Requirement planning is one of those modules which requires a good understanding of both the business process and the JDE set up to ensure it works the manner desired.

The JD Edwards Requirements Planning is a calculator the utilized rules, planning parameters and data provided from the Item Branch, Forecasting, Purchasing, Sales, Work order and Product Data Management systems to proactively determine the materials required to be ordered to ensure actual and anticipated demand can be met. Because it retrieves information from so many areas of the business, the set up must take into account the set up in these related areas. It is important to understand the priorities and logic of the calculations and set up to ensure the desire result. This document helps explain the main aspects of Requirement Planning, how it works, setup and other considerations required.

How Does Requirements Planning Work?

JD Edwards Requirements Planning is a powerful calculator that tries to balance Demand versus Supply based on the Planning rules set for each item / branch combination.

Requirements planning can be performed at any one of three levels or combinations of these three levels. These are:

- **DRP** - Distribution Requirement Planning. Planning for the purchase of finished goods for sale or distribution between warehouses / branch plants.
- **MPS** - Master Production Schedule. Planning for the manufacture of finished goods or subassemblies for sale or distribution between warehouses / branch plants.
- **MRP** - Material Requirements Planning. Planning for the purchase or manufacturing of raw materials and components to be used in the manufacture of Finished Goods or subassemblies.
- **Combination.** DRP creates demand for the MPS, which in turn created demand for the MRP.

Businesses generally run their Requirements Planning on a regular basis. This could be daily, twice a week, or weekly, depending on how dynamic the supply and demand situation is, the volume of items to be ordered and the frequency of the ordering cycle.
Requirements Planning is a pro-active Material Planning region where it uses actual demand and predicted future demand (known as forecasts), and balances this demand against actual and planned future supplies. The system performs a supply versus demand calculation on a day by day basis for a nominated period in to the future (known as the planning horizon). The start date or generation date is known as Day 0.

The demand versus supply calculations considers various sources of demand and supply. These sources are controls by values in the processing options including, Forecast Types and Supply & Demand Inclusion Rules.

**The Demand can consist of:**
- Safety Stock (conditional) - Taken into account on Day 0
- Customer Sales Orders - Uses Pick Date for the demand
- Interbranch Sales Orders - Uses Pick Date for the demand
- Forecasts - Uses the forecast date
- Demand from Work Orders - Components for manufactured Items uses the Required Date on the parts list

When the planning system has both Customer demand and forecast demand on the same day or within the same period, this can represent the same demand. Therefore the Requirements Planning system has a concept of Forecast Consumption, where the forecast is consumed by the actual sales so the demand is not duplicated.

**The Supply can consist of:**
- On hand Qty - Taken into account on Day 0
- Supplier Purchase orders - Uses Promised Delivery date
- Interbranch Purchase Orders - Uses Promised Delivery date
- Work Orders (Manufactured items) - Uses Required Date on Work Order Header

The calculation performed by Requirement Planning is:

\[
\text{Supply minus Demand} = \text{Available Quantity}
\]

This calculation is performed for each day in the Planning Horizon. When the result of this calculation, “Available Quantity”, is a negative value, that is, demand for that day is greater than supply, more stock is required to be available on this date.
The planning system will create a message to order more stock taking lead-times and workday calendars into account to ensure the stock is available on the required date.

The type of supply order, either purchase order or work order, is determined by the “Stocking Type” of the item, held in the Item Branch Record.

This date becomes the due date for the Order. The system calculates backwards from this due date using the Level Lead-time to determine the order “start date”.

- If the start date is prior to the “generation start date” a “B” message = Order and Expedite is created, as the item is required inside the normal lead-time.
- If the start date is after the “generation start date” an “O” message = Order is created, as the required date is outside normal lead-time.

For purchased items the supplier is obtained from the Primary supplier held on the item branch record.
**Message Types:**

When do you get an “Order Message” versus an “Exception Message”?

There are two main types of Messages: **Action messages** which will create or change a supply orders when processed or **Warning Messages** which are informational.

**Action messages** can also have two types: Order messages which will create a new supply order or **Exception messages**, which suggest a change to an existing supply order. Supply orders can be Purchase orders, Transfer Orders, or Work orders.

