Availability Check against Product Allocation Configuration Guide

Applies to:

SAP R/3 Release 4.7 and unto ECC 6.0, Availability Check, Sales and Distribution Module

Summary

Availability Check against Product Allocation is a function provided by the R/3 system for carrying out control options intended to help companies to avoid critical requirement and procurement situations. This should enable you to keep production to a minimum at the same time as allowing you to react quickly to bottlenecks and changing market situations. Product allocation functionality allows you to manage the supply of scarce products to customers so that each customer receives an allocated amount.

In the SAP System, product allocations represent an ordered allocation of production for certain periods. Product allocations can be created according to various criteria (i.e., customer, regions etc).

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Availability Check against Product Allocation

Product allocation functionality allows you to manage the supply of scarce products to customers so that each customer receives an allocated amount. The system can perform availability checks in conjunction with product allocation checks. Product allocation control process permits the user to manage allocations at a specific material level up to various material groupings. Product allocation encompasses internal allocations to sales organizations and channels, as well as external customer groups and specific customers.

The system also supports the need for different phases of allocation control during the overall constraint period.

Prerequisites for Using Product Allocation

To use product allocation, you must:

- Define an allocation procedure and an allocation object
- Link the procedure to an info structure
- Link your objects to a procedure
- Maintain the procedure in the material master records (basic data)
- Switch on allocation for the relevant requirement category and schedule line category

Maintaining Procedure

In this IMG activity you define the product allocation determination procedure for the availability check against product allocations.
It determines how products are allocated and is used as follows:

- The product allocation determination procedure must be entered in the material master (basic data screen, general data).
- In the product allocation hierarchy, an info structure is assigned to the product allocation determination procedure. The info structure determines the criteria for the planning hierarchy. The product allocation is stored in the planning hierarchy.
- Several objects with different validity periods can be assigned to the product allocation determination procedure.

Procedure

We define the product allocation determination procedure for the availability check against product allocations.

1. Access the activity using one of the following navigation options:

IMG Menu	*Sales and Distribution → Basic Functions → Availability Check and Transfer of Requirements → Availability Check → Availability Check Against Product Allocation → Maintain Procedure*
Transaction Code	**OV1Z**

2. On the *Change View" Product Allocation: Definition of Procedure": Overview* screen, choose *New Entries*.

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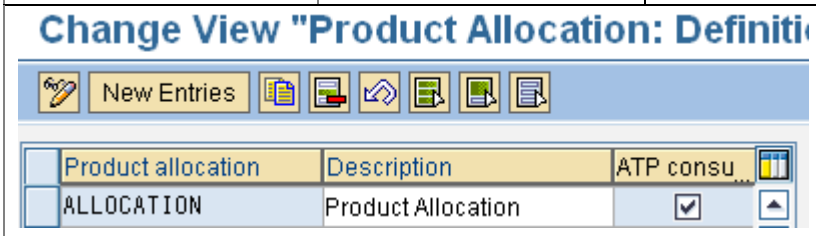
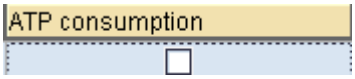
3. Enter the values shown below.

Product allocation	Description	ATP Consumption
ALLOCATION	Product Allocation	ATP consumption ☐



4. ATP Consumption check box 

During product allocation, the order quantity can be settled against the allocation amount using one of two different methods. We use the indicator for the product allocation method to determine which method is to be used.

a) If we do not set the indicator, the system continues to use discrete ATP check this method settles the confirmed quantity in the sales document against the product allocation quantity. This is only carried out the basis of the product allocation quantities for current and future periods (unused allocation quantities for periods in the past are not taken into account). The date with which the periods are determined is the confirmed delivery date in the schedule line, independent of whether it is determined by the availability check (ATP) or not.

Example:

Product allocation quantities:

January	February	March	April	May
50	50	50	50	50

If an order for 150 pieces is made on March 1st, then the product allocation check proposes 50 pieces for March, 50 pieces for April and 50 pieces for May. The free quantities from January and February are not considered.

