

Planned Maintenance

SYSPRO 8

Reference Guide

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Planned Maintenance

Exploring

Where it fits in?

The **Enterprise Asset Management** module includes the **Planned Maintenance** capability that enables manufacturers and distributors to digitize their asset maintenance processes by defining the maintenance requirements and planning this out into the future. This module integrates with the **Requirements Planning** and **Purchase Orders** modules to ensure timely procurement of part requirements for planned and preventative asset maintenance.



This capability was released during **SYSPRO 8 2024** and requires the installation of the SYSPRO.8.2024.KB8110282 hotfix to be activated.

With **Planned Maintenance**, you can establish comprehensive asset maintenance requirements, ensuring all resources are identified and available on time to streamline maintenance activities.

- Schedule maintenance activities efficiently to minimize downtime and enhance productivity across operations.
- Streamline the preparation process by ensuring the availability of all information and necessary resources before maintenance begins.
- Monitor and manage the costs associated with maintenance activities, thereby gaining valuable insight into resource allocation and budget adherence.
- Support unforeseen planned maintenance (resulting from unexpected breakdowns) to ensure swift corrective actions and overall asset downtime reduction.

Benefits

- Increased equipment lifespan
Extend the life of your equipment through regular maintenance.
- Reduced downtime
Ensure equipment availability by planning maintenance in advance.
- Cost savings
Avoid costly emergency repairs and reduce overtime caused by unplanned breakdowns.
- Improved safety
Reduce risks of accidents from equipment failure through proactive maintenance.
- Enhanced efficiency
Well-maintained equipment performs better, leading to higher operational efficiency.

- Improved quality

Keep machinery within optimal operating parameters to maintain consistent product quality, reducing defects.

Navigation

The programs related to this feature are accessed from the **Program List** of the SYSPRO menu:

- *Program List > Enterprise Asset Management*

Terminology

Enterprise Asset Management

Enterprise Asset Management (EAM) is a comprehensive approach to managing an organization's physical assets throughout their entire lifecycle, from acquisition to disposal. SYSPRO'S **Enterprise Asset Management** module focuses on the activities required to effectively manage the maintenance of machinery, parts, and other equipment to maximize their value, reduce costs, and ensure they contribute effectively to the organization's goals.

Planned maintenance

Planned maintenance within the **Enterprise Asset Management** module refers to scheduled maintenance activities that are pre-determined and performed at regular intervals using a planned schedule. This maintenance is carried out to prevent unexpected breakdowns and ensure continuous operation, regardless of the current condition of the asset.

Unplanned maintenance

Unplanned maintenance within the **Enterprise Asset Management** module refers to maintenance activities that are performed in response to unexpected equipment failures or breakdowns. These are unanticipated events that require immediate attention to restore the equipment's functionality. Unlike planned maintenance, unplanned maintenance disrupts normal operations and often incurs higher costs due to urgent repairs and unavailability of spare parts or resources.

Starting

Prerequisites

Setup Options

To use this feature, the following setup option(s) must be enabled:

Enterprise Asset Management Configuration

Setup Options > Configuration > Manufacturing > Enterprise Asset Management

- Expense accounts only
- Equipment serial mandatory
- Allow zero cost non-stocked components
- Date calculation method for planned jobs

Enterprise Asset Management Preferences

Setup Options > Preferences > Manufacturing > Enterprise Asset Management

- Structure amendment journals required
- Operation amendment journals required
- Structure sequencing required
- Key type
- Default sequence number

Inventory Configuration

Setup Options > Configuration > Distribution > Inventory > [Show Warehouses hyperlink](#)

- Maintenance warehouse

Electronic Signatures

To use this feature, the following eSignatures must be defined accordingly in the **Electronic Signature Configuration Setup** program (as this allows for the various functions in the related programs):

- EAM Add component
- EAM Add equipment code
- EAM Add equipment type
- EAM Add operation
- EAM Add schedule line

- EAM Add schedule recurring jobs
- EAM Add service ledger
- EAM Add service type
- EAM Change component
- EAM Change component sequence
- EAM Change equipment code
- EAM Change equipment type
- EAM Change operation
- EAM Change schedule line
- EAM Change service ledger
- EAM Change service type
- EAM Component resequence all
- EAM Copy components
- EAM Copy operations
- EAM Delete all components
- EAM Delete all operations
- EAM Delete component
- EAM Delete equipment code
- EAM Delete equipment type
- EAM Delete operation
- EAM Delete schedule line
- EAM Delete service ledger
- EAM Delete service type
- EAM Maintenance job closure
- EAM Move operations