If the system finds an existing supply order(s) (WO or PO), it will always suggest to adjust this order to meet the change is demand requirement, before it suggests the creation of a new supply order. These exception messages can be:

- “E” = Expedite message where unmet demand exists prior to the due date of the existing order.
- “D” = Defer message where the existing supply order exceeds the demand at the order due date. This could be because of demand decreasing or demand has moved further out.

E & D messages suggest a change to the due date of the existing order. Often these are accompanied by a suggested quantity change message.

These quantity related exception messages are:

- “G” = Increase the order Quantity
- “L” = Decrease the order Quantity.

The system will always try to suggest adjusting any existing orders before creating a new order message. However, there are two exceptions to this rule.

These are when:

- The Supply order is frozen for requirement planning purposes. There is a freeze code held on the purchase detail line or the work order header. This code ONLY related to requirement planning message suggestions. It does not affect the order in any other way. The user can still change order details and process the order.
- The supply order has been moved in to a Receipt Routing step.
**Note:** If the system has created Exception messages, it will assume these messages will be fully enacted and therefore the O & B messages created are based on this assumption. That is, an O Order message may be further in the future because the system assumes you will expedite the existing order to meet the earlier demand.

**Planning Message Requested Dates do not equal actual date of supply vs. demand imbalance.**

Generally the Planning message requested date (or due date) will always coincide with the supply vs. demand imbalance date. The only time this is not the case is when a Freeze Time Fence has been set in the Item Branch Planning parameters. If the Freeze Time fence is set and the supply vs. demand imbalance is inside this fence, then the system will move the due date for O & B messages, to the first day outside the freeze fence. The Freeze fence is a lock period in which it is not possible to take any action.

Examples could be:
- A locked production schedule.
- A locked transport or shipment period
How Many Messages does the User See?

The system performs the supply versus demand calculation for every day in the planning horizon. If you have a 12 month planning horizon then the calculation is performed for all 365 days. A message can be created for any one, or even all of these days. Generally Planners only want to see the messages they need to action in the current ordering cycle. The ordering cycle will vary depending on the nature of the item and its source. Local JIT items may be ordered daily, other local items ordered weekly or every two weeks. Imported items or items involving considerable transport distances may be ordered monthly. Therefore the number of days worth of messages to be displayed will vary with the order cycle of the item. This is controlled by the Message Display Fence held in the Item Branch planning parameter screen. Only messages with a start dates inside the Message Display Fence are shown to the user. The system continues to calculate and store all messages after this date until the end of the planning horizon but will not display them. If you change the Message Display Fence you will immediate see more messages, if they exist.
How Does the System Determine the Quantity to Order?

The message quantity is always in the primary unit of measure for the item. If the item has a different purchasing or production Unit of measure, the system will convert the message quantity to this UOM when creating the Purchase order or work order.

The system will always order a quantity large enough to satisfy the demand on any day where the demand is greater than the supply on that day. The system will never under-order on quantity.

The actual quantity suggested is the planning message is the quantity to satisfy the demand but it may have a number of other planning parameters applied to it depending on the planning rules set for this item and branch combination.

These parameters that affect the quantity are:
1. Order Policy Code
2. Order Policy Value
3. Quantity Rules
   a. Minimum Order Qty
   b. Maximum Order Qty
   c. Multiple Order Qty

The quantity to order is initially determined by the Order Policy Code and the Value Order Policy. This quantity may then be further adjusted by the Quantity Rules. **These are all held on the Item Branch record.**
**Order Policy Codes (OPC)** includes:

0 = Reorder Point Planning (Not Planned by Requirements Planning)

1 = Lot for Lot (or “As required”)

2 = Fixed Order Quantity

3 = Economic Order Quantity

4 = Periods of Supply

5 = Rate scheduled item.

The user cannot change the meaning of these values.

1 = Lot for Lot:
This ordering policy tells the system to order only what is required on the date that it is required. Therefore, if unmet demand exists on 4 consecutive days, 4 order messages will be generated, one for each day for the exact quantities on that day. The quantity calculated by this Ordering Policy code can be adjusted by the Quantity Rules.

- This may be used in a situation where JIT orders are required.

