

SNP: CTM – Concepts, Demand Prioritization and Supply Categorization



Applies to:

SCM 5.0

Supply Network Planning and/or Production Planning and Detailed Scheduling. For more information, visit the [Supply Chain Management homepage](#).

Summary

The SNP CTM process allows Planners to prioritize the demand and categorize the supply

The features of CTM process includes

- Finite Planning Process at several locations
- Planning Made and Deletion mode
- Demand prioritization
- Supply Categorization
- Supply Control
- Master data selection and Order selection
- CTM Planning
- Fixed Pegging relationships and
- Master data check

In this article, we will be concentrating on Demand prioritization and Supply categorization. Demand prioritization determines the criteria to be used in Capable-to-Match planning (CTM) for sorting demands and the sequence in which CTM is to cover these demands.

Supply Categorization categorizes all receipts and stocks that are available for CTM planning before each planning run.

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Author Bio

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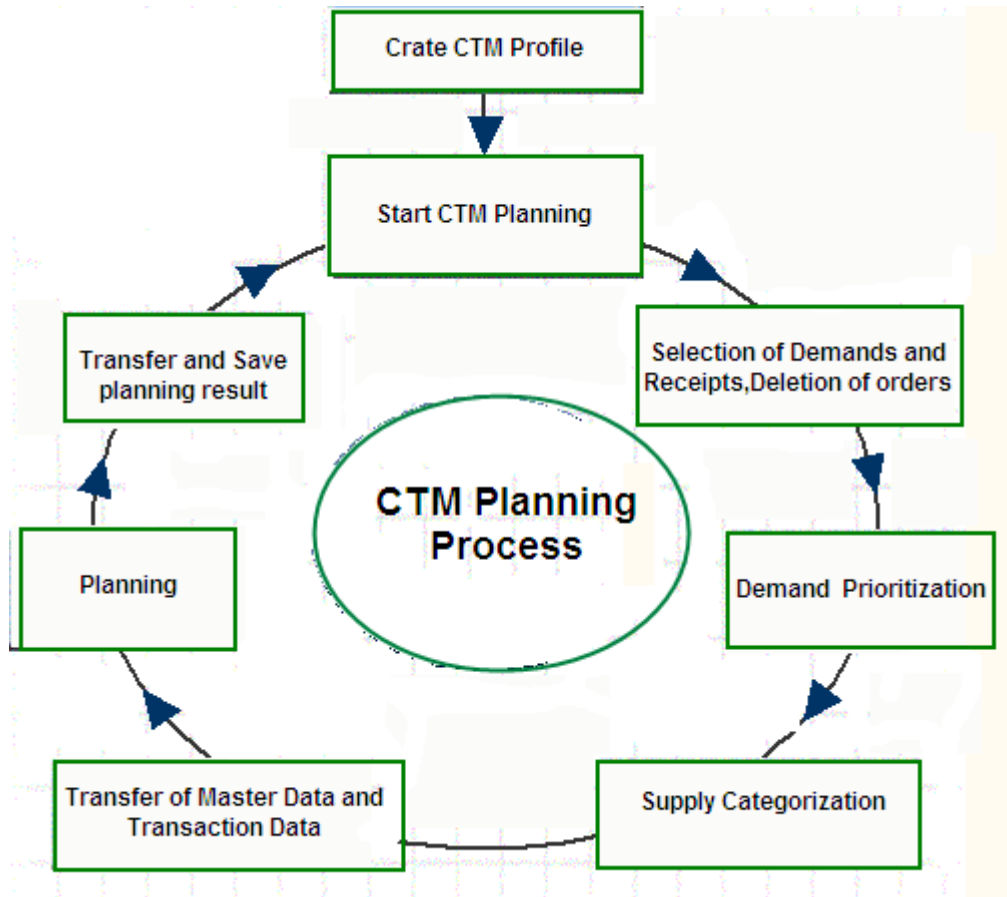
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Introduction to CTM

The CTM is a Rule based, cross-plant planning method that takes into account material and capacity constraints. CTM uses Order based planning method. Meaning, it uses pegging to track orders back to the individual demand.

The graphic below explains the whole CTM process. This document will explain in detail each and every processes in CTM



CTM Profile:

CTM Profile controls the complete CTM Planning process. We define / set the following parameters in the CTM profile.

