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Configuration Guide (LMPC)

THE BEST RUN **SAP**

Content

1 Purpose and Prerequisites

Configuration Overview

This configuration guide documents the configuration settings for the LMPC consulting solution.

This includes the 4 subareas of LMPC:

- The Heijunka detailed scheduling planning board with more than 130 functions
- The LMPC timetable for generating production plans
- The leveling of planned orders
- LMPC mass processing of orders

This documentation does not contain the standard SAP settings that are required for production processing.

The screenshots shown in this configuration guide are only examples of configurations. This does not mean that the LMPC delivery contains the settings shown.

To use the LMPC planning table, the following prerequisites must be fulfilled:

- All LMPC transports have been imported into the system. This automatically presets a predefined standard scenario for the capacity planning table and LMPC HJPT planning table.
- The configuration required for production processing, including the organizational structure, has already been created.
- The plant settings for MRP planning and the capacity planning table have been made.

> → Remember
>
> The LMPC delivery contains example Customizing for the LMPC functions. This sample Customizing must be adapted to meet individual customer requirements in the relevant system. This configuration guide helps you to make the individual settings.
>
> If you require assistance with configuration, contact SAP consulting. Setting up the configuration is a consulting service and not an LMPC support service.

2 LMPC Support

If you want to report errors for the LMPC consulting solution, you can do so via the SAP ticket system.

1. Create an OSS incident under the component **XX-PROJ-CON-LMPC**. For the priority of tickets, refer to SAP Note 67739 .
2. Make sure that the **system connection** is open and that **credentials** for logging on to the system are provided in the **secure area** of the incident. Also check that the provided user name has authorization for the LMPC transactions and debugging in the system.
3. Describe the issue: What is the system behavior and what would you have expected?
4. Provide a step-by-step description with an example of how to reproduce the error. An example includes **system name, client, LMPC profile used, plant, work center, and order number(s)**. You can describe the example in a document and attach it to the ticket.

3 Overview of LMPC Transactions

The LMPC package contains a large number of transactions.

The transactions can be divided into two groups.

- Transactions for Calling LMPC Applications [page 7]
- LMPC Customizing Transactions [page 7]

3.1 Transactions for Calling LMPC Applications

Overview of LMPC Applications

You can use the following transactions to call the LMPC applications:

- Transaction /LMPC/HJPT_AS LMPC HJPT Planning Table Autostart
- Transaction /LMPC/HJPT LMPC Heijunka Planning Table
- Transaction /LMPC/HJPT_2 LMPC HJPT Planning Table Without Popup Window
- Transaction /LMPC/HJPT_3 LMPC HJPT Planning Table 1 Selection Screen
- Transaction /LMPC/NIVELLIERUNG LMPC Leveling of Planned Orders
- Transaction /LMPC/MP LMPC Order Mass Processing
- Transaction /LMPC/ORDER_REP LMPC Order Report
- Transaction /LMPC/LMPC_HELP SAP Help Portal LMPC documentation. https://help.sap.com/viewer/product/SCMCSLMPC

3.2 LMPC Customizing Transactions

Overview of LMPC Customizing Transactions

The LMPC package contains the following Customizing transactions:

- Transaction /LMPC/IMG_CUST - LMPC IMG Customizing
- Transaction /LMPC/CUST Overall Profiles, Context Profiles, Action Codes [page 10]
- Transaction /LMPC/AS_CUST LMPC HJPT Planning Table Autostart [page 288]
- Transaction /LMPC/DPRO HJPT Data Provider Configuration [page 249]
- Transaction /LMPC/CUSTCAP Capacity Chart Define Categories [page 221]
- Transaction /LMPC/CUSTCOL ALV Grid Classic Colors [page 243]
- Transaction /LMPC/CUSTCOL_FML Color ALV Grid Dynamically [page 246]
- Transaction /LMPC/CUSTADD Status Fields, Material Classification, Production Resource/Tool [page 230]
- Transaction /LMPC/CUSTOREL Set Chart of Order Relations [page 224]

- Transaction /LMPC/MAT_SEQ Configuring the Material Sequence.S_EPMSQ & S_EPMSQH Configuration: Dispatch Using Material Master Sequence. [page 159]
- Transaction /LMPC/ALERT Configuration of Alerts in HJPT ALV Grid [page 238]
- Transaction /LMPC/FPL LMPC Timetable Settings [page 305]
- Transaction /LMPC/NIVEL_CFG LMPC Set Leveling [page 326]
- Adjusting ALV Grid Columns in Transaction /LMPC/FLD [page 228]
- Transaction /LMPC/GRP Group ALV Grid Fields in Layout Groups [page 225]
- Transaction /LMPC/STEU LMPC Control Parameters [page 290]
- Transaction /LMPC/VIEW Activate LMPC HJPT Views. HJPT Window Configuration [page 22]
- Transaction /LMPC/MD09_DATA Generate LMPC MD09 Data. Data Provider /LMPC/CL_DP_BED_2 Configuration: Requirement Date MD09 [page 267]
- Transaction /LMPC/MP_CUST LMPC MP Settings [page 338]
- Transaction /LMPC/OR_COLOR LMPC Order Report Color Customizing S_ORDREP Configuration: Action Code for LMPC Order Report [page 189]
- Transaction /LMPC/OR_STAT LMPC Order Report Status Customizing S_ORDREP Configuration: Action Code for LMPC Order Report [page 189]
- Transaction /LMPC/OR_DPRO LMPC Order Report Data Provider S_ORDREP Configuration: Action Code for LMPC Order Report [page 189]
- Transaction /LMPC/IMG_ENHC - LMPC IMG Enhancement Options

You can find all the LMPC configuration options in the standard SPRO – SAP Customizing Implementation Guide, under: Logistics - General > SCM Consulting Solutions > Lean Manufacturing Planning and Control.

You can also use the transaction /LMPC/IMG_CUST to access the menu with the configuration options.
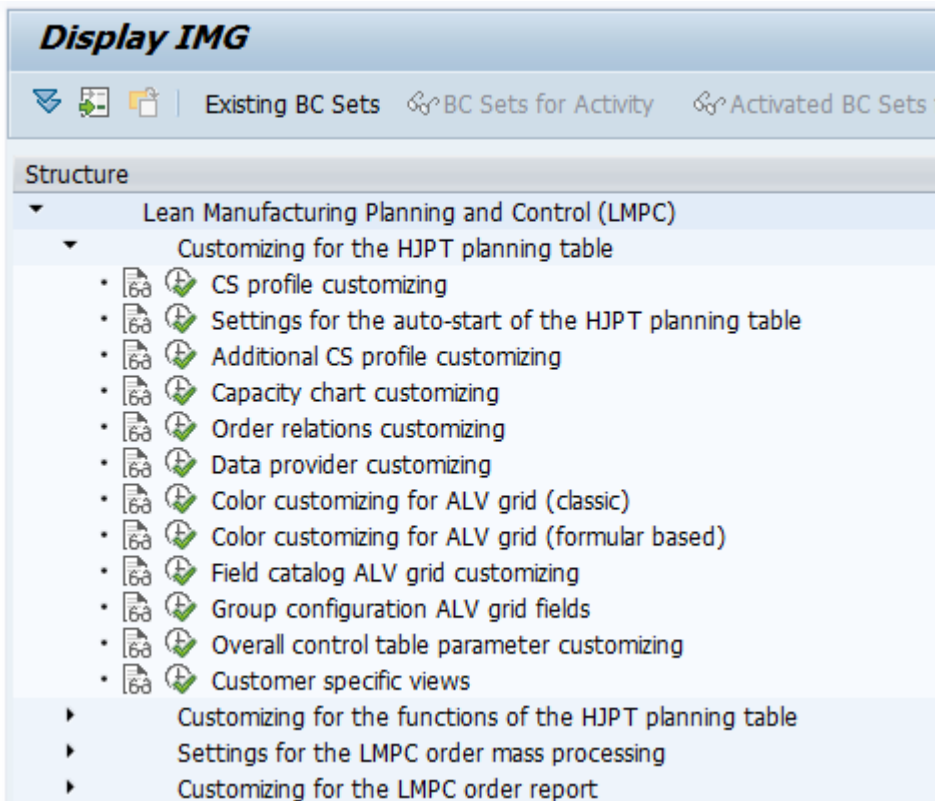
Transaction /LMPC/IMG_CUST

You can also find the menu with the possible enhancement options there. Or via transaction `/LMPC/IMG_ENHC`.

4 Configuration of the LMPC-HJPT Planning Table

This section contains all the LMPC setting options that refer to the HJPT planning table.

4.1 Transaction /LMPC/CUST Overall Profiles, Context Profiles, Action Codes

Central Customizing transaction for the HJPT planning table

The transaction `/LMPC/CUST` is the central Customizing transaction for the HJPT planning table.

The following settings are made here.

4.1.1 Configuration of HJPT Overall Profile

Overall Profile of HJPT Planning Table

Usage

The HJPT overall profile contains the central settings for calling the LMPC HJPT planning table.

With the HJPT overall profile, all relevant settings are loaded when the HJPT planning table is called. It determines the profile used in the capacity planning table, determines the arrangement of the LMPC HJPT window, and specifies the available functions.

Several overall profiles are delivered as test profiles with the LMPC Customizing transport. The LMPC Application Guide contains the description of the test profiles.

- LMPC_T01
- LMPC_T02

- LMPC_T03
- LMPC_T05

Procedure

To create customer-specific overall profiles, it is recommended that you copy an existing test profile.

Call transaction /LMPC/CUST.

The view "Change HJPT Overall Profile" gives you access to the entries for the HJPT overall profile.
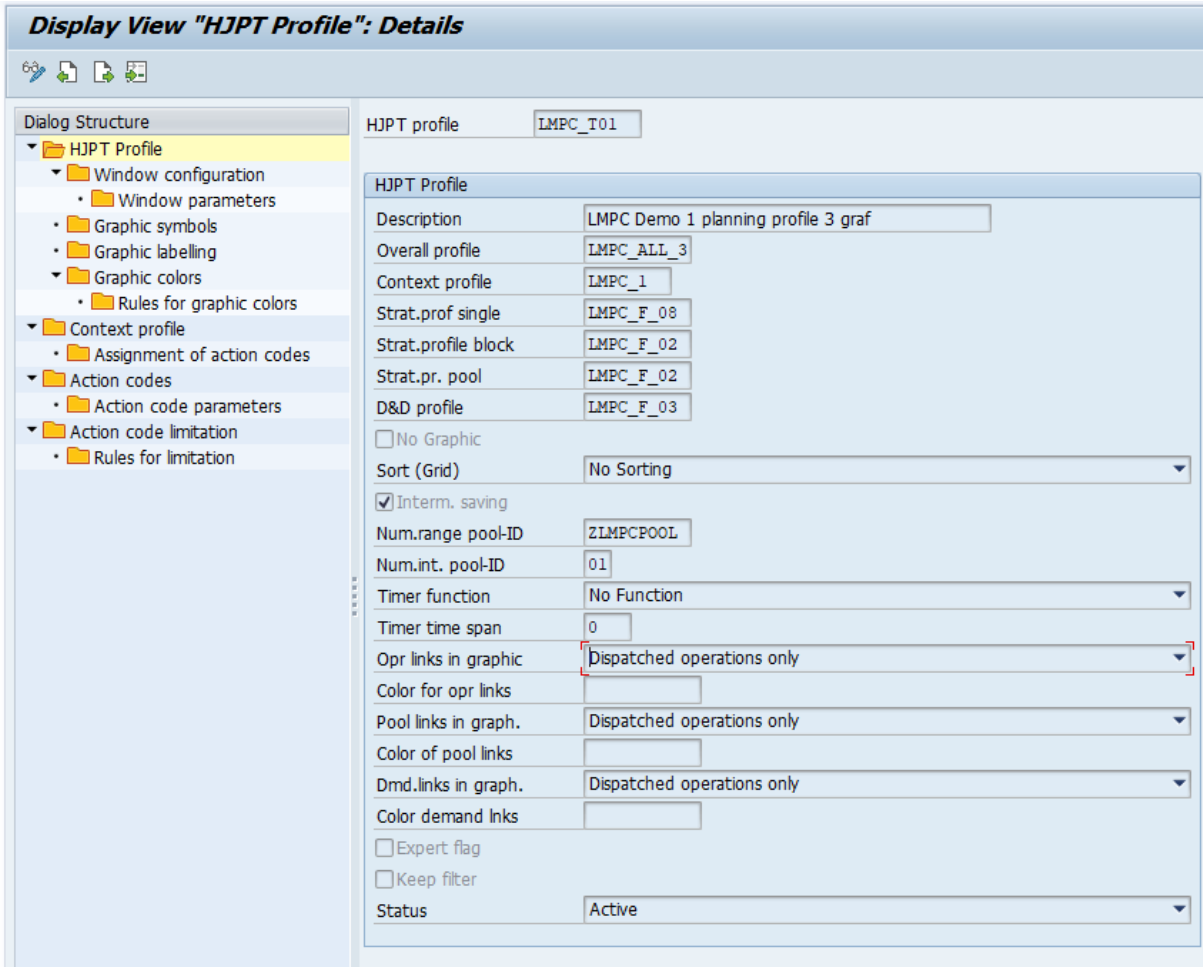
Overall Profile in Transaction /LMPC/CUST

> **→ Tip**
>
> The description is maintained in the logon language automatically. If you require the profile names in multiple languages, you can enter descriptions for other languages by choosing ▌ *Menu* ❯ *Translation* ▐.

In the HJPT overall profile you can make the following settings:

Fields HJPT Overall Profile

Field Label	Description
HJPT Overall Profile	Key field for the profile name

Field Label	Description
Description	Profile description
Overall Profile	Overall profile for capacity leveling. The overall profile of the capacity planning table.
Context Profile	Context profile of LMPC HJPT planning table
Single Strategy Profile	Strategy profile for the individual dispatching of orders.
	Used in the dispatching functions:
	S_EPALL (if no dispatching with timetable).
	S_REORD (if no strategy profile was stored using a parameter).
	S_EPSEL (if dispatching with timetable has not been defined and no other strategy profile has been defined using a parameter).
Strategy Profile Block	Strategy profile for block planning = LMPC timetable.
	Used in the dispatching functions:
	S_EPALL (if timetable allocation).
	S_EPSEL (if timetable allocation and no strategy profile has been defined for the action code).
Strategy Profile Pool	Strategy profile for dispatching the order pools.
	Used in the dispatching functions.
	S_EPSELP (if no strategy profile was specified using a parameter).
	S_MANP (if the drag and drop profile has not been set, otherwise the drag and drop profile is used).
Drag and Drop Profile	Strategy profile for dispatching using drag and drop on the capacity planning table.
	Used in the action code S_D&D (if the action code parameter is not maintained for the strategy profile).
Without Graphic	Suppress display of capacity planning table
Sorting (Grid)	No longer used (obsolete).
Intermediate Saving	Enables you to buffer the data without leaving the LMPC planning table. Mandatory setting. Must be set.
Number Range Pool ID	Number range object for the LMPC HJPT order pools. Settings for Using Pool IDs [page 14]
No. Range Pool ID	Number range interval of the number range object for the LMPC HJPT order pools.Settings for Using Pool IDs [page 14]

Field Label	Description
Timer Function	Periodic execution of the selected function. Timer Function [page 18]
Timer Period Sec	Period in seconds (1-9999) after which the timer function is executed again. Timer Function [page 18]
Operation Link Lines in Graphic	Display the link lines between the bars of the operations in the graphic. Link lines between the operations of an order. Connecting Lines Between Bars [page 19]
Operation Links Color	Color for the link lines between operations. You can use the F4 help to select colors. Connecting Lines Between Bars [page 19]
Pool Link Lines in the Graphic	Display link lines between the bars of the operation in the graphic. Link lines between the operations of an order pool. Connecting Lines Between Bars [page 19]
Color of Pool Link Lines	Color for the link lines between pool operations. You can use the F4 help to select colors. Connecting Lines Between Bars [page 19]
Requirement Link Lines in the Graphic	Display the link lines between the bars of the operations in the graphic. Link lines between the operations of the order relations. Connecting Lines Between Bars [page 19]
Color of Lines of the Demand Link	Color for the link lines between order relations. You can use the F4 help to select colors. Connecting Lines Between Bars [page 19]
Expert Flag	Remove this HJPT overall profile from the F4 help of the profiles.Expert Indicator [page 21]
Keep Filter	Filters in the ALV Grid are retained when you save and reload.
Status	Activate and deactivate the profile. Allows you to deactivate the entry without having to delete it.

> → Tip
>
> The many strategy profiles in the overall profile are due to the HJPT history. Previously, the strategy profiles were maintained in the overall profile. There are now parameters for the strategy profiles for the action codes. Strategy profiles are now to be maintained using parameters for each action code. The strategy profile in the HJPT overall profile has therefore become largely obsolete.

4.1.1.1 Settings for Using Pool IDs

Settings for the pool functionality

Usage

In LMPC, you can combine orders into a group of orders using the pool ID.

Various LMPC HJPT planning functions consider this pool ID in their logic.

To be able to use the pool functionality in the system, various settings are necessary.

Number Range for Automatic Pool ID Generation

Number assignment for the order pool can take place in three different ways:

- Manual assignment of any number by the user
- Automatic assignment of a random GUID generated by the system
- Automatic assignment of a number using a number range

We recommend that you choose the variant with the number range.

The number range is entered in the respective HJPT overall profile.

If no number range has been created, a random GUID is generated when the pool ID is assigned.

To create a number range, perform the following steps:

- Call transaction SNUM.
- Enter the object name for the number range, for example, ZLMPCPOOL, and choose *Create*.
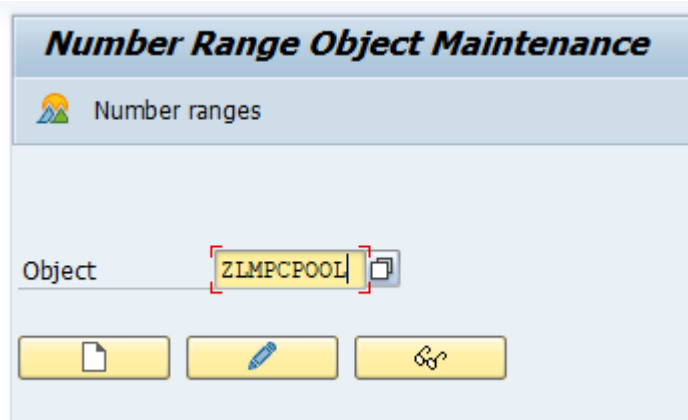
Create Number Range Object for Pool ID

- Maintain the short text and the long text.
- Maintain the "Number length domain" field with *NUM10*.
- Maintain the field "Warning %" field with *5*.
- Save your entry.

Create Number Range Object Short Text and Domain

- Now change your number range object; choose the *Number Ranges* button.
- Choose the *Change Interval* button.
- Choose the *Add Interval* button.
- Maintain the new entry (select the interval size according to your expected data volume), for example:
  Number 01
  From number 0000001
  To number 9999999
- Choose *Add* and save your entry.

Number Range Interval

Then enter this number range in the corresponding fields of the HJPT overall profile.

Num.range pool-ID	ZLMPCPOOL
Num.int. pool-ID	01

Fields of HJPT Overall Profile for Pool ID Number Range

Save Pool IDs

To save the generated pool ID in the database, a `ZZPOOL_GUID` field of type `/LMPC/POOL_GUID` must be added to the following tables using an append structure:

- PLAF
- AFKO
- CAUFVD
- CAUFVDB
- ORDPEX

As soon as this field enhancement is present, the pool IDs are saved in the database and are available again when the planning table is restarted.

> **→ Tip**
>
> If the parameter `SEQ_SAVE` in action code S_POOLID is set, the pool ID is also saved in the "Sequence Number" field in the header of planned, production, and process orders.

Get Pool IDs During Conversion

To get the pool ID when planned orders are converted into production orders or process orders, you can implement an LMPC function module in an enhancement spot. Only the function module for the enhancement implementation is delivered with the LMPC coding. The actual implementation must be executed in the customer system. A prerequisite for the enhancement is the enhancement of the database tables for saving the pool IDs.

The enhancement is executed in the enhancement spot `ES_SAPLCOSD` at position `\PR:SAPCOSD` `\EX:PL_ORDER_CR_01`:
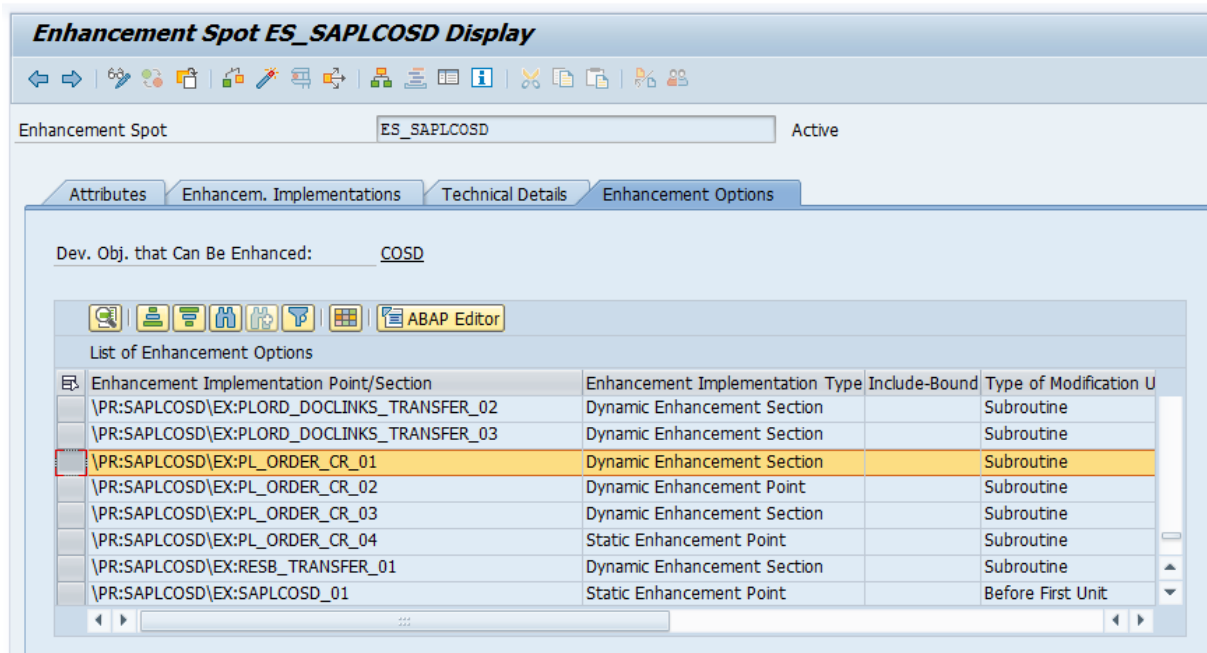
Order Conversion Enhancement Spot

The LMPC function module `/LMPC/ENHC_SET_POOL_ID` is inserted there:

Enhancement Implementation

If the SAP Mill enhancement is activated, another parameter must be transferred.

In this case, the call is to be created in this way:

```
CALL FUNCTION '/LMPC/ENHC_SET_POOL_ID'
  EXPORTING
    plafi          = plafi
    mill_cuobj_imp = afpd-cuobj
  changing
    caufd          = caufd.
```

Coding Example

4.1.1.2   Timer Function

Perform functions at regular intervals.

This function can be used to execute certain functions in the HJPT planning table at regular intervals.

You can choose between the following options:

- No function
- Refresh
- Reload
- Save
- Action Code
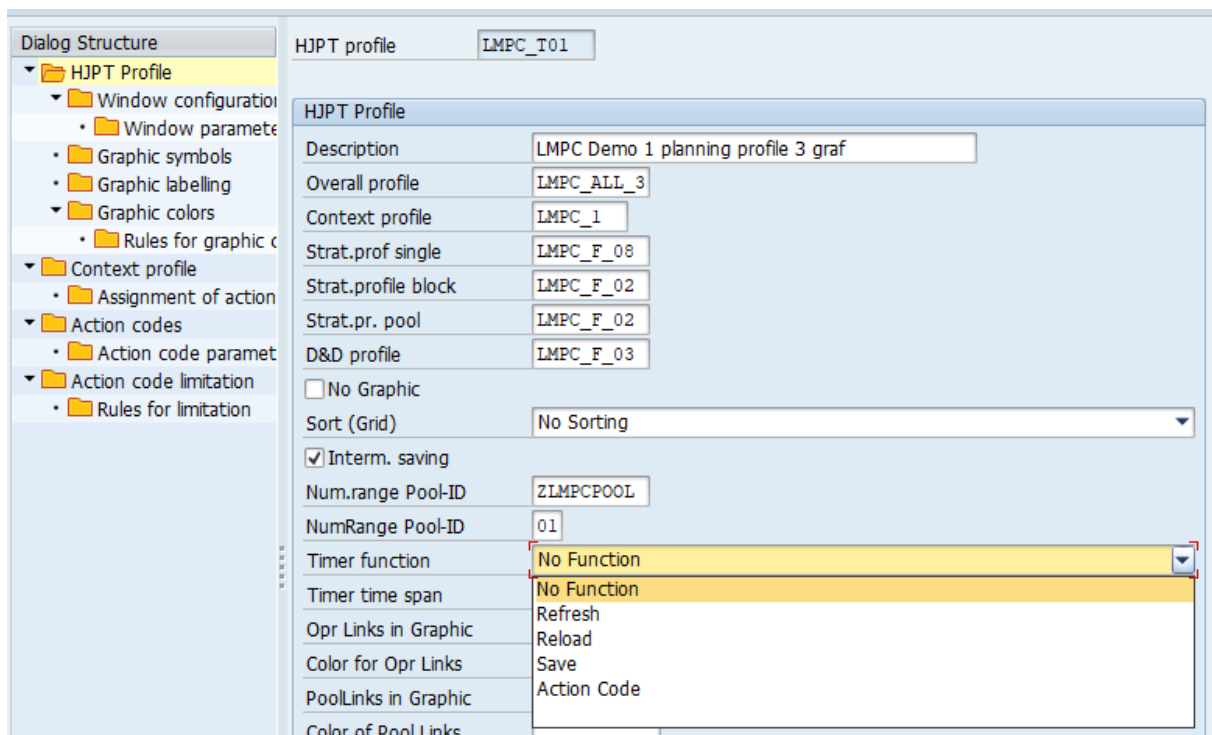
Timer Function Options

During the refresh, the data providers of the ALV grid are reloaded.

The data in the planning table is reloaded during the reload. As a result, changes that have not been saved are lost. This setting is not recommended for planning in the HJPT planning table.

When you save, the current planning situation is saved. After you save, the data is reloaded.

If you want to call an action code with the timer function, this action code must be attached to the context profile used with the trigger *Automatic Timer Function* .

Example of Action Code with Trigger TIMER in Context Profile

You should only use action codes that do not require data records to be selected in the ALV grid, as an automatic call for an action code is unlikely to select any data records in the ALV grid.

Only one action code can be executed with the timer function at a time.

Chains of action codes are only possible to a limited extent. A possible example is the execution of rescheduling with subsequent saving. Testing must take place to establish whether or not a concrete case is possible.

> → Tip
>
> For example, the timer function can be used to update data at regular intervals if the HJPT planning table is used as the production monitor.
>
> The timer function is activated in the HJPT test profile LMPC_T05.LMPC_T05

4.1.1.3   Connecting Lines Between Bars

Configuration of connecting lines in the graphic

It is possible to display connecting lines between the bars for the orders in the graphic.
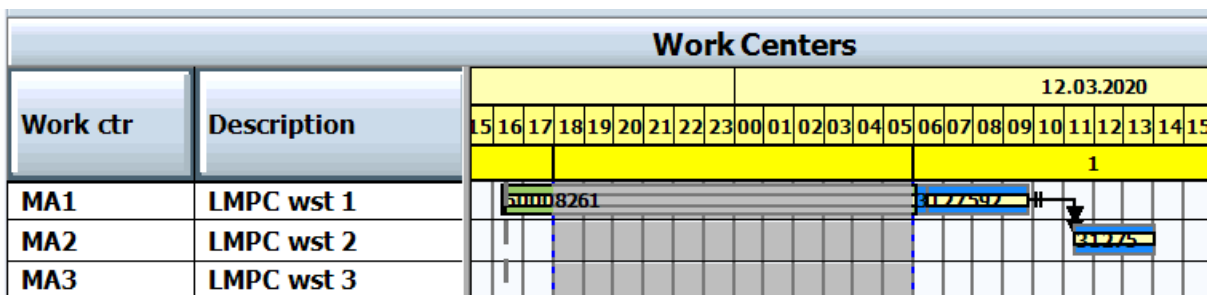
Line between operations

This allows the following connections for orders to be displayed:

- Connections between operations of an order
- Relationships between the operations for orders of an order pool
- Requirement relationships between orders

The settings are maintained in the HJPT overall profile.

HJPT profile	LMPC_T01

HJPT Profile

Description	LMPC Demo 1 planning profile 3 graf
Overall profile	LMPC_ALL_3
Context profile	LMPC_1
Strat.prof single	LMPC_F_08
Strat.profile block	LMPC_F_02
Strat.pr. pool	LMPC_F_02
D&D profile	LMPC_F_03
☐ No Graphic	
Sort (Grid)	No Sorting ▼
☑ Interm. saving	
Num.range Pool-ID	ZLMPCPOOL
NumRange Pool-ID	01
Timer function	No Function ▼
Timer time span	
Opr Links in Graphic	Dispatched operations only ▼
Color for Opr Links	Off
PoolLinks in Graphic	Dispatched operations only
Color of Pool Links	Deallocated operations only
Dmd.Links in Graphi	On
Color of Demand Lnks	
☐ Expert flag	
☐ Keep Filter	
Status	Active ▼

HJPT overall profile options for connecting lines

It is possible to generate the lines for all bars or restrict them to specific elements. The following options exist:

- Off
- For dispatched operations only
- For deallocated operations only
- On

You can maintain a color for each line type. If no color is maintained, the line is shown in black.

All the colors of the capacity planning board are available. The permitted colors can be accessed using the F4 help.
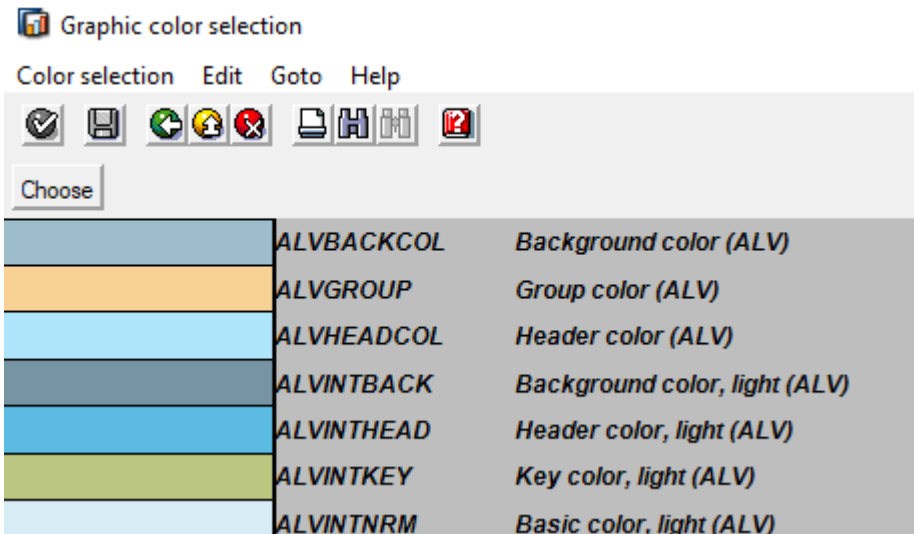
Color Selection

The usage of lines is described in the LMPC Application Guide. Connecting Lines for Bars in Bar Chart

Related Information

Connecting Lines for Bars in Bar Chart

4.1.1.4   Expert Indicator

Hide HJPT overall profile

The LMPC HJPT planning table has a very large number of fields and functions.

Productive overall profiles usually contain only the fields and functions that are actually required.

However, it could be necessary to have an expert profile with the entire field and function selection. For example, the IT department can use this to test functions that are not available for the standard user.

The expert indicator can be used to make the HJPT overall profile invisible. The setting is located in the respective overall profile in transaction `/LMPC/CUST`.

If the indicator is set, the profile is not displayed in the F4 help for the HJPT overall profiles on the initial screen of the LMPC HJPT planning table.

However, the profile can still be called using direct manual entry. This way, an "expert" who knows the name of the overall profile can call it up.

4.1.2 HJPT Window Configuration

Settings to display the HJPT windows transaction `/LMPC/HJPT_CUST`

For each HJPT overall profile, you can configure the windows that you want to display here.

In the standard system, the following elements are available:

- The Graphic
- The ALV grid for displaying data in table form
- Charts for capacity utilization, development of stocking situation and order relations
- An HTML viewer that displays a pre-configured Web page.

The graphic is always in the main window of the open SAP GUI. All other elements can be grouped around the graphic.

The window position is therefore always configured with reference to the window of the graphic.
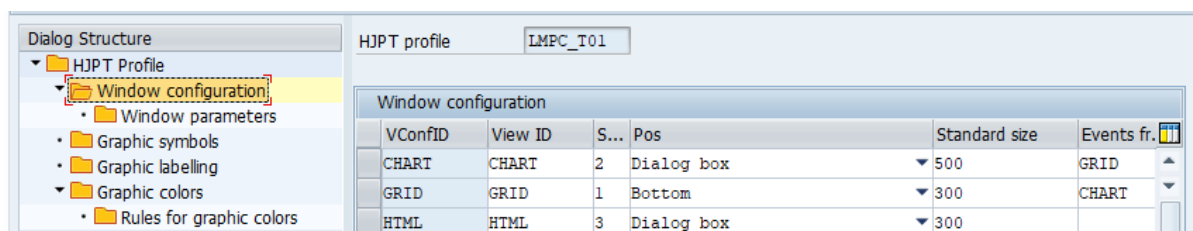
In theory, any number of windows can be configured for each profile. You can use the setting options to implement a large number of views.

For example, the ALV grid below the graphic can be displayed in the same window. This is the standard display from the LMPC test profiles.

A different setting can allow the ALV grid to be displayed in a separate dialog box. This is useful when working with multiple screens.

It is also possible to open all windows: graphic, ALV grid, and capacity charts, and display these in a single GUI window.

Example of Window Configuration

> → Tip
>
> Some overall profiles already exist as test profiles in the LMPC delivery. The creation of new overall profiles is easier if existing test profiles are copied.

Example Window Configuration

Fields for configuration of windows:

Fields for Configuration

Field	Description
VConfID	A unique identifier. Key field. Naming is user-defined, except for the ALV Grid and the HTML Viewer.

Field	Description
View ID	The fixed description "GRID" is predefined for the ALV grid.
	The view ID from transaction /LMPC/VIEW is used for a chart.
	The fixed name "HTML" is predefined for the HTML viewer for displaying Web pages.
Sequence number	All windows are called up in the order of this status number.
View Position	The following options are available:
	- Top - Bottom - Left - Right - Dialog
	Dialog: The window is displayed as a dialog box = popup.
	Top, Bottom, Left, or Right: Arrangement of the element in relation to the graphic.
	Special case no graphic: If the "Without Graphic" indicator is set in the HJPT overall profile, the first window is positioned independently of the value. If the graphic is deactivated, the ALV grid must have the sequence number 1. This is a technical specification.

Field	Description
Standard Size	Set the size of the windows when you first open the LMPC HJPT planning table for each user and profile.
	You can specify only one value, since this is a technical restriction of the used dialog box container.
	Option Dialog: Size: Width = <value>, Height = <value>/2
	Option Top / Bottom: Height = <value>, the width is automatically the window width of the SAP GUI
	Option Left / Right: Width = <value>, the height is automatically the window height of the SAP GUI
	All windows start at the same screen position. This means that the first time the dialog window is opened (usually the capacity chart), it is displayed before the window for the graphic and the ALV grid.
	The user can put the windows anywhere the screen and change their size as required, as is usual in the SAP GUI.
	As soon as the user saves in the LMPC HJPT planning table, the window sizes and items are stored in an LMPC table. Saving always takes place for each user name and HJPT overall profile.
	After the first save, the values set from Customizing no longer apply. The windows will be opened in the same arrangement as they were displayed when you last saved.
	You can use the action code S_RESSIZ at any time to reset the windows to the values defined in Customizing.
	S_RESSIZ Reset All HJPT Windows
Events From	View ID of another view to allow receipt of events from this.
	For example, the CHART receives the events from the GRID and vice versa.

All windows are implemented as classes with the **interface /LMPC/IF_VIEW** .

Customer-specific windows can be implemented.

These must be included with the transaction `/LMPC/VIEW`.

In the standard system, the class for the chart of the HJPT planning table is set there.

Transaction /LMPC/VIEW

Parameters can be set to control the behavior of the HJPT window. The parameters for the various windows are described in the following chapter.

Related Information

Parameter Settings for the HJPT ALV Grid [page 25]
Parameter Settings for Chart Window [page 26]
Parameter Settings for the HTML Viewer [page 32]

4.1.2.1   Parameter Settings for the HJPT ALV Grid

ALV grid parameters

This chapter covers the parameters for the LMPC HJPT ALV grid.

Example Parameters for the ALV Grid

You can call up input help for the Parameters field to get an overview of which parameters are available.

View ID: GRID

PID	Description
LAYGR	Layout group (ALV). Same groups share variants.
NAVI	Navigation profiles allowed
NPROFI	Default grid variant called at start
VARI	Default grid variant called at start

Input Help Parameters

The following parameters are available for the ALV grid:

ALV Grid Parameter

Parameter	Description
LAYGR	The layouts of the ALV grid are saved to a layout group.
	The system proposes only the layouts saved under this group for selection.
	Default value: LG01
NAVI	If the parameter is set ("X"), navigation profiles can be used.
NPROFI	Designation of the navigation profile that is set automatically when the planning table is started.
	This setting overrides all user settings. This means that this navigation profile is displayed for all the users of this overall profile.
VARI parameter	Designation of the layout that is set automatically when the planning table is started.
	This setting overrides all user settings. This means that this ALV grid layout is defined for all the users of this overall pro-file.

4.1.2.2   Parameter Settings for Chart Window

Parameters for HJPT Charts

This chapter deals with the parameters for the LMPC HJPT charts: Capacity chart, development of the stocking situation chart and the chart of order relations.

Dialog Structure		
HJPT profile	LMPC_T01	
ViewConfigID	CHART	

Window parameters

Parameter	Parameter value
ALLOVFL	
EMODE	H
HIER	X
HISTORY	
INDCAP	
KAPDATA	X
MENU	X
ORINVD	X
ORMWM	X
PMODE	C
SHOW1	1CL
SHOW2	2IV
SHOW3	3OR
SMODE	1
TD1	10
TD2	20
TM1	3
TM2	6
TW1	6
TW2	12

Example Parameter Settings for Chart Window

You can call up F4 help for the Parameters field to get an overview of which parameters are available.

PID	Description
ALLOVFL	All overflow
CCLASS	Build categories: Class of interface /LMPC/IF_CATEGORY_BUILDER
EMODE	Initial: Unit of measuere in % of hours
HIER	Aggregate data of work center hierarchies (X)
HISTORY	No capacity load in history
INDCAP	Cap load diagram: Show individual capacities
KAPDATA	Show capacity chart data
MENU	Toolbar: Menu mode
MTGRP	Material group aggregation
NRDAYS	Stock dev. chart: Date range number of days
ORINVD	Order relations: display hierarchy inverse
ORMWM	Order relations: selection via work center and material number
PMODE	Period (Day/Week/Month)
SHOW1	Chart on position 1
SHOW2	Chart on position 2
SHOW3	Chart on position 3
SHOW4	Chart on position 4
SMODE	1 = period 1; 2 = period 2
TD1	Number of days period 1
TD2	Number of days period 2
TM1	Number of months period 1
TM2	Number of months period 2
TW1	Number of weeks period 1
TW2	Number of weeks period 2
VRFMG	Stock dev. chart with available qty.

Available Chart Parameters

These parameters affect all charts. The capacity chart, development of the stocking situation chart and the chart of order relations.

> → Remember
>
> The chart of order relations has further settings options in a separate Customizing transaction.
> Transaction /LMPC/CUSTOREL Set Chart of Order Relations [page 224]

The following parameters are available for charts:

Parameters of HJPT Charts

Parameter	Description
ALLOVFL	Influencing the calculation of the cumulated overload for the ALV grid of the capacity chart. This parameter is only effective if the parameter KAPDATA is set. If the parameter is set to "X", the cumulated overload is calculated over the entire selection period. If the parameter is not set, the calculation takes place only using the values displayed in the chart.

Parameter	Description
CCLASS	Override the capacity categories for the capacity chart from the transaction `/LMPC/CUSTCAP`.
	You can use this parameter to specify that a class in the customer namespace is to schedule the operations into categories.
	A class from the interface `/LMPC/IF_CATEGORY_BUILDER` is entered as parameter value.
EMODE	Influence the calculation of capacity utilization for the capacity chart.
	If the parameter is empty, the capacity utilization is displayed in %.
	If the parameter has the value "H", the capacity load is specified in hours.
HIER	Activation of hierarchy aggregation for the capacity chart.
	If this parameter is set ("X"), the system reads the work center hierarchies for the selection work centers.
	An additional pushbutton is created in the chart for each hierarchy found.
	The pushbutton is labeled with 'HR' + the hierarchy name.
	If you choose a hierarchy button, the data is aggregated from all associated work centers of the selection.
HISTORY	Calculation of production backlog in capacity chart.
	If the parameter is set to "X", then all the capacity requirements in the past are aggregated to the current date.
INDCAP	Activation of the evaluation of individual capacities for the capacity chart.
	If the parameter is set to "X", the capacity utilization is calculated at the level of the individual capacities.
	For example, machine capacities or labor capacities.
KAPDATA	Activation of the ALV grid data in the capacity chart.
	If this parameter is set to "X", an ALV grid list with the numeric values for the chart is displayed below the chart of capacity utilization.

Parameter	Description
MENU	Setting for the selection buttons for the capacities in the capacity chart.
	The toolbar of the capacity diagram can be displayed as a nested menu structure (MENU = "X") or as individual push-buttons (MENU = " ").
MTGRP	Activation of aggregation at storage location for the development of stocking situation chart.
	If this parameter is set to "X", an additional selection for aggregated development of stocking situation is offered in the inventory diagram.
	Aggregation takes place using the storage location in the plant.
	The system aggregates the development of stocking situation for each storage location for all materials. The selection is made using the plant – storage location submenu.
NRDAYS	Obsolete parameter. No longer used.
ORINVD	Influence the sequence of the display in the chart of the order relations.
	If the parameter is not set, the finished product is displayed in the direction of the source material.
	If this parameter is set, the order in which the order relations are displayed is reversed. The raw material is then displayed in the direction of the finished product.
ORMWM	Influence the selection menu in the chart of the order relations.
	If this parameter is set, the order numbers in the chart of order relations are displayed in the selection menu, sorted by work center and material number.
	If the parameter is not set, the order number selection is a simple list of all open order numbers.
PMODE	Default setting for display period for capacity chart.
	The following options are available:
	"C": Display period can be selected using a pushbutton: Day, Month or Week "D": Display Period Day Only "M": Display Period Month Only "W": Display Period Week Only

Parameter	Description
SHOW1 - 4	Define the positions for the chart in the chart window.
	Each parameter represents a chart item in the window.
	For SHOW1, you specify which chart is to be displayed first.
	SHOW2 for item 2, and so on.
	Parameters SHOW1-4 replace the previous parameter SHOW.
	The settings for this remain valid.
	However, as soon as SHOW1-4 is used, these parameters override the old configuration of SHOW.
	The following parameter values are available:
	• "1CL": Capacity Utilization Chart
	• "2IV": Development of Stocking Situation Chart
	• "3OR": Chart of Order Relations
	• "4CC": Chart of Capacity Requirement
	• "5CM": Chart for Overall Capacity Load
SMODE	Default setting for the filter for the capacity chart and the development of stocking situation chart.
	Defines which period is to be automatically preset when the chart is opened.
	• "1" = Period 1.
	• "2" = Period 2.
TD1, TD2, TW1, TW2, TM1, TM2	Defines the scope of the filter for the capacity type and the development of stocking situation chart.
	TD1 and TD2:
	Number of days for filters 1 and 2 when selecting the display in days.
	TW1 and TW2:
	Number of weeks for filters 1 and 2 when selecting the display in weeks.
	TM1 and TM2:
	Number of months for filters 1 and 2 when selecting the display in months.

Parameter	Description
VRFMG	Influence the display of the development of stocking situation.
	If this parameter is set, the development of stocking situation is not mapped in steps of 15 minutes, but using the obsolete logic for which there is a data point per receipt element in the HJPT planning table.

Selection Functions for the Capacity Chart

If you click on a bar in the chart, the corresponding operations are selected in the ALV grid of the LMPC HJPT planning table if the ALV grid is set in Customizing as the event receiver of the chart.

If this still does not work, you may have to implement SAP Note 2017987.

Conversely, you can use the action code S_SELCAP to display the capacity requirements of selected rows of the ALV Grid as areas highlighted in white. S_SELCAP Selecting Detailed Capacity List in the Chart

Hierarchy Aggregation for the Capacity Chart

It is possible to display the aggregated data of a work center hierarchy. There are two display options:

1. Set the parameter "HIER" Customizing for the chart. If this parameter is set ("X"), the system reads the work center hierarchies for the work centers in the selection. For each hierarchy found, a pushbutton is generated in the chart. The button is labeled "HR" + the hierarchy name. If you choose a hierarchy button, the data is aggregated from all associated work centers of the selection.
2. Enter the hierarchy in the evaluation profile of the overall profile for capacity leveling (graphical planning table). If a hierarchy is maintained in the evaluation profile, the system creates pushbuttons for the work centers of this hierarchy only. Node work centers are used here for aggregation. All the capacity requirements and available capacities of the subordinate work centers are aggregated to the higher-level node work center. The capacity of the node work center is not included in the calculation but the capacity load is. Therefore, no requirements should be assigned to the node work center.
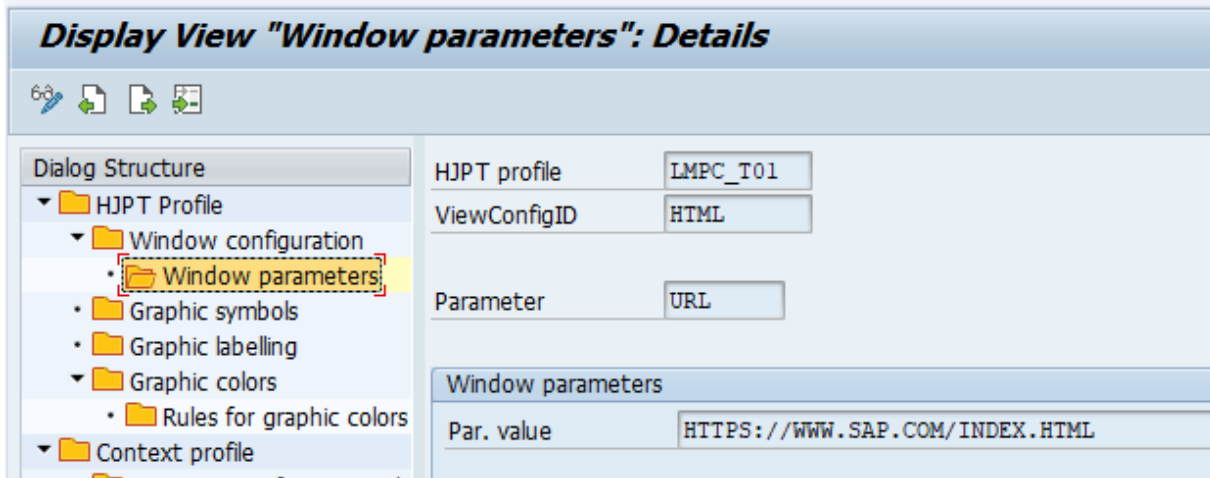
Related Information

S_SELCAP Selecting Detailed Capacity List in the Chart

4.1.2.3 Parameter Settings for the HTML Viewer

HTML viewer parameters

This section deals with the parameters for the LMPC HJPT HTML viewer.

Example Configuration of HTML Viewer

The HTML viewer can be used to display a website in a window when the HJPT planning table is called.

The URL parameter is used to enter the web address of the website to be displayed.
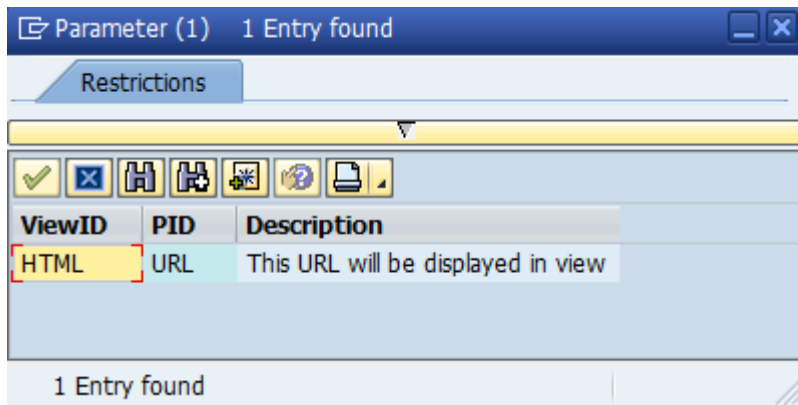
HTML View Parameter URL

4.1.3 Additional Graphic Symbols

Additional Graphic Symbols for the HJPT Planning Table

Usage

Additional graphic elements can be displayed in the charts of the capacity planning table.

This is helpful, for example, for the display of conflicts such as the MD04 rescheduling message or the violation of the threshold date.

The time limits of the elements are defined using LMPC HJPT fields.

This means that graphic elements can be created for fields that are not available in the capacity planning table.

Elements can be displayed for an event, for example, rescheduling proposal, or for a period, for example, remaining capacity bars.

Field Description

Fields for Additional Graphic Symbols

Field Label	Description
HJPT Overall Profile	Assigned HJPT overall profile
Sequence Number	Numbering
Chart ID	Number of the graphics block of the capacity planning table on which the symbol is to be displayed. If you have defined a 3-part planning table, the top part has the number 1, the bottom part has the number 3.
Type	The type of the graphic symbol is defined using the standard Customizing for the SAP capacity planning table. Transaction: BCG8
Start Date	Fields from the structure /LMPC/HJPT_F01 (field list) that determine the start position of the graphic. It must be a date field.
Start Time	Fields from the structure /LMPC/HJPT_F01 (field list) that determine the start position of the graphic. It must be a time field.
End Date	Fields from the structure /LMPC/HJPT_F01 (field list) that determine the end position of the graphic. It must be a date field.
End Time	Fields from the structure /LMPC/HJPT_F01 (field list) that determine the end position of the graphic. It must be a time field. Fields from the structure /LMPC/HJPT_F01 (field list) that determine the end position of the graphic. It must be a time field.

Examples

In the LMPC outbound delivery, examples of additional graphic symbols are already set in the test profiles.

Example of Graphic Symbols

The following elements are generated with this sample Customizing:

MU: Rhombus for the MD04rescheduling proposal

RK: Bar for displaying the remaining capacity requirement

DR: Triangle: Earliest start time of an order

DL: Triangle: Basic end date of production / process orders

> **! Restriction**
>
> The bars for the remaining capacity display are only generated for PP planned orders and production orders, as well as PI process orders. Not for PI planned orders.

4.1.4 Graphic Text
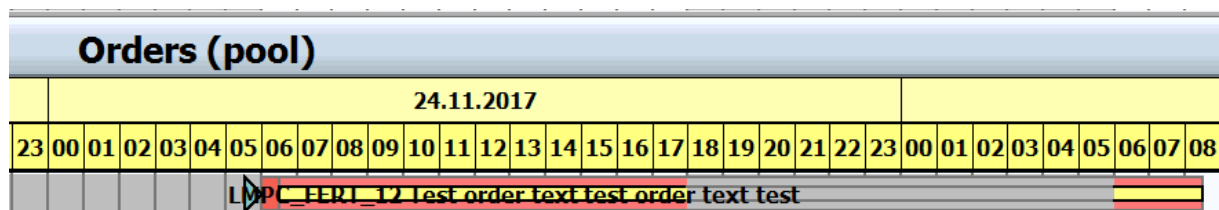
Example Bar Text Material Number and LMPC Order Text

Usage

In Customizing for the capacity planning table, you can display the text of a field of the capacity planning table on the graphic bar.

The disadvantage of this solution is that only the content of one standard field of the capacity planning board can be displayed.

In the LMPC HJPT planning table, you can use Customizing to override the bar text.

For each chart, you can specify separately which field contents are displayed on the bars.

The contents of up to 4 fields can be displayed per bar.

All fields of the ALV Grid of the HJPT planning table are available as content. Structure `/LMPC/HJPT_F01`.

All additional fields due to the enhancement of this structure in the customer namespace can be displayed.

The maximum character length is 80 characters. If the result set is longer than 80 characters, only the first 80 characters are displayed.

The data in the fields is written to the graphic text in succession, each with a space.

The respective entry can be deactivated using the *Status* switch.

Example

Example Settings for the Graphic Text

4.1.5 Graphic Coloring Method

Simple coloring of bars in the graphic

The HJPT planning table uses the SAP standard capacity planning table for the graphical display of orders.

Preconfigured overall profiles for the capacity planning table are delivered for the graphic by LMPC development.

The coloring of the bars is preset in these profiles.

The Customizing for coloring in the capacity planning table is very complex.

You can also use the LMPC Customizing transaction `/LMPC/CUST` to override the color application for the bars.

This is possible using simple rules.

Rule definition takes place in two steps.

First Step

Example color setting 1st step

The colors are defined in the first step.

The following fields are available:

First Step Coloring Fields

Field Name	Description
Processing - Color	Definition of color for the Processing bar subarea.
Processing - Line	Definition of color for the line color around the bar. Processing subarea.
Processing - Pattrn	Definition of an optional pattern for the bar. Processing subarea.
Processing - P.Col.	Definition of the pattern color for the pattern on the bars. Processing subarea.
SetUp – Color	Definition of the color for the bar. Setup subarea.
SetUp - Line	Definition of color for the line color around the bar. Setup subarea.
SetUp – Pattern	Definition of an optional pattern for the bar. Setup subarea.
SetUp - P.Col.	Definition of the pattern color for the pattern on the bars. Setup subarea.
TearDown – Color	Definition of the color for the bar. Teardown subarea.
TearDown - Line	Definition of color for the line color around the bar. Teardown subarea.
TearDown Pattern	Definition of an optional pattern for the bar. Teardown subarea.
TearDown - P.Col.	Definition of the pattern color for the pattern on the bars. Teardown subarea.
Status	Options: • Always active • Active only once • Inactive

The coloring is intended for the coloring of PP orders with the setup, process and teardown steps.

It is only necessary to maintain the field for the processing color. The line, pattern, and pattern color for processing are optional.

Therefore, only one field has to be maintained.

If the setup and teardown fields are not maintained, the system automatically copies the data from the fields for processing.

For order types without setup or teardown, such as process orders, it is also just the fields for processing that are maintained.

The possible colors and color patterns can be displayed using the input help.
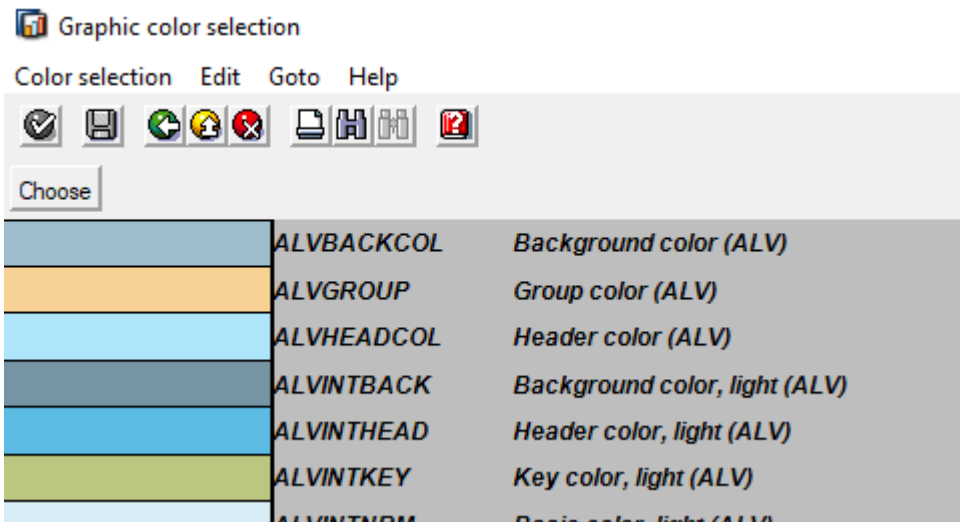
Example Input Help for Color Selection

Example Input Help Pattern
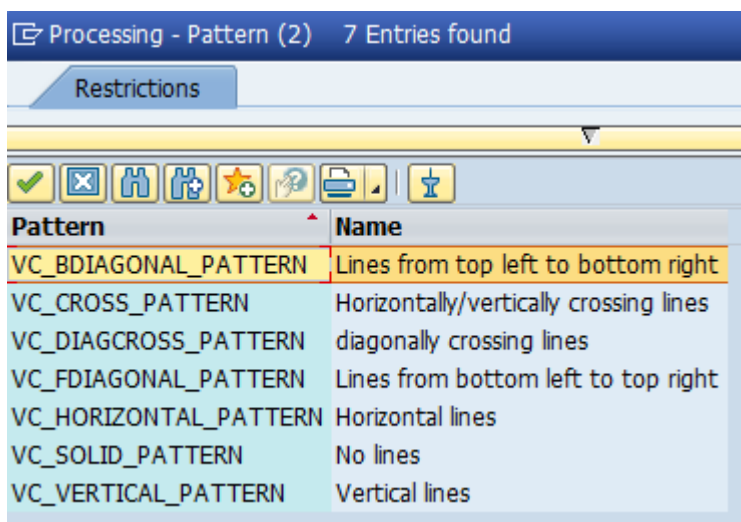
The status indicates whether the entry is active. It also specifies whether the rule should be evaluated each time the data is changed in the HJPT planning table, or only once when the HJPT planning table is called up.

Restricting it to a one-time evaluation reduces the calculation effort required. This is useful for rules based on fields whose values do not change when processing the orders in the HJPT planning table, such as the material number.

Second Step

In the second step, the formulas for graphic coloring are specified.
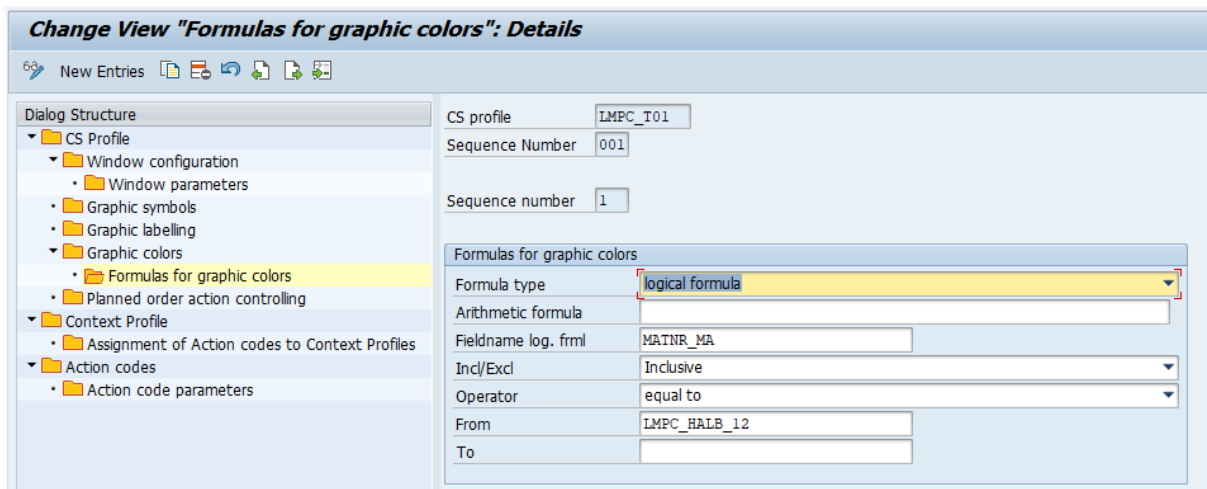
Example Formula Definition

You can use multiple formulas for each rule.

Logical formulas require less processing time than arithmetic formulas.

Rule definition takes place in the same way as the definition of rules for applying colors to the ALV grid with formulas, see this chapter.Transaction /LMPC/CUSTCOL_FML Color ALV Grid Dynamically [page 246]

> ⚠ Caution
>
> - We recommend that you use the definition of rules sparingly. Each rule must be evaluated for each bar in the graphic. This can result in runtime restrictions if many and complex rules are used.
> - Color application only takes place if a particular Customizing object exists in the system for the graphical planning table. This is delivered with the LMPC Basis Customizing request for new customers as of 2020, or with the Customizing Delta Transport 2020.
> - Color application has been aligned with the current preconfigured overall profiles of the graphical planning table, which are delivered by LMPC development. A guarantee that color application with function correctly is only possible for these profiles. It may be the case that color application does not function correctly if customers use their own overall profiles of the graphical planning table. LMPC Consulting can support you when setting up the usage of LMPC coloring for the bars with your own profiles.

Related Information

Transaction /LMPC/CUSTADD Status Fields, Material Classification, Production Resource/Tool [page 230]

4.1.6 HJPT Context Profiles

Context profiles for HJPT planning table

Usage

Each HJPT overall profile contains a context profile to determine which action codes are available in this profile.

You use the context profile to specify which action codes can be called at which position in the HJPT planning table.

For example, action codes can be started automatically when the planning table is called, by using pushbuttons above the ALV grid, or by right clicking on a bar in the graphic.

Action codes are the functions of the HJPT planning table. Action codes are explained in a separate chapter. Configuration of HJPT Action Codes [page 49]

> → Tip
>
> A series of examples of context profiles are delivered with the LMPC delivery. To create your own context profiles, we recommend that you copy an existing context profile.

Maintenance

A context profile is assigned to the HJPT overall profile in the transaction /LMPC/CUST.
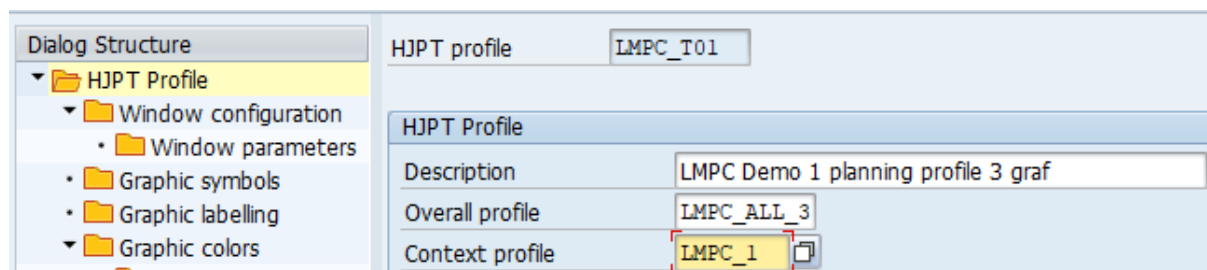
Context Profile Field in HJPT Overall Profile

The context profiles are created in the *Context Profile* folder in the same transaction.

The system first creates the key and the description.
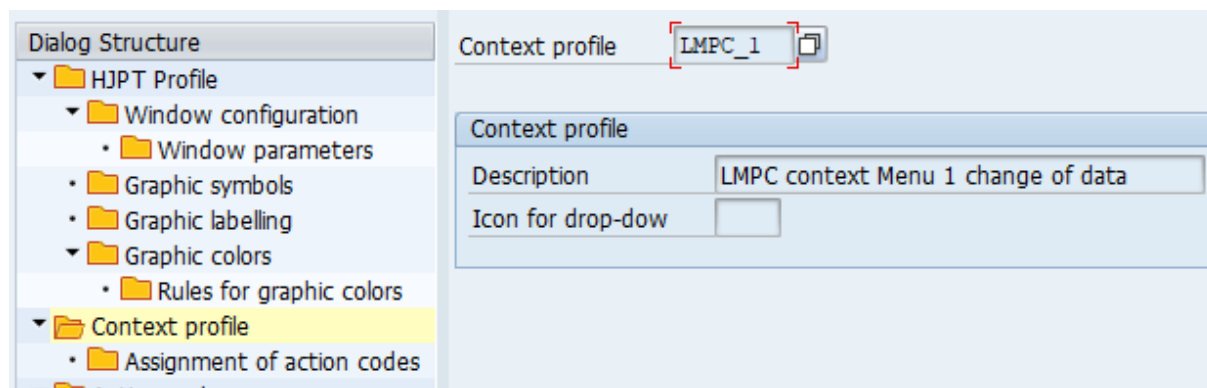
Create Context Profile

The icon for dropdown is only maintained for context profiles that are to group several action codes into a dropdown group in the ALV grid. You can find the explanation for this topic in the chapter about nested context profiles.Nested Context Profiles [page 43]

You assign the action codes to the context profile under the *Assignment of Action Codes* menu option. A trigger must be assigned to each action. The trigger specifies how the action code is used. You can find details about the trigger in the chapter about action code triggers.Action Code Trigger [page 41]
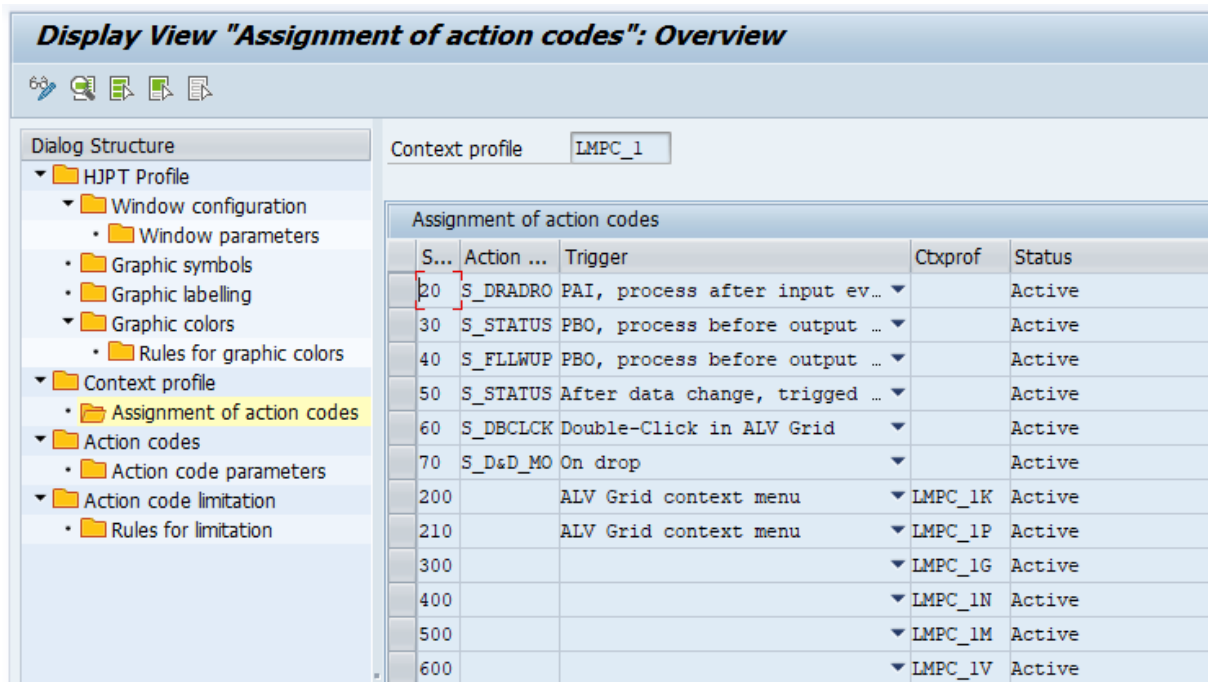
Example Maintenance of Action Codes in Context Menu

The following columns are available:

Fields in Context Profile

Field Name	Description
Seq	Sequence number. Display sequence in the menu or in the toolbar.
Action Code	Key for the assigned action code.
Trigger	Control signal for the action. Action Code Trigger [page 41]
CtxProfile	Nested context menu. Nested Context Profiles [page 43]
Status	Status of entry: Active or Inactive.

4.1.6.1 Action Code Trigger

Define Usage of HJPT Action Codes

The trigger specifies how the action code is used.

