SYSTEM OVERVIEW

In this overview...

MP⁵

VERSION 5.4

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MP5 5.4 System Overview

INTRODUCTION

MP5 provides unparalleled Enterprise Asset Management (EAM) capability for cost-effective, asset intensive, safety critical, and results-oriented maintenance operations.

EAM systems ensure that physical assets

- are fit for purpose,
- perform safely and with respect for environmental integrity,
- deliver what the users want—when and where they want it, and
- have minimum operating constraints.

MP5 is a second generation, fully web-enabled client/server product that supports a variety of system architectures. Developed with the Oracle Developer/2000 tool set, MP5 makes full use of Oracle Forms 4.5, the Oracle database, object-oriented design, and stored procedures. This Oracle foundation guarantees database integrity and a robust, scalable, enterprise-wide application. MP5's system architecture enables efficient use of computer hardware by minimizing network traffic over LANs and WANs. The application is fully portable over a multitude of hardware platforms.

System Features

- **Ease of use.** MP5 has a well designed Microsoft Windows Graphical User Interface (GUI).
- **Multilingual capability.** MP5 provides complete multi-lingual capability for rapid native language implementation.
- **Integration.** MP5 is designed to work in concert with other technical and business systems, such as SAP, PeopleSoft, and Oracle Financials.
- **Maintenance functionality.** MP5's maintenance functionality helps maximize efficiency and minimize the costs of maintenance.
- **Asset management functionality.** MP5's asset performance functionality lets you track and measure the output and contributions from your maintenance operations.
- **Flexibility.** MP5 provides a wide range of tools to tailor the application to meet your specific needs.

BASE

MP5's Base module enables the system administrator to control user access to and configure MP5, tailoring it to the specific needs of the operation. The system administrator can define and maintain virtually all aspects of the system.
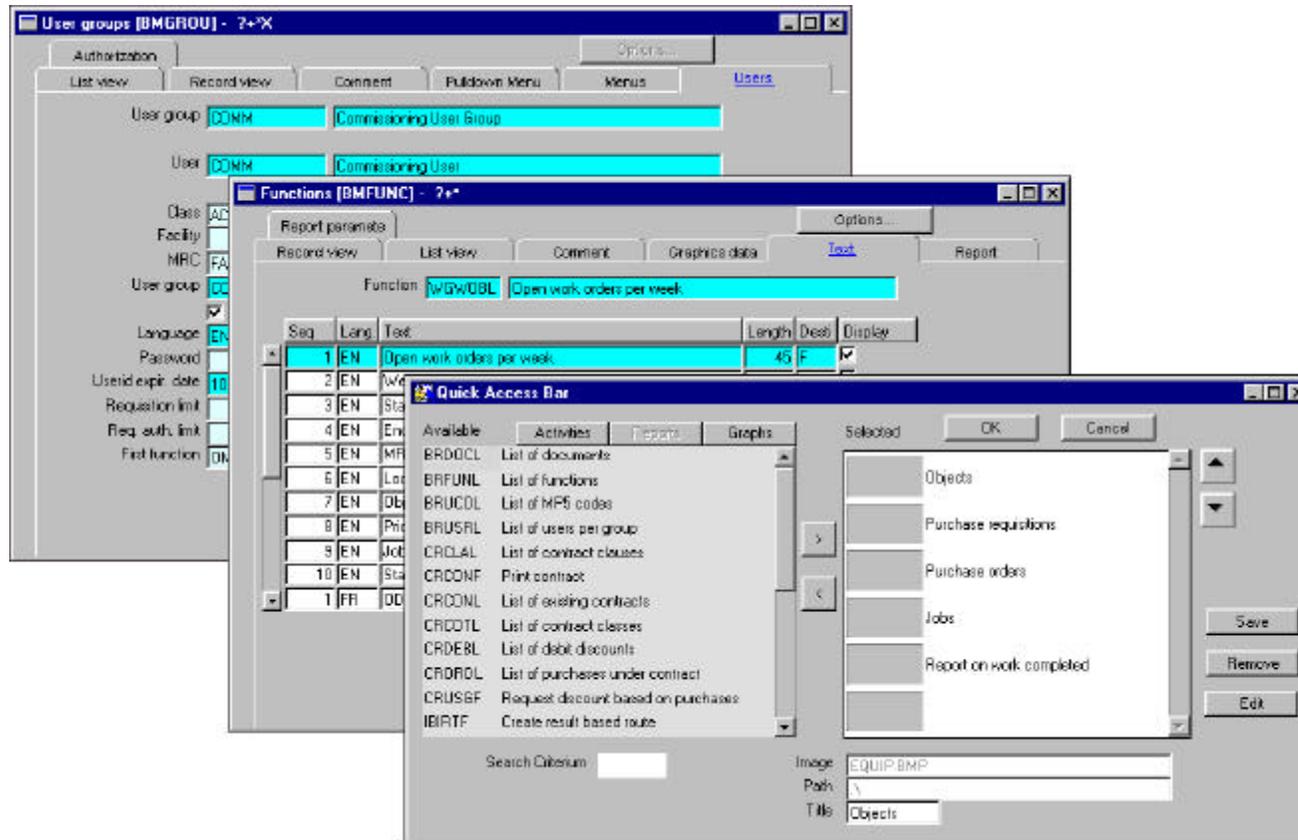
Features