Planning run – Execution of CTM Planning process and evaluations

Planning scope –The scope of CTM Planning run such as master data selection, demand selection, supply selection and planning period are defined. The master data includes location products, transportation lanes and Production process models (PPM). Under demand, we can set to all demands in version which will consider all kinds of demands Or we can restrict using Order selection. Similarly for Supply.

CTM Profile: V2R_RAJCTH | ctm test2

Planning Run | Planning Scope | Strategies | Aggregation | Demands | Supplies

Planning Data

Planning Version: 000 (active version)
 Model: 000 (000 - Active model)

Master Data Selection

All Master Data in Model
 Master Data Selection: V2RRAJM (CTM_R_V2R)

Demand Selection

All Demands in Version
 Order Selection: V2RSCM2_OS (V2RSCM2 Order selection)

Supply Selection

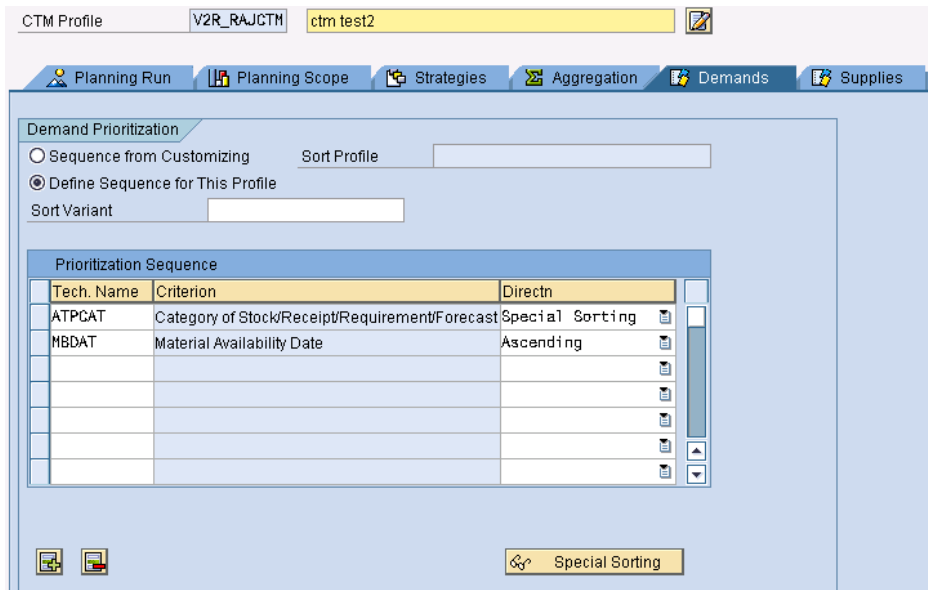
All Supplies in Version
 Order Selection: V2RSCM2_SP (Supply for CTM)

Planning Period

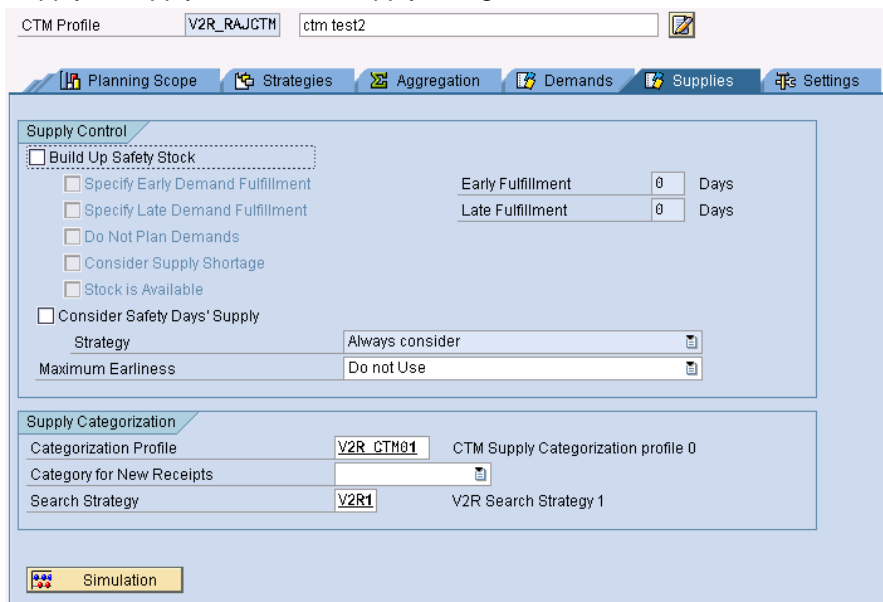
Time Stream: CTMTEST (CTMTEST)
 Planning Start: 12/19/2008 (00:00:00)
 Planning End: 04/17/2009 (23:59:59)

