

Distribution Resource Planning (PP-SOP-DRP)



HELP.PPSOPDRP

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Distribution Resource Planning (PP-SOP-DRP)

Distribution Resource Planning (DRP)

Distribution Resource Planning (DRP)

Purpose

The objectives of Distribution Resource Planning (DRP) in the SAP R/3 System are:

- To improve customer service levels by anticipating customer demand at distribution centers and providing finished products at the correct location when customer needs arise.
- To provide an accurate requirements plan for manufacturing.
- To optimize the distribution of available stock in the distribution network using the deployment function.

Deployment lets you take action when a requirements shortage or surplus is calculated as a result of DRP runs. Deployment uses algorithms for "fair share" distribution when demand exceeds supply and "push," "pull," or "pull/push" distribution when supply exceeds demand.

Implementation Considerations

Before you can use DRP for planning and deployment, you must set up a distribution network. A distribution network represents possible delivery relationships between the supplying plants and the distribution centers. DRP entails planning the supply chain from sales planning through delivery to the distribution centers, assuming there are sales orders or that sales forecasts are available. The primary aim of planning is to determine the quantities required on specific dates, including the lead times of the distribution lanes. The distribution network defines the normal supply method for execution.



A "plant" in SAP is a generic term for a location that refers to a variety of different node types; for example, a manufacturing facility, a customer site, or a distribution center.

Integration

DRP is in the application component hierarchy under PP-SOP-DRP.

The application components described in the following table are part of DRP. To access these components, choose DRP.

DRP Menu Items

Component Description	Component	Purpose in DRP
Material Master	LO-MD-MM	Creates stock items (and controlling elements of items), locations, and policies that are used in the deployment process.
Inventory Management	MM-IM	Tracks inventory availability in all stock categories and supply and demand for an item. Also allows for the physical movement of inventory.

Distribution Resource Planning (DRP)

Sales Planning, Forecasting, and Demand Management	LO-LIS-PLN, PP-SOP, PP-MP-DEM	Creates forecasts of customer demand, which results in the creation of independent requirements at the distribution center. These independent requirements are later consumed by actual customer orders.
Purchasing	MM-PUR	Creates quota arrangements that control the supply relationships in the network.
Materials Requirements Planning	PP-MRP	Determines net supply and demand, resulting in a proposal for the transfer of inventory from the plant to the distribution center.

See also:

Availability Checking (SD-BF-AC) in the section, [Related Documentation \[Page 29\]](#). Availability checking is used in *DRP* to calculate the deployment quantity.

Features

Distribution Network tool

- Graphically maintains a material-independent distribution network.
- Defines more than one source of supply for one distribution center.
- Displays node types, production plants, central warehouses, and customer distribution centers as graphical icons.
- Lets you view and change:
 - Quota arrangement details
 - Supply priority
 - Minimum and maximum lot sizes
 - Maximum quantity
 - Planned delivery time
 - Current inventory and intransit situation

Distribution Requirements Planning

- Generates stock transport requisitions between locations.
- Accounts for time-dependent safety stocks when the replenishment stock is calculated.
- Initiates planning runs in a net change procedure or in a regenerative planning mode.



This functionality is contained in *DRP Run*, which is also referred to as the *Planning Run* in *Material Requirements Planning (PP-MRP)*.

See also:

Material Requirements Planning (PP-MRP) in the section, [Related Documentation \[Page 29\]](#).

Deployment

Distribution Resource Planning (DRP)

- When demand is greater than supply, deployment calculates a fair share quantity based on the available-to-deploy (ATD) quantity and requirements in the distribution centers to be supplied.
- When supply is greater than demand, deployment calculates distribution of stock using pull or push logic within the distribution network according to planned requirements.
- Generates stock transport orders from suggested orders in the DRP plan.
- Prioritizes quantities supplied based on requirements types (customer order, forecast, and safety stock).

Multi-Sourcing Using Quota Arrangements

- Lets multiple plants supply a percentage of the material required by a single location, which makes it possible to prioritize the deliveries made by plants and to specify maximum delivery quantities for particular time periods.
- Represents simple capacity constraints, and combines the percentage-based and maximum quantity approaches.
- Lets you establish minimum, maximum, and rounding profiles for lot sizing within the network.
- Lets you change the distribution network at future dates.
- Lets you offset delivery times for specific items from the sourcing location to the replenishment location.