Licensing

To use this feature, the following module(s) must be installed according to the terms of your software license agreement:

- Enterprise Asset Management

Security

You can secure this feature by implementing a range of controls against the affected programs. Although not all these controls are applicable to each feature, they include the following:

- You restrict operator access to *activities* within a program using the **Operator Maintenance** program.
- You can restrict operator access to the *fields* within a program (configured using the **Operator Maintenance** program).
- You can restrict operator access to *functions* within a program using passwords (configured using the **Password Definition** program). When defined, the password must be entered before you can access the function.
- You can restrict access to the eSignature *transactions* within a program at operator, group, role or company level (configured using the **Electronic Signature Configuration Setup** program). Electronic Signatures provide security access, transaction logging and event triggering that gives you greater control over your system changes.
- You can restrict operator access to *programs* by assigning them to groups and applying access control against the group (configured using the **Operator Groups** program).
- You can restrict operator access to *programs* by assigning them to roles and applying access control against the role (configured using the **Role Management** program).

Restrictions and Limits

- The **MAINTENANCE WAREHOUSE** setup option must be enabled against all warehouses that carry stock used for planned maintenance.

Solving

FAQs

Which ledger code is used when posting the maintenance transaction?

The ledger code that is linked to the equipment code using the **Equipment Code Maintenance¹** program is used for the transaction.

If the equipment code is linked to an asset with a capex item, then the ledger code against the capex item is used.



The equipment code must be linked to at least one ledger code when creating a maintenance job.

How can I add a subcontract operation when creating a service structure?

1. Launch the **Service Structure Maintenance²** program.
2. Select the equipment code and maintenance service type for which you want to add a subcontract operation.

The relating information is displayed in the **Maintenance Information** pane.

3. Select **Add** on the toolbar of the **Operations** pane.

The **Internal Operation** window is displayed by default.

4. Click on the **Operation type** field and select **Subcontract**.

The window title will change to **Subcontract Operation** and the fields to add a subcontract operation are displayed.

5. Enter the required information and click on **Save**.

¹Program: EAMPER

²Program: EAMP12

How can I add an internal operation when creating a service structure?

1. Launch the **Service Structure Maintenance**¹ program.
2. Select the equipment code and maintenance service type for which you want to add a subcontract operation.

The relating information is displayed in the **Maintenance Information** pane.

3. Select **Add** on the toolbar of the **Operations** pane.

The **Internal Operation** window is displayed by default.

4. Enter the required information and click on **Save**.

¹Program: EAMP12

Using Process Planned Maintenance



1. Configure Planned Maintenance Structure

Once the Maintenance Engineer receives a new asset's details, the data to support the maintenance requirements need to be captured:

a. Equipment Type:

Define the types of equipment used within the business and the standard service structures for these equipments types using the **Equipment Type Maintenance¹** program.



This enables you to group different Equipment Codes and optionally set a default service structure per group.

b. Equipment Code:

Define the equipment codes to uniquely identify each asset or piece of equipment and link it to a machine, capex project or ledger code using the **Equipment Code Maintenance²** program.



The equipment code is ultimately the master record against which all maintenance activities will be carried out.

c. Service Type:

Define the types of services that are required for every equipment type using the **Service Type Maintenance³** program.



This enables you to supports different service scenarios.

FOR EXAMPLE:

15 000km service vs. 30 000km service.

d. Service Structure:

Configure the material and operational requirements for every asset and service type combination using the **Service Structure Maintenance⁴** program.

2. Create & Share Planned Maintenance Schedule

Next, the Maintenance Planner will create the maintenance schedule, which is generated by combining the equipment code and service type. This can be set either manually or automatically using forward scheduling options.

¹Program: EAMPET

²Program: EAMPER

³Program: EAMPST

⁴Program: EAMP12



Currently, only date-driven scheduling (not run-rate) is supported. For assets requiring service based on run-rate, estimate run times and schedule service dates accordingly.

- a. Forward schedule maintenance jobs:

Create the maintenance schedule for each piece of equipment or asset using the **Planned Maintenance Job Schedule¹** program.

- b. Communicate the schedule:

Share the maintenance schedule with engineers and production teams using the **EAM List of Scheduled Jobs²** report.