Strategy - Settings are made for Planning Strategies and Special strategies

Demand – Prioritization and sort sequence of demand



Supply – Supply control and supply categorization



Settings – Under settings, we define if we run CTM for SNP or PPDS, R/3 Integration and other planning parameters.

CTM Profile V2R_RAJCTM ctm test2

Type of Planning <input checked="" type="radio"/> Bucket-Oriented Planning <input type="radio"/> Continuous Planning	Order Category <input checked="" type="radio"/> SNP Order <input type="radio"/> PP/DS Order
Sources of Supply for In-House Production <input type="checkbox"/> PP/DS Type <input checked="" type="checkbox"/> SNP Type	R/3 Integration Transfer Mode Do not transfer planning results
Exclude Procurement Alternatives <input type="checkbox"/> PPM/PDS <input type="checkbox"/> Transportation Lanes <input type="checkbox"/> External Procurement	Planning Steps <input type="checkbox"/> End Planning Run After Order Selection <input type="checkbox"/> Do not Check Order Details <input type="checkbox"/> Do not Delete Pegging of Firm Orders
Profiles Check Profile <input type="text"/> PP/DS Alert Profile <input type="text"/> SDP Alert Profile <input type="text"/> Key Figure Schema <input type="text"/>	

Planning

Two main functions in the CTM process are – Demand Prioritization and Supply Categorization.

Demand Prioritization:

Using demand prioritization, we can determine the criteria to be used in CTM planning for sorting the demand and the sequence in which CTM is to cover these demands. Using Order selection, we can specify the system to consider only specific types of demand like sales order, stock transport order, order reservations and forecast and also prioritize the sequence of selected demand.

Change View "Criteria": Overview

Sort Profile: ZV2R_GTM1

Field name	Field Label	S.	Change Sort	Sort	Display Sort
MATPRIO	Priority of Product	2	Change sort.	Ascending	
MBDAT	Material Availability Date	1	Change sort.	Ascending	