Triggers can be divided into two categories:

System Events:

- On Drop
- After a data refresh
- After data change, trigger: Action code S_REFR
- When calling the planning table, before data selection

- PBO
- PAI
- Automatic timer function

Events Triggered by the User:

- ALV Grid menu toolbar
- ALV Grid context menu
- Double-click function
- Graphic bar context menu
- Navigation profile
- Menu bar: Capacity planning table
- Drag and drop in the capacity planning table
- Dropdown pushbutton in the ALV Grid menu toolbar

Explanation of the triggers:

Action Code Trigger Overview

Trigger	Description
ALV Grid context menu	The action is added to the context menu of the ALV Grid. The action code is called by right-clicking on a field in the HJPT ALV Grid.
Double-click function	The action code is called by double-clicking on an HJPT ALV Grid cell.
On Drop	Called after a drag and drop in the HJPT ALV Grid when the element has been dropped EVENT: ON_DROP.
Graphic bar context menu	The action code is displayed in the context menu of the graphical part of the planning table. You can call it by right-clicking on a graphical element.
After a data refresh	The action is called after each planning table action.
After data change, trigger: Action code S_REFR	The action code S_REFR calls the event REFRESH. The action is therefore always performed after a refresh.
ALV Grid menu toolbar	The action codes are added to the toolbar of the ALV Grid and called there by clicking on the corresponding pushbutton.
When calling the planning table, before data selection	The action is called once when the planning table is called, before the selection screen is displayed. Another call is made when the action code S_RELOAD is executed, since this rebuilds the planning table.
PBO	Call shortly before each rebuild of the screen. PBO – Process before output.
PAI	Processing directly after input. PAI – Process after input.
Navigation profile	Action codes that have this trigger can be used in navigation profiles.

Trigger	Description
Menu bar: Capacity planning table	Actions can be called in the menu bar above the graphic.
	You can also control these using shortcuts. The shortcuts are visible in the quick info.
	Prerequisite: In the control profile used in the capacity planning table, HJPT is entered as the change status.
	Restriction: A maximum of 10 action codes can be added to the menu bar.
Automatic timer function	Actions can be executed periodically using the timer function from the HJPT profile.
	This trigger can only be used once per HJPT overall profile.
	Timer Function [page 18]
Drag and drop in the capacity planning table	Actions can be called in the capacity planning table using drag and drop. This allows you to replace the standard functions of the capacity planning table.
Dropdown pushbutton in the ALV Grid menu toolbar	Action codes in a dropdown pushbutton above the ALV Grid.
	Any number of functions can be added to the dropdown menu of a pushbutton in the ALV Grid. This can reduce the number of pushbuttons in the ALV Grid. For details, see the chapter on the nested context profiles.
	Nested Context Profiles [page 43]

4.1.6.2   Nested Context Profiles

Attach context profiles to other context profiles

It is possible to add further context profiles to a context profile.

For example, this can be used to group the action codes more clearly.

Nesting takes place by creating a new entry in a row of a context profile that contains the name of a context profile in the column for the context profile.

In this case, the field for the action code remains empty.

Examples of Nested Context Profiles

Depending on the setting, nesting leads to various results:

- If no trigger was specified when the context profile was nested, the relevant action codes are transferred to the superordinate context profile at the point where they are intended for their trigger. You can use this setting to group action codes thematically by trigger to increase the clarity of the Customizing settings. Examples: A context profile for the application toolbar above the ALV grid, another context profile for the context menu of the ALV grid, and a context profile for the context menu for the graphic bar.
- If the trigger is "ALV grid context menu selected" when the context menu is nested, a submenu is created in the context menu of the ALV grid with the description that was assigned for the inserted context menu. The action codes are all assigned in a submenu of the context menu. It is important that the action codes in the lower-level context menu all have the trigger "ALV grid context menu".

Result of Nested Action Codes in Context Menu

- If "Dropdown button in the ALV grid menu application toolbar" is selected when the trigger is nested, all the action codes of this context menu are grouped into the dropdown menu of a pushbutton. The pushbutton takes the description of the context menu. If an icon has been maintained for the context menu, the icon is also displayed on the pushbutton. You can use this setting to reduce the number of pushbuttons in the ALV grid menu bar. When you click the pushbutton, the system opens a dropdown menu from which the relevant function can be selected. All action codes in this nested context profile must have the trigger "ALV grid menu toolbar".
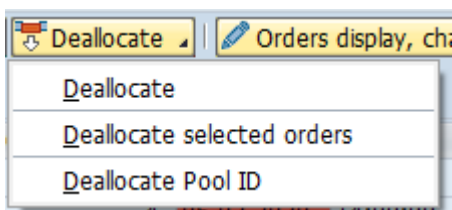
Result of Nested Context Menu as Dropdown Menu

The test profiles provided with the LMPC delivery also contain sample context profiles. The context profiles are set up in such a way that all action codes can be called up using the ALV grid menu bar.

The example Customizing can be adjusted at any time.

> **→ Tip**
>
> It is recommended that you create copies of the delivered sample context profiles for customer-specific planning profiles. This ensures that these copies are protected from later changes by importing the current LMPC Customizing.

4.1.6.3   ALV Grid Navigation Profiles

Configure individual ALV grid toolbar

Usage

Navigation profiles represent another method of grouping action codes and displaying them in the application toolbar above the ALV grid or in the context menu of the ALV grid.

The advantage of this is that each user can compile the action codes themselves. This allows a user to structure the application toolbar above the ALV grid and the context menu of the ALV grid itself. Users with different tasks can use the same HJPT overall profile and only see the functions that are important for them.

Maintenance

To use navigation profiles, the parameter "NAVI" must be maintained in the Parameters window of the GRID view. You do this in transaction /LMPC/CUST.
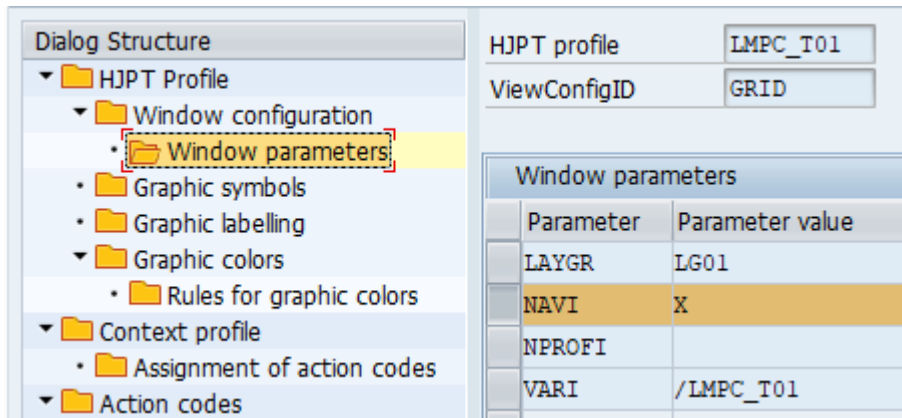
NAVI Parameter in Window Configuration

Additionally, the action codes that are to be available for the navigation profile must be set in the context menu with the "Navigation Profile" trigger.
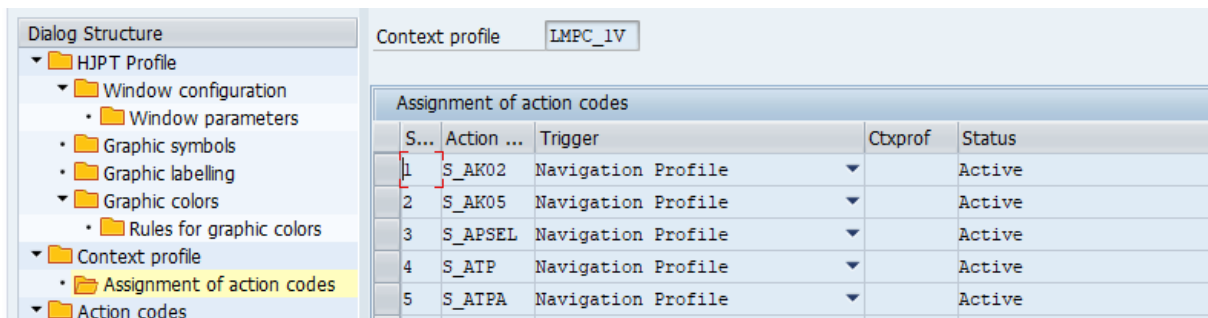
Action Codes for Navigation Profile

A **"DEFAULT" navigation profile** is available for each user on startup, containing all action codes with this trigger. This makes it easier to create your own profiles.

The user of the planning table can compile the quantity of functions in the **ALV grid application toolbar and in the ALV Grid context menu** as described below.

The setting is made above the ALV grid using the pushbutton for the navigation profile.
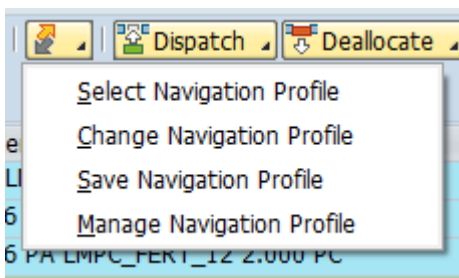
Set Navigation Profile

The individual actions are added with "Change Navigation Profile" -> "+" -> "Function Call".
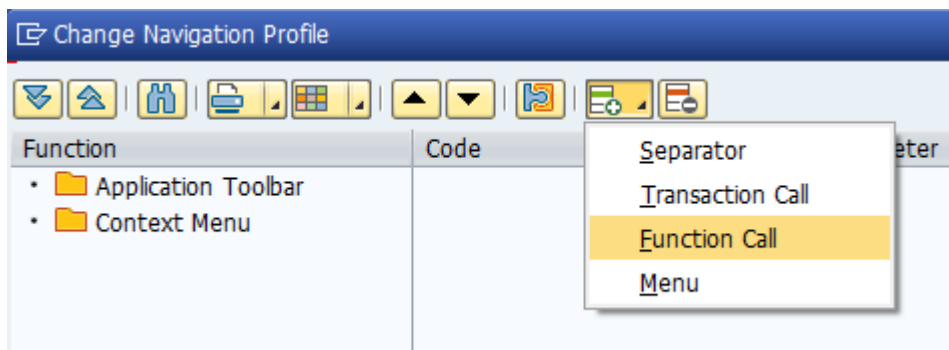
Navigation Profile Settings
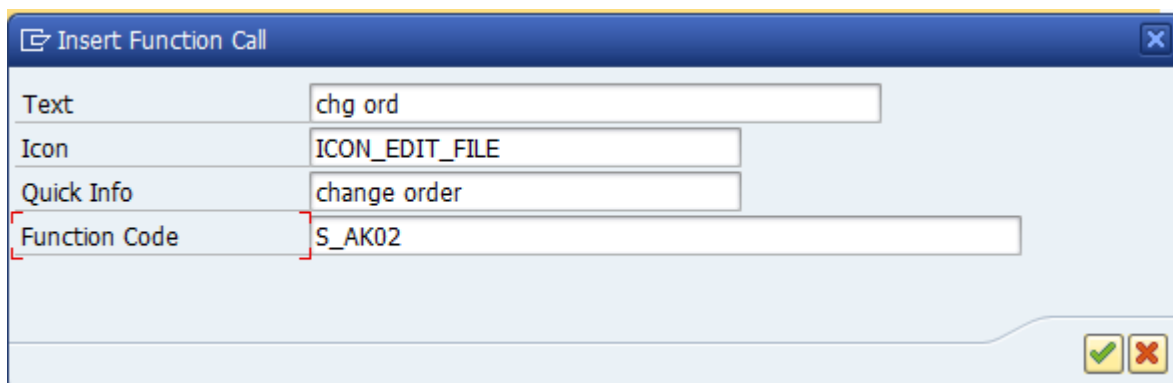
Navigation Profile Function Call

You can use the F4 search help for the "Function code" field to display the available functions.

In addition to the LMPC action codes, the user can include any **transactions** in the buttons, including the parameter transfer from the selected ALV grid line.

The call is made via "Change Navigation Profile" -> "+" -> "Transaction Call".
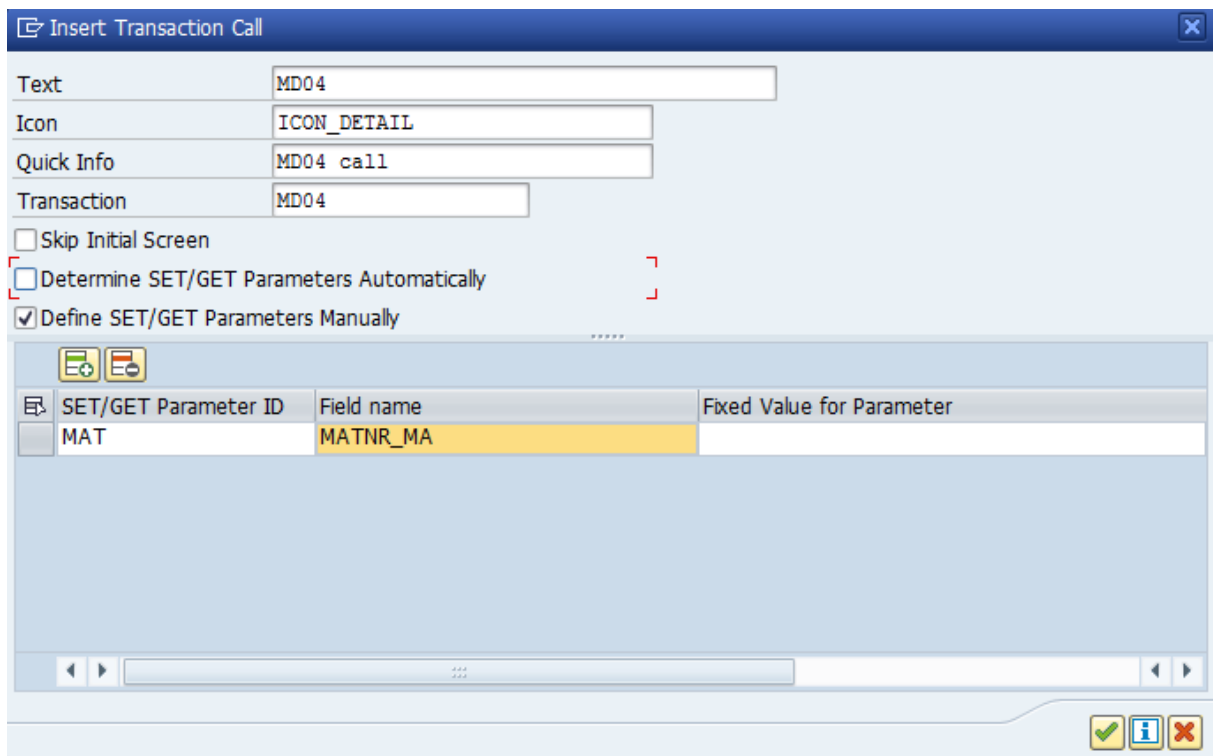
Navigation Profile Transaction Call

The user still has the option of influencing how the ALV grid standard functions are displayed.

By double-clicking the "Application Toolbar" folder, you can choose from the following options:

- Function displayed completely
- Function displayed in compressed form
- Function hidden
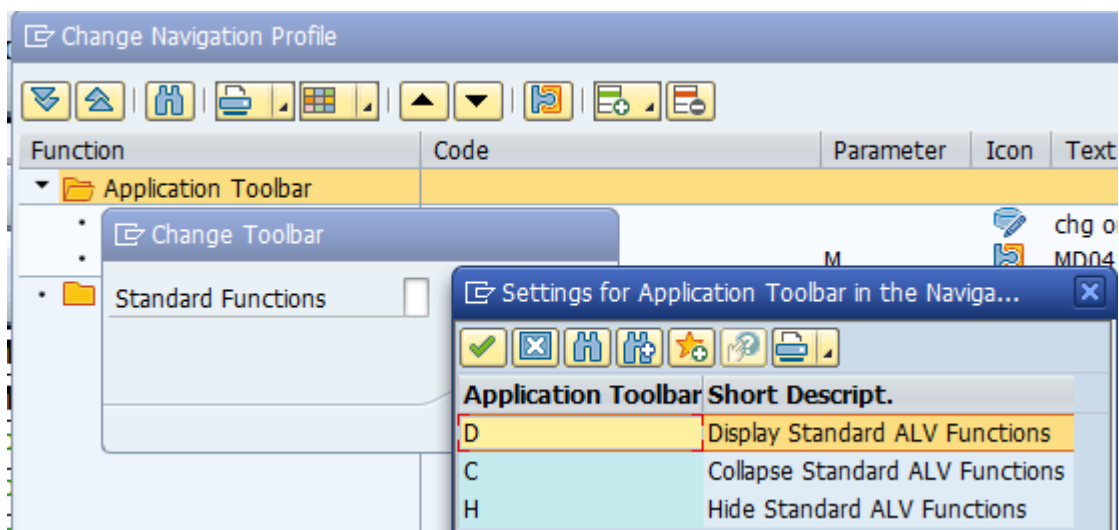
Navigation Profile Standard Functions

Additional separators can be used to group the navigation profile functions.
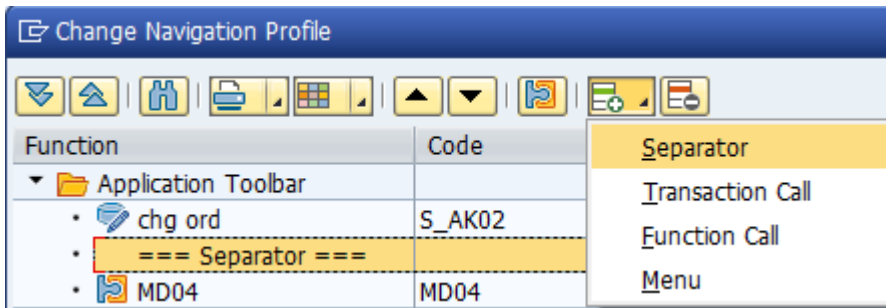
Navigation Profile Separator

> **i Note**
>
> The entry for inserting a menu that is visible on the screenshot has no function.

The pushbuttons on the toolbar of the ALV grid are displayed in the following sequence:
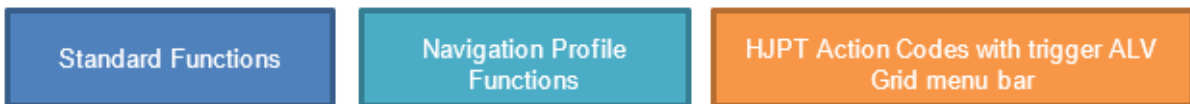
ALV Grid Button Bar Display Sequence

The following sequence applies to the ALV grid context menu:
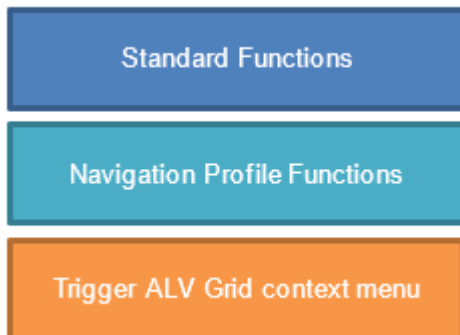
ALV Grid Context Menu Display Sequence

4.1.7 Configuration of HJPT Action Codes

Settings for the functions of the HJPT planning table

The term "action codes" is used to refer to the features of the LMPC HJPT planning table. These are coding calls in the form of classes, transactions, reports, etc.

The definition of action codes configures coding elements for use in the HJPT planning table.

The action is created in the "Action Codes" folder in transaction /LMPC/CUST.

Display View "Action codes": Overview

Dialog Structure
- ▼ CS Profile
  - ▼ Window configuration
    - • Window parameters
  - • Graphic symbols
  - • Graphic labelling
  - • Planned order action controlling
- ▼ Context Profile
  - • Action codes for ACS profiles
- ▼ Action codes
  - • Action code parameters

Action ...	Description	Pushb.text
S_AK02	Change order	chg ord
S_AK05	Display Order	Order dspl
S_APSEL	Deallocate selected orders	Deallocate
S_APSELP	Deallocate selected ord: Pool	Deal. Pool
S_ATP	Availability check PP	ATP
S_ATPA	Availability check (standard)	ATP S
S_ATPPIO	ATP check + order conversion	ATP+conv
S_AUTEXT	order text	Chg text

Standard action codes are delivered with the LMPC Customizing transport.

You can identify these action codes by means of the abbreviation "S_" for "Standard".

> **→ Tip**
>
> You can create customer-specific action codes. When assigning names, use the abbreviation Z or Y for customer-specific functions. You can find the description of this in a separate chapter. Create Custom HJPT Action Codes [page 218]

Action codes can consist of the following elements:

- Classes with the interface: /LMPC/IF_ACTION.
- Transactions
- Programs with variants
- Reports
- Form routines of programs
- Methods of classes
- Function modules (obsolete)

LMPC HJPT Action Codes

Entry screen for action codes:

New Entries: Details of Added Entries

Dialog Structure
- ▼ 📁 HJPT Profile
  - ▼ 📁 Window configuration
    - • 📁 Window parameters
  - • 📁 Graphic symbols
  - • 📁 Graphic labelling
  - ▼ 📁 Graphic colors
    - • 📁 Rules for graphic colors
  - ▼ 📁 Context profile
    - • 📁 Assignment of action codes
  - ▼ 📂 Action codes
    - • 📁 Action code parameters
  - ▼ 📁 Action code limitation
    - • 📁 Rules for limitation

Action Code [   ]

Action codes

Field	
Description	[ ]
Pushb.text	[ ]
Function Code	[ ]
F.Mod/Action class	[ ]
Icon	[ ]
Transaction Code	[ ]
Program Name	[ ]
Variant	[ ]
☐ Method	
Report/Class	[ ]
Form/Method	[ ]
Follow-Up Action	[ ]
Trigger	[▼]
☐ New session	
Status	Active ▼

Action Code Entry Screen

Fields for action codes:

Action Code Fields

Field Label	Description
Action code	Action code key.
Pushbutton text	Text that is displayed on the action code pushbutton.
Description	A description in the current logon language.
	This description is used for buttons in the quick info. In the case of context profiles, this text appears for the selection of the function.
Function code	Obsolete - do not use.
Function module / class	A class of interface /LMPC/IF_ACTION.
	This is the standard field for attaching coding.
	You can also enter function modules here (obsolete, but still functions).
Icon	Icon for a button. Used if the action code is implemented as a pushbutton in the ALV grid menu bar.
Transaction code	Enter an SAP transaction, for example: MD04.
Program name	Enter an SAP report, for example: PPIO_ENTRY.
Variant	A variant for the report from "Program name".

Field Label	Description
Method	Selection field: A class and method have been entered in the "Report / Class" and "Form / Method" fields.
Report / Class	Report or class.
Form / Method	Form routine or method (without signature).
Follow-up action	Call of another action code.
	You can use the follow-up action to set multiple actions in succession, such as dispatching and then refreshing the display.
Trigger	Triggering event for the following action code:
	Caution: If a trigger is set here, the follow-up action set in field "Action Code" is internally placed in storage. The execution of the action is only performed once the event has occurred. Only the following events are permitted:
	PBO
	ONINIT
	PAI
	The setting of a trigger is not usually required.
	If the trigger is empty, the follow-up action is executed immediately after the main action.
New session	Selection field. If the action code is a transaction call, a new session is opened.
Status	Active or Inactive.

The "context profile" is used to insert the action codes into the HJPT overall profile. These are thereby made available for the user. HJPT Context Profiles [page 39]

4.1.7.1 Action Code Parameters

Parameter settings of HJPT action codes

Usage

The action code parameters are used to make settings at the action codes.

There are different types of parameters. This section introduces the different types of parameters.

Maintenance

Action parameters are maintained in transaction /LMPC/CUST.
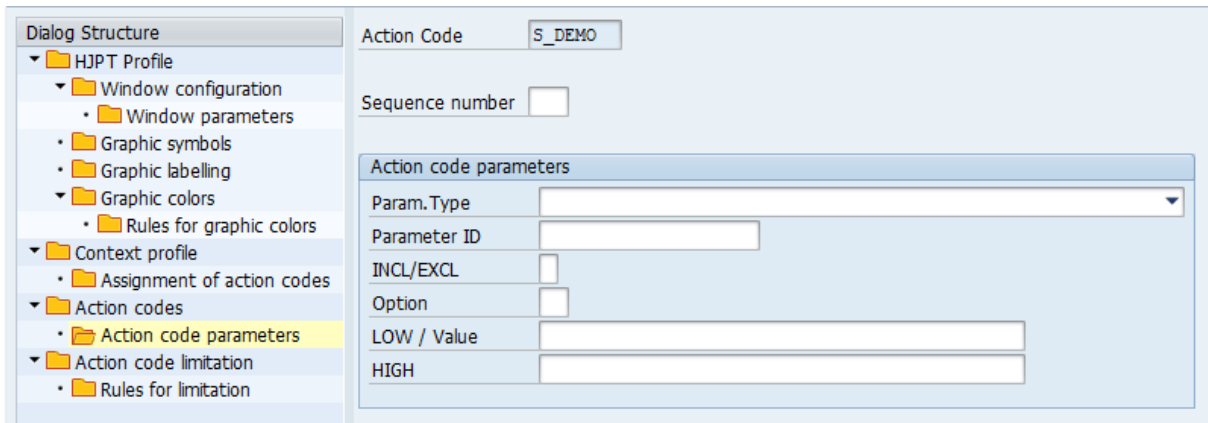
Parameter Maintenance

The following fields are available:

Action Code Parameter Fields

Field	Description
Sequence Number	The sequence number of the parameter
Parameter Type	The following types are available: • Memory ID • Select option • Parameter • Action code parameter • BCDATA parameter
Parameter ID	Technical name of the parameter.
INCL/EXCL	Only necessary for the "select option" parameter type. Possible values: • I - Including • E - Excluding
Option	Only necessary for the "select option" parameter type. Possible values: • EQ - Equal to • NE - Not equal to • LT - Less than • LE - Less than or equal to • GT - Greater than • GE - Greater than or equal to • BT - Between • NB - Not between
LOW / Parameter	Parameter value or lower limit

Field	Description
HIGH	Upper limit

> → Tip
>
> **Dynamic Value Replacement:**
>
> Dynamic value replacement is available for all parameters: In the fields LOW / Parameter and HIGH, you can perform a value replacement from the selected row or cell of the ALV grid.
>
> Syntax: &<Field name>&
>
> Example: &ARBPL_CR&. The work center of the selected row.
>
> The field names come from **structure /LMPC/HJPT_F01**.
>
> Dynamic value replacement is useful for calling transactions or programs.

Description of the parameter transfer for the respective call types:

Parameter Transfer of Action Codes

Call Type	Parameter
Function module	Only parameters of type "memory ID" can be passed to function modules.
	Memory ID for Function Modules
	Only data of an ALV grid row can be transferred.
LMPC HJPT action code class (Interface: /LMPC/IF_ACTION)	Parameters with the "LMPC action code parameter" type are transferred to action code classes.
	Action code classes are the default option for calling LMPC coding.
	Example: LMPC Action Code Parameters
	If an input help is defined in the action class, it is available using the standard F4 input help. For the Parameter ID and LOW / Parameter fields.

Call Type	Parameter
Transaction	Parameters can be transferred to transactions either as the "memory ID" type or the "BCDATA parameter" type.

Transfer of "Memory ID" Type

Example: Memory ID Parameter

The memory IDs are filled with values.

Instructions on how to determine the memory ID using transaction CO03 – Display Production Order as an example:

Call the F1 help for the selection field in question. Navigate to the technical information.

Technical Information About the Order Number Field

The parameter ID can be read from the technical information. In this case, the parameter ID is for the order number: "ANR".

Transfer of "BCDATA Parameter" Type

In the case of the BCDATA parameter, the values are transferred using the batch input table.

The following parameters must be filled:

Overview of Batch Input Parameters

Call Type	Parameter

Example of a configuration for calling transaction MIGO:

Action code parameters					
S...	Param. Type	Parameter ID	INCL/EXCL	Option	LOW / Value
1	B BCDATA Parameter	▼ PROGRAM			SAPLMIGO
2	B BCDATA Parameter	▼ DYNPRO			0001
3	B BCDATA Parameter	▼ DYNBEGIN			X
4	B BCDATA Parameter	▼ FNAM			GODYNPRO-ACTION
5	B BCDATA Parameter	▼ FVAL			A07
7	B BCDATA Parameter	▼ FNAM			GODYNPRO-ORDER_NUMBER
8	B BCDATA Parameter	▼ FVAL			&AUFNR_FA&

Example of Parameter Settings

In transaction MIGO, for example, the F1 help for a field in the technical information shows the data for the batch input fields.

Field Data	
Table Name	GODYNPRO
Table Category	Structure
Field Name	ORDER_NUMBER
Search Help	ORDE
Data Element	AUFNR
Parameter ID	ANR

Field Description for Batch Input	
Screen Field	GODYNPRO-ORDER_NUMBER
Program Name	SAPLMIGO
Screen Number	0001

Technical Information

You can determine the required fields for a batch input call by recording a transaction call with the batch input recorder.

You can find this in the menu under System -> Services -> Batch Input -> Recorder.

Call Type	Parameter

Create Batch Input Recording

The transaction call with batch input does not work for all transactions together with the "New session" setting. In this case, the call must be made without "New session".

Only data of a single ALV grid row can be transferred.

> **i Note**
>
> LMPC consulting can help you configure batch input calls for transactions. Like all Customizing settings, the configuration of batch input calls via action codes is a consulting service and not a support task.

Call Type	Parameter
Report with selection screen	Parameters with the type "parameter" and "select option" can be transferred to reports with selection screens.

To find out which type of fields were used on the selection screen, we recommend that you examine the report in transaction SE38.

Parameter	
Param.Typ	P Parameter
Parameter-ID	P_LAYOUT
INCL/EXCL	I
Option	EQ
LOW / Parameter	/PP-SFC00002
HIGH	

Example: Parameter Type Parameter

Parameter	
Param.Typ	S Select-Option
Parameter-ID	S_AUFNR
INCL/EXCL	I
Option	EQ
LOW / Parameter	&AUFNR_FA&
HIGH	

Example: Parameter Type Select Option

Important: The fields INCL/EXCL and Option must be filled.

When you call up a report, you can process data from any number of ALV grid rows.

> → Remember
>
> For the call types function module (memory ID parameter) and transaction (memory ID parameter), only one data record from the ALV grid can be processed at a time.
>
> When you call action classes (LMPC action code parameters) and reports (parameters and select options), it is possible to transfer from one to all of the ALV grid data records.

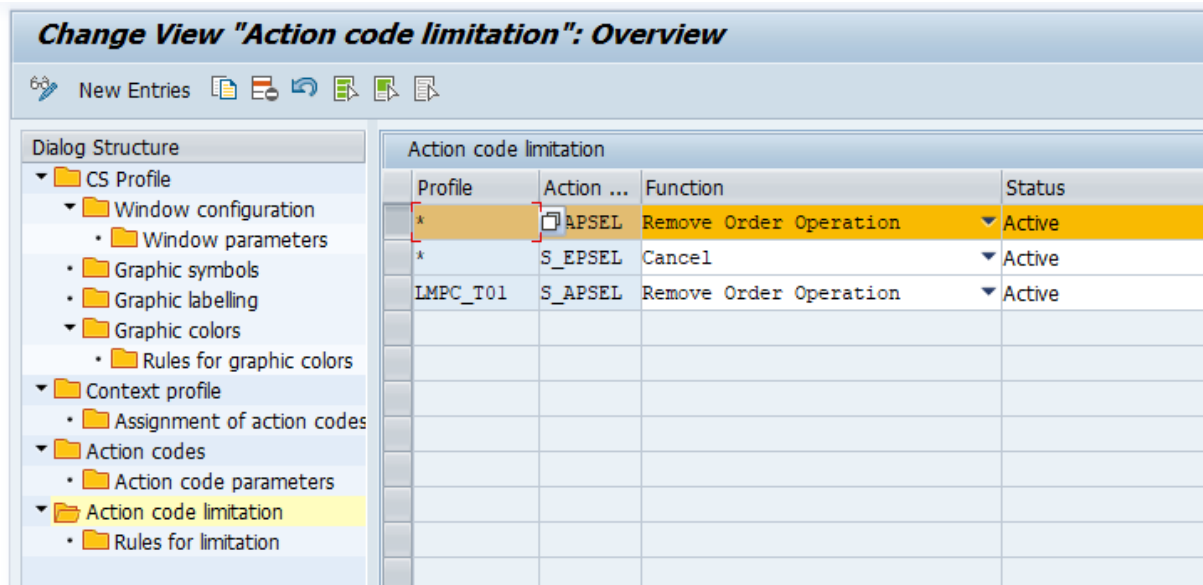## 4.1.7.2 Action Code Limitation

Restrict action code processing

Using Customizing for transaction /LMPC/CUST, it is possible to restrict the execution of action codes.

You can define rules that are evaluated before each action code is processed.

Rule definition takes place in two steps.

First Stage

Rule Definition Level 1 Example

The assignment of the rules is defined on the first level:

- The LMPC overall profile for which the rule is to apply. You can use (*) as a placeholder for all profiles here instead of a specific profile. Rules for a specific profile take precedence over rules with (*) as a profile.
- The action code for which the rule applies.
- Function: Information about what is to happen when a rule arrives.
- Rule status: Active or deactivated.

Second Level
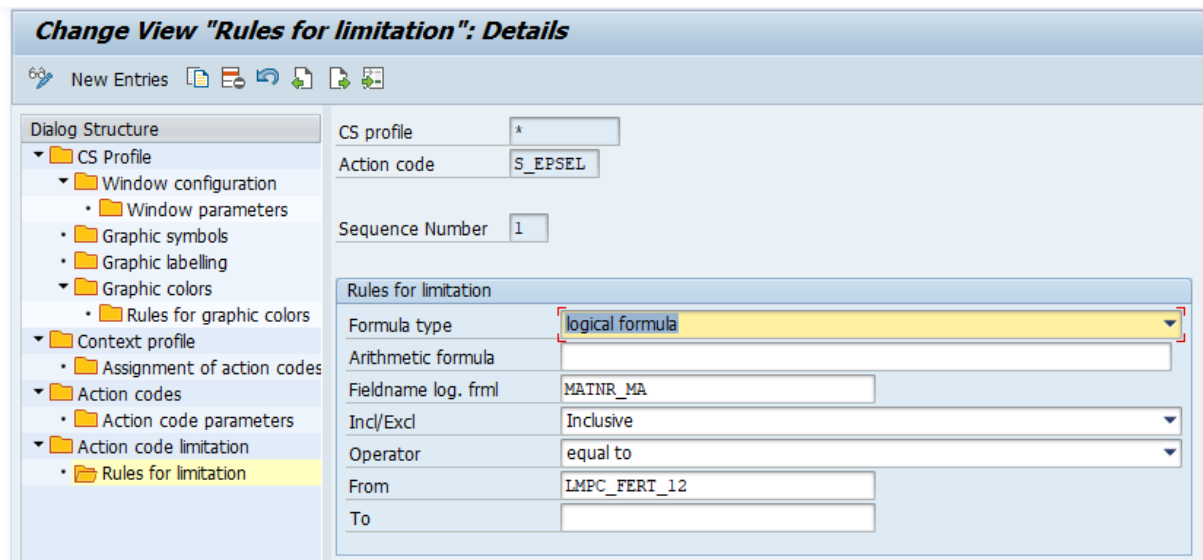
Rule Definition 2nd Level Example

On the second level, you can define the rules that are to be checked.

The following fields can be filled:

- Selection of Formula Type: Arithmetic or logical

- Input Field for Arithmetic Formula
- Logical Formula Field Name
- Include/Exclude Parameters
- Operator
- From Value
- To Value

The rule definition takes place in the same way as the definition of rules for applying colors to the ALV grid with formulas, see this chapter. Transaction /LMPC/CUSTCOL_FML Color ALV Grid Dynamically [page 246]

You can maintain several rules for each header entry. The rules are linked with an "OR". This means that an evaluation is positive if one of the rules applies.

If a rule has been maintained for an HJPT overall profile, the system checks the rules before the execution of each action code.

If a rule is found that applies, depending on the setting:

- The operation to which the rule applies is removed from the quantity of the selected operations.
- The entire action code processing is terminated.

> ! Restriction
>
> Before action codes are executed, the rules are evaluated only for the operations that have been selected. If the logic of action codes still reads other orders, these orders are not taken into account in the evaluation.

Related Information

Action Code Limits

4.1.7.3   Catalog of Action Codes

Tabular overview of all existing HJPT action codes

LMPC contains a large number of functions known as action codes.

The following chapters contain tabular overviews of the action codes for the HJPT planning table.

> → Tip
>
> Since the action code catalog is quite extensive, action codes cannot be explained in detail. If you have questions about the functionality and setting options, please contact your LMPC consultant.

The action codes are sorted thematically.

- Action Codes for Transaction Calls [page 61]
- Action Codes for Order Information System [page 70]
- Action Codes: Creating, Displaying, and Changing Operations and Orders [page 74]

Related Information

4.1.7.3.1 Action Codes for Transaction Calls

Action codes for the HJPT planning table used to call up SAP standard transactions.

This chapter provides an overview of all LMPC HJPT action codes for calls to standard SAP transactions.

Action Codes for Transaction Calls

Action Code	Class, Function module, Transaction	Description	Parameter
S_C203	TA C203	**Call up transaction C203**	Parameter as Memory ID
		Display recipe	**PLN**
			LOW = "&PLNNR_KO&"
			PAL
			LOW = "&PLNAL_KO&"
			MAT
			LOW = "&MATNR_MA&"
			WERK
			LOW = "&WERKS_CR&"
S_C223_D	TA C223_D	**Call transaction C223_D.**	Parameter as Memory ID.
		Display production version.	**WERK**
			LOW = "&WERKS_CR&"
			MAT
			LOW = "&MATNR_MA&"
			VER
			LOW = "&VERID_PV&"

Action Code	Class, Function module, Transaction	Description	Parameter
S_CM01	TA CM01	**Call transaction CM01.** Call up capacity planning CM01.	Parameter as Memory ID. **APL** LOW = "&ARBPL_CR&" **WRK** LOW = "&WERKS_CR&" **CAA** LOW = "&KAPAR_KB&"
S_CO11N	TA CO11N	**Call transaction CO11N.** Call the activity confirmation.	Parameter as Memory ID. **ANR** LOW = "&AUFNR_FA&" **VGN** LOW = "&VORNR_KB&"
S_CO15	TA CO15	**Call transaction CO15.** Call order confirmation.	Parameter as Memory ID. **ANR** LOW = "&AUFNR_FA&" **WRK** LOW = "&WERKS_CR&"
S_CO24	TA CO24	**Call transaction CO24.** Call the missing parts information system.	Select Options parameter: **S_AUFNR** LOW = "&AUFNR_FA&" **S_WERKS** LOW = "&WERKS_CR&" Parameter: **P_LAYOUT** LOW = "/MANU_01"
S_CO40	TA CO40	**Call transaction CO40.** Convert a planned order.	Parameter as Memory ID. **PAF** LOW = "&PLNUM_PA&" **AAF** LOW = "PP01"

Action Code	Class, Function module, Transaction	Description	Parameter
S_COR5	TA COR5	**Call transaction COR5.** Release process orders individually.	Parameter as BCDATA. **PROGRAM** LOW = "SAPLCOKO" **DYNPRO** LOW = "5400" **DYNBEGIN** LOW = "X" **FNAM** LOW = "BDC_OKCODE" **FVAL** LOW = "=AUSF" **FNAM** LOW = "PRSEL-WERKS" **FVAL** LOW = "&WERKS_CR&" **FNAM** LOW = "PRSEL-ANRVN" **FVAL** LOW = "&/LMPC/ DELNR_CY&" **FNAM** LOW = "AUFPAR-PI_AU-FART" **FVAL** LOW = "PI01" **MODE** LOW = "E"
S_COR7	TA COR7	**Call transaction COR7** Create process order.	Parameter as Memory ID. **PAF** LOW = "&PLNUM_PA&" **AAP** LOW = "PI01"

Action Code	Class, Function module, Transaction	Description	Parameter
S_CR03	TA CR03	**Display work center.**	Parameter as Memory ID.
			AGR
			LOW = &ARBPL_CR&
S_CRC3	TA CRC3	**Display resource.**	Parameter as Memory ID.
			AGR
			LOW = &ARBPL_CR&
S_CS03	TA CS03	**Call transaction CS03.**	Parameter as Memory ID.
		Display bill of material.	**MAT**
			LOW = "&MATNR_MA&"
			CSV
			LOW = "1"
			WRK
			LOW = "&WERKS_CR&"

Action Code	Class, Function module, Transaction	Description	Parameter
S_IW31	TA IW31	**Call transaction IW31.** Create maintenance order.	Parameter as BCDATA parameter. **PROGRAM** LOW = "SAPLCOIH" **DYNPRO** LOW = "0100" **DYNBEGIN** LOW = "X" **FNAM** LOW = "AUFPAR-PM_AUFART" **FVAL** LOW = "PM01" **FNAM** LOW = "CAUFVD-IWERK" **FVAL** LOW = "&WERKS_CR&" **FNAM** LOW = "BDC_OKCODE" **FVAL** LOW = "/00" **MODE** LOW = "E"
S_MB51	TA MB51	**Call transaction MB51.** Material document list.	Parameter as Memory ID. MAT LOW = "&MATNR_MA&" WRK LOW = "&WERKS_CR&"

Action Code	Class, Function module, Transaction	Description	Parameter
S_MD04	TA MD04	**Call transaction MD04.** Display stock/requirements list.	Parameter as Memory ID. **MAT** LOW = "&MATNR_MA&" **WRK** LOW = "&WERKS_CR&" **BERID** LOW = "&BERID_PA&"
S_MD4C	TA MD4C	**Call transaction MD4C.** Call up the order report.	Parameter as Memory ID. **WRK** LOW = "&WERKS_CR&" **ANR** LOW = &AUFNR_FA& **PAF** LOW = &PLNUM_PA& **PROFID** LOW = SAP000000001

Action Code	Class, Function module, Transaction	Description	Parameter
S_MIGO	TA MIGO	**Call transaction MIGO.** Goods movements.	Parameter as BCDATA parameter. **PROGRAM** LOW = "SAPLMIGO" **DYNPRO** LOW = "0001" **DYNBEGIN** LOW = "X" **FNAM** LOW = "GODYNPRO-AC-TION" **FVAL** LOW = "A07" **FNAM** LOW = "GODYNPRO-OR-DER_NUMBER" **FVAL** LOW = "&AUFNR_FA&" **FNAM** LOW = "GODEFAULT_TV BWART" **FVAL** LOW = "261" **FNAM** LOW = "GODYNPRO-RE-FDOC" **FVAL** LOW = "R08" **MODE** LOW = "E"

Action Code	Class, Function module, Transaction	Description	Parameter
S_MM03	TA MM03	**Call up transaction MM03.** Display material master.	Parameter as Memory ID. **MAT** LOW = "&MATNR_MA&" **WRK** LOW = "&WERKS_CR&"
S_MMBE	TA MMBE	**Call transaction MMBE.** Display stock for material.	Parameter as Memory ID. **MAT** LOW = "&MATNR_MA&" **WRK** LOW = "&WERKS_CR&"

Action Code	Class, Function module, Transaction	Description	Parameter
S_QM01	Transaction QM01	**Call up transaction QM01.** Create quality notification.	Parameter as BCDATA parameter. **PROGRAM** LOW = "SAPLIQS0" **DYNPRO** LOW = "0200" **DYNBEGIN** LOW = "X" **FNAM** LOW = "RIWO00-QMART" **FVAL** LOW = "F3" **FNAM** LOW = "BDC_OKCODE" **FVAL** LOW = "/00" **PROGRAM** LOW = "SAPLIQS0" **DYNPRO** LOW = "7200" **DYNBEGIN** LOW = "X" **FNAM** LOW = "RQM00-MATNR" **FVAL** LOW = "&MATNR_MA&" **FNAM** LOW = "VIQMEL-FER-TAUFNR" **FVAL** LOW = "&/LMPC/DELNR_CY&" **FNAM**

Action Code	Class, Function module, Transaction	Description	Parameter
			LOW = "RQM00-MAWERK"
			FVAL
			LOW = "&WERKS_CR&"
			FVAL
			LOW = "&/LMPC/ DELNR_CY&"
			FNAM
			LOW = "BDC_OKCODE"
			PROGRAM
			LOW = "SAPLSPO1"
			DYNPRO
			LOW = "0500"
			DYNBEGIN
			LOW = "X"
			FNAM
			LOW = "BDC_OKCODE"
			FVAL
			LOW = "=OPT1"
			MODE
			LOW = "E"

4.1.7.3.2 Action Codes for Order Information System

LMPC HJPT action codes for mass processing

This chapter contains an overview of all LMPC HJPT action codes for order information system functions. These action codes enable mass processing of orders.

Action Codes for Order Information System

Action Code	Class, Function module, Transaction	Description	Parameter
S_ATP	/LMPC/ CL_ACTION_PPIO_ENTRY	**Availability Check PP (Mass)** Call the availability check using the PPIO_ENTRY program.	**VARIANT** LOW = "LMPC_PP_ATP" The variant of the PPIO_ENTRY program must be transferred (mandatory). **PI** LOW = "X" for PI scenario
S_ATPA	/LMPC/FUNC- TION_DISPATCHER	**Availability Check Standard.** Call the availability check using the standard function of the capacity planning table.	**/LMPC/FUNCTION** LOW = "ATPA": Function code for the action code (mandatory).

Action Code	Class, Function module, Transaction	Description	Parameter
S_ATPPIO	/LMPC/CL_ACTION_ATPPIO	**ATP Check and Conversion.** ATP check for production/ process orders and subsequent conversion of planned orders. S_ATPPIO Configuration: ATP Check and Conversion [page 111]	**ATP** LOW = X/blank Perform ATP check Yes/No. **POOL** LOW = X/blank Read pool orders Yes/No. **CONVERT** LOW = X/blank Convert planned orders Yes/No. **INDUSTRY** LOW = PP/PI Scenario PP or PI (optional). Default PP. **AUFART** Optional: Order type for conversion. **STATUS** LOW = "I0002" Header system status to be checked. **POPUP** LOW = X/blank Display results dialog box Yes/No.
S_CONATP	/LMPC/ CL_ACTION_PPIO_LOG	**Output Log of ATP Check** Successor action code for the action code S_ATP for the output of the log of the availability check.	**SWAIT** Time in seconds to wait until the log is queried. (Mandatory). **COUNT** Number of attempts to read the log (mandatory).

Action Code	Class, Function module, Transaction	Description	Parameter
S_CONPFR	/LMPC/ CL_ACTION_PPIO_LOG	**Display Log for Order Release.** Reads the order release log. Only use as successor action code for S_MFREI.	**SWAIT** Time in seconds to wait until the log is queried (mandatory). **COUNT** Number of attempts to read the log (mandatory).
S_CONVPP	/LMPC/ CL_ACTION_PPIO_ENTRY	**Mass Conversion of Planned Orders to Production Orders.** Call of mass conversion using the PPIO_ENTRY program.	**VARIANT** LOW = "LMPC_PP_UMSETZ" Transfer variant of program PPIO_ENTRY (mandatory).
S_CONPRO	/LMPC/ CL_ACTION_PPIO_LOG	**Display Log for Order Conversion.** Reads the order conversion log. Only to be used as a successor action code for S_CONVPP.	**SWAIT** Time in seconds to wait until the log is queried (mandatory). **COUNT** Number of attempts to read the log (mandatory).
S_CONVPI	/LMPC/ CL_ACTION_PPIO_ENTRY	**Mass Conversion PP-PI.** Call of mass conversion using the PPIO_ENTRY program.	**PI** LOW = "X" (mandatory) **VARIANT** LOW = "LMPC_PI_UMSETZ" variant of program PPIO_EN-TRY transferred (mandatory).
S_CONVPL	/LMPC/ CL_ACTION_PPIO_ENTRY	**Mass Conversion of Planned Orders to Production Orders via Order List.** Call of mass conversion using the PPIO_ENTRY program.	**LIST** LOW = "X" (mandatory). **VARIANT** LOW = "LMPC_PP_UMSETZ" Transfer variant of program PPIO_ENTRY (mandatory).

Action Code	Class, Function module, Transaction	Description	Parameter
S_COOIS	/LMPC/ CL_ACTION_PPIO_ENTRY	**Call Information System for Production Orders** Call the program PPIO_EN-TRY.	**LIST** LOW = "X" (mandatory). **VARIANT** LOW = "SAP&COOIS" Transfer variant of program PPIO_ENTRY (mandatory).
S_COOISP	/LMPC/ CL_ACTION_PPIO_ENTRY	**Call Information System for Process Orders** Call the program PPIO_EN-TRY.	**LIST** LOW = "X" (mandatory). **VARIANT** LOW = "COOISPI" Transfer variant of program PPIO_ENTRY (mandatory). **PI** LOW = "X"
S_MFREI	/LMPC/ CL_ACTION_PPIO_ENTRY	**Mass Release of Orders** Mass release call using the PPIO_ENTRY program.	**VARIANT** LOW="LMPC_PP_FREI". Transfer variant of program PPIO_ENTRY (mandatory).
S_V_FREI	/LMPC/ CL_ACTION_PPIO_ENTRY	**Release of Operation in Production Order**	**VARIANT** LOW="AVO FREIGABE" variant of program PPIO_ENTRY transferred (mandatory).

> **i Note**
>
> For the variants of the PPIO_ENTRY program: The variants of the program delivered in Customizing may not work in S/4HANA systems. The report RSVARDOC_610 can be used to update the variants in S/4HANA systems.

4.1.7.3.3 Action Codes: Creating, Displaying, and Changing Operations and Orders

This chapter contains an overview of all LMPC HJPT action codes for displaying, creating, and changing operations and orders.

Action Codes: Creating, Displaying, and Changing Operations and Orders

Action Code	Class, Function module, Transaction	Description	Parameter
S_AK05	/LMPC/ CL_ACTION_DISPATCHER	**Display order.**	**FUNCTION** LOW = "S_AK05" function code for the action code (required).
S_AK02	/LMPC/CL_ACTION_AK02	**Change order.** For planned orders and production orders. If the order operation was dispatched before the change, forward scheduling to the original start time is performed after the change and dispatching is performed again.	**CALL** LOW = "X": Action code is called from the graphic (optional). **MULTI** LOW = "X": Multiple selection is possible (optional). **SPROFILE** Name of the strategy profile for dispatching again (optional).
S_AUTEXT	/LMPC/ CL_ACTION_FAUF_TEXT	**Change the long text of production orders and process orders.** Can also be configured using action /LMPC/ CL_ACTION_DBCLICK. Double-click the field /LMPC/ AUTEXT_CY.	None
S_AV02	/LMPC/FUNCTION_DISPATCHER	**Change production order operation.**	**/LMPC/FUNCTION** LOW = "AV02": Function code for the action code (required).
S_AV77	/LMPC/FUNCTION_DISPATCHER	**Change network time specifications.**	**/LMPC/FUNCTION** LOW = "AV07": Function code for the action code (required).

Action Code	Class, Function module, Transaction	Description	Parameter
S_AVRR	/LMPC/CL_ACTION_AVRR	**Adjust setup time manually.** You can adjust the setup time in a popup window.	**STPRO** LOW = "LMP_AVRU". You can transfer a strategy profile for dispatching. **NO_REDIS** Do not dispatch again after the change. **PI_PHASE** Only for PP-PI. If only one phase should be changed. LOW = "1" means only 1. The phase is changed.
S_AVRU	/LMPC/CL_ACTION_AVRR	**Adjust setup time manually.** You can adjust the setup time in a popup window.	**STPRO** LOW = "LMP_AVRU". You can transfer a strategy profile for dispatching. **NO_REDIS** Do not dispatch again after the change. **PI_PHASE** Only for PP-PI. If only one phase should be changed. LOW = "1" means only 1. The phase is changed.
S_BED2	/LMPC/ CL_ACTION_PEGGING	**MD09 Determine pegged requirement.** Only to be used in connection with the data provider / LMPC/CL_DP_BED_2. Requires consulting from SAP.	**SEL_MODE:** (Optional) LOW = "F" or "L" Select first or last pegged requirement. Default: First.

Action Code	Class, Function module, Transaction	Description	Parameter
S_BOMEXPL	/LMPC/ CL_ACTION_BOM_EXPL	**Bill of material explosion and update component quantities for planned order.** S_BOMEXP Configuration: BOM Explosion and Component Quantities [page 113]	CHKCHG. Low = "X" or blank. Only consider changed orders or only selected orders. **BACKGR** Parameters for background processing.
S_CORTXT	/LMPC/ CL_ACTION_SET_DBFLDS	**LMPC order text.** Maintain an information text for each order (length 72 characters). S_CORTXT Configuration: LMPC Order Text [page 116]	**TABLE** LOW = "/LMPC/CORDTEXT" **DBFIELD** LOW = "CORDTEXT" **USRFIELD** LOW = "/LMPC/CORD-TEXT_CY" **VALUES** Values for input help
S_CPV1	/LMPC/FUNC-TION_DISPATCHER	**Change the production version of planned orders.**	**FUNCTION** LOW = "CPV1" Function code for the action code (required).

Action Code	Class, Function module, Transaction	Description	Parameter
S_CPV2	/LMPC/CL_ACTION_FVERS	**Change the production version of planned orders and production orders.** S_CPV2 Configuration: Change Production Version and Reschedule [page 118]	**PLAN** Immediate dispatching after change. **SPROFILE** Transfer of a strategy profile for dispatching again. **EXCL_PL** Exclude order categories of planned orders from processing. **EXCL_OR** Exclude order categories of production orders or process orders from processing. **STCHCK** System status check. Function canceled if the system status has been recognized.

Action Code	Class, Function module, Transaction	Description	Parameter
S_CRCLOR	/LMPC/ CL_ACTION_CRCLORD.	**Create LMPC clean-out orders.** Include clean-out orders in the form of production orders or process orders in planning. Complex. Requires consulting from SAP. S_CRCLOR Configuration: LMPC Clean-Out Orders [page 122]	**BADI_ORD** Activate BAdI implementation for order creation. **BADI_QTY** Activate BAdI implementation for the order quantity. **NET** Resource network description. **ORD_ATTR** Attributes for creating orders. **ORD_TECH** Identification of clean-out orders. **REMOVE** LOW = "X": When creating new orders, delete the existing ones. **STRE** Name of strategy profile for dispatching (optional). **STRICT** LOW = "X": Termination if settings are missing. **CLOSEGAP** LOW = "X": Close gaps when creating clean-out orders. **SCD_TYPE** "S" or blank: Standard scheduling using default values. "M": Scheduling using order quantity (optional). **SCD_VGWT**

Action Code	Class, Function module, Transaction	Description	Parameter
			Selection default value for scheduling (optional).
			VGWT_VAL
			Reset of unused default values (optional).
			CAPA
			"X" = Consider available capacity not equal to 100% (optional).
			CHK_BULK
			Planning logic bulk & finished goods (optional).
			BULK_ACT
			Action code for bulk & finished goods planning (optional).
			CHK_FOLL
			Parameters for bulk & finished goods planning (optional).
			CONSFG
			Parameters for bulk & finished goods planning (optional).
S_DELPLA.	/LMPC/ CL_ACTION_DELPLAF	**Delete planned orders.**	None

Action Code	Class, Function module, Transaction	Description	Parameter
S_HARBPL	LMPC/ CL_ACTION_HIER_ARBPL	**Change the work center for operations.** Same as S_SARBPL. The selection of work centers is read from the work center hierarchy that is stored in the evaluation profile of the overall profile of the capacity planning table. S_SARBPL, S_HARBPL Configuration: Change of Work Center at Operation [page 203]	None
S_MB11	/LMPC/ CL_ACTION_DISPATCHER	**Display pegged requirement.**	FUNCTION LOW = "MB11"
S_NIVEL	Program: /LMPC/ MRP_NIVELLIERUNG	**Call leveling** Program call. Can be with variant or parameter transfer.	See: Transaction /LMPC/ NIVEL_CFG LMPC Set Leveling [page 326]
S_MVEORD	/LMPC/CL_ACTION_MOVE-ORD	**Moving orders in the pool.** Orders that have not been dispatched can be moved into the future. The target time is queried using a popup window. You can also move data manually using drag and drop in the order pool (graphic sales pool chart).	STRE LOW = "LMP_MVEORD" A strategy profile can be transferred because the movement is carried out using dispatching with subsequent status change.
S_ORDCL	/LMPC/ CL_AC-TION_CLOSE_ORD_TECH	**Technically complete production orders.**	None
S_ORDCLM	/LMPC/ CL_ACTION_PPIO_ENTRY	**Technically complete production orders** Mass processing.	VARIANT LOW = "LMPC_PP_ORDCL"

Action Code	Class, Function module, Transaction	Description	Parameter
S_ORDREP	/LMPC/ CL_ACTION_ORDREP	**Display LMPC order report** Only available for production orders. S_ORDREP Configuration: Action Code for LMPC Order Report [page 189]	None
S_PCONV	/LMPC/ CL_ACTION_PARTIAL_CONV	**Partial conversion of planned orders.** Partial conversion of planned orders to production orders or process orders with subsequent dispatching.	**AUART** Specify order type for conversion. For example, PP01 or PI01. **AUTYP** Enter order category instead of order type (optional). **SKIP** Skip dispatching (optional). **INVERS** Inverse dispatching. **STRE** You can specify a strategy profile for single-item planning (optional). **BOMEXPL** BOM explosion after dispatching the remaining planned order again (optional).

Action Code	Class, Function module, Transaction	Description	Parameter
S_PHCH	/LMPC/ CL_ACTION_CHVGW	**Change phase of a process order.** Change default values in phases of process orders. S_PHCH Configuration: PP-PI: Changing the Duration of a Phase [page 194]	**PHASE** Number of the phase to be changed (mandatory). **STD_VAL** Comma-separated list of default values that are to be changed (mandatory). **DISP** LOW = "X": Orders that have already been dispatched should remain dispatched after the change (optional). **PROFILE** Name of a strategy profile for dispatching again when a change is made (optional).
S_PLOSS	/LMPC/CL_ACTION_PLOSS	**Change scrap quantity.** Change the scrap quantity in the order; the order quantity is adjusted automatically. S_PLOSS Configuration: Enter Production Scrap in Order [page 196]	**RESCD** LOW = "X" or blank Dispatch orders again that have already been dispatched. **STRPROF** Transfer of a strategy profile for dispatching again.
S_SARBPL	/LMPC/ CL_AC-TION_SWITCH_ARBPL	**Change the work center for operations.** Only possible for production orders, networks, and maintenance orders. Not possible for planned orders.	**ARBPL** LOW = "ARBPL1, ARBPL2, ARBPL3" Comma-separated list for transferring work center names (optional). **HIER** LOW = "X": Read the work centers from the lowest nodes of the work center hierarchy in the evaluation profile of the capacity planning table.

Action Code	Class, Function module, Transaction	Description	Parameter
S_SARBFV	/LMPC/ CL_AC- TION_SWITCH_WSPRVER	**Change the work center for operations by changing the production version**	**STRE** LOW = "LMP_MVEORD" A strategy profile can be transferred because the movement is carried out us- ing dispatching with subse- quent status change.
S_SPLIT	/LMPC/FUNC- TION_DISPATCHER	**Split operation.** Split production order opera- tion.	**/LMPC/FUNCTION** LOW = 'PE02'

4.1.7.3.4 Action Codes for Planning Functions

Overview of LMPC HJPT planning functions

This chapter contains an overview of all LMPC HJPT action codes for dispatching and deallocating operations and orders.

Action Codes LMPC HJPT Planning Functions

Action Code	Class, Function module, Transaction	Description	Parameter
S_APSEL	/LMPC/CL_ACTION_APSEL	**Deallocate selected orders.** Multiple processing possible. Deallocate with rescheduling.	**BACKGR** LOW = 'X': Processing in the background.
S_APSELP	/LMPC/ CL_ACTION_APSELP	**Deallocate selected orders.** All orders of an order pool are deallocated.	**BACKGR** LOW = 'X': Processing in the background.
S_AV06	/LMPC/FUNC- TION_DISPATCHER	**Individual Dispatching of Orders.** Standard function of the ca- pacity planning table.	**/LMPC/FUNCTION** LOW = "AV06" Function code for the action code (required).
S_AV07	/LMPC/FUNC- TION_DISPATCHER	**Deallocate the selected or- der.** Deallocate only individual or- ders.	**/LMPC/FUNCTION** LOW = "AV07" Function code for the action code (required).

Action Code	Class, Function module, Transaction	Description	Parameter
S_D&D	/LMPC/ CL_ACTION_UPALL_DD	**Reschedule orders using drag and drop.** Draw orders to the new item, select them, and dispatch them with a function. Only for individual orders. Immediate dispatching is also possible when moving them (trigger "ON DROP").	**MARK** LOW = 'X'. If this is set, the line is selected again after the dispatch. **STRE** LOW = "LMP_D&DE" Transfer of a strategy profile for dispatching (optional). **STRA** LOW = "LMP_APSEL" Transfers a strategy profile for deallocation (optional).
S_EPALL	/LMPC/FUNCTION_EPALL	**Dispatch All Orders** All unplanned orders are dispatched.	None

Action Code	Class, Function module, Transaction	Description	Parameter
S_EPBKFG	/LMPC/ CL_ACTION_EPBLKFG	Two-step dispatching with pool ID. S_EPBKFG Configuration: Two-Step Dispatching [page 146]	**BACKGR** Background processing. **BAT_DALL** Deallocate in a call. **BAT_ENQ** Lock before planning. **CHECKFIX** Exclude fixed production and process orders. **CHK_ENQ** Check external locks. **COMP** BOM item for inspection. **CONSFG** Considers the location of finished goods of the preceding order pool. **DAYPLAN** Planning for the MRP date. **DAYRESC** In connection with DAYPLAN, reschedules all orders for a day when a new order is dispatched for this day. **DISPREL** Sets a dispatch relationship. **EPTBSQ** Bulk order sequence by table. **FG_NOGAP** Gap search for ENST relationship: there is no gap between BULK and finished goods. **FIND_GAP**

Action Code	Class, Function module, Transaction	Description	Parameter
			Gap search for capacity.
			GRAPH
			The action code is used in the graphic.
			HJPTDATE
			HJPT date is used for planning.
			INVERS
			Reversal of the dispatching sequence for finished products.
			RESCFOL
			Reschedule subsequent pools after dispatching.
			SORTFLD
			Sort field for orders.
			STRBLK
			Strategy profile for BULK planning.
			STRFG
			Strategy profile for finished product planning.

Action Code	Class, Function module, Transaction	Description	Parameter
S_EPML	/LMPC/ CL_ACTION_EP_MULTILEVEL	**Multilevel Dispatching.** Dispatches related orders forwards and backwards using low-level codes. S_EPML, S_EPMLBW, S_EPMLFW Configuration: Multilevel Dispatching [page 154]	**LOGIC** Dispatching logic 1 or 2. **PLDIR** Planning direction. **EPSTART** Start time for dispatching. **FIRMED** Planning fixed order links. **NO_RESCD** No rescheduling. **STRP** Strategy profile. **BACKGR** Background processing.
S_EPMLBW	/LMPC/ CL_ACTION_EP_MULTILEVEL	**Multilevel Dispatching Backwards.** Dispatches related orders backwards using low-level codes. From the finished material to the source material. S_EPML, S_EPMLBW, S_EPMLFW Configuration: Multilevel Dispatching [page 154]	**LOGIC** Dispatching logic 1 or 2. **PLDIR** Planning direction. **EPSTART** Start time for dispatching. **FIRMED** Planning fixed order links. **NO_RESCD** No rescheduling. **STRP** Strategy profile. **BACKGR** Background processing.

Action Code	Class, Function module, Transaction	Description	Parameter
S_EPMLFW	/LMPC/ CL_ACTION_EP_MULTILE-VEL	**Multilevel Dispatching Forwards.** Dispatches related orders forwards using low-level codes. From the initial material to the finished material. S_EPML, S_EPMLBW, S_EPMLFW Configuration: Multilevel Dispatching [page 154]	**LOGIC** Dispatching logic 1 or 2. **PLDIR** Planning direction. **EPSTART** Start time for dispatching. **FIRMED** Planning fixed order links. **NO_RESCD** No rescheduling. **STRP** Strategy profile. **BACKGR** Background processing.

Action Code	Class, Function module, Transaction	Description	Parameter
S_EPMSQ S_EPMSQH (Background processing)	/LMPC/CL_ACTION_EPMSQ	**Dispatch Using Material Master Field.** Special function for dispatching: The sequence of the dispatching is determined from a Z field that is set for the material master table MARC. Requires consulting from SAP. S_EPMSQ & S_EPMSQH Configuration: Dispatch Using Material Master Sequence. [page 159]	**PLAN** LOW = 'X': Orders are dispatched immediately. LOW = ' ': Function assigns sequence in the Sequence Number field. **STRICT** LOW = 'X': Only orders whose field is filled in the material master are processed. LOW = ' ': All orders are processed. **STRP** LOW = "Z_S_EPMSQ" A strategy profile can be transferred for dispatching. **BACKGR** LOW = "X": Dispatching in the background. **FLDN_MSQ** An alternative name for the APPEND field of the MARC table can be transferred.
S_EPRST	/LMPC/CL_ACTION_EPSIM	**Dispatching Using Setup Matrix** The dispatching sequence is determined by the setup matrix. The setup time is adjusted. S_EPRST and S_EPRSIN Configuration: Dispatching and Inserting Using Setup Matrix [page 161]	**STRE** LOW = "LMP_EPRST". You can transfer a strategy profile for dispatching. **BACKGR** LOW = 'X': Processing in the background. **PI_PHASE** Only for PP-PI. If only one phase should be changed. LOW = "1" means only 1. The phase is changed.

Action Code	Class, Function module, Transaction	Description	Parameter
S_EPRSIN	/LMPC/ CL_AC- TION_EPRST_INS_OPR	**Insert Setup Optimum Operation** Inserts the operation so that the additional setup time is minimal.	**STPROFPP** LOW = "LMP_EPRSIN". You can transfer a strategy profile for dispatching to PP. **STPROFPI** LOW = "LMP_PI_RSI". You can transfer a strategy profile for dispatching to PP-PI. **PI_PHASE** Only for PP-PI. If only one phase should be changed. LOW = "1" means only 1. The phase is changed. **BACKGR** LOW = 'X': Processing in the background.
S_EPSEL	/LMPC/CL_ACTION_EPSEL	**Dispatching Selected Orders** The standard dispatching function. Dispatches several orders at the same time. It also takes into account the block planning of the timetable, as well as pool orders.	**STRE** LOW = "LMP_EPSELE": You can specify a strategy profile for single-item planning (optional). **STRB** You can specify a strategy profile for block planning (optional). **BACKGR** LOW = 'X': Processing in the background.

Action Code	Class, Function module, Transaction	Description	Parameter
S_EPSELF	/LMPC/CL_ACTION_EPSEL	**Dispatch Selected Orders Without Errors.** Same function as S_EPSEL with the difference that dispatching terminates if an error occurs because this setting is set in the assigned strategy profile.	**STRE** LOW = "LMP_EPSELF" **STRB** LOW = "LMP_EPSELP" These strategy profiles must be transferred via parameter. **BACKGR** LOW = 'X': Processing in the background.
S_EPSELL S_EPSELX	/LMPC/ CL_ACTION_EPSELL.	**Dispatch Gaps in List and Pool.** **Dispatch Insert Gaps in List and Pool.** Special function with many Customizing options. Only to be used in connection with the data provider / LMCP/CL_DP_GAP. Checks dispatching gaps. Requires consulting from SAP.	**INSERT** Insert yes/no indicator. When it is inserted, all subsequent operations are moved. If it is not inserted, the system checks whether the gap into which dispatching is to take place is large enough. **STR** The strategy profile for dispatching can be transferred. **STR** The strategy profile for pool dispatching can be transferred. **INVERS** Controls the sequence during dispatching. 'Empty': The operations are dispatched as in the ALV. 'X' The operations are dispatched in reverse order. **IGNPOOL** If the indicator is set to 'X', the pool IDs are ignored during dispatching.

Action Code	Class, Function module, Transaction	Description	Parameter
S_EPSELP	/LMPC/ CL_ACTION_EPSELP	**Dispatch Pool Orders.** Select an order from an order pool and execute an action code. Result: All orders from the order pool are dispatched without gaps at the earliest point in time.	**BACKGR** LOW = 'X': Processing in the background. **MANP** LOW = "X" If this parameter is set, manual planning is activated. You can then enter the start time of the dispatching in a popup window (optional). **RESCD** LOW = 'X': Rescheduling orders that have already been dispatched. **STR_MP** LOW = "LMP_MANP" Strategy profile for manual planning.
S_EPSEQ	/LMPC/CL_ACTION_EPSEQ	**Dispatching by Sequence Number.** Dispatches orders in the sequence entered manually beforehand in the "Sequence Number" field in the ALV Grid.	**STRE** The strategy profile for dispatching can be transferred. **STRP** A strategy profile for pool dispatching can be transferred. **STRB** A strategy profile for block planning can be transferred. **MANP** LOW = "X" If this parameter is set, manual planning is activated. You can then enter the start time of the dispatching in a popup window (optional).

