|  |  |
| --- | --- |
|  |  |
| Test Script  SAP S/4HANA - 16-09-20 | public |
| Production Capacity Leveling (3LQ\_DE) |

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# Purpose

This scope item supports both Discrete and Process Manufacturing capacity leveling functionality for their demands. You can determine the industry type and displayed data under the app settings. The process of production capacity leveling represents a central part of preparation for the manufacturing process of components.

After you forecast a demand for finished goods represented by Planned Independent Requirements (PIR) and the Material Requirements Planning (MRP) run created a production plan, the process of capacity leveling (scheduling) takes place.

This process enables production planners to assign orders and operations from the production plan to available timeslots of capacities. Additionally, the planners can simulate and choose other alternatives for production by assigning other available production versions, letting the planners schedule the best option for their manufacturing.

This document provides a detailed procedure for testing this scope item after solution activation, reflecting the predefined scope of the solution. Each process step, report, or item is covered in its own section, providing the system interactions (test steps) in a table view. Steps that are not in scope of the process but are needed for testing are marked accordingly. Project-specific steps must be added.

# Prerequisites

This section summarizes all the prerequisites for conducting the test in terms of systems, users, master data, organizational data, other test data and business conditions.

## System Access

|  |  |
| --- | --- |
|  | Details |
| System | Accessible via SAP Fiori launchpad. Your system administrator provides you with the URL to access the various apps assigned to your role. |

## Roles

Assign the following business roles to your individual test users. Alternatively, if available, you can create business roles using the following spaces with pages and predefined apps for the SAP Fiori launchpad and assign the business roles to your individual test users.

Note These roles or spaces are examples provided by SAP. You can use them as templates to create your own roles or spaces.

For more information about business roles, refer to Assigning business roles to a user in the [Administration Guide to Implementation of SAP S/4HANA with SAP Best Practices](https://help.sap.com/viewer/S4HANA2020_AdminGuide) .

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Name (Role) | ID (Role) | Description (Space) | ID (Space) | Log On |
| Production Engineer - Discrete Manufacturing | SAP\_BR\_PRODN\_ENG\_DISC | Production Engineering - Discrete Manufacturing | SAP\_BR\_PRODN\_ENG\_DISC |  |
| Production Planner | SAP\_BR\_PRODN\_PLNR | Production Planning | SAP\_BR\_PRODN\_PLNR |  |
| Production Supervisor - Discrete Manufacturing | SAP\_BR\_PRODN\_SUPERVISOR\_DISC | Discrete Manufacturing Execution Management | SAP\_BR\_PRODN\_SUPERVISOR\_DISC |  |
| Production Operator - Discrete Manufacturing | SAP\_BR\_PRODN\_OPTR\_DISC | Discrete Manufacturing Execution | SAP\_BR\_PRODN\_OPTR\_DISC |  |
| Warehouse Clerk | SAP\_BR\_WAREHOUSE\_CLERK | Inventory Processing | SAP\_BR\_WAREHOUSE\_CLERK |  |
| Production Engineer - Process Manufacturing | SAP\_BR\_PRODN\_ENG\_PROC | Production Engineering - Process Manufacturing | SAP\_BR\_PRODN\_ENG\_PROC |  |
| Production Supervisor - Process Manufacturing | SAP\_BR\_PRODN\_SUPERVISOR\_PROC | Process Manufacturing Execution Management | SAP\_BR\_PRODN\_SUPERVISOR\_PROC |  |
| Production Operator - Process Manufacturing | SAP\_BR\_PRODN\_OPTR\_PROC | Process Manufacturing Execution | SAP\_BR\_PRODN\_OPTR\_PROC |  |

## Master Data, Organizational Data, and Other Data

The organizational structure and master data of your company has been created in your system during activation. The organizational structure reflects the structure of your company. The master data represents materials, customers, and vendors, for example, depending on the operational focus of your company.

### Master Data for Discrete Manufacturing

The organizational structure and master data of your company has been created in your system during activation. The organizational structure reflects the structure of your company. The master data represents materials, customers, and vendors, for example, depending on the operational focus of your company.