- **Configurable defaults.** Define system-wide defaults for items such as currency and unit of measure.

- **Configurable function text, content, and layout.** Modify the content and format of function displays to meet the needs of individual user groups.

- **Configurable security.** Define user group-based system security, access, and navigation.

- **Configurable workflow procedures.** Set up MP5 functions in workflows that guide users through tasks in MP5.

- **Extensive reports capability.** Add to standard MP5 reports by defining new reports in MP5 or by launching reports in other reports applications (Oracle Reports, Microsoft Access, Crystal Reports) from the MP5 menu and populating them with MP5 data.

ASSET MANAGEMENT

The Assets module enables you to record and maintain information about locations, systems, functional positions, and physical assets in a standard, structured way. This information can be easily integrated with asset information in other applications.

The Assets module holds the identifiers, configuration, and hierarchy of objects, plus complete technical and commercial specifications. The Assets module also enables you to track the current location of each asset, where it has been used in the past, and its maintenance history.

The Assets module provides comprehensive analysis and cost history capabilities.
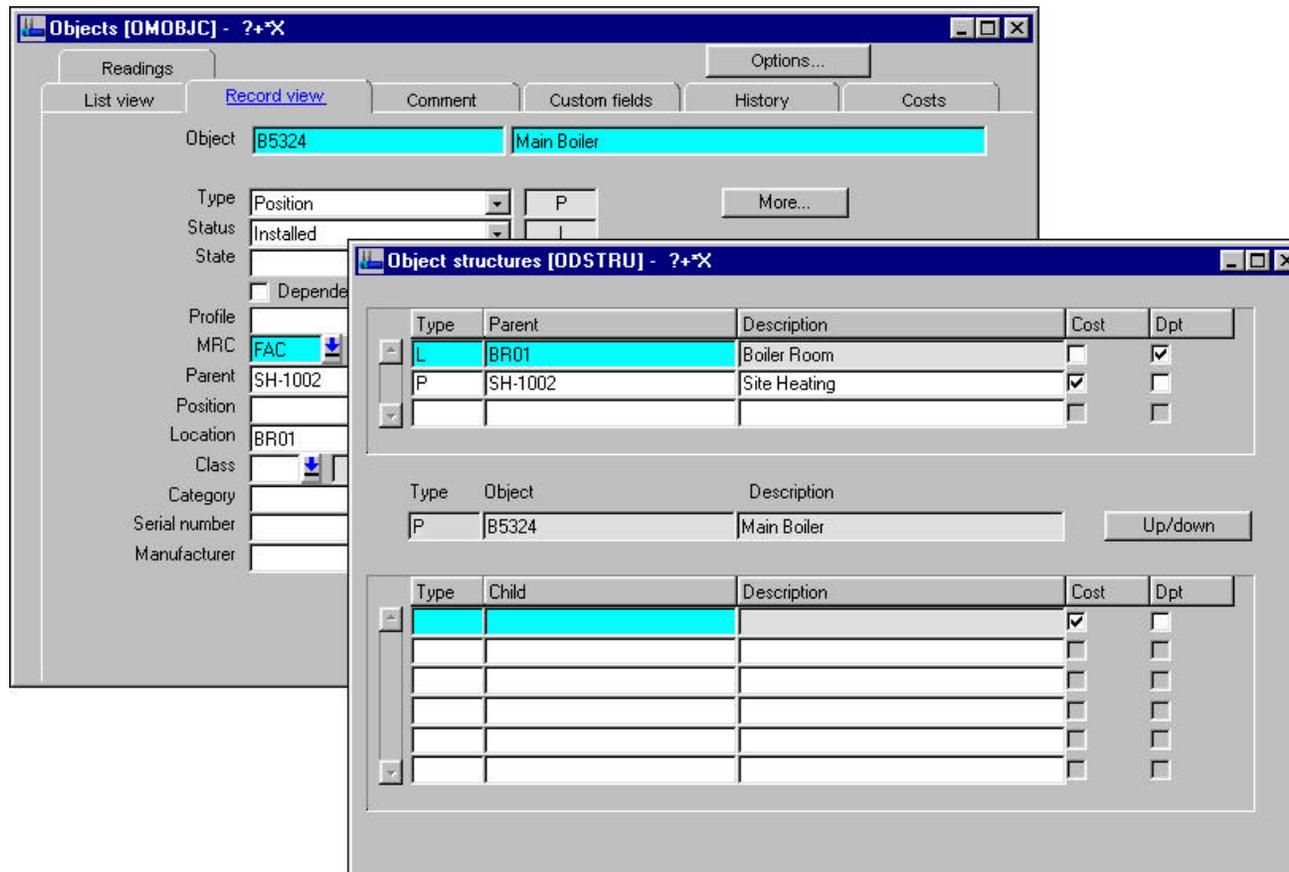
Features

- **Asset hierarchy.** Specify parent-child relationships among assets, functional positions, and tags, including cost roll-up.

- **Descriptive information.** Specify descriptions for each object code; include additional information in free-format Comments text fields.

- **Technical details.** Record technical details for objects, such as rating, voltage, and capacity, for objects.