2 = Fixed Order Quantity:
This ordering policy tells the system to generate order messages only for fixed quantities. The fixed quantity is held in the Value Order Policy Field. For example,

- If the Order Policy Code = 2 and the Value Order Policy (see below) = 30 and demand is 25, an order message for Qty = 30 will be created.
- If the demand is 45, two order messages for a Qty of 30 each will be created. This ordering policy is not affected by any Quantity Rules.

3 = Economic Order Quantity:
This ordering policy tells the system to calculate the most economic order quantity that will meet the demand requirement. The calculation uses the “Cost of holding inventory” versus to the “cost of placing an order”. These costs are defined at the Branch level, in the Branch Plant Constants. This ordering policy is not affected by any Quantity Rules.

4 = Periods of Supply:
This ordering policy tells the system that once an unmet demand is found, the system should look forwards X number of days and review the entire demand/supply situation for this period. The quantity calculated by the system for the order message should reflect the entire unmet demand for this period. The quantity calculated by this Ordering policy will be adjusted by the Quantity Rules.
This order policy should be used in a situation where the planner wants to order sufficient stock for a set period e.g. weekly, two weeks, monthly, quarterly etc.

The X days is held in the Value Order Policy field and is the number of days in addition to the due date.

5=Rate Schedule items: This ordering policy only applies to manufactured items which are manufactured via rate schedules in repetitive manufacturing mode. It tells the system that rate schedules should be used to manufacture this item instead of normally work orders.

Order Policy Value (OPV): This field works in conjunction with Order Policy Code above;
If OPC = 2, the Order Policy Value is the Fixed Value Quantity (Primary UOM)
If OPC = 4, the Order Policy Value is the number of additional days in the supply period.
Therefore to create weekly order messages of a purchased item the OPV should be set to 6. The value in OPV is considered working days for manufactured items and calendar days for purchased items.
If OPC = 5, the Order Policy Value is the value represent the desire inventory level.
When the ending available (=EA) is less than the desire inventory level, then the system issues an I message (“increase rate to” message).
When the ending available is greater than the desire inventory level, then the system issues an H message (“decrease rate to” message). This value is in the primary unit of measure.

Quantity Rules

The following rules are used by Requirement Planning. The quantities held in these fields are in the primary unit of measure.
Minimum Reorder Qty (RQMN)
The Minimum Quantity that the system will order on any one supply order. If the required quantity is less than this value, the message quantity will increased to this quantity.

Maximum Reorder Qty (RQMX)
The Maximum Quantity that the system will order in any one order. If the required quantity exceeds this maximum, two or more order message will be created for the same due date. The message quantity will not exceed this quantity.

Multiple Order Quantity (MULT)
The message quantity must always be a multiple of this value. If the required quantity (after all the above parameter rules has been applied) is not equal to a multiple of this value the message quantity will be increased to the next multiple. This value works in conjunction with the Maximum and Minimum Order quantities.

Safety Stock (SAFE)
This value CAN be used by the requirements planning system. If Requirement Planning Processing option is set to use safety stock (Batch Job R3482/ R3483), then the safety stock value is used as the Minimum Quantity of stock that the system will plan to have as the on hand value for generation date (day 0).

If the on hand quantity is less than safety stock the system will suggest a replenishment quantity to replenish up to the safety stock value, plus any additional quantities as per demand and planning/replenishment rules.

Note: A message created due to insufficient safety stock would normally be a B Message (Order & Expedite message). This order message is always be due on the generation date.

The following Quantity Rules are NOT used by the Requirements Planning system.
They are use by the JD Edwards Purchase Order Generator (Reorder Point planning) or the JD Edwards Kanban system.
- Reorder Point (ROPI)
- Reorder Quantity (ROQI)
- Units per container (UPC)
Other Item Branch Requirements Planning Parameters

A number of fields held on the Item Branch influence and control the requirements planning process. These fields often need to be maintained in the setup, implementation, and ongoing refinement of the Planning process. Standard JDE only allows one item record to be changed at a time. This can be very frustrating and time consuming for the material planner, who is attempting to keep all planning parameters up to date and aligned with the latest business requirements.

