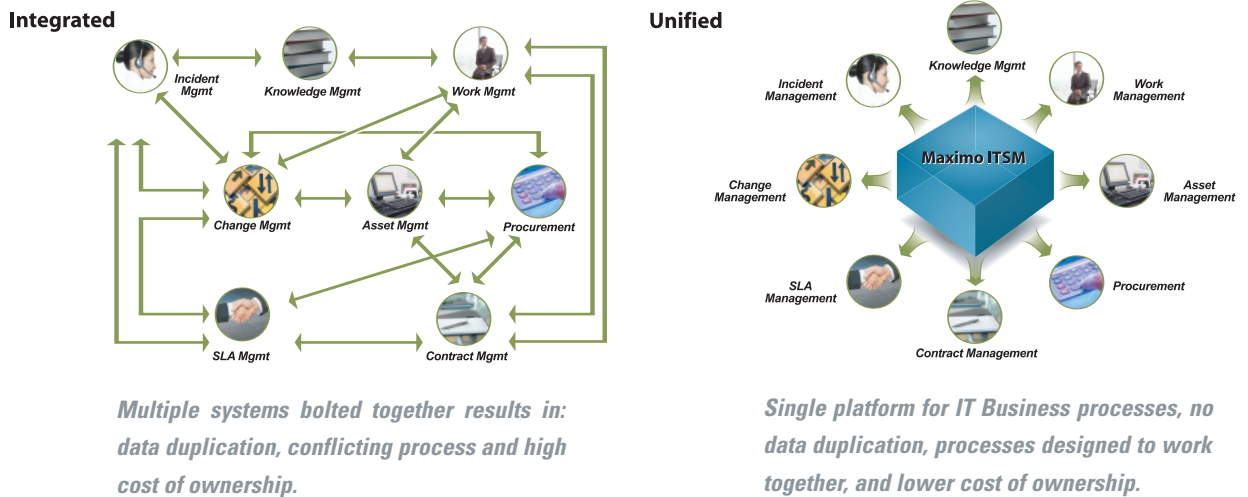
Moving toward a service-oriented IT model, while daunting, is far from impossible—especially given the best-in-breed service management software tools that are available and specifically designed to facilitate ITIL processes. However, most ITIL-related offerings fall short in two important areas: resource management and service costs. In the IT service management world, this is the MRO Software advantage. With built-in capabilities for detailed analysis of labor, materials, —asset and service provisioning costs related to ITIL process activities, IT managers have the information they need to support both a more effective service delivery process, and on-going service delivery investment decisions.

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[1] *Gartner Research Note IT Service Management 2005: Become and Remain the IT Provider of Choice, C. Young, 9 March 2005.*

Maximo ITSM: Comprehensive ITIL Solutions

MRO Software has supported industry-leading enterprise solutions at Global 1,000 companies for over 30 years. As market pioneers, we offer unique, unified solutions for supporting your organization's ITIL implementation, straight out of the box: the Maximo® ITSM suite.

Figure 1 — Integrated vs. Unified

Integrated

Unified

Incident Mgmt *Knowledge Mgmt* *Work Mgmt* *Change Mgmt* *Asset Mgmt* *Procurement* *SLA Mgmt* *Contract Mgmt*

Knowledge Mgmt *Incident Management* *Work Management* *Change Management* *Maximo ITSM* *Asset Management* *SLA Management* *Procurement* *Contract Management*

Multiple systems bolted together results in: data duplication, conflicting process and high cost of ownership.

Single platform for IT Business processes, no data duplication, processes designed to work together, and lower cost of ownership.

Unlike competitors' solutions which often consist of poorly integrated toolsets built on varying technologies, Maximo ITSM is built on one modern, unified platform to support all IT business processes—enabling different groups to seamlessly work together free of data conflicts or duplication.