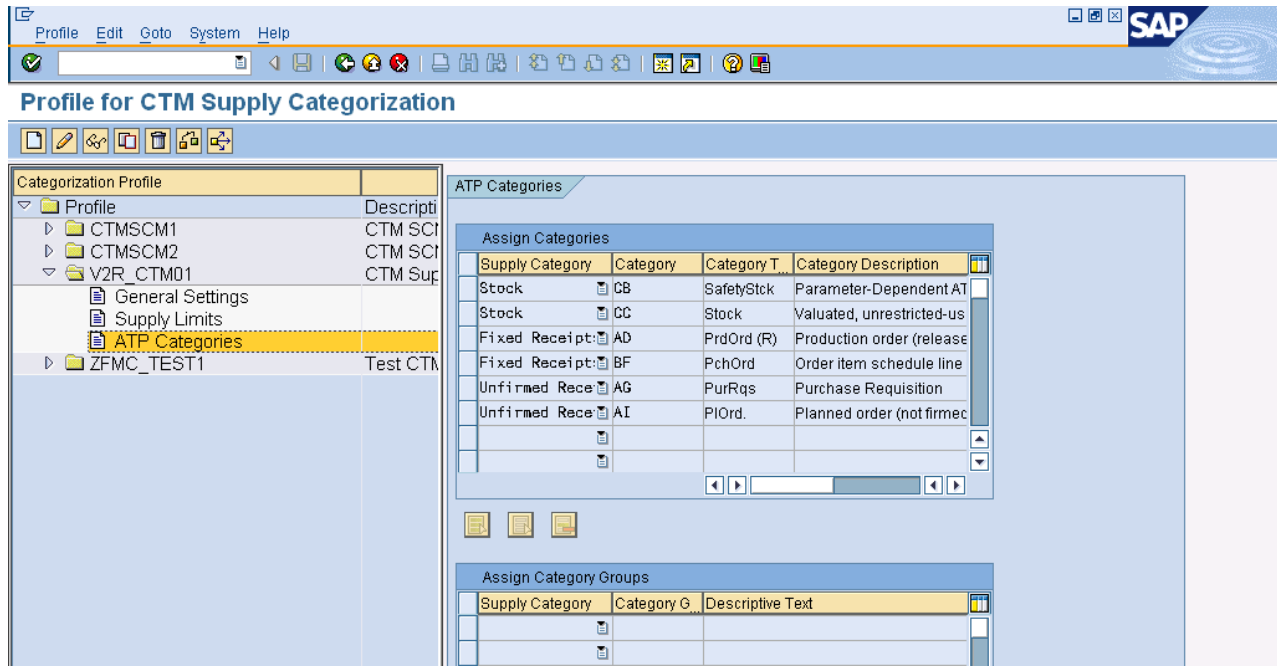
Special Sorting

Change View "Category": Overview

Sort	Cat	Category Text	Descriptn	Typ
1	BH	SalesOrder	Sales order	Requirements
2	BH	PReqRel	Stock transport requisition	Requirements
3	FA	FC req.	Planned independent requirements	Forecast

Supply Categorization:

All receipts and stocks that are available are categorised for CTM planning before each planning run. We can group the receipts and supplies and assign them to supply categories.



Late Demand Fulfillment Strategy:

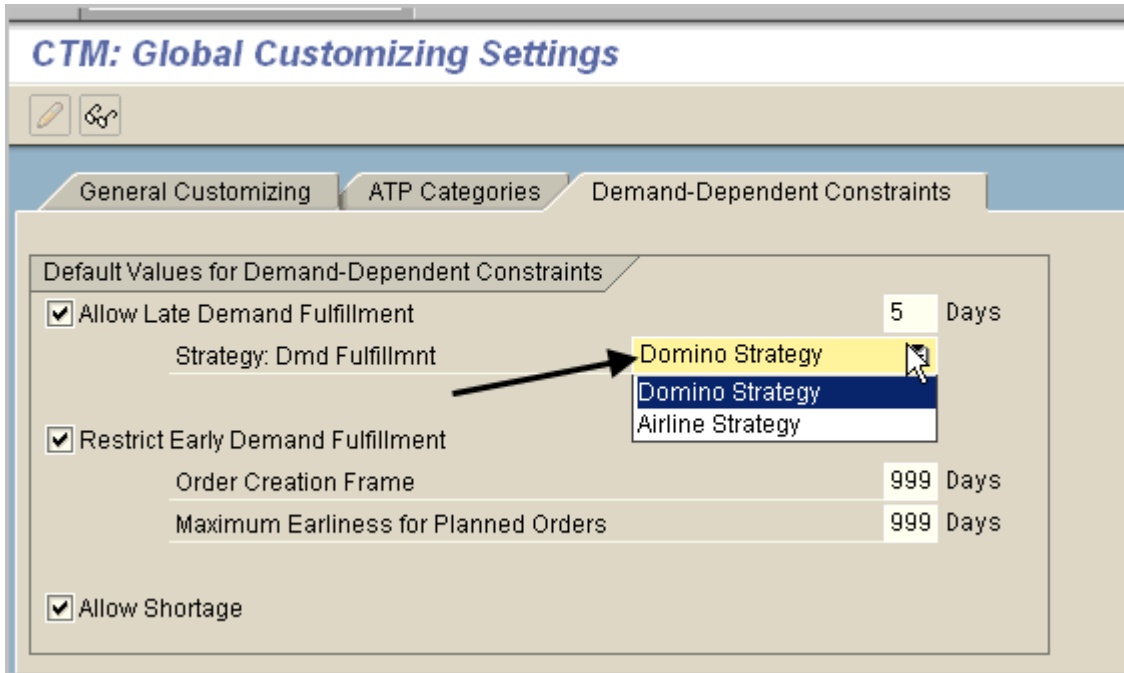
There are two main strategies for late demand fulfillment.

Domino Strategy: If the one demand is been late to fulfill, all the subsequent demands would be late fulfilled.

Airline Strategy: If a demand can't meet on date, this demand is fulfillment is postponed, first fulfills subsequent demands during prioritization.