This section describes sample Master Data for Discrete Manufacturing. Use your own master data or the following sample data to go through the test procedure.

Product

|  |  |  |  |
| --- | --- | --- | --- |
| Data | Sample Value | Details | Comments |
| Product | FG1\_CP | CP-FG1, Shaft with Rolling Bearings |  |
| Product | SG1\_CP | CP-SG1, Shaft |  |
| Product | RM1\_CP | CP-RM1, Steel |  |
| Product | RM2\_CP | CP-RM2, Rolling Bearing |  |
| Product | RM3\_CP | CP-RM3, Retaining Ring |  |
| Product | RM4\_CP | CP-RM4, Packaging Material |  |
| Plant | 1010 | Plant 1 DE |  |
| Storage Location | 101A | Std. storage 1 |  |
| Storage Location | 101B | Std. storage 2 |  |
| Storage Location | 101C | Raw mat. sto. loc. |  |

Bill of Material Structure

This overview shows the bill of material structure and the usage of each component if you have activated all optional enhancements.

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Product | Level | Material Type | Unit | Description |
| FG1\_CP | 0 | FERT | PC | Finished Good for MTS processing |
| SG1\_CP | 1 | SEMI | PC | Semi-finished Goods |
| RM1\_CP | 2 | RAW | PC | Raw material, component for SG1\_CP |
| RM2\_CP | 1 | RAW | PC | Raw material |
| RM3\_CP | 1 | RAW | PC | Raw material |
| RM4\_CP | 1 | RAW | PC | Raw material |

Routing

This overview shows Routing for Semi-finished goods and Finished goods. In the pre-delivered demo data, two routings were created for each product with same operation but different work centers for the critical operation.

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Product | Operation | Description | Work Center | Work Center (Alternative) |
| SG1\_CP | 0010 | Turning Machine 1 | TURNING1 |  |
|  | 0020 (Critical Operation) | Turning Machine 2 | TURNING2 | TURNING9 |
|  | 0030 | Drilling machine | DRILING |  |
|  | 0040 | Finishing | FINICLN |  |
|  | 0050 | Clearing | FINICLN |  |
| FG1\_CP | 0010 (Critical Operation) | Assembly | ASSPKG | ASSPKG9 |
|  | 0020 | Finish and clean | FINICLN |  |

You can find general information of how to create master data objects in the following Master Data Scripts (MDS):

|  |  |
| --- | --- |
| MDS | Description |
| BNR | Create Product Master of Type "Raw Material" |
| BNS | Create Product Master of Type "Semi-Finished Good"> |
| BNT | Create Product Master of Type "Finished Good" |
| BNJ | Create Production Work Center |
| BNK | Create Material BOM for Production and Sales |
| BNL | Create Routing |
| BLD | Create Production Version |

### Master Data for Process Manufacturing

The organizational structure and master data of your company has been created in your system during activation. The organizational structure reflects the structure of your company. The master data represents materials, customers, and vendors, for example, depending on the operational focus of your company.

This section describes sample Master Data for Process Manufacturing. Use your own master data or the following sample data to go through the test procedure.

Product

|  |  |  |  |
| --- | --- | --- | --- |
| Data | Sample Value | Details | Comments |
| Product | FG2\_CP | CP-FG2, Ink Bottled, 15 ml |  |
| Product | SG2\_CP | CP-SG2, Ink Bottled |  |
| Product | RM5\_CP | CP-RM5, Varnish |  |
| Product | RM6\_CP | CP-RM6, Pigment |  |
| Product | RM7\_CP | CP-RM7, Label |  |
| Product | RM8\_CP | CP-RM8, Bottle |  |
| Plant | 1010 | Plant 1 DE |  |
| Storage Location | 101A | Std. storage 1 |  |
| Storage Location | 101B | Std. storage 2 |  |
| Storage Location | 101C | Raw mat. sto. loc. |  |

Bill of Material Structure

This overview shows the bill of material structure and the usage of each component if you have activated all optional enhancements.