This is one of main drivers behind JDEasy developing our EASY GRID applications. Item Branch Grid, IBG, is one of these applications and is a MUST for planners. IBG allows you inquire, and update multiple item branch records on the one grid at the same time, either within one branch or across multiple branches. So tasks like changing the level lead-time across all items for the one supplier, or changing Order Policy or Time fence parameters by Master Planning Family & Stocking Type becomes a simple and quick task.

Visit our website to get more information on this and other applications that will help make your JDE life much easier http://www.jdeasysoftware.com/easy-grid.html
Planning Parameters

Planning Fence Rule (MPSP): (Item Branch Record)
The Planning Fence Rule determines which form of demand (actual sales or forecast) is used by in the calculations performed by the planning system. This rule ensures demand is not duplicated on the one day or within the one period. This rule is used in condition with the Planning Time Fence. The available rule types are:

<table>
<thead>
<tr>
<th>Rule</th>
<th>Demand used before the time fence</th>
<th>Demand used after the time fence</th>
<th>When to use this rule</th>
</tr>
</thead>
<tbody>
<tr>
<td>C</td>
<td>Customer Demand</td>
<td>Greater of Customer demand or Forecast</td>
<td>Firm sales order demand for set period</td>
</tr>
<tr>
<td>F</td>
<td>Forecast</td>
<td>Forecast Plus Customer Demand</td>
<td>New product introduction</td>
</tr>
<tr>
<td>G</td>
<td>Greater of Customer demand or Forecast</td>
<td>Forecast</td>
<td>Limited sales order demand for set period</td>
</tr>
<tr>
<td>H</td>
<td>Greater of Customer demand or Forecast</td>
<td>N/A</td>
<td>Best representation of demand in most businesses</td>
</tr>
<tr>
<td>S</td>
<td>Customer demand</td>
<td>Forecast</td>
<td>Firm sales order demand for set period</td>
</tr>
<tr>
<td>1</td>
<td>Zero</td>
<td>Forecast</td>
<td></td>
</tr>
<tr>
<td>3</td>
<td>Zero</td>
<td>Forecast Plus Customer Demand</td>
<td></td>
</tr>
</tbody>
</table>

Note: These rule codes are fixed and cannot be changed or added to by the user without program changes perform by the IT department.

Note: C & G rule - Greater of Customer demand or Forecast only apply where the sales order demand and forecast fall on the same day. If these demands fall on different days within the same period (eg. Same week or same month), then both demands are applied and could represent duplication of demand.

H - Forecast Consumption rule is where a forecast period is nominated, e.g. week or month. All forecast(s) within this period are consumed by all sales order demand within this period. This rule required specific set up. This is discussed in another JDEasy Freebie document.

Visit our website to get more information on our EASY.FORECAST applications, for Forecast applications you need to that will take the pain out of forecast review and revision. [http://www.jdeasysoftware.com/easy-forecast.html](http://www.jdeasysoftware.com/easy-forecast.html)
Planning Fence (MTF1): (Item Branch Record)
This value is used in conjunction with the Planning Fence Rule detailed above. It represents the number of days from the generation date that the system uses to switch from the Before fence rule to the After fence rule.
NOTE: If the item is manufactured, the number of days represents working days, if the item is purchased, the number of days represents calendar days.

For example, if the time fence rule is G (Greater of customer demand or forecast before the time fence, forecast after the time fence) and the generation date is 1st March and the Planning fence is 5 days, the system will plan according to the Greater of customer demand or forecast to the 6th March and according to Forecast from the 7th March onwards. If the “Planning Fence” is set to 999 only the first rule is applied and the second rule is never applied.

Freeze Fence (MTF2): (Item Branch Record)
This value represents the number of days, from the generation start date, within which the system should not display order messages. This could be due to fixed production period or goods in transit period. An example of the calculation:
If the generation start date is 1st March and the freeze fence is 3 days, the planning system does not display message with dates prior to or equal to 4th March.

If a demand vs. supply imbalance exists on the 2nd March the system would normally display a message for this date. This message could be an “Expedite” (E) or “Defer” (D) for an existing order or an “Order” (O) or “Order and Expedite” (B) message for a new order. With the Freeze fence of 3 days these message(s) that would normally appear with a due date of the 2nd of March will now appear with a due date of the 4th March.