Action Code	Class, Function module, Transaction	Description	Parameter
S_EPSIM	/LMPC/CL_ACTION_EPSIM	**Dispatch Orders Simultaneously.** All orders are transferred at the same time to the dispatching function of the capacity planning table without any additional influence. The result is determined exclusively by the settings in the strategy profile transferred.	STRE LOW = "LMP_EPSIM" The strategy profile is optional. BACKGR LOW = 'X': Processing in the background.
S_EPSRT	/LMPC/ CL_ACTION_EPSORTED	**Sorted Dispatching.** Sort and dispatch orders according to LMPC fields.	**STRE** LOW = "LMP_EPSRT" A strategy profile can be transferred for dispatching. **PLAN** Immediate dispatch ("X"), sequence number assignment (" "). **SORTFLD** Field name from structure / LMPC/HJPT_F01. **BACKGR** LOW = 'X': Processing in the background.

Action Code	Class, Function module, Transaction	Description	Parameter
S_EPTBSQ **S_EPTBSH** (Background processing) **S_E_TBSQ** (Assign numbers without dispatching)	/LMPC/ CL_ACTION_EPTBSQ	**Dispatch by Table.** The dispatching sequence is determined according to a material sequence or material group sequence that is maintained in a Customizing table. (Transaction /LMPC/MAT_SEQ). S_EPTBSQ & S_E_TBSQ Configuration: Dispatch by Table Order [page 181]	**PLAN** LOW = "X": Immediate dispatching. LOW = "C": Immediate dispatching, taking into account the temporal distance to the requirements date. LOW = " ": Only assign a dispatching sequence in the "Sequence Number" field. **STRP** LOW = "LMP_EPTBSQ": Transfer of a strategy profile (optional). **STRICT** LOW = "X": Only orders that meet the criteria in Customizing are processed. **CHECK** LOW = "X": Checks already dispatched orders, continues the dispatching sequence. **SORTBY** LOW = "SORTIERFELD": Only in connection with the CHECK parameter. Sorting the dispatched operations. **BACKGR** LOW = 'X': Processing in the background. **RESCD** LOW = 'X': Rescheduling orders that have already been dispatched.

Action Code	Class, Function module, Transaction	Description	Parameter
S_FPL	/LMPC/CL_ACTION_FPL	**Generate Timetable Allocation.** Special function for dispatching. The orders are dispatched based on a timetable. Timetables must be maintained using transaction /LMPC/FPL. A popup is displayed for the selection of the lines. Requires consulting from SAP. Configuration of the LMPC Timetable [page 305]	**KAPA_CHK** If this flag is set, the actual available capacity of the work center overrides the timetable blocks and compares them automatically. **IG_FSTAD** If this flag is set, capacity requirements can also be moved forward to dates earlier than originally scheduled. **FSTA_OFF** Number of days a process can be moved forward. **APPEND** If this flag is set, dispatching is automatically started at the end of the dispatched chain. **BACKGR** LOW = 'X': Processing in the background.
S_MANP	/LMPC/CL_ACTION_MANP	**Dispatch Order Manually** A popup can be used to enter the date and the start time for dispatching the transaction. Individual processing only.	**STRE** LOW = "LMP_MANP" A strategy profile for dispatching can be transferred (optional).

Action Code	Class, Function module, Transaction	Description	Parameter
S_MANPL	/LMPC/CL_ACTION_MANPL	**Manual Dispatching List**	**INSERT**
S_MANPLX		**Insert Man. Dispatching List**	Insert yes/no indicator. When it is inserted, all subsequent operations are moved. If it is not inserted, the system checks whether the gap into which dispatching is to take place is large enough.
		Assigns a start time for a list of orders via a popup window.	
		Special function with many Customizing options.	**STRE**
		Use in connection with the data provider /LMCP/CL_DP_GAP.	The strategy profile for dispatching can be transferred.
		Checks dispatching gaps.	**STRP**
		Requires consulting from SAP.	The strategy profile for pool dispatching can be transferred.
			IGNPOOL
			If the indicator is set to 'X', the pool IDs are ignored during dispatching.
			PRETPROP
			If the indicator is set, the end date/time of the order directly before in the ALV grid is displayed as the start time in the popup window. If it is not set, then it is the start date of the first operation.

Action Code	Class, Function module, Transaction	Description	Parameter
S_PBLKFG	/LMPC/ CL_ACTION_SET_POOL_BLKFG	**Pool Formation with BOM Information** Forms order pools from semi-finished and finished product orders. S_PBLKFG Configuration: Pool Formation with BOM [page 190]	**ALLOWDO** Allows dispatched orders during pool creation. **BACKGR** Processing in the background. **COMP** BOM item for inspection. **GRPFLD** Field after which the grouping is carried out. Can be set more than once. **PBDIR** Direction of the pool formation. **SELCORR** Removal of orders with pool IDs from the selection. **SELFG** Preselection popup window. **SEQ_SAVE** Saves pool ID in the sequence number. **SORTFLD** Sort field for popup windows.

Action Code	Class, Function module, Transaction	Description	Parameter
S_POOLA	/LMPC/ CL_ACTION_SET_POOL_ID	**Automatically Create Order Pool** Automatically combines orders into one order pool. Groups by fields in Customizing.S_POOLID, S_POOLA Configuration: Creation of Order Pools [page 198]	**MODE** LOW = "M": The ID can be assigned manually. LOW = " ": The ID is assigned automatically. **SEQ_SAVE** LOW = "X": The pool ID is stored in the sequence number. **SILENT** LOW = "X": The function is executed without a popup window. **ADD_OFF** LOW = "X": You cannot add operations to a pool. **AUTOGRP** LOW = "X": Automatically assign a pool ID using the groups determined. **BACKGR** LOW = 'X': Processing in the background. **GRPFLD** LOW = 'Field name'. Field after which the grouping is carried out. Can be set more than once.

Action Code	Class, Function module, Transaction	Description	Parameter
S_POOLID	/LMPC/ CL_ACTION_SET_POOL_ID	**Create Order Pool** Combines orders into one order pool. S_POOLID, S_POOLA Configuration: Creation of Order Pools [page 198]	**MODE** LOW = "M": The ID can be assigned manually. LOW = " ": The ID is assigned automatically. **SEQ_SAVE** LOW = "X": The pool ID is stored in the sequence number. **SILENT** LOW = "X": The function is executed without a popup window. **ADD_OFF** LOW = "X": You cannot add operations to a pool.

Action Code	Class, Function module, Transaction	Description	Parameter
S_REORD	/LMPC/CL_ACTION_UPALL	**Reschedule All – Pool First.**	POPUP
S_REORDB (Background processing)		All dispatched orders are deallocated and are redispatched in the ALV grid sequence to the earliest date without gaps. Is used to schedule delayed orders in the present or to dispatch a sequence created using drag and drop. Pool orders are dispatched first.	LOW = "X": Operations that are in process are also rescheduled. LOW = " ": Rescheduling of operations that are in process must be confirmed. **SEL** LOW = " ": All dispatched orders are rescheduled. LOW = "X": All dispatched orders from the selected line are rescheduled. **SORT** LOW = "X": Setting for batch mode Orders are sorted by FSTAD & FSTAU before dispatching. **STRA** Strategy profile for deallocation. **STRB** Strategy profile for block planning. **STRE** Strategy profile for single-item planning. **STRP** Strategy profile for pool planning. The transfer of strategy profiles is optional.

Action Code	Class, Function module, Transaction	Description	Parameter
S_RESCD	/LMPC/ CL_ACTION_RESCHEDULE	**Reschedule All.** Like S_REORD, pool orders are planned at the location where the first order of a pool is located. Gaps before the first selected operation can be retained.	**POPUP, SEL** -> see S_REORD **STRA** LOW = " LMP_APSEL " (optional). **STRE** LOW = "LMP_RESCD" (optional). **INVERS** Controls the sequence during dispatching. 'Empty': The operations are dispatched as in the ALV. 'X' The operations are dispatched in reverse order.
S_RESCDB	/LMPC/ CL_ACTION_RESCHEDULE	**Reschedule All – Background.** Reschedule all in the background.	**POPUP, SEL** -> see S_REORD. **STRA** LOW = " LMP_APSEL " (optional). **STRE** LOW = "LMP_RESCD" (optional). **INVERS** Controls the sequence during dispatching. 'Empty': The operations are dispatched as in the ALV. 'X' The operations are dispatched in reverse order. **BACKGR** LOW = 'X': Processing in the background.

Action Code	Class, Function module, Transaction	Description	Parameter
S_SETSTR	/LMPC/ CL_ACTION_SET_STRATEGY	**Change Strategy Profile Settings.** The settings of the strategy profile can be changed for the next dispatching process. Works only for dispatching functions that work with the strategy profiles of the overall profile of the HJPT.	**STRAT** LOW = "Name of the strategy profile to be changed" (optional).
S_SHFTPP	/LMPC/ CL_ACTION_SHIFT_PPLAN	**Shift Production Plan.** Shift dispatched orders forwards or backwards in time.	**STRE** LOW = "LMPC_SHFTPP" A strategy profile can be transferred for rescheduling. **IGNPOOL** LOW = "X": Ignore the pool ID of relationships of orders.

4.1.7.3.5 Action Codes for LMPC HJPT Selection Functions

Overview of HJPT selection functions.

This unit contains an overview of all LMPC HJPT selection functions.

Action Codes LMPC HJPT Selection Functions

Action Code	Class, Function module, Transaction	Description	Parameter
S_MAGR S_MAGRD	/LMPC/ CL_ACTION_MARK_OB-JECTS	**Select orders in graphic** **Remove selection.** With these action codes, the orders of the selected rows of the ALV grid are selected in the graphic of the LMPC planning table (MARK), or are highlighted in color (SIGN) or deleted again.	FUNCTION LOW = "SET": Set selection. LOW = "MARD": Delete selection. MODE LOW = "SIGN": Select. LOW = "MARK": Indicate: SELECT LOW = "MATNR" LOW = "ORDNR" LOW = "SEQNR" Select the orders using either the material number, the order number, or the sequence number.
S_MALL	/LMPC/CL_ACTION_MALL	**Select all orders in the ALV grid.**	None
S_MALV	/LMPC/ CL_ACTION_MARK_ALV-GRID	**Select order from graphic in ALV grid.** If you call this action code from the context menu of a bar of the graphical planning table, the associated order is selected in the ALV grid. Multiple selections are possible.	None
S_RMAL	/LMPC/FUNCTION_MALL	**Remove all selections in the ALV grid.**	None
S_SELCAP	/LMPC/ CL_ACTION_SHOW_CAP	**Select detailed capacity list in the chart** In the capacity chart, selects the capacity requirement of the operations selected in the ALV grid.	None

Action Code	Class, Function module, Transaction	Description	Parameter
S_UMTMSG	/LMPC/ CL_ACTION_UMTMSG	**Issue rescheduling proposal.** S_UMTMSG Configuration: Issue rescheduling proposal [page 212]	**COLOR** LOW = "6" Color used to highlight the FSTAD_KB column of the operations to be rescheduled. Standard ALV color values: 3 = Yellow 4 = Blue 5 = Green 6 = Red 7 = Orange **USRA** LOW = "X": Use action code as a pushbutton in the ALV grid or in the context menu.

4.1.7.3.6   Action Codes LMPC HJPT Support Functions

Support functions for the HJPT planning table

This section contains an overview of all LMPC HJPT support functions.

Action Codes LMPC HJPT Support Functions

Action Code	Class, Function module, Transaction	Description	Parameter
S_CASORT	/LMPC/ CL_ACTION_CAP_SORT	**Sort Selected Orders Upwards** Selected orders are sorted at the start of the ALV grid list.	None
S_COUNT	/LMPC/CL_ACTION_COUNT	**Count selected data records.** Count the selected data records according to criteria from Customizing.	**CFIELD** LOW = "Field name" Parameter is optional. Can be used more than once.

Action Code	Class, Function module, Transaction	Description	Parameter
S_CPCHCK	/LMPC/ CL_ACTION_COMP_CHECK	**Check requirement date for components.** Compare the current date with the requirement dates for the components.	None
S_DBCLCK	/LMPC/ CL_ACTION_DBCLICK	**Double-click function.** Processes a double-click on an ALV field. You can configure which action(s) are to be executed afterwards, depending on the column. Is inserted in the context profile with the trigger "double-click".	COLACT Format: <Column>=<Action code> Example: LOW = "ARBPL_CR=S_AK02"
S_DINFO	/LMPC/CL_ACTION_DINFO	**Display detailed information on the transaction.** You use this action code in the context profile of the capacity planning table and it displays information for an order in a popup window. S_DINFO Configuration: Dialog Box for Detailed Information [page 145]	FIELD You use the parameter to specify from which fields the information is to be displayed. The parameter can be entered more than once. Example: LOW = "MATNR_MA"
S_DRADRO	/LMPC/ CL_ACTION_STPRO_DD	**Set strategy profile for drag and drop.** Not for dialog processing. This action code sets the strategy profile stored in the overall profile for drag and drop in the graphical part of the planning table. Is set with the trigger "PAI" to the context profile.	MODE LOW = 'M'

Action Code	Class, Function module, Transaction	Description	Parameter
S_D&D_MO	/LMPC/ CL_ACTION_MOVE_DD	**Enabling Drag and Drop** Not for dialog processing. Must be set as an action code for the trigger "DROP" using a context profile. Auxiliary action code for drag and drop planning. Saves the start and end items of the orders during drag and drop.	**MODE** LOW = "M": Multiple rows (multi) can be moved. LOW = "S": Only one row may be moved.
S_FILTR	/LMPC/CL_ACTION_FILTER	**Set Filter, Remove Filter** Set or remove filters for fields that are set in Customizing.	**FLTRFLD** LOW = <Field name> For example, LOW = ARBPL_CR.
S_FILTRE	/LMPC/CL_ACTION_FILTER	**Remove All Filters** Remove all filters from the ALV grid.	None
S_FIX	/LMPC/CL_ACTION_FIX	**Firm Operations** Operations can be firmed. The prerequisite for this is the configuration of a user status schema for the order operation and the existence of a status with authorization key "FIX". This status is set or removed with this action.	**MODE** LOW = "F" (mandatory). **DALONL** LOW = 'X': Only apply to deal-located operations. **BACKGR** LOW = 'X': Processing in the background.
S_FIXE	/LMPC/CL_ACTION_FIX	**Remove firming.** The firming (=status) is removed.	**MODE** LOW = "D" (mandatory). **DALONL** LOW = 'X': Only apply to deal-located operations. **BACKGR** LOW = 'X': Processing in the background.

Action Code	Class, Function module, Transaction	Description	Parameter
S_FLLUP	/LMPC/ CL_AC-TION_FLLWUP_LAUNCH	**Trigger subsequent action codes.** Technical action code. Not for dialog processing.	None
S_ORFIRM	/LMPC/ CL_ACTION_OR_FIRM	**Firm order relations.** S_ORFIRM, S_ORFREL Configuration: Firm order relations and undo firming [page 187]	**BACKGR** Activate background processing. **LOGIC** Logic for processing. **MODE** Set firming or delete firming. **NO_CC** No consistency check. **NO_POPUP** Popup windows are not displayed.
S_L+	/LMPC/ CL_ACTION_MOVE_LINES	**Move selected line down.** Moves an ALV grid line down one step.	**DIR** LOW = '+'
S_L++	/LMPC/ CL_ACTION_MOVE_LINES	**Move selected line to bottom.** Moves an ALV grid line to the bottom of the list.	**DIR** LOW = '++'
S_L-	/LMPC/ CL_ACTION_MOVE_LINES	**Move selected line up.** Moves an ALV grid line up one step.	**DIR** LOW = '-'
S_L--	/LMPC/ CL_ACTION_MOVE_LINES	**Move selected line to top.** Moves an ALV grid line to the top of the list.	**DIR** LOW = '--'
S_MCFCOM	/LMPC/ CL_ACTION_MCF_MEAS-URES.	**Measures: Maintain Comment.**	**MEA_TYPE** LOW = "C"
S_MCFMEA	/LMPC/ CL_ACTION_MCF_MEAS-URES.	**Measures: Maintain Measure.**	**MEA_TYPE** LOW = "M"

Action Code	Class, Function module, Transaction	Description	Parameter
S_MCFRES	/LMPC/ CL_ACTION_MCF_MEAS-URES.	**Measures: Maintain Resub-mission.**	**MEA_TYPE** LOW = "R"
S_ORFREL	/LMPC/ CL_ACTION_OR_FIRM	**Undo firmed order rela-tions.** S_ORFIRM, S_ORFREL Con-figuration: Firm order rela-tions and undo firming [page 187]	**BACKGR** Activate background proc-essing. **LOGIC** Logic for processing. **MODE** Set firming or delete firming. **NO_CC** No consistency check. **NO_POPUP** Popup windows are not dis-played.
S_REFR	/LMPC/ CL_ACTION_SOFT_RE-FRESH	**Refresh planning table.**	None
S_RELOAD	/LMPC/ CL_ACTION_REFRESH	**Reload planning table.**	None
S_RESSIZ	/LMPC/ CL_ACTION_RESET_SIZES	**Reset views** Resets the views set in the parameters to the size set in Customizing.	**CONFIG** Transfer of view ID of view that is to be reset (multiple use). For example: LOW = "CHART" LOW = "GRID" LOW = "HTML"
S_RES_CV	/LMPC/ CL_ACTION_RESET_SIZES	**Reset chart** Like S_RESSIZ. Only for charts. Useful for reopening a closed chart window.	**CONFIG** LOW = "CHART"

Action Code	Class, Function module, Transaction	Description	Parameter
S_SAVE	/LMPC/CL_ACTION_SAVE	**Save data.** Allows you to automatically save changes. Can only be used as a consequence of an action code. Must be set with the trigger PAI.	None
S_SEP		**Separator.** Creates a vertical line between action code pushbuttons. Creates a horizontal line between functions of a context menu.	None
S_SORT	/LMPC/FUNCTION_DISPATCHER	**Sort ALV Grid** Resets the sorting in the ALV grid to the sorting saved in the layout.	**/LMPC/FUNCTION** LOW = "SL20"
S_STATUS	/LMPC/CL_ACTION_USER_STAT	**Set column names for user status.** Not for dialog processing. This action code sets the column headers for the status fields of the user status. It is used in the context profile with the trigger "PBO".	None
S_SVDBF	/LMPC/CL_ACTION_SET_DBFLDS	**Save values in database tables.** Save values from LMPC directly in database tables (AFKO and PLAF, other tables by enhancement using BAdI). Requires consulting from SAP. S_SVDBF Configuration: Storing Data in Database Fields [page 207]	**TABLE** Table in which data is saved. **DBFIELD** Table field in which data is saved. **USRFIELD** LMPC field that displays the value. **VALUES** Values for input help.

Action Code	Class, Function module, Transaction	Description	Parameter
S_XBR	/LMPC/CL_ACTION_BUSINESS_REP	**Create report folder.** Export data of LMPC ALV grid to an Excel pivot table. S_XBR Configuration: Create Report Folder [page 213]	**DOWNLOAD** LOW = "X" **REPORT** LOW = "LMPC_DEFAULT" **SUPPRESS** LOW = "X"

4.1.7.4   Configuration of Individual Action Codes

This chapter explains the settings for individual action codes.

This list makes no claim to be exhaustive.

If you have any questions about the configuration of action codes, please contact your LMPC consultant.

4.1.7.4.1   S_ATPPIO Configuration: ATP Check and Conversion

Parameters for the action code S_ATPPIO

Action Code Parameter

The following parameter settings can be made for the action code S_ATPPIO:

Parameter S_ATPPIO

Parameter	Description
ATP	This parameter activates the ATP check.
	The ATP check takes place in simulation mode.
	If the function does not convert any orders, nothing is saved. In this case, the result of the ATP check can be discarded without saving.
POOL	This parameter activates the processing of pool orders.
	If the parameter is set, selecting an order from an order pool is sufficient. All other orders with the same pool ID are then automatically loaded into the action code and processed.
CONVERT	This parameter activates the conversion of planned orders.
	The conversion takes place only if this parameter is set.
INDUSTRY	This parameter activates the conversion of planned orders.
	The conversion takes place only if this parameter is set.
AUFART	You can transfer an order type for the conversion. Standard production orders are created by default.
	This parameter is optional.
STATUS	This parameter contains the header status that is checked after the ATP check has been carried out.
	The function can check more than one status.
	If several statuses are specified in this parameter, an "AND" check is performed for all of the statuses.
	A space is placed between the statuses so that the function can process the statuses.
	The internal status number must be specified as the status in each case, for example, "I0053". You can find the number in table TJ02T. There is an input help for the "LOW" field of the parameter.
	The check is carried out only for the header status of an order.
POPUP	If the parameter is set ("X"), a popup window with the result of the conversion is displayed at the end of processing.

Enhancement Options

It is possible to enhance the logic of the action codes using the BAdI definition /LMPC/EHD_ATPPIO. The method PERFORM_CUSTOM_ATP_CHECK then replaces the standard logic. The interface /LMPC/IF_BADI_ACTION_ATPPIO can be used for the implementation.

Related Information

[S_ATPPIO ATP Check and Order Conversion](#)

4.1.7.4.2 S_BOMEXP Configuration: BOM Explosion and Component Quantities

Parameters for Action Code S_BOMEXP

Parameter

Parameter Action Code S_BOMEXP

The action code S_BOMEXP can be used in three different ways:

- As a standalone action code for dialog processing.
- As an automatically subsequent action code of another action code.
- As an automatic action code during drag and drop in the bar chart.

The following parameters can be used:

Parameter S_BOMEXPL

Parameter	Description
BACKGR	If this parameter is set ("X"), the action code is applied to all planned orders in the order pool.
	It is then not necessary to select individual order operations. This parameter can be used if the action code is called using the /LMPC/HJPT background job.
	This parameter is optional.

Parameter	Description
CHCHG	If this parameter is set ("X"), the action code is applied to all planned orders in the order pool that have a change indicator.
	It does not matter which order operations have been selected. The action code is executed for changed orders only.
	This is particularly useful if the action code is used as a subsequent action code for action codes that execute changes to order operations that were not selected.
	Application Example: If you use the action code S_EPSELP to dispatch pool orders, you only need to select one operation of an order pool to dispatch all operations in the pool. If the action code S_BOMEXPL runs as a subsequent action code, the BOM explosion is performed for all changed orders.
	This parameter is optional.

Customizing as a Subsequent Action Code

The action code S_BOMEXP can be used as a successor action code in connection with dispatching functions.

After dispatching, BOM explosions and updates to the component quantities for the planning date are then executed for the planned orders of the selection.

This example shows how the action code is used as a successor action code in Customizing for the action code S_MANPL (Manual Dispatching List):
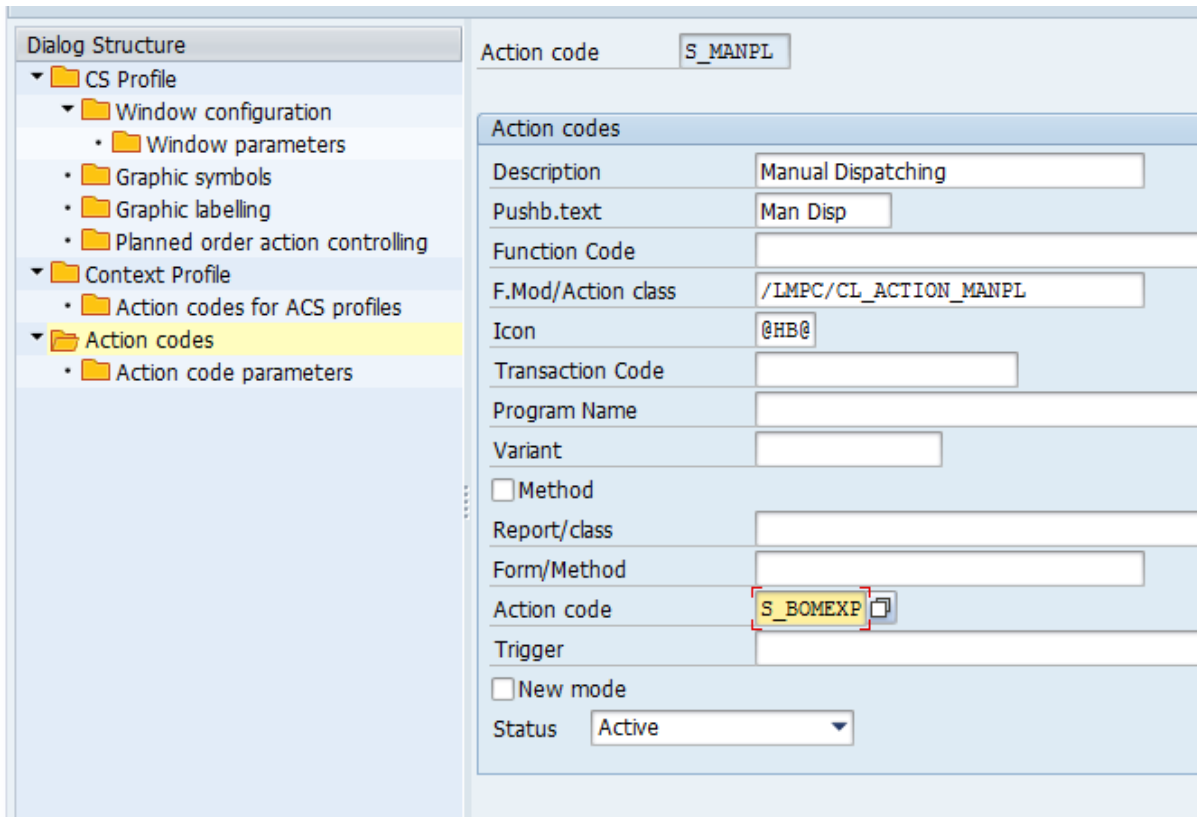
Example S_BOMEXP as Successor Action Code of S_MANPL

Customizing for Use in the Graphic for Drag and Drop

If the BOM explosion and the update of the component quantities are to be carried out using drag and drop in the capacity planning table, the action code S_BOMEXP with the trigger "Drag and drop in the capacity planning table" must be inserted into one of the context profiles used.
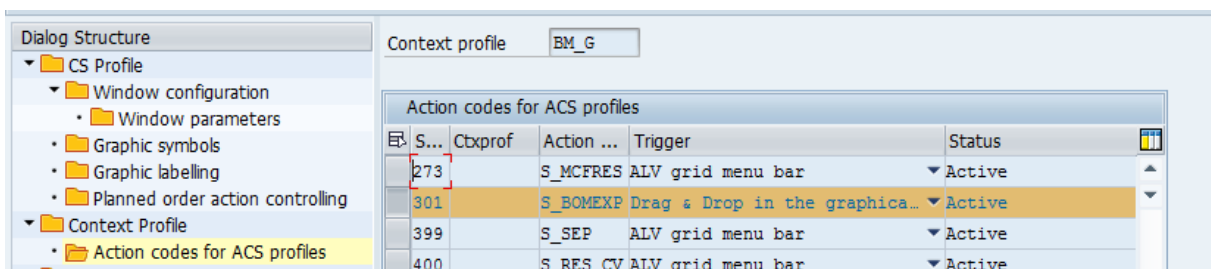
S_BOMEXP with Trigger Drag and Drop

Related Information

S_BOMEXPL Bill of Material Explosion and Component Quantity Update for Planned Orders

4.1.7.4.3 S_COR5 Configuration: Release Process Orders Individually

S_COR5 configuration

The action code S_COR5 was created because transaction COR5 does not support the transaction call using a transaction code with memory ID parameters.

Calling up transaction COR5 from the HJPT planning table takes place via a batch input call.

This means it is possible to transfer data from a line of the ALV grid of the HJPT planning table to the transaction COR5. You therefore avoid entering the data manually.

The standard delivery contains an example configuration for this action code.

> **i Note**
>
> Please note that any change to the configuration is a consulting service. If the transaction call in your system does not work in the way that you require, you can request consulting support for changing the configuration. The change to the configuration is not a service of LMPC Support.

You can find the description of the creation of your own configuration with batch input for the action code in the Action Code Parameters chapter. Action Code Parameters [page 52]

Related Information

S_COR5 Releasing Individual Process Orders

4.1.7.4.4 S_CORTXT Configuration: LMPC Order Text

Parameter and configuration for action code S_CORTXT

You can use the action code S_CORTXT to save an order text for each order in LMPC.

The following settings are necessary for this:

Transaction /LMPC/CUST.

Display View "Action codes": Details

S_CORTXT

Parameter

For the order text to be displayed in the HJPT planning table, the data provider /LMPC/CL_DP_AUTEXT must be active and set to use 2 "Apply to List".

Transaction /LMPC/DPRO.

Data Provider

The text is output using the field /LMPC/CORDTEXT_CY. The field /LMPC/CORDTEXT_CY is located in the layout settings in the group of user fields:
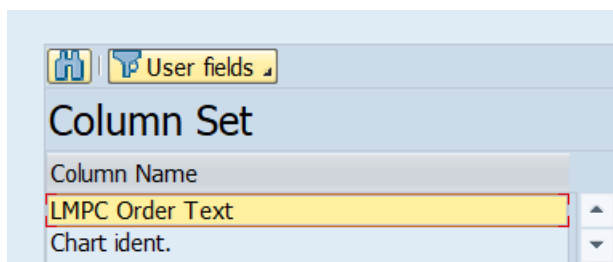
Field Selection in ALV Grid

> → Tip
>
> When converting planned orders to production or process orders, the text of the planned order is automatically adopted for the newly generated production or process order.

Related Information

S_CORTXT LMPC HJPT Order Text

4.1.7.4.5 S_CPV2 Configuration: Change Production Version and Reschedule

Parameters for Action Code S_CPV2

You can use this action code to change the production version for planned, production, and process orders. It is possible to read master data during this process.

The action code is configured in transaction /LMPC/CUST.

Action Code S_CPV2

Parameter

Parameters of Action Code

Parameter S_CPV2

Parameter	Description
PLAN	If the parameter is set (LOW = "X"), the order is rescheduled after the production version is changed.
SPROFILE	You can use this parameter to transfer a strategy profile for rescheduling.

Parameter	Description
EXCL_PL	Option to prohibit the processing of planned orders with a specific order type. The F4 help for the field displays the selection options.
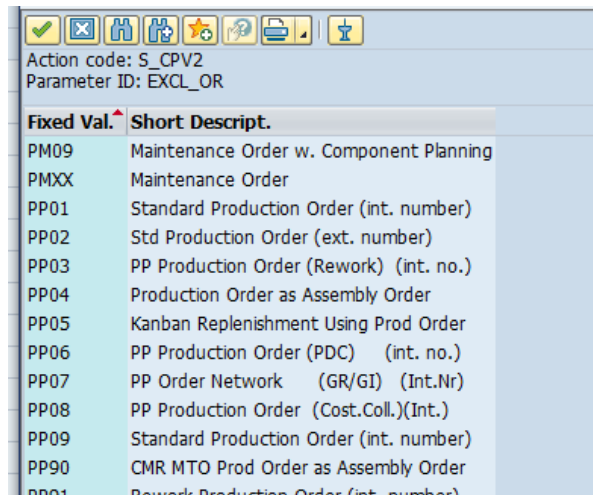
Input Help: Planned Order Types

Parameter	Description
EXCL_OR	Option to prohibit the processing of production orders and process orders with a specific order type. The F4 help for the field displays the selection options.

Input Help for Production and Process Order Types

Parameter	Description
STCHCK	Option to prohibit the processing of production orders or process orders with a specific system status.

The F4 help for the field displays the selection options.
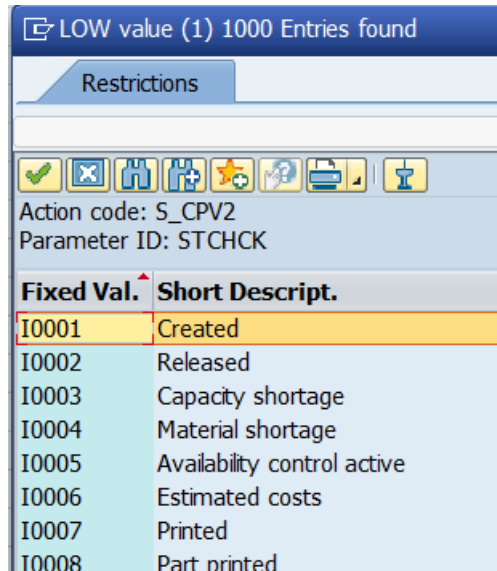
Input Help for System Status Check

The function also includes a check for the prohibition of business transactions in user statuses.

If a user status that contains a prohibition of the following business transactions is set, the function is not executed either:

- Schedule orders
- Undo dispatch
- Read master data
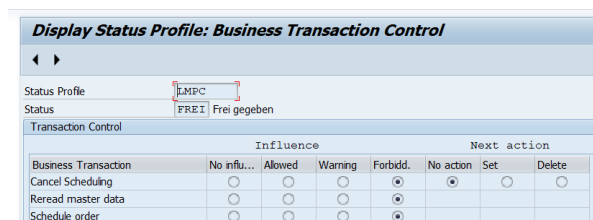
Prohibition of User Status Business Transactions TA BS02

4.1.7.4.6 S_CRCLOR Configuration: LMPC Clean-Out Orders

Configuration action code S_CRCLOR

The LMPC clean-out orders require extensive Customizing settings.

Therefore, this chapter is divided into other subchapters.

> → Tip
>
> The topic of LMPC clean-out orders is very complex. We recommend that you order consulting support from SAP for the setup of clean-out orders.

Related Information

S_CRCLOR Create LMPC Clean-Out Orders

4.1.7.4.6.1 S_CRCLOR Scheduling Types

Selectable processing logic types

To generate clean-out orders with the desired duration, there are three different types of logic:

- Scheduling using standard values (standard)
- Scheduling via routing/recipe
- Scheduling using the order quantity

Each logic has its advantages and disadvantages. We recommend that you use the standard logic for scheduling using standard values.

> → Tip
>
> Due to the high complexity, we recommend that an LMPC consultant selects the method used and the settings for the necessary master data.

The relevant logic is selected using the action code parameters.

Scheduling Using Standard Values

In the logic for scheduling using standard values, the desired duration of the clean-out order is entered in the setup matrix. The duration for the clean-out orders is maintained as a setup time in the transition matrix.

The duration of an operation comes from the interaction between:

- Standard value key at the work center/resource
- Formulas for scheduling at the work center or resource
- Standard value from the routing or master recipe
- Available capacity at the work center/resource

The logic in the action code works with a multiplication factor that converts a standard value of the routing so that the desired duration is created at the work center.

This method has the advantage that only one routing or recipe needs to be maintained for each work center for all transitions.

Standard Value Key at Work Center/Resource: The standard value key can be found in the basic data of the work center or resource. It determines which standard values can be used to calculate the operation durations in the formulas.

You can display the internal names for the standard values using the Customizing transaction OP19 for each standard value key (for example, SAP_02 = machine time).

Standard Value Key Details

The internal names can be used to define which standard value is to be used in the action code (see the section on action code Customizing).

Scheduling at Work Center/Resource: The formulas for calculating the length of an operation are entered on the "Scheduling" tab at the work center (the calculation is not carried out by the formulas for determining requirements on the "Capacities" tab). The formulas use the standard values from the standard value key.

Standard Values in the Routing/Recipe: In the routing, the duration of an operation is stored in the form of standard values for the production of materials per base quantity.

To be able to schedule using standard values, the length of the operation must be proportional to the length of the standard value used for scheduling. The formula at the work center must be designed in such a way that it consists of one standard value only or that the standard value used is multiplied by all other standard values. Therefore, the formula must have the form: used standard value * (any other standard values).

Example: The length of the operation must be doubled if the standard value is doubled.

Other standard values may have to be set to 0 in the routing or using parameter VGWT_VAL in the action code so that they do not interfere with the calculation.

By default, the action code uses the second standard value to calculate the duration of the operation (usually the machine times).

If you want to use a different standard value, you can use the parameter SCD_VGWT to make this known to the action code. The standard values that are not used for scheduling must be set in the routing or in Customizing so that they do not prevent the dispatch of the operations.

Example with machine time and labor time: If the standard value for machine times has been adjusted by the logic for clean-out orders so that the order takes 60 minutes, but there is a requirement of 120 minutes at the same time for the capacity "Labor", the order cannot be dispatched unless there is a higher utilization rate/ multiple individual capacities for "Labor".

Scheduling via Routing or Recipe

In the matrix, no duration (setup time) for the transition is maintained or the setup times maintained are ignored.

If the scheduling via routing/recipe is used, clean-out orders are created with the routing or recipe stored in the matrix without the logic intervening in creation.

The duration of a clean-out order also results from the interaction between the elements mentioned above. However, the difference is that a standard value is not manipulated by the logic. There is no further intervention in the scheduling.

The advantage of this method is that you can use scheduling formulas at the work center that do not fulfill the conditions from scheduling using the standard value.

The disadvantage of this method is that for every transition on each work center, a routing or recipe must be maintained. This can lead to a very large number of routings or recipes having to be maintained in the system.

Therefore, this method is only recommended if a small number of work centers are used with a few transitions and scheduling according to standard values cannot be used.

Scheduling Using the Order Quantity

The duration of the clean-out orders is maintained as setup time in the transition matrix.

If the order quantity is used for scheduling, the order duration of a clean-out order is created by creating orders with a certain order quantity.

One piece of order material corresponds to one minute. The setup time, which is stored in the transition matrix, is converted into a quantity of material for the clean-out order (1 minute = 1 piece). An order with a specific number of pieces is created. The standard scheduling then calculates the duration of the order from the quantity produced.

This method has the advantage that only one routing/recipe per work center or resource needs to be maintained.

This method has the disadvantage that the scheduling formulas at the respective work centers have to be aligned with the routings/recipes to ensure that the 1 minute = 1 piece rule is observed.

4.1.7.4.6.2 S_CRCLOR Maintenance of Transition Matrix

Transition matrix for clean-out orders

The cleaning orders are created based on resource setup groups.

The resource setup groups are created in the transition matrix. Transaction OPG6
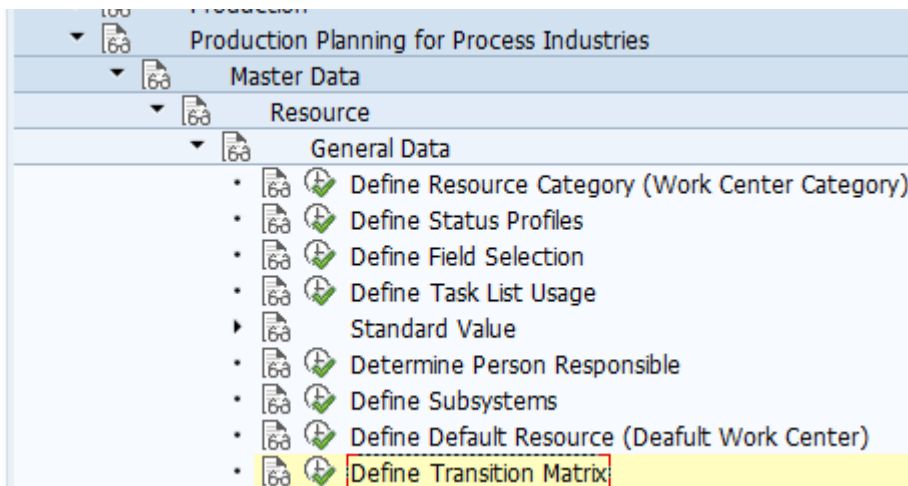
Define Transition Matrix
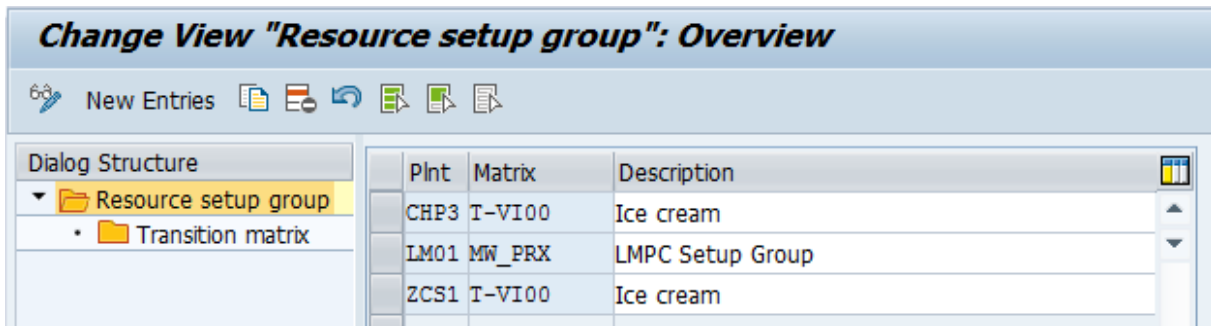
Transaction OPG6

Although this transaction is a Customizing transaction for the process industry, it can also be used for production planning in the HJPT planning table for the function of clean-out orders.

The matrix name refers either to a resource, a work center, or a resource network. You use the matrix to define the transitions between material groups.

You can maintain the matrix in two different ways:

- Maintain the transitions with a setup time.
- Maintain the transitions with routing or recipe.

Which maintenance type is used depends on the logic used. Only one maintenance type at a time is possible. A combination is not possible.

Maintenance of Transitions with a Setup Time

This maintenance is used if you use the logic for scheduling according to standard values or the order quantity.

The material groups are created as predecessor and successor groups.

Here, the desired duration of the clean-out orders must be maintained as setup time during the transition from one material group to the next.

Example of Transition Matrix with Setup Time

The predecessor group, successor group and setup time fields are mandatory fields. The time must always be specified in minutes.

Maintenance of Transitions with Routing/Recipe

This maintenance is used if you use the logic for scheduling by routing.

The material groups are created as predecessor and successor groups.

The routing or recipe group used and the routing counter or the recipe must be specified.

Display View "Transition matrix": Overview

Plant: LM01   Werk LMPC
Transit. matrix: PR1   LMPC Setup Group

Transition matrix for resources

Predecessor group	Successor group	Setup time	Setup unit	Rcp.grp.	Recipe
GRH12	GRH34	0.000		50000163	1
GRH34	GRH12	0.000		50000163	2
GRH34	GRH34	0.000		50000163	3
GRP12	GRP34	0.000		50000163	1
GRP34	GRP12	0.000		50000163	2
GRP34	GRP34	0.000		50000163	3

Matrix Maintenance Routing/Recipe

The predecessor group, successor group, recipe group, and recipe fields must be maintained.

---

i Note

When you create entries for PP, the system issues a warning that the corresponding recipe does not exist. You can simply confirm this warning with the Enter key. This has no effect on the function. It is still possible to perform maintenance.
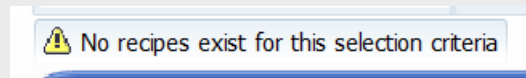
Warning Message

! Restriction

The logic of the action code for the creation of clean-out orders does not check whether the routings/recipes maintained in the matrix actually exist. If an entry contains errors, the function for creating clean-out orders simply terminates.

⚠ Caution

If you use the LMPC setup optimization and the LMPC clean-out orders, note the following: The setup matrix and transition matrix use the same database table. There is no option to maintain the matrix name in the setup matrix. The value "PP" is entered in the database table automatically in the background. Therefore, you cannot use the value "PP" as the setup matrix name in the transition matrix.

4.1.7.4.6.3 S_CRCLOR Order Types

Maintain order types for clean-out orders

Master data must be created before it is possible to create clean-out orders with the LMPC action code S_CRCLOR.

We recommend that you create a separate order category for clean-out orders that is not used by other orders. This is particularly useful if clean-out orders are later to be removed by the action code. This is because the order category can be used to identify the clean-out orders.

Customizing Path for PP Order Types:

▌▶ *Production* ❯ *Shop Floor Control* ❯ *Master Data* ❯ *Order* ❯ *Define Order Types* ❱
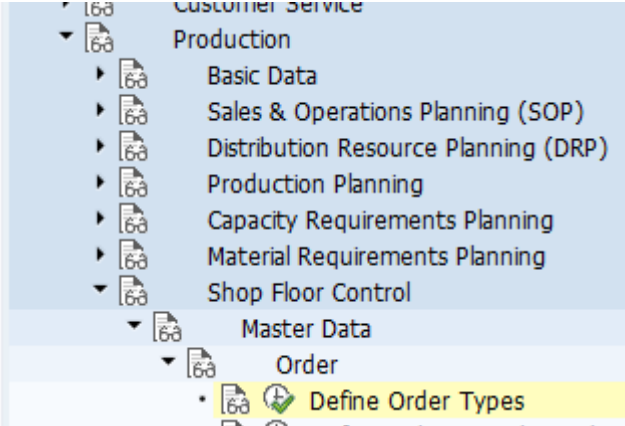
Define PP Order Types

Transaction OPJH

Example PP production order type:

Change View ""Maintain Production Order Types"": Details

New Entries ...

Order category: 10
Order Type: PPCL | LMPC PP cleaning orders

Control indicator

CO Partner Update: Semi-active
☑ Classification
☐ Commit. management

Reorganization

Residence Time 1: 1
Residence Time 2: 1

Cost controlling

Settlement profile: FA_ABP — Prod. order settlement profile
Functional Area: — Imp. expenses(not in P&L)
☐ Coll.order with goods movement

Status management

StatusProfile Header: PP000001 Status profile ProductionOrder
Oprtn status profile: LMPC

Number range general

PP Production Order Type

Customizing Path for PI Order Types:

▌▶ *Production Planning for Process Industries* ❯ *Process Order* ❯ *Master Data* ❯ *Order* ❯ *Define Order Types* ❯
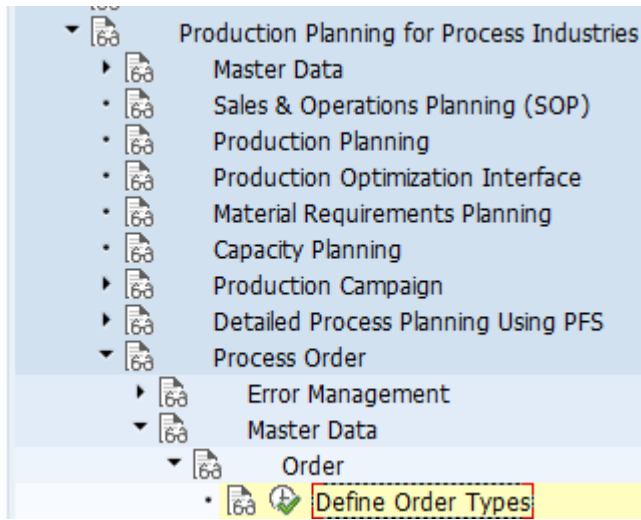
Define PI Order Types

Transaction CORN

Example PI process order type:

Process Order Type

The order type must be assigned to the plant.

Customizing Path for Assignment of PP Order Type to Plant:

▐▶ *Production* ❯ *Shop Floor Control* ❯ *Master Data* ❯ *Order* ❯ *Define order type-dependent parameters* ❯
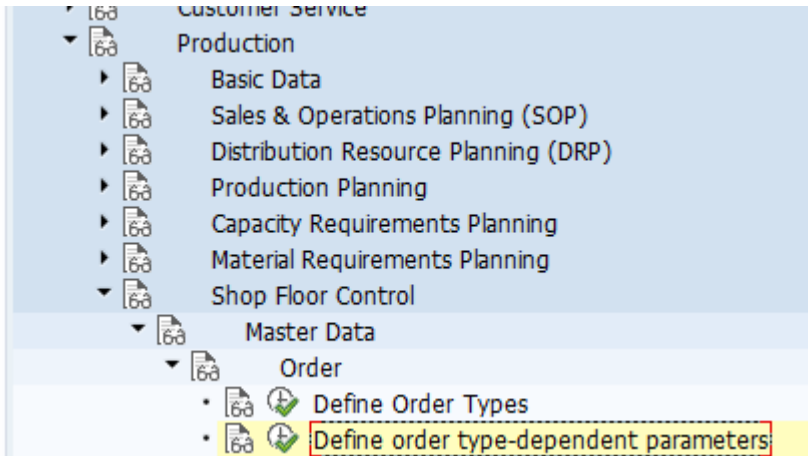
Display Order-Type-Dependent Parameters

Transaction OPL8

Customizing Path for Assignment of PI Order Type to Plant:

▶ Production Planning for Process Industries ❯ Process Order ❯ Master Data ❯ Order ❯ Define Order Type-
Dependent Parameters ❯
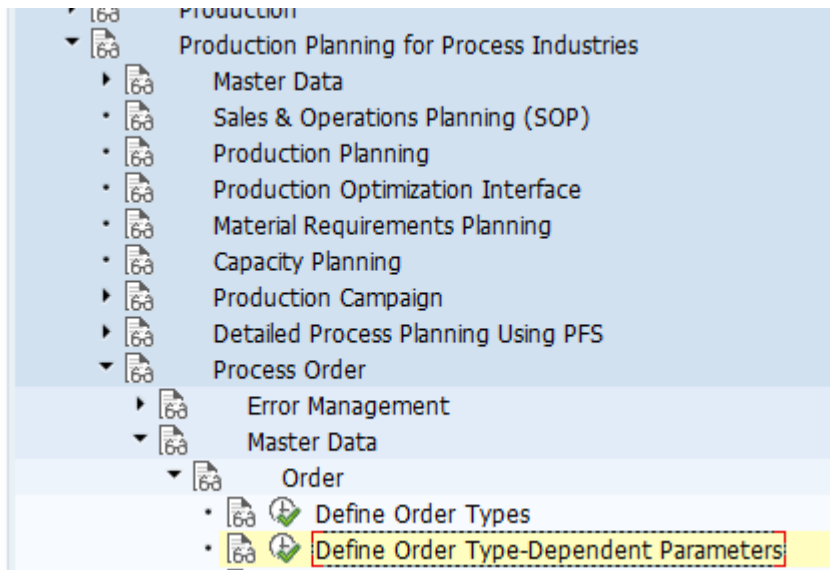
PI Order-Type-Dependent Parameters

Transaction COR4

4.1.7.4.6.4 S_CRCLOR Material

Maintain material for clean-out orders

Cleaning material is required for the PP scenario.
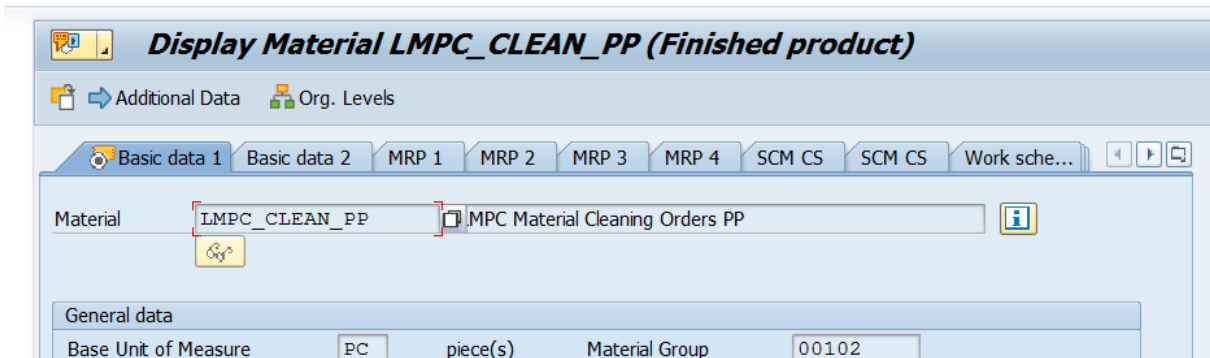
Example of Cleaning Material

→ Remember

- Even if cleaning material is necessary and routings exist for this material, the relevant clean-out order is still created without a material in the order header. The material is only required for the definition of routings. The resulting clean-out order will not contain any header material.
- No cleaning material is necessary for the PI scenario, as orders can also be created here without material.

4.1.7.4.6.5 S_CRCLOR PP Routing

Maintain routing for the clean-out orders

A routing is necessary for the creation of clean-out orders.

The following applies to the logic of scheduling using standard values and to scheduling using the order quantity:

Each work center must have its own routing for the cleaning material. One routing per work center is sufficient.

All routings for the clean-out orders must belong to the same group. The group number and the task list type must be specified in the parameters of the action code (see the chapter on Action Code Customizing).

The system automatically determines the appropriate group counter from the routing when a clean-out order is created. All group counters for a group are checked and the first entry that contains the correct work center is used to generate the order.

! Restriction

The development was performed for normal routings. Other routing types are not supported.

Example Plan Overview with 2 Routings for Clean-Out Orders

Display Routing: Operation Overview

◀ ▶ 🖨 📑 📑 📑 📝 Work center 🔧CompAlloc 🔧Sequences 🔧PRT ⊘ 🔧Inspection Characteristics 📊

Material LMPC_CLEAN_PP   Grp.Count1
Sequence   0

Operation Overv.

Op...	SOp	Work cen...	Plnt	Co...	Standard ...	Description	L...	PRT	Cl...	O...	P...	C...	S...	Base Quan...	U...	Setup	Unit	Activit...	Machine	Unit	Activit...	Labor
0010		MA1	LM01	PP01		Cleaning MA1	☐	☐	☐	☐	☐		☐	1	PC	0	MIN	LM_MA	1	MIN	LM_MA	1

Example: PP Operation Overview of a Routing

If the Customizing for scheduling with order quantity is activated, the standard value of the machine time should be 1 minute per piece, as the duration of an order is calculated using the number of pieces in the clean-out order.

For scheduling using standard values, a value must be specified in the routing for the standard value that is used for scheduling. It is also recommended to use 1 min each. The other default values should be blank. If they cannot be blank in the system due to routing modeling reasons, you can set all other default values to 0 using the VGWT_VAL parameter.

The following applies to scheduling via the routing:

A routing must be maintained for every transition at every work center. Therefore, a group counter must exist for each work center and transition.

Display Routing: Overview

📑 📑 🖨 🔧Sequences 🔧Operations 🔧MatlAssignment 🔧CompAlloc

Group   50002236

Header overv.

GrC	Task list description	Plant	U...	St...	Pl...	From Lot Size	To lot size	Unit	D...	Change Nur
1	LMPC PP R Übergang 1	LM01	3	4		0	99,999,999	PC	☐	
2	LMPC PP R Übergang 2	LM01	3	4		0	99,999,999	PC	☐	
3	LMPC PP R Übergang 3	LM01	3	4		0	99,999,999	PC	☐	

Example Routing for a Work Center with 3 Group Counters

You do not have to create all routings for a task list group.

For example, you can create one group per work center. You can also create a group for each order duration, such as a group for the duration of one hour, and store plans there for all work centers for which the duration is one hour.

For scheduling using the routing, the standard values must be set in such a way that the required duration is created for the clean-out order.

Using this logic, the clean-out order is created with this routing with no further influence by the coding. The actual duration is the result of the interaction between the formulas at the work center, the available capacity at the work center, and the standard values defined in the routing. The duration can therefore be defined by entering the corresponding standard values.

Related Information

S_CRCLOR Action Code Customizing [page 137]

4.1.7.4.6.6 S_CRCLOR PP-PI Recipe

Maintain recipe for the clean-out orders

A recipe is required for the process industry.

The following applies to the logic of scheduling using standard values and to scheduling using the order quantity:

All resources must have their own clean-out recipe. One recipe per resource is sufficient.

All clean-out recipes must belong to the same recipe group. The relevant recipe is determined automatically when the clean-out order is created.

If a resource network is used, all recipes of the recipe group are checked. The first recipe that uses the required resource is used to create the clean-out order.

If a resource network is not used, all operations of the recipes are checked for the resource. The first recipe that contains the resource is used to create the clean-out orders.

Example: PP-PI Recipe Group

Example: PP-PI Recipe

When scheduling using the number of pieces in the order, the recipe should be created in such a way that the production of one piece leads to a production time of one minute.

This is not necessary for scheduling using standard values (default behavior). However, a value of one minute is also suitable in this case.

The following applies to scheduling via the recipe:

A recipe must be maintained for every transition to each resource. Therefore, a recipe must exist for each resource and transition.

For scheduling using the recipe, the standard values must be set in such a way that the required duration is created for the clean-out order.

Using this logic, the clean-out order is created with this recipe with no further influence by the coding. The actual duration is the result of the interaction between the formulas at the work center, the available capacity at the work center, and the standard values defined in the recipe.

The duration can therefore be defined by entering the corresponding standard values.

4.1.7.4.6.7 S_CRCLOR Material Groups

Create material groups for clean-out orders

You need material grouping to be able to assign the orders to transitions in the matrix.

Material groupings are created in the master data of the material. "Material Group" field on the "Work Scheduling" tab.

Example:

Material Group in the Material Master

The material group can be shown in the HJPT planning table.

The field is in the columns for the plant material:
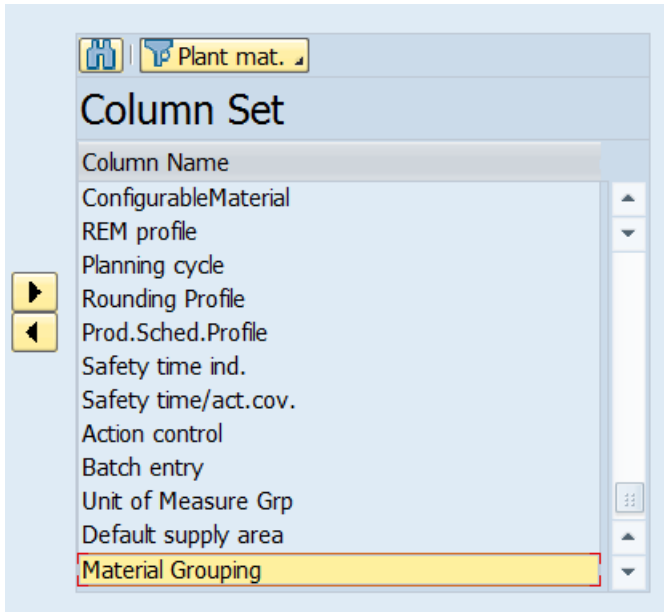
ALV Grid Layout Settings

4.1.7.4.6.8 S_CRCLOR Action Code Customizing

Parameter settings for clean-out orders

This chapter contains the information about the action code parameters.
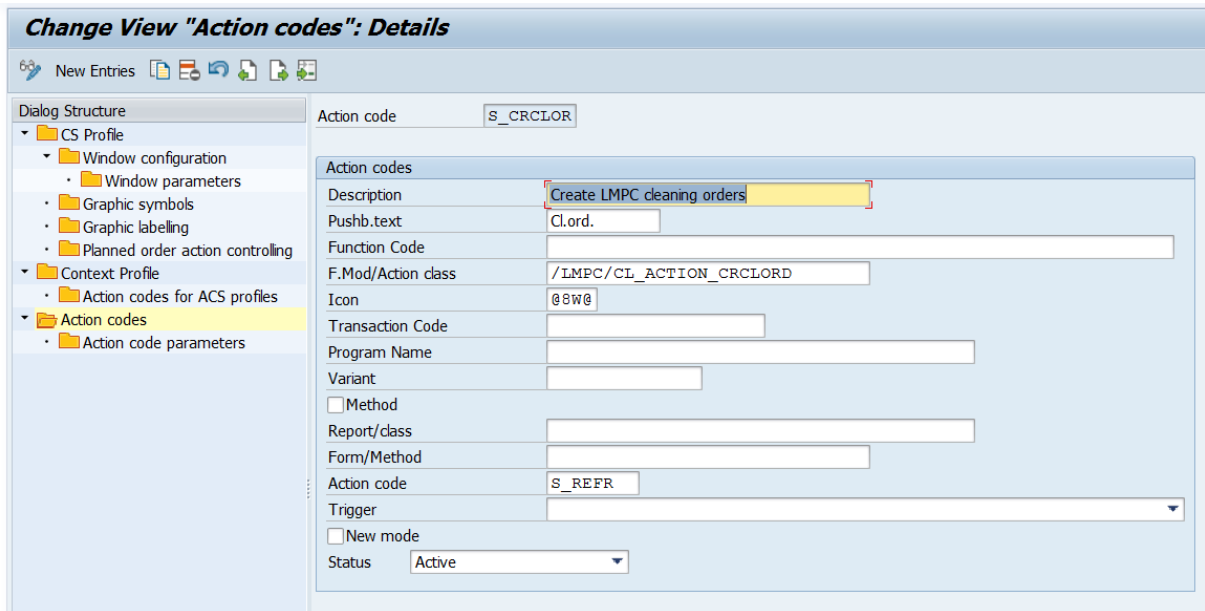
Action code S_CRCLOR

Action code parameter:

Parameters of Action Code S_CRCLOR

Parameters for Action Code S_CRCLOR

Parameter	Description
BADI_ORD	If the parameter is set ("X"), a BAdI implementation is used for the order creation logic.
BADI_QTY	If the parameter is set ("X"), a BAdI implementation is used for the logic for determining the quantity.
NET	"X" = the name of the resource network is used as the matrix ID (process industry only). " " = Resource is used as matrix ID.

Parameter	Description
ORD_ATTR	The new clean-out order is created with the information from this parameter. "LOW" contains the field name, "High" contains the field value.
	Required data for all logics:
	• AUART: Order type
	• GMEIN: Unit of measure
	Required data for scheduling using standard values and order quantity
	• PLNTY_D: Task list type (in PP routing: N, in PI recipe: 2)
	• PLNNR_D: Key of routing group / recipe group
	The order type (production or process order) is determined automatically via the order type. A PP order type will lead to a production order. A PI order type will generate a process order.
ORD_TECH	The action code must know how the clean-out orders are identified.
	The function must be able to distinguish between clean-out orders and manufacturing orders.
	Identification takes place using an LMPC field. Field values: "LOW" = LMPC field name, "HIGH" = value of LMPC field.
	The order type is a simple way of identifying the orders. Example: AUART_FA = "CLEA".
REMOVE	"X" = Existing clean-out orders are technically completed before new clean-out orders are created.
	" " – The existing clean-out orders are not technically completed before new clean-out orders are created.
STRE	Strategy profile used for scheduling.
	This parameter is optional. If no strategy profile is transferred, the system uses the strategy profile for single-item planning from the HJPT overall profile for scheduling.
STRICT	"X": If a transition from one material to another is missing in the transition matrix, the action code terminates with an error message.
	" ": If a transition is not maintained in the matrix, no order is created for this transition. The action code then ignores this transition.

Parameter	Description
CLOSEGAP	If the parameter is set ("X"), all selected order operations are planned without gaps when the clean-out orders are inserted. Planning without gaps begins at the first selected order operation.
	If this parameter is not set (" "), the clean-out orders are simply inserted without rescheduling the other orders.
	The insertion can lead to deferment of the orders if the gaps between the orders are not sufficiently large for the clean-out orders. When transitioning from one material to the next, the clean-out order is planned at the end of the preceding order.
SCD_TYPE	Selection of scheduling logic. • S (=default) or blank for scheduling the clean-out orders using standard values. • "M" for scheduling using the order quantity. • 'R' for scheduling via routing, or recipe.

Parameter	Description
SCD_VGWT	This parameter is only relevant for scheduling using standard values (optional).
	You can use this parameter to specify the default value that is to be used for scheduling.
	If this parameter is not set, the second standard value in the work center is used automatically. This is usually the machine time.
	• **Low:** Name of the work center or (*). • **High:** Number (1-6) or the name of the standard value.
	Entries with a specific work center are placed ahead of those with (*).
	If multiple suitable entries exist, the following applies:
	• For reference using the standard value number, the first one is selected. • For reference using the internal name, the first entry whose default value actually exists in the work center is selected. This means that it is possible to use several entries with work center = (*).
	In general, the configuration using the internal name of the default values is preferable, since it is then independent of the item in the standard value key.
	In addition, the action code can then check whether the standard value really matches the work center.
	You can see the internal names in the standard value key.

Parameter	Description
VGWT_VAL	This parameter is only relevant for scheduling using standard values (optional).
	This parameter is intended for the special case when the cleaning material has routings, which contain times in several standard values.
	With this parameter, all standard values that are not used for scheduling can be overwritten with 0 values so that the correct times are determined when clean-out orders are created.
	It is therefore used to correct default values before the order is created.
	As a rule, this parameter is not necessary because a routing / recipe is created for the cleaning material, for which only one default value is maintained.
	• Low: Number (1-6) or the name of the standard value. • High: Value
CAPA	This parameter is only relevant for scheduling using standard values (optional).
	"X": The rate of utilization of the capacity used for scheduling is taken into account. This parameter must be set if the utilization rate of the capacity is not equal to 100%.
	For example, if a resource has a utilization rate of 50%, the default value for the processing time is halved so that the order gets the correct duration.
	Only the first level of capacity utilization of a capacity is always taken into account.
	Changing the utilization rate over time (for example, using shifts) is not supported.

Parameter	Description
CHK_BULK	Parameter for two-level planning (optional).
	"X": If the parameter is set, the logic assumes that all selected orders are order pools with semifinished and finished goods orders.
	A different logic is then used.
	The clean-out orders are only created between the semifinished material orders of the selected order pools.
	No clean-out orders are created between the finished goods orders.
	Inserting clean-out orders between the orders of the semifinished product necessitates rescheduling of the entire order pool.
	Rescheduling takes place using the logic of the action code S_EPBKFG.
	As the pools are rescheduled internally by means of a call of the S_EPBKFG action code, the planning result is significantly influenced by its configuration.
BULK_ACT	Name of the action code for two-step planning (optional).
	Only in conjunction with the CHK_BULK parameter.
	Parameter settings must be read for semifinished and finished goods planning. As standard, these are read from the action code S_EPBKFG.
	If other parameter settings are required, you can specify the name of another action code that uses the same class / LMPC/CL_ACTION_EPBLKFG.
	The parameters are then read from this action code.
CHK_FOLL	Check subsequent order pools (optional).
	Only in conjunction with the CHK_BULK parameter.
	Inserting cleaning orders and rescheduling the selected order pools may prompt the system to move subsequent orders from order pools that were not selected. As a result, the relationship between semifinished products and finished products could become confused in these orders.
	To prevent this, this parameter can be set to "X". At the end of the scheduling, the system then reschedules all subsequent order pools that have not yet been scheduled.

Parameter	Description
CONSFG	Check finished goods (optional).
	Only in conjunction with the CHK_BULK parameter.
	If clean-out orders are inserted into a plan with semifinished products and finished goods, it may be the case that the semifinished products are moved in such a way that the finished goods orders are still running although the next semifinished material order for the subsequent pool has already started.
	If you use this parameter, the semifinished goods for the subsequent order pools do not start until the finished goods orders of the preceding order pools are completed.
	The parameter has three possible settings:
	• " "(blank): Subsequent pools are not aligned with the previous finished product.
	• "S": Subsequent pools consider the location of the finished goods orders, but only for order pools with START-START relationship.
	• "X": The following pools consider the location of the finished goods orders for all planning relationships.

Example Parameter Settings for the Action Code

4.1.7.4.6.9 S_CRCLOR Enhancement Options

Enhancement options for clean-out orders

It is possible to enhance the logic of the action codes using the BAdI definition /LMPC/EHD_CRCLORD.

The interface /LMPC/IF_BADI_ACTION_CRCLORD provides the methods for the implementation.

The methods CREATE_ORDER and DETERMINE_QUANTITY replace the standard logic for order creation and quantity determination.

If a BAdI implementation exists, the parameters BADI_ORD and BADI_QTY determine which parts of the standard logic are to be replaced.

4.1.7.4.7   S_DINFO Configuration: Dialog Box for Detailed Information

Parameters for action code S_DINFO

Action Code

Action Code Customizing S_DINFO

Parameters

Example Parameter Settings

The "FIELD" parameter is used to specify the field names of the ALV grid structure /LMPC/HJPT_F01. The sequence of the fields in Customizing specifies the sequence of the information in the dialog box.