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Product | Level | Material Type | Unit | Description |
| FG2\_CP | 0 | FERT | PC | Finished Good for MTS processing |
| SG2\_CP | 1 | SEMI | PC | Semi-finished Goods |
| RM5\_CP | 2 | RAW | PC | Raw material, component for SG2\_CP |
| RM6\_CP | 2 | RAW | PC | Raw material, component for SG2\_CP |
| RM8\_CP | 2 | RAW | PC | Raw material, component for SG2\_CP |
| RM7\_CP | 1 | RAW | PC | Raw material |

Resource

This overview shows sample Resources for Process Manufacturing.

|  |  |
| --- | --- |
| Resource | Description |
| MIX01\_CP | CP-RES01, Ink Mixing 01 |
| BOT01\_CP | CP-RES02, Bottling 01 |
| BOT02\_CP | CP-RES03, Bottling 02 (ALT) |
| PAC01\_CP | CP-RES04, Ink Packing 01 |
| PAC02\_CP | CP-RES05, Ink Packing 02 (ALT) |

Master Recipe

This overview shows Master Recipe for Semi-finished goods and Finished goods for Process Manufacturing.

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| Product | Operation | Phase | Description | Work Center | Work Center (Alternative) |
| SG2\_CP | 0010 |  | Mixing Operation | MIX01\_CP |  |
|  | 0020 | X | Mixing Phase | MIX01\_CP |  |
|  | 0030 |  | Bottling Operation | BOT01\_CP | BOT02\_CP |
|  | 0040 (Critical Phase) | X | Bottling Phase1 | BOT01\_CP | BOT02\_CP |
|  | 0050 (Critical Phase) | X | Bottling Phase 2 | BOT01\_CP | BOT02\_CP |
| FG2\_CP | 0010 |  | Packing Operation | PAC01\_CP | PAC02\_CP |
|  | 0020 (Critical Operation) | X | Packing Phase | PAC01\_CP | PAC02\_CP |

You can find general information of how to create master data objects in the following Master Data Scripts (MDS):

|  |  |
| --- | --- |
| MDS | Description |
| BNR | Create Product Master of Type "Raw Material" |
| BNS | Create Product Master of Type "Semi-Finished Good"> |
| BNT | Create Product Master of Type "Finished Good" |
| BNJ | Create Production Work Center |
| BNK | Create Material BOM for Production and Sales |
| BNL | Create Routing |
| BLD | Create Production Version |

## Business Conditions

The following business conditions must be met before this scope item can be tested.

|  |  |
| --- | --- |
| Scope Item ID | Business Condition |
| 31L - Production Capacity Evaluation | All relevant steps described in the Business Conditions are completed. The process of capacity leveling can take place after capacity evaluation.  For discrete manufacturing use case (working with finished goods FG1\_CP), you need to complete the following activities described in the test script 31L under chapter Capacity Planning and Evaluation for Discrete Manufacturing as preceding steps.   * Section Create Planned Independent Requirements * Section Material Requirement Planning * Section Evaluate Capacity Situation   For process manufacturing use case (working with finished goods FG2\_CP), you need to complete the following activities described in the test script 31L under chapter Capacity Planning and Evaluation for Process Manufacturing as preceding steps.   * Section Create Planned Independent Requirements * Section Material Requirement Planning * Section Evaluate Capacity Situation |

## Preliminary Steps for Discrete Manufacturing

### Check Formulas in Work Center

Purpose

This process step shows you how to check and set the formulas used in work centers for critical operation. Formula under Capacities tab is used to calculate the capacity requirements of the operation segments; while formula under Scheduling tab is used to calculate execution time of the operation. You need to check and set formulas for following work centers: TURNING2, TURNING9, ASSPKG and ASSPKG9.