Late Demand Strategies

- **Domino Effect**
 - Immediate planning with postponed due date
 - Each postponed demand can influence the due date of the next demand
- **Airline Reservation**
 - Shift to the end of the demand list



CTM Scenario:

- One Manufacturing Plants 3300
- Two Distribution Centers (2010,3800)
- Transportation Lanes (TLs) exist between 3300- 2010 and 3300-3800.
- Product K-700 is Finished Good exists in Locations 2010, 3300 and 3800
- Product K-701 is semi finished at Manufacturing Plant 3300.
- Product K-702 & K-703 are externally procured at Manufacturing Plants 3300.

In this scenario sales orders are having more priority than Forecast (Planned independent Requirements).

Sales orders created in distribution centers 2010 & 3800.

Forecast generated in all the plants 3300, 2010 & 3800.

- **Demands**
 - Forecasts (from APO Demand Planning)
 - Sales orders
- **Prioritization can be based on:**
 - Customer (location) priority
 - Product priority
 - Order type
 - Due date
- **Demand Selection**
 - CTM work area

Product View: K-700, Planning Version 000

Product: K-700 SNP V2R Raja1
 Location: 2010 D C London
 Acct Assignment:
 DaysSupply [D]: 59.66- ⚠ ReceiptDS [D]: 59.66- ⚠

Elements Periods Quantities Stock Pegging Overview Product Master ATP Forecast

K-700 in 2010 (Make-to-Stock Production)

Avail/ReqD	Avail/ReqT	Category	Receipt/Rqmt. Elemt.	Rec/ReqQty	Conf. Qty.	Available	Surp/short	Priority	Qty Alert	DatTimAlrt
11/28/2008	00:00:00	SalesOrder	12392/000010/4	10-	0	1,440-	10-	1	ⓘ	ⓘ
12/20/2008	23:59:59		SNP Product Horizon					0		
12/20/2008	23:59:59		PP/DS Horizon					0		
12/22/2008	00:00:00	SalesOrder	12295/000010/1	100-	0	1,540-	100-	1	ⓘ	
12/22/2008	00:00:00	SalesOrder	12475/000010/1	10-	0	1,550-	10-	1	ⓘ	
12/22/2008	12:00:00	FC req.		220-	0	1,770-	220-	0	ⓘ	
12/23/2008	00:00:00	SalesOrder	12474/000010/1	10-	0	1,780-	10-	1	ⓘ	
12/23/2008	12:00:00	FC req.		20-	0	1,800-	20-	0	ⓘ	
01/01/2009	03:52:19		PP/DS Plg Time Fence					0		
01/02/2009	00:00:00	SalesOrder	12295/000010/2	0	100-	1,800-	0	1		
01/02/2009	00:00:00	SalesOrder	12474/000010/2	0	10-	1,800-	0	1		
01/02/2009	00:00:00	SalesOrder	12475/000010/2	0	10-	1,800-	0	1		
01/02/2009	12:00:00	FC req.		120-	0	1,920-	120-	0	ⓘ	
				0	0	0	0	0		
				0	0	0	0	0		

The above screenshot shows both forecast and sales orders on the same date but the demand priority has been given to the sales order.

The below screen shot is shows simulation mode, that are prioritized for CTM run.

CTM: Display Prioritized Demand

Requirements for Profile V2R_RAJCTM - Version 000 - Run No. 0001

Object ID	Product	Location	PlngSegTyp	Acct Assgt	Ct	Date	Time	Quantity	Pr.	Cat	Subloc.	Strategy	Delay	Frame	Earliness	PartFulfil	Part Fulf.	Pegging	Rule
1	K-700	2010			CO	12/22/2008	00:00:00	100.000-	1	BM		D	5	999	999	☑	☑		1
2	K-700	2010			CO	12/22/2008	00:00:00	10.000-	1	BM		D	5	999	999	☑	☑		1
3	K-700	2010			CO	12/23/2008	00:00:00	10.000-	1	BM		D	5	999	999	☑	☑		1
4	K-700	2010			FC	12/22/2008	12:00:00	220.000-	3	FA		D	5	999	999	☑	☑		1
5	K-700	2010			FC	12/23/2008	12:00:00	20.000-	3	FA		D	5	999	999	☑	☑		1
6	K-700	3300			FC	01/01/2009	12:00:00	120.000-	3	FA		D	5	999	999	☑	☑		1
7	K-700	2010			FC	01/02/2009	12:00:00	120.000-	3	FA		D	5	999	999	☑	☑		1