- **Multimedia documents.** Associate documents, such as permits, CAD drawings, and OEM manuals, with objects.

- **Historical information.** Track and analyze objects' functional and maintenance histories.

- **Asset reports.** Analyze assets information in a variety of MP5 reports. Create new reports in MP5 or in other reports applications as necessary.

- **Warranty claims.** Record and process claims against warranties.

- **Change notices.** Record and process manufacturers' change notices.

- **Physical and logical meters.** Monitor asset usage with physical meters that are attached to objects or with logical meters that record the usage of objects throughout their operational life.

ASSET TRACKING AND DATA COLLECTION

MP5's Asset Tracking enables you to use a barcode scanner to gather information about assets in the field. Asset Tracking also supports and simplifies object audit and physical inventory functions.

First, define the menus and prompts, by user group, to be displayed on a barcode scanner. Then, once the operator scans in asset information, correct any errors and load the information into the MP5 database.

Features

- **Object audit and physical inventory.** Scan in information on assets in the field and them compare to and reconcile with MP5 database.

- **Workflows.** Set up asset tracking barcode prompts in workflows that guide users through data entry process.

- **Timesheets.** Automatically track employees' time in the field.

- **Application Program Interfaces (APIs).** Import and verify field data through APIs.

- **Asset Tracking reports.** Analyze asset tracking information in a variety of MP5 reports. Create new reports in MP5 or in other reports applications as necessary.

- **Data import.** Easily import ASCII files from any external data collection device.