Procedure

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Test Step # | Test Step Name | Instruction | Expected Result | Pass / Fail / Comment |
| 1 | Log On | Log on to the SAP Fiori launchpad as a Production Engineer - Discrete Manufacturing. | The SAP Fiori launchpad displays. |  |
| 2 | Access the App | Open Change Work Center (CR02). |  |  |
| 3 | Enter Plant and Work Center | On the Change Work Center: Initial Screen, make the following entries and press Enter:   * Plant: 1010 * Work Center: <Work Center> |  |  |
| 4 | Check Formulas under Capacities Tab | Choose Capacities tab, check formulas under Capacity category section: 001. For test purpose, we recommend using the same values as below:   * Setup Formula: SAP005 * Processing Formula: SAP006 |  |  |
| 5 | Check Formulas under Scheduling Tab | Choose Scheduling tab, check following settings. For test purpose, we recommend using the same values as below:  Scheduling basis section:   * Capacity category: 001   Execution time section:   * Duration of Setup: SAP001 * Processing Duration: SAP002 |  |  |
| 6 | Exit | Choose Save or Cancel |  |  |

### Check Routings

Purpose

If you want to use SAP pre-delivered demo data to run through this scenario, you need to check Routing settings in your system. We recommend it to be consistent with what we described in section Routing under chapter Master Data for Discrete Manufacturing. If it is not consistent, you need to manually change it.

Procedure

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Test Step # | Test Step Name | Instruction | Expected Result | Pass / Fail / Comment |
| 1 | Log On | Log on to the SAP Fiori launchpad as a Production Engineer - Discrete Manufacturing. | The SAP Fiori launchpad displays. |  |
| 2 | Access the App | Open Change Routing (CA02). |  |  |
| 3 | Select Finished Goods | On the Change Routing: Initial Screen screen, enter the following data and choose Continue:   * Plant: 1010 * Material: FG1\_CP |  |  |
| 4 | Check Routings for Finished Goods | In the list under Header Overview, check listed routing versions. You can tick each line, choose Operation to see detailed operations for each Routing version. For pre-delivered demo data, we deliver two routing versions with respective operations.   * GrC: 1 * Operation 0010 - Work Center: ASSPKG * Operation 0020 - Work Center: FINICLN * GrC: 2 * Operation 0010 - Work Center: ASSPKG9 * Operation 0020 - Work Center: FINICLN   If the work center in respective operation in your system is not identical with above, you need to manually change it. |  |  |
| 5 | Select Semi-finished Goods | Go back to the selection page, enter the following data and press Enter:   * Plant: 1010 * Material: SG1\_CP |  |  |
| 6 | Check Routings for Semi-finished Goods | Check listed Routing versions for semi-finished goods as the same way in step 4. For detailed Operation information, please check chapter Master Data for Discrete Manufacturing. |  |  |

### Check Production Version

Purpose

Production Versions are used as source of supply during production scheduling. This process step shows you how to check the alternative work centers which are assigned to the critical operation.

Procedure

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Test Step # | Test Step Name | Instruction | Expected Result | Pass / Fail / Comment |
| 1 | Log On | Log on to the SAP Fiori launchpad as a Production Engineer - Discrete Manufacturing. | The SAP Fiori launchpad displays. |  |
| 2 | Access the App | Open Manage Production Versions - C223 (C223). | The Production Version: Mass Processing screen displays. |  |
| 3 | Select Semi-finished Goods | In the Selection Conditions area, enter the following data and press Enter:   * Plant: 1010 * Material: SG1\_CP |  |  |
| 4 | Check Production Version for Semi-finished Goods | Check listed production versions. For pre-delivered demo data, we deliver two production versions with respective production line assignment.  Production Version: 0001  Production Line: TURNING2  Production Version: 0002  Production Line: TURNING9 |  |  |
| 5 | Select Finished Goods | In the Selection Conditions area, enter the following data and press Enter:  Plant: 1010  Material: FG1\_CP |  |  |
| 6 | Check Production Version for Finished Goods | Check listed production versions. For pre-delivered demo data, we deliver two production versions with respective production line assignment.  Production Version: 0001  Production Line: ASSPKG  Production Version: 0002  Production Line: ASSPKG9 |  |  |

## Preliminary Steps for Process Manufacturing

### Check Formulas in Resource

Purpose

In this step, you need to check and set the formulas used in work centers for critical operation. Formula under Capacities tab is used to calculate the capacity requirements of the operation segments; while formula under Scheduling tab is used to calculate execution time of the operation. You need to check and set formulas for following work centers: BOT01\_CP, BOT02\_CP, PAC01\_CP and PAC02\_CP.