Combining two key components—Maximo ITAM and Maximo Service Desk—Maximo ITSM is the only platform capable of providing the comprehensive view you need to optimize your IT processes, maximize your return on assets, reduce risks and costs and improve service levels. Furthermore, one of the keys to more efficient management of IT assets is knowing what you have and where it's located. That's why MRO Software offers Maximo Discovery for auto-discovery so you can efficiently build and maintain information on deployed IT assets. With Maximo ITSM, you gain the critical information and capabilities you need to make more prudent investment decisions regarding technology resources and capital.

Even better, Maximo ITSM can grow with you as you phase in the ITIL processes. You can implement it as a complete asset and service management solution—or you can choose to establish individual components according to a phased ITIL service delivery implementation. However you choose to use it, Maximo ITSM easily integrates with your unique business systems, allowing you to work the way you want to work.

Using Maximo ITSM to integrate the following seven ITIL processes into your IT environment bridges the sometimes enormous gap between your business and your technology—and guarantees a superior service delivery approach to meet your internal and external customers' needs, at a justifiable cost.

Service Support

Configuration Management – the process of identifying, recording and reporting on all IT components.

The key to a successful Configuration Management process is the ability to discover, identify, verify, and record all configuration items (CIs) in a central or federated configuration management database (CMDB) and therefore use this as a control point going forward. Configuration items comprise all components of the IT infrastructure that currently exist, or will exist in the future, in your IT environment—such as your PCs, servers and network devices; your software and software license agreements; and others. The CMDB contains the attributes and history of each configuration item as well as the relationships between and among them.

Organizations that actively engage in a Configuration Management process benefit from accurate IT asset information, peace of mind regarding software license compliance, understand the impact of changes, and a broad understanding of technology budgeting needs. MRO Software's Maximo ITSM offers best-in-class Configuration Management through Maximo ITAM. Comprising asset tracking, asset reconciliation, compliance management, contract management and procurement, Maximo ITAM enables organizations to:

Maximo ITSM has earned Pink Elephant's PinkVerify™ Enhanced Verification certification for ITIL-compatible software solutions— the highest level of PinkVerify certification available. While minimum certification levels require that only four ITIL processes be addressed, Maximo ITSM delivers best practices for all seven ITIL processes that Pink Elephant measures.

- Track all IT assets, locations and changes and understand the relationship of assets to services

- Record and manage all contracts for software licenses, leases, warranties and maintenance

- Create and enforce technology standards

- Provide a streamlined process for procurement and receiving of IT assets

- Reconcile deployed assets against authorized assets (those purchased and under contract)

- Support other key ITIL processes such as Incident Management, Problem Management, Change Management, Release Management and Service Level Management via a comprehensive, integrated asset database

All of your CIs are stored in a central database which is accessible to all Maximo ITSM products—allowing you to avoid the need for costly integrations. Maximo ITAM presents a logical, current picture of your organization's infrastructure and services through identifying, controlling, maintaining and verifying each version of your existing configuration items, as well as their relationships with each other and the customers they support—the end result being the improved function of all your service management processes.

Incident Management – the process of restoring normal service operation as quickly as possible in order to minimize the adverse impact on business operations.

In ITIL terms, an incident is any deviation from the expected standard operation of a system or service. Best-practice Incident Management involves immediate restoration of service utilizing standard processes of investigation, diagnosis, resolution and recovery.

Maximo Service Desk documents incidents from end users, service technicians and network systems management applications. Streamlining the process further, it leverages ticket types and classifications with powerful visual workflow escalation to and e-mail notifications to provide quick resolution ensuring customer expectations are met, and improved service desk efficiency. Consolidation of user communication across channels—including phone, email, Web and fax—ensures that all incidents are captured, and provides high-quality and consistent services. Maximo Service Desk classifies and stores all incidents, creating a searchable knowledgebase that vastly reduces staff response time to anomalies or outages if similar incidents reoccur.

Incidents can be linked with appropriate problems or changes, and are associated with their related CIs in the CMDB.