WORK MANAGEMENT

The MP5 Work Management module helps you manage, plan, and monitor work and the resources required for it. Work Management automates work flow and enables you to plan all activities efficiently. MP5 accounts for all logistical, technical, and administrative factors of work management.

Work requests are created by users or are automatically generated by MP5 as planned jobs. After appropriate screening and authorization, requests become approved work orders and are dispatched for action. A standard job library simplifies initiation of frequently performed jobs.

View resource requirements, such as labor, materials, tools, contractor labor, and equipment. Quickly access pertinent safety requirements such as permits required and Material Safety Data Sheets (MSDS).

Features

- **Work order generation.** Automatically or manually generate work orders with all the necessary information to complete the work.
- **Required resources.** Planning and estimation of required resources, including labor, tools, and contractors.
- **Work order breakdown.** Break down complex work orders into separate steps or into sub-work orders.
- **Scheduling.** Schedule work in MP5 or in Microsoft Project.
- **Work schedule monitoring.** Compare work progress and completion against the schedule.
- **Tool information.** View information on tool reservations, check in, check out, etc.
- **Work reports.** Analyze work information in a variety of MP5 reports. Create new reports in MP5 or in other reports applications as necessary.

COMMERCIAL SERVICES

The Commercial Services module enables maintenance organizations to operate as business units and to charge the cost of maintenance work to the customers for whom the work is performed. Time, material, and labor costs are defined in cost charging arrangements and then applied to commercial agreements which specify how maintenance work is charged to the debtor. Commercial agreements are then used to calculate job costs and to generate invoices and reports.

Features

- **Cost charging arrangements.** Define cost charging arrangements, per customer.

- **Job costs and charges.** Calculate job costs and charges to include on invoices.

- **Invoice generation.** Generate invoices for cost charging arrangements.

- **Payment schedules.** Set up fixed payment schedules; spread schedules over time if necessary.

MATERIALS MANAGEMENT

The MP5 Materials Management module assists with maintaining materials inventory as you order and receive materials, transfer materials, transfer materials among stores, issue reserved and purchased materials, and receive returned unused materials. Because the materials inventory is online, inventory information is continually updated.

Features

- **Parts management.** Control and track all parts.

- **Inventory management.** Control and track all inventory.

- **Manufacturer and supplier parts catalogs.** Associate parts information with manufacturers and suppliers, to keep track of what parts they supply.

- **Requisitions and receipts for parts.** Manually or automatically generate requisitions for parts. Record receipt information.

- **Scheduling and tracking of repairable spares.** Plan for the rotation of repairable spares.

- **Parts reservations.** Reserve parts for work orders and automatically generate for reserved parts that are not in stock.

- **Parts allocation.** Allocate parts to specific jobs.

- **Stock issues and returns.** Track and control issues and returns of stock.

- **Stocktakes.** Perform physical inventories of your stock and compare to the MP5 database.

BARCODE

Use MP5's Barcode module to identify almost any item, from assets to employee badges, and to accurately and reliably collect and transfer item information to a computer. With MP5's Barcode module, you can

- reduce data entry time and improve accuracy for many procedures,

- manage your inventory, and

- issue parts efficiently and accurately, cutting down on parts shortages and increasing the overall productivity of your maintenance department.

Features

- **Efficient processing.** Reduce data entry time and errors for many procedures.