Demand Category CO : Sales order

FC : Forecast(PIR)

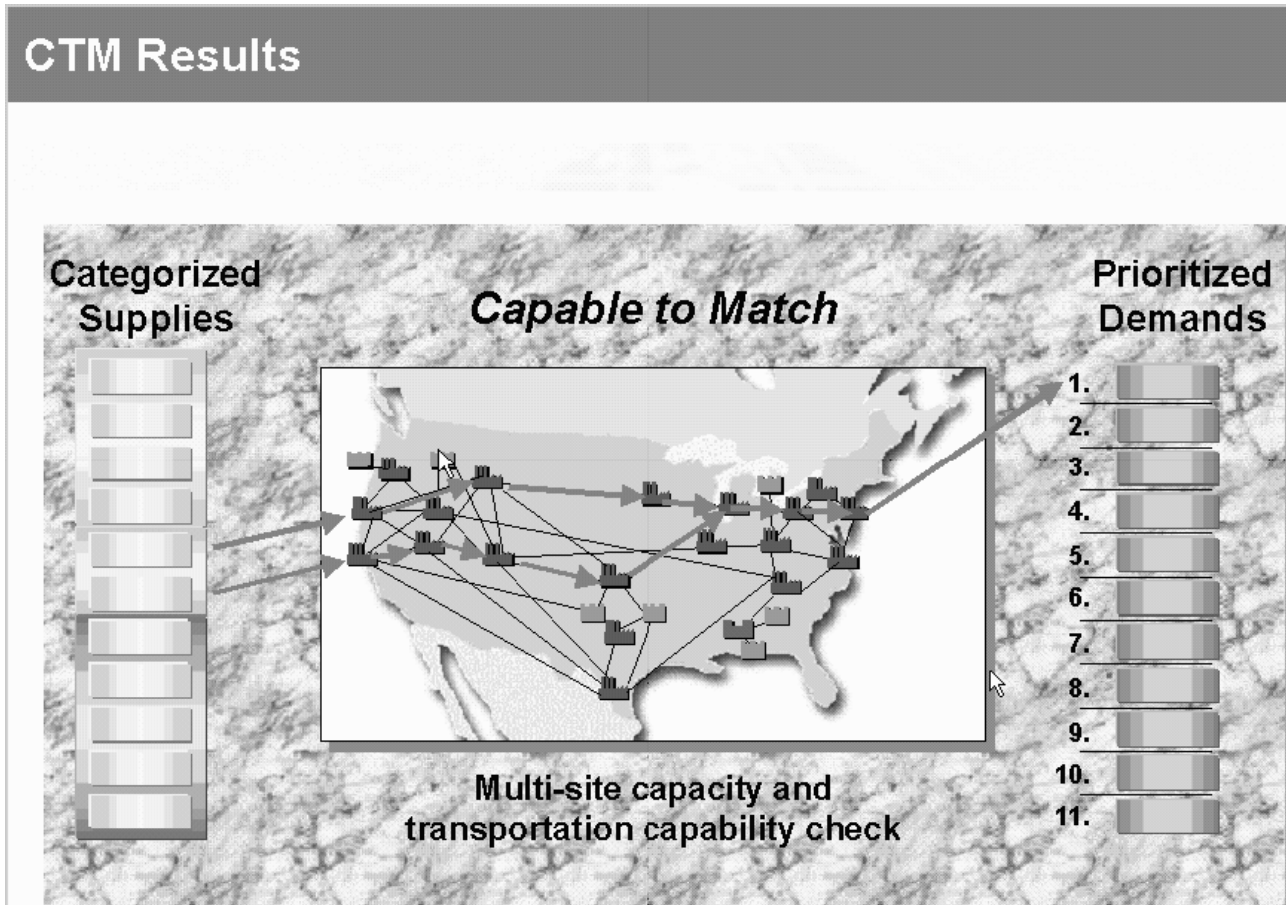
CTM: Results Analysis

✓✗ Planning run

CTM Log	Numb
<ul style="list-style-type: none"> ▼ V2R_RAJCTM0000 66 <ul style="list-style-type: none"> ▶ Order Selection 9 ▶ Demand Prioritization 5 ▶ Supply Categorization 5 ▶ Planning engine: Reset 3 ▶ Planning engine: Upload master d 25 ▶ Planning engine: Upload planning 2 ▶ CTM Planning Run 6 ▼ Create orders 11 <ul style="list-style-type: none"> Quantitative Results 8 Measurements of Time 3 	

Ty...	Message Text
■	==> 1 Production orders created
■	==> 1 Transport orders created
■	==> 2 Pegging lane created
■	==> 1 Production orders created
■	==> 1 Transport orders created
■	==> 0 Purchase Requisition Created
■	==> 0 Substitution orders created
■	==> 2 Pegging lane created

The above screen shot is the CTM run evaluation.