Single-Sourcing Using Special Procurement Keys

- Lets you define the procurement for particular materials.

Distribution Resource Planning

Purpose

Distribution resource planning provides a framework for determining the need to replenish inventory by:

- Linking market requirements with manufacturing and demand management
- Relating current inventory positions and demand forecasts to production scheduling
- Matching material supply to manufacturing demand, and customer demand to product supply

Process Flow

1. You define all nodes in the network—including plants, distribution centers (DCs), warehouses, and stock transfer points—using the Distribution Network tool. See
2. You set up the material master record for each node. In MRP 4 of the material master record, you must define the deployment strategy for each material (the fair and push distribution options) as well as deployment horizon (push horizon). For the push horizon, enter the number of days for which the system considers the ATD quantity and any additional quantity produced. Any quantity produced beyond the push horizon is not considered in the deployment calculation.
3. To calculate an available to deploy (ATD) quantity, use the availability check rule, DE, in Customizing, 'Carry out control for availability check.' The availability check and the deployment checking rule, determine the MRP elements that are used to calculate the ATD quantity.
4. You create a forecast for each DC; for example, a sales forecast.
5. You transfer the forecasted data to Demand Management. The system creates independent requirements.
6. You perform a DRP run in each DC and in each supplying plant. The DRP run considers the quota arrangements defined in the network, available stock, sales orders, and independent requirements.
 - The DRP run in the DCs creates releases for stock transport requisitions in the supplying plants.
 - The DRP run in the supplying plants creates planned orders for production.
7. You convert planned orders into production orders for manufacturing.

You run deployment to produce stock transport orders for distribution of stock from the supplying plants to the DCs.

Running DRP

Running DRP

Purpose

In DRP, during the net requirements calculation, the system compares available stock and the scheduled receipts from the supply source with planned independent requirements and incoming sales orders. If there is a material shortage (available stock is less than the quantity required), the system creates an order proposal.

The system calculates the quantity recorded in the order proposal (in the form of a requisition) based on the lot-sizing procedure you specify in MRP 1 of the material master record.

The system also schedules the order proposal. Delivery and release dates are determined from the transport time and time associated with goods receipt processing.

The system can process DRP for the whole supply chain—including the production plants. DRP includes production and purchasing into the planning process for the production plant.

Prerequisites

In order to perform a DRP run, you must:

- Set up a distribution network, including identification of quota arrangements and lead times.
- Define MRP parameters in the material master record for all the materials in the distribution network.

Process Flow

1. You schedule the DRP runs for your network in the same way you would schedule an MRP run.
2. You perform the DRP run:
 - A DRP run on one material is the same as single-item, single-level planning in the MRP run. Because the deployment plan involves finished goods, there is only single-material, single-level planning of individual materials without explosion to lower levels.
 - A DRP run on one plant is the same as total planning in the MRP run. Single-plant planning involves planning all the materials in a certain location that are relevant for requirements planning.
 - A DRP run using mass processing allows you to process several locations at once so that the whole supply chain is planned.
3. You use net change planning to plan only materials that change relevant to distribution requirements planning since the last planning run (for example, change in a sales order quantity or date). Net change planning improves system performance for large, complex distribution networks with many materials. If a material is changed in a way that is relevant to the planning run, it is given a net change indicator, and included in the next planning run.

Performance can be improved even further by using the change planning within the planning horizon. Only changes relevant to requirements planning that fall within the user-defined planning horizon are included in the planning run. To keep the planning results up to date, perform a total planning run regularly (weekly or monthly).

Running DRP

You can also use regenerative planning. The system plans all materials that are relevant for planning. Regenerative planning is performed in the implementation stages.

4. If you are using mass processing, determine the sequence in which the series of DRP runs must be executed.

Result

The information resulting from the DRP runs includes purchase requisitions and scheduling agreements. Use these to plan how to supply the distribution centers in your network. The DRP run in the DCs creates releases for stock transport requisitions in the supplying plants. A DRP run on the supplying plants creates planned orders for production.

Important DRP Key Figures

Important DRP Key Figures

The following table and text describe some of the important DRP key figures and how they are calculated.