Context Profile

The action code must be assigned to the context profile of the HJPT overall profile.
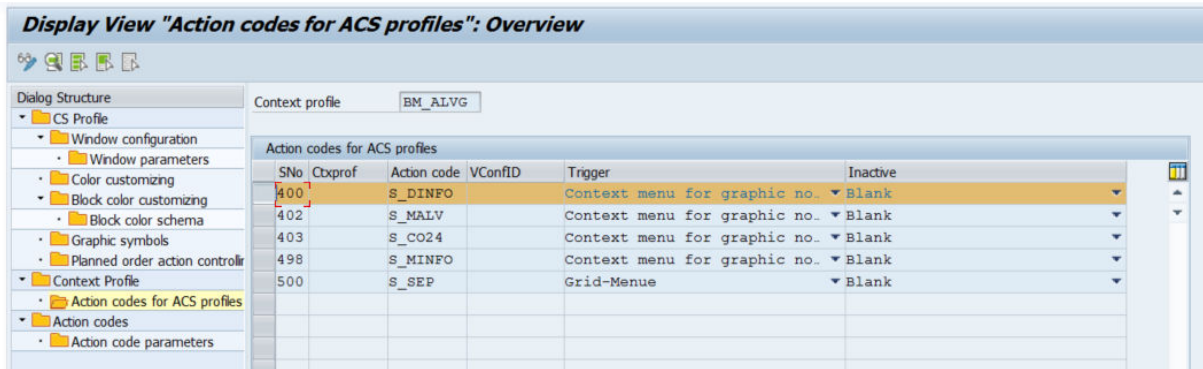
Example of Assignment of Context Profile

4.1.7.4.8   S_EPBKFG Configuration: Two-Step Dispatching

Setting options for action code S_EPBKFG

Action Code

Action Code S_EPBKFG

Parameter

Action code: S_EPBKFG

PID	Description	Type
BACKGR	Background planning (X = yes)	
CHECKFIX	Ignore fixed/firmed orders	
COMP	Comparison with BOM position. Values: 1, 2, 3, 4 or BLANK (all)	
CONSFG	Consider finished goods of other pools when choosing a time to for dispatching	
DAYPLAN	Day planning	
DAYRESC	When day planning: Reschedule all pools of the day	
DISPREL	Dispatching relation Bulk to Finished FG (Default: End-Start)	
EPTBSQ	Planning order of pools from table	
FG_NOGAP	Find gap: ENST-Pools: Finished goods directly after bulk	
FIND_GAP	Find gap on capacity	
GRAPH	Called from Planning Table Chart (for trigger MOVENODE)	
HJPTDATE	When planning without DAYPLAN and CONSFG: Use HJPT date for planning	
INVERS	Dispatch in inverse order	
RESCFOL	Reschedule following pools	
SORTFLD	Sort order for dispatching. LOW: HJPT fieldname HIGH: ASC or DESC	
STRBLK	Strategy Profile for bulk orders	
STRFG	Strategy Profile for finished goods	

Parameter Overview

Example Parameter Action Code S_EPBKFG

Parameter S_EPBKFG

Parameter	Description
BACKGR	Parameter for background processing.
	If this parameter is set, all orders opened in the HJPT planning table are processed instead of the current selection. Orders that do not belong to a pool are ignored.
BAT_DALL	"Deallocate in Batch" parameter.
	All orders that are to be deallocated are deallocated in a call. Minor performance improvement (optional).
BAT_ENQ	"Enqueue in Batch" parameter.
	All orders transferred to the planning functions of the planning table are locked in one call before planning is started. Minor performance improvement (optional).
CHECKFIX	If the parameter CHECKFIX is set, order pools that contain firmed production orders or process orders are ignored.
	Note that dispatched planned orders are always firmed. These orders are not taken into account.

Parameter	Description
CHK_ENQ	Parameter for checking the locks.
	All orders transferred to the planning functions of the planning table are checked for external locks before planning begins.
	If orders are locked externally, the function terminates. In this case, the system displays a list of all locked orders, blocking users and transactions.
COMP	Parameter for checking the locks.
	All orders transferred to the planning functions of the planning table are checked for external locks before planning begins.
	If orders are locked externally, the function terminates. In this case, the system displays a list of all locked orders, blocking users and transactions.
CONSFG	Parameter for consideration of dispatched finished products.
	If the CONSFG parameter is set, an order pool is always dispatched directly after the latest order pool that has already been dispatched.
	Consider Finished Goods = End of Finished Goods.
	If the latest dispatched pool is in the past, the current time is used instead. If the parameter DAYPLAN is also set, the system searches for the latest already dispatched pool on the MRP date of the semifinished product order and executes dispatching after this pool.
DAYPLAN	Parameter for controlling the dispatching date.
	If parameter DAYPLAN is set, the date assigned by the MRP run will be used for bulk orders. However, the time for dispatching will be set to 00:00, which allows per-day planning. If both DAYPLAN and CONSFG are set, both parameters are evaluated and the later time is used for dispatching.

Parameter	Description
DAYRESC	Parameters for rescheduling by days.
	This parameter only functions in conjunction with the parameter DAYPLAN.
	Before planning, the MRP date is read for each semifinished product order in the selection.
	This date is used to search for semifinished product orders on this date that have already been dispatched. These orders are then added to the planning list.
	With this parameter combination, all orders can be rescheduled to one day even though only one order pool was selected. As already-dispatched orders are added to the planning list, they are dispatched after the order selected. This means that the selected order pool is dispatched as the first order on this day, followed by the other orders for the day.
	A different dispatching logic is possible in conjunction with the EPTBSQ parameter: When dispatching an order pool here, you can dispatch all orders again on this day according to the logic of the action code S_EPTBSQ (table sequence). The system then sorts all orders on this day before dispatching according to the sequence in the Customizing table.
DISPREL	Parameter for the dispatching relationship between semifinished and finished goods.
	The possible values are:
	• ENST (end-to-start): The finished goods are dispatched after the order for the semifinished products. • STST (start-to-start): The semifinished and finished products are dispatched in parallel. If the parameter DISPREL is initial or is not set, an end-start relationship is assumed.
EPTBSQ	Parameter for planning sequence.
	If the EPTBSQ parameter is set, the sequence of the order pools to be planned is determined using the logic of the action code S_EPTBSQ (Dispatch by table).
	To do this, the dispatching sequence is determined using the respective semifinished materials of the order pool. The sequence can be defined in transaction /LMPC/MAT_SEQ.

Parameter	Description
FG_NOGAP	Parameter to avoid gaps.
	This parameter is only valid for planning with an ENST relationship.
	If the parameter is set to "X", the function checks that it is only dispatched where no gaps can occur between semifinished and finished goods orders. This parameter ensures that the start time of the first operation for the finished goods of an order pool is the same as the end time of the last operation for the semifinished product order. Finished goods directly follow the semifinished products.
FIND_GAP	Parameter for gap search.
	If the parameter is set to "X", the system searches for a gap in the work centers or resources involved when planning. This gap must be large enough to allow semifinished and finished goods to be dispatched contiguously.
	The orders are only dispatched in such a gap.
	The parameter can also be set to "P". This setting is only useful for using the action code with drag and drop in the capacity planning table.
	If an order pool is inserted into a gap that is not large enough, no dispatching takes place. The system terminates dispatching with a message informing you that the gap was not large enough.
	This message is also written to the planning log.
GRAPH	Parameter for the indication that the action code is called via drag and drop in the graphic for the HJPT planning table.
HJPTDATE	Parameter for planning for the currently scheduled time.
	If the parameters CONSFG and DAYPLAN are both not set, the orders to be dispatched are transferred to the dispatching function without a requested time.
	This means that the orders can be dispatched at the times specified by the MRP run when rescheduling.
	If the HJPTDATE parameter is set, the times for dispatching and rescheduling are transferred to the orders as requested times, which are displayed in the LMPC ALV Grid.
INVERS	Parameter for reversing the dispatching sequence for finished product orders.
	If the parameter is set (LOW = "X"), the sequence of the finished product orders is reversed before dispatching.

Parameter	Description
RESCFOL	Parameter for subsequent planning.
	If this parameter is set, the system searches before dispatching for dispatched order pools that are later than the current pool.
	The subsequent order pools are then included in planning and rescheduled.
	You can use this parameter to prevent deferment effects that can occur if a pool order is dispatched between pool orders already dispatched due to an MRP date.
SORTFLD	Parameter for sorting semifinished and finished product orders before dispatching.
	This parameter can be used more than once.
	If the parameter is used, the semifinished and finished product orders are sorted before they are transferred to the dispatching function.
	This allows the sequence of dispatching to be influenced.
	The field name for the sort field from the /LMPC/HJPT_F01 structure is entered in the field "LOW".
	The sort sequence is defined in the "HIGH" field. ASCD (ascending) or DESC (descending).
STRBLK	Parameter of the strategy profile for dispatching the semifinished products.
	If the parameter is not set, the system uses the profile for single-item planning from the HJPT overall profile for dispatching.
STRFG	Parameters of the strategy profile for dispatching the finished product orders.
	If the parameter is not set, the system uses the profile for single-item planning from the HJPT overall profile for dispatching.

Configuration of the Action Code for Use with Drag and Drop

To allow use of the action code with drag and drop, it must first be assigned to the context profile used with the trigger MOVENODE.

Additionally, the GRAPH parameter must be activated in the action code (value 'X').

If the action code is to work both with drag and drop and also via other triggers (for example, using the ALV application toolbar), the action code must be copied.

The GRAPH parameter then only needs to be set in the action code used for drag and drop.

S...	Ctxprof	Action ...	Trigger	Status	
761		S_EPBKFG	MOVENODE Drag & Drop in the... ▼	Active	▲

Action codes for ACS profiles

Trigger MOVENODE

→ Remember

- If the Dispatching parameter is used at the earliest time set in the strategy profile used for planning the semifinished product orders, the order pool is always dispatched as early as possible. This is independent of the drag and drop time point. Therefore, this setting should not be selected.
- If the CONSFG parameter is set in the action code, the order pool is always dispatched after the last dispatched pool. Dispatching then takes place independently of the drag and drop time point.
- If the parameter DAYPLAN is set in the action code, the date determined with drag and drop is taken into account when dispatching the semifinished product order, but not the time.

Enhancement Options

To further influence the behavior of the action code S_EPBKFG, you can implement the BAdI /LMPC/ EHD_EPBLKFG in the enhancement spot /LMPC/EHS_ACTION_CODE.

The related interface /LMPC/IF_BADI_ACTION_EPBLKFG provides the following methods:

Methods

Method	Description
IDENTIFY_BULK_MATERIAL	Determination of the semifinished product material for the order pool.
	Replaces own logic for determining the semifinished product material for the action code.
GET_DISPATCHING_RELATION	Determination of the dispatching relationship for each order pool. Overrides the DISPREL parameter.
MANIPULATE_POOL	Universal method for changing the data of the order pool to be processed.
	Permits change of:
	- Semifinished product material
	- Dispatching relationship
	- Dispatching time
	- Orders to be dispatched
	- Behavior with drag and drop
	You can also:
	- Skip an order pool (no processing)
	- Cancel the action code

Related Information

4.1.7.4.9   S_EPML, S_EPMLBW, S_EPMLFW Configuration: Multilevel Dispatching

Parameters for multilevel planning

You can use multilevel dispatching to dispatch related orders across the low-level codes. The connection is established via the material BOM, according to the logic of the LMPC order relations.

Dispatching takes place in such a way that the order for the previous product is ended before production begins for the order in which this product is included.

Depending on the setting, the system determines upstream and/or downstream operations using the material BOM, starting from each operation selected. The logic therefore reads other operations and orders from the order pool for the selected operation to create a dispatching sequence.

This determined sequence is then dispatched.

For details on planning, refer to the application guide.

This is where the setting options for the function are displayed.

The action codes S_EPML, S_EPMLBW, and S_EPMLFW only differ with regard to the configuration of the parameters.

Action Code S_EPML

Action Code S_EPML

Parameter

Parameter S_EPML

Parameter	Description
BACKGR	The action code can be used for background processing. If the parameter LOW = "X" is set, all open operations are sent to processing.
	If background processing has been activated, the search direction for creating the dispatching hierarchy should be in both directions. Parameter PLDIR = FAB. This is the only way to really dispatch all the orders.

Parameter	Description
EPSTART	Setting from which the start time for dispatching the determined hierarchy is to be read.
	Values:
	• Blank: If the parameter is empty, the start date and start time currently stored in the selected operation are used as the starting point for dispatching. This is normally the time at which the MRP run has scheduled the relevant operation. If this date is in the future, the system proposes the current date and time.
	• If LOW = "EARLIEST" is set, dispatching takes place as early as possible. The dispatching logic receives the current date and time as the desired start time.
	• If LOW = "MANP" is set, a dialog box appears before dispatching to query the start time. This start time is valid for every hierarchy determined. This start time is transferred to every hierarchy. "MANP" is not included in background processing.
FIRMED	Parameters for firmed order relations.
	Values:
	• Blank: If the parameter is not set, all orders belonging to the order relations of a hierarchy are dispatched.
	• If the parameter value LOW = "ONLY" is set, only orders of firmed order relations are dispatched.
	• If the parameter value LOW = "NOT" is set, no orders with firmed order relations are dispatched. Only those orders that are not firmed are dispatched.
LOGIC	Parameter for the planning logic.
	Values:
	• If LOW = "1" is set, then the transferred start time is valid for the first determined operation of a hierarchy.
	• If LOW = "2" is set, then the transferred start time is valid for the selected operation of a hierarchy. This means that the dispatching time for all upstream operations is calculated in such a way that the selected operation is set to the desired time. Logic 2 contains a capacity check before dispatching.

Parameter	Description
NO_RESCD	Parameter for rescheduling.
	Values
	• Blank: If the parameter is empty, order operations that have already been dispatched are also included in planning. They may also be rescheduled.
	• If the parameter is set (LOW = "X"), operations that have already been dispatched are no longer rescheduled. However, the start times of the operations that have already been dispatched are taken into account when calculating the start times for the operations to be dispatched again.
PLDIR	Parameter for the planning direction.
	Values:
	• LOW = "SBW": Search direction backwards. Starting from the selected operation, the system uses the low-level codes to search for and assign orders in the direction of the preliminary product.
	• LOW = "SFW": Search direction forwards. Starting from the selected operation, the system uses the low-level codes to search for and assign orders in the direction of the finished product.
	• LOW = "FAB": Search direction in both directions. Starting from the selected operation, the system uses the low-level codes to search for and assign orders in the direction of the finished product and the preliminary product. This means: across all associated low-level codes.
STRP	Parameter for the strategy profile for dispatching.

The delivered dispatching strategy profile has the following settings:

Change View "Capacity Leveling - Strategy Profiles": Details

New Entries

Strategy prof.   LMP_EPML   LMPC Multi Level Planning

Scheduling control
- ☑ Finite scheduling
- ☐ Dispatch at earliest point in time
- ☐ Dispatch at best time for setup
- ☐ Date entry when dispatching
- ☑ Plan. direction forwards
- ☐ Change planning direction
- ☐ Planning in non-work periods
- ☐ Insert operation

Close gaps   No closing of the gaps

Period split
- PerSplit   without
- ☐ Start search in plan.direction
- ☐ Always adhere to period split
- ☐ Op.compl.in period split

Queue time
- Treatment of queue time   2 Minimum q...
- Reduction level

Further control options
- ☐ Overall capacity load
- ☐ Reschedule with prod.version
- Dispatch. sequence   SAPSFCSS31 Sort. order: lat.start/seq.no./prio
- Dispatch internal production   2 Latest start date
- Initial setup state

Dispatching functions

A...	Action
☐	Sort operations to be dispatched
☑	Consider operation sequence in the order
☑	Operation date check
☐	Change production version on error

Checks
- ☐ Cancel dispatching due to error
- ☐ Term.resched with prod.version
- ☐ Use operation floats
- ☐ Use float bef. prod.
- ☐ Use float aft. prod.

Strategy Profile LMPC_EPML

⚠ **Caution**

Logic 2 has a more detailed capacity check. Here, available capacity gaps are calculated for all orders that lie hierarchically before the selected orders in the direction of the raw material. A very tight capacity situation on the work centers, or a large number of orders dispatched simultaneously, may adversely affect system performance for this function.

Related Information

4.1.7.4.10 S_EPMSQ & S_EPMSQH Configuration: Dispatch Using Material Master Sequence.

Parameter settings for dispatching by material master

The action code enables you to dispatch in a sequence that has been defined using a Z field in the material master.
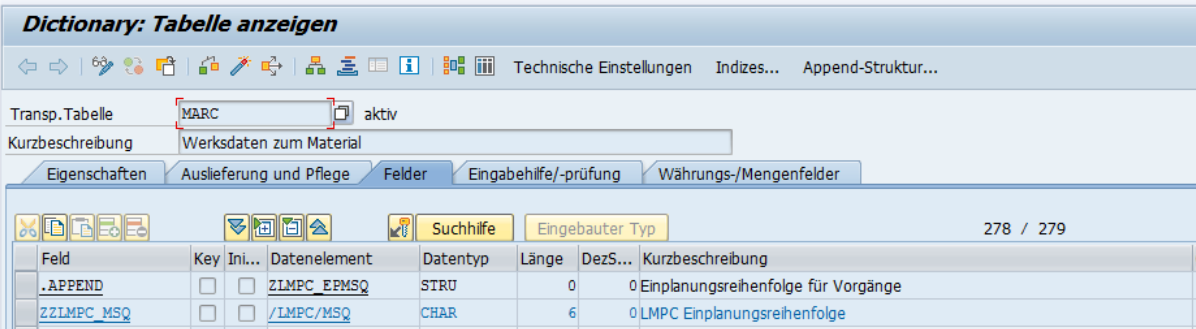
Technical Prerequisites

The maintenance of the dispatching sequence is plant-specific for transactions in the material master. To do this, a special field is required in the MARC database table. The data element is delivered with LMPC. The name to be used for the field is also predefined:

Description	Element
Field Name	ZZLMPC_MSQ
Data Element	/LMPC/MSQ

The extension of the MARC table is not part of the delivery and must be created in the customer system.

If table MARC has been enhanced with the corresponding APPEND field, you can then maintain the dispatching sequence and execute the function.

Enhancement of MARC Table

The field is of data type CHARACTER with a length of 6. The sequence can be maintained alphanumerically. For example: A1, A2, B1, B2, and so on

To enable the user to execute the function, the context profile of the used overall profile must be assigned to the action code "S_EPMSQ".

If the field already exists in the customer system in the MARC table and is not to be renamed, you can use the parameter FLDN_MSQ to transfer the name of the field to the action code.

Parameter S_EPMSQ

Parameter	Description
BACKGR	Parameter for background processing (optional). Must be set (LOW = 'X') if the action code is to be executed in background processing.
FLDN_MSQ	Field name of the append field in the MARC table if the name to be used for the field differs from the name specified by LMPC (optional).
PLAN	Parameter for immediate dispatching. Values: • If the parameter is set (LOW = 'X'), dispatching takes place immediately. • If the parameter is not set (LOW = blank), the dispatching sequence can be checked first. The generated sequence is displayed in the "Number" field.
STRICT	Parameter for order selection (optional). Values: • If the parameter STRICT is set (LOW = 'X'), then only those orders are dispatched for which a dispatching sequence for the materials has been maintained in the material master. • If the parameter is not set (LOW = empty), all selected orders are dispatched. First, a sequence is created for the orders for which a sequence has been entered in the material master. Then a sequence number is assigned for all other orders for which the field in the material master is not filled.
STRP	Parameter for strategy profile (optional). If no strategy profile is transferred using the parameter, dispatching takes place using the settings of the strategy profile for single-item planning, which is stored in the overall profile of the HJPT planning table.

Related Information

[S_EPMSQ Dispatching According to Material Master Field](#)

4.1.7.4.11 S_EPRST and S_EPRSIN Configuration: Dispatching and Inserting Using Setup Matrix

Settings for the Use of the Setup Matrix with the HJPT Planning Table

You can use the action code S_EPRST to dispatch operations so that the cumulated setup time is minimized. The setup times are adjusted according to the setup matrix settings.

The action code S_EPRSIN can be used to insert operations into an existing production plan in such a way that the additional setup time is minimized.

Both action codes and the action codes S_AVRR and S_AVRU, which also belong to setup optimization in LMPC, require extensive settings in the master data and in Customizing.

Therefore, the chapter is divided into other subchapters:

Related Information

S_EPRST Dispatching Using Setup Matrix
S_EPRSIN Insert Setup Optimum Operation
S_AVRR Change Setup Time Manually
S_AVRU Adjust Setup Time Automatically

4.1.7.4.11.1 Setup Matrix: Master Data for PP Production Planning

Master data for planning with the setup matrix

Overview of the necessary master data settings in PP.

Setup Type and Setup Group

Setup type keys and setup groups are created for the plant in transaction OP18.
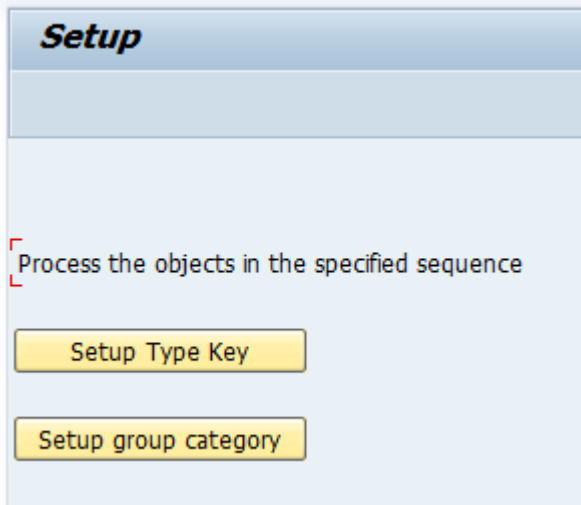
Setup Type and Setup Group

The setup type key specifies who is to set up the work center.

Example setup type key.
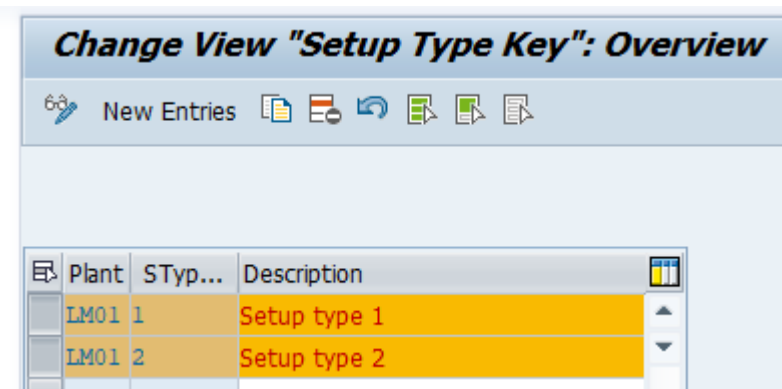
Example for Setup Type Key

The setup group groups together operations with the same or similar setup conditions.

The setup group category classifies the setup groups and is plant-dependent.

Example setup group category:
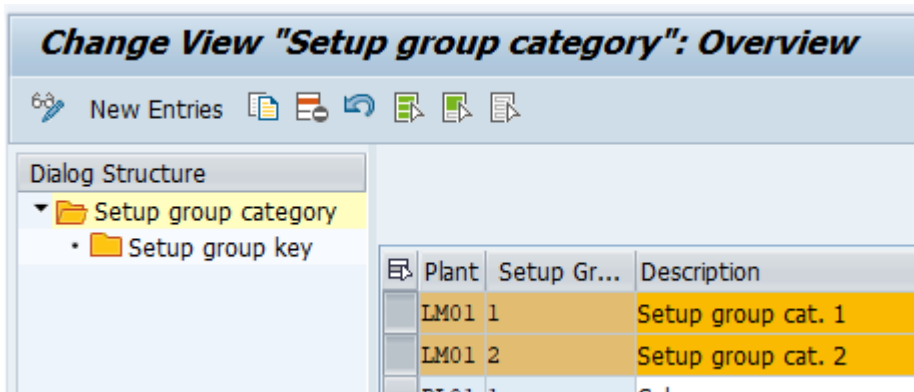
Example Setup Group Category

There are 1 to n setup group keys within a setup group category:
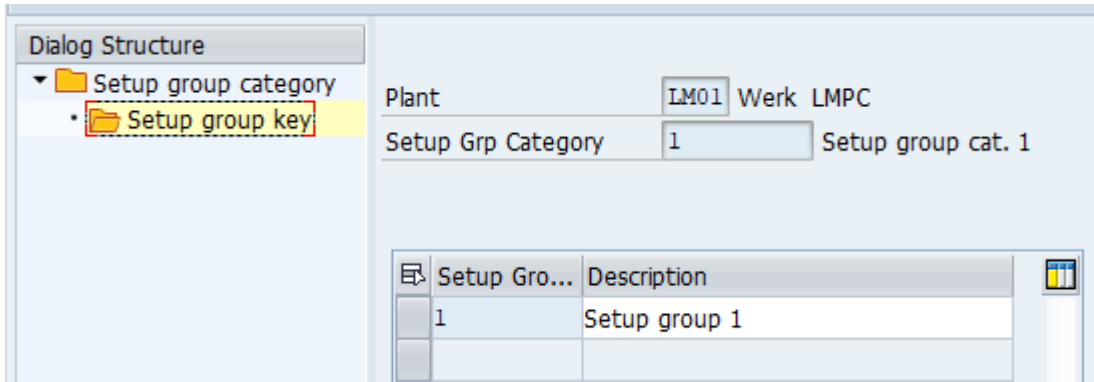
Example Setup Group Key

Setup Group in Routing

The setup groups are assigned in the routing for a material. Transaction CA02.

You assign keys to setup type keys, setup group categories and setup groups in the operation detail.

Example assignment:
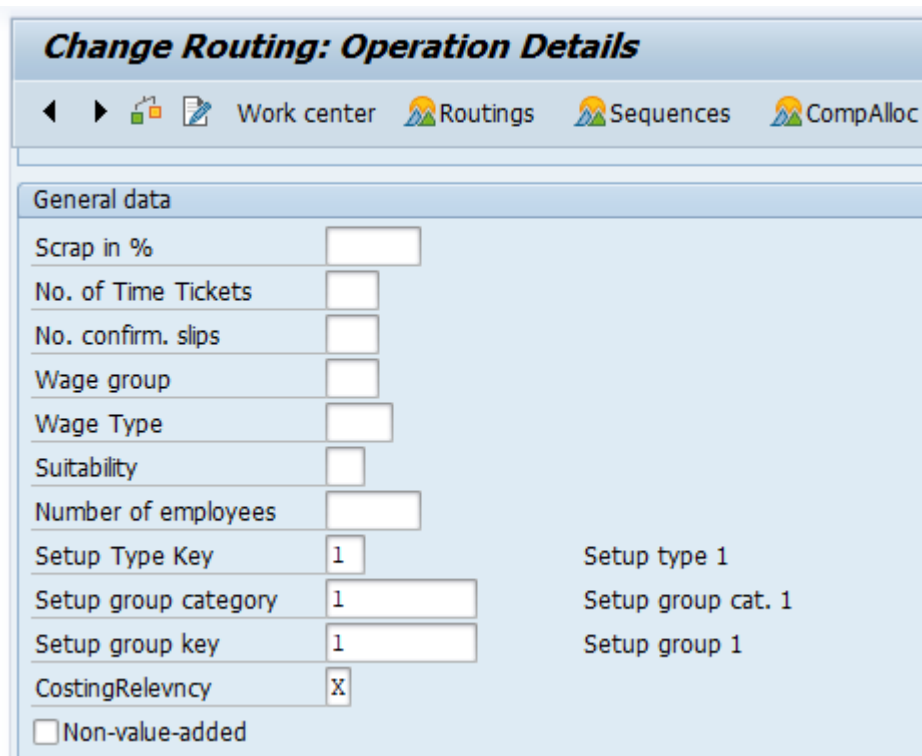
Operation Detail

The setup times for the operation are also maintained there. It is important that the scheduling formulas in the work center are maintained so that they fit together with the setup time maintenance in the routing.

In the LMPC HJPT planning table, the data is displayed in the following fields:

ALV Grid Fields

Field Name	Description
RASCH_AV	Setup type key
RFGRP_AV	Setup group category
RFSCH_AV	Setup group key
KRUESOLL_KB	Target capacity requirement for operation segment setup
KRUEREST_KB	Remaining capacity requirement for operation segment setup

Maintain Setup Matrix

The setup transitions are entered in transaction OPDA. A setup time is specified for each transition.

Setup Matrix Fields

Field	Description
Plant	Plant for which the setup transition is defined.
Predecessor group	Setup group category predecessor.
Predecess.subgroup	Setup group key predecessor.
Successor group	Setup group category successor.
Successor subgroup	Setup group subcategory successor.
Standard value	Setup time.
Unit	Unit.
Transition	Blank/initial = permitted, 01 = forbidden.
No. of standard value	Number of the standard value (according to the sequence in the standard value key) that is used for this setup transition.
	If no standard value has been maintained, the setup standard value is read from the control profile of the capacity planning table, which is entered in the overall profile used in the capacity planning table.
	If no standard value is maintained there either, the system uses the first standard value in the standard value key.

Setup Matrix Examples

Example: Transition from Group 1 Key 1 to Group 2 Key 2: 60 minutes

4.1.7.4.11.2 Setup Matrix: Master Data for PP-PI Process Industry

LMPC setup time adjustment for process industry master data

Master recipe, standard values, formulas

The duration of a phase in operations is calculated in scheduling. To do this, the formulas for scheduling on the resource are evaluated with the respective default values from the master recipe.

The LMPC setup optimization is based on the standard values. The order length is adjusted by changing a standard value.

To do this, exactly one standard value must be reserved for setup. This standard value can no longer be used for other operation durations.

The setup matrix is used to specify which of the standard values has been reserved for the setup time.

The master recipes can be designed in such a way that the standard value for setup is relevant only in one phase of an operation, for example. This makes sense for sequential phases. However, you can also define that standard values for setup are entered in all phases. This can make sense for parallel phases. You can use the parameters for the respective action code to determine whether the standard value is to be adjusted using LMPC PI setup optimization in only one phase of the operation or in all phases.

The formula that is entered on the resource on the Scheduling tab page must contain this standard value for the setup. This formula calculates the execution time for the phase and therefore the operation length.

Formula "Duration of Int. Processing" (PI)

The formulas for the capacity requirements on the "Capacities" tab page should also have the required format, to ensure that the capacity requirements are displayed correctly after the setup optimization.

When you define the formula, you must ensure that the standard value used for the setup is included in the formula so that the phase duration changes linearly with the standard value key for setup.

The current programming does not support changes to the setup time depending on the operation quantity. Therefore, the standard value for the setup must not be multiplied by the operation quantity.

Setup optimization only takes into account the standard value for the setup time, no operation quantities or any other formula parameters.

Example of a formula:

Example Formula

The formula shown in the screenshot is suitable for setup with the standard value for the duration, for example, since this is included in the formula as a summand.

For setup using the standard value "Variable duration machine", however, the formula is not suitable because this standard value is scaled using the operation quantity.

Material groups as setup groups and setup transitions in the setup matrix

Material groups are used as setup groups for the PP-PI setup optimization. The corresponding fields in the recipe for the setup group have no effect.

In the material master (transaction MM02), the material groups are maintained on the Work Scheduling tab page.

Material Group in Material Master

Since a maximum of one material group can be defined for each material, there is only one PI setup group per material.

The maintenance of the setup matrix takes place in the same way as standard SAP setup optimization in transaction OPDA:

Plnt	Pred.group	PreSubgrp	Succ.group	SuccSubgrp	Standard V...	Unit	S..
LM01	GRH12		GRH12			MIN	3
LM01	GRH12		GRH34		30	MIN	3
LM01	GRH34		GRH12		40	MIN	3
LM01	GRH34		GRH34		5	MIN	3

Setup Matrix Transaction OPDA

Choose the New Entries button to add new entries to the setup matrix:

New Entries: Details of Added Entries

Plant	`PLNT`
Predecessor group	`<Mat group from>`
Predecess.subgroup	
Successor group	`<Mat.group to >`
Successor subgroup	
Standard Value	`100` `MIN`
Transition	
No.of standard value	`1`

New Setup Transition

Description of the fields:

Matrix Fields

Field	Description
Plant	Plant for which the setup transition is defined.
Predecessor group	PI Setup Optimization: Material Group Previous Transaction.
Predecessor subgroup	PI Setup Optimization: No function, leave blank.
Successor group	PI Setup Optimization: Material Group Successor Operation.
Successor subgroup	PI Setup Optimization: No function, leave blank.
Default value	Setup time and unit.
Transition	Blank/initial = permitted, 01 = forbidden.
Default Value Number	Number of the standard value (according to the sequence in the standard value key) that is used for this setup transition.
	If no standard value has been maintained, the setup standard value is read from the control profile of the capacity planning table, which is entered in the overall profile used in the capacity planning table.
	If no standard value is maintained there either, the system uses the first standard value in the standard value key.

Initial Setup Status

The initial setup state of a work center or a resource, i.e. the setup that is used for operations without a predecessor, is defined in the strategy profile of the action code.

In the strategy profile, the field for the initial setup state only permits 3 characters. The same character string is also entered as the preceding group in the setup matrix.

Example strategy profile:

| Dispatch internal production | 2 Latest start date |
| Initial setup state | INI |

Initial Setup Status Strategy Profile

Example setup matrix:

Change View "Setup Matrix": Overview

New Entries

Plnt	Pred.group	PreSubgrp	Succ.group	SuccSubgrp	Standard V...	Unit	S..
LM01	INI		GRH12		100	MIN	3

Setup Matrix Transition from Initial

When planning with action S_EPRST, this setup time is set at the first operation that is dispatched to the resource without a predecessor.

4.1.7.4.11.3 Setup Matrix: Configuration Action Code S_EPRST Dispatching by Setup Matrix

Parameter Action Codes S_EPRST

Action Code

Action Code Configuration S_EPRST

Parameter

Parameter description:

Parameter S_EPRST

Parameter	Description
STRE	Strategy profile for dispatching.
BACKR	Parameter for background processing.
	"X". The action code is used in background processing.

Parameter	Description
PI_PHASE	Parameter for standard value adjustment.
	Only for PP-PI scenario. Phase for setup standard value adjustment.
	Values:
	- Initial: Setup time adjustment in all phases. 1 or 2 or 3 or... setup time adjustment only in the first or only in the second or only in the third phase.

4.1.7.4.11.4 Setup Matrix: Configuration action code S_EPRSIN Dispatching at best time for setup

Parameter Action Code S_EPRSIN

Action Code

Action Code S_EPRSIN

Parameter

S...	Param.Type		Parameter ID	INCL/EXCL	Option	LOW / Value
1	Action parameters	▼	STPROFPP	I	EQ	LMP_EPRSIN
2	Action parameters	▼	STPROFPI	I	EQ	LMP_PI_RSI
3	Action parameters	▼	PI_PHASE	I	EQ	
4	Action parameters	▼	BACKGR	I	EQ	

Parameter S_EPRSIN

Parameter S_EPRSIN

Parameter	Description
STPROFPP	Strategy profile for dispatching in PP. Standard: LMPC_EPR-SIN.
STPROFPI	Strategy profile for dispatching in PP-PI. Standard: LMP_PI_RSI.
PI_PHASE	Parameter for standard value adjustment. Only relevant for PP-PI. Phase for the adjustment of standard values for setup. Values: - Initial: Setup time adjustment in all phases. 1 or 2 or 3 or... setup time adjustment only in the first or only in the second or only in the third phase.
BACKGR	Parameter for background processing.

4.1.7.4.11.5 Setup Matrix: Strategy Profiles

Setup matrix overview of strategy profiles

This chapter provides an overview of the strategy profiles delivered for setup time adjustment.

These are sample settings only. The profiles can be adapted to the requirements for planning in the respective customer system.

> i Note
>
> Two separate strategy profiles are required for PP and PP-PI. This is because the settings for PP collide with the settings for PI.

Example strategy profile S_EPRST for action code S_EPRST.

Change View "Capacity Leveling - Strategy Profiles": Details

New Entries

Strategy prof. LMP_EPRST Setup matrix, finite scheduling forw.

Scheduling control

- ☑ Finite scheduling
- ☐ Dispatch at earliest point in time
- ☐ Dispatch at best time for setup
- ☐ Date entry when dispatching
- ☑ Plan. direction forwards
- ☐ Change planning direction
- ☐ Planning in non-work periods
- ☐ Insert operation

Close gaps [ ] No closing of the gaps

Period split

PerSplit [ ] without
- ☐ Start search in plan.direction
- ☐ Always adhere to period split
- ☐ Op.compl.in period split

Queue time

Treatment of queue time 1 After reduc…
Reduction level 1

Further control options

- ☐ Overall capacity load
- ☐ Reschedule with prod.version

Dispatch. sequence SAPSFCSS31 Sort. order: lat.start/seq.no./prio
Dispatch internal production 2 Latest start date
Initial setup state INI

Dispatching functions

A...	Action
☑	Sort operations to be dispatched
☑	Consider operation sequence in the order
☑	Operation date check
☐	Change production version on error

Checks

- ☐ Cancel dispatching due to error
- ☐ Term.resched with prod.version
- ☐ Use operation floats
- ☐ Use float bef. prod.
- ☐ Use float aft. prod.

Strategy profile LMP_EPRST 1

Strategy profile LMP_EPRST 2

The "Setup time optimization" indicator is important for this strategy profile. The strategy profile can be used without further adjustment for PP and PI.

Example strategy profile LMP_EPRSIN for action code S_EPRSIN.

Change View "Capacity Leveling - Strategy Profiles": Details

New Entries

Strategy prof. `LMP_EPRSIN` Setup matrix, finite scheduling forw.

Scheduling control

- ☑ Finite scheduling
- ☐ Dispatch at earliest point in time
- ☑ Dispatch at best time for setup
- ☐ Date entry when dispatching
- ☑ Plan. direction forwards
- ☐ Change planning direction
- ☐ Planning in non-work periods
- ☑ Insert operation

Close gaps   `No closing of the gaps`

Period split

PerSplit   `without`
- ☐ Start search in plan.direction
- ☐ Always adhere to period split
- ☐ Op.compl.in period split

Queue time

Treatment of queue time   `1` After reduc…
Reduction level   `1`

Further control options

- ☐ Overall capacity load
- ☐ Reschedule with prod.version

Dispatch. sequence   `SAPSFCSS31` Sort. order: lat.start/seq.no./prio
Dispatch internal production   `2` Latest start date
Initial setup state   `   `

Dispatching functions

A...	Action
☑	Sort operations to be dispatched
☑	Consider operation sequence in the order
☑	Operation date check
☐	Change production version on error

Checks

- ☐ Cancel dispatching due to error
- ☐ Term.resched with prod.version
- ☐ Use operation floats
- ☐ Use float bef. prod.
- ☐ Use float aft. prod.

Strategy profile LMPC_EPRSIN 1

Strategy profile LMP_EPRSIN 2

Strategy profile for PP. In this case, it is particularly important that the "Dispatch at best time for setup" indicator is set.

Example strategy profile LMP_PI_RSI for action code S_EPRSIN.

Change View "Capacity Leveling - Strategy Profiles": Details

New Entries

Strategy prof. LMP_PI_RSI Setup matrix, finite scheduling forw.

Scheduling control

- ☑ Finite scheduling
- ☐ Dispatch at earliest point in time
- ☐ Dispatch at best time for setup
- ☐ Date entry when dispatching
- ☑ Plan. direction forwards
- ☐ Change planning direction
- ☐ Planning in non-work periods
- ☑ Insert operation

Close gaps ☐ No closing of the gaps

Period split

PerSplit ☐ without
- ☐ Start search in plan.direction
- ☐ Always adhere to period split
- ☐ Op.compl.in period split

Queue time

Treatment of queue time 1 After reduc…
Reduction level 1

Further control options

- ☐ Overall capacity load
- ☐ Reschedule with prod.version

Dispatch. sequence SAPSFCSS31 Sort. order: lat.start/seq.no./prio
Dispatch internal production 2 Latest start date
Initial setup state

Dispatching functions

A...	Action
☐	Sort operations to be dispatched
☑	Consider operation sequence in the order
☑	Operation date check
☐	Change production version on error

Checks

- ☐ Cancel dispatching due to error
- ☐ Term.resched with prod.version
- ☐ Use operation floats
- ☐ Use float bef. prod.
- ☐ Use float aft. prod.

Strategy profile LMP_PI_RSI 1

Strategy profile LMP_PI_RSI 2

Strategy profile for PP-PI. In this case, it is particularly important that the checkmark for "Dispatch at best time for setup" is NOT set.

Example strategy profile LMP_AVRU for the action codes S_AVRR and S_AVRU.

Change View "Capacity Leveling - Strategy Profiles": Details

   New Entries   🖺 🖹 ↩ 🔼 🔽 📑

Strategy prof.   LMP_AVRU   Setup matrix, finite scheduling forw.

Scheduling control

- ☑ Finite scheduling
- ☐ Dispatch at earliest point in time
- ☐ Dispatch at best time for setup
- ☐ Date entry when dispatching
- ☑ Plan. direction forwards
- ☐ Change planning direction
- ☐ Planning in non-work periods
- ☑ Insert operation

Close gaps   No closing of the gaps

Period split

PerSplit   without

- ☐ Start search in plan.direction
- ☐ Always adhere to period split
- ☐ Op.compl.in period split

Queue time

Treatment of queue time   1 After reduc...
Reduction level   1

Further control options

- ☐ Overall capacity load
- ☐ Reschedule with prod.version

Dispatch. sequence   SAPSFCSS31 Sort. order: lat.start/seq.no./prio
Dispatch internal production   2 Latest start date
Initial setup state   INI

Dispatching functions

A...	Action	
☑	Sort operations to be dispatched	
☑	Consider operation sequence in the order	
☑	Operation date check	▲
☐	Change production version on error	▼

Checks

- ☐ Cancel dispatching due to error
- ☐ Term.resched with prod.version
- ☐ Use operation floats
- ☐ Use float bef. prod.
- ☐ Use float aft. prod.

Strategy profile LMP_AVRU 1

Strategy profile LMP_AVRU 2

It is important that the "Dispatch at best time for setup" and "Setup time optimization" checkboxes are not set.

4.1.7.4.12 S_EPTBSQ & S_E_TBSQ Configuration: Dispatch by Table Order

The action code S_EPTBSQ is a dispatching function.

Operations are dispatched in the sequence that was entered in a Customizing table.

Customizing Table /LMPC/MAT_SEQ

The required dispatching sequence is defined using a table in LMPC Customizing.

The table can be maintained via **transaction /LMPC/MAT_SEQ**.

Example:

Maintenance of Dispatching Sequence /LMPC/MAT_SEQ

Since the dispatching scenario can be used in combination with the EPEI analysis, it is also possible to maintain the table in Customizing for the EPEI analysis. Transaction /LMPC/EPEI_CUST. The EPEI analysis is a standalone consulting solution. EPEI - Every Part Every Interval

The table key consists of the plant, the work center, and the sequence.

Instead of a specific work center, you can also use (*). You can use the (*) entries to maintain the sequence for the materials independently of the work center. The following rule applies: If there are entries for a work center,

the entries with (*) are not taken into account (especially before general). Only if no entries are found for a work center are the (*) entries taken into account.

You maintain either a material or a material group for each line. If both fields are maintained, only the Material field is considered in the sequencing logic.

The material group comes from the MATGR field of table MARC. The material group is displayed in the ALV Grid of the HJPT planning table in the MATGR_MC field.

You can also enter (*) for the Material and Material Group fields.

Plnt	Work ctr	Seq.no.	Material	Material Grouping	Max. iter.	Mx days	Status
LM01	*	1	LMPC_*		1	100	Active
LM01	*	2		*ER*	2	100	Active
LM01	*	3	LMPC_HALB_34		4	100	Active
LM01	*	4	LMPC_HALB_12		3	999	Active

Order sequence

Scheduling Sequence with Wildcards (*)

When sequence numbers are assigned by the action code, the individual entries are processed according to the sequence entered. The maximum number specifies the maximum number of operations that can be dispatched one after another.

It is important that the "Max. No." field is maintained. If no number has been entered here, the logic interprets the number as "0" and thus ignores the entry.

In the "Max. Move" column you can enter a number of days before the order can be brought forward compared with the requirement date. The start date of the order is used for the comparison. However, this setting only takes effect if dispatching takes place immediately. This is not taken into account in the case of pure number assignment.

For the settings in this column to take effect, the parameter PLAN must be set to the value "C" in Customizing for the action code (see explanation of the parameters below). If no value is maintained in this column and PLAN = "C" is set, the logic interprets the value as 0 days move forward allowed. If any period of move forward is to be allowed, the maximum value of 999 is to be maintained.

Mx days	Status
100	Active
100	Active
100	Active
999	Active

Column "Maximum Move Forward" and Column "Status"

The "Status" column can be used to control whether an entry is "active", that is, whether it is taken into account.

Parameter

Parameter S_EPTBSQ

Parameter	Description
PLAN	Parameters for dispatching.
	This parameter determines whether:
	• Only the assignment of the sequence number takes place when the action code is executed (PLAN is empty).
	• Dispatching is to be executed immediately (PLAN = "X").
	• Dispatching is to be executed immediately, with a check for the interval to the requirement date (PLAN = "C").
	The parameter is optional. If it is not maintained, the action code behaves as if the parameter exists but is empty.
STRP	Parameter for strategy profile.
	You can use this parameter to transfer a strategy profile that controls dispatching.
	The specification of a strategy profile is optional. If no strategy profile has been maintained, the strategy profile currently valid is used for dispatching in the HJPT planning table.
	It is recommended to transfer a strategy profile for dispatching to ensure that the system behaves correctly during dispatching.
STRICT	Parameter for selecting orders
	If the parameter STRICT is set ("X"), numbers are assigned only for the orders, or only those orders are dispatched, that meet the conditions in the Customizing table.
	All orders whose material number or material group of the material cannot be assigned to the entries in the table are ignored.
	The parameter is optional.
	If the parameter is not set, a sequence number is assigned at the end for all the orders that could not be assigned, or they are dispatched at the end.

Parameter	Description
CHECK	Parameter for checking the planning situation.
	This parameter allows a special logic.
	If the parameter is set, before assigning numbers the system checks whether orders have already been dispatched.
	The last order is read from these dispatched orders. The system checks to see where the material number of this order is contained in table /LMPC/MAT_SEQ; the system also searches for material numbers in material groups.
	The logic first searches for specific material numbers and then for groups (specific before general).
	If an entry is found in the table, the system starts with assigning numbers for the subsequent material number or group in the table.
	In this way the orders connect to the orders already dispatched as if you had planned all the orders with the action code immediately.
	This parameter is optional.
SORTBY	Parameter for sorting.
	This parameter is only used in connection with the parameter CHECK.
	You can use this parameter to specify the fields according to which the operations already dispatched are sorted for the logic of the parameter CHECK.
	You can specify the parameter more than once.
	For example, you can sort by the fields SENDD_KB (latest end date) and SENDU_KB (latest end time).
	The sorting then goes through all the specified fields in the order of the parameters.
	If no parameters are specified for the sorting, the data records are in the order that is visible in the HJPT ALV Grid. The last dispatched order of the ALV Grid is then evaluated.
	This parameter is optional.
BACKGR	Indicator for background processing.
	Must be set to 'X' so that all data records for dispatching are selected in background processing.
	This parameter is optional.

Parameter	Description
RESCD	Parameters for rescheduling.
	If this parameter is set, in the number assignment mode sequence numbers are also assigned for orders already dispatched.
	In direct planning mode, the system reschedules selected orders that have already been dispatched.
	This parameter is optional.

Related Information

S_E_TBSQ Assign Number by Table
S_EPTBSQ Dispatch by Table

4.1.7.4.13 S_IW31 Configuration: Create Maintenance Order

Configuration S_IW31

The action code S_IW31 was created because transaction IW31 does not support the transaction call using a transaction code with memory ID parameters.

Transaction IW31 is called from the HJPT planning table via a batch input call.

This means it is possible to transfer data from a line of the ALV Grid of the HJPT planning table to the transaction IW31. You therefore avoid entering the data manually.

The standard delivery contains an example configuration for this action code.

> i Note
>
> Please note that any change to the configuration is a consulting service. If the transaction call in your system does not work in the way that you require, you can request consulting support for changing the configuration. The change to the configuration is not a service of LMPC Support.

You can find the description of the creation of your own configuration with batch input for the action code in the Action Code Parameters chapter. Action Code Parameters [page 52]

Related Information

S_IW31 Creating Maintenance Orders

4.1.7.4.14 S_MIGO Configuration: Goods Movements

Configuration transaction call MIGO

The action code S_MIGO was created because transaction MIGO does not support transaction call by transaction code with memory ID parameters.

The call of transaction S_MIGO from the HJPT planning table takes place via a batch input call.

This means it is possible to transfer data from a line of the ALV grid of the HJPT planning table to the transaction MIGO. You therefore avoid entering the data manually.

In the standard delivery, you receive an example configuration for this action code to post the goods issue.

> **i Note**
>
> Please note that any change to the configuration is a consulting service. If the transaction call in your system does not work in the way that you require, you can request consulting support for changing the configuration. The change to the configuration is not a service of LMPC Support.

You can find the description of the creation of your own configuration with batch input for the action code in the Action Code Parameters chapter. Action Code Parameters [page 52]

Related Information

S_MIGO Goods Movements

4.1.7.4.15 S_MVEORD Configuration: Moving Operations in the Pool

Settings to be able to shift operations in the order pool

You can use the action code S_MVEORD to move order operations that have not yet been dispatched to new start times.

The user can execute the action code manually.

The overall profile of the capacity planning table for use in the HJPT planning table can be configured in such a way that it is also possible to move operations in the graphic in the order pool using drag and drop.

Moving by drag and drop is already set in the delivered test profiles.

If you want to activate this function in other overall profiles, you must make the following settings:
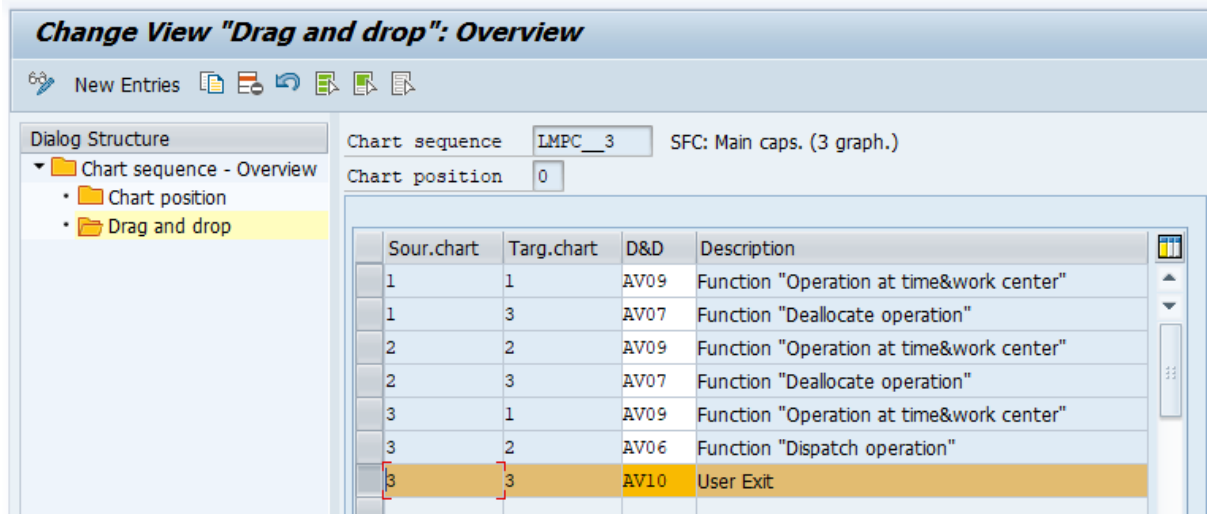
Chart sequence transaction OPG1.

Chart Sequence Settings

In the chart for the order pool, the function "AV10" must be set for the dragging and dropping from the chart to the same chart.

In graphics profiles with three charts, this is usually the third chart, in graphics profiles with two charts, this is the second.

The coding for the function is not in the user exit "AV10". This does not have any values. The HJPT planning table only uses this entry as a trigger for the shift.

The shifting of operations works using dispatching with subsequent status change to "Deallocated".

For the shift to work, a strategy profile named LMP_MVEORD must exist in the system. This is required for dispatching. This name is fixed and cannot be changed. This strategy profile is provided with the LMPC standard delivery.

Related Information

S_MVEORD Move Order Operations in the Pool

4.1.7.4.16 S_ORFIRM, S_ORFREL Configuration: Firm order relations and undo firming

Parameters for action codes S_ORFIRM and S_ORFREL

These are the action codes for firming order relations and undoing firmings.

You can control the behavior of the action codes with the parameter settings. The used action class /LMPC/CL_ACTION_OR_FIRM can be used to both create and undo firmed order relations.

Parameters for the Action Codes

Parameter	Description
MODE	Parameter for the mode.
	Values:
	• LOW = "FIRM": Action code is used to create firmed order relations.
	• LOW = "REL": Action code is used to undo firmed order relations.
LOGIC	Parameters for Processing Logic
	There are 9 types of processing logic.
	Backwards means from the finished product in the direction of the source material. Forwards from the source material in the direction of the finished product:
	• AUT_BW: Automatic generation backwards across all levels.
	• AUT_FB: Automatic generation forwards and backwards across all levels.
	• AUT_FW: Automatic generation forwards across all levels.
	• CC_ONL: Perform the consistency check only.
	• DIS_FB: Only display the existing firmed order relations forwards and backwards across all levels. Based on the selected operations.
	• PRL_BW: Select the orders to be linked using a proposal list. Search direction only backwards.
	• PRL_FB: Select the orders to be linked using a proposal list. Search direction forwards and backwards.
	• PRL_FW: Select the orders to be linked using a proposal list. Search direction forwards only.
	• SEL_OR: Creation of firmed order relations only between selected operations.
NO_POPUP	Parameter for suppression of popup windows.
	LOW = "X". No popup windows are displayed. This means that the user cannot check before the firmed relations are actually created.
NO_CC	Parameter for the consistency check.
	LOW = "X": The consistency check at the end of the creation of firmed order relations is not executed.

Parameter	Description
BACKGR	Parameter for background processing
	LOW = "X": Execution of the action code in background processing. This suppresses the popup window and selects all data for the HJPT planning table.

Prerequisites

- The order relation is determined using the order BOM. The BOM information is read from the fields of the HJPT planning table. Therefore, the data provider /LMPC/CL_DP_BOM must be active.
- The data for the requirements date and the order relations must exist. Therefore, the data provider /LMPC/CL_DP_BED must be activated.

> → Tip
>
> - The order relations remain stored for one year. Afterwards, the data records are deleted to avoid an overflow of the database table for the firmed order relations.
> - During the order conversion of planned orders to production or process orders, the order relations are retained.

> → Remember
>
> Firming using a selection list is not possible in background processing. In this case, the logic switches to automatic firming.

Related Information

S_ORFIRM, S_ORFREL Firm Order Relations and Undo Firming

4.1.7.4.17 S_ORDREP Configuration: Action Code for LMPC Order Report

Configuration of S_ORDREP

For a production order, the LMPC order report shows an overview of the upstream planned and production orders for all low-level codes of the materials used.

The action code does not require any parameters.

All other settings for the LMPC order report are explained in the chapter for the settings for the order report.

Related Information

LMPC Order Report

4.1.7.4.18 S_PBLKFG Configuration: Pool Formation with BOM

Configuration action code S_PBLKFG

The action code S_PBLKFG is for two-step pool formation using the BOM.

You can control the behavior of the action codes with the parameter settings.

Parameter S_PBLKFG

Parameter	Description
ALLOWDO	Parameters for dispatched orders.
	If the parameter is set (LOW = "X"), the dispatched orders are permitted for the pool formation.
	If the parameter is not set (LOW = " "), processing is terminated in dialog processing if dispatched orders have been selected. The system does not offer dispatched orders in the dialog box.
	In background processing, dispatched orders are not processed if the parameter is not set.
BACKGR	Parameter for background processing.
	If this parameter is set, the order pools are created automatically without taking the user selection into account.
COMP	Parameter for BOM items.
	Values 1, 2, 3, 4,5, or blank.
	If the parameter is empty, all BOM items from the LMPC HJPT planning table are checked for pool formation.
	If the parameter contains a number, only this BOM item is checked.

Parameter	Description
GRPFLD	Parameter for grouping.
	You can use this parameter to specify grouping fields for background processing.
	This parameter only functions in conjunction with the parameter BACKGR.
	If the parameter is not set, each order is processed individually as a starting point for a pool formation in background processing.
	This parameter can be used more than once.
	The parameter is used to specify a field name according to which the orders are grouped together in groups for processing.
	This allows a selection of several orders to be simulated.
	The grouping takes place according to matching field values for the specified fields.
	However, there is one special feature: The grouping only combines orders that have the same material number into one selection.
	Whenever the material number changes when the logic is processed, a new order pool is created.
	If the material number of the MATRN_MA field is not specified using the grouping fields, it is automatically added to the last grouping criterion by the coding.
PBDIR	Direction parameter for pool formation.
	If this parameter is not set or has the value LOW = "HF", then the pool is formed starting from the semifinished material to the finished material.
	If the parameter has the value "FH", the pool is formed starting from the finished material to the semifinished material.
SELCORR	Parameter for correction of selection.
	If the parameter is not set, the action code terminates processing if the quantity of the selected orders contains an order with a pool ID.
	If the parameter is set (LOW="X"), the selection is corrected.
	The requests that already have a pool ID are removed from the selection. This parameter is automatically set to active in background processing.

Parameter	Description
SELFG	Parameter for automatic selection.
	If the parameter is not set (LOW = " "), the checkboxes in the dialog box are not automatically preset.
	If the parameter has the value LOW = "X", the checkboxes are prefilled.
	The "OPTION" field can be used to define the condition controlling when this should be done.
	For example, if the option is set to <=, the maximum number of checkboxes is filled until the input quantity is the same as the linked quantity. This value is not exceeded.
	If the option is set to >= , then the system checkboxes until the value is reached at least, assuming that checkboxes exist.
	If the parameter has the value LOW = "A", the user does not see a dialog box for the selection of orders. In this case, the orders are combined automatically.
SEQ_SAVE	Parameter for saving the sequence number.
	Parameter for a special case. If this parameter is set, the system also saves the pool ID in the Sequence Number field in the header of the planned order, production order and process order.
SORTFLD	Parameter for a sort field.
	This parameter can be used more than once.
	You specify the sort criteria according to which the orders for the popup window are to be sorted before the cumulated quantity is calculated.
	The field name from the /LMPC/HJPT_F01 structure is entered in the field LOW.
	The direction of sorting is entered in the HIGH field: • ASCD = ascending. • DESC = descending.

> ! Restriction
>
> The following constraints exist:
>
> - The selection can only contain orders of one material. Multiple materials are not possible.
> - No quantity conversion takes place. The materials must have the same unit of measure across the levels.
> - During pool formation from the finished product to the semifinished products, it is assumed that all orders of the finished product have the same BOMs.

- To use the action code, the data provider /LMPC/CL_DP_BOM must be active as this supplies the BOM data for processing.

Since different scenarios are possible for the action code using a combination of the parameters, the possible use cases are described briefly.

1. Manual Pool Formation

The user selects the orders of a material that he/she wants to link with other orders for the upstream semifinished product or the downstream finished material (depending on the parameter setting for the planning direction).

If the selection contains orders that have already been dispatched, termination may occur if this is set using the parameters. You can also set that a termination occurs if the selection contains orders that already have a pool ID.

The display in the popup window can be presorted.

The material number is added as a main order criterion during pool formation from the finished product to the semifinished products, as orders from different materials can be displayed here, depending on the number of elements in the BOM.

The settings for the preselection for the popup window have the following effect: Parameter SELFG Field Option:

- If: LE, EQ, <= and =, then the same quantity at the most.
- If GE or >=, then at least the same quantity.
- If LT or <, then quantity remains exactly one order less than the quantity that would be identical, or is one above.
- If either GT or >, then at least as many orders are added so as to exceed the quantity.

2. Semi-Automatic Pool Formation

Parameter SELFG has the value LOW = "A".

The user manually selects the orders to be used as the starting point for the pool formation.

The logic also searches for suitable orders of the other level. The dialog box is not displayed. The orders selected during automatic preselection in the dialog box are immediately linked to a pool. It is no longer possible to manually assign orders here. The logic takes over the selection.

3. Pool Formation Automatically in Dialog

The BACKGR parameter is set for this.

The user executes the action code without selecting any orders.

The logic handles each order as a starting point for a pool formation.

The orders can be grouped together in selection groups. To do this, you have to use the parameter GRPFLD to specify the fields by which you want to group.

The parameter can be used more than once to enable a grouping according to multiple criteria.

If a grouping field is specified, the field for the material number (MATNR_MA) is always automatically added to the grouping if it does not already exist.

This is necessary because the pool on the selection page can only consist of orders with the same material number.

4. Pool Formation in the Background

The program /LMPC/HJPT is executed with the action code S_PBLKFG using a job in the background.

The BACKGR parameter is set.

If the parameter ALLOWDO is not set during background processing, meaning that dispatched orders are not allowed in the selection, then orders that have already been dispatched are removed from the selection. Otherwise, dispatched orders are also processed.

Orders that already have a pool ID are removed from the selection.

Related Information

S_PBLKFG Pool formation with BOM information

4.1.7.4.19 S_PHCH Configuration: PP-PI: Changing the Duration of a Phase

Action code S_PHCH configuration

Action Code

Action Code S_PHCH

Action class /LMPC/CL_ACTION_CHVGW.

Parameter

Parameter Action Code S_PHCH

Parameter S_PHCH

Parameter	Description
PHASE	Number of the phase to be changed.
	Mandatory parameter.

Parameter	Description
DISP	Parameter for dispatching.
	By changing the phase, orders that have already been dispatched are deallocated again as standard. If the parameter is set (LOW="X"), the order is dispatched again immediately.
	Optional parameter.
PROFILE	Parameter for strategy profile.
	A strategy profile can be transferred for dispatching.
	Optional parameter.
STD_VAL	Parameter for default values.
	You can transfer a comma-separated list of default values that can be changed.

Enhancement Using a BAdI

Enhancement options exist for the action code S_PHCH.

Enhancement spot /LMPC/EHS_ACTION_CODE.

BAdI definition /LMPC/EHD_CHVGW.

Interface /LMPC/IF_BADI_ACTION_CHVGW.

Method: CALCULATE_VALUES:

The duration of a phase is calculated using this method. In this case, the system does not display the dialog box for entering the duration of the phase.

Method: CHECK_ORDER

A check can be carried out for each order.

Related Information

[S_PHCH Change of Duration of a Phase in Process Order](#)

4.1.7.4.20 S_PLOSS Configuration: Enter Production Scrap in Order

Action codes S_PLOSS configuration

Action code S_PLOSS

Action code S_PLOSS

Parameter

Parameter Action Code

Parameter S_PLOSS

Parameter	Description
RESCD	Parameter for rescheduling.
	If the parameter is set, the order is rescheduled after the order has been changed.
STRPROF	Parameter for strategy profile.
	The strategy profile to be used for rescheduling is stored in the parameter.

Enhancement Options

It is possible to enhance the logic of the action code using the BAdI definition /LMPC/EHD_PLOSS. A possible implementation of the BAdI replaces the complete existing logic of the action code. The interface /LMPC/ IF_BADI_ACTION_PLOSS can be used for the implementation.

Related Information

S_PLOSS Enter Production Scrap in Order

4.1.7.4.21 S_POOLID, S_POOLA Configuration: Creation of Order Pools

Configuration of action codes S_POOLID and S_POOLA.

Action Codes

The action code S_POOLID for manual pool formation and the action code S_POOLA for automatic pool formation both use the same class /LMPC/CL_ACTION_SET_POOL_ID.

Action Code	S_POOLA

Action codes	
Description	Create order pool autom.
Pushb.text	Pool-ID A
Function Code	
F.Mod/Action class	/LMPC/CL_ACTION_SET_POOL_ID
Icon	
Transaction Code	
Program Name	
Variant	
☐ Method	
Report/class	
Form/Method	
Follow-Up Action	S_REFR
Trigger	
☐ New mode	
Status	Active

Action code S_POOLA

Action code S_POOLID

Parameters

You can control the behavior of the action codes with the parameter settings.

Parameter Action Code S_POOLA

Action Code `S_POOLID`

Action code parameters

S...	Param.Type		Parameter ID	INCL/EXCL	Option	LOW / Value
1	LMPC action code parameter	▼	MODE	I	EQ	
2	LMPC action code parameter	▼	SILENT	I	EQ	X
3	LMPC action code parameter	▼	SEQ_SAVE	I	EQ	
4	LMPC action code parameter	▼	ADD_OFF	I	EQ	

143 Parameter Action Code S_POOLID

Pool Formation Parameters

Parameters	Description
MODE	Parameter for the mode.
	If the parameter is empty or not set, the system generates the pool ID.
	If a number range is specified for the pool ID in the HJPT overall profile, the system generates the ID from this number range.
	If no number range is specified, a random unique GUID is created.
	If the parameter has the value "M", the user assigns the pool ID manually. A popup window appears in which the user can enter the required pool ID.
SILENT	Parameter for popup window
	If the parameter is set, the popup windows that are normally displayed to confirm execution are suppressed.
SEQ_SAVE	Parameter for the sequence number
	If this parameter is set (LOW = "X"), the pool ID is also saved in the sequence number field.
	Caution: In this case, the sequence number must only be numeric.
	If saving to the sequence number has been activated, the pool ID must be generated using a number range.
	Since the GUID generated by the system contains characters and you can also enter characters when you enter the ID manually, these variants must not be set in this case.
ADD_OFF	Parameter for adding orders.
	If this parameter is set (LOW = "X"), the adding of orders to an existing order pool is deactivated.

Parameters	Description
AUTOGRP	Parameter for automatic grouping.
	If this parameter is set (LOW = "X"), automatic pool ID assignment using grouping fields is activated.
	In this case, at least one field for grouping must be specified using the parameter GRPFLD.
BACKGR	Parameter for background processing.
	If this parameter is set (LOW = "X"), the pool ID is assigned using a background job with the program /LMPC/HJPT.
	Background processing automatically activates the settings SILENT, AUTOGRP, and MODE = empty.
GRPFLD	Parameter for grouping field.
	Specifies a field name from structure /LMPC/HJPT_F01 of the LMPC ALV grid for whose values the automatic grouping is to take place.
	This parameter can be used more than once. The grouping sequence corresponds to the sequence of the parameter in Customizing.

Since different settings are possible for the action code using a combination of the parameters, the possible use cases are described briefly.

Use case for manual pool ID assignment

The pool ID is assigned manually if the AUTOGRP parameter is not set. If orders without a pool ID are sent to processing, the same pool ID is assigned for all selected orders.

If only orders with a pool ID are sent to processing, all pool IDs are removed.

If orders with a pool ID and without a pool ID are sent to processing, and the orders with a pool ID all have the same pool ID, all selected orders receive the same pool ID. The orders are added to the pool.

If there are orders with different pool IDs in the selection, the function terminates with an error message.

If the parameter ADD_OFF is set, it is not possible to add orders to an order pool. In this case, the system issues an error message if orders with and a pool ID and orders without a pool ID are selected.

Use case for automatic pool ID assignment

The pool ID is assigned automatically when the AUTOGRP parameter is set.

If orders without a pool ID are sent to processing, the selected orders are sorted into groups according to the grouping fields, with the same values as the grouping fields.

Each group with the same values is assigned the same pool ID.

For example, the same pool ID is assigned per identical work center and per identical order number.

If only orders with a pool ID are sent to processing, all pool IDs are removed.

If orders with a pool ID and orders without a pool ID are sent to processing, the system searches for the existing groups and orders that match an existing group are assigned to this pool ID. All groups that do not yet exist receive a new pool ID.

If the parameter ADD_OFF is set, it is not possible to add orders to an order pool. In this case, the existing pool IDs are ignored. New groups are created for the orders without a pool ID in the selection.

Use case for background processing

In the case of background processing, grouping is automatically active.

All orders found are included in the selection.

If there are only orders without a pool ID, new groups are created and pool IDs are assigned.

If there are only orders with a pool ID, all pool IDs are removed.

If there are orders with a pool ID and orders without a pool ID, the orders without a pool ID are added to the orders with a pool ID, if possible.

If the parameter ADD_OFF is set, it is not possible to add the orders. In this case, new pool IDs are assigned for all orders without a pool ID. The existing order pools are then retained.

> ! Restriction
>
> - You can never enter different pool IDs for different operations of an order because the pool ID is saved in the order header tables. Therefore, if orders with different operations are entered in the selection, the pool IDs are aligned with the first operation of the respective order.
> - The grouping logic only works if all the fields via which the grouping is to be executed are also filled with data.
> - The field for the pool ID cannot be used as a grouping field.

Enhancement Options

You can use the BAdI definition /LMPC/EHD_SET_POOL_ID to implement a customer-specific check logic.

You can use this logic to define whether pool creation is allowed for the selected orders.

For this, the relevant interface /LMPC/IF_BADI_ACTION_SET_POOL must be used and method CHECK must be implemented.

The standard coding of the action code does not include a check.

Related Information

S_POOLID Create Order Pool Manually
S_POOLA Automatically Create Order Pool

4.1.7.4.22 S_QM01 Configuration: Create Quality Notification

Configuration S_QM01

The action code S_QM01 was created because transaction QM01 does not support the transaction call using a transaction code with memory ID parameters.

Transaction S_QM01 is called from the HJPT planning table via a batch input call.

This means it is possible to transfer data from a line of the ALV Grid of the HJPT planning table to the transaction QM01. You therefore avoid entering the data manually.

The standard delivery contains an example configuration for this action code.

> **i Note**
>
> Please note that any change to the configuration is a consulting service. If the transaction call in your system does not work in the way that you require, you can request consulting support for changing the configuration. The change to the configuration is not a service of LMPC Support.