NOTE: If the item is purchased, the number of days represents calendar days. If the item is manufactured, the number of days represents working days.

Message Display Fence (MTF3): (Item Branch Record)
This value represents the number of days, after the generation start date, within which the system should display planning messages. For example, if the generation start date is 1st March and the Message Display fence is 30 days, the system will display messages with a start date less than or equal to 31st March. The system continues to calculate and store messages after this date but will not display them.

NOTE: If the item is purchased, the number of days represents calendar days. If the item is manufactured, the number of days represents working days.
Note: for all time fences.

- The system does not count the generation date, i.e., the day after the generation date is day 1.
- For purchased items, the system used calendar days, i.e. 7 days per week.
- For manufactured items, the system used Working days as defined in the shop floor calendar. E.g. 5 days per week.

**Planning Code (MPST):** (Item Branch Record)
This code tells the system, which form of stock replenishment is to be used for this item. The alternatives are:
0 = Not Planned by DRP/MRP (uses for Reorder Point Planning)
1 = Planned by DRP or MPS
2 = Planned by MRP
3 = Planned by MRP without forecast
4 = Planned by MPS, Parent in Planning Bill
5 = Planned by MPS, Component in Bill

Note: Codes 4 in hard coded in the software and therefore should only be used for parent items of a Planning Bill. Codes 1, 2, 3 & 5 can be defined as the business desires and are used for data selection. Any change in the use of these values need to be well considered as part of the overall Requirements planning system design.

**Level Lead-time (LTLV):** (Item Branch Record) MUST be entered.
This value represents the lead-time for an item from the date ordered to the date received.
- Purchased items: The number of calendar days required for the item to arrive at your branch from the order date.
- Manufactured items: The number of working days required to complete the manufacture of this item after all its components are in stock.
Note: This is not a mandatory field but for the planning system to be effective it should be completed.

**Manufacturing & Cumulative Lead-time:** (Item Branch Record).
These values are informational and not used by Requirements Planning.

**Leadtime per Unit:** (Item Branch Record)
This value is used by the work orders created for Manufacturing and is not used by Requirements Planning.
Other Parameters using by Requirement Planning

**Stocking Type (STKT):** (Item Branch Record)

The Stocking Type defines whether an item is purchased or manufactured. This also tells the planning system whether to generation a purchase order message or a work order message. The system uses the P or M in the first character of the second description to determine if the item is Purchased (P) or Manufactured (M).

<table>
<thead>
<tr>
<th>Code</th>
<th>Description</th>
<th>Description 2</th>
</tr>
</thead>
<tbody>
<tr>
<td>A</td>
<td>Shipping Vessel</td>
<td>Purchased</td>
</tr>
<tr>
<td>B</td>
<td>Bulk Proc Stock</td>
<td>Purchased</td>
</tr>
<tr>
<td>C</td>
<td>Configured Item</td>
<td>Purchased</td>
</tr>
<tr>
<td>D</td>
<td>Non-JDE Stock Item</td>
<td>Purchased</td>
</tr>
<tr>
<td>E</td>
<td>Equipment Parts List (BOM)</td>
<td>BOM</td>
</tr>
<tr>
<td>F</td>
<td>Feature</td>
<td>Hard Coded</td>
</tr>
<tr>
<td>G</td>
<td>Planned (Future) Item</td>
<td>Purchased</td>
</tr>
<tr>
<td>H</td>
<td>Planned (Future) Item</td>
<td>Manufactured</td>
</tr>
<tr>
<td>I</td>
<td>QA Approval</td>
<td>Manufactured</td>
</tr>
<tr>
<td>J</td>
<td>BOM/Allowance/NOT Approved</td>
<td>Manufactured</td>
</tr>
<tr>
<td>K</td>
<td>Kill or Parent Item</td>
<td>Hard Coded</td>
</tr>
<tr>
<td>L</td>
<td>Application Parts List</td>
<td>BOM</td>
</tr>
<tr>
<td>M</td>
<td>Marketing Item</td>
<td>Purchased</td>
</tr>
<tr>
<td>N</td>
<td>Non-Stock Item</td>
<td>Hard Coded</td>
</tr>
<tr>
<td>O</td>
<td>Option</td>
<td>P</td>
</tr>
<tr>
<td>P</td>
<td>Components/Purchased Item</td>
<td>Purchased</td>
</tr>
<tr>
<td>Q</td>
<td>Coated Item - Ready to Bottle</td>
<td>Manufactured</td>
</tr>
<tr>
<td>R</td>
<td>Flattop Item</td>
<td>BOM</td>
</tr>
<tr>
<td>S</td>
<td>Item Ready for Costing</td>
<td>Manufactured</td>
</tr>
<tr>
<td>T</td>
<td>Tool/Stock Item</td>
<td>Purchased</td>
</tr>
</tbody>
</table>