If you use this method, then the following functions for product allocations are not available:

- Consumption interval: Option for defining a number of periods in the past and the future that are to be used for consumption.
- Product allocation step: Option for defining several product allocation steps with different info structures. The only allowed hierarchy step value is 0.

b) If you set the indicator, then the system uses the standard product allocation method, available as of 4.0A, which uses cumulative ATP checking logic.

With the help of the standard ATP checking logic, the quantity to be consumed is validated against the remaining free allocation quantity. Unused allocation quantities of previous periods are added to the values in the current period in order to calculate the available product allocation quantity.

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Example:

Product allocation quantities:

January	February	March	April	May
50	50	50	50	50

A customer places an order for 150 pieces on March the 1st. The product allocation check first of all cumulates the unused product allocation quantities from previous periods (50 pieces for January + 50 for February) and determines a total amount available of 150 pieces. The result of the check is that 150 pieces are confirmed for the date.

5. Save your settings.

Defining Object

In this IMG activity you define the product allocation object. This product allocation object is the object in the product allocation determination procedure. This is because product allocations are stored in the planning hierarchy by object.
You can assign the product allocation object to a product allocation determination procedure under the 'Control product allocation' node. This assignment is a precondition for the product allocation determination procedure to be carried out on the object

Procedure

Product allocation objects in the product allocation determination procedure. Product allocations are stored in the planning hierarchy by object.

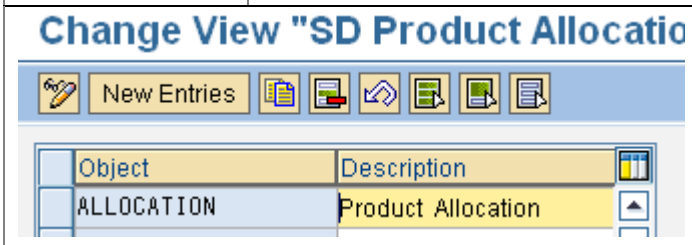
1. Access the activity using one of the following navigation options:

IMG Menu	*Sales and Distribution → Basic Functions → Availability Check and Transfer of Requirements → Availability Check → Availability Check Against Product Allocation → Define Object*
Transaction Code	**OV2Z**

2. In *Change View "SD Product Allocation Objects": Overview* screen, choose *New Entries*.

3. Enter the values shown below.

Object	Description
ALLOCATION	Product Allocation



4. Save your settings.

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Defining Hierarchy

In this IMG activity, you assign an info structure to each of the product allocation determination procedures. You can display the suitable statistical structures.

The system uses both the assignment of the info structure to the product allocation determination procedure and the product allocation object to determine the planning hierarchy in which the product allocations are stored, relevant for the check.

You can specify a formatting character for each info structure and this is used to form the key for general entries (default entries). Once the planning hierarchy has been created, you can expand the planning hierarchy with general entries using the node 'Permit collective product allocation in info structures'. This creates a default entry for every node in the hierarchy.

Procedure

We assign an info structure to each of the product allocation determination procedures. We can display the suitable statistical structures.

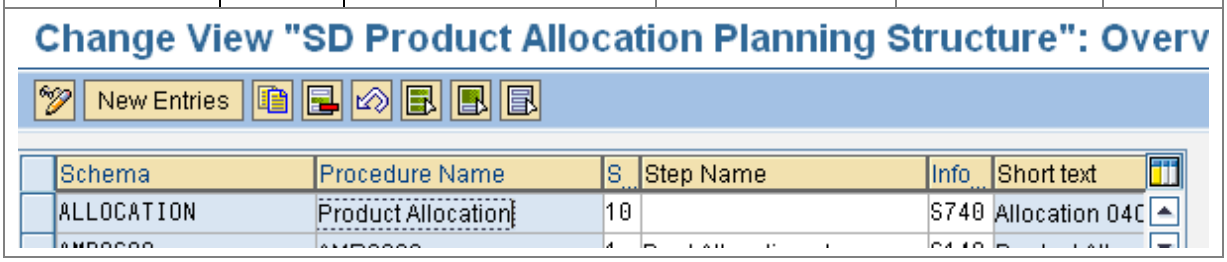
1. Access the activity using one of the following navigation options:

IMG Menu	*Sales and Distribution → Basic Functions → Availability Check and Transfer of Requirements → Availability Check → Availability Check Against Product Allocation → Specify Hierarchy*
Transaction Code	**OV3Z**

2. On the *Change View "SD Product Allocation Planning Structure": Overview* screen, choose *New Entries*.

3. Enter the values shown below.

Procedure	Step	Step Name	Info Struct.	Short Text	Mask
ALLOCATION	10	Product Allocation	S740	Product Allocations	$



***Mask:** Masking ID for remaining allocations

4. Save your settings.

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Defining Consumption Periods

When you have defined a product allocation determination procedure, you can also define (past and future) consumption periods for product allocation quantities. These periods consist of the number of past and future periods

Procedure

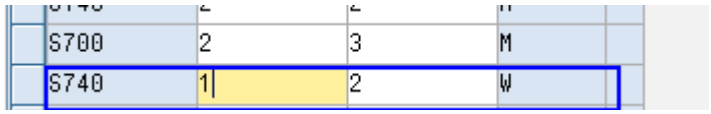
We define (past and future) consumption periods for product allocation quantities. These periods consist of the number of past and future periods.

1. Access the activity using one of the following navigation options:

IMG Menu	*Sales and Distribution → Basic Functions → Availability Check and Transfer of Requirements → Availability Check → Availability Check Against Product Allocation → Define Consumption Periods*
Transaction Code	**SPRO**

2. On the *Change View "SD Allocation: Consumption Period in Number of Periods":* screen, choose *New Entries*.
3. Enter the values shown below.

Info Structure	Bws cons.	Fwd. Cons.	Period
S740	1	2	Weeks



4. Consumption periods
   a) Backward consumption period

      Number of periods before the product allocation date in the order that can be used for calculating the current allocation quantities. The allocation quantities not used during these periods are cumulated for the current period before product allocation is checked.

   b) Forward consumption period

      Number of periods after product allocation date in order that can be used for the current settlement interval. If the required quantity cannot be confirmed within the settlement interval of the future period, then the remaining quantities remain unconfirmed.

      Periods are defined via the corresponding planned parameters of the information structures (period = daily, etc.).
5. Save your settings.

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Control Product Allocation

In this IMG activity, you assign one or several objects with different validity periods to the product allocation determination procedures. The validity periods cannot overlap.

The relevant product allocation object is determined using the delivery date from the order. The planning hierarchy with the stored product allocations is determined using the product allocation object.

Procedure

We assign one or several objects with different validity periods to the product allocation determination procedures. The validity periods cannot overlap.

The relevant product allocation object is determined using the delivery date from the order. The planning hierarchy with the stored product allocations is determined using the product allocation object.