You can find the description of the creation of your own configuration with batch input for the action code in the Action Code Parameters chapter. Action Code Parameters [page 52]

Related Information

S_QM01 Create Quality Notification for Material Error

4.1.7.4.23 S_SARBPL, S_HARBPL Configuration: Change of Work Center at Operation

Configuration of the action codes for the change of work center.

Action Codes

The action codes S_SARBPL and S_HARBPL can be used to move operations of production orders and process orders to other work centers.

Action Code	S_SARBPL

Action codes

Description	Change work station
Pushb.text	Chg wst
Function Code	
F.Mod/Action class	/LMPC/CL_ACTION_SWITCH_ARBPL
Icon	
Transaction Code	
Program Name	
Variant	
☐ Method	
Report/class	
Form/Method	
Follow-Up Action	S_REFR
Trigger	
☐ New mode	
Status	Active

Action Code S_SARBPL

Action Code S_HARBPL

Parameters

You can use the parameters to control which work centers are offered for selection for the change.

Action Code S_SARBPL

Parameter Action Code S_SARBPL

Parameters

Parameters	Description
No Parameters	If no parameters are set in the action code, a popup window appears when you execute the action code. This window can be used to enter the name of the work center to which you want to move.
	This setting is not recommended because free input is prone to error.
ARBPL	Parameters for work centers.
	You can specify a list of the possible work centers that are available for selection.
	This list must be separated by commas.
	It must not contain blank characters.
	The parameter can be used more than once.
	This means that any number of work centers can be proposed.
HIER	Parameter for work center hierarchy.
	If the parameter is set, the work centers for selection are read from the work center hierarchy that is entered in the evaluation profile.
	The evaluation profile is entered in the overall profile of the capacity planning table.

Action Code S_HARBPL

This action code has no parameters.

The work centers are also read from the work center hierarchy stored in the evaluation profile.

However, only work centers on the same hierarchy level are displayed here and the leaf node that is directly one level higher.

Related Information

[S_SARBPL and S_HARBPL Change the Resource for Operations of Production and Process Orders](#)

4.1.7.4.24 S_SVDBF Configuration: Storing Data in Database Fields

Configuration of the action code S_SVDBF

The action code S_SVDB uses the class /LMPC/CL_ACTION_SET_DBFLDS.

This class can be used to store data from the HJPT planning table in database tables.

Since saving values must be configured individually for each customer system, the action code is delivered without a configuration.

The action class is also used in the action code S_CORTXT to store the LMPC order text.

> **! Restriction**
>
> Technical restrictions
>
> In the standard delivery of LMPC, the memory function is implemented only for the database tables AFKO, PLAF, and /LMPC/CORDTEXT.
>
> For all other tables, a BAdI is available that can be defined in the customer namespace.
>
> If a customer-specific BAdI implementation is created to access standard tables, it is recommended that you switch to the standard function module when making changes to avoid data inconsistencies.
>
> For the tables AFKO and PLAF, values are stored only in the database buffer.
>
> If you leave the HJPT planning table without saving, or if you execute a reload, the changes for these tables will be lost.
>
> The action code was developed to fill customer-specific fields (Z fields) in standard tables.
>
> Theoretically, you can also change the content of all other fields of a database table.
>
> It should be noted that standard fields should be changed with caution. When standard SAP fields are changed, the customer is responsible for the consistency of the data.
>
> The HJPT planning table has not installed any checks for data consistency.
>
> It should also be noted that check routines for correct value entries may be behind individual standard fields, which prevents saving. This is not an error in the LMPC coding; it is a defensive mechanism in the standard system that cannot be bypassed.

Configuration

In the standard system, the action code S_SVDBF is delivered as an example that can be used as a template.

It can be copied or adjusted.

Action Code S_SVDBF

A separate action code is required for each field in which something is to be stored.

Parameter

Parameter Action Code

Parameter Action Code S_SVDBF

Parameter	Description
TABLE	Parameter for the database table.
	This mandatory parameter contains the table name of the database table to which information is supposed to be saved.
	In the standard system, only fields from the tables AFKO, PLAF, and /LMPC/CORDTEXT can be saved.
	If a different table name is specified in the parameter, the coding automatically controls a BAdI.
	If you want to save in tables other than in the table AFKO, PLAF, or /LMPC/CORDTEXT, you can do this only using a customer-specific version of a BAdI.
	Enhancement spot: /LMPC/EHS_ACTION_CODE.
	BAdI definition: /LMPC/EHD_SET_DBFLDS.
DBFIELD	Parameter for the table field.
	This mandatory parameter contains the name of the table field whose value is to be changed.

Parameter	Description
USRFIELD	Parameter for the user field.
	In the LMPC HJPT planning table, there are 20 so-called user fields that can be used to display the values that you want to save.
	You can use this mandatory parameter to specify in which user field the value should be displayed.
	/LMPC/USR1_CY, /LMPC/USR2_CY, ... up to /LMPC/USR20_CY are possible values for the user field.
	These fields are particularly relevant for the combination of the action code with the data provider /LMPC/CL_DP_DB_FLDS.
	Using the data provider, you can read any database fields in the LMPC HJPT planning table and display them in the user fields. These data fields can be changed using the action code.
	If the data provider /LMPC/CL_DP_DB_FLDS is not active, the saved value is displayed in the user field only until the data is refreshed, reloaded, or saved.
	After you save, the data is then reloaded in the ALV grid. Without a data provider, the values are not loaded.
	If the data provider is active for the relevant field, note the following: When the action code is executed, the selected value is written to the configured user field once and is flagged as a change to the database table in the background.
	If you execute a refresh for the planning table data, the value disappears because the values are read from the database during a refresh.
	Since the selected value is not yet saved in the database, it is not read during a reload. Therefore, it is recommended that you save after you make a change in order to write the values to the database.
	The user fields have standard descriptions. The descriptions and therefore the column headers in the ALV grid of the planning table can be changed using transaction /LMPC/FLD.
	Adjusting ALV Grid Columns in Transaction /LMPC/FLD [page 228]

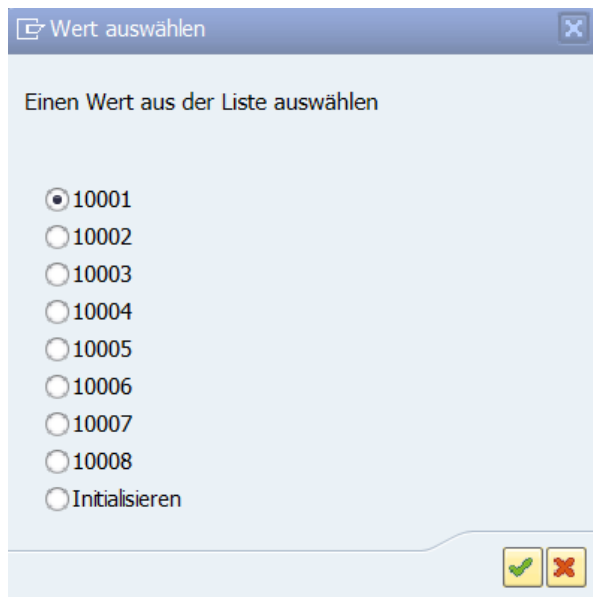| Parameter	Description
VALUES	Parameter for input help.
	The parameter is optional.
	This parameter can be used to provide input help.
	A comma-separated list of values is entered in the parameter.
	When the action code is called, these values are displayed to the user as default values.
	There is also an option to initialize the value, which is to say, to empty it.
	If the length of the parameter is not sufficient to maintain the desired values, you can create the parameter more than once.

Example Maintenance of the Parameter VALUES

Example of Resulting Input Help

If the parameter is not filled, an empty input field appears when the action code is called.

The user can maintain the value as they desire. The length and description of the empty input field adapts to the field specified in the parameter DBFIELD.

Parameter	Description
Example Empty Input Field
BADIID	Parameter for BAdI ID.

This parameter is optional and relevant only if there are several customer-specific implementations of the BAdI.

You can use this parameter to specify a filter that automatically selects a specific BAdI implementation.

This is helpful if you create your own implementation in each case for different database tables. |

Enhancement Options

Enhancement spot: /LMPC/EHS_ACTION_CODE

BADI definition: /LMPC/EHD_SET_DBFLDS

Interface: /LMPC/IF_BADI_ACTION_SET_DBFLD

Method: CHANGE_DB_FLD

It is possible to implement an update for database tables in this method.

Related Information

S_SVDBF Save Data to Database Tables

4.1.7.4.25 S_UMTMSG Configuration: Issue rescheduling proposal

Configuration action code S_UMTMSG

The action code can be used in two ways:

- Automatic execution when LMPC HJPT planning table is started
- Manual execution using an ALV grid button or via the context menu

Parameter	Description
COLOR	Parameter for the color number.
	You can use this parameter to specify the color number with which the FSTAD_KB field (Earliest start / date) is displayed for the respective operation that has received a rescheduling proposal.
	If the parameter is not maintained, the color red is automatically applied.
	Colors: 3 yellow, 4 blue, 5 green, 6 red, 7 orange.
USRA	Parameters for manual execution
	LOW = "X" if the action code is to be used for user action by means of a pushbutton or context menu.

If the action code is to be executed automatically when the planning table is started, it must be added to the context menu with the trigger "PBO". In this case, maintenance of the parameter USRA is not permitted.

If the action code is to be executed by a user action using a pushbutton or context menu, the parameter USRA must be maintained.

Related Information

S_UMTMSG Display Rescheduling Proposals

4.1.7.4.26 S_XBR Configuration: Create Report Folder

Configuration action code S_XBR

This action code can be used to export the data of the LMPC ALV grid to an Excel pivot table. This enables extensive evaluations and graphical representations of the loaded data.

Report Folder Settings in Transaction /LMPC/CUST

Action Code

Action Code S_XBR

Parameter

Example Customizing of Parameters

Parameter S_XBR

Parameter	Description
REPORT	Parameters for report folder.
	Name of the predefined report folder for the action code.
	If this parameter is filled, the report is created with the settings of the specified report folder.
	If the parameter is not filled, a report folder must be selected manually when the user calls up the function.
DOWNLOAD	Parameter for download.
	If this parameter is set, the data is loaded to the user's computer.
	The storage location function is queried in a popup when the function is called.
SUPPRESS	Parameter for suppressing shipping.
	If the parameter is set, the report is not sent to the target defined in Customizing.
	The target can be a network drive, a file path on the system, or an e-mail address.

Report Folder Settings in Transaction /SAPLOM/XBR_CUST

The report folder functionality is a solution that is available in various SCM Consulting Solutions.

Therefore, the settings are managed for the report folders for all solutions of the central transaction /SAPLOM/XBR_CUST.
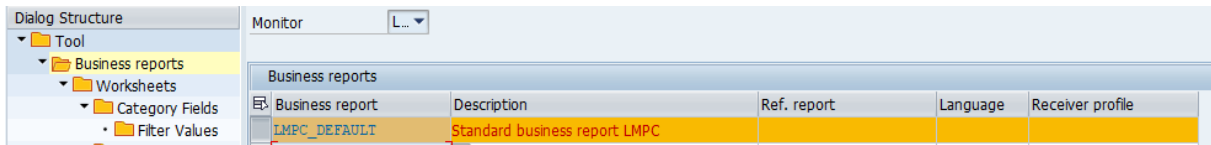
SCM Consulting Solution Selection
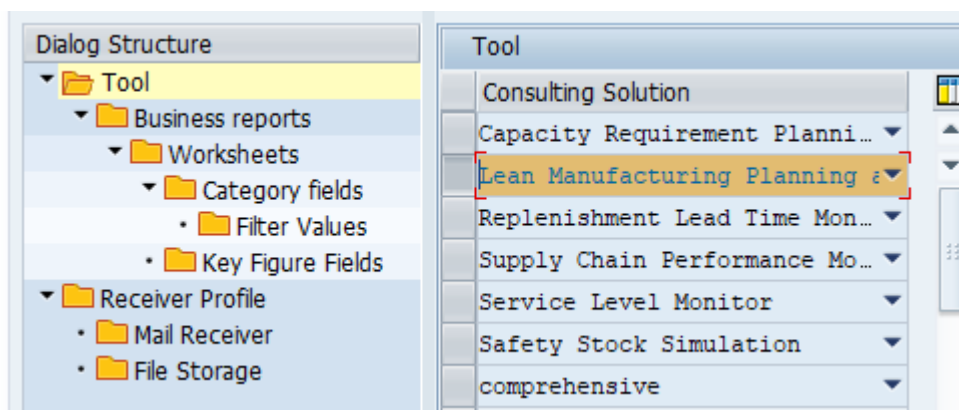
Transaction /SAPLOM/XBR_CUST

On the first level, you select the consulting solution for which you want to maintain settings.
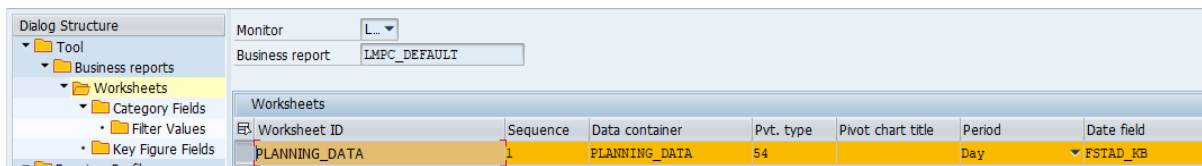
Report Folder

On the next level, you can maintain report folders. The report folder LMPC_DEFAULT is stored here in the standard system.

Report Folder LMPC_DEFAULT

The link between the report folder and the recipient profile is established in the "Recipient Profile" field. Explanations for recipient profile below.

Worksheets

Worksheet

1 – n worksheets can be maintained for each report folder. Later, two Excel worksheets are created in the Excel document for each worksheet: The pivot graphic and the pivot table

The Data Container field is used to select which data is to be read. There are two options here:

- PLANNING_DATA: All loaded LMPC HJPT data.
- SELECTED_DATA: All LMPC HJPT data selected by the user.

The field "Date field" can be used to specify the field via which the data is to be aggregated. In the standard delivery, the field for the earliest start date is specified.

Category Fields
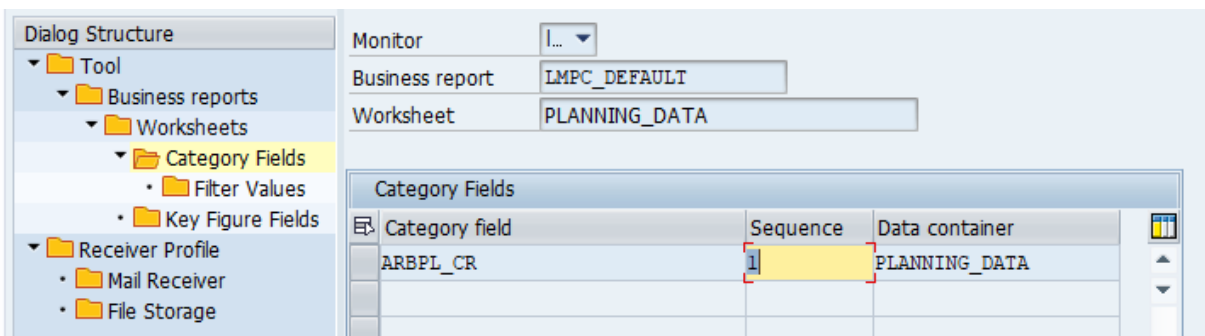
Category Fields

In addition to the date field, you can use the Fields category to specify additional fields that are used to aggregate the data.

In the standard delivery, the work center is specified.

Filter values can still be stored in the other subfolder. These filter values are automatically saved when the Excel file is generated. For example, you can enter the name of a specific work center for the category field Work Center.

Key Figure Fields
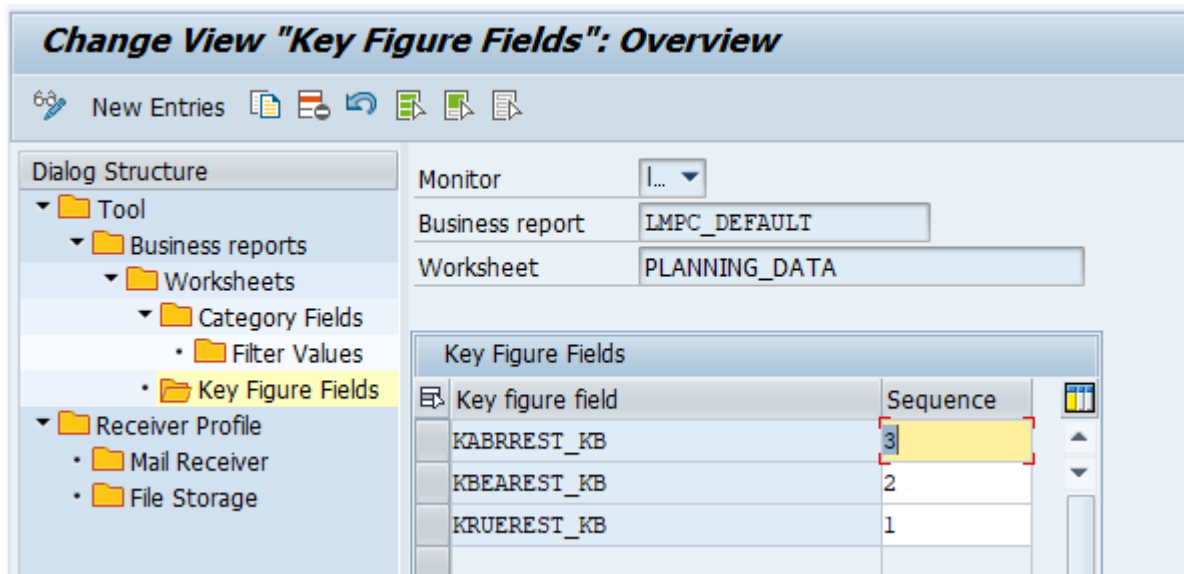
Key Figure Fields

The key figures are the data used for execution of aggregation.

The fields for the remaining capacity requirements are entered in the delivered report folder.

Recipient Profile

Recipient Profile

If the generated report folders are to be sent automatically to specific e-mail addresses or saved in specific folders, a recipient profile is maintained.

You can attach saved e-mail text modules, which are then automatically inserted when sending the e-mail.

An e-mail address is maintained in the "E-mail recipient" folder. A storage path in the "File storage" folder.

Related Information

[S_XBR Create Book of Reports](#)

4.1.7.5 Create Custom HJPT Action Codes

Information about the creation of action codes in the customer namespace

You can use the Customizing transaction /LMPC/CUST to create additional action codes for the HJPT planning table.

The following elements can be called up:

- Transactions
- Programs with variants
- Classes

The entry screen allows further elements. This occurs for historical reasons. However, only these three elements are supported.

Transaction Call

It is possible to call standard SAP transactions in two different ways:

- Call with transaction code.
- Call with batch input.

To create a transaction call, you only need to enter the transaction code in the corresponding field. Parameters can also be transferred for the transaction.

The call with batch input was created because some SAP transactions do not support the entry of parameters by memory ID. You can use batch input to skip the entry screen and to go to the working window for these transactions. One example of this is transaction MIGO.

You can find the description of the configuration of the transaction calls in the chapter about action code parameters.

Action Code Parameters [page 52]

Program Call

You can also find the description of calling programs with variants in the chapter about action code parameters. Action Code Parameters [page 52]

Custom Action Code Class

The recommended enhancement method is to create your own classes.

To do this, a class is created in the customer namespace. The /LMPC/IF_ACTION interface is entered in the class.

Three methods are available in the class:

- GET_ACTION_MODE
- GET_ACTION_PARAMETER_LIST
- EXECUTE

Methods for LMPC HJPT Action Code Interface

Method EXECUTE

This method runs when calling the action.

It contains the following parameters:

Parameters for Method EXECUTE

Parameter Method EXECUTE

Parameter	Description
IMPORTING	
I_SINGLE_SELECTION	Contains the data of an ALV grid row for a single selection.
IT_MULTI_SELECTION	Contains the data records of several ALV grid rows for multiple selection.
IV_ACTION_CODE	Name of the action code from Customizing.
IT_PARAMS	Contains the parameters that are set in Customizing.
IO_SENDER	View instance that triggers the action code.
EXPORTING	

Parameter	Description
E_ALV_SOFT	Only valid with E_ALV_REFRESH.
	Refreshes the ALV grid (soft refresh).
	The parameter is passed directly to the refresh method of the ALV grid.
	In the case of a soft refresh, filter criteria and sort criteria in the ALV grid are not evaluated again.
E_ALV_STABLE Field ROW	Only valid with E_ALV_REFRESH.
	In the refresh, the scroll bar remains in the same vertical position (i.e. on the same row) and does not jump back to the top.
E_ALV_STABLE Field COL	Only valid with E_ALV_REFRESH.
	In the refresh, the scroll bar remains in the same horizontal position (i.e. in the same column) and does not jump back to the far left.
	E_ALV_STABLE-COL automatically also implies E_ALV_STABLE-ROW (regardless of its value), but the reverse is not true.
E_ALV_REFRESH	If this parameter is set, the refresh method of the ALV grid is called.
	Not the refresh method of the LMPC HJPT planning table. Therefore, only the display of the ALV grid is refreshed. No data is reloaded.
ET_SELECT_ROWS	Transfer of information about which lines are to be selected in the ALV grid.
E_FINISHED	If this parameter is set (='X'), no subsequent action code is executed after the action code, even if an action code is set in Customizing.
	Exception: The subsequent action code has a trigger.
CHANGING	
CT_PLANNING_VALUES	Contains all ALV grid data.

Method GET_ACTION_PARAMETER_LIST

Definition of the parameters for the action.

This method is used to generate the F4 help for the parameters in transaction /LMPC/CUST.

The list of all configured parameters is passed to the method EXECUTE at runtime.
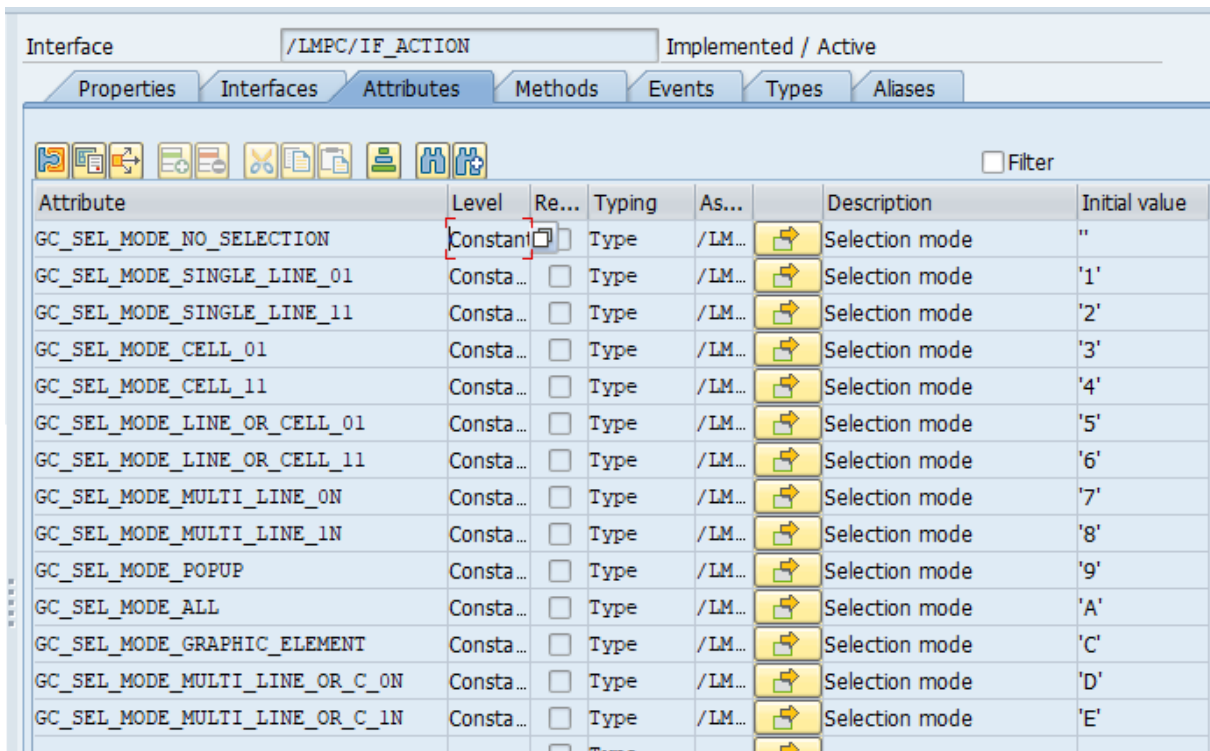
The parameters are output using the exporting table ET_PARAMETER.

Method GET_ACTION_MODE

The action mode of the action.

Each action must define which data it will access. This is required to perform an authorization check before the action is called.

You can find the fixed values for the selection mode in the attributes for the class.

Interface	/LMPC/IF_ACTION	Implemented / Active

Attribute	Level	Re...	Typing	As...		Description	Initial value
GC_SEL_MODE_NO_SELECTION	Constant	☐	Type	/LM...	🔼	Selection mode	''
GC_SEL_MODE_SINGLE_LINE_01	Consta...	☐	Type	/LM...	🔼	Selection mode	'1'
GC_SEL_MODE_SINGLE_LINE_11	Consta...	☐	Type	/LM...	🔼	Selection mode	'2'
GC_SEL_MODE_CELL_01	Consta...	☐	Type	/LM...	🔼	Selection mode	'3'
GC_SEL_MODE_CELL_11	Consta...	☐	Type	/LM...	🔼	Selection mode	'4'
GC_SEL_MODE_LINE_OR_CELL_01	Consta...	☐	Type	/LM...	🔼	Selection mode	'5'
GC_SEL_MODE_LINE_OR_CELL_11	Consta...	☐	Type	/LM...	🔼	Selection mode	'6'
GC_SEL_MODE_MULTI_LINE_0N	Consta...	☐	Type	/LM...	🔼	Selection mode	'7'
GC_SEL_MODE_MULTI_LINE_1N	Consta...	☐	Type	/LM...	🔼	Selection mode	'8'
GC_SEL_MODE_POPUP	Consta...	☐	Type	/LM...	🔼	Selection mode	'9'
GC_SEL_MODE_ALL	Consta...	☐	Type	/LM...	🔼	Selection mode	'A'
GC_SEL_MODE_GRAPHIC_ELEMENT	Consta...	☐	Type	/LM...	🔼	Selection mode	'C'
GC_SEL_MODE_MULTI_LINE_OR_C_0N	Consta...	☐	Type	/LM...	🔼	Selection mode	'D'
GC_SEL_MODE_MULTI_LINE_OR_C_1N	Consta...	☐	Type	/LM...	🔼	Selection mode	'E'
		☐	Type		🔼		

Attributes

> **! Restriction**
>
> - If you develop your own programming for action codes, you must not set a "Commit Work" in these. Otherwise, the entire planning table would be saved immediately when the action code is called.
> - Custom action codes, as with all other customer enhancements, are not covered by LMPC Support.

4.2   Transaction /LMPC/CUSTCAP Capacity Chart Define Categories

Settings for LMPC HJPT capacity chart

Customizing Categories and Status

The orders for the LMPC HJPT planning table are divided into categories for the capacity chart.

Each category is assigned a color so that each category can be identified at a glance in the chart.

Customizing for categories is performed in transaction /LMPC/CUSTCAP.

Customizing Categories

Depending on the HJPT overall profile, you can create up to five categories for the requirements.

The color for the line of the available capacity is entered as the sixth category.

This line is only displayed in the capacity utilization chart if category 6 is maintained. You do not need to specify a field selection and field values for this category.

The color values are specified using RGB values.

For example, you can determine the RGB color values using the www.colorpicker.com website.

Do not use umlauts in the text fields for the description, for example, as this can affect the chart display.

Field Selection Categories

You can define several conditions in the form of field values, for which the order association to the category is defined.

The component name is a field name from the structure /LMPC/HJPT_F01. Values are maintained in the "Field Values" folder.

Field Selection

The conditions are specified in the form of comparisons to the field values. The values are entered in a similar way to the values on selection screens.

In addition to the field selection, you can also make a selection using status values. The field selection and the status selection are linked with AND.

Status Selection for Categories

> ! Restriction
>
> If the available capacity at the work center is changed (increased or reduced) in the LMPC HJPT planning table using the function in the menu bar of the capacity planning table, this change is only visible in the capacity chart of the LMPC HJPT planning table after this capacity change has been saved.
>
> A standard function module reads the available capacity for calculating capacity load in the capacity chart from the database. This module does not take into account any changes that take place in simulation mode of the capacity planning table. This is a technical restriction of the LMPC HJPT planning table.

Related Information

4.3   Transaction /LMPC/CUSTOREL Set Chart of Order Relations

Configuration for Order Relations Chart

For a selected order, the order relations chart shows the upstream and downstream items on the different low-level codes.

From the purchase requisition for the raw material through the manufacturing levels to the planned independent requirement or the sales order.

For the chart to be displayed, you need to make settings for the respective HJPT overall profile. These settings are described in a separate section. Parameter Settings for Chart Window [page 26]

Chart of Order Relations

The data for the chart is read using a data provider. In transaction /LMPC/CUSTOREL the data provider /LMPC/CL_OREL_DP_01 needs to be activated. No parameters are required for the data provider.

The order relations are also colored using a data provider. Therefore, the data provider /LMPC/CL_OREL_DP_COL_01 needs to be activated.

Data Provider Order Relations

The coloring is performed using the same logic as the dynamic coloring in the ALV Grid of the LMPC HJPT planning table. Therefore, the documentation for coloring the ALV Grid is referenced here. Transaction /LMPC/CUSTCOL_FML Color ALV Grid Dynamically [page 246]
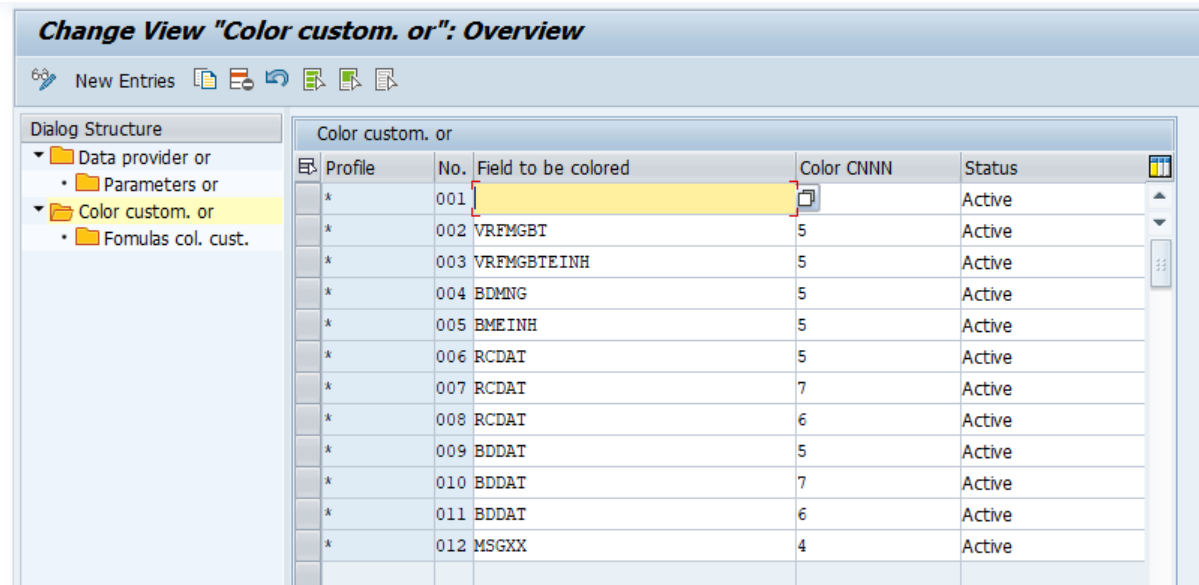
Example Settings: Coloring of Order Relations

For coloring, a style number is assigned instead of a color. You can use the F1 help for the field to display the different options.
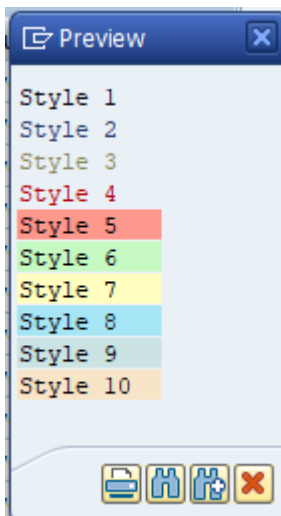
Selection: Coloring Order Relations

Sample settings are delivered with the LMPC Customizing delivery.

4.4 Transaction /LMPC/GRP Group ALV Grid Fields in Layout Groups

Group fields in the ALV grid

The ALV grid of the HJPT planning table can be configured using the layout settings. Columns can be shown or hidden.
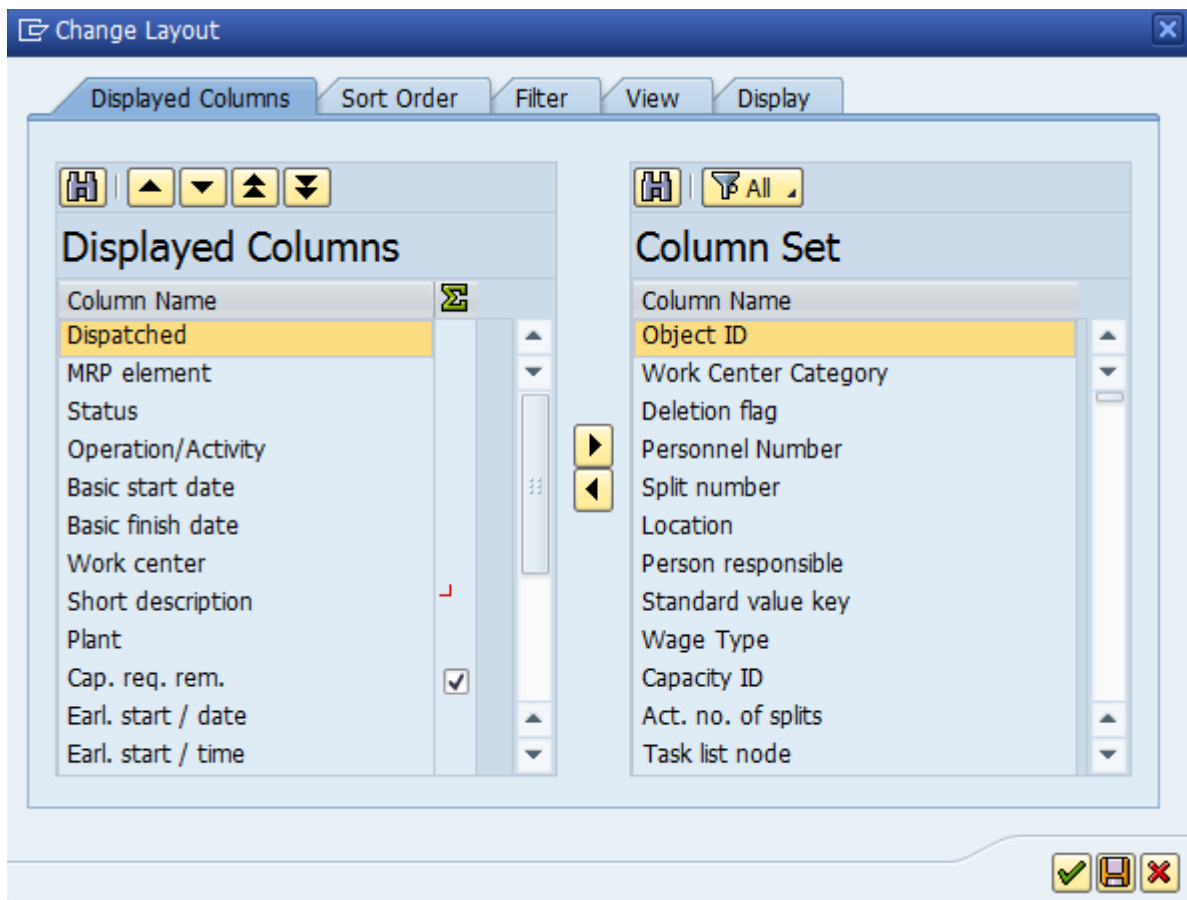
Change Layout

The ALV grid of the LMPC HJPT planning table contains nearly 1100 fields.

To make the field selection more transparent, the fields have been grouped together. You can use the filter button above the column list to select the groups.

All
Work center
Capacity requirement
Cap. req. header
Order operation
Production order
Planned order
SOP order
Capacity
Material master
Plant mat.
Material classification
Person
BOM data
Stock information
Sales doc.
Routing and recipe
User fields
Production version
Measures
Others
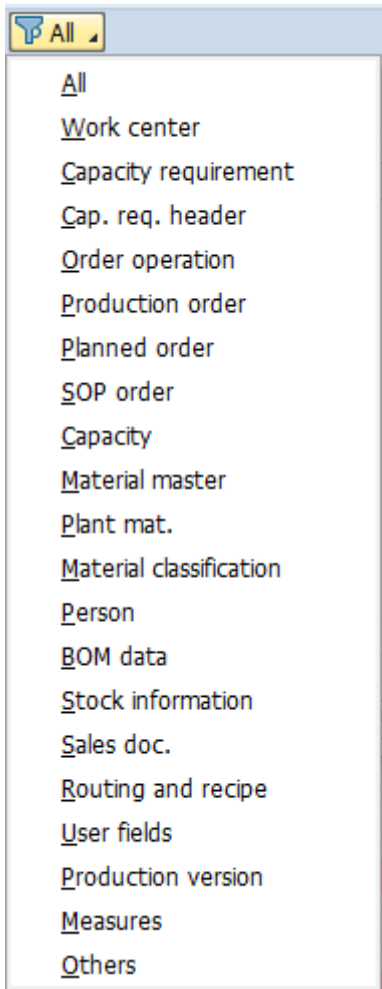
Grouping of ALV Grid Fields

In transaction /LMPC/GRP, you can create new field groupings, change descriptions, and hide standard groups.

Overview of the fields:

Field Overview

Field	Description
HJPT profile	Name of the overall profile for which the setting is to apply. If the field remains empty, the setting applies to all profiles.
Group	Name of an existing group that is to be hidden or the name of a group that is to be created.
Group description	Define the group description for the group.
Status	Activate and deactivate group.

> **i Note**
>
> Entries with (*) are not possible in the group configuration. The HJPT profile field can be left blank to apply the setting to all fields.

The following example illustrates the group configuration options:

Group Configuration Example

Line 1: The NEW group is created independently of the profile.

Line 2: The standard group PE (person) is hidden independently of the profile.

Line 3: The standard group SA (SOP order) is hidden independently of the profile.

Line 4: The description of the standard group CR is changed on a profile-dependent basis.

4.5 Adjusting ALV Grid Columns in Transaction / LMPC/FLD

Rename, hide, and group ALV Grid columns

You can use this transaction to:

- Remove individual fields from the column set of the ALV Grid of the HJPT planning table.
- Remove groups of fields from the column set.
- Include individual fields or a group of removed fields in the column set again.
- Define column headers for fields.
- Make the settings in a cross-profile manner or only for individual HJPT overall profiles.

Overview of the fields to be maintained:

Fields

Field	Description
HJPT Profile	Name of the overall profile for which the setting is to apply. If the field remains empty, the setting applies to all profiles.

Field	Description
Field Name	Field names of a column from the ALV structure /LMPC/ HJPT_F01 in the package /LMPC/BASE.
	You can use (*) in this column to address groups of fields, for example, "*_PA" for all fields of the planned order data structure.
Short	Specification of the short field label for individual fields. If the field is left blank, the default label remains in effect.
Medium field label	Specification of the medium field label for individual fields. If the field is left blank, the default label remains in effect.
Long field label	Specification of the long field label for individual fields. If the field is left blank, the default label remains in effect.
Group	Assign fields to a group.
Status	Selection field. Hide ("X") or show (" ") fields or field groups.

You can enter a group name in the group column.

This must be maintained either in transaction /LMPC/GRP or correspond to one of the standard groups.

If the field remains empty, the standard grouping is carried out.

> **i Note**
>
> If settings are valid for all HJPT overall profiles, the HJPT profile field is left blank. (*) are not used here.

The following example illustrates the column configuration options:

ALV field configuration					
HJPT prof.	Field name	Medium Field Label	Long field label	Group	status
	/LMPC/ATWTB_CY				Inactive
	AENKZ__TC	Changes	Changes	NEW	Active
LMPC_T01	*_MA				Inactive
LMPC_T01	BISMT_MA				Active

Example Column Configuration

Line 1: The field /LMPC/ATWTB_CY is hidden independently of the profile.

Line 2: For the field AENKZ_TC, the labels are changed independently of the profile, and the field is added to the NEW group.

Line 3: All material fields *_MA are hidden on a profile-dependent basis.

Line 4: Shows the material field BISMT_MA on a profile-dependent basis. Deactivations with (*) are always executed first, and then the settings for specific fields are made.

> **⚠ Caution**
>
> If fields are removed from the column set, this data is no longer available for the LMPC HJPT functions. This means that if important fields are removed, functions can no longer be executed correctly. Therefore, fields should be removed with caution.

> **→ Tip**
>
> The data providers do not supply data to fields that have been removed from the column set. For reasons relating to the runtime, it is better to remove columns that are not required from the column set than it is to leave all the columns in the set and hide them using the ALV Grid layout settings. The data for fields that are hidden via the layout only is still read and delivered to the front end. This can cause unnecessary runtime.

4.6 Transaction /LMPC/CUSTADD Status Fields, Material Classification, Production Resource/Tool

Additional HJPT Customizing

The transaction /LMPC/CUSTADD contains Customizing settings for the following topics:

4.6.1 HJPT Status Fields

Settings for order status display

In the LMPC HJPT planning table, there are five fields that can be filled with order and user statuses for production/process orders.

Data Provider

The data provider /LMPC/CL_DP_USER_STAT must be entered and activated in transaction /LMPC/DPRO.
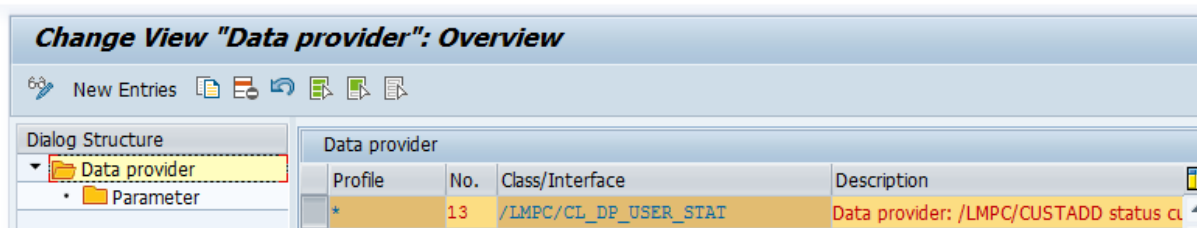
Data Provider /LMPC/CL_DP_USER_STAT

Action Code

Furthermore, the action code S_STATUS must be maintained in the LMPC Customizing transaction /LMPC/ CUST and it must be set in the context profile with the trigger PBO.

Action Codes S_STATUS

Set Status Settings

The content of the status fields of the LMPC HJPT planning table is defined in the Customizing transaction /LMPC/CUSTADD.

There are four levels:
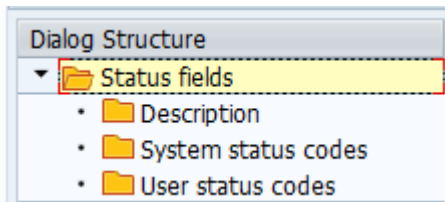
Set Status Settings

Status Fields

This is where you assign the fields to an HJPT overall profile and specify which statuses are to be read. There are three possibilities:

- Status from the header data.
- Status from the operation data.
- Split status from split operations.

Status Options

Description

The next level is where maintenance of the column headers for the fields takes place:
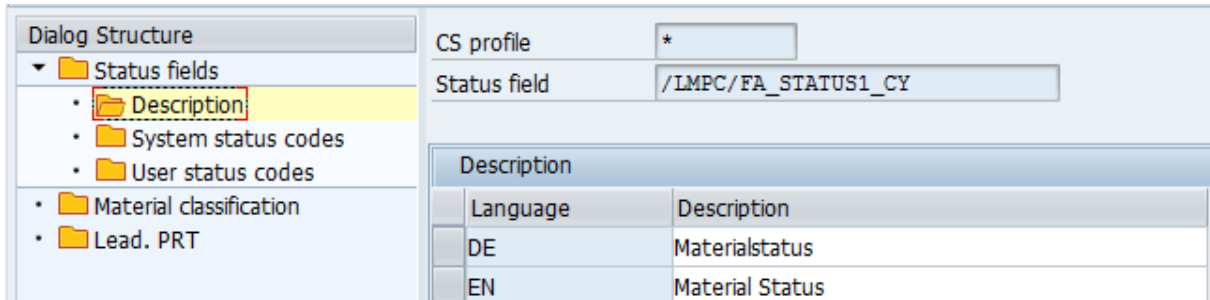
Maintain Column Headers

System Status

In the next step, you select the system status that is displayed in the selected field.

It is important to choose a status that cannot be used at the same time. As only one status is ever displayed per field.
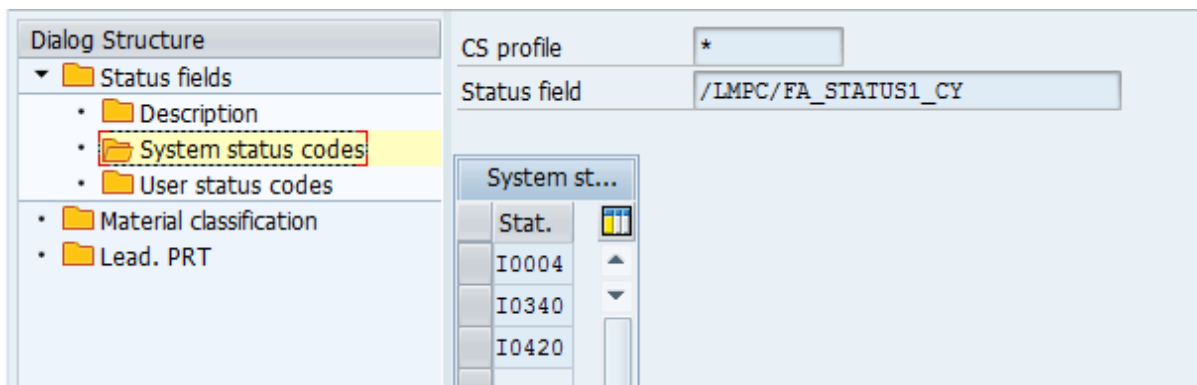
Define System Status

You can use the input help for the status field to view the possible statuses:
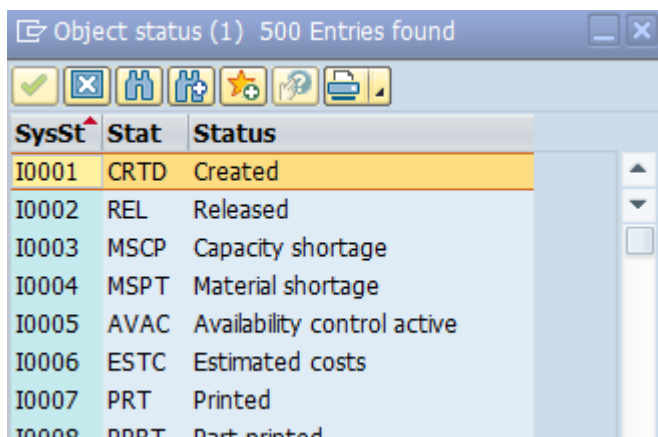
System Status Input Help

User Status

On the next level, you select the user statuses that are displayed in the selected field.

The input help shows the possible statuses from Customizing (transaction BS02).
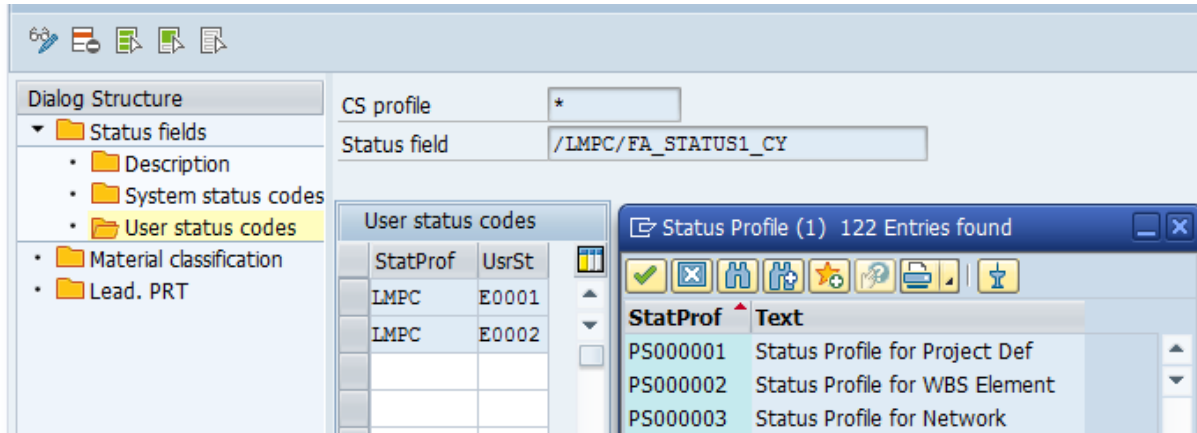
User Status

HJPT ALV Grid Layout Settings

To make the status fields visible in the HJPT planning table, you select the following columns in the layout settings:
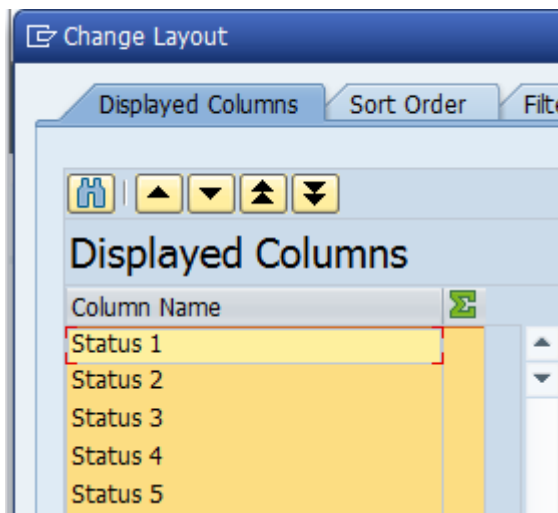
Layout Settings Status

4.6.2 HJPT Material Classification

Set Material Classification Display

You can display six descriptions of characteristics and six characteristic values for an order material in the ALV Grid of the HJPT planning table.

Data Provider Customizing

Data Provider Customizing

The data provider /LMPC/CL_DP_USER_102 must be entered and activated in transaction /LMPC/DPRO. The application is based on lists.

Characteristic Query Customizing

You use Customizing in transaction /LMPC/CUSTADD to define which characteristics are to be read.

Material Classification Customizing

Fields to be maintained:

- HJPT overall profile (profile or * for all profiles).
- Item (= field in which the values are displayed).
- Class type (currently only class type 001 is defined).
- Name of the material class.
- Technical name of the characteristic.
- Status.

You can maintain separate entries for each HJPT overall profile. However, you usually use (*) to select a setting for all profiles.

There are six positions for the display of the characteristic name and the characteristic value.

The technical name of the characteristic can be determined in the following way:

Use transaction MM03 to open the material master.
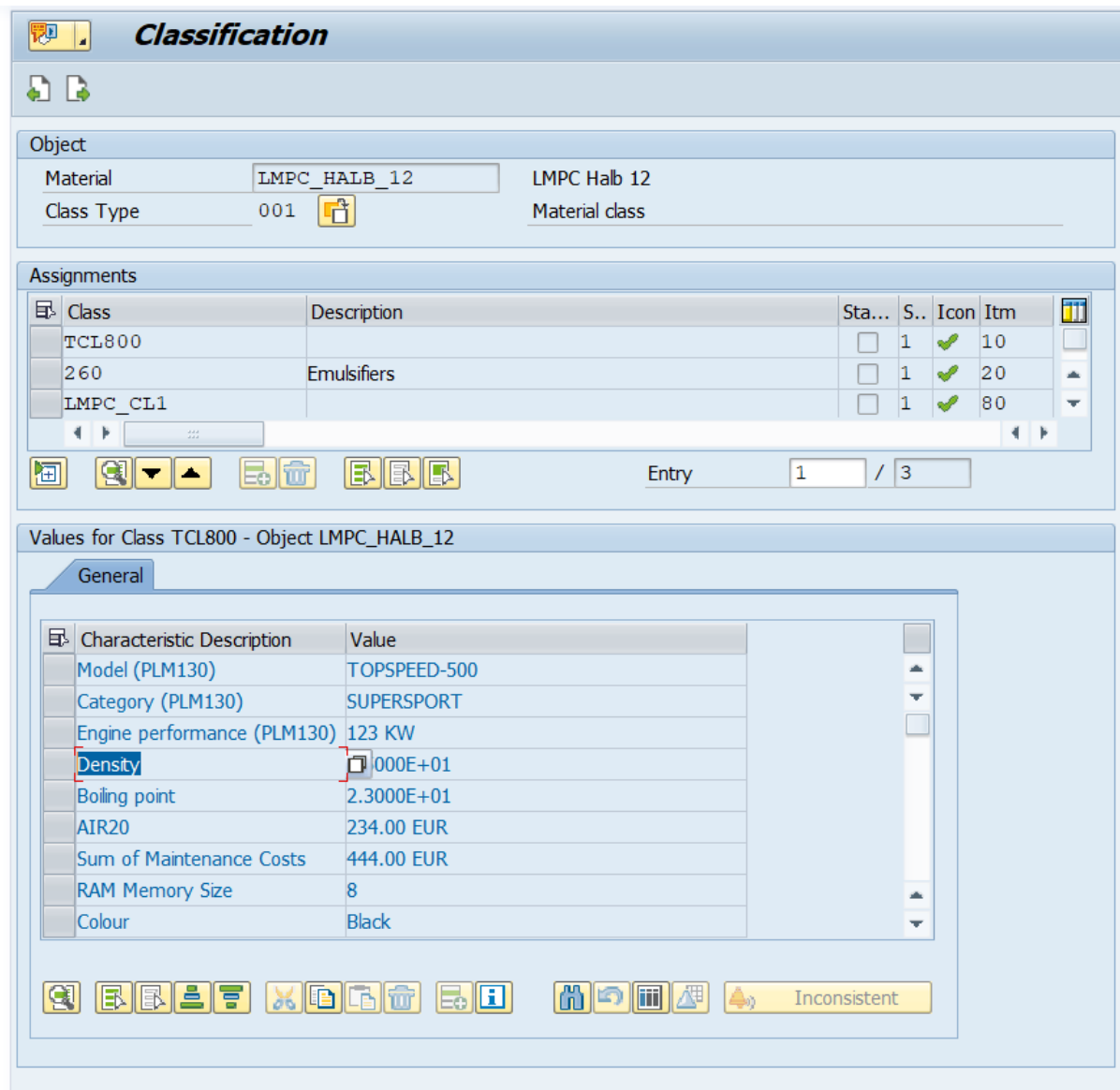
Example of Classification in Transaction MM03

Position the cursor on a characteristic name or select it.

Execute the function key F1.

The characteristic is displayed. The technical name is at the top

Example of Characteristic Display

Data in the ALV Grid

The data is displayed in the following columns:

- ATBEZ1_MK (characteristic description 1)
- ATWRT1_MK (characteristic value 1)
- ATBEZ2_MK (characteristic description 2)
- ATWRT2_MK (characteristic value 2)
- ATBEZ3_MK (characteristic description 3)
- ATWRT3_MK (characteristic value 3)
- ATBEZ4_MK (characteristic description 4)
- ATWRT4_MK (characteristic value 4)
- ATBEZ5_MK (characteristic description 5)
- ATWRT5_MK (characteristic value 5)
- ATBEZ6_MK (characteristic description 6)
- ATWRT6_MK (characteristic value 6)

The fields are in the group Material Classification.
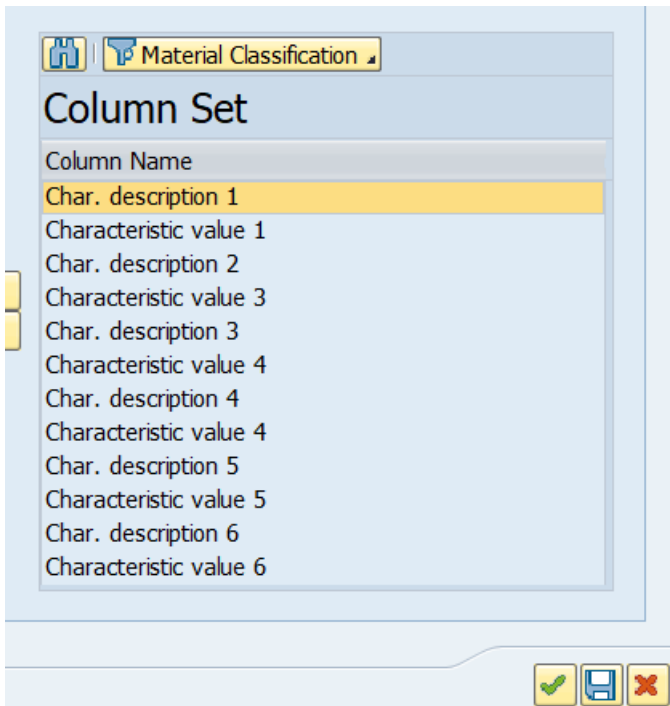
Fields in the Material Classification Layout Group

4.6.3 HJPT Production Resource/Tool

Configuration for displaying production resources/tools

Control Key
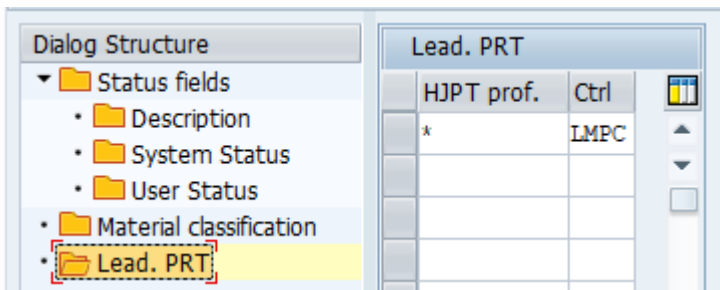
Entry for Leading Production Resource/Tool

The control key for production resources/tools is entered depending on the HJPT overall profile.

Data Provider
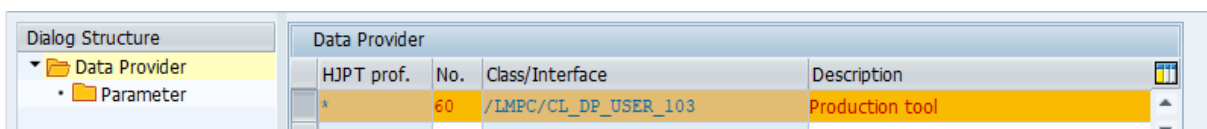
Data Provider CL_DP_USER_103

The data provider /LMPC/CL_DP_USER_103 must be entered and activated. The application is based on single objects.

Data in the ALV Grid

The field LEADFHKTX_CY is filled by the data provider.

It can be found in the "User fields" group.
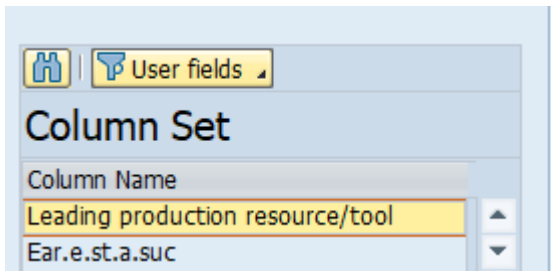
ALV Grid Field Selection

4.7 Transaction /LMPC/ALERT Configuration of Alerts in HJPT ALV Grid

Configuration and Development of HJPT Alerts

Usage

You can assign a series of alerts to an HJPT overall profile.

Alerts are inspection routines that display the status of operations in the HJPT planning table using a simple traffic light icon.

An alert is generated for each row in the ALV Grid view.

All generated alerts are cumulated as a traffic light icon in the field /LMPC/ALERT_ICON_CY (status) of the structure /LMPC/HJPT_F01 (structure of the ALV Grid view).

Double-clicking on the field opens a dialog box that lists all alerts.
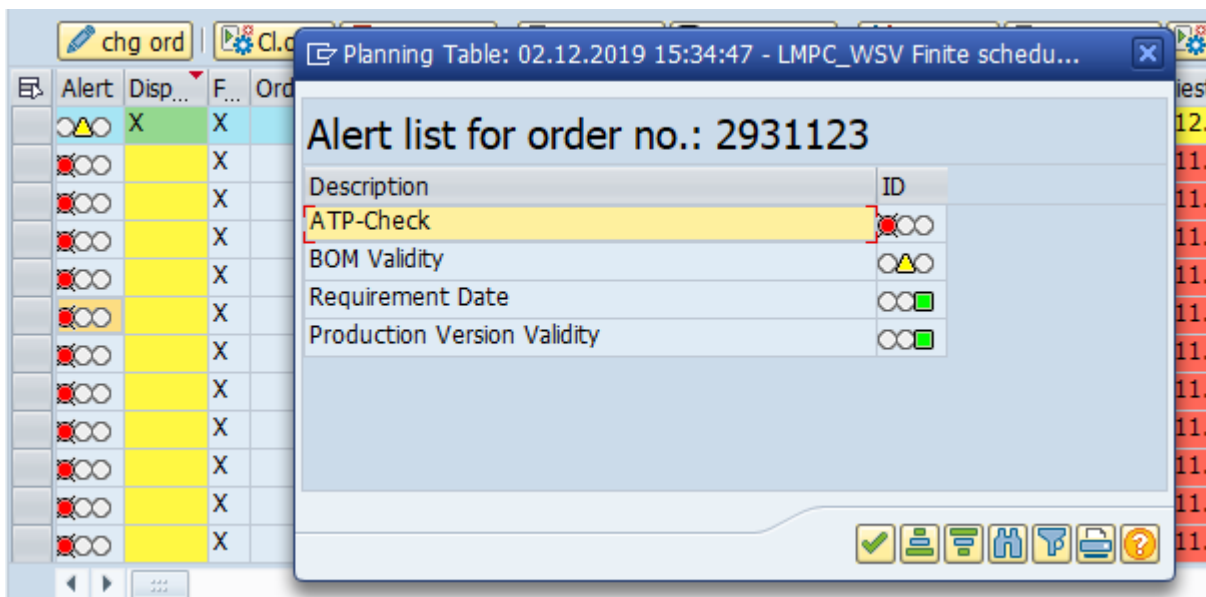
Alert Example

Four alerts are delivered in the LMPC standard:

- Requirement date
- ATP check
- BOM validity
- Validity of production version.

It is possible to develop additional custom alerts.

The following guide describes how to assign existing alerts to HJPT overall profiles and how to develop your own alerts.

Preparations

The data provider /LMPC/CL_DP_ALERT must be included.

You do this in transaction /LMPC/DPRO.

Profile	No.	Class/Interface	Description	Usage	
*	103	/LMPC/CL_DP_ALERT	Data provider for alert processing	2 Apply to list	▲

Data Provider /LMPC/CL_DP_ALERT

The data provider has a parameter "PRLL". This parameter is not usually required. You can use this parameter to activate parallel processing for the data provider. Parallel processing is not to be activated for the delivered standard alerts because serial processing is faster. However, if you are using complex custom coding for the alerts, parallel processing could be faster.

The Status field from the User Fields group must be shown in the ALV Grid.

If you only want to use existing alerts, you do not need to follow the instructions below for copying the standard report for the alerts.

Copy the standard report /LMPC/ALERT_SUBROUTINES to your customer namespace, for example: Z_ALERT_ SUBROUTINES.

This copy must be entered in the control table. There is an entry for the standard report that must be replaced by the copy.

Transaction /LMPC/STEU.

overall control table		
Key Field 1	Key Field 1	Value
/LMPC/ALERT_MONITOR	SUBROUTINENPOOL	Z_ALERT_SUBROUTINES

Alert Monitor Control Parameter

Alert Assignment Procedure

The alerts are configured in transaction /LMPC/ALERT and can also be developed there.

Call transaction /LMPC/ALERT.

In the view "Maintenance Dialog for Alerts", select the overall profile for the HJPT and choose "Execute".

Expand the subtree on the left side.
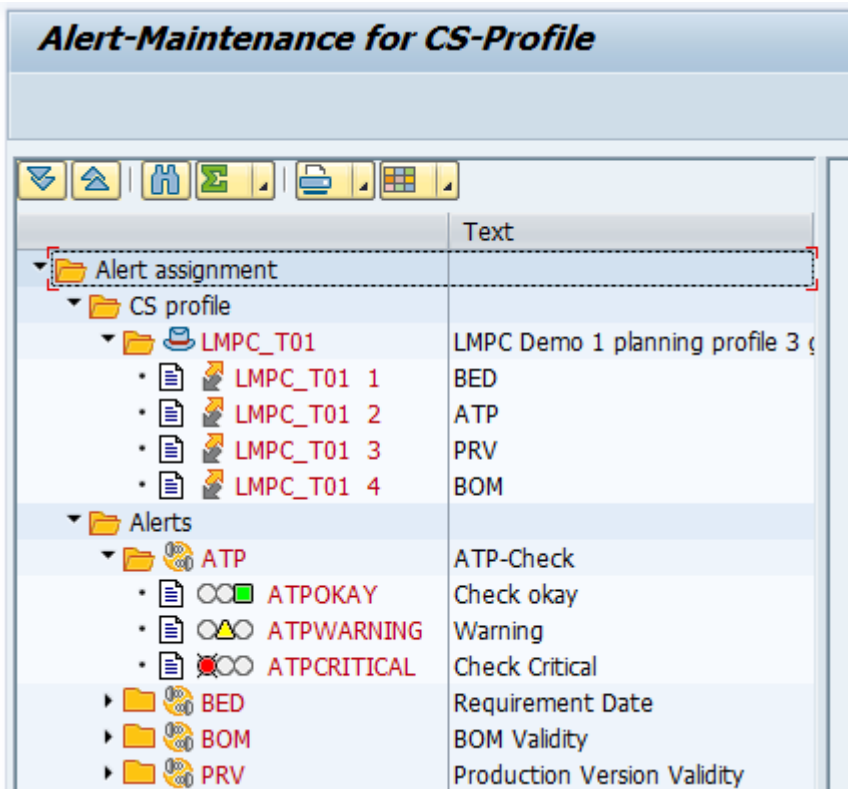
Transaction /LMPC/ALERT

If you want to activate one of the alerts for a profile, you simply use drag and drop.

Select an alert and drag it to the HJPT overall profile. This ensures that the assignment to the HJPT overall profile is created.
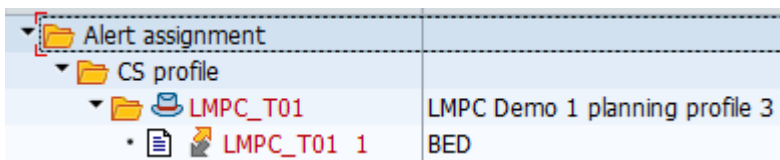
Assign Alert to HJPT Overall Profile

Save your entry. Confirm the messages.

Procedure for Programming Alerts

To program your own alerts, you need to create a new entry.

> ⚠ Caution
>
> Alert assignments to HJPT overall profiles are master data. To create new source code for alerts, you need the S_DEVELOP role as well as the assignment of a developer key to the maintaining user.

Right-click the Alerts folder.

Select the New Alert option.
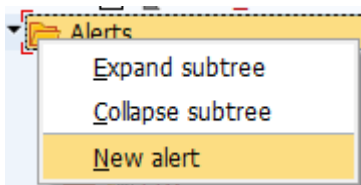
Create New Alert

Maintain the entries in the dialog box.

Input Window: Alert

Confirm the window.

The new alert will appear in the list of alerts:
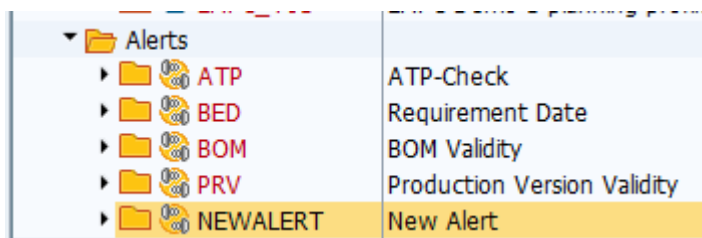
List of Alerts

Open the folder for the new alert.

Double-clicking on the text symbol before the respective traffic light opens the source code on the right side of the screen.