Procedure

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Test Step # | Test Step Name | Instruction | Expected Result | Pass / Fail / Comment |
| 1 | Log On | Log on to the SAP Fiori launchpad as a Production Engineer - Process Manufacturing. | The SAP Fiori launchpad displays. |  |
| 2 | Access the App | Open Change Resource (CRC2). |  |  |
| 3 | Enter Plant and Work Center | On the Change Resource: Initial Screen, make the following entries and choose Enter:  Plant: 1010  Resource: <resource> |  |  |
| 4 | Check Formulas under Capacities Tab | Choose Capacities tab, check formulas under Capacity category section 001 and 002. For test purpose, we recommend using the same values as below:  Other Formula: YBPI01  Int. dist. key: SAP060 |  |  |
| 5 | Check Formulas under Scheduling Tab | Choose Scheduling tab, check following settings. For test purpose, we recommend using the same values as below:  Scheduling basis section:   * Capacity category: 001   Execution time section:   * Int. Proc. Duration: YBPI01 |  |  |
| 6 | Exit | Choose Save or Cancel. |  |  |

### Check Production Version

Purpose

Production Versions are used as source of supply during production scheduling. You can check the alternative work centers which are assigned to the critical operation.

Procedure

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Test Step # | Test Step Name | Instruction | Expected Result | Pass / Fail / Comment |
| 1 | Log On | Log on to the SAP Fiori launchpad as a Production Engineer - Process Manufacturing. | The SAP Fiori launchpad displays. |  |
| 2 | Access the App | Open Manage Production Versions - C223 (C223). | The Production Version: Mass Processing screen displays. |  |
| 3 | Select Semi-finished Goods | In the Selection Conditions area, enter the following data and press Enter:  Plant: 1010  Material: SG2\_CP |  |  |
| 4 | Check Production Version for Semi-finished Goods | Check listed production versions. For pre-delivered demo data, we deliver two production versions with respective production line assignment.  Production Version: 0001  Production Line: BOT01\_CP  Production Version: 0002  Production Line: BOT02\_CP |  |  |
| 5 | Select Finished Goods | In the Selection Conditions area, enter the following data and press Enter:  Plant: 1010  Material: FG2\_CP |  |  |
| 6 | Check Production Version for Finished Goods | Check listed production versions. For pre-delivered demo data, we deliver two production versions with respective production line assignment.  Production Version: 0001  Production Line: PAC01\_CP  Production Version: 0002  Production Line: PAC02\_CP |  |  |

# Overview Table

This scope item consists of several process steps provided in the table below.

If your system administrator has enabled spaces and pages on the SAP Fiori launchpad, the homepage will only contain the essential apps for performing the typical tasks of a business role.

You can find all other apps not included on the homepage using the search bar.

If you want to personalize the homepage and include the hidden apps, navigate to your user profile and choose Settings > App Finder .

|  |  |  |  |
| --- | --- | --- | --- |
| Process Step | Business Role | App/Transaction | Expected Results |
| Production Capacity Leveling for Discrete Manufacturing |  |  |  |
| [Production Scheduling](#unique_15) [page ] 18 | Production Planner | Schedule Production | Order is rescheduled and dispatched. |
| [Review Work Center Schedules](#unique_16) [page ] 21 | Production Planner | Monitor Work Center Schedules (F3951) |  |
| Production Capacity Leveling for Process Manufacturing |  |  |  |
| [Production Scheduling](#unique_17) [page ] 22 | Production Planner | Schedule Production | Order is rescheduled and dispatched. |
| [Review Work Center Schedules](#unique_18) [page ] 25 | Production Planner | Monitor Work Center Schedules (F3951) |  |

# Test Procedures

This section describes test procedures for each process step that belongs to this scope item.

## Production Capacity Leveling for Discrete Manufacturing

### Production Scheduling

Test Administration

Customer project: Fill in the project-specific parts.

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| Test Case ID | <X.XX> | Tester Name |  | Testing Date | Enter a test date. |
| Business Role(s) |  | | | | |
| Responsibility | <State the Service Provider, Customer or Joint Service Provider and Customer> | | | Duration | Enter a duration. |

Purpose

In preliminary steps, the planned orders are generated after MRP Run, and the capacity situation is evaluated and adjusted. This process step shows you how to assign orders and operations from the initially created production plan to available timeslots of capacities.