Problem Management – the process of minimizing the adverse impact of incidents and problems—caused by errors in the IT infrastructure—on the business, and to prevent recurrence of incidents related to these errors. A problem is a condition caused by one or more incidents, for which the cause is undetermined. True Problem Management pinpoints and removes the root cause of these incidents, and depends upon IT's ability to identify known errors—that is, problems for which the root cause is determined and can be attributed to a specific CI.

With Maximo Service Desk, IT can identify and classify the root cause of problems, enabling staff to quickly recognize and resolve known errors with minimal downtime. Built-in, real-time dashboards provide insight into all levels of service desk operations, so that any support staff, manager or executive can monitor role-based key performance indicators (KPIs) in an intuitive, graphical display. Dashboards provide actionable information and identify potential problem areas, enabling IT to take appropriate corrective actions before critical services are adversely affected.

Maximo Service Desk enables the creation of changes from any identified problems, and ties appropriate incidents to these problems.

Change Management – the process of ensuring that standardized methods and procedures are used for efficient and prompt handling of all changes—the goal being to minimize the risk of change-related incidents and improve day-to-day operations.

In ITIL terms, a change is any action that alters the form, fit or function of one or more of your configuration items. Most often, an authorized individual initiates a change via an approved Request for Change, or RFC, which details the proposed change and includes both a justification and authorization for the change. Change Management is vital to any IT organization wishing to provide the highest level of service delivery. A finely tuned process enables improved stability of the IT environment, provides a clear audit trail for compliance, and maximizes the efficiency of IT staff. In addition, a true Change Management process decreases Help Desk incidents generated by random, unapproved or unmapped changes.

Change Management is an essential process in your overall service delivery approach, for it arms IT with the ammunition to respond effectively to change, and to successfully support the organization's business goals. Change Management draws a roadmap for significant alterations to the IT infrastructure, thereby reducing operational risk and decreasing the time and effort of implementing the alterations.

Maximo ITSM offers comprehensive Change Management capabilities within the Change Manager module, available with both Maximo ITAM and Maximo Service Desk. Change Manager minimizes the overwhelming breadth of a Change Management process by parceling its components into smaller, more manageable pieces: Tasks, Labor, Materials, Services, and Tools.