3. Prepare for Upcoming Maintenance

Once the asset is loaded and its maintenance schedule planned, the maintenance engineer can then review upcoming jobs and their service needs in advance.

- a. Use the **Planned Maintenance Job Schedule³** program to assess the service requirements upfront in preparation for upcoming maintenance tasks.

You can also review job operations and related narrations, which can serve as service instructions.

4. Review Material Availability

Next, the parts requirements need to be reviewed, to ensure necessary spares are available for the upcoming maintenance jobs.

- a. Review availability of materials required for the planned maintenance using the **Maintenance Job Parts Review⁴** program.

5. Issue Material & Labor

The maintenance is then performed as scheduled, with the maintenance engineer issuing spares and labor to the maintenance job as needed.

- a. Issue material and labor to the planned maintenance job using the **Maintenance Job Issues⁵** program.



Based on inventory management practices implemented, the materials can either be requested from inventory (which are then issued to the job) or as they are used.

¹Program: EAMPPQ

²Program: SRS245

³Program: EAMPPQ

⁴Program: EAMPTK

⁵Program: EAMPJI



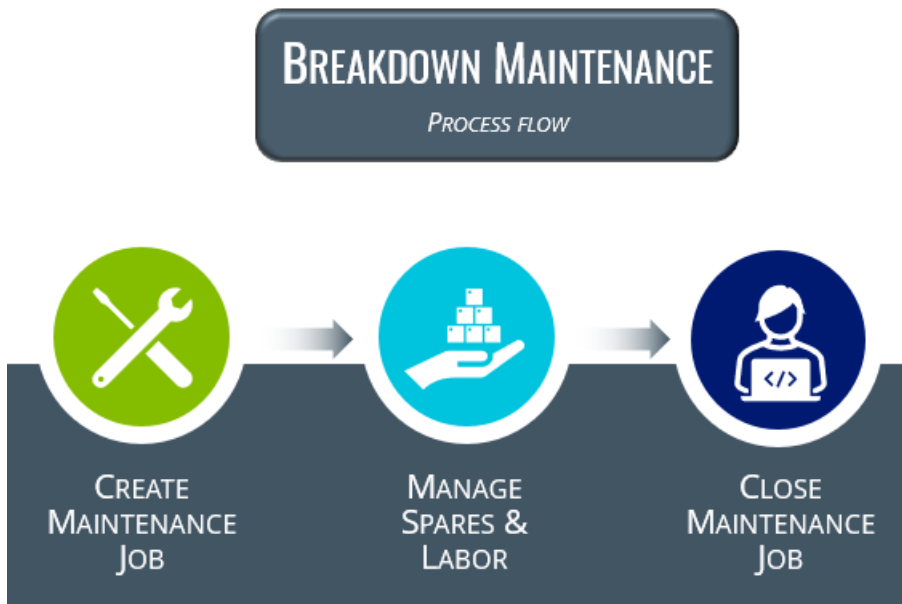
To support both scenarios, spares can be issued either as a kit or specific issue. If a kit is issued, unused spares may be returned, and the inventory team will return them to stock (i.e. negative issue).

6. Close Maintenance Job

- a. Once the service / maintenance job has been completed, the maintenance engineer must then close the job using the **Maintenance Job Closure¹** program.

¹Program: EAMPJC

Breakdown Maintenance



When assets break down, the maintenance engineer will typically investigate the issue and create the maintenance job, specifying spares requirements if known, or issuing spares as the work progresses.

1. Create Maintenance Job

- a. Use the **Maintenance Job Entry¹** program to create an unplanned job for the maintenance required.



Material and operations can be added if known at the time.

2. Manage Spares & Labor

- a. If material requirements were not known/captured upfront, issue material to the unplanned maintenance job using the **Maintenance Job Issues²** program.
- b. You can issue labor to the unplanned maintenance job using the **Maintenance Job Issues³** or the **Labor Posting** program.

3. Close Maintenance Job

- a. Once the service / maintenance job has been completed, the maintenance engineer must then close the job using the **Maintenance Job Closure⁴** program.

¹Program: EAMPJE

²Program: EAMPJI

³Program: EAMPJI

⁴Program: EAMPJC

Affected programs

The following indicates areas in the product that may be affected by implementing this feature:

Setup programs

Equipment Code Maintenance

Program List > Enterprise Asset Management > Setup

This program lets you maintain equipment codes to uniquely identify an asset and specify a ledger code to which the maintenance costs will be posted.