Procedure

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Procedure Test Step # | Test Step Name | Instruction | Expected Result | Pass / Fail / Comment |
| 1 | Log On | Log on to the SAP Fiori launchpad as a Production Planner. | The SAP Fiori launchpad displays. |  |
| 2 | Access the App | Open Schedule Production . |  |  |
| 3 | Check App Settings | On the Schedule Production screen, choose your user name and the App Settings icon.  In the dialog box, check if only below entry is assigned:  Plant 1 DE (1010)Plant 1 DE  MRP Controller 002 (002)  Choose AOR status button of this entry if not assigned, choose AOR status button of the corresponding entry to unassign any other entry then choose Back.  For Industry Type, select following value and choose OK.  Industry Type: Discrete |  |  |
| 4 | Filter | Choose following entries as filter and choose Go.  Product: SG1\_CP, FG1\_CP  Horizon: for example, next 1 month  Status: Non Dispatched and Dispatched | Critical operation for orders which fulfill the search criteria would display. |  |
| 5 | Choose Order | Orders for SG1\_CP and FG1\_CP would display in the list. Choose the desired order you want to dispatch. | The Schedule Production screen displays. |  |
| 6 | Check Operation Information | In the upper area of the right panel, check detailed information of the critical operation. |  |  |
| 7 | Check Available Time Buckets | In the below area of the right panel, the available source of supply would display under the grid table.  Using calendar selection box to adjust the date bucket in which you need to dispatch the order.   * For orders producing SG1\_CP, TURNING2 and TURNING9 would supply as two possible work centers. * For orders producing FG1\_CP, ASSKPG and ASSKPG9 would supply as two possible work centers. | The available capacity (XX H) for each day displays in the time bucket table. |  |
| 8 | Check Strategy | Choose Set Strategy in the upper right corner of the left panel. You can check relevant settings here and adjust if necessary.   * Plannng Mode * Scheduling Control * Direction   In this case, we choose the Bucket mode as an example. | There are two planning modes:   * Bucket: Allocate orders to first available timeslot. * Sequence: Define an exact time for the order to start/end (depending on the planning direction). |  |
| 9 | Check Order Information | Under Sourcing & Scheduling section, choose the Show More (mouseover) icon to check detailed order information. |  |  |
| 10 | Check Source of Supply | Under Available Sources of Supply in the bucket table, relevant production version displays. Check the production version marked as Assign. If you want to adopt some other production version instead, you can check the relevant line in the Assign column. |  |  |
| 11 | Choose Available Time Bucket | In the bucket table, choose the radio button before the available capacity (XX H) you want to assign. You may view the the available capacity (XX H) by Day, Week or Shift, as well as select the date range. |  |  |
| 12 | Dispatch and Review the Dispatched Orders | Choose Dispatch. Choose Review Dispatched Orders to review the dispatched orders. | A message displays: Dispatch of Order XXXX Operation XXXX scheduled from XXX to XXX was successful. |  |
| 13 | Cancel Dispatch (Optional) | If you need to cancel the dispatch process, choose Deallocate. | The Staus becomes Not Dispatched. |  |
| 14 | Realign Schedules (Optional) | If you need to realign the schedule, select corresponding items and choose Realign Schedules.  Enter the off-set number of days and time, choose Realign (choose Save and Realign if you want to set the day and time as default). | A message Realign Schedules executed appears. For details, see Message Manager. |  |
| 15 | Choose Save | Choose Save at the bottom of the left panel. |  |  |

Result

The planned orders are rescheduled according to the available timeslot you choose.

### Review Work Center Schedules

Test Administration

Customer project: Fill in the project-specific parts.

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| Test Case ID | <X.XX> | Tester Name |  | Testing Date | Enter a test date. |
| Business Role(s) |  | | | | |
| Responsibility | <State the Service Provider, Customer or Joint Service Provider and Customer> | | | Duration | Enter a duration. |

Purpose

This step enables production planner to monitor schedule status by the visualization of Gantt chart.