Change Manager automates requests and approvals, leveraging powerful visual workflow and escalations, and provides proactive service for reduced outage. Thanks to the shared central database and unified design of Maximo ITSM, IT staff can invoke Change Management from Problem Management, thus proactively planning for changes as part of an overall IT Asset Management process. Changes are automatically updated, and notifications of scheduled changes make support staff aware of actions that may temporarily increase the number of incidents. Additionally, Maximo Change Manager can identify and classify RFCs, and its workflow utilizes predefined processes for review and approval according to ITIL guidelines.
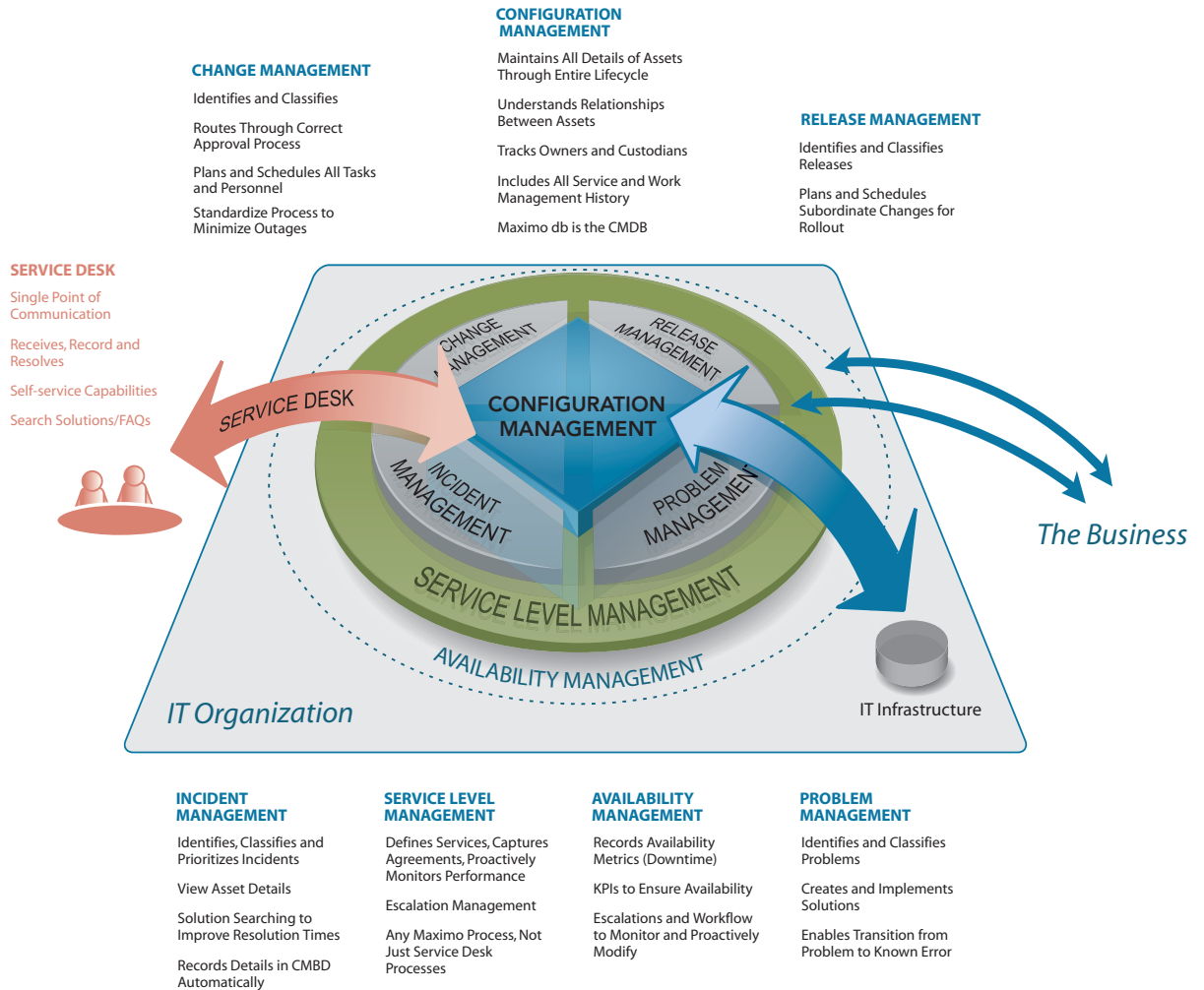
Release Management – the process of ensuring that all aspects of a release, both technical and non-technical, are considered together in order to optimally navigate the release, and bridge the gap between application development and operations.

An effective Release Management process depends upon IT's ability to ensure that only authorized and correct versions of software, hardware and other related assets (training materials and documentation, for example) are available for use. This requires two key elements: the Definitive Software Library (DSL), and the Definitive Hardware Store (DHS). The DSL is a physical location holding all original software in use throughout the organization, whether third-party or developed in house. Similarly, the DHS (which may comprise one or several locations) securely stores spare hardware which has been preconfigured to meet the operating standards within the live environment.

Maximo Change Manager includes Release Management capabilities, and simplifies the Release Management process by making available, anytime, all information about your approved software and hardware from within the CMDB. The CMDB serves as the "virtual" complement to your DSL and DHS, and is the basis from which all technology releases are defined and deployed.

Maximo Change Manager includes built-in capabilities to identify and classify releases, and to plan and schedule their rollout including the ability to define individual rollout tasks, identify the required personnel resources, materials, services and tools. And, since all releases are changes, Maximo Change Manager creates logical associations between the two processes which provides increased change efficiency and cost-savings via bundled (not individual) changes. Once releases are deployed, CIs are automatically updated in the CMDB.