It can now be edited if the user name has the role S_DEVELOP and a developer key.
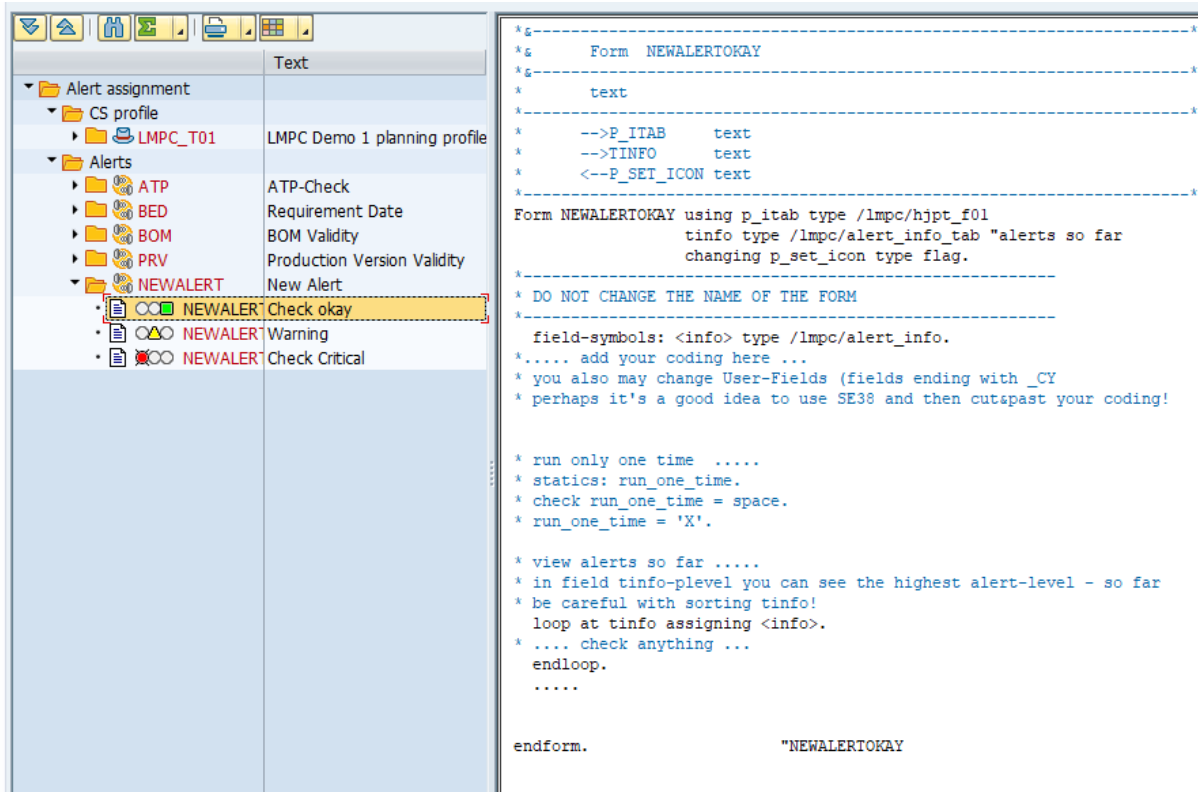
Alert Code

Right-clicking on the folder of the new alert enables you to delete or change the alert, or create a translation for the alert.
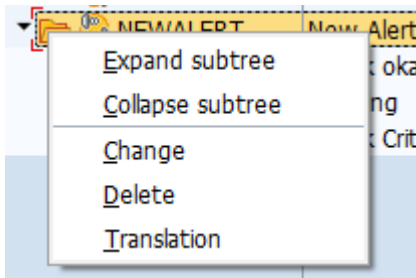
Change, Delete, Translate Alert

Related Information

Data Provider /LMPC/CL_DP_ALERT

4.8 Color Application in LMPC HJPT ALV Grid

Color application in ALV grid for HJPT planning table

Colors can be applied to the ALV grid for the HJPT planning table per field or per line.

There are two ways of doing this:

- Classic color application. Transaction /LMPC/CUSTCOL ALV Grid Classic Colors [page 243]
- Dynamic color application. Transaction /LMPC/CUSTCOL_FML Color ALV Grid Dynamically [page 246]

Both options can also be used in parallel.

ALV Grid Color Application Example

> **→ Tip**
>
> Classic color application requires less computing power than dynamic color application. Simple value comparisons are performed for classic color application. Dynamic color application is based on the evaluation of formulas. We recommend that you work primarily with classic color application to improve system performance. You should only use dynamic color application if you cannot continue working with classic color application.

Related Information

Data Provider /LMPC/CL_DP_COLOR and /LMPC/CL_DP_COLOR_FORMULA

4.8.1 Transaction /LMPC/CUSTCOL ALV Grid Classic Colors

Apply colors to ALV grid with value comparison

Data Provider

The data provider /LMPC/CL_DP_COLOR must be entered and activated in transaction /LMPC/DPRO.

Data Provider /LMPC/CL_DP_COLOR

The usage is set to single object.

Color Settings

The color settings are made in transaction /LMPC/CUSTCOL.

Example Color Setting ALV Grid

The settings are made on three levels:

- Color setting
- Field selection
- Parameter values

On the first level, the color rule is defined with the assignment of the HJPT overall profile, the field to be colored, and the color.

If you enter (*) for the HJPT overall profile, the settings apply to all profiles.

It is possible to apply color to individual ALV columns. In this case, you enter a field name from the structure /LMPC/HJPT_F01 in the "Field to be colored" column. If the field remains empty, color is applied to the entire HJPT row.

In the field "Color CNNN", you have to enter a color value in the convention for SAP lists.

The F4 help for the value displays the selected color settings and all other possible color settings:
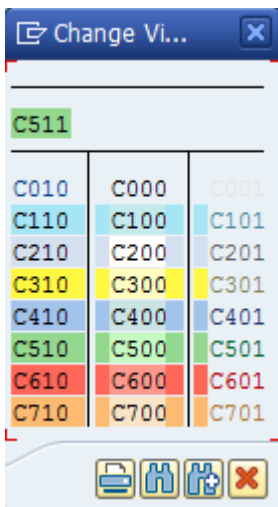
Color Selection ALV Grid

The status field can be used to activate or deactivate the relevant rule.

On the second level, the rule definition is made by selecting the fields to be checked and specifying the field values for the comparison.

Several fields can be checked at the same time. The rules are linked with "AND". If all conditions are fulfilled, the row or field color is set.

Example coloring of a dispatched planned order.

Two fields are checked here at the same time.

If the indicator for dispatching is set and the planned order number is not empty, color is applied to the row:
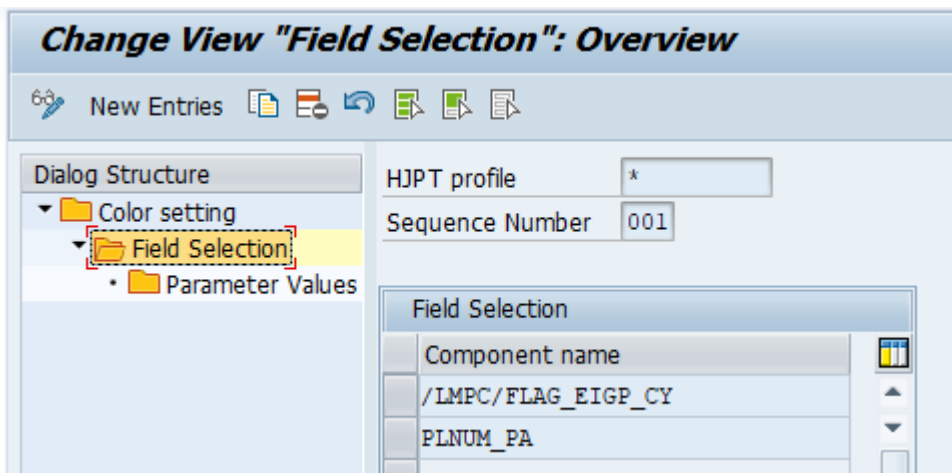
Field selection

The fields for the dispatching status and the planned order number are entered in the field selection.

The comparison checks are then entered for each field in the parameter value level.
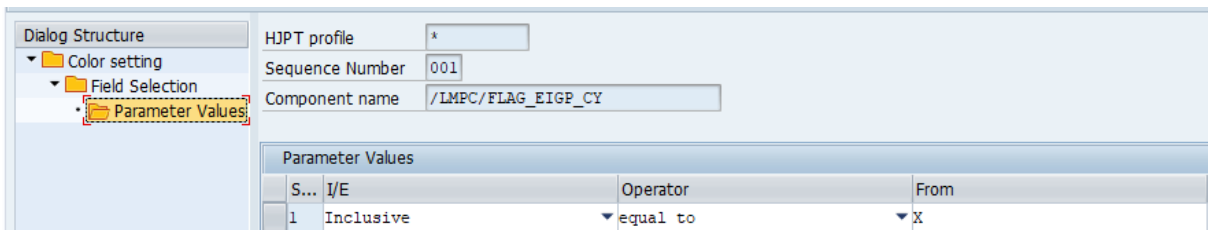
Condition for Field /LMPC/FLAG_EIGP_CY

Apply color if the "dispatched" indicator is set. /LMPC/FLAG_EIGP_CY = "X".
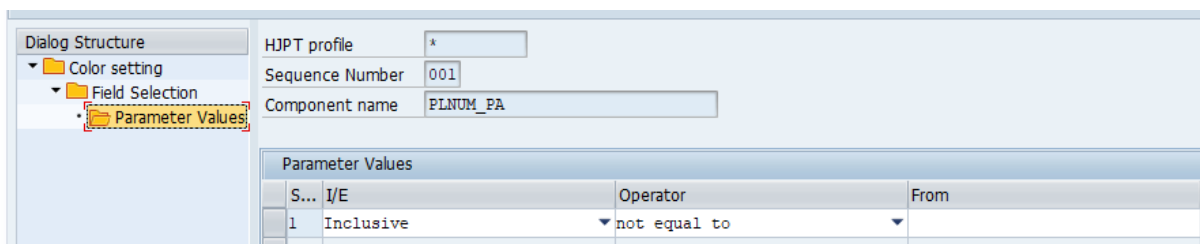
Condition for Field PLNUM_PA

Apply color if the field contains the planned order number field, PLNUM_PA is not empty.

4.8.2 Transaction /LMPC/CUSTCOL_FML Color ALV Grid Dynamically

Apply colors to ALV grid with formulas

Dynamic color application requires more runtime than classic color application. Formulas are evaluated for the color application.

Data Provider

The data provider /LMPC/CL_DP_COLOR_FORMULA must be entered and activated in transaction /LMPC/DPRO.

Data Provider /LMPC/CL_DP_FORMULA

The use of the data provider is based on lists.

Color Settings

The color settings are made in transaction /LMPC/CUSTCOL_FML.

Rule definition takes place in two steps.

- Field selection
- Formula definition

Field Selection

In the first step, the field to be colored is defined, the color is selected, and the definition is set to active.

Field Selection

If an asterisk (*) is entered in the HJPT profile field, the condition applies to all HJPT overall profiles.

If the "Field to be colored" field is left blank, the coloring applies to the entire ALV grid row.

A preview of the permitted colors can be displayed using the F4 help for the "Color CNNN" field.

Formula Definition

The formulas are entered in the second step.

You can specify multiple formulas for a color rule.

The coloring takes place only if all of the formulas apply. The formulas are linked with AND.
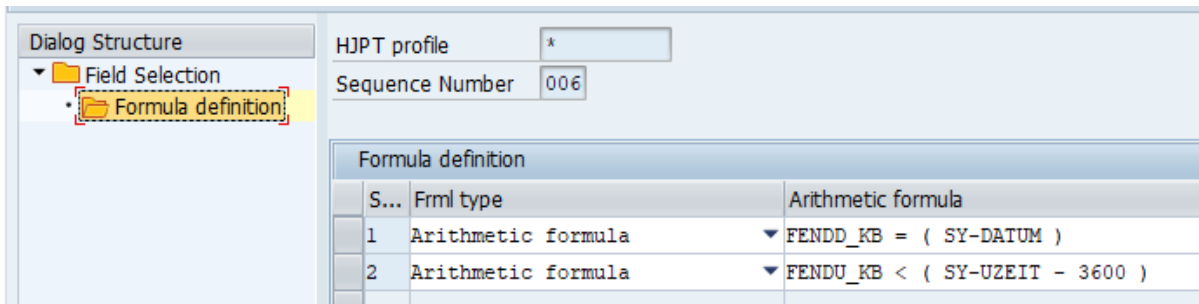
Formula definition with two formulas

You must select the formula type for each formula first.

There are three formula types:

- No formula: Condition always fulfilled
- Logical formula: For comparisons
- Arithmetic formula: For arithmetic operations with numbers

No Formula

If "No Formula" is selected, the condition is always met. This is used to create a basic color for a field or a row.

Logical Formula

For logical formulas, the "Logical Formula Field Name", "Incl/Excl", "Operator", "From", and "To" fields are maintained. The formula is maintained in the same way as for classic color application (see relevant section).

Example: Apply color if a pool ID exists.
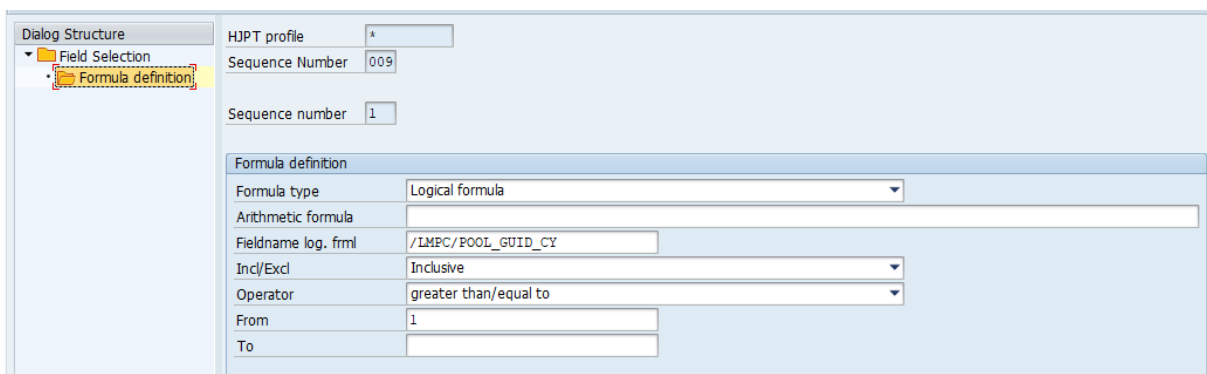
Formula Definition for Logical Formula

Arithmetic Formula

For arithmetic formulas, only the "Arithmetic Formula" field is maintained.

Example: Apply color if the earliest date is two days before the current day.

Formula Definition for Arithmetic Formula

Rules for maintaining formulas:

- A maximum of 250 characters can be entered for each formula.
- There must be at least one space between all elements so that the formula can be interpreted.
- The formula must be defined in such a way that the result is either true or false.
- When the system fields SY-DATUM, SY-DATLO, SY-UZEIT, or SY-TIMLO are used, the formula syntax is predefined as follows: field name operator (SY-XXXXX operator number). When the date is used, the number is the number of days; if the time is used, the number is the number of seconds. Example: FSTAD_KB <= (SY-DATUM - 2).
- A command "IS INITIAL" is not possible.
- The formulas are linked with "AND". If an "AND" or "OR" is to be used within a formula, the expressions before and after must be placed in parentheses. Example: (XYZ < 2) AND (WRS > 0).

Possible variables:

- All field names of the HJPT ALV grid.
- Fields of the SY structure (system fields). For example, SY-DATUM, SY-DATLO, SY-UZEIT, SY-TIMLO.
- Numbers: Integers (for example, 2) or rational numbers in the form xxx.xxx (for example, 2.345). A period is used instead of a comma.
- Special feature: For the comparison with time fields, for example, for the "Free capacity dispatching gap" field, the duration must be specified in the format hhmmss.
  Example: 1 hour 2 minutes 3 seconds = 010203.

Possible functions:

- ABS - Absolute amount
- NOT - Negation
- SIN - Sine function
- COS - Cosine function
- TAN - Tangent function
- LOG - Logarithm to the base e (natural logarithm)
- EXP - Exponential to the base e
- SQRT - Root function
- ROUND - Integer rounding
- TRUNC - Integer part of a real number
- MOD - Modulo function
- DIV - Integer part of a division

Possible operators:

- AND (logical AND)
- OR (logical OR)
- IF THEN ELSE (logical condition)
- = (equal to)
- <>, >< (not equal to)
- < (less than)
- > (greater than)
- <= , =< (less than or equal to)
- >= , => (greater than or equal to)
- + (addition or plus sign of an expression)
- - (subtraction or minus sign of an expression)
- * (multiplication)
- / (division)
- ** (exponentiation)
- ABS - Absolute amount
- NOT - Negation of a logical statement
- Parentheses ()

4.9 Transaction /LMPC/DPRO HJPT Data Provider Configuration

Classes for reading data in the HJPT planning table

Data providers are used to fill the ALV grid of the HJPT planning table with data.

The advantage of this technique is that it allows data that is not required to be excluded from the loading process.

This can improve system performance.

Simple Customizing settings can be used to add more data providers to include customer-specific data in the display.

Configuration Example

First, you get an overview of Customizing and the delivered data providers. Thereafter, individual functions that provide special data providers are explained and parameter settings are shown.

> i Note
>
> The LMPC HJPT planning table has nearly 1100 fields. However, not all fields are filled. This is due to the fact that the underlying structure is formed from standard structures using includes. This means that there are fields that are not filled.

The HJPT data providers are set up using transaction /LMPC/DPRO.

Data Provider Fields

Field	Description
HJPT Profile	Name of the HJPT overall profile for which the setting is to apply. If the field is filled with (*), the setting applies to all profiles.
Number	Sequence in which the data providers are called.
Class/Interface	Data provider class with which the data is loaded.
Description	This field can be filled with an individual description. The name is only visible in this Customizing transaction and is for information purposes only.

Field	Description
Usage	There are two options:
	• Apply to single object.
	• Apply to list.
	The option that is selected depends on how the data provider is written.
	If the read logic is in the method PROVIDE_DATA_FOR_LINE, the option for the single object is selected.
	If the read logic is written in the method PROVIDE_DATA_FOR_LIST, the option for the list must be selected.
	Some data providers offer both options. This occurs for historical reasons. List processing is better for system performance.
Status	Field values: Active or Inactive.
	You can switch off data providers without having to delete the relevant entry.

Fields for Parameters

Field	Description
Seq	Sequence for the parameters.
Parameter ID	Name of the parameter.
INCL/EXCL	Including / excluding (usually = I).
Option	Comparison operator (usually = EQ).
LOW/Parameter Value	Field for from value or parameter value.
HIGH	Field for to value.

4.9.1 Data Provider Catalog

Overview of all LMPC HJPT data read routines

This chapter provides an overview of the LMPC HJPT standard data provider with the information about which fields are read and filled.

Which data providers are active in the respective system depends on the requirements and should be coordinated with a LMPC consultant.

The data provider /LMPC/CL_DP_STD must always be active because it reads the basic data for the ALV grid in the LMPC HJPT planning table.

Data Provider	Description	Data provider reads fields	Data provider fills fields	Usage
/LMPC/CL_DP_AFVG	Order operation data Planned Order	PLNUM_KB	SPLKN_KB	On list
		SPLKN_KB	UVORN_AV	
		PLNKN_KB	PLNTY_AV	
		ZAEHP_KB	PLNNR_AV	
		SZAEHL_KB	PLNKN_AV	
		PLNTY_KB	ZAEHL_AV	
		PLNNR_KB	LOEKZ_AV	
			VORNR_AV	
			STEUS_AV	
			ARBID_AV	
			WERKS_AV	
			KTSCH_AV	
			LTXA1_AV	
			LTXA2_AV	
			VPLTY_AV	
			VPLNR_AV	
			VPLAL_AV	
			VPLFL_AV	
			VINTV_AV	
			MEINH_AV	
			LAR01_AV	
			LAR02_AV	
			LAR03_AV	
			LAR04_AV	
			LAR05_AV	
			LAR06_AV	
			PDEST_AV	
			ANZMA_AV	
			RFGRP_AV	
			RFSCH_AV	
			RASCH_AV	
			UEMUS_AV	

Data Provider	Description	Data provider reads fields	Data provider fills fields	Usage
			UEKAN_AV	
			EKORG_AV	
			EKGRP_AV	
			MATKL_AV	
			ANZZL_AV	
			PRZNT_AV	
			VERTL_AV	
			MLSTN_AV	
			PPRIO_AV	
			SLWID_AV	
			USR00_AV	
			USR01_AV	
			USR02_AV	
			USR03_AV	
			USR04_AV	
			USE04_AV	
			USR05_AV	
			USE05_AV	
			USR06_AV	
			USE06_AV	
			USR07_AV	
			USE07_AV	
			USR08_AV	
			USR09_AV	
			USR10_AV	
			USR11_AV	
			ANFKO_AV	
			ANLZU_AV	
			ISTRU_AV	
			ISTTY_AV	
			ISTNR_AV	
			ISTKN_AV	

Data Provider	Description	Data provider reads fields	Data provider fills fields	Usage
			KALID_AV	
			FRSP_AV	
			PVZKN_AV	
			PHFLG_AV	
			PHSEQ_AV	
			KNOBJ_AV	
			EBELN_AV	
			EBELP_AV	
			FRDLB_AV	
			QPART_AV	
			PRZ01_AV	
			RFPNT_AV	
			ADPSP_AV	
			VERTL_AV	
			PLNTY_AV	
			PLNNR_AV	
			PLNKN_AV	
			ZAEHL_AV	
			VORNR_AV	
			STEUS_AV	
			ARBID_AV	
			WERKS_AV	
			LTXA1_AV	
			MEINH_AV	
			RFGRP_AV	
			RFSCH_AV	
			RASCH_AV	
			KALID_AV	
/LMPC/ CL_DP_ALERT	Data provider for alert processing	/LMPC/DELNR_CY Required fields depending on the definition of the alerts.	/LMPC/ ALERT_ICON_CY	On list

Data Provider	Description	Data provider reads fields	Data provider fills fields	Usage
/LMPC/ CL_DP_AUTEXT	Load order header long text	INDEX_TC AUTYP_FA	/LMPC/AUTEXT_CY /LMPC/CORD-TEXT_CY	On list
/LMPC/CL_DP_BED	Data provider for requirement date calculation	PLNUM_PA MATNR_PA PLWRK_PA BERID_PA AUFNR_FA	/LMPC/BDTERM_CY /LMPC/ DMD_DELKZ_CY /LMPC/ DMD_DELNR_CY /LMPC/VRFMG_CY /LMPC/VRFMGBT_CY /LMPC/VRFMGEH_CY	On list
/LMPC/ CL_DP_BED_2	Data Provider for requirement date according to MD09 logic	/LMPC/DELNR_CY PLNUM_PA BERID_PA KDEIN_PA AUTYP_FA /LMPC/ FA_STATUS2_CY MATNR_MA WERKS_CR SENDD_KB	/LMPC/BDTERM_CY /LMPC/ DMD_DELKZ_CY /LMPC/ DMD_DELB_CY /LMPC/ DMD_DELNR_CY /LMPC/ DMD_EXTRA_CY /LMPC/ DMD_KUNNR_CY /LMPC/BDZEIT_CY	On list

Data Provider	Description	Data provider reads fields	Data provider fills fields	Usage
/LMPC/CL_DP_BOM	BOM data	/LMPC/DELNR_CY	STKO1_SP	On list
		MATNR_MC	MAKT1_SP	
		STLTY_FA	BDMNG1_SP	
		STLNR_FA	MEINS1_SP	
		STLAN_FA	CHNRKP1_SP	
		STLAL_FA	STKO2_SP	
		MATNR_PA	MAKT2_SP	
		PWWRK_PA	BDMNG2_SP	
		VERID_PA	MEINS2_SP	
		PLAUF_KO	CHNRKP2_SP	
		AUFNR_FA	STKO3_SP	
		MATNR_MA	MAKT3_SP	
		WERKS_CR	BDMNG3_SP	
		RSNUM_FA	MEINS3_SP	
		RSNUM_PA	CHNRKP3_SP	
		PLNUM_PA	STKO4_SP	
		PWWRK_PA	MAKT4_SP	
		STLAN_PA	BDMNG4_SP	
		STALT_PA	MEINS4_SP	
			CHNRKP4_SP	
			STKO5_SP	
			MAKT5_SP	
			BDMNG5_SP	
			MEINS5_SP	
			CHNRKP5_SP	
			SDATV_SP	
			SDATB_SP	
			AENNR_SP	
			AETXT_SP	
			DATUV_SP	

Data Provider	Description	Data provider reads fields	Data provider fills fields	Usage
/LMPC/ CL_DP_BOM_BATCH_ INFO	Batch data for BOM components	AUFNR_FA	VFDAT1_SP	On list
		/LMPC/DELNR_CY	IPRKZ1_SP	
		WERKS_CR	VFDAT2_SP	
		STKO1_SP	IPRKZ2_SP	
		CHNRKP1_SP	VFDAT3_SP	
		STKO2_SP	IPRKZ3_SP	
		CHNRKP2_SP	VFDAT4_SP	
		STKO3_SP	IPRKZ4_SP	
		CHNRKP3_SP	VFDAT5_SP	
		STKO4_SP	IPRKZ5_SP	
		CHNRKP4_SP		
		STKO5_SP		
		CHNRKP5_SP		
/LMPC/ CL_DP_COLOR	ALV Grid classic color Customizing	CTAB	COLOR	On single object
		COLOR	CTAB	
		Required fields depending on Customizing in transaction / LMPC/CUSTCOL		
/LMPC/ CL_DP_COLOR_FOR-MULA	ALV Grid color Customizing with formulas	CTAB	COLOR	On list
		COLOR	CTAB	
		Required fields depending on Customizing in transaction / LMPC/CUSTCOL_FML		
/LMPC/ CL_DP_COMB_USRFLD	Merge data	Dependent on Customizing	Dependent on Customizing	On list
/LMPC/ CL_DP_COUNT	Count orders and operations	/LMPC/DELNR_CY	/LMPC/ COUNT_ORD_CY / LMPC/COUNT_OP_CY	On list
		VORNR_KB		

Data Provider	Description	Data provider reads fields	Data provider fills fields	Usage
/LMPC/ CL_DP_CYPP0005	User exit: CYPP0005 user-defined fields	CYUSER GRUPPE_CY KOMBI_CY	User exit - fields of structure CYUSER Dependent on whether and how the user exit is defined.	On list
/LMPC/ CL_DP_DB_FLDS	Read database fields	Dependent on Customizing settings	/LMPC/USR1_CY /LMPC/USR2_CY /LMPC/USR3_CY /LMPC/USR4_CY /LMPC/USR5_CY /LMPC/USR6_CY /LMPC/USR7_CY /LMPC/USR8_CY /LMPC/USR9_CY /LMPC/USR10_CY /LMPC/USR11_CY /LMPC/USR12_CY /LMPC/USR13_CY /LMPC/USR14_CY /LMPC/USR15_CY /LMPC/USR16_CY /LMPC/USR17_CY /LMPC/USR18_CY /LMPC/USR19_CY /LMPC/USR20_CY	On single object
/LMPC/ CL_DP_ENQUEUE	Order locks (icon)	/LMPC/DELNR_CY	/LMPC/ ENQUE_ICON_CY	On list

Data Provider	Description	Data provider reads fields	Data provider fills fields	Usage
/LMPC/CL_DP_GAP	Calculate scheduling gaps	ARBPL_CR	/LMPC/STRTGAP_CY	On list
		WERKS_CR	/LMPC/LGTHGAP_CY	
		/LMPC/ FLAG_EIGP_CY		
		FSTAD_KB		
		FSTAD_KB		
		FSTAU_KB		
		/LMPC/DELNR_CY		
		KAPID_KB		
		FENDD_KB		
		FENDU_KB		
/LMPC/ CL_DP_MARC	Plant material data	AENKZ_TC	_MC fields	On single object
		MATNR_MA		
		WERKS_CR		
/LMPC/ CL_DP_MAT_ADD	Additional material data for units of measure	MATNR_MA	/LMPC/AMEINH1_MA	On list
		MEINS_MA	/LMPC/UMREN1_MA	
		PLNUM_PA	/LMPC/QAME1_MA	
		GSMNG_PA	/LMPC/AMEINH2_MA	
		AUFNR_FA	/LMPC/UMREN2_MA	
		GAMNG_FA	/LMPC/QAME2_MA	
			/LMPC/AMEINH3_MA	
			/LMPC/UMREN3_MA	
			/LMPC/QAME3_MA	
			/LMPC/AMEINH4_MA	
			/LMPC/UMREN4_MA	
			/LMPC/QAME4_MA	

Data Provider	Description	Data provider reads fields	Data provider fills fields	Usage
/LMPC/ CL_DP_MEASURES	Measures	WERKS_CR	OPEN_MEASURES_ME	On list
		MATNR_MA	RESUBMIS- SION_DATE_ME	
			RESUBMIS- SION_FLG_ME	
			RESUBMIS- SION_NOTE_ME	
			COMMENT_NOTE_ME	
			NUM_MEAS_ME	
			MEASURE_ID_ME	
			DESCRIPTION_ME	
			FINISHED_UNTIL_ME	
/LMPC/ CL_DP_PRODVER	Production version	MATNR_MA	VERID_PV	On list
		WERKS_CR	VERS_TEXT_PV	
		VERID_FA	ADATU_PV	
		VERID_PA	BDATU_PV	
			MDV02_PV	
/LMPC/ CL_DP_PS_AFAB	PS: Data for relation- ship	AUFPL_AV	/LMPC/FFSTAD_CY	On list
		APLZL_AV	/LMPC/SFENDD_CY	
		FENDD_KB	/LMPC/FFSTAU_CY	
		FENDU_KB	/LMPC/SFENDU_CY	
		/LMPC/SFENDD_CY	/LMPC/DVG_CY	
		/LMPC/SFENDU_CY	/LMPC/DNF_CY	
		AUFNR_FA	/LMPC/DVGE_CY	
		VORNR_AV	/LMPC/DNFE_CY	
		FSTAD_KB	/LMPC/VGAUFNR_CY	
		FSTAU_KB	/LMPC/VGVORNR_CY	
		/LMPC/FFSTAD_CY	/LMPC/NFAUFNR_CY	
		/LMPC/FFSTAU_CY	/LMPC/NFVORNR_CY	

Data Provider	Description	Data provider reads fields	Data provider fills fields	Usage
/LMPC/CL_DP_RTRC	Routing and recipe	/LMPC/DELNR_CY	VGW01_RR	On list
		VORNR_KB	VGE01_RR	
		UVORN_AV	VGW02_RR	
		AUFNR_FA	VGE02_RR	
		PLNTY_KB	VGW03 _RR	
		PLNNR_KB	VGE03_RR	
		PLNAL_KB	VGW04 _RR	
			VGE04_RR	
			VGW05_RR	
			VGE05_RR	
			VGW06 _RR	
			VGE06_RR	
			ANZMA _RR	

Data Provider	Description	Data provider reads fields	Data provider fills fields	Usage
/LMPC/ CL_DP_SD_DATA	Sales Documents	KDAUF_PA	KDAUF_SD	On list
		KDPOS_PA	KDPOS_SD	
		KDAUF_AUFK_FA	ERDAT_SD	
		KDPOS_AUFK_FA	ERZET_SD	
		/LMPC/ DMD_DELKZ_CY	ERNAM_SD	
			NETPR_SD	
		/LMPC/ DMD_EXTRA_CY	NETWR_SD	
			WAERK_SD	
			VDATU_SD	
			LPRIO_SD	
			BSTKD_SD	
			KUNNR_SD	
			KNAME1_SD	
			KVGR1_SD	
			KVGRBEZ1_SD	
			KVGR2_SD	
			KVGRBEZ2_SD	
			KVGR3_SD	
			KVGRBEZ3_SD	
			KVGR4_SD	
			KVGRBEZ4_SD	
			KVGR5_SD	
			KVGRBEZ5_SD	
/LMPC/ CL_DP_STATUS	Data provider for status display	OBJNR_FA	/LMPC/SSKOX_CY	On single object
		SPLIT_KB	/LMPC/ASKOX_CY	
		OBSTA_KB	/LMPC/SSVOX_CY	
		KBSTA_KB	/LMPC/ASVOX_CY	
			VSTTXT_AV	
			/LMPC/ FLAG_EIGP_CY	

Data Provider	Description	Data provider reads fields	Data provider fills fields	Usage
/LMPC/CL_DP_STD	Basic data for the capacity planning table	INDEX_TC STRUKTUR_TC	_CR fields _KB fields _KO fields _AV fields _FA fields _PA fields _MA fields _KK fields _PE fields Of those fields, only the ones that can be read from the capacity planning table are filled. EBELN_AV EBELP_AV /LMPC/ POOL_GUID_FA KRUESOLL_KB KBEASOLL_KB KABRSOLL_KB CY_SEQNR_FA CY_SEQNRV_AV SEQNR_PA BERID_FA WERKS_FA PLNUM_ZG_FA	On single object

Data Provider	Description	Data provider reads fields	Data provider fills fields	Usage
/LMPC/ CL_DP_STOCK	Material stock information	AUFNR_FA	LABSTAM_ST	On list
		BERID_FA	INSMEAM_ST	
		CHARG_FA	EINMEAM_ST	
		PLNUM_PA	GSBSTBM_ST	
		BERID_PA	LABSTBM1_ST	
		MATNR_MA	INSMEBM1_ST	
		WERKS_MC	EINMEBM1_ST	
		STKO1_SP	GSBSTBM1_ST	
		STKO2_SP	LABSTBM2_ST	
		STKO3_SP	INSMEBM2_ST	
		STKO4_SP	EINMEBM2_ST	
		STKO5_SP	GSBSTBM2_ST	
		CHNRKP1_SP	LABSTBM3_ST	
		CHNRKP2_SP	INSMEBM3_ST	
		CHNRKP3_SP	EINMEBM3_ST	
		CHNRKP4_SP	GSBSTBM3_ST	
		CHNRKP5_SP	LABSTBM4_ST	
			INSMEBM4_ST	
			EINMEBM4_ST	
			GSBSTBM4_ST	
			LABSTBM5_ST	
			INSMEBM5_ST	
			EINMEBM5_ST	
			GSBSTBM5_ST	

Data Provider	Description	Data provider reads fields	Data provider fills fields	Usage
/LMPC/ CL_DP_USER_001	Ranges of coverage and exception messages	AENKZ_TC	/LMPC/BERW1_CY	On single object
		PLNUM_PA	/LMPC/IREIW_CY	
		MATNR_PA	/LMPC/AUSLT_CY	
		PWWRK_PA	/LMPC/AUSKT_CY	
		BERID_PA	/LMPC/UMDAT_CY	
		PLNUM_PA		
		MATNR_MA		
		WERKS_FA		
		AUTYP_FA		
		AUFNR_FA		
/LMPC/ CL_DP_USER_002	Technical data	PLNUM_PA	/LMPC/ POOL_GUID_CY	On single object
		ZZPOOL_GUID_PA	/LMPC/DELNR_CY	
		/LMPC/ POOL_GUID_FA	GRUPPE_CY	
		AUFNR_FA	KOMBI_CY	
		GRUPPE_TC	/LMPC/GAMNG_CY	
		KOMBI_TC	/LMPC/GAMEIN_CY	
		VORNR_KB	/LMPC/VORNR_CY	
		WERKS_CR	/LMPC/SYDATUM_CY	
		OBJID_CR	/LMPC/ HIER_LEAF_CY	
/LMPC/ CL_DP_USER_003	Quantities	KRUEREST_KB	/LMPC/KBREST_CY	On single object
		KBEAREST_KB	/LMPC/KEINH_CY	
		KABRREST_KB	/LMPC/OMENG_CY	
		KABRREST_KB	/LMPC/OMEIN_CY	
		KABRREST_KB	/LMPC/VFMNG_CY	
		MEINS_PA	/LMPC/GSBTR_CY	
		VFMNG_PA		
		INDEX_TC		
		STRUKTUR_TC		
		AUFNR_FA		
		GSBTR_PA		

Data Provider	Description	Data provider reads fields	Data provider fills fields	Usage
/LMPC/ CL_DP_USER_101	Remaining capacity requirement	SENDD_KB	/LMPC/KBRESTD_CY	On single object
		SENDU_KB	/LMPC/KBRESTZ_CY	
		SSSBD_KB		
		SSSBZ_KB		
		SSTAD_KB		
		SSTAU_KB		
		KRUESOLL_KB		
		KBEASOLL_KB		
		KABRSOLL_KB		
		/LMPC/KBREST_CY		
/LMPC/ CL_DP_USER_102	Material master classification data	PLNUM_PA	/LMPC/ATWTB_CY	On single object
		MATNR_PA		
		AUFNR_FA		
		AUTYP_FA		
		MATNR_MA		
/LMPC/ CL_DP_USER_103	Leading production resource/tool	PLNUM_PA	LEADFHKTX_CY	On single object
		MATNR_PA		
		PLWRK_PA		
		MATNR_MA		
		WERKS_FA		
		FSTAD_KB		
/LMPC/ CL_DP_USER_104	Planning availability and buffer	PLNUM_PA	/LMPC/STODA_CY	On list
		WEBAZ_PA	/LMPC/RQDBFF_CY	
		AUFNR_FA		
		/LMPC/DELNR_CY		
		PEDTR_PA		
		GLTRP_FA		
		/LMPC/BDTERM_CY		
		WERKS_CR		

Data Provider	Description	Data provider reads fields	Data provider fills fields	Usage
/LMPC/ CL_DP_USER_STAT	Status groups	AUFNR_FA PLNUM_PA OBJNR_FA STATS_FA	/LMPC/ FA_STATUS1_CY /LMPC/ FA_STATUS2_CY /LMPC/ FA_STATUS3_CY /LMPC/ FA_STATUS4_CY /LMPC/ FA_STATUS5_CY	On single object

4.9.2 Configuration of Data Providers

This section explains the setting options for individual data providers. Due to their complexity, the data providers presented here require the setting of parameters.

4.9.2.1 Data Provider /LMPC/CL_DP_BED_2 Configuration: Requirement Date MD09

Determination of the requirement date according to the logic of transaction MD09.

> **i Note**
>
> The use of this data provider requires intensive concentration on this topic. If this data provider is to be used, we recommend that you commission consulting support for the system from SAP.

Data Provider Customizing

The data provider /LMPC/CL_DP_BED_2 is entered and activated in transaction /LMPC/DPRO in Customizing for the data provider.

Application in list.

Data Provider Customizing

Parameters

Example Configuration of Parameters

Parameters for Data Provider

Parameters	Description
PEGG_HRS	Parameter for time period of redetermination.
	Period within which the data is not redetermined.
	The specification is made in the number of hours. If no parameter is specified, the default time period is 1 hour.
	When the data provider is called, the entries in table /LMPC/PEGG determine when the data was last read. If the reading date is further in the past than the set period, the system generates the data again.
	Optional parameter.
PEGG_DAYS	Parameter for storage period.
	It specifies the number of days, calculated back from today into the past, for which data records are to remain stored. A date is calculated and compared with the latest end date of the order.
	If no parameter is specified, the default date is 10 days in the past.
	Optional parameter.
SEL_MODE	Item parameter.
	If several pegged requirements are displayed for an order in transaction MD09, the first pegged requirement is always determined and the order path is read for it.
	This is the logic if the parameter SEL_MODE is not maintained, is empty, or the field "LOW" has the value "F" (First).
	If the parameter value is set to "L" (Last), the last demand of several pegged requirements is always selected and the order path is read.
	Optional parameter.

| Parameters	Description
BUFFR_ON	Parameters for order buffers.
	This parameter is not set in the standard system.
	You can use this parameter to activate the buffer table in the data provider (LOW = "X").
	The data from the table /LMPC/PEGG is then buffered in the data provider and is not read from the database each time a refresh is executed.
	A small improvement in system performance can be achieved as a result.
	However, if the parameter is set to active, the S_BED2 action code should not be used. The action code could determine the data, but because the buffer is active, the newly determined data is overwritten by the missing data from the buffer.
	The results only become visible when a reload is performed.
	Optional parameter.
DRREL_ON	Parameter for reading production orders.
	If this parameter is set, the system switches on reading data for production orders that have already been released.
	Optional parameter.

Parameters	Description
Requirement Time Parameters	For each order type, all other parameters that are not yet listed specify the database field from which the requirement time is read.
	You can use the F4 help of the "Parameter ID" field to select the MRP element for which the requirement time field is defined. The description for the parameter shows which table the system reads from.
	The field name of the database field is entered in the "LOW / Parameter Value" field.
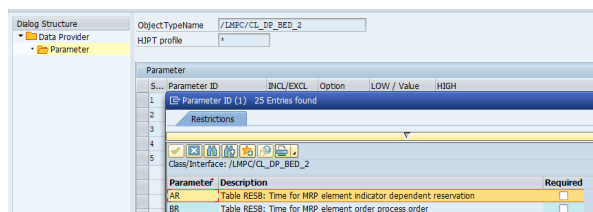
Parameter Selection Time

Parameter maintenance is optional.

If no parameters are maintained, predefined standard fields are read:

Table	Demand Time Field
RESB	BDZTP
VBEP	EZEIT
LIPS	MBUHR
EKET	TIME

Prerequisites

- The data provider must run after the data provider /LMPC/CL_DP_USER_002 and after the data provider /LMPC/CL_DP_BED.
- The data provider must run before the data provider to determine the /LMPC/CL_DP_ALERT alerts. If alerts for requirement dates are set, the data provider /LMPC/CL_DP_ALERT accesses the requirement date of the data providers /LMPC/CL_DP_BED and /LMPC/CL_DP_BED_2.

Constraints

- For performance reasons, the system calls the determination of the requirement date using the function module /LMPC/GEN_PEGGING_DATA in parallel processing. This module fills table /LMPC/PEGG_DATA. The module is only called when the data is read again, i.e. when calling up the planning table or when reloading. The module is not called during a refresh. During a refresh, only the saved data is read from the database table. You can use the parameters to set the period after which the data is to be determined again and for how long the data remains stored in the database. When function module /LMPC/GEN_PEGGING_DATA is called, the system checks whether the data is up-to-date and only triggers a redetermination if the data is older than the set period.

- Since the data is determined in parallel processing, it is not available if the planning table is called the first time with a specific selection. We therefore recommend that you refresh the data after a few minutes. The data determined in the background is then read. If you want the data to be displayed immediately, you can use the action code S_BED2 to execute data determination immediately for selected operations.
- The data provider /LMPC/CL_DP_BED_2 cannot replace the data provider /LMPC/CL_DP_BED, as the available quantity is not calculated.
- The data provider only reads data for planned orders, production orders and process orders. No other order types are taken into account.
- The sold-to party (customer number) is only determined for sales orders (VC), SD scheduling agreements (VE, VF) and for deliveries (VJ).
- The following pegged requirements can be determined:

MRP Element	Description
AR	Order reservation
BR	Process order
FE	Production order
IH	Maintenance order
MR	Reservation
NE	Collective order
PA	Planned order
SB	Dependent requirement
UR	Stock transfer reservation
U1	Release order for stock transport order
VA	Request
VB	Offer
VC	Order
VE	SD scheduling agreement
VF	SD scheduling agreement; external service agent
VG	Contract
VI	Free-of-charge delivery
VJ	Delivery
VW	External sales order
VZ	Unchecked delivery

- The following pegged requirements cannot be determined:

MRP Element	Description
BA	Purchase requisition
BE	Purchase order schedule line
JI	JIT call

MRP Element	Description
LA	Advanced shipping notification
LE	Scheduling agreement delivery schedule line
LF	JIT delivery schedule
LL	Forecast delivery schedule
MS	Direct production
TB	Transportation requirements
UL	Reservation in another plant
U2	Release order for stock transport requisition
U4	Release order for stock transport scheduling agreement
All other items not listed here	

- The data provider /LMPC/CL_DP_BED simulates the requirements date using a heuristic that also considers data statuses that have not been saved. This logic works with the dates of the capacity requirements. These are constantly updated during planning activities in the LMPC HJPT planning table. The data provider /LMPC/CL_DP_BED_2 does not work with the simulative data. It reads the data from the database only.

Background Program /LMPC/PEGG_DATA_GEN

The program /LMPC/PEGG_DATA_GEN has been developed to allow you to call MD09 data determination independently of the calls of the LMPC HJPT planning table.

It can be called directly using transaction /LMPC/MD09_DATA or scheduled in the background using a job. This means that data from the MD09 can always be kept up-to-date.

For this program, an LMPC HJPT overall profile is required to read the orders. Only use an LMPC HJPT overall profile for which the data provider /LMPC/CL_DP_BED_2 has been deactivated. The program already contains the logic of the data provider. Since the program uses the same source code as the data provider, the data provider must not be activated for the program because this can lead to deadlocks.

Related Information
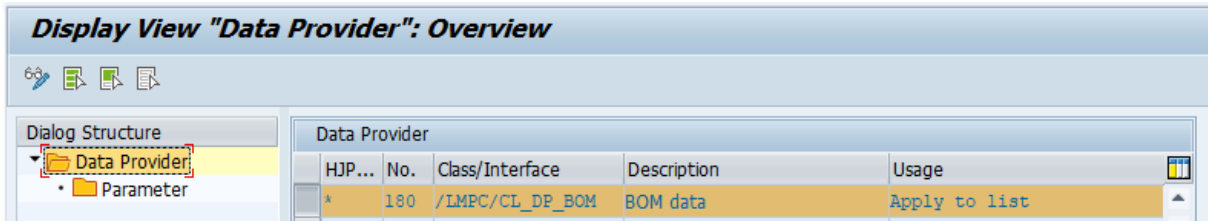
Data Provider /LMPC/CL_DP_BED_2

4.9.2.2   Data Provider /LMPC/ CL_DP_BOM Configuration: BOM Information

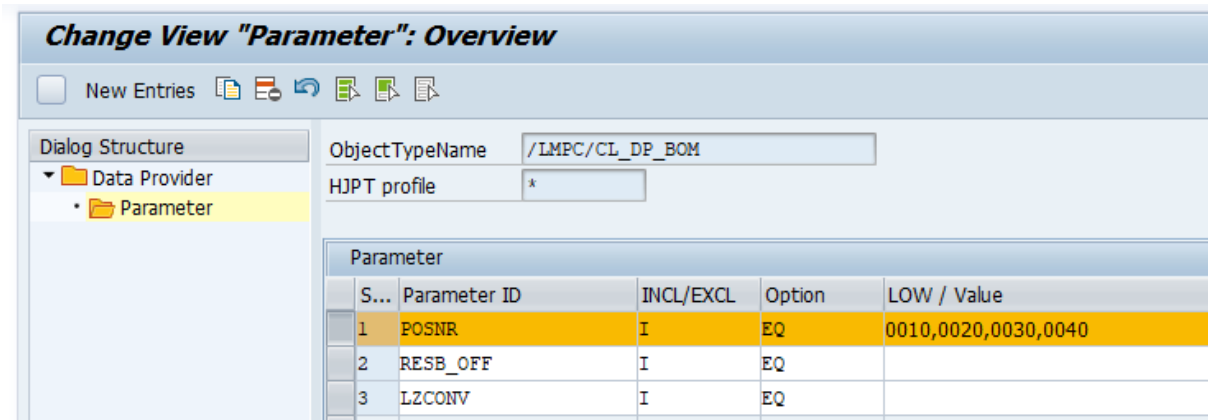Display BOM information

Data Provider Customizing

For the fields to be filled, the data provider /LMPC/CL_DP_BOM must be entered and activated in the Customizing transaction /LMPC/DPRO.

The usage is based on lists.

Data Provider CL_DP_BOM

Parameter

Example of Parameter Setting for Data Provider

Parameters for Data Provider

Parameter	Description
POSNR	Parameter for BOM items.
	The parameter "POSNR" is used to specify the BOM items that are to be read.
	You can specify one, 2, 3.4, or 5 BOM items.
	The data provider fills the fields for the BOM items accordingly.
	The items are entered as a comma-separated list without spaces. The BOM item is a four-digit number.
	If only one item is specified, only the BOM Component 1 and Material Short Text 1 fields are filled.
	If the parameter is not maintained, data providers automatically read the first 5 BOM items.
	In the case of a BAdI implementation, no item numbers need to be specified.

Parameter	Description
RESB_OFF	Parameter for quantities and batches.
	The requirements quantities and the batch numbers are read via the table RESB.
	Since this reading can affect system performance, it is possible to switch off reading from this table using parameter RESB_OFF. The corresponding fields are then no longer filled.
LZCONV	Parameters for leading zeros.
	If this parameter is set (="X"), the leading zeros for reading the material short texts are added to the material numbers of the BOM components and removed again after reading. The parameter is a technical parameter and is not usually required.

Enhancement Options

In the basic setting of the data provider, the system always reads the material number and the material short text for the BOM items specified in Customizing.

If you wish to implement a different logic with variable items, for example, you can implement a BAdI:

Enhancement spot /LMPC/EHS_DATA_PROVIDER.

BAdI /LMPC/EHD_DP_BOM.

The enhancement spot is in the package /LMPC/DPRO.

You can use the method DETERMINE_DATA_FOR_LIST to fill the buffer of the data provider with the selection of the BOM items using customer-specific logic.

If a BAdI is implemented, the parameter POSNR can be omitted in Customizing for the data provider, since the system uses the logic in the BAdI to read the BOM items.

Related Information

Data Provider /LMPC/CL_DP_BOM

# 4.9.2.3 Data Provider /LMPC/CL_DP_COMB_USRFLD Configuration: Merge data

Data provider for combining data in a field

You can use this data provider to write data from fields of the ALV Grid of the LMPC HJPT planning table to other fields of the ALV Grid. This reduces the number of columns displayed.

Data Provider Customizing

The data provider is entered and activated in transaction /LMPC/DPRO.

"Apply to List" is entered as the usage.
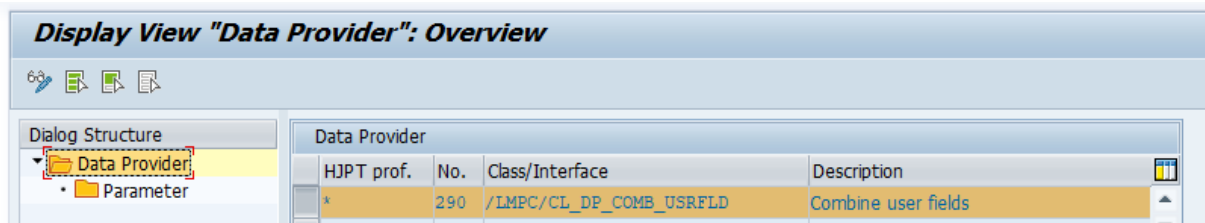
Data Provider CL_DP_COMB_USRFLD

The data provider should run as one of the last data providers, so that all data that is to be merged already exists.

Parameter

Parameters for Data Provider

Parameter	Description
FLDREF	Parameter for field reference.
	This parameter is used to enter the source and target fields.
	The field "LOW" contains the information about the field from which the value is to be read.
	The "HIGH" field contains the information about the field to which the respective value is to be written.
	Field "INCL/EXCL" can be used to control whether the value should be overwritten or whether the value should be appended.
	If the field has the value "I", it is "included" and the values are appended.
	All other values (blank or "E") are overwritten.

→ **Remember**

The data provider is delivered without configuration. The configuration must be set up in the customer system according to the customer's individual requirements. If you have any questions, contact your LMPC consultant.

Example of a configuration:
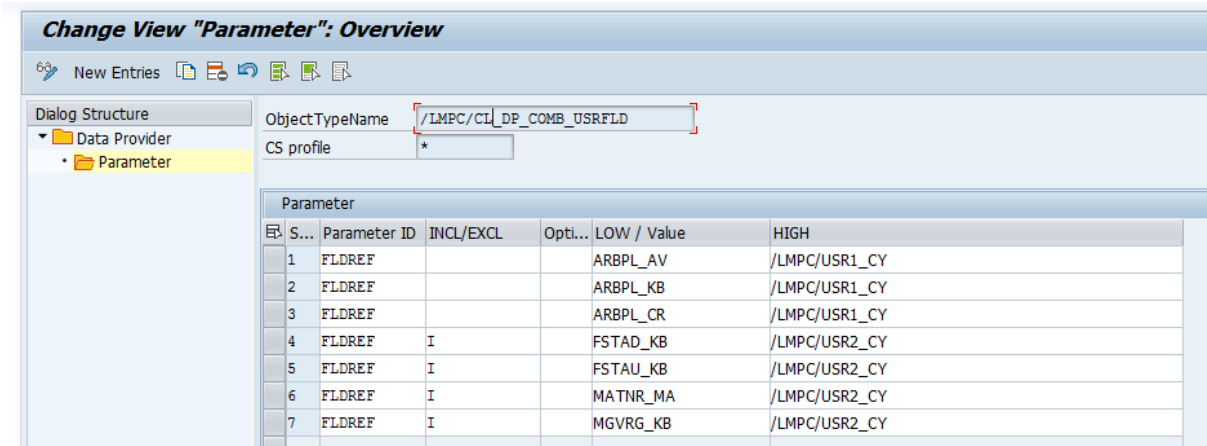
Example Configuration

The name of the work center is transferred from three individual fields, ARBPL_AV, ARBPL_KB, and ARBPL_CR to user field 1 /LMPC/USR1_CY with Overwrite.

The following data is summarized in user field 2 /LMPC/USR2_CY: Earliest start date field FSTAD_KB , earliest start time field FSTAU_KB, material number field MATNR_MA, operation quantity field MGVRG_KB.

Result in the ALV Grid:

User field 1	User field 2
MA3	16.01.2018 11:30:00 LMPC_FERT_34 18.000
MA3	16.01.2018 13:30:00 LMPC_FERT_12 2.000
MA3	17.01.2018 06:00:00 LMPC_FERT_12 33.000

Result in the ALV Grid

You can change the column headings for the fields with the transaction /LMPC/FLD. Adjusting ALV Grid Columns in Transaction /LMPC/FLD [page 228]

Related Information

Data Provider /LMPC/CL_DP_COMB_USRFLD

4.9.2.4 Data Provider /LMPC/CL_DP_DB_FLDS Configuration: Read any data

Read data from database tables

The data provider /LMPC/CL_DP_DB_FLDS is used to read any fields from database tables and to display them in the ALV grid for the HJPT planning table. This data provider enhances the LMPC standard with the option of reading fields that are not supported in the HJPT planning table. For example, Z fields of database tables.

There are 20 fields available to be filled:

- /LMPC/USR1 User field 1
- /LMPC/USR2 User field 2
- /LMPC/USR3 User field 3
- /LMPC/USR4 User field 4
- /LMPC/USR5 User field 5
- /LMPC/USR6 User field 6
- /LMPC/USR7 User field 7
- /LMPC/USR8 User field 8
- /LMPC/USR9 User field 9
- /LMPC/USR10 User field 10
- /LMPC/USR11 User field 11
- /LMPC/USR12 User field 12
- /LMPC/USR13 User field 13
- /LMPC/USR14 User field 14
- /LMPC/USR15 User field 15
- /LMPC/USR16 User field 16
- /LMPC/USR17 User field 17
- /LMPC/USR18 User field 18
- /LMPC/USR19 User field 19
- /LMPC/USR20 User field 20

Data provider configuration takes place in transaction /LMPC/DPRO.

That is where the data provider is entered and activated.

The application is based on single object.
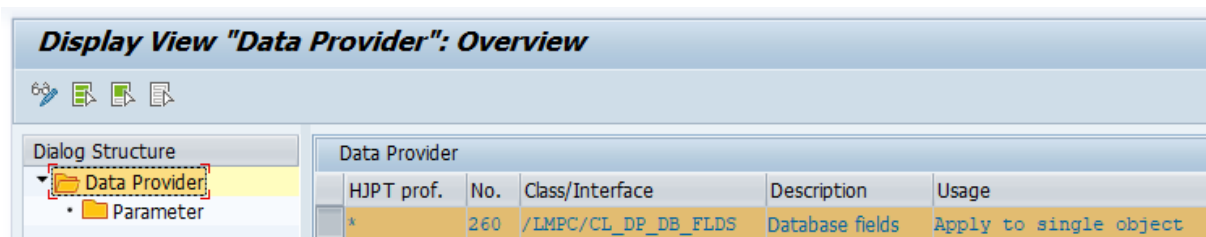
Data Provider CL_DP_DB_FLDS

i Note

As the decision about which fields are read depends on the customer's individual requirements, this data provider is delivered without settings in the LMPC standard delivery. The setting must be made in the customer system. Your LMPC consultant can be of assistance.

Three different parameters are required to read a table field:

- TABLEX
- FIELDX
- KEYX

The "X" of each parameter represents the number of the user field.

The table name is defined in the parameter TABLE.

The field of the table is defined in the parameter FIELD.

The access must then be set using the parameter KEY.

For this, all key fields of the table must be specified, as only one entry is ever read. The KEY parameter must be created for each key field of the table.

A fixed value can be specified as the key value. This must be set in quotation marks, for example: AUFNR EQ '000001200803'.

However, dynamic value assignment can also take place from LMPC HJPT fields. In this case, the required field is specified in the format &FIELDNAME&. The field must come from the structure /LMPC/HJPT_F01.

Syntax: <FIELDNAME> <COMPARISON OPERATOR> <FIELD VALUE>.

The field name of the table field is used as the field name. The usual operators such as EQ, GT, LT, =, >=, <= can be used as relational operators.

Multiple KEY parameters are automatically linked by the data provider with AND.

Example

Four different table fields are accessed:

- Table MARC, field DISPO
- Table AFKO, field ZZLMPC_PRODUCTION_LINE
- Table MKAL, field ADATU
- Table PLAF, field ZZPOOL_GUID

Configuration in the data provider:

	SNo	Parameter ID	INCL/EXCL	Option	LOW / Value
	1	TABLE1		EQ	MARC
	2	FIELD1	I	EQ	DISPO
	3	KEY1	I	EQ	MATNR EQ &MATNR_MA&
	4	KEY1	I	EQ	WERKS EQ &WERKS_MC&
	5	TABLE2	I	EQ	AFKO
	6	FIELD2	I	EQ	ZZLMPC_PRODUCTION_LINE
	7	KEY2	I	EQ	AUFNR EQ &AUFNR_FA&
	8	TABLE3	I	EQ	MKAL
	9	FIELD3	I	EQ	ADATU
	10	KEY3	I	EQ	MATNR EQ &MATNR_MC&
	11	KEY3	I	EQ	WERKS EQ &WERKS_MC&
	12	KEY3	I	EQ	VERID EQ &VERID_FA&
	13	TABLE4	I	EQ	PLAF
	14	FIELD4	I	EQ	ZZPOOL_GUID
	15	KEY4	I	EQ	PLNUM EQ &PLNUM_PA&

Example Configuration of Data Provider

→ Tip

The data provider allows only one reading of a database table. Joins on database tables are not supported. You can use a trick to implement a join. To do this, you separate the query into two separate database queries. First, you fill customer fields as help fields with the information from the first table that you need for the join to the second table. These fields can be accessed and read from the second database table. To do this, the first query must take place before the second query. This is realized with the sequence of the Customizing parameter.

! Restriction

Twenty user fields (user field 1 to ...20) are fields with a maximum length of 40 characters. If the system reads from a database field with a longer number of characters, only the first 40 characters are displayed.

Related Information

Data Provider /LMPC/CL_DP_DB_FLDS

4.9.2.5 Data Provider /LMPC/CL_DP_ENQUEUE Configuration: Read Locks

Read locks for orders

The data provider /LMPC/CL_DP_ENQUEUE reads the locks for the orders and displays them in the ALV grid of the HJPT planning table.

The locks are set by the capacity planning table, which is part of the HJPT planning table.

Since the locks are not set in the /LMPC/ coding, you cannot influence lock setting.

In the test profiles delivered for the capacity planning table, the lock behavior is set in such a way that orders are only locked when they are changed.

It is possible to convert the lock behavior.

The locking behavior is defined in the control profile of the capacity planning table.

Transaction OPDE.
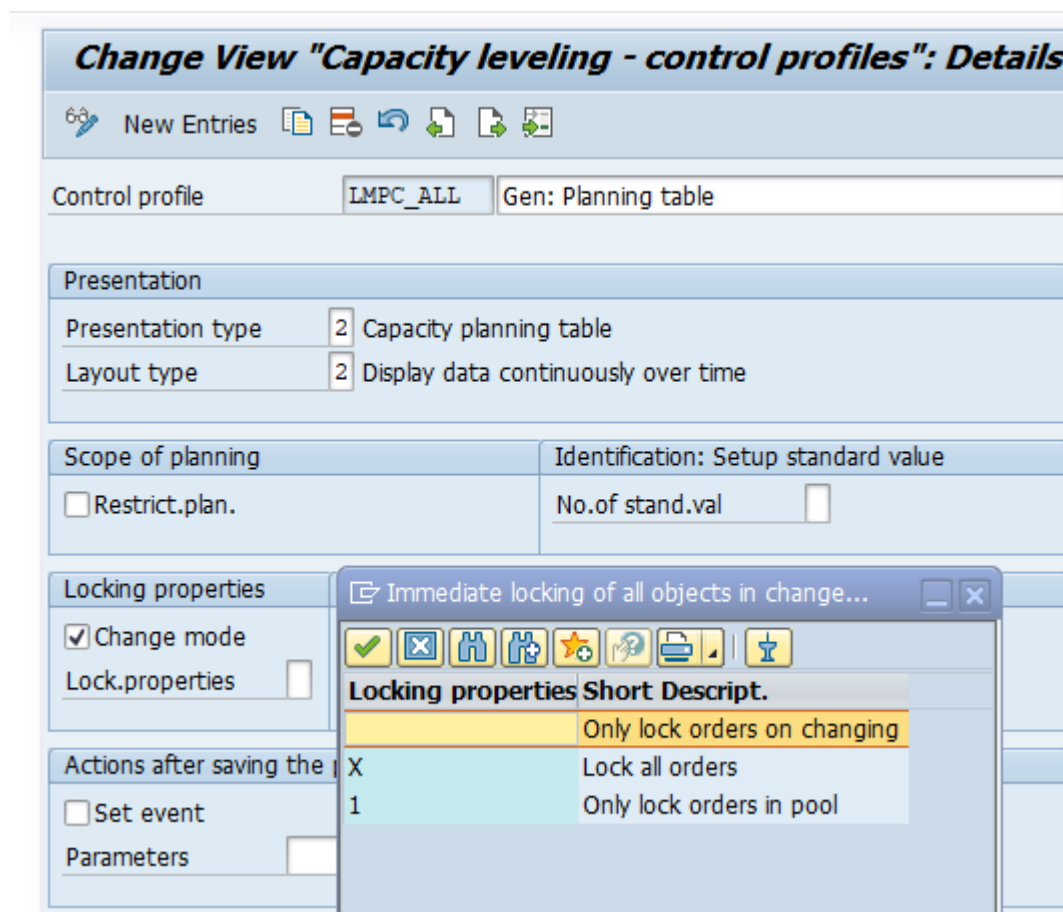
Define Lock Behavior

> **!Restriction**
>
> It is possible to set the lock behavior in such a way that all orders opened in the planning table are locked.
>
> It is also possible to lock all orders in the pool.

These settings are possible.

However, they are absolutely not recommended. The /LMPC/ coding is written for locks when changes are made. If other settings are selected in the customer system, errors that must be returned to these settings are not covered by LMPC Support.

Related Information

Data Provider /LMPC/CL_DP_ENQUEUE
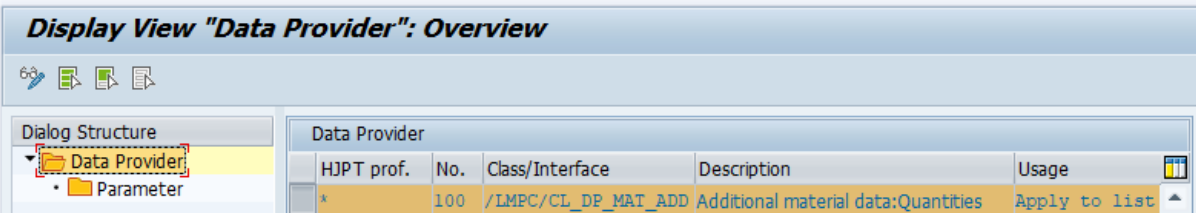
4.9.2.6 Data Provider /LMPC/CL_DP_MAT_ADD Configuration: Additional Material Data

Data provider to convert order quantities using the additional material data into alternative units of measure

Data Provider

Transaction /LMPC/DPRO.

The data provider /LMPC/CL_DP_MAT_ADD must be entered and activated in transaction /LMPC/DPRO with the usage "List".

Data Provider CL_DP_MAT_ADD

The data provider must run after the data provider for the basic data /LMPC/CL_DP_STD. There are no further prerequisites.

Parameter

The data provider has a parameter ROUND. You can use this parameter to activate a rounding function.

If rounding is active, the alternative quantities are rounded to whole numbers.
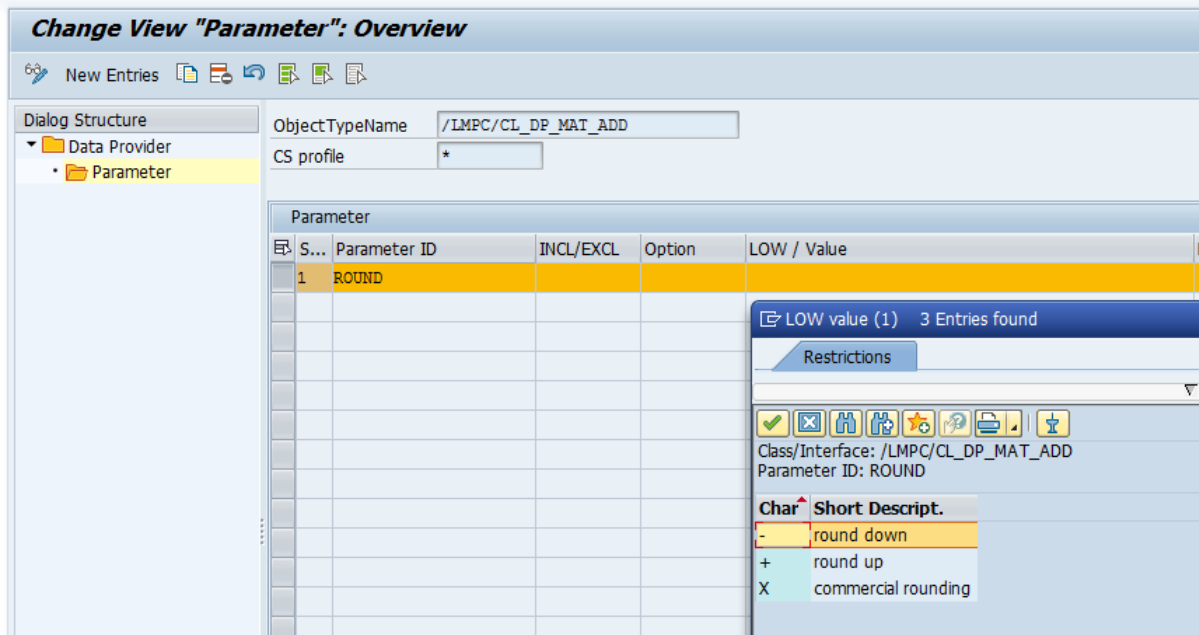
Parameter Values Parameter Round

Options:

- "+" = round up
- "-" round down
- "X" = rounding to two decimal places

Enhancement Options

A change to the logic for determining the component information is possible by using the provided BAdI definition /LMPC/EHD_DP_MAT_ADD in the enhancement spot /LMPC/EHS_DATA_PROVIDER.

A corresponding implementation allows you to edit and change the list of determined alternative units of measure.

The associated interface contains the method DETERMINE_DATA_FOR_LIST for this purpose.

Related Information

Data Provider /LMPC/CL_DP_MAT_ADD

4.9.2.7 Data Provider /LMPC/CL_DP_MEASURES Configuration: Measures

Configuration of measures

Data Provider

The data provider is entered and activated in transaction /LMPC/DPRO.