**Low Level Code: F4101 & F4102 (LLX):**

This field is used by both MRP & Cost Roll Ups to ensure that all levels at which the item appears within the Bill of Material structures are considered correctly. This value is stored on both the Item Master and Item Branch but is not visible on any screens. The BOM Integrity Analysis Program R30601 populates and updates this field and should be run on a regular basis.
Planning Outputs

**Message Types (MSGT):**
The planning system can create various message types. These are held in UDC 34/MT. They have a fixed meaning and cannot be changed. They are:

- **A = Warning Message**
  - Typical warnings are Lead-time = zero, BOM does not exist.
  - Cancel parts list. Delete the message. Defer parts list.
  - No action to be taken.

- **B = Order and Expedite**
  - New order is required but not sufficient lead-time available

- **C = Cancel**
  - Demand has changed, this existing order is no longer required

- **D = Defer**
  - Demand has changed, this existing order should be defer to later date.

- **E = Expedite**
  - Demand has changed, this existing order is required soon.

- **F = Frozen**
  - This existing order has been frozen for Requirements planning purposes only. No exception message will be generated against this order.

- **G = Increase Order Quantity To**
  - Demand has changed, increase the qty on this existing order.
  - (Often go hand in hand with D or E message)

- **H = Decrease Rate Quantity To**
  - Demand has changed, decrease the qty on Rate schedule.

- **I = Increase Rate Quantity To**
  - Demand has changed, increase the qty on Rate schedule.

- **L = Decrease Order Quantity To**
  - Demand has changed, decrease the qty on this existing order
  - (Often go hand in hand with D or E message)

- **M = Manual Reminder**
  - Added by the user as a note to themselves or other planners

- **N = Create Rate Schedule**
  - Create anew Rate schedule supply.

- **O = Order**
  - Create a new supply order. Lead-time is sufficient.

- **P = Firm Order**
  - Supply order that has been created during this message processing session.

- **S = FPO Adjustment Suggestion**
  - Eg Increase Parts List, Decrease Parts List, Expedite Parts List, Defer Parts List.
  - No action required. The message remains until deleted or cleared.
  - Action is taken on the parent item's message.

- **T = Past Due Order**
  - Existing supply order that is over due.
Quantity Types (QT).
The quantity types represent the different elements of the Planning Calculation. These include: the starting quantity for the period (+BA), the supplies to be added during the period (+..), the demands to be subtracted (−..) and the balance at the end of the period (=EA). If an order message exists for any date during the period (+PLO) will also be displayed.

It is important to include all quantity types required for your particular planning circumstance. The specific codes to be used can be set up in a UDC and then that UDC specified in the Processing option of the Requirements Planning batch jobs R3482 & R3483. Each code has a fixed meaning within the JD Edwards Planning system and the meaning cannot be changed by the user.

There are three types of Quantity types; adjusted, unadjusted and Project.

- Adjusted eg. (+BA) Adjusted Values are the results based on the assumption that ALL Planning will be processed.
- Unadjusted eg. (+BAU) Unadjusted values are the results if NO Planning message are processed
- Project eg. (+BAP) Project Values - represent values associated with a project

The main inquiry where the results of the planning calculation can be viewed and where the quantity types are displayed is the Time Series Inquiry. This inquiry is covered in a separate JDEasy Freebie document.