Product View: K-700, Planning Version 000

Product: K-700 SNP V2R Raja1
 Location: 2010 D C London
 Acct Assignment:
 DaysSupply [D]: 59.70- ⚠ ReceiptDS [D]: 59.70- ⚠

Elements Periods Quantities Stock Pegging Overview Product Master ATP Forecast

K-700 in 2010 (Make-to-Stock Production)

Avail/ReqD	Avail/ReqT	Category	Receipt/Rqmt. Elemnt.	Rec/ReqQty	Conf. Qty.	Available	Surp/short	Qty Alert	DatTimAlrt	PP-Firmed
12/22/2008	00:00:00	SNP: PReq	8812/1/1	100	0	1,330-	0			<input checked="" type="checkbox"/>
12/22/2008	00:00:00	SalesOrder	12295/000010/1	100-	0	1,430-	0	ⓘ		
12/22/2008	00:00:00	SalesOrder	12475/000010/1	10-	0	1,440-	0	ⓘ		
12/22/2008	12:00:00	FC req.		220-	0	1,660-	20-	ⓘ	ⓘ	
12/23/2008	00:00:00	SNP: PReq	8813/1/1	10	0	1,650-	0			<input checked="" type="checkbox"/>
12/23/2008	00:00:00	SalesOrder	12474/000010/1	10-	0	1,660-	0	ⓘ		
12/23/2008	12:00:00	SNP: PReq	8810/1/1	200	0	1,460-	0		ⓘ	<input checked="" type="checkbox"/>
12/23/2008	12:00:00	FC req.		20-	0	1,480-	20-	ⓘ	ⓘ	<input checked="" type="checkbox"/>
01/01/2009	03:33:17	PurRqs	8794/000010	1,540	0	60	1,420	ⓘ		<input checked="" type="checkbox"/>
01/01/2009	03:48:36		PP/DS Plg Time Fence							
01/02/2009	00:00:00	SalesOrder	12295/000010/2	0	100-	60	0			
01/02/2009	00:00:00	SalesOrder	12474/000010/2	0	10-	60	0			
01/02/2009	00:00:00	SalesOrder	12475/000010/2	0	10-	60	0			
01/02/2009	12:00:00	FC req.		120-	0	60-	0			

The below screen shot is the pegging relationship created in the planning run.

Context for External Procurement 8813, PV 000

Pegged Requirements

Avail/ReqD	Avail/ReqT	Category	Rec/Rqmt.Elemnt.	Rec/ReqQty	Product	Req. Qty	Unit	Prod. Descript.	Qty Alert	Priority	Target	Source	Prod. Memo	S	Ac
12/23/2008	00:00:00	SalesOrder	12474/000010/1	10-	K-700	10-	PC	SNP V2R Raja1	ⓘ	1		2010			

Pegging Structure DS Planning Board 1 DS Planning Board 2

Pegging Overview

Order	ReqElement	Alt	Rec/ReqQty	ReqPegQty	ActPegQty	T	Reqmnts	Rqmnt...	AvailDay	Avail.TI...	P	Source	Target	Pr
SalesOrder 12474/000010/1		ⓘ	10-	0	0		12/23/2008	00:00:00	12/23/2008	00:00:00	1	2010		K-
SNP: PReq 8813/1/1	SalesOrder 124...		10	10	10	A	12/23/2008	00:00:00	12/23/2008	00:00:00	1	3300	2010	K-

Related Content

SAP Help: www.help.sap.com

http://help.sap.com/saphelp_scm50/helpdata/en/c8/986c39b768ca2fe1000000a114084/frameset.htm

for more information on Capable-to-Match.

http://help.sap.com/saphelp_scm50/helpdata/en/1c/4d7a375f0dbc7fe10000009b38f8cf/frameset.htm for
Supply Network Planning

For more information, visit the [Supply Chain Management homepage](#).

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