Procedure

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Procedure Test Step # | Test Step Name | Instruction | Expected Result | Pass / Fail / Comment |
| 1 | Log On | Log on to the SAP Fiori launchpad as a Production Planner. | The SAP Fiori launchpad displays. |  |
| 2 | Access the App | Open Monitor Work Center Schedules (F3951). |  |  |
| 3 | Filter | Choose following entries as filter and choose Go.   * Horizon: for example, next 1 month * Product: SG1\_CP, FG1\_CP * Status: Non Dispatched and Dispatched |  |  |
| 4 | Monitor Status | Monitor the schedule status in dashboard. View detailed information by choosing Order Details or selecting the color-bar. |  |  |

## Production Capacity Leveling for Process Manufacturing

### Production Scheduling

Test Administration

Customer project: Fill in the project-specific parts.

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| Test Case ID | <X.XX> | Tester Name |  | Testing Date | Enter a test date. |
| Business Role(s) |  | | | | |
| Responsibility | <State the Service Provider, Customer or Joint Service Provider and Customer> | | | Duration | Enter a duration. |

Purpose

In preliminary steps, the planned orders are generated after MRP Run, and the capacity situation is evaluated and adjusted. This process step shows you how to assign orders and operations from the initially created production plan to available timeslots of capacities.

Procedure

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Procedure Test Step # | Test Step Name | Instruction | Expected Result | Pass / Fail / Comment |
| 1 | Log On | Log on to the SAP Fiori launchpad as a Production Planner. | The SAP Fiori launchpad displays. |  |
| 2 | Access the App | Open Schedule Production . |  |  |
| 3 | Check App Settings | On the Schedule Production screen, choose your user name and App Settings icon.  In the dialog box, check if only below entry is assigned:  Plant 1 DE (1010)Plant 1 DE  MRP Controller 002 (002)  Choose AOR status button of this entry if not assigned, choose AOR status button of the corresponding entry to unassign any other entry then choose Back.  For Industry Type, select following value and choose OK.  Industry Type: Process |  |  |
| 4 | Filter | Choose following entries as filter and choose Go.  Product: SG2\_CP, FG2\_CP  Horizon: for example, next 1 month  Status: Non Dispatched and Dispatched | Critical operation for orders which fulfill the search criteria would display. |  |
| 5 | Choose Order | Orders for SG2\_CP and FG2\_CP would display in the list. Choose the desired order you want to dispatch. | The Schedule Production screen displays. |  |
| 6 | Check Operation Information | In the upper area of the right panel, check detailed information of the critical operation. |  |  |
| 7 | Check Available Time Buckets | In the below area of the right panel, the available source of supply would display under the grid table.  Using calendar selection box to adjust the date bucket in which you need to dispatch the order.   * For orders producing SG2\_CP,BOT01\_CP and BOT02\_CP would supply as two possible work centers. * For orders producing FG2\_CP, PAC01\_CP and PAC02\_CP would supply as two possible work centers. | The available capacity (XX H) for each day displays in the time bucket table. |  |
| 8 | Check Strategy | Choose Set Strategy in the upper right corner of the left panel. You can check relevant settings here and adjust if necessary.   * Plannng Mode * Scheduling Control * Direction   In this case, we choose the Bucket mode as an example. | There are two planning modes:   * Bucket: Allocate orders to first available timeslot. * Sequence: Define an exact time for the order to start/end (depending on the planning direction). |  |
| 9 | Check Order Information | Under Sourcing & Scheduling section, choose the Show More (mouseover) icon to check detailed order information. |  |  |
| 10 | Check Source of Supply | Under Available Sources of Supply in the bucket table, relevant production version displays. Check the production version marked as Assign. If you want to adopt some other production version instead, you can check the relevant line in the Assign column. |  |  |
| 11 | Choose Available Time Bucket | In the bucket table, choose the radio button before the available capacity (XX H) you want to assign. You may view the the available capacity (XX H) by Day, Week or Shift, as well as select the date range. |  |  |
| 12 | Dispatch and Review the Dispatched Orders | Choose Dispatch. Choose Review Dispatched Orders to review the dispatched orders. | A message displays: Dispatch of Order XXXX Operation XXXX scheduled from XXX to XXX was successful. |  |
| 13 | Cancel Dispatch (Optional) | If you need to cancel the dispatch process, choose Deallocate. | The Staus becomes Not Dispatched. |  |
| 14 | Realign Schedules (Optional) | If you need to realign the schedule, select corresponding items and choose Realign Schedules.  Enter the off-set number of days and time, choose Realign (choose Save and Realign if you want to set the day and time as default). | A message appears Realign Schedules executed. For details, see Message Manager. |  |
| 15 | Choose Save | Choose Save at the bottom of the left panel. |  |  |