Note: The UDC 34/QT is the JD Edwards Master UDC, it contains all message types, and should NEVER be changed. Other JD Edwards UDC are provided and can be changed as required. These include:
34/DR & 34/DU for DRP,
34/MS & 34/US &34/AS for MPS,
34/MR & 34/UR & 34/AR for MRP,
34/MP for Multi-Plant.
## JDE Requirement Planning Overview

### REQUIREMENTS PLANNING

**Quantity Type values are:**

<table>
<thead>
<tr>
<th>Code</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>02</td>
<td>LYR</td>
</tr>
<tr>
<td>03</td>
<td>SF</td>
</tr>
<tr>
<td>04</td>
<td>SP</td>
</tr>
<tr>
<td>05</td>
<td>+BAU</td>
</tr>
<tr>
<td>06</td>
<td>+BAPU</td>
</tr>
<tr>
<td>10</td>
<td>+BA</td>
</tr>
<tr>
<td>11</td>
<td>+BAP</td>
</tr>
<tr>
<td>13</td>
<td>+IR</td>
</tr>
<tr>
<td>14</td>
<td>+IRP</td>
</tr>
<tr>
<td>15</td>
<td>+POU</td>
</tr>
<tr>
<td>16</td>
<td>+POPU</td>
</tr>
<tr>
<td>20</td>
<td>+PO</td>
</tr>
<tr>
<td>21</td>
<td>+POP</td>
</tr>
<tr>
<td>25</td>
<td>+WOU</td>
</tr>
<tr>
<td>26</td>
<td>+WOPU</td>
</tr>
<tr>
<td>30</td>
<td>+WO</td>
</tr>
<tr>
<td>31</td>
<td>+WOP</td>
</tr>
<tr>
<td>35</td>
<td>+RSU</td>
</tr>
<tr>
<td>40</td>
<td>+RS</td>
</tr>
<tr>
<td>41</td>
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</tr>
<tr>
<td>42</td>
<td>-LEXP</td>
</tr>
<tr>
<td>44</td>
<td>-PWD</td>
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<tr>
<td>45</td>
<td>-FSCU</td>
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<tr>
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<td>-FCST</td>
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<td>-SOU</td>
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<td>-CFD</td>
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<tr>
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<tr>
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<td>-FIDU</td>
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<td>80</td>
<td>-PWO</td>
</tr>
<tr>
<td>81</td>
<td>-PWOP</td>
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</tbody>
</table>

**Results**
What is Available To Promise: ATP?

Available to Promise Calculation
Available to promise is the portion of your inventory or planned acquisitions that have not already been promised to a customer. Therefore the qty that is available to promise to a customer. **This qty is calculated for each supply period, i.e. the period from one supply order to the next supply order.**
The calculation uses real customer demand only (i.e. sales orders). It does not treat forecast as real demands.
You use this amount to accurately promise customer orders. As long as purchase orders are delivered when promises and manufacturing produces according to the MPS and sales makes commitments according to the ATP information, this method increases customer service and reduces inventory carrying cost.

The ATP calculation is:
\[
\text{ATP} = \text{on-hand balance} - \text{safety stock (1st period only)} + \text{work orders} + \text{purchase orders} + \text{planned orders} - \text{sales orders} - \text{work order parts list demand} - \text{interplant demand} - \text{unconsumed lot quantities that are expired.}
\]

The system does not display negative ATP for the next periods. However, the system reduces the CATP by the negative amount.

Cumulative Available to Promise Calculation
Cumulative available to promise (CATP) is a running total of the ATP.
For new products or seasonal products, building inventory might be part of the management strategy. In these cases, sales and marketing might not be expected to sell within the replenishment buckets. The bulk of sales might not be in the near future.

The system calculates CATP like this:
First period CATP = beginning available + replenishment - sum of customer orders and parent demand before the next replenishment.
After the first period, CATP = CATP from last period + replenishment - sum of customer orders and parent demand before the next replenishment.

CATP does not assume complete depletion, rather, the system continues to add inventory.
Keeping Demand Accurate and Messages Meaningful

One of the greatest challenges for business that use requirements planning and have sales back orders is keeping this back order demand updated with the best available information on expected delivery dates. If these backorder delivery dates are not updated, the demand remains on the original request/delivery date and requirements planning continues for generate supply message for dates that cannot be met. This results in the Available To Promise Information being inaccurate for future supply periods.

