SAP R/3 PM
Training Maintenance Planning
Summary

- Task List/General Task List (without Strategy)
- Maintenance Strategies
- Task List/General Task List (with Strategy)
- Maintenance Planning
Chapter...

Task List / General Task List (without Strategy)
SAP R/3 PM
Task List

• SAP has the possibility to describe work steps in form of task lists and general task lists

• Difference between task lists and general task lists are, the general task list has no relations to technical objects, task list are direct linked to technical objects (Functional Location or Equipment)

• Content of task lists are the description of working steps

• Duration of working steps can be evaluated

• Intervals between working steps can be defined

• Task list can be used at work orders and notifications

• Task lists automatically used with maintenance plans
SAP R/3 PM
Create Task List

Transaction IA05 Create
Path:
Logistic ➔ Plant Maintenance Preventive Maintenance ➔ Work Scheduling ➔ Task Lists ➔ General Maintenance Task Lists ➔ IA05 - Create

SAP has the possibility to use internal or external group numbers.

For training we using the internal group number. No entries at this field.

Press ENTER for the next screen.
You can see, the system has the group number (44) with the group counter (1) created. This means, at the group 44 we created the first task list. The system has the group counter 1 created.

Edit the description of the task list. Use at this point a **significant** description.

Select now:
- Planning Plant
- Work center
- Usage
- Planner group
- Status

Press the button **Operation** for the next screen.
SAP R/3 PM
Create General Maintenance Task List

Edit on this point the specific work steps. You can edit for each task the duration and the number. You can change the work center for different responsibilities. You can change the control key for different business transactions (external service).

PROPOSAL: For simply work edit at the first task the total duration of working time and confirm only the first task.
SAP R/3 PM
Change General Maintenance Task List

Transaction IA06 Change
Path:

Logistic ➔ Plant Maintenance Preventive Maintenance ➔ Work Scheduling ➔ Task Lists ➔ General Maintenance Task Lists ➔ IA06 - Change

Edit the group number, the plant and the group counter of your created general maintenance task list.

REMARK:
During one SAP Session the system know the last used task list and give a proposed value at the field group.
SAP R/3 PM
Change General Maintenance Task List

You can add some additional operations or you can mark one or more operations and delete the operations with button.
SAP R/3 PM
Task List for Functional Location

Transaction IA11 Create
Path:

Logistic ➔ Plant Maintenance Preventive Maintenance ➔ Work Scheduling ➔ Task Lists ➔ For Functional Location ➔ IA11 - Create

Edit or select the relevant functional location and press ENTER
SAP R/3 PM
Task List for Functional Location

Edit the description of the task list. Use at this point a significant description.

Select now:
- Planning Plant
- Work center
- Usage
- Planner group
- Status

Press the button Operation for the next screen.
SAP R/3 PM
Task List for Functional Location

Edit on this point the specific work steps. You can edit for each task the duration and the number. You can change the work center for different responsibilities. You can change the control key for different business transactions (external service).
SAP R/3 PM
Task List for Functional Location

Transaction IA12 Change
Path:

Logistic → Plant Maintenance Preventive Maintenance
→ Work Scheduling → Task Lists → For Functional Location → IA12 – Change

Edit the number of the functional location and press the button ENTER. You come to the next screen.
SAP R/3 PM
Task List for Functional Location

If you want to attach material to one operation, then you must select one task. Click on the left button by the operation number.
SAP R/3 PM
Task List for Functional Location

Change Functional Location Task List: Operation Overview

At the orange color you know, that you have select the operation.

For the selection of material click on the button:
**SAP R/3 PM**

**Task List for Functional Location**

**Task List for Funct. Location Change: Component Overview**

<table>
<thead>
<tr>
<th>Func. Lcc. 2000-10-10-010</th>
<th>SMT 1</th>
</tr>
</thead>
<tbody>
<tr>
<td>Group 5</td>
<td>SMT 1</td>
</tr>
<tr>
<td></td>
<td>Grp.Countr 1</td>
</tr>
</tbody>
</table>

**Operation/Activity**

| 0010 | Test for Training |

**Component Assignments**

<table>
<thead>
<tr>
<th>Material</th>
<th>Quantity</th>
<th>Un</th>
<th>B</th>
<th>M</th>
<th>Component Description</th>
<th>ICH</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Edit here the required material.