Day	Demand fence						
	1	2	3	4	5	6	7
Independent Req'ts	30	40	30	20	10	20	30
Sales Order	35	35	20	10	15	5	5
Demand	35	35	20	20	15	20	30
On-Hand (50)	110	95	75	60	70	80	90
In-Transit	95	20	∅	∅	∅	∅	∅
Target Stock	110	100	70	60	70	80	90
Safety Stock	10	10	10	10	10	10	10
Replenish. Orders	-	-	-	5	25	30	40

- Independent requirements can be calculated for each distribution center using the tool for statistical forecasting, or you can manually create them.
- Sales orders are obtained from the sales force.
- You define the demand fence in the MRP group in Customizing. The demand fence is represented in days and indicates the time during which certain demand types contribute to the demand key figure. Beyond the demand horizon, the maximum value of the sales order and the forecast is taken as the demand.
- For the selection of demand types within the demand fence, you define a checking group and a checking rule for the demand key figures in the info structure S075. Do this in the Customizing activity, 'Set parameters for info structures and key figures.'
- The system calculates the on-hand stock using the initial stock (stock of the previous day) plus the intransit stock of the current day minus the demand of the current day.
- The system calculates the target stock level by taking the sum of the forecast within the safety time (which you define in MRP 2 of the material master record; in this example, three days) plus the safety stock for the current day.
- The system calculates the safety stock automatically in DRP when you select *Sales planning* → *Safety stock* and stores it in MRP 2 of the material master record.

Important DRP Key Figures

The system calculates the replenishment orders by adding the target stock level to the demand and subtracting the initial stock.

Running Deployment

Running Deployment

By performing a deployment run, you can take appropriate action when either a requirements shortage or surplus is calculated as a result of DRP runs at different time intervals. Deployment uses algorithms for fair share distribution when a requirements shortage is detected and push distribution when a requirements surplus is detected.

DRP plans the quantities to deliver in the medium- and long-term. If production performed based on data obtained from DRP, and if forecasts prove correct, it would be sufficient simply to implement the plan in order to distribute inventories efficiently. In reality, this rarely happens. The delivery proposals to be generated in the short term as part of deployment must be adapted to the current situation. Deployment cannot be based on the original plan. It must include optimized distribution based on stock levels, definite stock receipts, and current sales orders. Deployment lets you offset delivery recommendations against the DRP plan to avoid duplications.

Process Flow

1. You set the deployment strategy in MRP 4 of the material master record. Select the fair share rule you want the system to use when demand is greater than supply. Select the push distribution logic (pull, push, or pull/push) to indicate the distribution method you want the system to use when supply is greater than demand. Also, you select the number days for the deployment horizon (push horizon)—enter the number of days for which the system considers the ATD quantity and any additional quantity produced. Any quantity produced beyond the push horizon is not considered in the deployment calculation.
2. You perform the deployment run for one material or a plant, or total planning.
3. You calculate the safety stock based on sales history. See [Safety Stock Calculation \[Page 18\]](#).
4. The system determines if the purchase requisitions and transportation requirements within the deployment (push) horizon can be shipped according to plan.
5. If the purchase requisitions and transportation requirements can be shipped according to plan, confirm the shipment. If they cannot be shipped according to plan, the system uses the strategies you defined in MRP 4 of the material master record.



You can calculate the fair share strategy based on a definition of fair share that you define yourself with a user exit.

Result

The result of the deployment run is a list of confirmed transport requisitions (for example, a purchase order). The transport requisitions can be processed in the same way that deliveries are processed.

Performing a Deployment Run on a Material

Procedure

1. To open DRP, choose *Logistics* → *Production* → *DRP*.
2. Select *Planning* → *Deployment run* → *Material*.
3. Enter the following information about the deployment run, then choose *Continue*.

Field	What to do
<i>Material</i>	Enter the material for which you want to perform a deployment run.
<i>Supplying plant</i>	Enter the number of the plant that supplies the material to be deployed.
<i>Delete/reduce purchase requisition</i>	Choose <i>No change</i> if you want all the purchase requisitions to stay in the system after the deployment run. Choose <i>Delete</i> to delete all purchase requisitions after the deployment run. Choose <i>Reduce</i> to change the quantity of purchase requisitions affected by fair share distribution to the quantity that cannot be supplied through current stock.
<i>Store results temporarily</i>	Enter an X in this field if you want the system to create an intermediate file where the recommended shipments are stored. Leave the field blank if you want the system to create purchase orders from the purchase requisitions resulting from the deployment run.
<i>Deployment (pull) horizon</i>	Enter the number of days for which the system considers demand from the DCs when calculating deployment.
<i>Log</i>	If set, the system displays a log so that you can check the deployment results.