At JDEasy we have seen this issue at many of our customers and have therefore developed the JDEasy EASY.BOSS, Backorder Scheduling Solution. BOSS is an application that will schedule your sales back orders and update the scheduled pick, schedule ship and delivery dates giving both customer service and Planners accurate demand and delivery dates best on the best supply information available in your JDE system. BOSS can be real-time during sales order entry and/or run in Batch mode overnight updating sales order and producing customer back order delivery notifications.

Visit our website to get more information on this and other applications that will help make your JDE life much easier. http://www.jdeasysoftware.com/easy-boss.html
Set Up Guidelines

Level lead-time must be as accurate as possible.
This represents the time required from supply order creation to the stock being available for sales or use in manufacturing. Leadtime determines where an O order message or a B Order and Expedite message is received.

Message Display fence.
This should be set to the item's Order Cycle time plus an extra allowance depending on how the business operates.
Ordering cycle time is the number of days between processing messages for the one supplier or one type of item. Some users process messages once per week or once per month while others will process messages for all suppliers daily.
It does not relate the lead-time or the period of supply of the item.

<table>
<thead>
<tr>
<th>Order Cycle</th>
<th>Message Display Fence</th>
</tr>
</thead>
<tbody>
<tr>
<td>Daily</td>
<td>2 - 3 days</td>
</tr>
<tr>
<td>Weekly - purchased item</td>
<td>7 +3-7 days 5* +2.5 days</td>
</tr>
<tr>
<td>Every two weeks</td>
<td>14 +7-14 days 10* + 7-14 days</td>
</tr>
<tr>
<td>Monthly</td>
<td>30 +30-35 days 20* + 20-25 days</td>
</tr>
</tbody>
</table>

* assumption of 5 working days per week

Planning Time Fence. The value of this field is dependent on the planning fence rule selected and the normal number of days worth of sales orders in the system. Some companies have only 1 or 2 days worth of sales orders while others may have firm sales orders for the next 6 weeks. The planning time fence is more critical with some planning fence rules than others.

Freeze fence. Think about this seriously before setting up a value in this field. Do not set this date out too far. Only set this date for the immediate period in which absolutely no action can be taken to satisfy unmet demand. This value will move unmet demand that inside the fence to the first day outside fence, which may be too late for your customer and reduce service levels.
Note: This should be set to at least 1 if the MRP job is run overnight but before midnight.
JDE Requirement Planning Overview

Order Policy Value (if Order Policy Code =4)
This is normally set to control the frequency of orders generated, i.e. weekly, fortnightly, monthly etc.
For situations where items have safety stock demand only and no forecast demand, this value can (should) be used differently.

Safety Stock. This value is manually entered. JDE has no programs to automatically calculate this value.

**JDEasy has an application which will calculate and update safety stock based on a nominated period of demand.**

Minimum Qty. Often based on Vendor Quantity price breaks, or might be specified by the vendor.

Multiple Qty. Often Box qty, pallet qty or even Shipping Container Qty.

Maximum Qty. Storage capacity constraints, transport or vendor restriction.

Other Requirement Planning [JDEasy Freebie Documents at http://www.jdeasysoftware.com/easy-freebie.html](http://www.jdeasysoftware.com/easy-freebie.html) available or Coming Soon:

- Time Series Inquiry
- Forecast Consumption
- Pegging Inquiry
# Table of Content

- How Does Requirements Planning Work? ........................................... 1
- Message Types: ............................................................................. 4
- When do you get an “Order Message” versus an “Exception Message”? 4
- How Many Messages does the User See? ....................................... 6
- How Does the System Determine the Quantity to Order? .................... 7
  - Order Policy Codes (OPC) ............................................................. 8
  - Order Policy Value (OPV): ......................................................... 9
  - Quantity Rules ......................................................................... 9
- Other Item Branch Requirements Planning Parameters ..................... 11
- Other Parameters using by Requirement Planning ............................. 15
- Planning Outputs .......................................................................... 16
- What is Available To Promise: ATP? ........................................... 19
- Keeping Demand Accurate and Messages Meaningful ..................... 20
- Set Up Guidelines ....................................................................... 21