**REMARK:**
If the functional location has a BOM, then you can select easy the required material by click on the button:
### SAP R/3 PM

**Task List for Functional Location**

#### Change FunctLoc Task List: Structure List

<table>
<thead>
<tr>
<th>Functional Loc.</th>
<th>Description</th>
<th>Plant</th>
<th>Module</th>
<th>Valid From</th>
<th>01.06.2010</th>
</tr>
</thead>
<tbody>
<tr>
<td>2000-10-10-010</td>
<td>SMT 1</td>
<td>MSEI</td>
<td>mfg</td>
<td></td>
<td></td>
</tr>
<tr>
<td>2000-20-10-010</td>
<td>Oven 2</td>
<td>Cell 1</td>
<td>Facilities</td>
<td></td>
<td></td>
</tr>
<tr>
<td>2000-20-10-020</td>
<td>Kessel</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Select one or more required materials by click (more: strg+click)

and transfer the selected materials with click on (F5).

The system transfer the selected materials to the task list. Save the task list.
SAP R/3 PM
Task List for Equipment

REMARK:

The creation/changing of task lists for equipments is similar to the procedure for functional locations.

The differences are by the start - transaction. You are using equipment numbers.

Create Task List for Equipment    IA01
Change Task List for Equipment    IA02
**Transaction IE01 Create**

**Path:**

Logistic → Plant Maintenance Preventive Maintenance → Work Scheduling → Task Lists → List Editing → IA08 - Change

Select one type of task lists or other selection criteria (create variants for selection)
**SAP R/3 PM**

**Search for Task Lists**

You can modify the list to your requirements. (create variants)
SAP R/3 PM
Task Lists

Tutorial

Create General Maintenance Task List (without Strategy)
Change General Maintenance Task List
Create Task List for Functional Location
Change Task List for Functional Location (required Material)
Searching for Task Lists
Chapter...

Maintenance Strategy
SAP R/3 PM
Maintenance Strategy

• Maintenance Strategies includes different cycles named packages (time, working hours, produced pieces)
• Maintenance Strategies are created on a central point, you can use maintenance strategies on task lists
• If you have allocated one strategy to the task list, than you can select one or more packages to one operation
• Maintenance Strategies can have values for scheduling
SAP R/3 PM
Maintenance Strategy and Hierarchy

- With the hierarchy you can fix which servicing package has precedence if several servicing packages are at the same time due.
- Should several servicing packages be at the same time due, they must have the same hierarchy.
- Should a package overstep other packages at due-date, it must have a higher hierarchy.
- If two packages with the same hierarchy are due at the same time, both packages are explained.
- If both packages have a different hierarchy, only the package with the higher hierarchy is explained.
SAP R/3 PM
Create Maintenance Strategy

Transaction IP11 - Change

Path:
Logistic ➔ Plant Maintenance ➔ Preventive Maintenance ➔ Maintenance Planning ➔ Maintenance Strategies ➔ IP11 – Change

Click on:
New Entries
You can create new strategies.

Change Maintenance Strategies: Overview
SAP R/3 PM
Create Maintenance Strategy

Enter the Name of the strategy, the Description, the Scheduling indicator, the Strategy unit, the Factory Calendar and optional other parameter (Values).

Double click on:

You get the following slide
SAP R/3 PM
Create Maintenance Strategy

Click on:

New Entries

now you can edit new packages.
SAP R/3 PM
Create Maintenance Strategy

On this field you can configure the different hierarchy levels.

Save the strategy.

Click on : Pack. seq.
You get the overview of all packages. Here you can also see the differences by using of hierarchy levels.

By click on: Previous dates or More Dates

You can change the period.
SAP R/3 PM
Create General Maintenance Task List

Transaction IA05 Create
Path:
Logistic ➔ Plant Maintenance Preventive Maintenance ➔ Work Scheduling ➔ Task Lists ➔ General Maintenance Task Lists ➔ IA05 - Create

SAP has the possibility to use internal or external group numbers.

For training we are using the internal group number. No entries at this field.

Press **ENTER** for the next screen.
SAP R/3 PM
Create General Maintenance Task List

You can see, the system has the group number (44) with the group counter (1) created. This means, at the group 44 we created the first task list. The system has the group counter 1 created.

Edit the description of the task list. Use at this point a **significant** description.