Result

See [Deployment Results \[Page 19\]](#).

Performing a Deployment Run on a Plant

Performing a Deployment Run on a Plant

Procedure

1. To open DRP, choose Logistics → Production → DRP.
2. Select Planning → Deployment run → Plant.
3. Enter the following information about the deployment run, then choose Continue.

Field	What to do
<i>Supplying plant</i>	Enter the number of the plant that supplies the material to be deployed.
<i>Delete/reduce purchase requisition</i>	Choose <i>No change</i> if you want all the purchase requisitions to stay in the system after the deployment run. Choose <i>Delete</i> to delete all purchase requisitions after the deployment run. Choose <i>Reduce</i> to change the quantity of purchase requisitions affected by fair share distribution to the quantity that cannot be supplied through current stock.
<i>Store results temporarily</i>	Enter an X in this field if you want the system to create an intermediate file where the recommended shipments are stored. Leave the field blank if you want the system to create purchase orders from the purchase requisitions resulting from the deployment run.
<i>Deployment (pull) horizon</i>	Enter the number of days for which the system considers demand from the DCs when calculating deployment.
<i>Log</i>	If set, the system displays a log so that you can check the deployment results.

Result

See [Deployment Results \[Page 19\]](#).

Performing a Deployment Run Using Total Planning

Procedure

1. To open DRP, choose *Logistics* → *Production* → *DRP*.
2. Select *Planning* → *Deployment run* → *Processing Sequence*.
3. Enter a planning run number for this deployment run, then choose *Continue*.
4. Enter the following information about the deployment run, then choose *Continue*.

Field	What to do
<i>Background planning run</i>	Enter a description of the planning run.
<i>Delete/reduce purchase requisition</i>	Choose <i>No change</i> if you want all the purchase requisitions to stay in the system after the deployment run. Choose <i>Delete</i> to delete all purchase requisitions after the deployment run. Choose <i>Reduce</i> to change the quantity of purchase requisitions affected by fair share distribution to the quantity that cannot be supplied through current stock.
<i>Store results temporarily</i>	Enter an X in this field if you want the system to create an intermediate file where the recommended shipments are stored. Leave the field blank if you want the system to create purchase orders from the purchase requisitions resulting from the deployment run.
<i>Sequence</i>	Enter a number in each cell of the sequence column (beginning with 1) to indicate the sequence in which you want to run deployment for each node. Indicate the node ID in the adjacent column.
<i>Node ID</i>	Enter the node ID for each plant assigned to the network.
<i>Deployment (pull) horizon</i>	Enter the number of days for which the system considers demand from the DCs when calculating deployment.

5. Select *Planning* → *Deployment run* → *Total planning*.
6. Enter a number to uniquely identify the deployment run.
7. To display a log so that you can check the deployment results, select *Log*.
8. Choose *Continue*.

Result

See [Deployment Results \[Page 19\]](#).

Safety Stock Calculation

Safety Stock Calculation

Use

The safety stock calculation updates the material master record.

Prerequisites

In MRP2 of the material master record, you must define the service level, the goods receipt processing time, and the planned delivery time. You must also define an info structure with actual and planned data for the materials in each distribution center.

Activities

On the DRP screen, select *Planning* → *Sales planning* → *Safety stock* to calculate the safety stock for the distribution center as follows:

Safety stock = ZF (safety factor) multiplied by SQRLT (square root of the lead time) multiplied by the Sigma.

- The safety factor (ZF) is based on the service level you define in the material master record. For example, if the service level is 90%, the safety factor is approximately 1.60.
- The lead time (LT) is equal to the sum of the planned delivery time and the goods receipt processing time, both of which you define in MRP 2 of the material master record.
- The mean absolute deviation (MAD) is the difference between the actual and the forecasted demand.
- The Sigma is equal to 1.25 multiplied by the MAD.