Figure 2 — Maximo ITSM: Unified ITIL-based Service Management

CONFIGURATION MANAGEMENT

Maintains All Details of Assets Through Entire Lifecycle

Understands Relationships Between Assets

Tracks Owners and Custodians

Includes All Service and Work Management History

Maximo db is the CMDB

CHANGE MANAGEMENT

Identifies and Classifies

Routes Through Correct Approval Process

Plans and Schedules All Tasks and Personnel

Standardize Process to Minimize Outages

RELEASE MANAGEMENT

Identifies and Classifies Releases

Plans and Schedules Subordinate Changes for Rollout

SERVICE DESK

Single Point of Communication

Receives, Record and Resolves

Self-service Capabilities

Search Solutions/FAQs

CONFIGURATION MANAGEMENT

CHANGE MANAGEMENT

RELEASE MANAGEMENT

SERVICE DESK

INCIDENT MANAGEMENT

PROBLEM MANAGEMENT

SERVICE LEVEL MANAGEMENT

AVAILABILITY MANAGEMENT

The Business

IT Organization

IT Infrastructure

INCIDENT MANAGEMENT

Identifies, Classifies and Prioritizes Incidents

View Asset Details

Solution Searching to Improve Resolution Times

Records Details in CMBD Automatically

SERVICE LEVEL MANAGEMENT

Defines Services, Captures Agreements, Proactively Monitors Performance

Escalation Management

Any Maximo Process, Not Just Service Desk Processes

AVAILABILITY MANAGEMENT

Records Availability Metrics (Downtime)

KPIs to Ensure Availability

Escalations and Workflow to Monitor and Proactively Modify

PROBLEM MANAGEMENT

Identifies and Classifies Problems

Creates and Implements Solutions

Enables Transition from Problem to Known Error

Service Delivery

Service Level Management – the process of maintaining and improving IT service quality through a constant cycle of agreeing, monitoring and reporting to meet the customers' business objectives.

Successful Service Level Management depends upon the planning and implementation of service level agreements (SLAs), essentially contracts between IT and its customers which guarantee a service deliverable in quantitative terms. The building blocks of SLAs are operational level agreements which document all goals and metrics agreed upon by internal IT groups who are working toward a common goal; and underpinning service contracts which capture the metrics agreed upon by IT and any of its external vendors. Once defined and agreed upon, SLA metrics must be monitored and reported on to ensure compliance, and that service quality is cost-justified and gradually improved.

Maximo ITSM utilizes Maximo SLA Manager to manage service level operations. Maximo SLA Manager provides advanced processes for creating, managing and monitoring SLAs; enables increased

communication between IT and its internal customers; and aligns service levels with business strategies. For example, Service Catalog allows IT organizations to clearly define the services they will provide to the business. They can then link assets, locations, contracts, and SLAs to these services. Users can proactively monitor service levels via predefined key performance metrics, and escalation management ensures proper management of resources to consistently achieve service level commitments.

While SLAs are most closely associated with the service desk, Maximo SLA Manager ties SLAs to all other ITIL processes enabling tight management of configurations, changes, releases, problems and incidents. For example, it establishes target response and resolution dates in incidents, problems, changes and releases allowing for agile service support and reliable daily operations. Finally, Maximo ITSM allows for Reliability, Capacity, and Availability commitments to be established for all assets, locations and services, enabling users to be proactive in the delivery of critical business services.

Availability Management – the process of optimizing the capabilities of the IT infrastructure, services and supporting organization to deliver a cost effective and sustained level of availability, enabling the business to meet its objectives. "Availability" tends to be a catch-all term encompassing system reliability and resilience, maintainability, serviceability and security. Availability is defined and promised within individual SLAs, but Availability Management moves a step beyond Service Level Management in that it requires a thorough understanding of your IT infrastructure's capabilities to deliver, and a sound process improvement loop to optimize performance.