Select now:
- Planning Plant
- Work center
- Usage
- Planner group
- Status
- Strategy

Press the button **Operation** for the next screen.
SAP R/3 PM
Create General Maintenance Task List

Edit on this point the specific work steps. You can edit for each task the duration and the number. You can change the work center for different responsibilities. You can change the control key for different business transactions (external service).

By click on button: select the package overview.
SAP R/3 PM
Create General Maintenance Task List

Select for each operation the relevant package and save the changes.

**REMARK:**
You can create task lists for functional locations or equipment on the same way.
SAP R/3 PM
Maintenance Strategy

Create/Change Maintenance Strategies
Create General Maintenance Task List with Strategy
Change General Maintenance Task List with Strategy
**SAP R/3 PM**

**Maintenance Planning**

- With the help of the maintenance planning you can describe the appointments and the extent of all periodical measures, e.g., maintenance and inspection operations, at technical objects (TP, EQ).

- With maintenance plans dependent on time the measure is carried out in certain cycles, e.g., all two months, all six months, etc.

- By the counter-steered maintenance planning you can plan your maintenance on the base of measurement documents. In addition measuring points must be created in relation to technical objects (TP, EQ) and regularly measurement documents must be stored in SAP

- By the creation of maintenance plans you must give a maintenance plan type which determines which maintenance call object generates the system with a due maintenance call (e.g., a maintenance order or notification).
SAP R/3 PM
Elements of Maintenance Planning

- A maintenance position describes which preventive maintenance activities should take place in a technical object or in a group of technical objects at regular intervals.

- The maintenance plan contains scheduling information from the following springs:
  - from the maintenance strategy which is assigned to the maintenance plan
  - with single cycle plans from the maintenance cycle
  - with multiple counter plans from the maintenance cycles
  - from the scheduling information, especially for this maintenance plan

- There are three different maintenance plan types which allow it to you the maintenance planning for your requirements.
  - Single cycle plan
  - Strategy plan
  - Multiple counter plan
SAP R/3 PM
Create Single Cycle Plan

Transaction IP41 – Single Cycle Plan
Path:
Logistic \(\rightarrow\) Plant Maintenance \(\rightarrow\) Preventive Maintenance
\(\rightarrow\) Maintenance Planning \(\rightarrow\) Maintenance Plans \(\rightarrow\) Create
\(\rightarrow\) IP41 – Single Cycle Plan

Select at the entry screen the maintenance plan category (Maintenance Order or Notification). The maintenance plan number will be created automatically.

Press the ENTER button
Create Single Cycle Plan

Edit the following fields:
- Maintenance Plan Description
- At the register „Maintenance plan cycle“, edit the cycle and optional one text for the cycle.

At the register „Item“, you must edit the following fields:
- Functional location or Equipment
- Order Type (at P&S SAP „Z000“ for Maintenance)
- Main Work Center (if the information not automatically filled from the technical object)
- Task List (searching with button )
Click on the register “Maintenance plan scheduling parameters”

With these parameters you can customize the scheduling of the maintenance plan.
Main parameters:
- Shift Factor
- Cycle modification Factor
- Call horizon
- Scheduling indicator

Not use “Completion Requirement”

<table>
<thead>
<tr>
<th>Planned Date</th>
<th>Confirmation</th>
<th>Shift Factor</th>
<th>Next Date</th>
</tr>
</thead>
<tbody>
<tr>
<td>01.02.2010</td>
<td>16.02.2010</td>
<td>0 %</td>
<td>01.02.2011</td>
</tr>
<tr>
<td></td>
<td></td>
<td>50 %</td>
<td>08.02.2011</td>
</tr>
<tr>
<td></td>
<td></td>
<td>100 %</td>
<td>16.02.2011</td>
</tr>
</tbody>
</table>
SAP R/3 PM
Create Single Cycle Plan

Here you can edit a field Sort field and an Authorization group. Both entries can serve the selection. By means of an authorization group can be steered that only employees may indicate this maintenance plan or change which have the same authorization group in her user's profile. At the moment the use is not planned by field Sort field and Authorization group!

If you have effected your inputs, you must save the maintenance plan.