Example

If the service level is 90%, the lead time is 4 days, and the mean absolute deviation from the forecast is 1000, the system calculates the safety stock as follows:

$$1.60 * 2 * 1250 = 4000$$

$$(ZF * SQRLT * \sigma = \text{safety stock})$$

Deployment Results

Definition

The deployment results, displayed after the deployment run, indicate:

- Quantities to be deployed to each DC from the specified supplying plant
- Delivery dates
- Additional information used by the system to determine the deployment

Use

After the deployment run, the system automatically converts purchase requisitions into purchase orders, and materials are shipped to the DCs.



You must disable intermediate results on the deployment results initial screen to automatically convert purchase requisitions into purchase orders.

Structure

The following table describes the deployment results. The results are displayed in several sections. The sections included in the deployment results depend on the deployment strategy you select in MRP 4 of the material master record. All sections are not in all results.

Deployment Results

Heading	Information displayed
Delivery Time	Delivery time is equal to the planned delivery time plus goods receipt time. You specify delivery time in the quota arrangements and the goods receipt time in the material master record.
Safety Time	Safety time is used to calculate the target stock level. You specify the safety time in the material master record. (Target stock level is equal to the safety stock plus the demand within the safety time.)
Safety Stock	Safety stock is calculated by the system. See Safety Stock Calculation [Page 18] .

Deployment Results

Deployment Strategy	<p>The deployment strategies specified in MRP 4 of the material master record for the supplying plant.</p> <p><i>Fair share</i>—If demand exceeds supply, DRP uses fair share logic to calculate deployment based on the available to deploy (ATD) quantity, the open sales orders, the safety stock, and the forecast. You specify a fair share rule in the MRP 4 of the material master record to identify how you want fair share to be implemented:</p> <ul style="list-style-type: none"> ▪ The objective of fair share rule A is to distribute the stock proportionally to all DCs according to demand. ▪ The objective of fair share rule B is to raise the stock levels in all DCs to approximately the same percentage of target stock level. <p><i>Push</i>—If there is excess inventory, surplus stock is retained at its place of origin or is distributed according to push logic. There are three options for using push distribution in MRP 4 of the material master record:</p> <ul style="list-style-type: none"> ▪ If you leave the field blank, pull distribution is enabled; the demand of the current day is met through deployment, but the excess stock is not distributed. ▪ 'P' indicates that pull/push distribution is applied; excess stock is distributed to meet the demand existing within the pull horizon according to the forecast in the DCs. Distribution begins on the first day for which requirements exist in the system and ends with the last day of the pull horizon. ▪ 'X' indicates all the requirements defined in the system are met through deployment. Distribution begins on the first day when requirements exist and continues until all the requirements defined in the system are met.
Demand horizon	Indicates the number of days for which the system performs deployment and considers demand. You specify the number of days in the demand horizon before performing the deployment run (<i>Deployment horizon</i> field).
ATD quantity	The events that contribute to the ATD quantity are defined in the availability check rule, DE. Maintain the DE rule in Customizing, 'Carry out control for availability check.'
Requirements	Daily sum of requirements at all the DCs.

Deployment Results

Detailed requirements	<p>The system displays the detailed requirements for the days within the pull horizon, including:</p> <ul style="list-style-type: none"> • Target and actual stock at each DC when fair share logic is used to meet demand. • Daily sum of unsatisfied demand if pull horizon extends beyond the period for which partial demand is met. • Daily sum of the demand in the DCs when there is no ATD quantity at the supplying plant. The demand sum is calculated based on the pull within the demand horizon.
Material	Material number.
From	Plant in the distribution network.
To	DC in the distribution network.
Date	Date of deployment from the supplying plant.
Quantity	Quantity deployed.

Example of a Deployment Run Using Fair Share Distribution

Example of a Deployment Run Using Fair Share Distribution

If demand exceeds supply, DRP uses fair share logic to calculate deployment based on the available to deploy (ATD) quantity, the open sales orders, the safety stock, and the forecast.

The following example shows the deployment of the ATD quantity based on the pre-deployment situation described below. You specify a fair share rule in the MRP 4 view of the material master record to identify how you want fair share to be implemented:

- Fair share rule A distributes the stock proportionally to all DCs according to demand.
- Fair share rule B is raises the stock levels in all DCs to approximately the same percentage of target stock level.