"Apply to List" is entered as the usage.
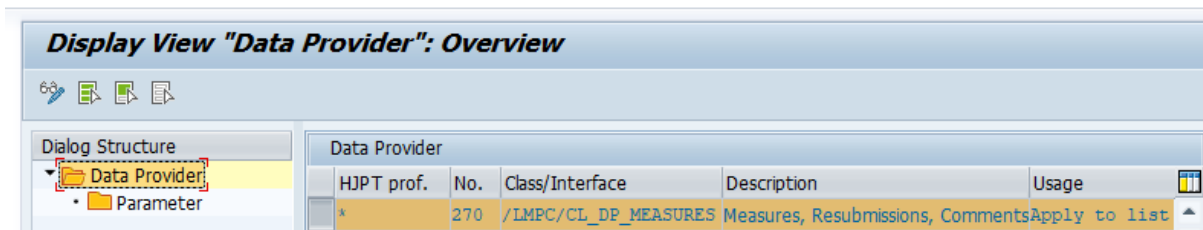
Data Provider CL_DP_MEASURES

Parameter

The data provider has a parameter MEA_LVL (Measures - Level). This parameter must have the value "MP".
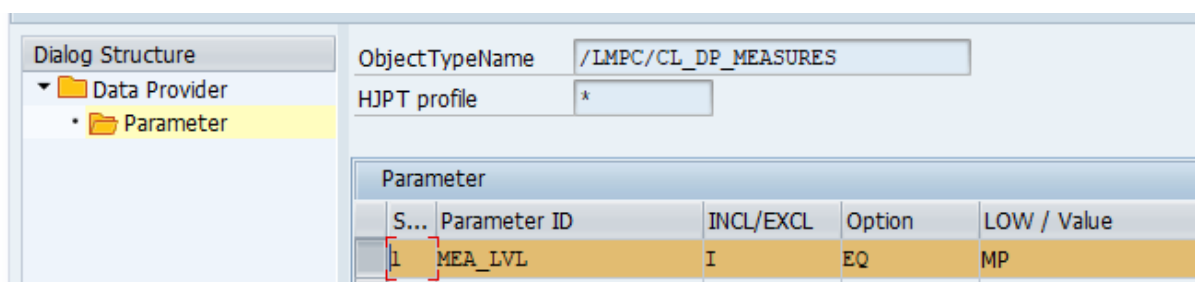
Parameter Customizing

Related Information

S_MCFMEA S_MCFCOM S_MCFRES, Measures, Comments, Resubmissions

4.9.2.8 Data Provider /LMPC/CL_DP_RTRC Configuration: Routing and Recipe

Display data for the routing and recipe

Data Provider

The data provider is entered and activated in transaction /LMPC/DPRO.

"Apply to List" is entered as the usage.
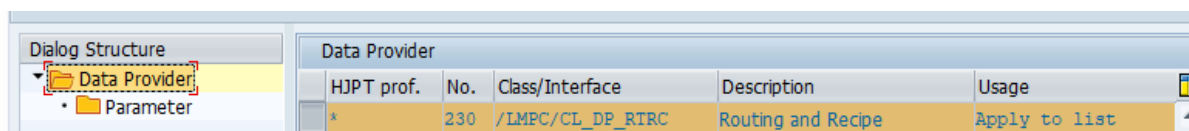
Data Provider CL_DP_RTRC

Parameter

You can use the PHNR parameter to define the behavior for process orders and planned orders in the process industry. If the parameter is not specified or is empty, the values for all phases of the operation are added

together. However, if the parameter is set, only the phase with the index that corresponds to the parameter value is read (1 = 1st phase, 2 = 2nd phase, and so on).

Parameters for Specifying the Phase

Sample configuration:

Example: Read first phase only, do not total

Related Information

Data Provider /LMPC/CL_DP_RTRC

4.9.2.9   Data Provider /LMPC/CL_DP_STOCK Configuration: Material Stock

Set up data providers for material stock

Data Provider Customizing

The data provider is entered and activated in transaction /LMPC/DPRO.

"Apply to List" is entered as the usage.

Data Provider CL_DP_STOCK

The data provider must run after the data provider /LMPC/CL_DP_BOM for the HJPT BOM data to exist.

Parameters

If no parameters are set for the data provider, all stock information is read.

To improve system performance, you can switch off reading stock information for the individual materials using parameters in the data provider.

Parameter selection:

Parameter for Deactivation of Stock Information

Parameters for Data Provider

Parameter	Description
BATCH_OFF	You can use this parameter to deactivate the reading of stock information for the batch. Only the plant stock data is displayed.
BOM_MAT1-5	Parameter to switch off stock information for BOM material 1 – 5.
ORD_MAT	Parameter for deactivation of stock information for the order material.

Sample configuration:

Example: Deactivation of Stock Information for Order Material

Related Information

4.9.3 Customer Enhancements for Data Providers: Display Additional Data

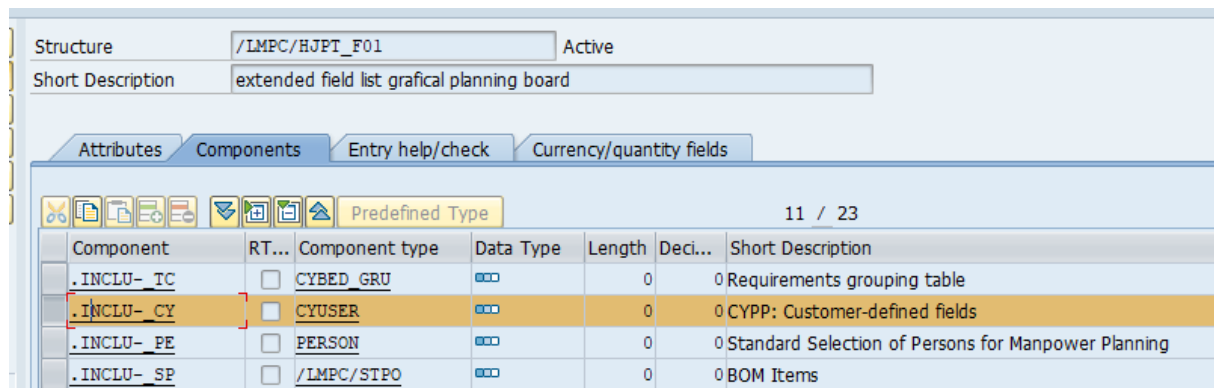Display Additional Data in the HJPT Planning Table

Two enhancements are necessary to be able to display additional data in the ALV Grid of the HJPT planning table.

- Enhancement of the HJPT field list.
- Creation of an additional data provider.

Enhancement of the HJPT Field List

The structure /LMPC/HJPT_F01 on which the LMPC ALV Grid is based is in the package /LMPC/BASE.

This structure contains a structure CYUSER as an include.

Structure CYUSER

The structure CYUSER contains an include CI_CYUSER.

Include CI_CYUSER

The structure CI_CYUSER can be implemented in the customer system and enhanced with fields.

Additional Data Provider

To create your own data provider for the HJPT planning table, create a class in the customer namespace and implement the /LMPC/IF_DATA_PROVIDER interface. You then have the following methods available:

Method
/LMPC/IF_DATA_PROVIDER~ON_BEFORE_UPDATE
/LMPC/IF_DATA_PROVIDER~PROVIDE_DATA_FOR_LIST
/LMPC/IF_DATA_PROVIDER~PROVIDE_DATA_FOR_LINE
/LMPC/IF_DATA_PROVIDER~GET_PARAMETER_LIST

Data Provider Methods

Methods in the Data Provider

Method	Description
ON_BEFORE_UPDATE	Initialization method for buffering data.

Method	Description
PROVIDE_DATA_FOR_LIST	Read the data in the complete list.

Read the data in the complete list.

The method is provided with the entire ALV Grid data record. Preferred method for reading the data because less runtime is required.

Parameter:

Ty.	Parameter	Type spec.
▷▣	IT_BED_GRU	TYPE /LMPC/CYBED_GRU_TT
▷▣	IT_GRU_EIN	TYPE /LMPC/CYGRU_EIN_TT
▷▣	IT_PARAMS	TYPE /LMPC/PARAM_TT OPTIONAL
▷▣▶	C_DATA_LIST	TYPE /LMPC/TAB_HJPT_F01

Signature Method PROVIDE_DATA_FOR_LIST

- **IT_BED_GRU:** Table of requirements grouping.
- **IT_GRU_EIN:** Table of dispatched elements.
- **IT_PARAMS:** Table of parameters set in Customizing.
- **C_DATA_LIST:** ALV Grid data table.

PROVIDE_DATA_FOR_LINE

Read data per line.

This method is called individually for each ALV Grid line.

Parameter

Ty.	Parameter	Type spec.
▷▣	IT_PARAMS	TYPE /LMPC/PARAM_TT OPTIONAL
▷▣▶	C_DATA_LINE	TYPE /LMPC/HJPT_F01

Signature Method PROVIDE_DATA_FOR_LINE

- **IT_PARAMS:** Table of parameters set in Customizing.
- **C_DATA_LINE:** Single ALV Grid data line.

GET_PARAMETER_LIST

In this method, you can define parameters for the data provider. These parameters are then displayed in the F4 help for the parameters in Customizing for the data providers.

4.10 Transaction /LMPC/AS_CUST LMPC HJPT Planning Table Autostart

Configuration of the automatic start of the HJPT planning table

The autostart function has been created to facilitate work with the HJPT planning table.

You can use transaction /LMPC/HJPT_AS to call up the HJPT planning table without entering any selection parameters. The system immediately displays the work screen of the HJPT planning table. This enables quick and easy access to the planning table during daily work.

The necessary settings for the call are made in the Customizing transaction /LMPC/AS_CUST.

Autostart variants are created for each user name or for all users.

Example Settings /LMPC/AS_CUST

The following fields can be maintained:

Fields HJPT Autostart

Field	Description
No.	Sequence number of the entries.
	This field is the key field of the table. A number can only be assigned once.
	This field is mandatory.
User Name	The user name specifies which user can use the respective variant.
	By entering an asterisk (*), a variant can be made available to all users in the client.
	This field is mandatory.
Autostart	A user can use multiple variants.
	To uniquely define which variant is used to open transaction /LMPC/HJPT_AS for the relevant user name, you must set the indicator for autostart.
	If several entries exist with the autostart indicator for a user, the system uses the first variant found.
	The first variant found for this user is also used if no variant exists with the autostart indicator.
	User-specific variants (user name <> *) are preferred to variants available to all users (user name = *).
HJPT Overall Profile	HJPT overall profile for accessing the HJPT planning table.
	This field is mandatory.

Field	Description
HJPT Variant	Transaction variant for transaction /LMPC/HJPT.
	The selection parameters are defined using the variant.
	This field is mandatory.
Time Profile	The specification of a time profile is optional.
	A time profile is already loaded using the HJPT overall profile and the overall profile maintained there for capacity leveling.
	You can maintain this field if you want to use a different time profile. This means that different users can use a common overall profile, whilst having individual time profiles.
Status	An entry can be deactivated using the status if it is not to be used.

> i Note
>
> If errors exist in the Customizing settings or if settings are missing, the selection screen for transaction /LMPC/HJPT appears when you call transaction /LMPC/HJPT_AS.

Related Information

Transaction /LMPC/HJPT_AS LMPC HJPT Planning Table Autostart

4.11 Transaction /LMPC/STEU LMPC Control Parameters

Basic settings for calling the HJPT planning table

In transaction /LMPC/STEU (control table), cross-profile control parameters are maintained for the LMPC HJPT planning table. The settings in this table are delivered with the LMPC Customizing. You can adapt the settings to your needs.

Control Parameter

Key Field 1	Key Field 2	Value	Description
/LMPC/ALERT_MONITOR	SUBROUTINENPOOL	/LMPC/ALERT_SUBROU-TINES or the customer's Z report	Subroutine pool for alerts. This is the report that contains the coding for alerts. The delivered report cannot be changed because it is in the LMPC namespace. To create alerts in the customer namespace, this report is copied to the customer namespace, and LMPC is made aware of this entry. Transaction /LMPC/ALERT Configuration of Alerts in HJPT ALV Grid [page 238]
/LMPC/CHECK_ENQUEUE	LOOP_COUNTER	10	Number of checks for locks When the data is loaded, the system checks whether there are still locks on the PLAF or AUFK tables (update). This is the number of times the check is repeated until the process continues running. This means that time is gained for the update.
/LMPC/LHJPLATF02	SELECT_ROWS	X | empty	Saves the line selection in the LMPC HJPT planning table after planning table actions
AUTHORITY	CHECK	X | empty	Activates the authorization check. Authorization Check Settings [page 295]
AUTHORITY	OBJECT	Name of the authorization object | empty	Authorization object for the authorization check.
AUTHORITY	PROFILE	X | empty	Activates the authorization check for the HJPT overall profile.

Key Field 1	Key Field 2	Value	Description
BINPT	SAVE	X | empty	Suppresses messages from the storage routine of the capacity planning table. The LMPC HJPT planning table uses the storage routine of the capacity planning table for saving. During the saving process, error messages can be displayed, especially if there are incorrect settings in the system. If you set "X", you can suppress the display of error messages.
DATA_VOLUME	NO_CHECK	X | empty	Suppresses the check for large data records. The HJPT planning table checks the number of data records to be loaded when it is called. If the number exceeds 6000, a warning appears stating that the amount of data is too large. This warning is intended to warn the user about what is likely to be a long runtime and to encourage the user to use the selection to restrict the amount of data. If the warning appears, the user has exceeded the maximum recommended amount of data for the HJPT planning table. It is possible to deactivate this waning by setting the parameter = 'X'. Switching off the check is not recommended. Call LMPC HJPT Detailed Scheduling Planning Table

Key Field 1	Key Field 2	Value	Description
INTERFACE	VERSION	1 | 2	LMPC version.
			1 – Old data interface (no longer relevant).
			2 – Use of data providers (correct setting).
MD04	HOR_ACTIVATE	X | empty	Parameters for the reading horizon of MD04 data.
			If this parameter is set, when the data is read from transaction MD04, the reading period is set to be the same as the time horizon from the time profile of the HJPT overall profile.
			This reduces the runtime.
			As a rule, the standard read horizon of transaction MD04 is very large. This setting reduces the reading horizon to the data required for the HJPT planning table.
			If the parameter is set, the HJPT planning table creates a read rule for transaction MD04 with the name: /LMPC/MP in the system.
			If the parameter is not set, the data is read as stipulated in Customizing for transaction MD04.
MD04	OFFSET_FROM	Whole number value	Start of the selection horizon.
			Only in connection with HOR_ACTIVATE. You can use this parameter to extend the start of the reading horizon by a number of days. A number is entered that represents the number of days by which the reading horizon is extended.

Key Field 1	Key Field 2	Value	Description
MD04	OFFSET_TO	Whole number value	End of the selection horizon. Only in connection with HOR_ACTIVATE. You can use this parameter to extend the end of the reading horizon by a number of days. A number is entered that represents the number of days by which the reading horizon is extended.
OLDDATA	CHECK	X | empty	Enable warning for obsolete data. If you work in two planning tables in parallel in the same work center, the system issues a warning if the data has changed. This can happen if one of the planning tables has been saved and the user has left the data in the other planning board without refreshing it. This setting is recommended.
PRL_PRCS	MAX	Integer | blank	Limits the number of parallel processes. With these settings, you specify the maximum number of parallel processes used when data is processed in the HJPT planning table. If the entry is not maintained, up to 80% of the processes available in the system are automatically used for parallel processing. We recommend that you do not limit the number of processes. This limitation can impair runtime.
SELECTION	ARBPL	X | empty	Enable the work center filter in the ALV grid. Work Center Filter

4.12 Authorization Check Settings

Activate the authorization check for the HJPT planning table

The LMPC HJPT planning table contains the following authorization check options:

All authorization checks are encapsulated in the function group /LMPC/AUTH. The authorization check is not activated during installation.

To activate the authorization check, you must perform the following steps:

- Assignment of the respective authorization object to customer roles.
- Assignment of the roles to the user name.
- Activation of the check by Customizing in the LMPC control table, transaction: /LMPC/STEU.

Related Information

4.12.1 Authorization Check on an HJPT Overall Profile

Set Up Authorization Check When Calling the HJPT Planning Table for an Overall Profile

This unit describes the settings for an authorization check for calling up an HJPT overall profile.

The check is performed on the authorization object ZCSP_PRF.
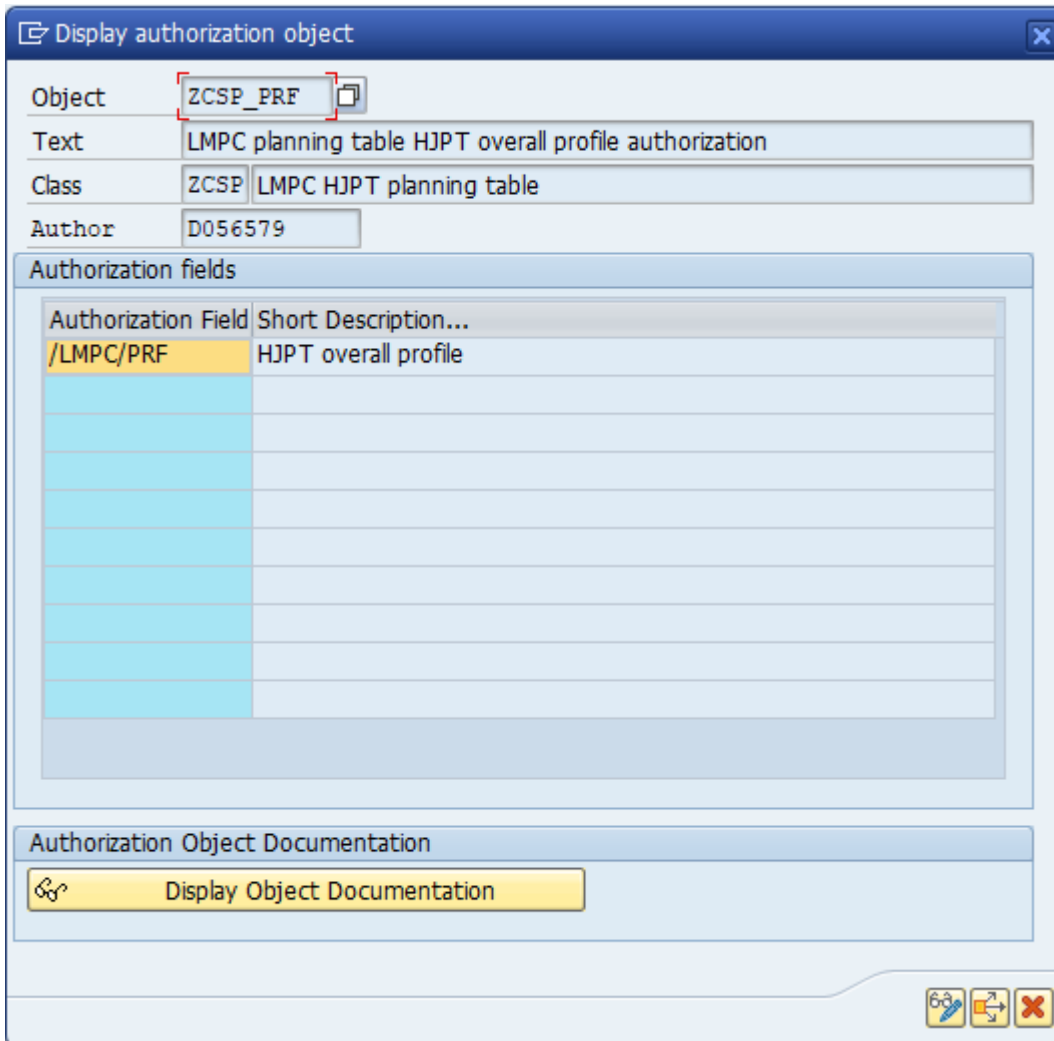
Authorization Object for HJPT Overall Profile

The authorization check for HJPT overall profiles is activated via the parameter AUTHORITY PROFILE in the control table, transaction /LMPC/STEU.
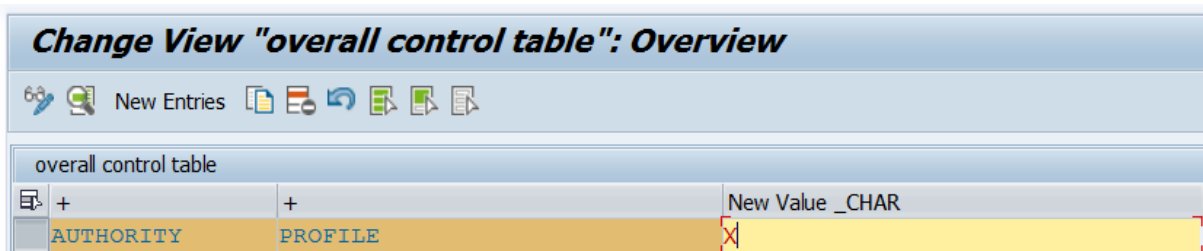
Control Table Activation of Authorization Check on HJPT Overall Profile

As soon as the parameter = "X" is set, this authorization check becomes active.

4.12.2 Authorization Check for Plant and Work Center

Activate the authorization check for plants and work centers

This chapter addresses the check for authorization to display or change the data of a work center/plant combination.

If it is active, the check is executed when the LMPC HJPT planning table is called, as well as each time an action code is executed.

The transaction for schedule maintenance /LMPC/FPL also checks for this object.

The leveling transaction /LMPC/NIVELLIERUNG does not check for this object. A BAdI method is available for leveling; a customer-specific check can be implemented in this method.

The check for plant and work center takes place using the authorization object ZCSP_ABG.
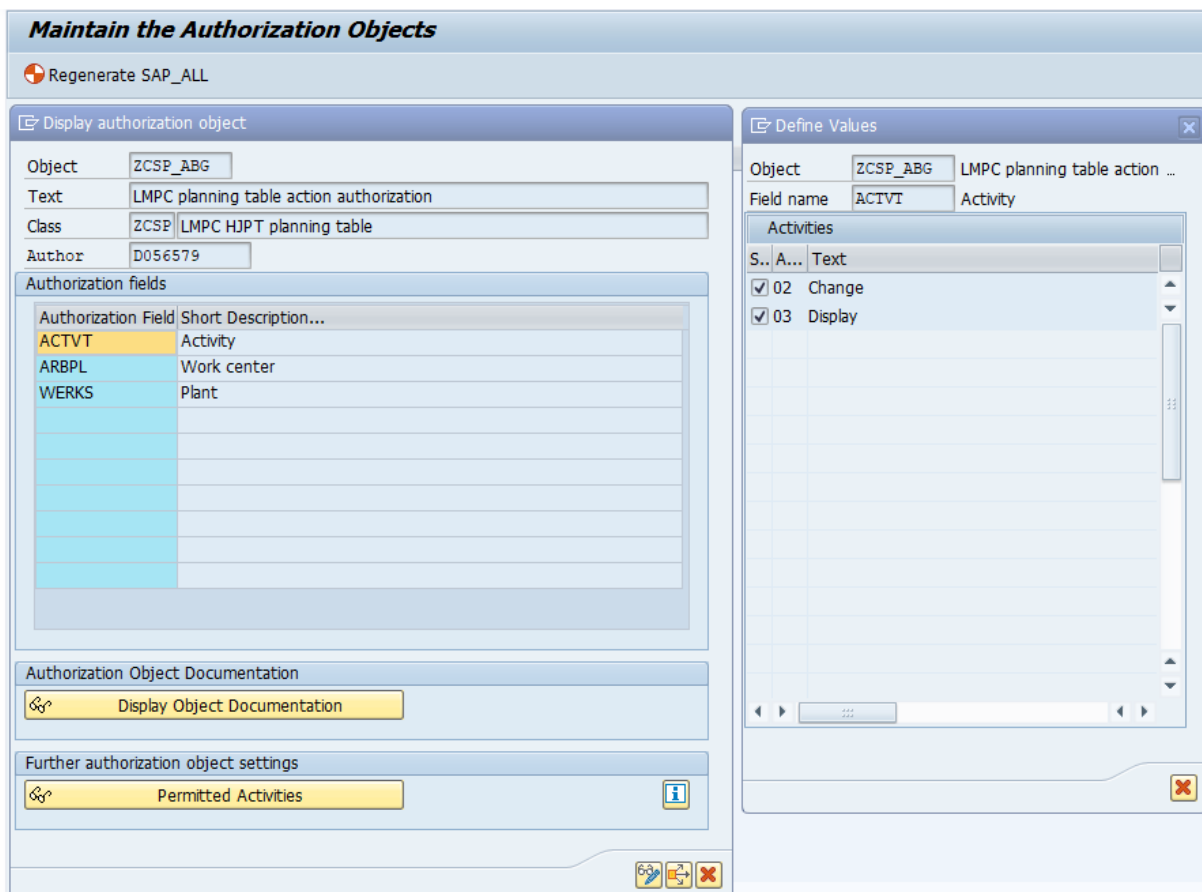
Authorization Object ZCSP_ABG

The permitted activities are 02 for changing and 03 for displaying.

The authorization check is activated in the control table /LMPC/STEU.

Activate Authorization Check for Plant and Work Center

If the parameter AUTHORITY CHECK = "X" is set, the authorization check is activated.

The parameter AUTHORITY OBJECT is optional. If it remains empty, the system automatically checks for the object ZCSP_ABG. You can enter a different authorization object here. However, this object must always have the authorization fields ACTVT, WERKS, and ARBPL, since these fields are checked in the coding.

4.12.3 Authorization Check Using BAdI Implementation

Customer-specific authorization check

A BAdI exists with the name /LMPC/AUTHORITY_BADI, which you can use to realize a customer-specific authorization check.

This BAdI is called in the function module /LMPC/ACTION_AUTHORITY_CHECK_START and for the authorization check when starting the planning table, as well as in the function module /LMPC/ACTION_AUTHORITY_CHECK for the authorization check for action codes.

In order for the BAdI call to run, the parameter AUTHORITY CHECK = "X" must also be set in the control table.

4.13 Execute the Program /LMPC/HJPT LMPC HJPT Planning Table in the Background

HJPT Planning Table Mass Dispatch in Background

You can use the /LMPC/HJPT program to call the LMPC HJPT planning table in the background and to execute an action code.

You can use this program to implement automatic mass planning by background job, for example. Additional application areas are automatic mass release or mass conversion.

For this, use transaction SE38 to create a variant for the program /LMPC/HJPT. The selection screen consists of the selection fields of the HJPT planning table plus a field for an action code.

Selection Screen Program /LMPC/HJPT

By selecting the checkbox for the report lock, you can lock the data when you execute the program.

If you select the checkbox for the errors as information, errors that occur when the program is executed can only be reported back as information. Action codes may send messages. These messages are usually irrelevant for background processing. This checkbox can be selected so that these messages do not trigger an error in the background job.

Create Background Job

You use transaction SM36 to define a background job that periodically executes an action code. For example, during the night after the MRP run, all orders can be dispatched.

Job Definition TA SM36

Define Program and Variant for Job

To find out which action codes are suitable for background processing, see the catalog of action codes. Action codes that are suitable for background processing have the parameter BACKGR. Catalog of Action Codes [page 60]

→ **Remember**

Action codes that are used in background processing must not have a subsequent action code entered in Customizing, for example, S_REFR, and must have the parameter BACKGR: LOW = "X" set.

Therefore, it is useful to create a new action code for background processing in transaction /LMPC/CUST if no variant exists for background processing.

4.14 User Parameters for HJPT Planning Table

Specify default parameter values for the user

You can use the parameters for the user to prefill parameter values for the LMPC HJPT planning table.

These settings are optional and are used to facilitate the work with the HJPT planning table.

You can maintain the user parameters using the standard transaction SU2.

The following settings are possible:

4.14.1 Preassignment HJPT Overall Profile

Preassign HJPT overall profile for user

The /LMPC/PRFID parameter can be used to specify the HJPT overall profile, which is automatically stored on the input screen when the LMPC HJPT planning table is called.

Parameter		
Parameter ID	Parameter value	Short Description
/LMPC/PRFID	LMPC_T01	LMPC: HJPT overall profile

Example Preassignment HJPT Overall Profile

4.14.2 Visibility of the Expert Profile

Make the expert profile visible to users

Using the settings in the overall profile of transaction /LMPC/CUST, you can flag overall profiles as expert profiles.

As a result, the profiles in question are no longer displayed for selection when the planning table is started in the input help.

To make the expert profiles visible again in the input help for an individual user, you can enter the parameter /LMPC/EXPERT in the user parameters.

Parameters for the Expert Profile

Related Information

4.14.3 Default Time Profile

A fixed time profile for the user

You can use the /LMPC/TIME_PROFILE parameter to define a time profile for the user.

Regardless of the selected HJPT overall profile for the selection of data records, the system always uses the time profile for the user.

If the user wants to change the selection period, he/she can still use the button to change the time profile on the initial screen of the HJPT planning table.

Default Time Profile

4.14.4 URL for HTML Viewer Control

Specify fixed default URL for website

You can define a URL for a website that is displayed in a window of the LMPC HJPT planning table.

You can use this parameter to store a separate website for each user.

Parameter URL

Related Information

4.14.5 Specification of Default Leveling Parameters

Specifying default parameters for leveling

Default parameters for leveling can be specified for each user.

For more details, see the section on leveling. Default Setting for Leveling Selection Screen with User Parameters [page 329]

Parameter		
Parameter ID	Parameter value	Short Description
/LMPC/NIVEL_FPL_SCH	LMPC_H01	Levelling: Timetable - Timetable number
/LMPC/NIVEL_FU1	X	Levelling: Function 1: Delete fixed pl. orders
/LMPC/NIVEL_FU2	X	Levelling: Function 2: MRP single-level
/LMPC/NIVEL_FU3	X	Levelling: Function 3: Levelling function
/LMPC/NIVEL_FU4	X	Levelling: Function 4: Create planned orders
/LMPC/NIVEL_FU5	X	Levelling: Function 5: MRP
/LMPC/NIVEL_SEL1		Levelling: Function 5: MRP multi-level
/LMPC/NIVEL_SEL2	X	Levelling: Function 5: MRP single-level

Leveling Parameters

5   Configuration of the LMPC Timetable

The LMPC timetable is a dispatching function for the HJPT planning table.

This section contains information about the settings options for the LMPC timetable.

As the settings for the timetable are very comprehensive, the topics have been divided into further subchapters.

> → Tip
>
> The LMPC timetable allows you to make a large number of settings options. If you want to use the LMPC timetable, we recommend consulting SAP. An LMPC consultant can explain the application of the timetable in detail and be of assistance with the setup.

Related Information

S_FPL Dispatch by LMPC Timetable

5.1   Transaction /LMPC/FPL LMPC Timetable Settings

Transaction for definition of timetables

Timetables must be created for dispatching according to the LMPC timetable. You can maintain timetables in transaction /LMPC/FPL.

In the timetable, orders are grouped into production groups using selection criteria. In the next step, these production groups are assigned to the individual days of the week in which they are to be produced, using blocks.

The production groups and the timetable are specific master data from the SCM consulting solution LMPC, which do not exist in the standard SAP system.

Timetables are always maintained for the plant and work center.

In the "Time table administration" view, the initial screen of transaction /LMPC/FPL, enter the work center and the plant and confirm your entry.
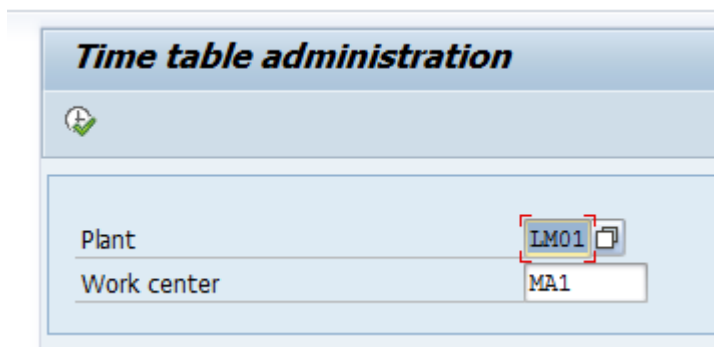
Time Table Administration Start Screen

On the subsequent screen, you see a navigation tree on the left with the various maintenance functions:

- Production groups
- Time tables
- Validities
- Configuration
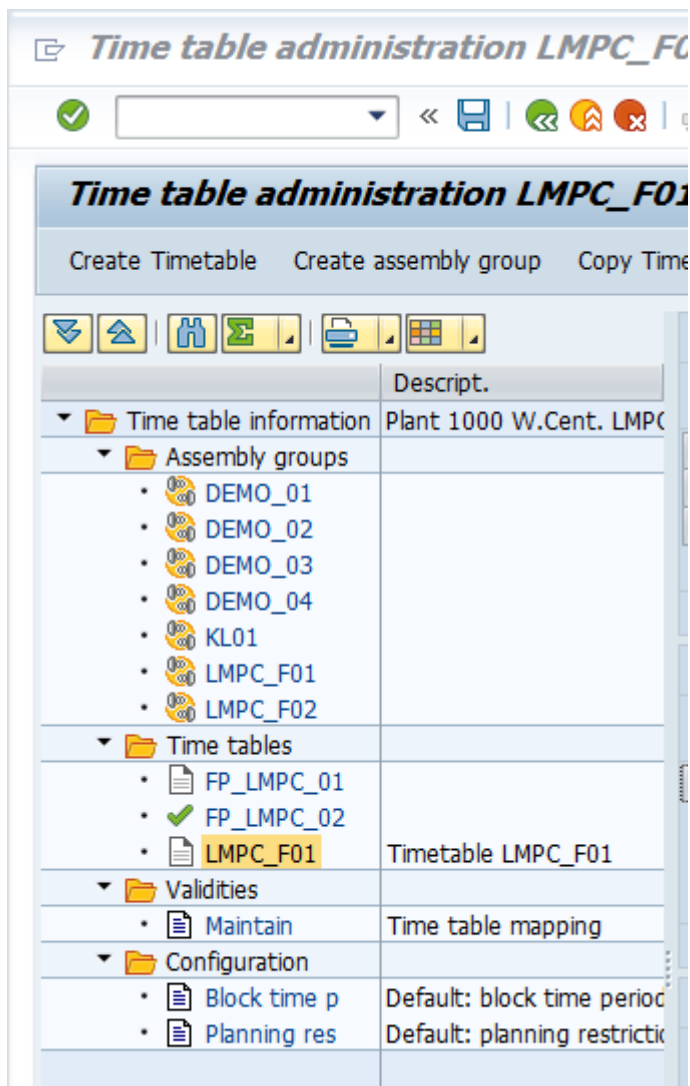
Timetable Customizing Navigation

5.1.1 Maintenance of Production Groups

Production groups for the LMPC timetable

Production groups define selection criteria for the operations in the LMPC HJPT planning table.

The production groups are only dependent on the selected plant. As the production groups are not dependent on the work center, you always see all the production groups independently of the work center entered.

Use the secondary mouse button to create, change, or delete new production groups.

You create a production group by clicking the secondary mouse button on the folder for the production groups.
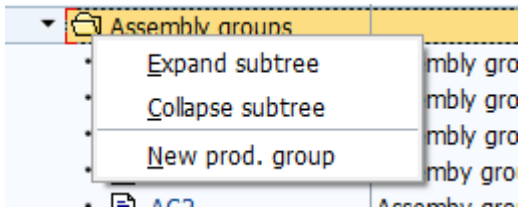
Create Production Group

In the following dialog box, you enter a name for the production group (up to 10 characters) and a description:

New Production Group

In the production group, the materials of the orders are stored either directly via the material number or indirectly via a class, characteristic and value, or via a product hierarchy or material group. The production groups thus define the selection parameters for the orders.

In the example scenario, two production groups are formed, each with two materials.

LMPC_F01 (Fertigungsgruppe: LMPC_F01)

Fert. Gr.	Lfdnr	Werk	Klasse	Merkmal	MerkWert	Material	ProdHier.	Warengrp	inaktiv
LMPC_F01	1	1000				LMPC_FERT_01			☐
LMPC_F01	2	1000				LMPC_FERT_02			☐

Assignment of materials to production group 1

LMPC_F02 (Fertigungsgruppe: LMPC_F02)

Ass. Group	SeqNo	Plant	Class	Char.	Char.Value	Material	Prod.Hier.	Matl Group	Inactive
LMPC_F02	1	1000				LMPC_FERT_03			☐
LMPC_F02	2	1000				LMPC_FERT_04			☐

Assignment of materials to production group 2

You can also use the copy function in the menu bar to create further entries.

You can assign materials to production groups as follows:

- Material: By entering the material number directly in the Material column. (*) is allowed, for example MAT_2*.

- Product hierarchy / material group: By specifying a product hierarchy or material group in the appropriate columns. If the Material column is also maintained, these entries are ignored.
- Classification: It is possible to specify a class, a characteristic name and, if necessary, a characteristic value for classified material masters. (*) is allowed.

5.1.2 Timetable Maintenance

Maintenance of the settings for the timetable

We are in transaction /LMPC/FPL. The next step is to maintain the settings for the timetable.

If a timetable already exists, you can find more functions in the context menu for the entry:

- Create a new timetable.
- Change an existing timetable.
- Copy an existing timetable.
- Delete an existing timetable.
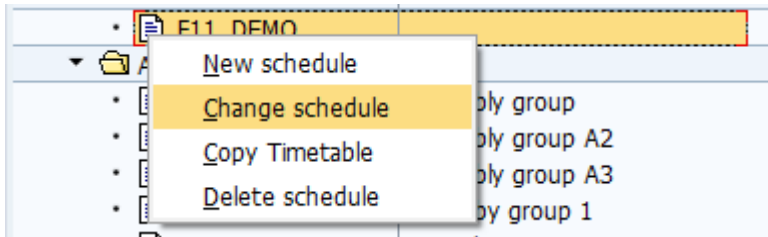
Create, Change, Delete Timetable

The default method for creating a timetable is by right-clicking on the folder for the timetables.
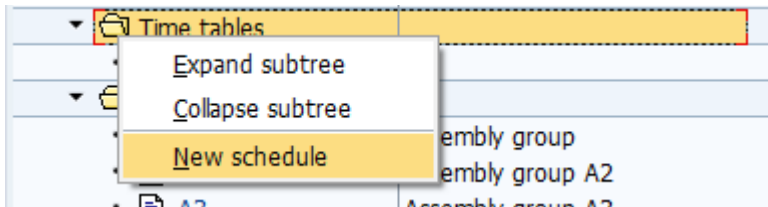
Create Timetable

In the following dialog box, you enter a name for (up to 12 characters) and a description.

Create New Timetable

Double-click an existing timetable to go to the individual maintenance screen. The days of the week appear on the right side of the screen.

The timetable is maintained as a weekly grid.

New Timetable Overview Days

Now create at least one block for each day of the week on which production is to take place.

When you create a new table, the system fills the fields in the table with default values.

Create New Block

Blocks are created to divide the time for a day into subareas. The block represents a time range per day for dispatching. You can create any number of blocks per day.

A block can have multiple items. The items are used to assign the blocks to the production groups. This determines which materials are produced at which time.

The design of the assignment of materials to the timetable can be made on a specific, individual basis. It is possible to assign many materials in a production group and then assign this one production group to a block. Alternatively, you can divide the materials into a large number of production groups and then assign several production groups per block. In each case, the planner can decide on the design.

The traffic light field for the status shows the current maintenance status of the data.

To receive a green traffic light, you must make two allocations using the dialog box:

* The block-time assignment
* The block-item assignment with production groups and restrictions

Block-Time Assignment

You open the popup for the block-time assignment by double-clicking on one of the following fields: Block, Start time, End time or Max. no.

Block-Time Assignment Popup

Open the popup for the block-item assignment by double-clicking on the following fields: Item, Production group, Planning type, Min., Max., Critical or Block ID.

Block-Item Assignment

Maintain the following fields for each item:

- Production group
- Planning type (logic 1 and 2)
- Min. (logic 1)
- Max. (logic 1 and 2)
- Critical (logic 1)

The following options are available for the planning types:

- C: Number of orders (logic 1 only: Minimum and maximum in number)
- Q: Order quantity (logic 1 only: Minimum and maximum with regard to the base unit of measure for the material)
- T: Time span (logic 1 only: Minimum in minutes)
- O: Overload (logic 2 only: Maximum in minutes field)

Depending on the planning logic, the fields have various meanings.

Logic 1: The number of orders, the order quantity, or the time span can be used to limit how many orders with material from the respective production group are to be combined and dispatched in the same block ("Max.").

Logic 2: The overload can be used to specify an additional period in minutes, which can be used to extend the available capacity of a block for a planning window. The minutes specify the period from the end of the block in which the available capacity at the work center is to be used. This maintenance can only take place in the last block of a planning window. This setting should only be selected if an overload is actually maintained for the production group. It does not make sense to maintain an overload with 0 minutes, as this would force additional coding to be processed with no effect for each production group. If you do not want to maintain an overload, you can set the default value to "C".

Logic 1: The "Critical" switch can be used to force an error message (red traffic light in the log) if the limits are exceeded or not reached. The assignment for the affected block is also terminated as a result. If the switch is not set, only a warning message is displayed in the log and the orders are assigned to the block until it has been reserved. Only orders that are no longer fit in the block are no longer assigned.

As soon as the block-time assignment and the block-item assignment are maintained in the timetable, the traffic light for the maintained line is automatically set to green.

You can use the traffic light to see at a glance whether data is still missing.

	status	Bl...	Start time	End time	Max. it...	Po...	Assembly group	P	min.	max.	C
	🟩	1	06:00:00	24:00:00	1	1	LMPC_F01	C	0	10	
	⚠️	1	06:00:00	24:00:00	1	2	LMPC_F02	C	0	10	

Two Production Groups in One Block

Only one start time, one end time, and one max. no of repetitions can be maintained for each block number.

If several blocks are maintained on one day, their times may not overlap.

If there are several items per block, the times for all items in the block are automatically set to be identical.

The items in the blocks show the assignments of the production groups to the blocks and the restrictions.

Maintenance of Planning Windows for Logic 2 of Timetable

Logic 2 of the timetable makes it possible to define periods that are greater than one day.

These time periods are called planning windows.

Planning windows are automatically recognized by the logic. To do this, the entries in LMPC HJPT must be maintained in a specific way.

Planning windows are defined using matching production groups.

A planning window is a period from 1 to a maximum of 7 days, in which all blocks of days contain the same production group. The block time must be maintained consistently.

Explanation of the logic for creating planning windows:

The logic for creating the planning windows starts on the first day of the planning period and reads the first production group in the block.

This is the start of the first planning window for this production group. If no other block with another production group exists on this day, the logic proceeds to the next day.

There, the system checks whether the same production group has been maintained. If so, this day is also included in the planning window with the defined block times.

This continues until the planning window is interrupted by another production group, or until a day arrives on which no block is maintained with the production group for this planning window.

Therefore, planning windows can have from one up to any number of days.

Example of maintenance of planning windows:

Monday

status	Bl...	Start time	End time	Max. it...	Po...	Assembly group	P	min.	max.	C	Block Id
🟩	1	10:00:00	24:00:00	9999	1	TEST1	C	0	5		DEMO 1#LM01#MA2#0001#1

Tuesday

status	Bl...	Start time	End time	Max. it...	Po...	Assembly group	P	min.	max.	C	Block Id
🟩	1	00:00:00	12:00:00	9999	1	TEST1	C	0	1		DEMO 1#LM01#M...
🟩	2	12:00:00	24:00:00	9999	2	TEST2	C	0	1		DEMO 1#LM01#M...

Wednesday

status	Bl...	Start time	End time	Max. it...	Po...	Assembly group	P	min.	max.	C	Block Id
🟩	1	00:00:00	24:00:00	9999	1	TEST2	C	0	1		DEMO 1#LM01#MA2#0001#3

Thursday

status	Bl...	Start time	End time	Max. it...	Po...	Assembly group	P	min.	max.	C	Block Id
🟩	1	00:00:00	14:00:00	9999	1	TEST2	C	0	1		DEMO 1#LM01#M...
🟩	1	00:00:00	14:00:00	9999	3	TEST3	C	0	1		DEMO 1#LM01#M...
🟩	2	14:00:00	24:00:00	9999	3	TEST3	C	0	1		DEMO 1#LM01#M...

Friday

status	Bl...	Start time	End time	Max. it...	Po...	Assembly group	P	min.	max.	C	Block Id
🟩	1	00:00:00	24:00:00	9999	1	TEST3	O	0	60		DEMO 1#LM01#MA2#0001#5
🟩	1	00:00:00	24:00:00	9999	2	TEST2	C	0	1		DEMO 1#LM01#MA2#0001#5

Saturday

status	Bl...	Start time	End time	Max. it...	Po...	Assembly group	P	min.	max.	C	Block Id

Sunday

status	Bl...	Start time	End time	Max. it...	Po...	Assembly group	P	min.	max.	C	Block Id

Example: Timetable Maintenance with Planning Windows

In the example, there is the first planning window for production group Test1 from Monday 00:00:00 to Tuesday 12:00:00.

The next time frame with production group Test2 runs from Tuesday 12:00:00 to Thursday 14:00:00.

The third time window with production group Test3 goes from Thursday 00:00:00 to Friday 24:00:00.

The last time window for production group Test2 exists only on Friday from 00:00:00 – 24:00:00.

This example shows that several time slots can use the same block. You can see this on Thursday and Friday. If two or more production groups have been assigned to a block, then the time slots of these production groups use this block together.

Save the data before you switch to validity maintenance.

5.1.3 Timetable Validity Maintenance

Set the validity period of the timetable

Every timetable is assigned a point in time as of which it is valid.

The validity is maintained with the year and the calendar week.

The timetable is valid indefinitely from the first day of the week until the point in time when a new timetable entry was added for this work center.

If the switch is set to "inactive", the entry is deactivated and is not used for planning.

A timetable applies to at least a whole week.

Timetable Validities

The timetable that is currently valid for the work center can be recognized by its green checkmark.

Timetables in the Menu

Save your data.

5.1.4 Configuration Maintenance

Create templates for timetable maintenance

You can use the configuration to store default values to accelerate timetable maintenance.

These settings are optional.

Two types of default values can be maintained:

- Default values for block times
- Default values for planning restrictions

Configuration Maintenance

If default values are maintained, the default values are automatically preset for the fields when data records are created in the days of the timetable.

Double-clicking on a line allows you to access table maintenance directly.

Block Times

Example of standard values for block times:

	Plnt	Work ctr	Block	Weekday		Start	End	Max. iter.	Aut. activ
	LM01	MA1	1	Monday	▼	06:00:00	18:00:00	10	☐

Default Values: Block Times

The key fields for each entry are:

- Plant
- Work Center
- Block
- Weekday

Planning Restrictions

Example for default values of the planning restrictions:

Change View "Planning restrictions": Overview

New Entries ...

Plnt	Work ctr	Ass. Group	Plann.type		min.	max.	Critical	Aut. activ
LM01	MA1	TEST1		▼	0	0	☐	☐

Default Values for Planning Restrictions

The key fields for the planning restrictions are:

- Plant
- Work Center
- Production Group

If the switch "Auto Active" is set, these restrictions apply automatically to the production group during creation and the traffic light turns green.

5.2 Action Code S_FPL Parameter Settings

Settings for the action code for timetable dispatching

Action Code

The action code S_FPL with class /LMPC/CL_ACTION_FPL is maintained in transaction /LMPC/CUST.

Action Code S_FPL

Parameters

The parameters of the action code S_FPL define the settings for the planning function.

Example Parameter Configuration

The action code contains two different planning logics: Logic 1 and logic 2. Depending on the logic, other parameters are relevant.

Parameter Action Code S_FPL

Parameters	Description
Logic 1 and Logic 2	

Parameters	Description
LOGIC	Parameter for logic used.
	A parameter that defines which logic is executed.
	Values:
	• "1" : Day-based planning.
	• "2": Planning with planning windows.
	If the parameter is not maintained, logic 1 is executed automatically.
	This parameter is optional.
BACKGR	Parameter for background processing.
	This parameter must be set if the action code is used in background processing. It is then dispatched immediately.
	This parameter is optional.
FSTA_OFF	Parameters to bring forward orders.
	Number of days by which bringing forward is permitted (OFFSET).
	This parameter is optional.
IM_SCHD	Parameter for immediate dispatching.
	If this parameter is set ("X"), immediate dispatch is automatically prefilled in the dialog box for the settings.
	This parameter is optional.
LOG_LVL	Parameter for the level of the message display.
	You can use this parameter to specify the level for the messages in the dialog box of the settings.
	Values:
	• "0": All messages
	• "1": Only warnings and errors
	• "2". Error messages only
	If the parameter is not maintained, level 2 is automatically specified.
	This parameter is optional.

Parameters	Description
FIXATION	Parameter for firmed operations.
	If the parameter has the value "X", deallocated order operations that are firmed are excluded from processing.
	Additional logic 2: If the parameter has the value "S" ("soft firming"), order operations can only be placed in the planning window for which they have already been dispatched. The system does not perform a search for alternative time windows forwards and backwards in the time.
	This parameter is optional.
Only Logic 1	
NR_DAYS	Parameter for period.
	You can use this parameter to preassign the number of days for the analyzed period. If it has not been preset, the remaining days of the planning period are calculated as of today as the number of days.
	This parameter is optional.
KAPA_CHK	Parameters for capacity leveling.
	If this parameter is set, the actual available capacity of the work center overrides the timetable blocks.
	Only the actual available capacity for the work center is taken into account in the specified block time so that the capacity requirement corresponds to the supply and not too many orders are placed to the work center.
	This parameter should be set if you want the capacity requirements to remain within block limits. If the blocks are greater than the actual available capacity, the capacity requirements may exceed the block limits, since more requirements are assigned to the capacity than are available.
	We recommend that you use this parameter.
	This parameter is optional.
IG_FSTAD	Parameters to bring forward orders.
	If this parameter is set ("X"), capacity requirements can also be moved forward to dates earlier than originally scheduled.
	If the parameter is not set, orders can only be set to dates that are later than or the same as the date specified by the scheduling in the order.
	This parameter is optional.

Parameters	Description
APPEND	Parameter for continuous dispatching.
	If this parameter is set ("X"), the timetable distribution for the orders is started automatically at the end of the dispatched chain of orders.
	The logic determines the last dispatched order in the work center and starts dispatching there. The capacity of the block at this start time is reduced automatically so that the orders fit in the block capacity.
	This parameter is optional.
KAP_SCH	Parameters for taking into account orders that have already been dispatched.
	If this parameter is set ("X"), the system checks whether orders have already been dispatched in the relevant block.
	The available capacity of the block is reduced according to the occupancy, so that assignment of an order to a block takes place only if there is sufficient capacity.
	This parameter only functions in conjunction with the parameter KAPA_CHK.
	The logic assumes that orders are always planned without gaps in the block. If this is not the case, we recommend that you set the "Insert operation" indicator in the strategy profile used for planning.
	This indicator ensures that a new operation is dispatched at the start of the block. As a result, all other orders in the block are deferred if they collide with the requirements of the new order. The block is fully utilized and the capacity requirements remain within the block.
	This parameter is optional.

Parameters	Description
STRTTIME	Parameter for assigning start times. Special logic.
	If this parameter is set, a different logic is used for generating the dispatching dates.
	This logic is intended for orders whose duration is longer than a day or a block. Dispatching of these orders in logic 1 would not be possible, as their capacity requirements are too large.
	This parameter enables you to assign start times only for the order operations. The orders are placed on the blocks according to the restrictions of the production groups.
	However, the available capacity in the blocks is not taken into account.
	The parameter STRTTIME can be used together with two other parameters and can therefore be set more precisely.
	STRTTIME without any other parameters: The orders are placed in the blocks according to the restrictions in the production groups (number of orders, number of quantities or duration), without taking the available capacity into account. This means that the orders are distributed to the days of the week without any additional capacity check.
	STRTTIME + KAPA_CHK: The system ignores blocks in which no capacity is available on the resource to be planned.
	STRTTIME + KAP_SCH: When the start time is assigned, the system ignores blocks that have an available capacity on the resource but whose available capacity is completely occupied with dispatched orders.
	This parameter is optional.
Only Logic 2	
FSTA_PL	Parameter for extension of the planning period.
	Number of days that an operation may lie in a later planning window. If the parameter is not maintained, the limit is the end of the planning period. If the parameter is maintained but blank, this is interpreted as 0 days.
	This parameter is optional.

Parameters	Description
ENDDAT	Parameter for end date.
	Field name of the structure /LMPC/HJPT_F01 for the date of the target time for planning. If the parameter is not maintained, the earliest/latest end date is used automatically.
	This parameter is optional.
ENDTIME	Parameter for the end time.
	Field name of the structure /LMPC/HJPT_F01 for the time of the target time for dispatching. If the parameter is not maintained, the earliest/latest end time is taken automatically.
	This parameter is optional.
SORTFLD	Parameter for sorting.
	This parameter is used to specify the fields used to sort order operations are sorted before the final allocation in section 2 of logic 2.
	This parameter can be used more than once.
	This allows you to set a combined sort according to several parameters.
	For maintenance, you set the field name of the sort field from the structure /LMPC/HJPT_F01 to the field "LOW".
	The field "HIGH" contains the sort direction: ASCD (ascending) or DESC (descending).
	You do not need to specify the sort direction. If nothing is specified, sorting automatically takes place in ascending order.
	This parameter is optional.
NO_SORT	Parameter for suppressing sorting.
	If this parameter is set ("X"), the orders within the planning window are not sorted before the dispatching dates are created in step 2 of the logic.
	This parameter is optional.

Parameters	Description
NO_RESCD	Parameter for rescheduling orders.
	If the parameter is set (LOW = "X"), the rescheduling of dispatched orders is prevented ("X") in level 2 of logic 2.
	Dispatched orders are not included for sorting and are not rescheduled.
	This can lead to gaps in planning, as orders that have already been dispatched are no longer rescheduled.
	If the parameter is set, block utilization is not calculated, as calculation cannot take place without taking dispatched orders into account.
	This parameter is optional.

→ Remember

There is no parameter for a strategy profile. Dispatching is carried out using the strategy profile for block planning, which is stored in the HJPT overall profile.

i Note

The parameters only influence the process flow for processing within the LMPC HJPT planning table. The results of dispatching depend on the settings of the strategy profile that control the dispatching function of the capacity planning table. The desired planning result arises from the interaction of parameter settings and settings in the strategy profile of dispatching.

→ Tip

The flow of dispatching logics 1 and 2 is described in detail in the Application Guide. When setting parameters, reading the description of the relevant logic in conjunction with the descriptions of the parameters provides a comprehensive idea of the settings options. S_FPL Dispatch by LMPC Timetable

5.3 Timetable Settings in the Strategy Profile

Strategy profile for timetable dispatching

Dispatching with the timetable uses the strategy profile defined in the HJPT overall profile under "Strategy profile for block planning".

In the standard delivery of LMPC, this is profile LMPC_F_02.

Change View "Capacity Leveling - Strategy Profiles": Details

New Entries

| Strategy prof. | LMPC_F_02 | Finite scheduling forw./ with gaps |

Scheduling control

- ☑ Finite scheduling
- ☐ Dispatch at earliest point in time
- ☐ Dispatch at best time for setup
- ☐ Date entry when dispatching
- ☑ Plan. direction forwards
- ☐ Change planning direction
- ☐ Planning in non-work periods
- ☐ Insert operation

Close gaps   No closing of the gaps

Period split

PerSplit   without
- ☐ Start search in plan.direction
- ☐ Always adhere to period split
- ☐ Op.compl.in period split

Queue time

Treatment of queue time   2 Minimum q...
Reduction level

Further control options

- ☐ Overall capacity load
- ☐ Reschedule with prod.version

Dispatch. sequence   SAPSFCSS31 Sort. order: lat.start/seq.no./prio
Dispatch internal production   2 Latest start date
Initial setup state

Dispatching functions

A...	Action
☑	Sort operations to be dispatched
☐	Consider operation sequence in the order
☐	Operation date check
☐	Change production version on error

Checks

- ☐ Cancel dispatching due to error
- ☐ Term.resched with prod.version
- ☐ Use operation floats
- ☐ Use float bef. prod.
- ☐ Use float aft. prod.

Example Configuration Strategy Profile

These settings only represent sample settings. In each system, other settings may be better suited to the planning situation.

> → Tip
>
> The "Insert Operation" checkbox in the scheduling settings may be important for dispatching. If you select this checkbox, orders that do not fit in a capacity gap are dispatched there nonetheless and defer subsequent orders. This allows the generation of a production plan without gaps.

5.4 Enhancement Options for the HJPT Timetable

Objects for customer enhancements to the timetable

Timetable Function

The BAdI definition /LMPC/FPL_AC_BADI is available to influence the logic of the action code for timetable dispatching.

Method GET_ALLOCATION_DATETIME – Defining the Target Time

This method can be defined to determine the target time for each order operation in logic 2.

Method SRT_ORDERS – Sorting

This method is also used for logic 2: You can use this method to sort order operations within planning windows before the allocation is generated.

Timetable Customizing

The BAdI definition /LMPC/FPL_BADI exists for creating and editing production groups in timetable maintenance /LMPC/FPL.

Method ON_CREATE_PROD_GROUP - Creating a New Production Group

This method is called when a new production group is created. The name and description are queried in a modal dialog box. By default, the new production group is empty. You can use the implementation to create your own dialog and create entries for the production group.

Method ON_CHANGE_PROD_GROUP – Processing a Production Group

This method is called when a production group is processed. Only the description can be changed.

6 Configuration of LMPC Leveling

Setting for demand requirement smoothing

The leveling function smooths the production quantities that result from the requirements over a chosen period. Existing planned orders are deleted and new planned orders are created.

This chapter introduces the setting options for leveling.

As leveling is a comprehensive solution, we recommend that you commission consulting support from SAP if this solution is to be used.

The chapter is divided into the following subchapters:

Related Information

LMPC Leveling Function

6.1 Transaction /LMPC/NIVEL_CFG LMPC Set Leveling

Configure leveling classes

The classes for the leveling algorithm are stored in transaction /LMPC/NIVEL_CFG.

Leveling Class

An example class /LMPC/CL_NIVEL_FUNCTION_LIGHT is delivered with the LMPC delivery.

Customer-specific leveling classes can be created for the specific requirements of the respective company. These must be based on the interface /LMPC/IF_NIVEL_FUNCTION.

If no suitable configuration is found for a selection when the levelling is called up, it is not possible to execute step 3 (leveling).

Therefore, it is necessary to define a corresponding class in the configuration.
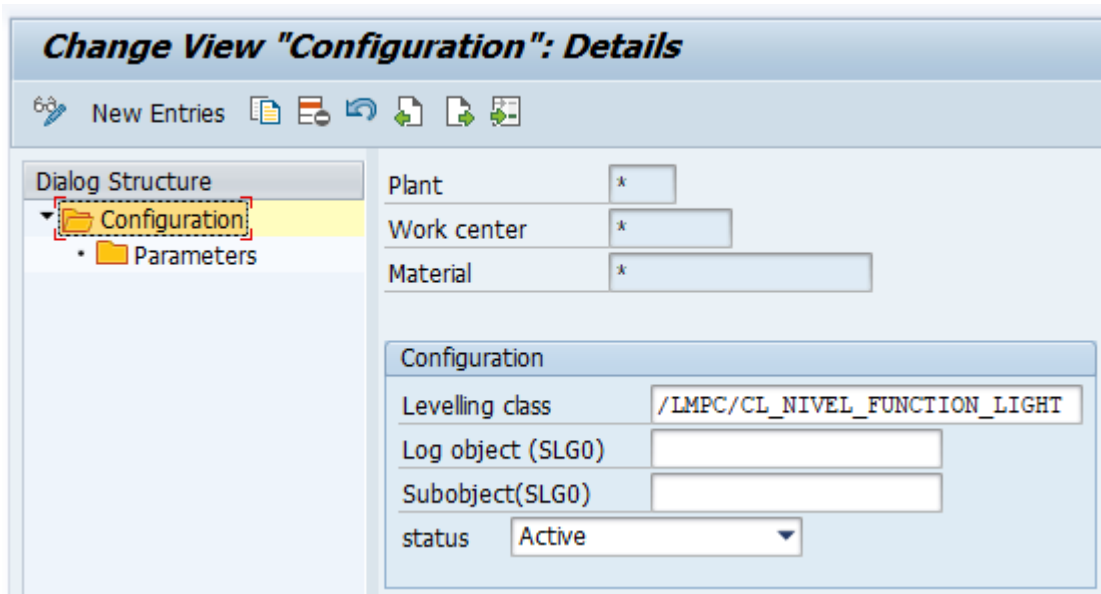
Class for Leveling

Leveling can be configured so that various leveling algorithms can be applied to different plant materials.

Fields of Configuration

Field	Description
Plant	Specification of the plant.
	Possible values:
	• Plant name.
	• (*) or blank = valid for all plants.
Work Center	Specification of the work center for which the class is valid.
	Possible values:
	• Name of a work center.
	• (*) or blank = valid for all work centers.
Material	Specification of the material number
	Possible values:
	• Material number.
	• * or blank = valid for all materials.
Leveling Class	The leveling class with the leveling logic.
	The class must be based on the interface /LMPC/ IF_NIVEL_FUNCTION.

Field	Description
Log Object	Log object for application log
	Log entries for leveling are stored in this log object.
	If the entry is left empty, the system saves to the standard leveling object /LMPC/NIVEL.
Subobject	Subobject for application log.
Status	Activate or deactivate the entry.

→ Remember

If multiple valid configurations are found to call leveling, configurations with specific values for plant, work center, and material are preferred before configurations with general values (*, empty). A specific plant is preferred to a specific material and a specific material to a specific work center.

Parameter

The behavior of the leveling classes can be controlled using parameters.
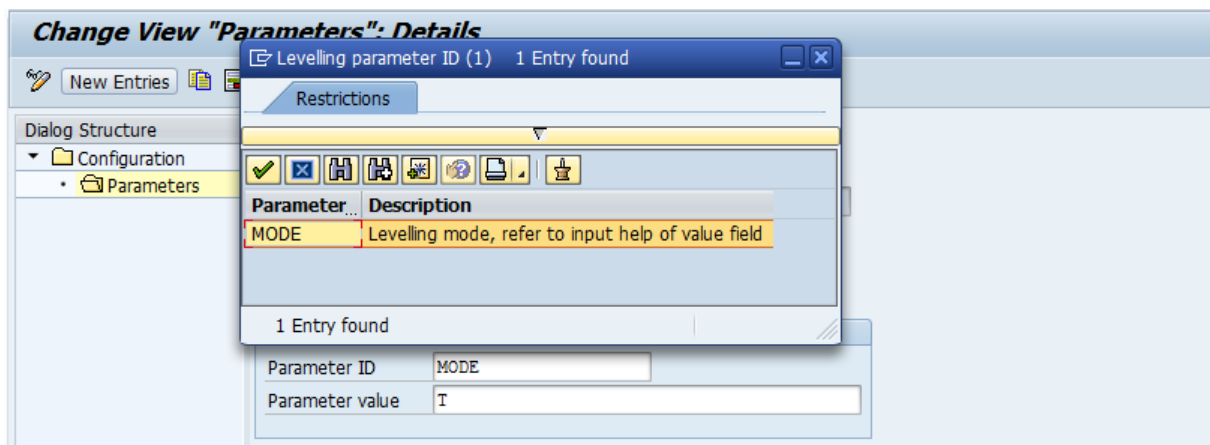
Leveling Parameters

The parameters are defined in the leveling class.

Class /LMPC/CL_NIVEL_FUNCTION_LIGHT has one parameter:

Parameter CL_NIVEL_FUNCTION_LIGHT

Parameter	Description
MODE	Leveling mode.
	Values:
	• T: Leveling runs using timetable days. The number of days on which leveling takes place in the selected period is determined from the LMPC timetable.
	• C: Leveling runs using factory calendar days. The number of days on which leveling takes place in the selected period is determined by the factory calendar.

> **! Restriction**
>
> • Leveling only works for the delivered leveling class /LMPC/CL_NIVEL_FUNCTION_LIGHT if production versions have been maintained for the materials. In the respective production version, the work center for leveling must be entered in the field for the production line of repetitive manufacturing.
> • Leveling is only executed on planned orders. Production orders and process orders are not affected by leveling.
> • In leveling, the planned orders are selected according to the basic start and finish dates. In simulative leveling, on the other hand, the selection is made with the production dates from the scheduling.

6.2 Default Setting for Leveling Selection Screen with User Parameters

Leveling user parameters

The selection fields for leveling are automatically preset with the entries of the last leveling call of the same session.

If this is the first leveling call in a session, the default values are determined from the user parameters, if available.

The user parameters can be set on the "Parameters" tab page in the SU2 or SU3 transactions.

You can also access them from the menu: System → User Profile → Own Data.

Example Configuration

The following user parameters are available. They correspond to the fields on the selection screen:

Leveling user parameters

Parameter	Description	Parameter for Action Code	Mandatory
/LMPC/NIVEL_ARBPL	Leveling: Work Center	S_ARBPL	
/LMPC/NIVEL_BANER	Leveling: Create purchase requisition	P_BANER	X
/LMPC/NIVEL_BATCH	Leveling: Without confirmation screen	P_BATCH	
/LMPC/NIVEL_BERID	Leveling: MRP area	P_BERID	
/LMPC/NIVEL_DAT	Leveling: Period	S_DAT	
/LMPC/NIVEL_DISER	Leveling: Create MRP list	P_DISER	X
/LMPC/NIVEL_DISPO	Leveling: MRP controller	P_DISPO	
/LMPC/NIVEL_FEVOR	Leveling: Production supervisor	P_FEVOR	
/LMPC/NIVEL_FPL_ARB	Leveling: Timetable - Work Center	S_ARBPLF	
/LMPC/NIVEL_FPL_DET	Leveling: Determine timetable automatically	P_S_DET	
/LMPC/NIVEL_FPL_SCH	Leveling: Timetable - Timetable Number	S_SCHED	
/LMPC/NIVEL_FU1	Leveling: Function 1: Delete firmed planned orders	P_FUNC1	X
/LMPC/NIVEL_FU2	Leveling: Function 2: MRP single-level	P_FUNC2	X

Parameter	Description	Parameter for Action Code	Mandatory
/LMPC/NIVEL_FU3	Leveling: Function 3: Leveling function	P_FUNC3	X
/LMPC/NIVEL_FU4	Leveling: Function 4: Create planned orders	P_FUNC4	X
/LMPC/NIVEL_FU5(*)	Leveling: Function 5: MRP	P_FUNC5	X
/LMPC/NIVEL_LIFKZ	Leveling: Scheduling agreement schedule lines	P_LIFKZ	X
/LMPC/NIVEL_MATNR	Leveling: Material	S_MATNR	X
/LMPC/NIVEL_MDV01	Leveling: Production line in repetitive manufacturing	S_LINE	
/LMPC/NIVEL_PLALL	Leveling: Plan unchanged components	S_PLALL	
/LMPC/NIVEL_PLMOD	Leveling: Planning mode	P_PLMOD	X
/LMPC/NIVEL_PLNTY	Leveling: Task list type	SO_PLNTY	
/LMPC/NIVEL_PRDPL	Leveling: Prod./Basic Dates	P_PRDPL	
/LMPC/NIVEL_PROT	Leveling: Display log	P_PROT	
/LMPC/NIVEL_SEL1 (*)	Leveling: Function 5: MRP multilevel	P_SEL1	
/LMPC/NIVEL_SEL2 (*)	Leveling: Function 5: MRP single-level	P_SEL2	
/LMPC/NIVEL_TERKZ	Leveling: Scheduling direction	P_TERKZ	
/LMPC/NIVEL_TRMPL	Leveling: Scheduling	P_TRMPL	X
/LMPC/NIVEL_VBELN	Leveling: Sales order number	S_KDAUF	
/LMPC/NIVEL_WERKS	Leveling: Plant	P_WERKS	X

Note: Values marked with (*) are always preset with the values of the user parameters, regardless of the last call.

The "Obligation" column indicates which parameters are mandatory parameters in the S_NIVEL action code. The parameter settings are explained in the following chapter.

6.3   Action Code S_NIVEL: Configuration

Configuration of the HJPT action code for leveling

Action Code

You can use the action code S_NIVEL to call up leveling from the LMPC HJPT planning table.

If more than one action code is required to call up leveling with different parameters, S_NIVEL can be used as a template for further action codes.

Action code configuration takes place in transaction /LMPC/CUST.

Display View "Action codes": Details
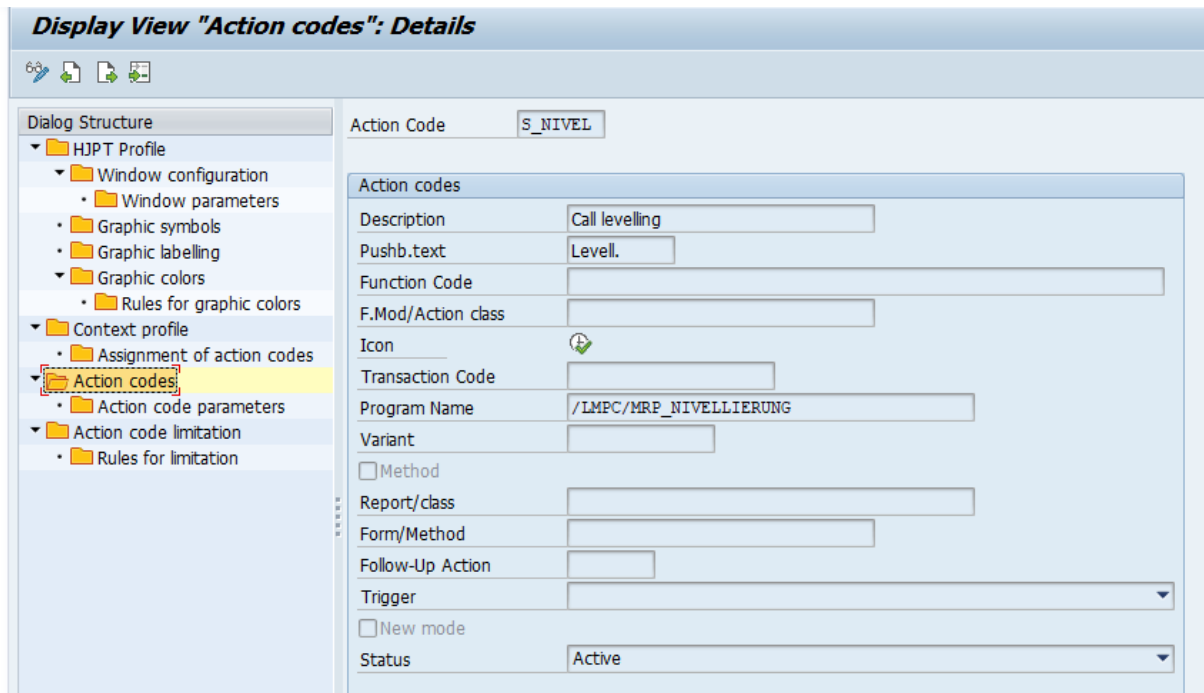
Action Code S_NIVEL

Parameter

The parameters for the action code define the settings for the leveling call.