According to the given start date and cycle the system with achievement of the interval will generate an maintenance order for the realization of the maintenance/inspection.
SAP R/3 PM
Schedule Maintenance Plans

**SAP Easy Access**

Transaction **IP10 - Schedule**

Path:

*Logistic ➔ Plant Maintenance ➔ Preventive Maintenance ➔ Maintenance Planning ➔ Scheduling for Maintenance Plans ➔ IP10 - Schedule*

Beside the automatic scheduling by the system it is also be possibly to schedule a maintenance plan by hand.

The last used maintenance plan number is automatically selected.
SAP R/3 PM
Schedule Maintenance Plan

Press the button:

Start

Now you can start the maintenance plan.
The start date from the maintenance plan you get as value for the start date.

Save now.
**SAP R/3 PM**

**Restart Schedule**

Press the button: **Restart**

You can edit a new start date.
Create now a new single cycle plan (IP41).

You can put on maintenance plans with more than one position. This can make sense if you must carry out maintenance work on different technical objects by the same date.

Then the system generates from a maintenance plan per position a call (order or notification)
SAP R/3 PM
Maintenance Plan with Items

At the initial screen you see the first Item. Edit here the required fields for the first technical object.

Create now a new item by click on the Icon:

REMARK:
The scheduling parameters are relevant for all items. On due-date the system generate for each item one order.
SAP R/3 PM
Create Maintenance Plan with Objects

Create Single Cycle Plan (IP41).
SAP R/3 PM
Create Maintenance Plan with Objects

Create Maintenance Plan: Single cycle plan

The first object to be maintained is put down as had on the first position.

**REMARK:**

The costs for maintenance activities are extrapolated only for the object registered on the first item!

To assign now other objects, but to create only one order, use the object list to item.
Create Maintenance Plan with Objects

Click on register:

At this table you can select all relevant technical objects.

The result of these maintenance plan are one work order with an object list.
SAP R/3 PM Allocation to Cost Center

Start the last created maintenance plan at the change mode (IP02).

If you create a maintenance plan for more than one object, but only one order is generated, you should already put in the maintenance plan the account regulation. The originating costs can be thereby split.
SAP R/3 PM
Allocation to Cost Center

The last created maintenance plans has in the object list several objects with different cost centers. Because, only one order is generated and the costs, on all involved cost centers should be split, this must be put by hand.

Press the button for Settlement Rule
SAP R/3 PM
Allocation to Cost Center

Here you can put too how much percent the concerned cost centers should be loaded.
Simply give all relevant cost centers and the proportional distribution.
For each cost center you must edit the settlement Complete (FUL) and settlement Periodically (PER).
Please check that all costs not more than 100%
SAP R/3 PM
Create Strategy Plan

Transaction IP42 – Strategy Plan
Path:

For this maintenance plan you must select the maintenance plan category and the strategy.
SAP R/3 PM
Create Strategy Plan

Create Maintenance Plan: Initial

<table>
<thead>
<tr>
<th>Maintenance plan</th>
<th>Maint. plan cat.</th>
<th>Strategy</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Maintenance Order</td>
<td>Z_CE02</td>
</tr>
</tbody>
</table>

By click on

You can select one strategy.

**REMARK:**
The strategy for the maintenance plan and the used task list must be the same.
SAP R/3 PM
Create Strategy Plan

Edit on this screen the required information.

WARNING:
The item text becomes later the order short text. Because, however, all cycles not always seem, but in this example only once a year, it is more sensible to edit the text without information of cycles.

They recognize that the cycles are automatically put down, as soon as a task list is put down.

REMARK:
If no cycles are indicated, you have assigned to the task list in the flow chart no packages.
SAP R/3 PM
Create Strategy Plan

Create Maintenance Plan: Strategy plan

Edit on this screen the required information.

**REMARK:**

Provided that in the selected strategy scheduling parameters are put down, here these are offered as proposal values and can be changed when required.

Call after saving the transaction „IP10“ and schedule the maintenance plan.
SAP R/3 PM Schedule Strategy Plan

Edit the maintenance plan number and press **ENTER**.
Start now the scheduling. You can edit the start date or use the proposed value.
SAP R/3 PM
Schedule Strategy Plan

You receive an overview of the scheduled calls, now with due packages (cycles).
SAP R/3 SM
Maintenance Plans

Tutorial

Create Single Cycle Plan
Scheduling of Single Cycle Plan
Restart of existing Scheduling
Create Maintenance Plan with Items
Create Maintenance Plan with Object List
Settlement Rule, split to different Cost Centers
Create Strategy Plan
Thank you

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