In the following example of fair share rule B, to satisfy the demand of the three DCs in this network, 4,000 additional units must be made available. However, the ATD quantity is only 1,000. The system deploys nothing to DC₂ and instead raises the stock levels in DC₁ and DC₃.

Projected Net = On Hand + Intransit – Sales orders
 Demand=Target stock level – Projected net stock
 Available-to-deploy (ATD) = 1,000

Pre-Deployment Situation

Distribution Center	On Hand	Intransit	Sales orders	Projected Net	Target stock level	Demand
DC 1	2,000	250	500	1,750	2,800	1,050
DC 2	4,000	1,000	2,000	3,000	3,950	950
DC 3	6,000	-	5,000	1,000	3,000	2,000
						4,000

Deployment Using Fair Share Rule B

Distribution Center	Projected Net	Target stock level	Percent of Target	Deploy	Percent of Target
DC 1	1,750	2,800	62.5%	60	64.6%
DC 2	3,000	3,950	75.9%		75.9%
DC 3	1,000	3,000	33.3%	940	64.6%

Example of a Deployment Run Using Push Logic

Example of a Deployment Run Using Push Logic

If there is excess inventory, surplus stock is retained at its place of origin or is distributed according to push logic. There are three options for using push distribution in MRP 4 of the material master record:

- If you leave the field blank, pull distribution is enabled; the demand of the current day is met through deployment, but the excess stock is not distributed.
- 'P' indicates that pull/push distribution is applied; excess stock is distributed to meet the demand existing within the pull horizon according to the forecast in the DCs. Distribution begins on the first day for which requirements exist in the system and ends with the last day of the pull horizon.
- 'X' indicates all the requirements defined in the system are met through deployment. Distribution begins on the first day when requirements exist and continues until all the requirements defined in the system are met.

The following example shows the distribution of available supplies so that demand is met and surplus stock provides equal coverage (number of days supply) for all distribution centers.

In this example, 4,000 units are required to satisfy the total target stock level requirements for the three DCs represented in the network. However, the plants distributing to the DCs have a total of 10,000 units available. 6,000 units must be **pushed** to the DCs.

To determine where to distribute the extra stock, the system takes into account the demand forecast in the DCs. The system determines that for the first three days of the forecast, a total of 6,000 units are required in the three DCs. Therefore, the extra stock is distributed to the DCs so that demand in each of the DCs is met for the next three days, based on the forecast.

Projected Net = On Hand + Intransit – Sales orders
 Demand=Target stock level – Projected net stock
 Available-to-deploy (ATD) = 10, 000

Pre-Deployment Situation

Distribution Center	On Hand	Intransit	Sales orders	Projected Net	Target stock level	Demand
DC 1	2,000	250	500	1,750	2,800	1,050
DC 2	4,000	1,000	2,000	3,000	3,950	950
DC 3	6,000	-	5,000	1,000	3,000	2,000
						4,000

Deployment Using Push Logic

Distribution Center	Demand	Deploy	Percent of Target	Push	Target Days' Supply
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Example of a Deployment Run Using Push Logic

DC 1	1,050	1,050	100%	1,500	3 days
DC 2	950	950	100%	3,200	3 days
DC 3	2,000	2,000	100%	1,300	3 days
		4,000		6,000	

Forecast

Forecast	Day 4	Day 5	Day 6	Day 7	Day 8	Day 9
DC 1	200	300	1,000	200	200	200
DC 2	2,000	600	600	600	1,200	600
DC 3	400	500	400	400	800	1,000
Total	2,600	1,400	2,000	1,200	2,200	1,800
Cumulative	2,600	4,000	6,000	6,900	9,100	10,900

Maintaining a Distribution Network

Prerequisites

- In Customizing for DRP, you must assign the appropriate node type (for example, distribution center) to each plant. The icons displayed in the Distribution Network tool hierarchy correspond to the attributes defined in IMG for each plant.
- In Customizing, you must put the maps (enhanced metafiles, or EMFs) you want to display in the Distribution Network tool in the correct table. (See Customizing for Distribution Resource Planning.)
- You must define the planning hierarchy for your distribution network.
- You must create lead times between nodes.