You can find the available parameters and the parameter names in the table in the previous chapter, about the user parameters for leveling. Default Setting for Leveling Selection Screen with User Parameters [page 329]

The column "Obligation" can be used to determine whether the parameters are required or optional.

To fill the parameters with the values of the row selected in the HJPT ALV grid, a value replacement is available in the form "&LMPC field name&". The field names come from the structure /LMPC/HJPT_F01.

Example Configuration of Action Code

6.4 Action Code S_SIMNIV: Configuration for Simulative Leveling

Simulative leveling is a function that is based on leveling, but is executed directly in simulation mode of the LMPC HJPT planning table.

It has its own settings that are independent of LMPC leveling and has only a restricted range of functions.

This functionality is explained in the LMPC Application Guide.

Action Code

Action Code S_NIVSIM

Parameter

> **i Note**
>
> The parameters for the action code S_NIVSIM differ from those for the action code S_NIVEL. Do not confuse the two action codes.

Sample Configuration S_NIVSIM

The action code supports the following optional parameters:

Parameter Action Code S_EPRSIN

Parameter	Description
SEL_MODE	Parameter for the selection mode
	You use this parameter to specify how the data is to be selected for processing.
	Values:
	• M: All Selected Materials
	• C: All Selected Work Centers
	• P: All Selected Planned Orders
INCL_FIX	Parameter for firmed planned orders.
	Values:
	• X: Include
	• Blank: Ignore
DATE_FROM	Parameter for start date.
	The start date of the leveling in days from the current date.
	Integer.
DATE_TO	Parameter for end date
	The end date of the leveling in days from the current date.
	Integer.
SCHED_NO	Parameter for the LMPC HJPT timetable.
	Preset the name of the timetable with leveling by timetable.
SHOW_LOG	Parameter for log.
	Values:
	• X: Display log upon completion of the leveling.
	• Blank: No display.
NO_POPUP	Parameter for popup window.
	Values:
	• X: Do not display a dialog box
	• Blank: Display dialog box

All parameters are optional.

Related Information

6.5   Enhancement Options for HJPT Leveling

Create customer-specific leveling functions

Create Leveling Class

The delivered class /LMPC/CL_NIVEL_FUNCTION_LIGHT can be used as a template for the implementation of a leveling class in the customer namespace.

When a leveling class is created in the customer namespace, the interface /LMPC/IF_NIVEL_FUNCTION is added to the class.

The leveling class now has two methods:

- FUNCTION: Leveling function.
- GET_PARAMETER_LIST: Definition of the parameters for the leveling class.

When the leveling method is called, the method receives a list of all planned orders selected by the transaction (CT_PLAF).

The deletion of existing planned orders during leveling, if necessary, is the responsibility of the leveling class.

However, the creation of new planned orders is performed by the calling transaction according to the result of the leveling class.

If you want the leveling class to create the new planned orders itself, you can return an empty results list so that no planned orders are created by the transaction itself.

The newly created class is entered in transaction /LMPC/NIVEL_CFG and the configuration is also made there.

BAdI for Leveling

If you also want to intervene in the remaining leveling process in addition to using your own leveling logic, you can use the BAdI /LMPC/NIVEL_BADI.

The corresponding interface /LMPC/NIVEL_BADI provides the following methods:

BAdI Methods

Method	Description
CALL_MRP_START	Start of leveling.
CALL_MRP_END	Execution after leveling.
CHANGE_PLAF_HEADER	Called before creation of planned order. Change the planned order header and the scheduling parameters.
AUTHORITY_CHECK	Authorization check for material and plant.
ON_BEFORE_PLAF_DEL	Execution before deletion of planned orders.

6.6 Enhancement Options for Simulative Leveling

Tips for enhancement of simulative leveling

To create a customer-specific leveling class for simulative leveling, a leveling class is created in the same way as for standard leveling and is entered in transaction /LMPC/NIVEL_CFG.

This class is also based on the interface /LMPC/IF_NIVEL_FUNCTION.

The leveling class used for simulative leveling is determined in the same way as for regular leveling. The system does not check whether the leveling class actually supports a simulative call. It is not permitted to call up simulative leveling with a leveling class that does not support a corresponding simulative call.

In order that the logic of the leveling class can distinguish whether the current call of the leveling function is simulative or not, the input parameter P_SIMUL from the table IT_ALL_PARAMS is set to 'X' in a simulative call.

Do not select the planned orders themselves; rely on the transferred planned orders in CT_PLAF instead.

Do not use any BAPI calls to delete planned orders. Instead, use simulative functions of the LMPC planning table or the capacity planning table.

The current planning data for the LMPC planning table can be determined using the function module '/LMPC/GET_PLANNING_VALUES'.

It may be the case that not all report parameters (IT_ALL_PARAMS) are set.

It may be the case that not all BAdI calls are made.

7 Configuration of LMPC Mass Processing of Orders

The LMPC mass processing is a separate program that is independent of the HJPT planning table. Instead of LMPC mass processing, the term LMPC MP (= mass processing) is also used.

This unit contains the description of the configuration options for the LMPC mass processing of orders.

Due to the scope of the options, this chapter is divided into further subchapters:

- Transaction /LMPC/MP_CUST LMPC MP Settings [page 338]
- MP User Parameters [page 366]
- Enhancement Options for LMPC Mass Processing [page 367]

Related Information

LMPC Order Mass Processing

7.1 Transaction /LMPC/MP_CUST LMPC MP Settings

Central Customizing transaction for LMPC mass processing

Almost all Customizing for LMPC order mass processing takes place in transaction /LMPC/MP_CUST.

All relevant Customizing settings for order mass processing can be maintained here.

Only the user parameters cannot be maintained in this transaction.
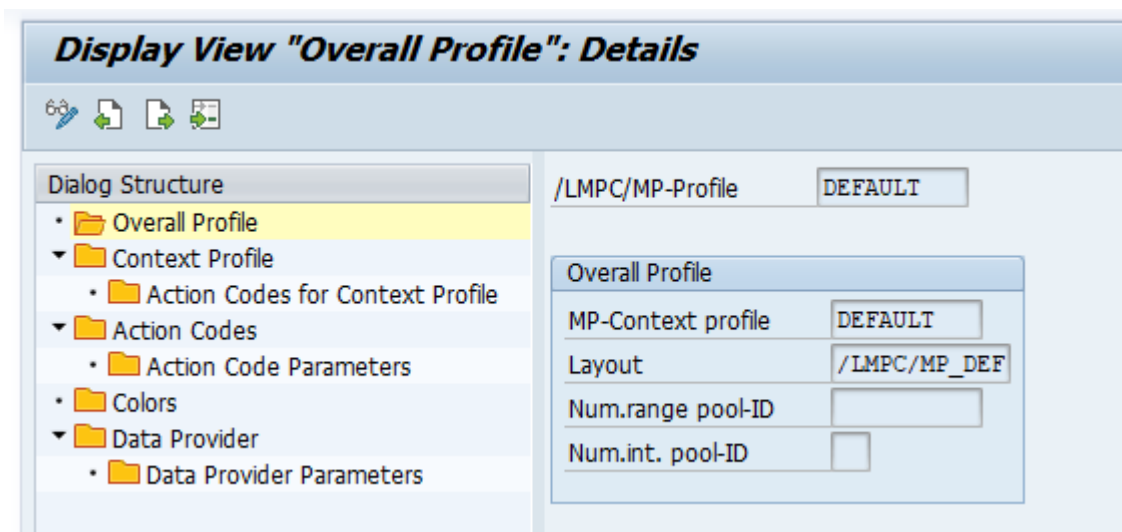
Overview of Transaction /LMPC/MP_CUST

The following settings options exist:

- MP Overall Profile [page 339]
- MP Context Profile [page 340]
- MP Action Codes [page 344]
- MP ALV Grid Coloring [page 360]
- MP Data Provider [page 362]

7.1.1 MP Overall Profile

Overall profile for LMPC mass processing of orders

When you call order mass processing, you must enter an overall profile in the selection screen.

The overall profile is used to control all the settings for the transaction.

The /LMPC/MP overall profiles make it possible for you to adjust the transaction for various users or user groups.

You can maintain the following entries for each overall profile:

MP Overall Profile Fields

Field Name	Description
/LMPC/MP Profile	Overall profile name for LMPC mass processing.
	Key field.
MP Context Profile	MP context profile that defines the available action codes.

Field Name	Description
Layout	Name of the standard layout for the ALV grid.
	The layout entered here overrides all user-specific and pre-set layouts.
	If user-specific layouts are to be used instead of the standard layout, this field should be left blank.
Number Range Pool ID	Number range object for the order pools.
Number Range Interval Pool ID	Number range interval of the number range object for the order pools.

The standard delivery contains a profile with the name DEFAULT.
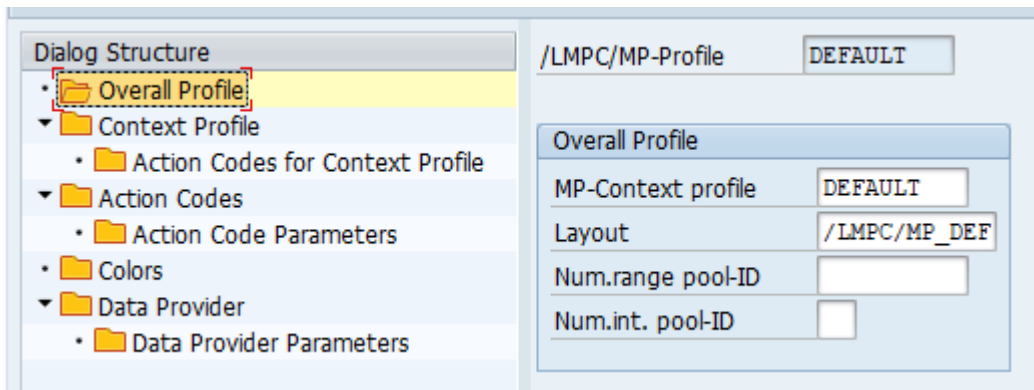
Default Overall Profile /LMPC/MP

7.1.2 MP Context Profile

Settings for context profile of LMPC mass processing

The MP context profile determines which action codes are available.

The MP context profile "DEFAULT" exists in the standard system.

If you want to create your own context profile, we recommend that you copy the standard profile.
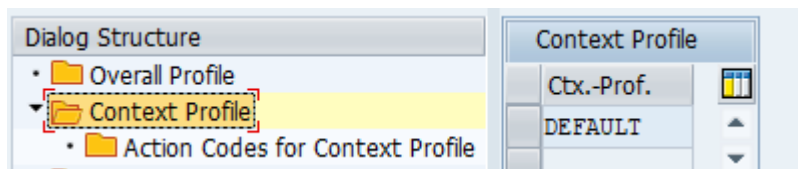
Standard MP Context Profile

An MP context profile is assigned to one or more MP overall profiles.

The action codes contained in the context profile must first have been created in the menu option "Action Codes".

If a context profile is selected, you can maintain the list of action codes for each context profile with the menu option "Action Codes for Context Profile".

Example of Action Codes in the Standard Context Profile

Example Fields for an Entry

The following fields can be maintained for each entry:

Fields for Action Codes in Context Profile

Field	Description
Sequence number	Sequence of functions. Key field. Only one entry can exist per number.
Action Code	MP action code Technical Name. Internal description of the function as defined in the "Action Codes" menu option. ⚠ **Caution** The action codes for the HJPT planning table cannot be used here. MP action codes and HJPT action codes are different elements and are not compatible.

Field	Description
Trigger	Control signal. Triggering element.
	The trigger specifies how the action code is called up.
	The following triggers exist in MP:
	• ALV Grid Menu Bar: As a pushbutton in the ALV grid header row.
	• ALV Grid Double-Click: Double-click on ALV grid cell.
	• Keyboard command: Using the function keys (F keys).
	• Field ready for input ALV grid: As an editable field in the ALV grid.
	Double-clicking on a field allows you to add multiple functions. The numbering in the context profile then determines the sequence of the call.
	!Restriction • The support of the various triggers varies by action code. If an action code does not work for a specific trigger, this is not an error but a functional restriction. • Only a few action codes can be used as an input field. If an action code is activated in Customizing as an input field and the action code supports processing for the special field, the field is automatically displayed as ready for input in the table display. You can find out which action codes can be used with input-ready fields in the description of the respective action codes.
Trigger Parameters	Parameters for triggers.
	The trigger parameters provide additional information to allow the correct execution of action codes. The required parameters are specified in the description of the action codes.
	The following parameters are possible:
	• In the ALV grid menu bar: No parameters necessary.
	• Double-click on ALV grid: Column name of the column for which the double-click is to be activated.
	• For keyboard command: F key combination (see overview below).
	• Field ready for input in ALV grid: Name of the field that is to be editable.
Status	Indicates whether the entry is active or inactive.

Special feature of the ALV grid menu bar: Action codes can be grouped in the header row of the ALV grid, in which separators are inserted using action code M_SEP.

The following table provides an overview of the possible keyboard shortcuts and their parameter values:

Trigger Parameters Keyboard Commands

Keyboard Commands	Parameter value
F3 / Back	BACK
F5	F5
F6	F6
F7	F7
F8	F8
Shift-F1	SH-F1
Shift-F6	SH-F6
Shift-F7	SH-F7
Shift-F8	SH-F8
Shift-F9	SH-F9
Shift-Ctrl-0	SH-CTRL-0
Shift-F11	SH-F11
Shift-F12	SH-F12
Ctrl-F1	CTRL-F1
Ctrl-F2	CTRL-F2
Ctrl-F3	CTRL-F3
Ctrl-F4	CTRL-F4
Ctrl-F5	CTRL-F5
Ctrl-F6	CTRL-F6
Ctrl-F7	CTRL-F7
Ctrl-F8	CTRL-F8
Ctrl-F9	CTRL-F9
Ctrl-F10	CTRL-F10
Ctrl-F11	CTRL-F11
Ctrl-12	CTRL-F12
Ctrl-Shift-F1	CTR-SH-F1
Ctrl-Shift-F2	CTR-SH-F2
Ctrl-Shift-F3	CTR-SH-F3
Ctrl-Shift-F4	CTR-SH-F4
Ctrl-Shift-F5	CTR-SH-F5
Ctrl-Shift-F6	CTR-SH-F6

Keyboard Commands	Parameter value
Ctrl-Shift-F7	CTR-SH-F7
Ctrl-Shift-F8	CTR-SH-F8
Ctrl-Shift-F9	CTR-SH-F9
Ctrl-Shift-F10	CTR-SH-F10
Ctrl-Shift-F11	CTR-SH-F11
Ctrl-Shift-F12	CTR-SH-F12

i Note

The back button of the SAP GUI is always filled when you exit the transaction. If a customer-specific action code is set to the back button, it must prevent the transaction from being exited, if so required. The action code M_QUICKFILTER_REM can be used as a template for development of your own functions with suppression of leaving the transaction.

7.1.3 MP Action Codes

Configuration of action codes for LMPC mass processing

The "Action Codes" folder defines the action codes available for the context profile.

List of Action Codes

Example Action Code Customizing

The following fields can be maintained for each action code:

Fields for MP Action Code

Field	Description
Action Code	Unique name of the action code.
	Key field.
Action class	Action code class.
Icon	Icon of the action code for use in the ALV grid header.
Button text	Text of the pushbutton for use in the ALV grid header.
Description	Action code description.
	This description is used as a quick info in the header line of the ALV grid.
Successor Action Code	Defines an action code that is always executed directly thereafter.
	Typically, this is an action code to update the data.
	Successor action codes can also be used to form action code combinations or chains.
	Not every chain of action codes is possible. A test must be performed for each combination to establish whether it is possible.
	If a chaining of action codes is not possible, this is not an error but a functional restriction.
	This field is optional.
Status	Indicates whether the entry is active or inactive.

Parameters can be maintained for the action codes. Whether and which parameters are maintained depends on the action code.

Example of Action Code Parameter Configuration

Fields for Parameters of the Action Code

Field	Description
Sequence number	Sequential number. Key field.
Parameter Type	Type of parameter. The following types are available: - LMPC Action Code Parameter (Standard) - Select Options - Memory ID - Parameter - BCDATA parameter Most of the action codes use the LMPC Action Code Parameter type. This parameter type supplies the /LMPC/MP classes with the parameters. All other parameters are intended to provide the input parameters for transaction calls.
Parameter ID	Name of the parameter. You can use the F4 help to display the valid parameters for the action code class used.
INCL/EXCL	Include or exclude characters for value ranges.
Option	Comparison operator for value range (EQ/BT/CP/...) for select option parameters.
Low	Value of the parameter. If a value range is specified, it is the lower limit. It is possible to fill the parameter value with the field value of a field that is currently selected in order mass processing. For this, the value is set to &FIELDNAME&. The field name comes from the structure /LMPC/MP_F01 for the ALV grid. Example: &MATNR_OH& When the action code is called, the placeholder is automatically replaced by the corresponding field value of the selected line.
High	Upper limit of the value range.

> ! Restriction
>
> The classes of the action codes of the HJPT planning table cannot be used in /LMPC/MP.

7.1.3.1 Catalog of MP Action Codes

Overview of Action Codes for LMPC Order Mass Processing

Tabular overview of the action codes for /LMPC/MP with their respective parameters.

MP Action Codes Overview

Action Code	Class	Description	Parameter
M_ATP	/LMPC/ CL_MP_ACTION_PPIO_EN- TRY	**Perform ATP check.**	**VARI_PP** LOW = "LMPC_MP_PP_ATP" **VARI_PI** LOW = "LMPC_MP_PI_ATP" **EXC_PLAN** LOW = " " **EXC_PROD** LOW = " " **WAIT** LOW = "1" **PROMPT** LOW = ""
M_CHANGE_ORDER	/LMPC/ CL_MP_AC- TION_CHANGE_ORD	**Change order.** Call MD11, CO02, COR2.	None.
M_CONV	/LMPC/ CL_MP_ACTION_PPIO_EN- TRY	**Conversion of planned or- ders.**	**VARI_PP** LOW = "LMPC_MP_PP_UMS" **VARI_PI** LOW = "LMPC_MP_PI_UMS" **EXC_PLAN** LOW = " " **EXC_PROD** LOW = " " **WAIT** LOW = "5" **PROMPT** LOW = ""

Action Code	Class	Description	Parameter
M_CONV	/LMPC/ CL_MP_ACTION_PPIO_EN-TRY	Conversion of planned orders.	**VARI_PP** LOW = "LMPC_MP_PP_UMS" **VARI_PI** LOW = "LMPC_MP_PI_UMS" **EXC_PLAN** LOW = " " **EXC_PROD** LOW = " " **WAIT** LOW = "5" **PROMPT** LOW = ""
M_CO01	/LMPC/ CL_MP_AC-TION_CALL_TCODE	Create production order. Call transaction CO01.	**TCODE** LOW = "CO01" **UPD_VAL** LOW = "S"
M_COR1	/LMPC/ CL_MP_AC-TION_CALL_TCODE	Create process order. Call transaction COR1.	**TCODE** LOW = "COR1" **UPD_VAL** LOW = "S"
M_CORTXT	/LMPC/ CL_MP_ACTION_ORDTEXT	LMPC order text.	None.
M_CPV	/LMPC/ CL_MP_ACTION_CPV	Change production version.	None.

Action Code	Class	Description	Parameter
M_DEL_PLAF	/LMPC/ CL_MP_ACTION_PPIO_EN-TRY	**Delete planned order.**	**VARI_PP** LOW = "LMPC_MP_PP_DEL" **VARI_PI** LOW = "LMPC_MP_PI_DEL" **EXC_PLAN** LOW = " " **EXC_PROD** LOW = "X" **WAIT** LOW = "1" **PROMPT** LOW = "X"
M_DISPLAY_ORDER	/LMPC/ CL_MP_AC-TION_CHANGE_ORD	**Display order.**	**DISPLAY** LOW = "X"
M_MD11	/LMPC/ CL_MP_AC-TION_CALL_TCODE	**Create planned order.** Call transaction MD11.	**TCODE** LOW = "MD11" **UPD_VAL** LOW = "S"
M_MFREI	/LMPC/ CL_MP_ACTION_PPIO_EN-TRY	**Release orders.**	**VARI_PP** LOW = "LMPC_MP_PP_FRE" **VARI_PI** LOW = "LMPC_MP_PI_FRE" **EXC_PLAN** LOW = "X" **EXC_PROD** LOW = "" **WAIT** LOW = "1" **PROMPT** LOW = "X"

Action Code	Class	Description	Parameter
M_MM03	/LMPC/ CL_MP_AC- TION_CALL_TCODE	Display material. Call transaction MM03.	TCODE LOW = "MM03" SKIP_1ST LOW = "X" MAT LOW = &MATNR_OH& NEW_MODE LOW = "X"
M_ORDCL	/LMPC/ CL_MP_ACTION_PPIO_EN- TRY	Technically complete or- ders.	VARI_PP LOW = "LMPC_PP_ORDCL" VARI_PI LOW = "LMPC_PI_ORDCL" EXC_PLAN LOW = "X" EXC_PROD LOW = "" WAIT LOW = "1" PROMPT LOW = "X"
M_POOL	/LMPC/ CL_MP_ACTION_SET_POOL	Form order pool.	MODE LOW = " " ADD_OFF LOW = " " SEQ_SAVE LOW = " " SILENT LOW = "X" FUNCTION LOW = "ADD"

Action Code	Class	Description	Parameter
M_POOL_REMOVE	/LMPC/ CL_MP_ACTION_SET_POOL	Remove the pool ID.	FUNCTION LOW = "DEL" SEQ_SAVE LOW = " " SILENT LOW = "X"
M_QUICKFILTER	/LMPC/ CL_MP_ACTION_QUICKFIL-TER	Quick filter.	FIELD
M_QUICKFILTER_REM	/LMPC/ CL_MP_ACTION_QUICKFIL-TER	Delete quick filter.	REMOVE LOW = "X"
M_REFRESH	/LMPC/ CL_MP_ACTION_REFRESH	Update order data.	REFRMODE LOW = "REFR_ALL"
M_REFRESH_CHANGED	/LMPC/ CL_MP_ACTION_REFRESH	Update changed orders. Internal action code not for user action.	REFRMODE LOW = "REFR_MOD"
M_REFRESH_DELTA	/LMPC/ CL_MP_AC-TION_MARK_MODIF	Update selected orders.	None.
M_REFRESH_NEW	/LMPC/ CL_MP_ACTION_REFRESH	Refresh + find new orders. Internal action code not for user action.	REFRMODE LOW = "REFR_NEW"
M_RELOAD	/LMPC/ CL_MP_ACTION_REFRESH	Reload. Reload data.	REFRMODE LOW = "RELOAD"
M_RESET_STATE	/LMPC/ CL_MP_ACTION_OR-DER_STATE	Reset processing.	DEL_HOR LOW = "365" STATE LOW = "0"
M_SET_STATE	/LMPC/ CL_MP_ACTION_OR-DER_STATE	Set the processing flag.	DEL_HOR LOW = "365" STATE LOW = "1"
M_SEP	None	Separator.	None.

7.1.3.2 Parameter Settings for MP Action Codes

Settings Options for MP Action Codes

The parameter settings are described in more detail below for individual action codes.

These are those action codes for which the system can adjust the behavior using parameter settings.

- Parameters for Action Codes of Mass Processing with PPIO_ENTRY [page 352]
- Parameters for Action Code M_DISPLAY_ORDER [page 353]
- Parameters for Calling Transactions with Class /LMPC/CL_MP_ACTION_CALL_TCODE [page 354]
- Parameter Action Code M_POOL, M_POOL_REMOVE [page 356]
- Parameters for Action Code M_QUICKFILTER, M_QUICKFILTER_REM [page 357]
- Parameters for Refresh Action Codes [page 359]
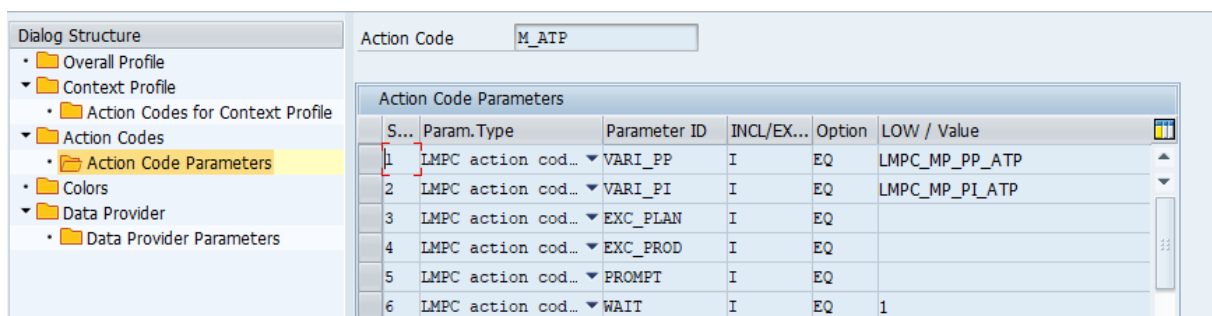- Parameters for Action Codes M_SET_STATE, M_RESET_STATE [page 359]

7.1.3.2.1 Parameters for Action Codes of Mass Processing with PPIO_ENTRY

Parameters for MP Action Codes for Mass Processing

/LMPC/MP has the option of using the mass processing functions of the program PPIO_ENTRY.

Mass processing is used in the following action codes:

- M_ATP ATP Check
- M_CONV Order Conversion
- M_DEL_PLAF Delete Planned Order
- M_MREL Release Orders
- M_ORDCL Technically Complete Orders

Example Parameter of Action Code M_ATP

Available parameters

Parameters for Mass Processing

Parameters	Description
EXC_PLAN	Parameters for planned orders.
	Exclude planned orders from processing.
	Values:
	LOW = "X" or blank.
EXC_PROD	Parameters for production and process orders.
	Exclude production and process orders from processing.
	Values:
	LOW = "X" or blank.
PROMPT	Parameter for popup window.
	Before executing the function, an additional query is made as to whether the function is to be executed in a popup window.
	Values:
	LOW = "X" or blank.
VARI_PI	Report variant for process orders.
	Example LOW = "LMPC_MP_PI_ATP".
VARI_PP	Report Variant for PP planned and production orders.
	Example LOW = "LMPC_MP_PP_ATP".
WAIT	Parameters for waiting time.
	Waiting time for updating activities.
	The specified time in seconds elapses before data is updated in MP.
	For PPIO_ENTRY, the update is not sequential, it is in parallel in an update module. Therefore, depending on the system and the processed data volume, a wait time may make sense.
	Values:
	Integer. You can also enter decimal places in the form XX.X.

7.1.3.2.2   Parameters for Action Code M_DISPLAY_ORDER

Configuration for Action Code M_DISPLAY_ORDER

Action code for displaying orders.
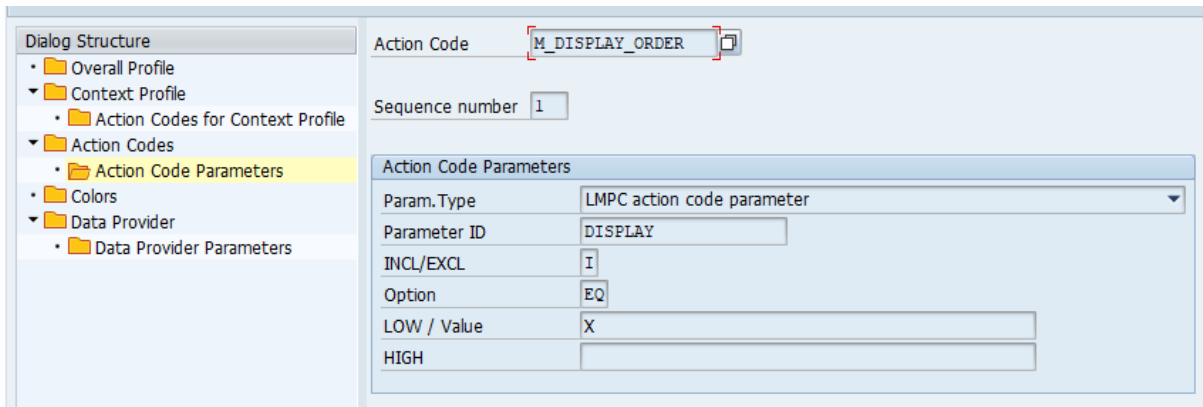
Sample Configuration M_DISPLAY_ORDER

Parameters for M_DISPLAY_ORDER

Parameter	Description
DISPLAY	If this parameter is set (LOW = "X"), the behavior of the class /LMPC/CL_MP_ACTION_CHANGE_ORD is changed so that the orders are opened in display mode.

Related Information

M_CHANGE_ORDER, M_DISPLAY_ORDER Display Order & Change Order

7.1.3.2.3 Parameters for Calling Transactions with Class / LMPC/CL_MP_ACTION_CALL_TCODE

Call SAP Standard Transactions in LMPC MP.

You can use the class /LMPC/CL_MP_ACTION_CALL_TCODE to call standard SAP transactions.

This class is used for the following action codes:

- M_MD11, M_CO01, M_COR1 Create Planned Order, Create Production Order, Create Process Order
- M_MM03 Display Material
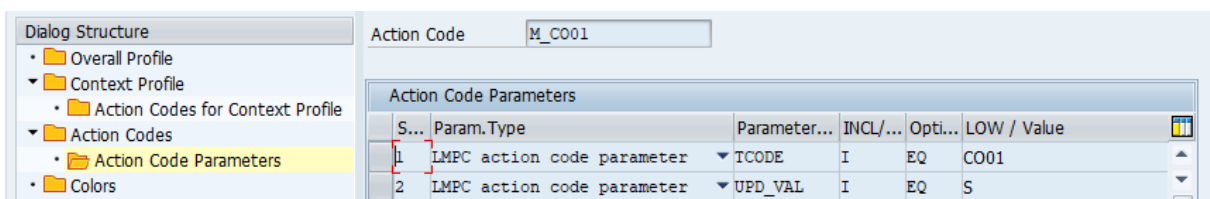
Example Configuration Action Code M_CO01

Parameters

Action code parameter

Parameters	Description
MODE_VAL	Parameter for the execution type. Transfer execution mode of the transaction. If the parameter is not maintained, mode A is used as standard. Possible values: • A Call transaction with GUI. • E Call transaction without GUI (except for error message). • P Call transaction without GUI (except breakpoints). • N Call transaction without GUI. Optional parameter.
NEW_MODE	Parameter for the new mode. If the parameter is set (LOW = "X"), the called transaction is opened in a new session. Optional parameter.
SKIP_1st	Parameter for initial screen. If this parameter is set (LOW="X"), the initial screen of the transaction is skipped. Not possible in use with batch input. Only possible in connection with update mode 'S'. This function is only supported by some transactions. Optional parameter.
TCODE	Parameter for transaction code. You use this parameter to specify which transaction code is to be used to call a transaction.
UPD_VAL	Parameter for update mode of transaction. If the parameter is not maintained, mode A is used as standard. Possible values: • A Asynchronous, do not wait. • S Synchronous, wait. • L Local. Optional parameter.

→ Tip

In addition to the LMPC action code parameters mentioned, you can use parameters for transaction calls such as selection options, parameters, batch input, and memory ID. In this case, the parameter type must be selected accordingly. The names of the parameters can be taken from the respective selection screen of the transaction. The settings for these parameters are described in the same way as for the action codes of the HJPT planning table and can be seen in the documentation there. Action Code Parameters [page 52]

7.1.3.2.4 Parameter Action Code M_POOL, M_POOL_REMOVE

Parameters for the Order Pool

Parameter configuration for the action codes of the order pool.

Example Configuration Action Code M_POOL

Parameters

Parameters for Action Codes of Pool Formation

Parameter	Description
ADD_OFF	Parameter for adding orders to existing order pools.
	Do you want to add orders to an existing pool?
	Values:
	• X = Yes.
	• Blank = No.
FUNCTION	Parameters for function.
	Create pool or remove pool ID.
	Values:
	• ADD = Generate pool
	• DEL = Remove pool

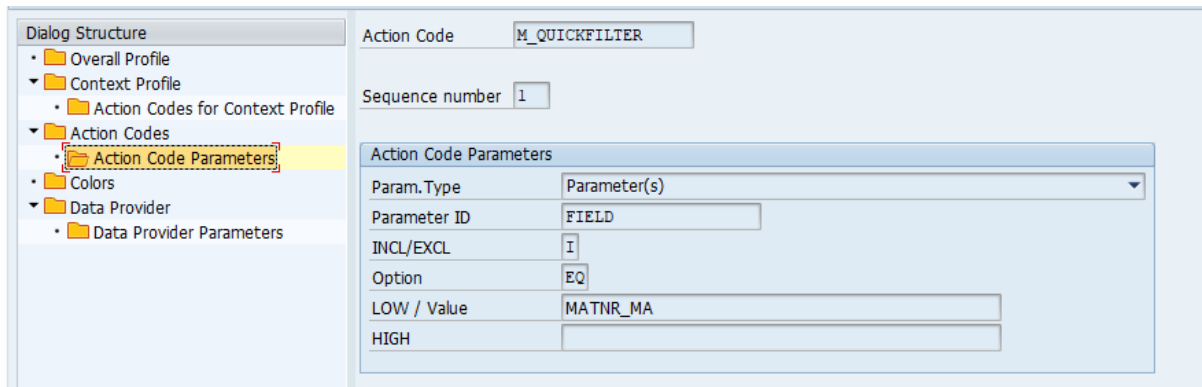| Parameter	Description
MODE	Parameters for mode
	Pool formation manual or automatic.
	Values:
	- Blank = Automatic assignment of a pool ID.
	- M = Manual assignment by entering an ID in a popup window.
SEQ_SAVE	Parameter for sequence number.
	Save the pool ID additionally as a sequence number in the order, or remove it from the sequence number during deletion.
	Values:
	- Blank = No.
	- X = Yes.
SILENT	Parameter for popup window.
	Suppress the prompts?
	Values:
	- Blank = No.
	- X = Yes.

Related Information

M_POOL Pool Formation
Remove M_POOL_REMOVE Pool

7.1.3.2.5 Parameters for Action Code M_QUICKFILTER, M_QUICKFILTER_REM

Parameters for Quick Filter

Parameter settings for the action codes for setting and removing quick filters.

Example Configuration Action Code M_QUICKFILTER

Parameters

Parameters for Quick Filter

Parameter	Description
FIELD	Parameters for the Filter Field
	Technical field name of the field that is to be filtered. From the structure /LMPC/MP_F01.
	If this parameter is not set and the action code is called by double-clicking, the field name is determined automatically from the double-click parameter.
	If a parameter is set in the action code, this overrides the parameter from the double-click.
	The setting can be made such that when you double-click on a specific field, the system filters by a field value of another field in the same row.
	Optional parameter.
REMOVE	Parameter for deleting filters.
	This parameter is required if the set quick filter is to be deleted with the action code class (LOW = "X").
	Optional parameter.

Related Information

M_QUICKFILTER, M_QUICKFILTER_REM, Quick Filter

7.1.3.2.6 Parameters for Refresh Action Codes

Settings for Action Codes for Updating Data

Example Configuration Action Code M_REFRESH

Parameters

Parameters for Updating Data

Parameter	Description
REFRMODE	Parameter for execution mode
	Specifies which type of update to execute when the action code is executed.
	Possible values:
	• REFR_ALL = Reload data for all orders.
	• REFR_MOD = Only reload data for changed orders.
	• REFR_NEW = Reload data for changed orders and search for new orders.
	• RELOAD = Discard all data and reload all data.

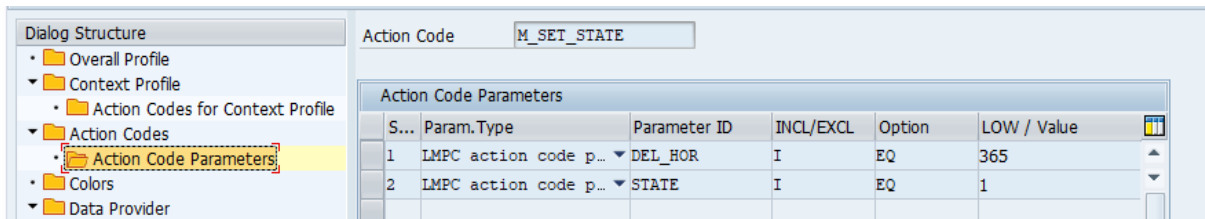### Related Information

M_RELOAD, M_REFRESH, M_REFRESH_DELTA, Update of Display

7.1.3.2.7 Parameters for Action Codes M_SET_STATE, M_RESET_STATE

Parameter Configuration for Order Status

This section describes the parameters for action codes for setting an order processing status.

M_SET_STATE Sample Configuration

Parameters

Parameters for Order Processing Status

Parameter	Description
DEL_HOR	Parameter for the time horizon.
	Time horizon for how long entries are retained.
	The deletion takes place after the specified number of days.
	In the standard delivery, this parameter is set to 365 days.
STATE	Parameter for the order processing status.
	Specifies which status is set in the order.
	Possible values:
	• 0 = Order not processed.
	• 1 = Order has been processed.
	Mandatory parameter.

Related Information

M_SET_STATE, M_RESET_STATE Select Order as "Processed"

7.1.4 MP ALV Grid Coloring

Set Coloring of ALV Grid

Single cells or whole rows of the tabular view of the ALV Grid can be colored based on field values.

The rules for coloring are maintained in transaction /LMPC/MP_CUST under the point: "Colors".

The check of the coloring rules is based on a simple value comparison.

A combination of multiple entries for a coloring rule is not supported.

Overview of Coloring Rules

By double-clicking an entry, you can go to the detail maintenance screen for the entry.

Details on Coloring Rule

Fields of the coloring rules:

Color Rule Fields

Field	Description
MP Profile	MP profile.
	Profile for which the color rule is to apply.
	Either a concrete profile name or (*) for all profiles.
Sequence Number	Unique sequence number for each rule and overall profile.
Field to Color	Field that is colored.
	If this field is left blank, the entire row is colored.
Color	Color that is to be used.
	The F4 help for the field displays possible colors.
Check Field	Field for the coloring rule.
	The value of this field is checked.
	Field from the structure /LMPC/MP_F01.

Field	Description
I/E	Value range for check.
	Include (I) or exclude (E)?
Option	Rule check operator.
	Possible options are either SAP selection options (EQ / BT /CP /...) or mathematical relational operators (=, >=, <=, >, <).
Low	Comparison value for rule.
	If a value range is checked, this field is the lower value.
High	Upper value.
	If a value range is checked, this field is the upper value.

The following coloring rules are delivered as standard:

Color Rules in the Standard Delivery

MP Profile	Number	Field to Color	Color	Rule	Description
*	1	DELNR_OH	C710	COMB_OR-DER_TYPE_OH, EQ PROC	Color order number of the process order orange.
*	2	DELNR_OH	C110	COMB_OR-DER_TYPE_OH EQ PLAN	Color the order number of the production order green.
*	3	DELNR_OH	C510	COMB_OR-DER_TYPE_OH EQ PROD	Color the order number of the planned order light blue.
*	4	OR-DER_STATE_BOOL_LM	C510	OR-DER_STATE_BOOL_LM EQ X	Color the status field green if the order has been marked as processed.
*	5	OR-DER_STATE_BOOL_LM	C400	OR-DER_STATE_BOOL_LM EQ ' '	Color the status field light gray-blue if the order has not yet been marked as processed.

7.1.5 MP Data Provider

Data Provider for Order Mass Processing

Data providers are ABAP classes that are responsible for reading the data.

In the LMPC outbound delivery, the data providers for MP have been delivered with the correct configuration.

Customizing is adjusted if:

- A new, customer-defined data provider is to be added to read additional data.
- You want to deactivate a standard data provider to improve the runtime.

Data providers are maintained in the Customizing transaction for order mass processing, under the menu option "Data Provider".

Dialog Structure	Data Provider			
	MP-Profile	No.	Class/Interface	Description
• Overall Profile	*	10	/LMPC/CL_MP_DP_STD	Selection and Order Header Data
▼ Context Profile	*	20	/LMPC/CL_MP_DP_MARA	Material Master Data (Plant independent)
• Action Codes for Context Profile	*	30	/LMPC/CL_MP_DP_MARC	Material Master Data (Plant dependent)
▼ Action Codes	*	40	/LMPC/CL_MP_DP_AUTEXT	LMPC Order Texts
• Action Code Parameters	*	50	/LMPC/CL_MP_DP_AFPO	Order Position Data
• Colors	*	60	/LMPC/CL_MP_DP_VERID	Production Version Data a. PVer-DropDown
▼ Data Provider	*	70	/LMPC/CL_MP_DP_LMPC_FIE…	LMPC Fields
• Data Provider Parameters	*	80	/LMPC/CL_MP_DP_PLKO	Routing/Recipe Header
	*	300	/LMPC/CL_MP_DP_COLOR	Colorization for ALV Grid

List of MP Data Providers

Fields for data provider maintenance:

Data Provider Fields

Field	Description
MP Profile	MP overall profile. Data providers can be executed depending on the MP overall profile. Values: A specific profile name or (*) for all overall profiles.
Number	Processing sequence. The processing sequence is important. Leave the sequence of the standard data provider as it was delivered. The data provider for the coloring must run as the last data provider.
Class/Interface	Implementing class. → Remember MP has its own data providers. Data providers for the LMPC HJPT planning table cannot be used.
Description	Description of the data provider in the logon language. Only displayed in this transaction. Moreover, it has no meaning.
Status	Indicates whether the entry is active or inactive.

7.1.5.1 Data Provider Catalog

Technical Details for Data Providers

This chapter provides an overview of the LMPC/MP standard data providers with the information about which fields they read and fill.

Class	Description	Data provider reads fields	Data provider fills fields
/LMPC/CL_MP_DP_AFPO	Data for order items.	AENKZ_IT TYPKZ_OH DELNR_OH	VERID_OH
/LMPC/CL_MP_DP_AUTEXT	LMPC order texts.	AENKZ_IT DELNR_OH	CORDTEXT_LM
/LMPC/CL_MP_DP_COLOR	Colors of the ALV Grid.	AENKZ_IT DELNR_OH Additional fields depending on Customizing.	None
LMPC/CL_MP_DP_LMPC_FIELDS	LMPC fields.	DELNR_OH	ORDER_STATE
/LMPC/CL_MP_DP_MARA	Data provider for MARA data.	AENKZ_IT DELNR_OH MATNR_OH	MATNR_MA MATKL_MA MAKTX_MA
/LMPC/CL_MP_DP_MARC	Data provider for MARC data.	AENKZ_IT DELNR_OH MATNR_OH WERKS_OH	MAXLZ_MC
/LMPC/CL_MP_DP_PLK	Plan and recipe header data.	AENKZ_IT PLNTY_OH PLNNR_OH PLNAL_OH TYPKZ_OH	NNAME_OH STATU_PK

Class	Description	Data provider reads fields	Data provider fills fields
/LMPC/CL_MP_DP_STD	MP basic data for orders	AENKZ_IT	DELNR_OH
		DELNR_OH	WERKS_OH
			MATNR_OH
			GAMNG_OH
			AVMNG_OH
			GMEIN_OH
			START_DATE_OH
			KDAUF_OH
			KDPOS_OH
			DISPO_OH
			TYPKZ_OH
			PLNTY_OH
			PLNNR_OH
			PLNAL_OH
			NNAME_OH
			COMB_ORDER_TYPE_OH
			POOL_GUID_LM
			AUTYP_FA
			ASKOX_FA
			SSKOX_FA
			MP_INDEX_IT
			AENKZ_IT
			NEWKZ_IT
/LMPC/CL_MP_DP_VERID	Data for production versions.	AENKZ_IT	VERID_OH
		DELNR_OH	PLNTY_OH
		WERKS_OH	PLNNR_OH
		MATNR_OH	PLNAL_OH
		GAMNG_OH	
		START_DATE_OH	

7.1.5.2 MP Data Provider Parameters

Parameters for MP Data Provider

Currently, there is only one parameter for data provider.

The data provider **/LMPC/CL_MP_DP_STD** has the parameter **DATETYPE**.

You can use this parameter to set for process orders that the scheduled start date (setting SCHED) of the order is read instead of the basic start date (setting BASIC).

7.2 MP User Parameters

Prepopulate Input Fields of MP Selection Screen

Individual fields on the selection screen of transaction /LMPC/MP can be prepopulated using user parameters.

Standard parameters and /LMPC/MP parameters can be used.

A default value is possible for the following fields:

MP User Parameters

Field Name	User Parameter	Description
MP Overall Profile	/LMPC/MP_PROFILE	Default value for the MP overall profile.
MRP controller	DGR	Default value for MRP controller.
Material	MAT	Default value for material.
Plant	WRK	Default value for plant.
Work Center	AGR	Default value for work center.
Resource Network	CNE	Default value for resource network.
Checkbox: Planned Orders	/LMPC/MP_SEL_PLAF	Default value for checkbox for planned orders.
Checkbox: Production Orders	/LMPC/MP_SEL_FAUF	Default value for checkbox for production orders.
Checkbox: Process Orders	/LMPC/MP_SEL_PRAUF	Default value for checkbox for process orders.
Order Type	AAT	Default value for order type.

The user parameters can be maintained in transaction SU2 or SU3.

Example Maintenance of User Parameters in Transaction SU3

> → Tip
>
> If no user parameters are maintained for the checkboxes for the types of the orders, default values are automatically preset for all checkboxes when the transaction is called.

7.3 Enhancement Options for LMPC Mass Processing

Enhancement of LMPC Mass Processing

It is possible to enhance LMPC order mass processing with customer-specific coding without using user exits, enhancements, or other known ABAP techniques.

You only need to create the coding in the Z or Y namespace and include it using the enhancement options provided by LMPC.

> → Remember
>
> Customer-specific coding is not subject to LMPC support. If you need support for developing, testing, or troubleshooting customer coding, you can request support from SAP.

The following enhancements are possible:

- Enhancement of the MP Selection Screen [page 367]
- Customer-Defined MP Action Codes [page 368]
- Customer-Specific MP Data [page 370]

7.3.1 Enhancement of the MP Selection Screen

Enhance MP Selection Screen

Additional fields can be added to the selection screen. The include ZLMPC_MP_ENHC_SEL can be created for this.

The include is included in the /LMPC/MP_MAIN report.
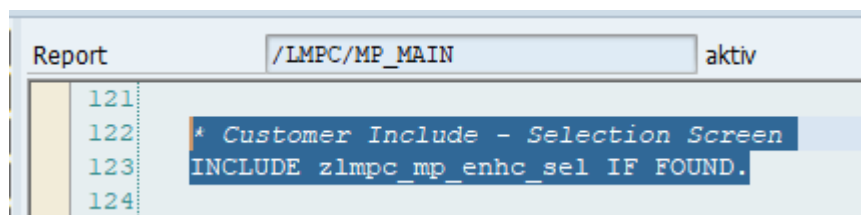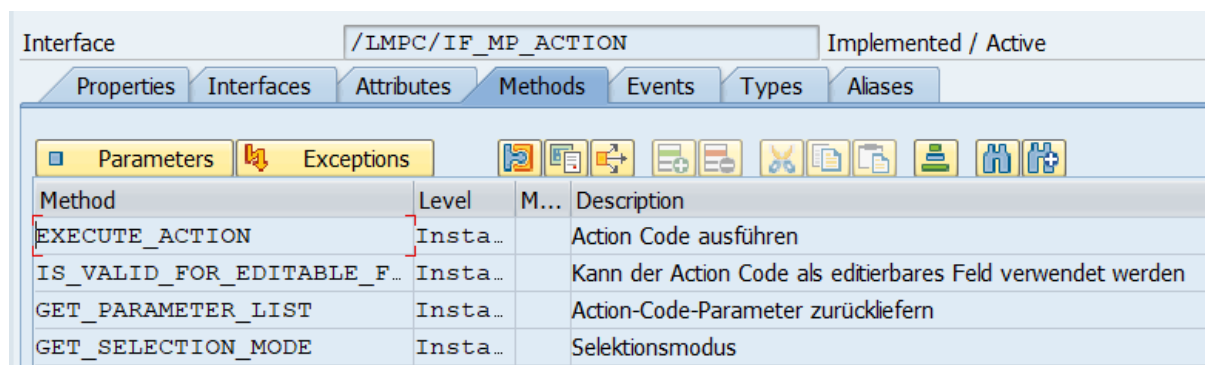

Include ZLMPC_MP_ENHC_SEL

7.3.2 Customer-Defined MP Action Codes

Create MP Action Codes in Customer Namespace

Action codes are ABAP classes that each implement a function.

All /LMPC/MP action codes must be based on the /LMPC/IF_MP_ACTION interface.

The interface determines the required methods and the transfer parameters that order mass processing can process.

Interface /LMPC/IF_MP_ACTION

After you have implemented a class for an action code in the Z namespace or Y namespace, this is added in Customizing in transaction /LMPC/MP_CUST.

When activating customer-specific action codes:

- A new action code entry is created in the list of action codes.
- The action code is added to the context profile used.

The individual methods of the action code class are explained briefly below.

Method EXECUTE_ACTION

Execution of the processing logic of the action code.

Parameters	Description
IT_SELECTION	Table of selected orders.
IT_PARAMS	Action code parameter from Customizing.
IV_TRIGGER	Action code trigger.

Parameters	Description
IV_TRIGGER_PARAM	Trigger parameter.
	When you double-click on the field name, for a key command, name of command, and so on.
IV_ACTION	Name of the action code from Customizing.
EV_REJECT_FIELD_EDIT	When the action code is called using a field that is ready for input, this return parameter can be used to reset the field change by the user, for example, if an incorrect entry was made.
EV_FINISHED	Return parameter.
	If the parameter is set (="X"), then no subsequent action codes are executed.
EV_FINISH_TRIGGER	Return parameter.
	If this parameter is set (="X"), no further action codes are executed for the same trigger.
	This parameter is necessary if several action codes have the same trigger and trigger parameter.
EV_REFRESH_ALV	Return parameter.
	If this parameter is set (="X"), a refresh is executed on the ALV Grid without the data providers being processed.
	It is therefore a refresh of the display.
	The parameter is not required if a refresh action code is used as a follow-up action code via Customizing.
CT_ORDERS	Internal table with the /LMPC/MP data.

Method GET_PARAMETER_LIST

Return list of possible action code parameters for Customizing.

Parameters	Description
ET_PARAMETER	Parameter list.

Method GET_SELECTION_MODE

Define selection mode of action code.

Parameters	Description
IT_PARAMS	Parameters from Customizing.

Parameters	Description
E_MODE	Selection mode.
	Possible values:
	- /lmpc/mp_constants=>GC_SEL_MODE_0N: Any selection. O to N.
	- /lmpc/mp_constants=>GC_SEL_MODE_1N: 1 to N lines.
	- /lmpc/mp_constants=>GC_SEL_MODE_11: Exactly one line.

Method IS_VALID_FOR_EDITABLE_FIELD

Inspection: Can the action code be used for an ALV field that is ready for input?

Parameters	Description
IV_FIELDNAME	Field name for which the system checks whether it is possible to use the field as one ready for input.
EV_VALID	Return value.
	Can the action code be used for this field ready for input?
EV_DROPDOWN_FIELD	Return value.
	Optional: Field name for ALV dropdown handle.
	If this parameter is set, the field that is ready for input is displayed as a dropdown list instead of a free text field.
EV_OUTPUT_LENGTH	Return value.
	Optional: Overrides the output length of the field that is ready for input if the field is too short for easy maintenance.

7.3.3 Customer-Specific MP Data

Read Additional Data in /LMPC/MP

It is possible to display additional data in LMPC order mass processing.

Two steps are necessary for this:

- Enhancement of the field list of the ALV Grid.
- Creation of a data provider.

Enhancement to Field List

The ALV Grid of the /LMPC/MP transaction is based on the structure /LMPC/MP_F01.

This contains the include CI_LMPC_MP_USER.

This include can be defined in the customer system.

You can create Z or Y customer fields in this include.

The fields are then displayed in the ALV Grid of order mass processing. You can find them in the layout settings in the group of user fields.

| Structure | /LMPC/MP_F01 | | | Active | | | |
| Short Description | LMPC Order Mass Processing - Order data | | | | | | |

Attributes | Components | Entry help/check | Currency/quantity fields

1 / 10

Component	RT...	Component type	Data Type	Length	Decim...	Short Description
.INCLU- OH	☐	/LMPC/MP_ORDER_HEADER		0	0	Combined order header PLORD/Work
.INCLU- MA	☐	/LMPC/MP_MARA		0	0	MARA-Fields for /LMPC/MP
.INCLU- MC	☐	/LMPC/MP_MARC		0	0	MARC-fields for /LMPC/MP
.INCLU- LM	☐	/LMPC/MP_LMPC_FIELDS		0	0	/LMPC/MP: LMPC fields
.INCLU- FA	☐	/LMPC/MP_FAUF		0	0	Production order specific fields in /LMP
.INCLU- PK	☐	/LMPC/MP_PLKO		0	0	
.INCLU- IT	☐	/LMPC/MP_INTERNAL_FIELDS		0	0	LMPC MP: Internal fields
.INCLU- CI	☐	CI_LMPC_MP_USER		0	0	
CTAB	☐	LVC_T_SCOL		0	0	ALV control: Table for cell coloring
COLOR	☐	LVC_EMPHSZ	CHAR	4	0	ALV control: Highlight column with color

Structure /LMPC/MP_F01

Customer-Specific Data Provider

To fill the fields, you need to implement a data provider.

Data providers are ABAP classes that are based on the /LMPC/IF_MP_DPRO interface and fill the table of order mass processing with values.

After the data provider has been created, it must be added to processing in Customizing.

You do this in transaction /LMPC/MP_CUST.

| Interface | /LMPC/IF_MP_DPRO | | Implemented / Active |
| Properties | Interfaces | Attributes | **Methods** | Events | Types | Aliases |

Parameters | Exceptions

Method	Level	M...	Description
PROVIDE_DATA	Insta...		
GET_PARAMETER_LIST	Insta...		

Interface /LMPC/IF_MP_DPRO

i Note

When you implement data providers, you need to pay particular attention to runtime when programming since the large number of data records processed using this transaction are extremely prone to errors in programming. It is recommended that you use buffer tables and only read data for changed orders.

Method PROVIDE_DATA

Read data and fill internal table of MP data.

Parameters	Description
IV_REFRESH_MODE	Input variable for update mode.
	Values:
	• REFR_ALL: Reload data for all orders.
	• REFR_MOD: Only reload data for changed orders.
	• REFR_NEW: Reload data for changed orders and search for new orders.
	• RELOAD: Discard all data and reload.
IT_SELECTION_CRITERIA	Table of selection criteria from the selection screen.
IT_PARAMS	Parameter values from Customizing.
CT_ORDERS	Table of orders.
	In the case of changed and new lines, the field AENKZ_IT is set to "X".
CT_ALV_DROPDOWNS	Table of dropdown values for the ALV Grid.

Method GET_PARAMETER_LIST

Offer parameters for Customizing.

Parameters	Description
ET_PARAMETER	Export table for parameters.

8 Configuration of the LMPC Order Report

LMPC Order Report Overview of Setting Options

The LMPC order report can be called in two ways:

- Via the action code S_ORDREP. S_ORDREP LMPC Order Report
- Via the transaction /LMPC/ORDER_REP. Transaction /LMPC/ORDER_REP LMPC Order Report

This section provides an overview of the setting options for the LMPC order report.

The section is divided into further subsections.

Related Information

LMPC Order Report

8.1 Transaction /LMPC/OR_DPRO Order Report Data Provider

Read Data for Order Report

The data providers for the order report are maintained in transaction /LMPC/OR_DPRO.

Four data providers are delivered as standard:

- /LMPC/CL_ORDREP_DP_01: Contains parts of the read logic of transaction MD4C and forms the basic data of the data.
- /LMPC/CL_ORDREP_DP_02: Enhances the data with the stock information from transaction MD04.
- /LMPC/CL_ORDREP_USER_STAT: Reads the status information that has been set for the production orders.
- /LMPC/CL_ORDREP_DP_COLOR: Defines the color of the ALV.

Transaction /LMPC/OR_DPRO

The sequence of the four data providers must be followed.

Customer-specific data providers can be inserted after the second, third, or fourth data provider.

The "No." field defines the sequence in which the data providers are run.

Using the "HJPT profile" field, the data providers can be set to a specific LMPC HJPT overall profile. They are then run through only for the profile in question.

The "Status" field enables you to deactivate data providers individually.

If required, parameter values can be passed to the data providers.

The standard data providers do not require parameters.

8.2 Transaction /LMPC/OR_STAT Status Information for Order Report

Settings for Status Selection

The structure of the ALV Grid of the order report has five status fields:

Status Fields in ALV Grid Structure

You can use the Customizing transaction /LMPC/OR_STAT to define which statuses are displayed in the respective fields.

You can also set the column header of the fields.

The status settings are made at four levels:

- Status Fields
- Description
- System Status
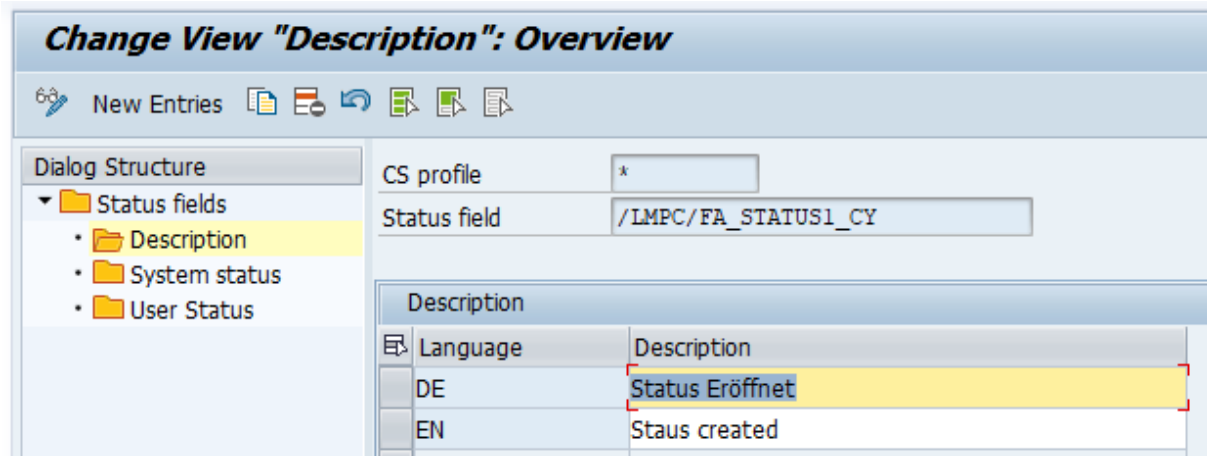- User Status

Status Fields
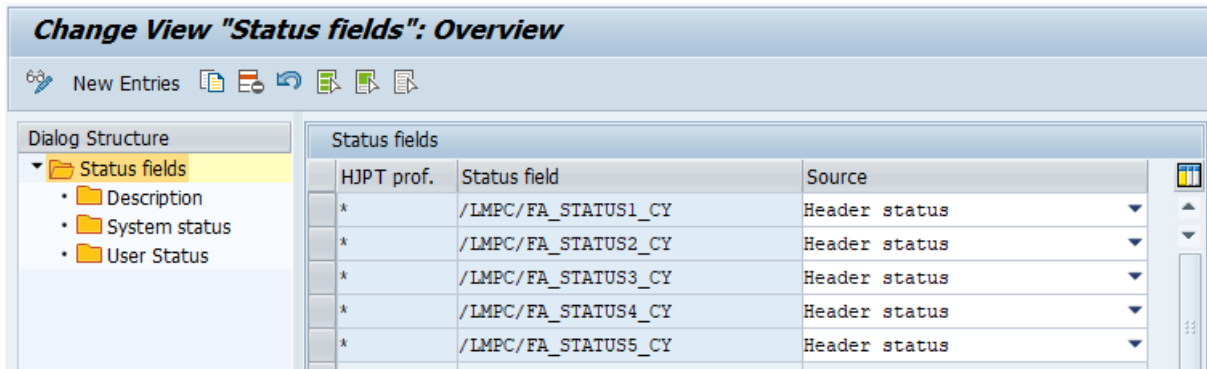
Transaction /LMPC/OR_STAT

The overview of the status fields determines which fields are to be filled.

Only the header status of the production order can be selected as the origin.
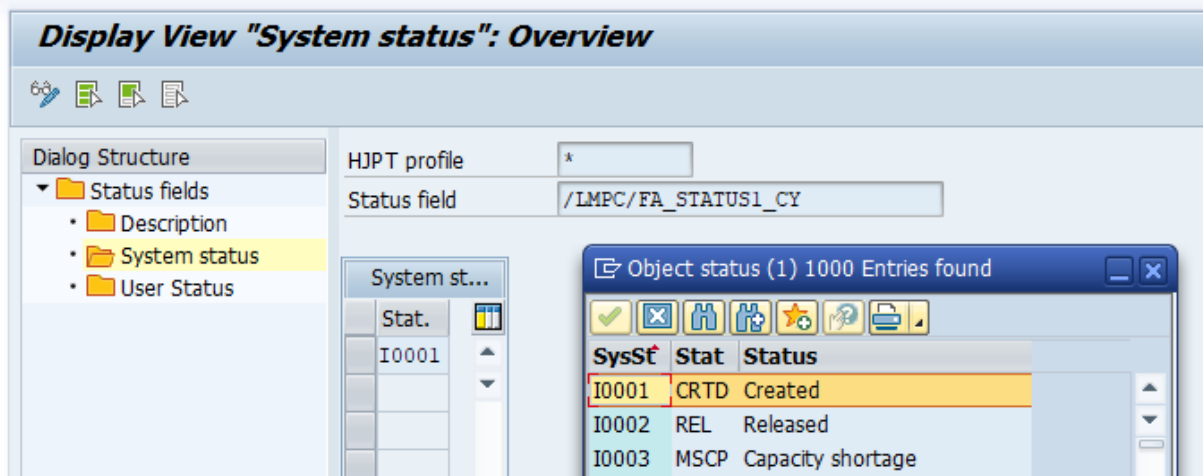
Description

Maintain Descriptions

In the "Description" area, the column header for the ALV Grid is maintained in the respective logon language.
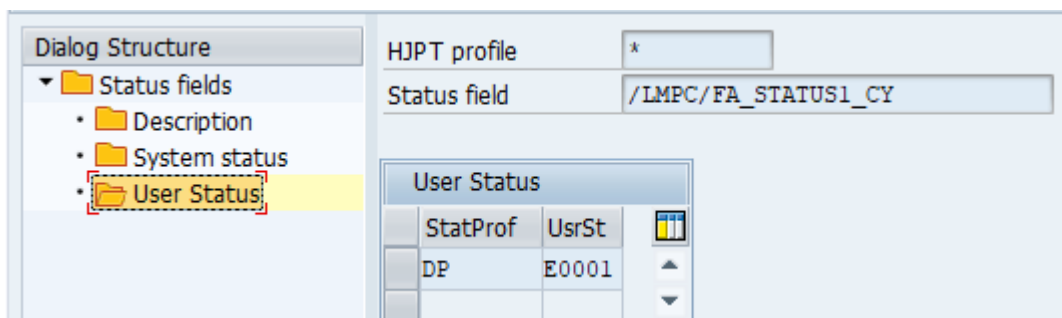
System Status

Maintain System Status

In the "System Status" area, you select which statuses are to be displayed.

The F4 help provides an overview of the possible system statuses.

User Status

Maintain User Status

The user status to be displayed is defined in the "User Status" area.

The F4 help displays all possible statuses for the selected user status.

8.3 Transaction /LMPC/OR_COLOR Coloring ALV Grid of Order Report

Coloring Fields of ALV Grid for Order Report

The Customizing transaction /LMPC/OR_COLOR creates the coloring rules.

The coloring functions like dynamic coloring in the ALV Grid of the LMPC planning table. Therefore, the documentation for dynamic coloring is referenced here. Transaction /LMPC/CUSTCOL_FML Color ALV Grid Dynamically [page 246]

Change View "Field Selection": Overview

New Entries 📋 🗒 🔄 📑 📑 📑

Dialog Structure	Field Selection					
▼ 📁 Field Selection	HJPT prof.	No.	Field to be colored	Color CNNN	Status	⊞
• 📁 Formula definition	*	001	ERR01	C700	Active	▲
	*	003	MSGXX	C700	Active	▼
	*	004	MSGXX	C600	Active	
	*	005	ERR01	C600	Active	
	*	006	ERR01	C700	Active	

Color ALV Grid of Order Report

9 SAP System Settings for Planning in LMPC

Overview of Settings in the Standard SAP System

This unit provides a brief overview of the settings in the standard SAP system for planning with the LMPC consulting solution.

- Production Master Data ERP Standard [page 378]
- Status Profile and Selection Profile [page 380]

9.1 Production Master Data ERP Standard

Master Data for Planning with LMPC

Master data is necessary for planning with the LMPC HJPT planning table. The required standard SAP master data is shown as an overview in the following list. For detailed information about SAP master data maintenance, see the standard SAP documentation.

- Material Master [page 378]
- Work Center [page 379]
- BOM [page 379]
- Routing [page 379]
- Production version [page 379]

9.1.1 Material Master

Notes on Settings in the Material Master

The MRP views are required in the material master, as is the *Work Scheduling* view for the materials to be produced.

For the materials, it is also recommended to perform lot size dependent scheduling with the most common production quantity as the base quantity and to update the scheduling data in the material master accordingly.

If you use the timetable and leveling in combination, the lot size data in the material master is to be configured in such a way that the production quantities that are averaged by means of leveling can be produced in the blocks of the timetable allocation.

9.1.2 Work Center

Notes on Work Center

The formulas and capacity data at the work center must enable the generation of capacity requirements in lead time scheduling.

The formulas must be designed in such a way that the duration of the orders is calculated correctly. This is necessary for the correct display of the bar lengths in the capacity planning table.

The formulas for calculating capacity requirements and formulas for calculating the duration of orders are to be aligned. Dispatching only works if the capacity requirements in the period calculated can be dispatched to the work centers.

9.1.3 BOM

Notes on BOMs

There are no special prerequisites for designing bills of material.

This section reminds you that BOMs need to be created for the materials.

9.1.4 Routing

Notes on Routing

Standard values must be maintained for the operation with the capacity to be scheduled for the assigned work center so that scheduling data and capacity requirements can be created.

9.1.5 Production version

Notes on Production Version

The BOM and routing are linked to each other in the production version.

In addition, in the "Repetitive Manufacturing" area, in the "Production Line" field, maintain the bottleneck work center that you want to use later for leveling and dispatching using the LMPC HJPT planning table.

9.2 Status Profile and Selection Profile

Notes on the Status Profile for Production and Process Orders

In the LMPC HJPT planning table, you can use the action code S_FIX to fix orders. This means that you can prevent orders being rescheduled and changed, depending on the planning function.

For the fixing of production orders or process orders, a status profile is required to be able to set the status "Fixed".

The LMPC delivery provides you with an LMPC status profile as an example, which you can use as a template for your status profile in the system.

In order for the LMPC function to work to fix production and process orders, the status profile used must have the status "FIX".

LMPC Status Profile

→ Remember

The status for fixing requests can have any name, but the authorization key must have the name "FIX".

LMPC Status Selection Profile

The transaction for maintaining the status profile is BS02.

The transaction for maintaining the status selection profile is BS42.

Special Feature of Process Industry

Process order operations are firmed, as in production orders, via the user status within the order operation. Since it is not possible to use the process order settings to maintain a default status profile for operations, you can use the parameter STSMA in action code S_FIX to supply a default status profile for process orders. This status profile will be applied to the operation by the action code if the operation does not already have a status profile.

The status profile used for firming process orders must be valid for operations in the process industry.

To do this, the selection of the object types must be adjusted in transaction BS02:

Open status profile and select "object types":

Status Profile - Object Types

"Process order operation" must be activated:

Status Profile - Object Types - Process Order Operation

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