Equipment Type Maintenance

Program List > Enterprise Asset Management > Setup

This program lets you create and maintain equipment types to which equipment codes can be linked. An equipment type can be used to group equipment codes.

Service Type Maintenance

Program List > Enterprise Asset Management > Setup

This program lets you maintain services types that are used to identify the type of service or maintenance an asset could require. An asset can have several different service types.

Service Structure Maintenance

Program List > Enterprise Asset Management > Setup

This program lets you manage operations and components for each service type.

Warehouse Maintenance

Setup Options > Configuration > Distribution > Inventory > [Show Warehouses hyperlink](#)

This program lets you capture and maintain details of warehouses required within the system.

We made the following changes for Planned Maintenance:

- We added the **Maintenance warehouse** option against the warehouse that must be enabled for warehouses that carry parts and spares for planned maintenance.
- The **Maintenance** field was added to the eSignatures that control the adding, changing and deleting of warehouses.

Transaction Processing programs

Planned Maintenance Job Schedule

Program List > Enterprise Asset Management > Transaction Processing

This program lets you create a maintenance schedule per asset or equipment code. The jobs created in this program will always be planned maintenance jobs.

Maintenance Job Entry

Program List > Enterprise Asset Management > Transaction Processing

This program lets you manually create and maintain jobs for unplanned maintenance.

Maintenance Job Issues

Program List > Enterprise Asset Management > Transaction Processing

This program lets you issue parts and spares to maintenance jobs.



When accessing this program via the **SYSPRO Desktop**:

- From the program's toolbar, you can select either **Kit** or **Specific** at the **Transaction Type** field in accordance with your requirements for the materials being issued.

When accessing this program via the **SYSPRO Web UI (Avanti)**:

- From the hamburger menu, select the relevant program in which you want to issue the materials:
 - Kit Issues: **Maintenance Job Spares**
 - Specific Issues: **Maintenance Specific Issue**

Maintenance Job Closure

Program List > Enterprise Asset Management > Transaction Processing

This program lets you distribute outstanding Work in Progress amounts to the service ledger, as well as complete and close a maintenance job.

WIP Material Allocations - Maintenance

*Accessible from the **Add** or **Change** option within the **WIP Material Allocations - Browse** program.*

This program lets you maintain material allocations for a job.

The following changes were made to accommodate the **Planned Maintenance** feature:

- The **Enterprise Asset Management** module must be installed to use this program for planned maintenance jobs.
- The **Copy** button or option is disabled for maintenance jobs, as maintenance jobs can't be duplicated.
- The stock codes used for material allocations must be stocked in a maintenance warehouse.

Job Review

Program List > Requirements Planning > Requirements Planning

This program lets you review and update existing / suggested jobs that require changes as indicated by the snapshot files. You can change suggested jobs before converting them into live jobs create new jobs from suggested jobs.

The following changes were made to accommodate the **Planned Maintenance** feature:

- The **Enterprise Asset Management** module must be installed to use this program for planned maintenance jobs.
- On the **Review Criteria** pane:
 - You can select to include or exclude planned and unplanned maintenance jobs at the **Exclude actions** section.
 - You can choose to only review maintenance jobs by selecting the **Maintenance jobs only** option at the **Include** section.

Labor Posting

Program List > Work in Progress > Job Postings

This program lets you post time against a specific job.

The following changes were made to accommodate the **Planned Maintenance** feature:

- The **Enterprise Asset Management** module must be installed to use this program for planned maintenance jobs.
- The **Maintenance information** section at the **General Information** pane lets you select the maintenance job against which you want to post labor.

Period End programs

WIP Period End

Program List > Work in Progress

This program lets you maintain the integrity of data in your Work in Progress module. It enables you to close the current month and open up a new month for processing Work in Progress transactions and to delete Work in Progress information that is no longer required in the system.

The following changes were made to accommodate the **Planned Maintenance** feature:

- The **Enterprise Asset Management** module must be installed to use this program for planned maintenance jobs.
- The **Purge maintenance jobs only** option at the **Function** field allows you to delete maintenance jobs.
- You can include maintenance jobs in the **Month end and purge** and **Purge only** functions.

Report programs

EAM List of Structures

Program List > Enterprise Asset Management > Reports

Program List > SYSPRO Reporting Services > Enterprise Asset Management

This program lets you generate a list of materials (parts and spares) for equipment codes.