Procedure

1. To open DRP, choose *Logistics → Production → Distribution Requirements Planning*.
2. To open the Distribution Network tool, choose *Master data → Network graphic*.
3. Select a map from the drop-down list.
4. In the left panel of the Distribution Network tool window, expand the hierarchical view of the nodes in the distribution network. To do this, select a plant in the left panel. Choose expand hierarchy.
5. Add all the distribution centers, warehouses, production plants, and stock transfer points you want to represent in your distribution network. To do this, select each item from the hierarchy and drag it onto the map.
Repeat this step until all the nodes of your network appear on the map.
6. Create relationships between the nodes by selecting the supplying plant with the right hand mouse button. Drag the line that appears to the demanding plant.
A line appears connecting the two plants. An arrow indicates the direction of the supply.
7. Edit the duration of transit and assign a preference to the transit route by selecting the line representing the lane with the left mouse button.
8. Edit all the connecting lines between points in your network.
9. Save.

Maintaining Quota Arrangements in a Distribution Network

Maintaining Quota Arrangements in a Distribution Network

Prerequisite

You must define the planning hierarchy for your distribution network.

Procedure

1. To open DRP, choose *Logistics* → *Production* → *Distribution Requirements Planning*.
2. To open the Distribution Network tool, choose *Master data* → *Network graphic*.
3. Select a map from the drop-down list.
4. Select Maintain quota arrangements from the drop-down list.
5. Select a material from the hierarchy in the left panel of the screen.
6. To change the quota information (described in the following table) for a DC, point to the DC and click with the right hand mouse button to activate the dialog box.

List Option	What to do
Maintain quota arrangements	Define the percentage of products or materials supplied by each plant to the distribution center (the quota arrangement).
Preference edit	Define which DC is supplied first when one plant supplies multiple DCs.
Maximum lot size	Define the maximum quantity to which the lot size is rounded down; the system does not group requirement quantities together that exceed the maximum lot size.
Minimum lot size	Define the minimum quantity to which the lot size is rounded up; the system does not group requirement quantities together that are less than the minimum lot size.
Maximum quantity	Define the quantity of a material that cannot be exceeded for a particular plant.
Planned delivery time	Define the number of days required to procure a material via external procurement.

7. To change, delete, or add new dates, use the push buttons on the date field.
8. Save.

See also:

Consumption-Based Planning (MM).

Viewing the Stock Situation from the Distribution Network Tool

Prerequisites

There must be a distribution network to view the stock associated with the network.

Procedure

1. To open DRP, choose *Logistics* → *Production* → *Distribution Requirements Planning*.
2. To open the Distribution network tool, choose *Master data* → *Network graphic*.
3. Select a map from the drop-down list.
4. In the left panel, expand the hierarchical view of the nodes in the distribution network. Select a plant in the left panel, then choose expand.
5. To display stock information for a plant, choose the plant and click the right hand mouse button to display the list of options.
 - If you choose plant availability, the Display Plant Stock Availability screen appears.
 - If you choose stock requirements, the Current Stock/Requirements List appears.
 - If you choose sales planning, the Change Plan in Flexible Planning: Initial Screen appears.