- **Ease of use.** Transfer of barcode data directly to MP5.
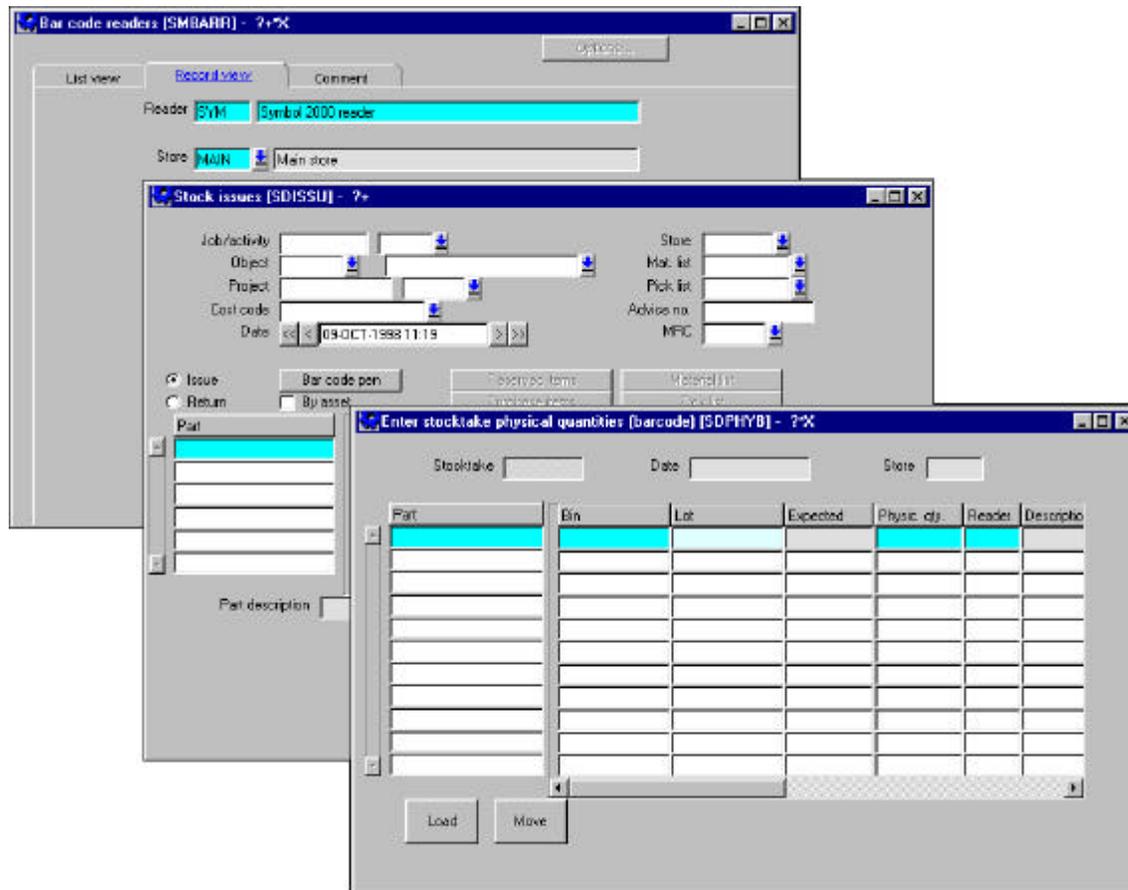
PURCHASING

The purchasing process begins with requisitions. Storeroom personnel initiate requisitions manually, or MP5 generates requisitions automatically based on low inventory quantities. After requisition approval, personnel can assign items to purchase orders. At this point, the requisition moves into Purchasing.

MP5 Purchasing also retains historical data about vendor's track records, enabling purchasing personnel to select the best suppliers for particular requirements, negotiate favorable terms, and limit financial exposure to individual vendors.

Features

- **Contracts, quotations, and purchase orders.** Create and track purchasing contracts, quotations, and purchase orders.

- **Purchase order generation.** Generate purchase orders manually or automatically from low stock or quotations.

- **Blanket purchase orders.** Create blanket purchase orders to order a fixed number of items for a pre-determined price or over a specific period of time.

- **Invoice matching.** Coordinate orders, receipts, and invoices.

- **Purchasing reports.** Analyze purchasing information in a variety of MP5 reports. Create new reports in MP5 or in other reports applications as necessary.

BUDGET MANAGEMENT

The Budget Management module monitors internal and external resources, stock material, fixed-price hired resources, and direct material usage. For internal resources and stock material usage, the system provides both planned costs (anticipated from planned labor and material usage) and actual costs. Expected costs, due to planning or commitments, appear on the budget, including the target date of the work order and its budget period. For planned costs and commitments, MP5 calculates the budget positions or totals.

Features

- **Cost tracking.** Track all costs related to maintenance expenses for specific, user-defined time periods.