EAM List of Scheduled Jobs

Program List > Enterprise Asset Management > Reports

Program List > SYSPRO Reporting Services > Enterprise Asset Management

This program lets you generate a list of scheduled maintenance jobs per equipment code.

Maintenance Valuation

Program List > Enterprise Asset Management > Reports

Program List > SYSPRO Reporting Services > Enterprise Asset Management

This program lets you generate a report to view the value of outstanding work in progress for each maintenance job in the last three months.

Maintenance Detail

Program List > Enterprise Asset Management > Reports

Program List > SYSPRO Reporting Services > Enterprise Asset Management

This program lets you generate a report to view the detail of material and labor transactions that have been posted against planned maintenance jobs.

Maintenance Job Status

Program List > Enterprise Asset Management > Reports

Program List > SYSPRO Reporting Services > Enterprise Asset Management

This program lets you generate a report that lists the status of each planned maintenance job.

Maintenance Job Parts Review

Program List > Enterprise Asset Management > Reports

This program lets you view all parts linked to an equipment code and service type per maintenance job, thereby indicating where gross shortages may occur.

Query programs

Planned Maintenance Job Schedule

Program List > Enterprise Asset Management

This program lets you view a schedule of planned maintenance jobs in a graphical format.

WIP Query

Program List > Work in Progress

This program lets you view extensive information relating to jobs held on file.

The following changes were made to accommodate the **Planned Maintenance** feature:

- The **Maintenance job** field in the **Job Details** pane indicates if the job you viewing is a planned maintenance job.
- The **Maintenance information** section in the **Job Details** pane displays information on the equipment, maintenance job and type of service that was carried out.

Browse programs

Capex Item and Line

*Accessible from the **Capex item** field within the **Equipment Code Maintenance¹** program.*

This program lets you browse for approved capex and lines that are linked to an asset.

¹Program: EAMPER

Browse on Warehouses

Program List > Inventory > Browses

This program lets you view details of your warehouses currently defined.

The **Maintenance warehouse** column indicates if the warehouse carries stock that is used for planned maintenance.

Affected business objects

The following indicates the business objects that are affected by this feature:

Setup objects

Equipment Code Setup

The **EQUIPMENT CODE SETUP**¹ business object lets you add, update or delete an equipment code.

Service Ledger Codes Setup

The **SERVICE LEDGER CODES SETUP**² business object lets you add, update or delete service ledger codes against an equipment code.

Service Type Setup

The **SERVICE TYPE SETUP**³ business object lets you add, update or delete maintenance service types.

Service Structure Setup

The **SERVICE STRUCTURE SETUP**⁴ business object lets you add, update or delete service structures.

The information you can specify includes the specific revision of the part or spare that will be used to maintain a machine, description of the non-stocked part or spare(s), equipment code and maintenance service type.

Service Operations Setup

The **SERVICE OPERATIONS SETUP**⁵ business object lets you add, update or delete maintenance structure operations.

Equipment Type Setup

The **EQUIPMENT TYPE SETUP**⁶ business object lets you configure the setup for equipment types (i.e. used to group equipment codes). The information that you can specify includes the description for an equipment type, associated equipment code and whether a maintenance structure for the equipment code should be used.

¹Business object: EAMSER

²Business object: EAMSSC

³Business object: EAMSST

⁴Business object: EAMSMS

⁵Business object: EAMSOP

⁶Business object: EAMSET

Inventory Warehouse Maintenance

The **INVENTORY WAREHOUSE MAINTENANCE**¹ business object lets you add, maintain and delete warehouses.

BOM Tool Set Maintenance

The **BOM TOOL SET MAINTENANCE**² business object lets you create and maintain BOM tool sets.

BOM Specific Narrations

The **BOM SPECIFIC NARRATIONS**³ business object lets you maintain user defined text that may be defined against jobs, Work in Progress labor allocations, Work in Progress material allocations, BOM structures, BOM operations, estimate structures and estimate operations.

Transaction objects

Maintenance Setup Options

The **MAINTENANCE SETUP OPTIONS**⁴ business object lets you update the setup options for the **Enterprise Asset Management** module.

Planned Maintenance Schedule

The **PLANNED MAINTENANCE SCHEDULE**⁵ business object lets you create planned jobs.