Both Maximo Service Desk and Maximo ITAM utilize KPIs to calculate the following availability metrics: total availability; total unavailability; mean time between failures (reliability); mean time to repair (maintainability); and vendor responsiveness (serviceability). Escalation and workflow capabilities monitor and proactively notify managers of availability shortfalls, and flag opportunities to improve. Specific availability metrics, such as downtime, can be analyzed using operational availability data provided by integrations to third party solutions.

The MRO Software Advantage: ITIL and Beyond

Most comparable software solutions offer tools and processes to jump-start your ITIL implementation but they fall short in two important areas: resource management and service costs. While a robust system to manage your IT assets and services is an excellent start on your journey toward a service delivery model, it's not enough. You must also understand the impact such a model has on your labor, materials, assets, and on-going service costs. An IT organization's ability to implement each of the seven critical processes, and how to best deploy resources, impact corporate service delivery effectiveness. Similarly, the on-going management of costs associated with service provisioning also influences corporate service delivery effectiveness. Only then will you have achieved true unification among the business processes in IT.

To this end, in addition to its embedded ITIL service delivery principles, Maximo ITSM includes core Work Management capabilities. Work Management allows organizations to granularly track costs associated with:

- ■ Resources (Labor, equipment)

- ■ Tools

- ■ Materials (spare parts, consumables)

- ■ Time

Native Maximo Work Management supports both reactive and proactive work activities and enables mature work management processes in the IT department. Managers can track costs and set priorities based on service levels; they can also match job tasks to available resources and resource requirements, estimate and obtain approval of costs, establish priorities and initiate actions across the enterprise:

- Tracking tools enable detailed analysis of resource usage and costs—enabling a decrease in both internal and external labor costs

- Graphical work assignment manager optimizes schedules and labor utilization—ensuring that the right person with the right skills is assigned to the right job

- Standard procedures functionality enables IT to streamline known processes and ensure quality of work

- Analysis tools and KPIs provide the knowledge required to make better decisions about resource and skills investments, according to the requirements expected to meet service levels

- Operating agreements improve organizational communication and ensure that service level commitments are appropriately supported by other internal or external providers

Conclusion

Gartner asserts that "IT now faces a substantially higher burden of proof in demonstrating its organizational viability and in justifying new IT investments than it did just three years ago."[2] In order to prove its value to the rest of the organization, and protect its position within it, IT must, therefore, strive to become a proactive, business-driven entity. Moving toward an ITIL-informed service delivery model enables this transformation in ways that guarantee IT's ability to function as a value-added business unit.

MRO Software's Maximo ITSM includes capabilities not found in any other product, and ensures a smooth implementation of ITIL best practices, directly out of the box. The most technically agile product of its kind, Maximo ITSM is a single product operating on a single platform offered by a single vendor. Its processes are designed to work together now and as your organization grows for the lowest cost of ownership.

[2] *Gartner Research Note IT Service Management 2005: Become and Remain the IT Provider of Choice, C. Young, 9 March 2005*

About MRO Software, Inc.

MRO Software is the leading provider of strategic asset and service management solutions. Maximo Enterprise Suite, the Company's flagship solution, is delivered on a web-architected platform and increases productivity, optimizes asset performance, and service levels, reduces costs and enables asset-related sourcing and procurement across the entire spectrum of strategic assets. The Company's asset management solutions allow customers to manage the complete life cycle of strategic assets including: planning, procurement, deployment, tracking, maintenance and retirement. Using MRO Software's solutions customers improve production reliability, labor efficiency, material optimization, software license compliance, lease management, warranty and service management across the asset base.

MRO Software (Nasdaq: MROI) is a global company based in Bedford, Mass., with approximately 900 employees, 10,000 customers and more than 260,000 end-users. The Company markets its products through a direct sales organization in combination with a network of international distributors. MRO Software has sales offices throughout North America, Europe, Asia/Pacific and Latin America. Additional information on MRO Software can be found at **www.mro.com**.

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