- **Account codes.** Define hierarchical account codes by cost type, department, and asset.

- **Budget breakdown.** Divide complex budgets into a hierarchical system of smaller budgets.

- **Financial performance indicators.** Analyze maintenance costs accrued against budget account codes to derive financial and performance indicators.

- **Cost analysis.** Perform time period-based or trend-based analysis of budgeted, estimated, and actual costs.

- **Budget reports.** Analyze budget information in a variety of MP5 reports. Create new reports in MP5 or in other reports applications as necessary.

INSPECTION MANAGEMENT

The Inspection Management module coordinates with the Work Management and Asset modules to give you more control over planned preventive maintenance (PPM) functions within your organization.

Set up PPM routes with the Work Management module, and then enhance the PPM route information in the Inspection Management module by adding inspection management points, inspection methods, and conditions.

Features

- **Asset conditions.** Monitor physical assets' current and forecasted conditions.

- **Inspection routes.** Define specific inspection routes and measurement points.

- **Inspection results.** Record inspection results by asset class or category.

- **"Outside limits" report.** Analyze inspection results in "outside limits" report.

- **Automatic scheduling of work orders or follow-up inspections.** MP5 schedules necessary follow-up work automatically, based on inspection results.

- **Trend analysis.** Analyze trends and predict when date tolerance will be reached.

PROJECT MANAGEMENT

MP5's Project Management module automates the administration of the complete project process from initial budget and time-scale planning to completion of the final work order. Additionally, the Project Management module facilitates comparison of actual status and progress of work, resource usage and costs against a project plan. It handles both actual and committed resources and costs.

With the Project Management module, you can divide projects into a hierarchy of sub-projects. Each project or sub-project can consist of any number of work orders and purchase orders. Assign budgets to projects and then track the progress of projects against budget and plan.

Features

- **Project monitoring.** Monitor status and progress of projects.

- **Project hierarchy.** Divide projects into hierarchy of sub-projects as necessary.

- **Project budgeting.** Use MP5's full budgeting capability to manage projects.

- **Project work orders.** Create new work orders for projects or associate existing work orders with projects. Also, use templates to generate shutdown work orders for projects as necessary.

- **Project reports.** Analyze project information in a variety of MP5 reports. Create new reports in MP5 or in other reports applications as necessary.

REQUIREMENTS AND RECOMMENDATIONS

This table provides the recommended hardware and operating system requirements for MP5.

Client

Processor	Pentium 166 or higher
Operating System	Windows 95 or Windows NT 4.0 or higher
RAM	40 MB for Windows 95, 48 MB for Windows NT 4.0 or higher
Hard Disk Space	200 MB with 11 ms or faster access time, 80 MB for installation
Monitor	SVGA color with 800 x 600 resolution
Graphics Adapter	1 MB RAM
Parallel port for printer output	Recommended
Communication port and modem for faxes	Recommended
Laser Printer	Recommended
Network Card Speed	56 Kbps (minimum); 10 Mbps (recommended)
CD-ROM drive	Recommended

Server

Database	Oracle 7.3 or higher, SQL*Net 2.3 or higher
Processor (Database Server)	UNIX recommended, NT requires dual processor
Processor (Application/Web Server)	Intel Dual Pentium Pro 200 (NT 4.0 operating system required). 200Mhz Pentium per 20 users, 64 MB RAM plus 15 MB per concurrent connection.
Operating System (Database Server)	Any server operating system which can run both Oracle 7.3 or higher and Oracle SQL*Net 2.3 or higher
RAM (Database Server)	128 MB minimum for application, 100 concurrent users requires 640 MB
RAM (Application/Web Server)	128 MB minimum for application
	300 MB for Oracle Web Application Server and Developer/2000 run-time
	140 MB for MP5 binaries
Hard Disk Space	4 Gig
Network Interface Card (NIC)	Vendor-supplied
Bus Architecture	NT = EISA or PCI; UNIX = vendor-supplied
CD-ROM drive	Required for installation