EAM Job Closure

The **EAM JOB CLOSURE**⁶ business object lets you close maintenance jobs.

Service Structure Functions

The **SERVICE STRUCTURE FUNCTIONS**⁷ business object lets you change the sequence of a component, re-sequence the components, copy a part or spare from another **Enterprise Asset Management** structure and delete all components.

Service Operation Functions

The **SERVICE OPERATION FUNCTIONS**⁸ business object lets you copy, move and delete operations from **Enterprise Asset Management** structures.

¹Business object: INSWH

²Business object: BOMSTL

³Business object: BOMSSN

⁴Business object: EAMTSO

⁵Business object: EAMTPS

⁶Business object: EAMTJC

⁷Business object: EAMTMP

⁸Business object: EAMTMO

WIP Material Allocations

The **WIP MATERIAL ALLOCATIONS**¹ business object lets you add, change or delete material allocations against existing jobs and can be used to maintain both stocked and non-stocked material allocations.

WIP Job Creation and Maintenance

The **WIP JOB CREATION AND MAINTENANCE**² business object lets you add, update or delete jobs. Jobs can be created for stocked or non-stocked items. When creating a job for a stocked item, the labor and material allocations from the Bill of Materials can be attached to the job or they can be assigned manually. If allocations are being attached to the job, sub jobs can be created for all components in the structure against which it is indicated that a sub job must be raised.

Query objects

Maintenance Setup Options Query

The **MAINTENANCE SETUP OPTIONS QUERY**³ business object lets you view the maintenance service options for the selected company.

Schedule Jobs Query

The **SCHEDULE JOBS QUERY**⁴ business object lets you view the detail of plant maintenance schedules.

List of Structures Query

The **LIST OF STRUCTURES QUERY**⁵ business object lets you view a list of parts or spares and operations attached to an **Enterprise Asset Management** structure.

WIP Detail Report

The **WIP DETAIL REPORT**⁶ business object facilitates the creation of the **WIP Detail** report.

WIP Valuation Query

The **WIP VALUATION QUERY**⁷ business object facilitates the creation of the **WIP Valuation** report.

WIP Job Variance

The **WIP JOB VARIANCE**⁸ business object facilitates the creation of the **Job Variance** report.

¹Business object: WIPTJM

²Business object: WIPTJB

³Business object: EAMQSO

⁴Business object: EAMQQ

⁵Business object: EAMQ01

⁶Business object: WIPQ08

⁷Business object: WIPQ20

⁸Business object: WIPQ31

WIP Percentage Complete

The **WIP PERCENTAGE COMPLETE**¹ business object facilitates the creation of the **Percentage Complete** report.

WIP Job Status Query

The **WIP JOB STATUS QUERY**² business object facilitates the creation of the **Job Status** report.

WIP Query

The **WIP QUERY**³ business object lets you view job header details and extensive information relating to the job.

Job Actions Report

The **JOB ACTIONS REPORT**⁴ business object facilitates the creation of the **Job Actions** report.

WIP Dispatch List

The **WIP DISPATCH LIST**⁵ business object facilitates the creation of the **Dispatch List** report.

BOM Advanced Trial Kitting Query

The **BOM ADVANCED TRIAL KITTING QUERY**⁶ business object lets you generate an XML document containing a trial kit list of components per required date.

Retrieve objects

WIP Build Labor Issue

The **WIP BUILD LABOR ISSUE**⁷ business object lets you view labor allocations defined against a job that are used when processing labor postings.

Utility objects

MRP Demand Utility

The **MRP DEMAND UTILITY**⁸ business object updates the [MrpRequirement](#), [MrpDetailPegging](#) and [MrpMpsDetPegging](#) tables with existing demand (e.g. forecasts, sales orders, supply chain transfers, material allocations, quotations or store requisitions).

¹Business object: WIPQ34

²Business object: WIPQ35

³Business object: WIPQRY

⁴Business object: MRPQ42

⁵Business object: MRPQ77

⁶Business object: BOMQTK

⁷Business object: WIPRLI

⁸Business object: MRPUDM

MRP Supply Utility

The **MRP SUPPLY UTILITY**¹ business object updates the [MrpRequirement](#), [MrpDetailPegging](#) and [MrpMpsDetPegging](#) tables with existing supply (e.g. supply chain transfers, jobs, purchase orders, requisitions, goods in transit, inventory stock and non-stocked items).

¹Business object: MRPUY



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