Result

The planned orders are rescheduled according to the available timeslot you choose.

### Review Work Center Schedules

Test Administration

Customer project: Fill in the project-specific parts.

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| Test Case ID | <X.XX> | Tester Name |  | Testing Date | Enter a test date. |
| Business Role(s) |  | | | | |
| Responsibility | <State the Service Provider, Customer or Joint Service Provider and Customer> | | | Duration | Enter a duration. |

Purpose

This step enables production planner to monitor schedule status by the visualization of Gantt chart.

Procedure

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Procedure Test Step # | Test Step Name | Instruction | Expected Result | Pass / Fail / Comment |
| 1 | Log On | Log on to the SAP Fiori launchpad as a Production Planner. | The SAP Fiori launchpad displays. |  |
| 2 | Access the App | Open Monitor Work Center Schedules (F3951). |  |  |
| 3 | Filter | Choose following entries as filter and choose Go.   * Horizon: for example, next 1 month * Product: SG2\_CP, FG2\_CP * Status: Non Dispatched and Dispatched |  |  |
| 4 | Monitor Status | Monitor the schedule status in dashboard. View detailed information by choosing Order Details or selecting on the color-bar. |  |  |

# Appendix

## Process Integration

The process to be tested in this test script is part of a chain of integrated processes.

### Preceding Processes

You may first have the following processes and conditions completed before you start with the test steps:

|  |  |
| --- | --- |
| Process | Business Condition |
| 31L - Production Capacity Evaluation | For discrete manufacturing use case, below sections under chapter Capacity Planning and Evaluation for Discrete Manufacturing:   * Section Conversion to Production Orders * Section Material Requirement Planning * Section Evaluate Capacity Situation   For process manufacturing use case, below sections under chapter Capacity Planning and Evaluation for Process Manufacturing:   * Section Conversion to Production Orders * Section Material Requirement Planning * Section Evaluate Capacity Situation |

### Succeeding Processes

After completing the activities in this test script, you can continue testing the following business processes:

|  |  |
| --- | --- |
| Process | Business Condition |
| 31L - Production Capacity Evaluation | For discrete manufacturing use case, below sections under chapter Capacity Planning and Evaluation for Discrete Manufacturing:   * Section Conversion to Production Orders * Section Production Order Processing for Subassembly * Section Production Order Processing for Final Assembly   For process manufacturing use case, below sections under chapter Capacity Planning and Evaluation for Process Manufacturing:   * Section Conversion to Process Orders * Section Process Order Processing |

Typographic Conventions

|  |  |
| --- | --- |
| Type Style | Description |
| Example | Words or characters quoted from the screen. These include field names, screen titles, pushbuttons labels, menu names, menu paths, and menu options.  Textual cross-references to other documents. |
| Example | Emphasized words or expressions. |
| EXAMPLE | Technical names of system objects. These include report names, program names, transaction codes, table names, and key concepts of a programming language when they are surrounded by body text, for example, SELECT and INCLUDE. |
| Example | Output on the screen. This includes file and directory names and their paths, messages, names of variables and parameters, source text, and names of installation, upgrade and database tools. |
| Example | Exact user entry. These are words or characters that you enter in the system exactly as they appear in the documentation. |
| <Example> | Variable user entry. Angle brackets indicate that you replace these words and characters with appropriate entries to make entries in the system. |
| EXAMPLE | Keys on the keyboard, for example, F2 or ENTER. |

|  |
| --- |
|  |
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