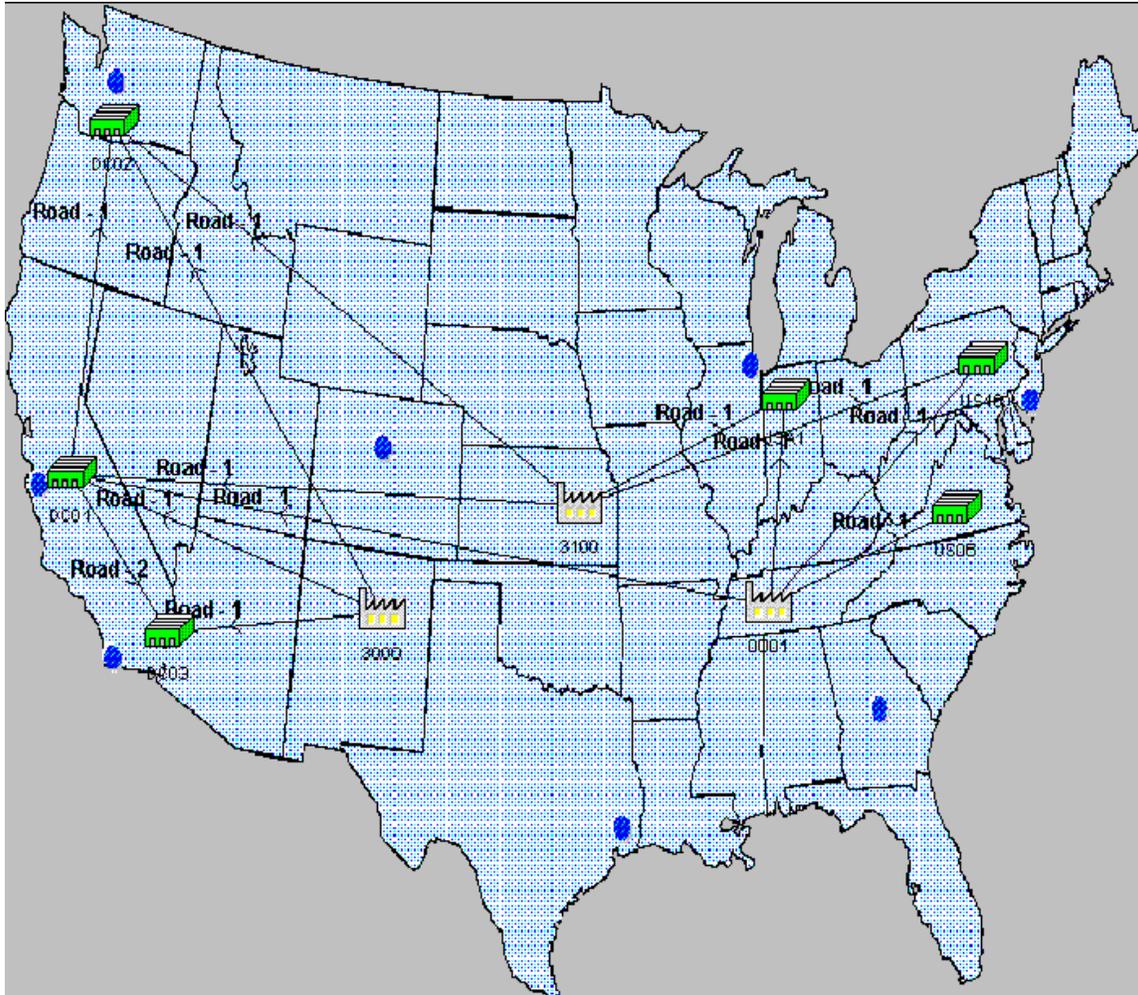
If there is stock intransit within your distribution network, the system displays the quantity intransit when you select the supplying plant.

See also the following documentation:

- Inventory Management, Special Stocks, & Inventory Sampling (MM)
- Material Requirements Planning (PP-MRP)
- Sales & Operations Planning (PP-SOP)

Example of a Network Created with the Distribution Network Tool

Example of a Network Created with the Distribution Network Tool



Related Documentation

Many options in DRP are available outside of DRP. The following tables show where to find information in the R/3 Library you can find information about these options.

Master Data Menu Options	Related Documentation
Material Master	<i>Maintaining Material Master Data (LO)</i>
Quota Arrangements	<i>Purchasing Guide (MM)</i>
Planning File Entry	<i>Material Requirements Planning (PP-MRP)</i>

Planning Menu Options	Related Documentation
Sales Planning	<i>Sales & Operations Planning (PP-SOP)</i>
Demand Management	<i>Demand Management (PP)</i>

Execution Menu Options	Related Documentation
Purchase Requisition	<i>Purchasing Guide (MM)</i>
Purchase Order	<i>Purchasing Guide (MM)</i>
Reservation	<i>Inventory Management, Special Stocks, & Inventory Sampling (MM)</i>
Back Order Processing	<i>Sales & Distribution (SD)</i>
Delivery	<i>Sales & Distribution (SD)</i>

Reporting Menu Options	Related Documentation
Standard Analysis	<i>Logistics Information System (LO)</i>
Stock Requirements List	<i>Material Requirements Planning (PP-MRP)</i>
Availability of Plant Stock	<i>Inventory Management, Special Stocks, & Inventory Sampling (MM)</i>

Environment Menu Options	Related Documentation
Delivery Schedule	<i>Purchasing Guide (MM)</i>
Messages	<i>Purchasing Guide (MM)</i>
Shipping Notification	<i>Sales & Distribution (SD)</i>
Goods Issue	<i>Sales & Distribution (SD)</i>

Related Documentation