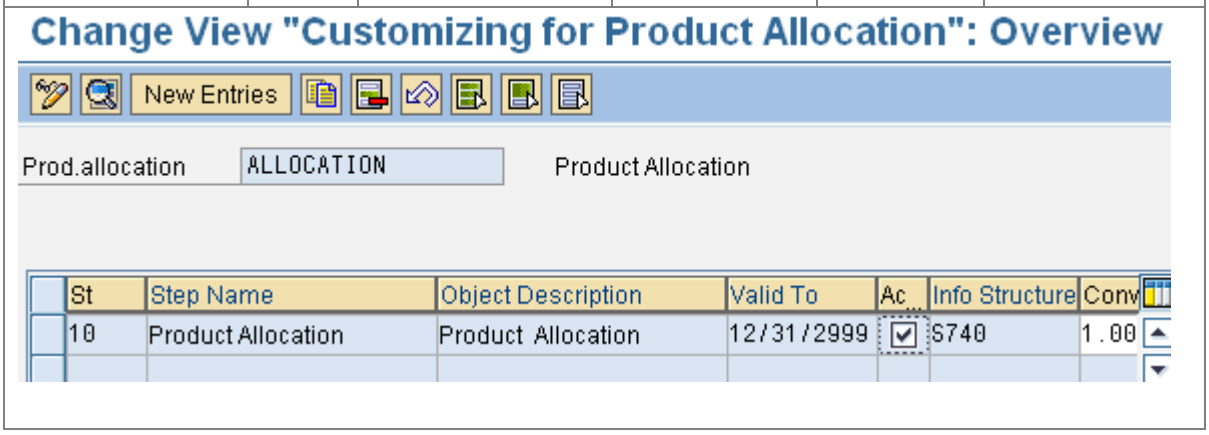
1. Access the activity using one of the following navigation options:

IMG Menu	*Sales and Distribution → Basic Functions → Availability Check and Transfer of Requirements → Availability Check → Availability Check Against Product Allocation → Control Product Allocation*
Transaction Code	**OV4Z**

2. In the dialog box of the *Maintain Table Views: Initial* Screen, enter **001** in field *Product allocation*.

3. On the *Change View "Customizing for Product Allocation": Details* screen, choose *New Entries*.
4. Confirm with *Enter*.
5. Enter the values shown below.
   *No product allocation check is carried out for validity periods that are not active

Prod. Allocation	Step	Object	Valid to	Active	Conversion factor
ALLOCATION	10	ALLOCATION	12/31/2999	X	1.000



6. Save your settings.

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Defining Flow According to Requirement Category

In this IMG activity you determine whether the system should run an availability check for product allocations or not. You can determine this in each requirements class.

Procedure

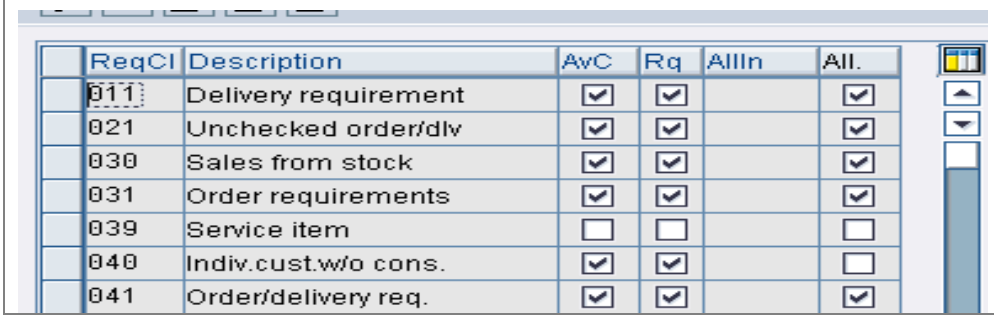
We determine whether the system should run an availability check for product allocations or not. We can determine this in each requirements class.

1 Access the activity using one of the following navigation options:

IMG Menu	*Sales and Distribution → Basic Functions → Availability Check and Transfer of Requirements → Availability Check → Availability Check Against Product Allocation → Define Flow According To Requirement Category*
Transaction Code	**OVZ0**

1. On the *Change View "Availability and Transfer of Requirements by Req Type"* screen enter the following data:

Req Cl	Description	AvC	Rq	AllIn	All
011	Delivery requirement	√	√	√	
030	Sale from stock	√	√	√	
031	Order requirements	√	√	√	
041	Order/delivery reqmt	√	√	√	



ReqCl	Description	AvC	Rq	AllIn	All.
011	Delivery requirement	☑	☑		☑
021	Unchecked order/dlv	☑	☑		☑
030	Sales from stock	☑	☑		☑
031	Order requirements	☑	☑		☑
039	Service item	☐	☐		☐
040	Indiv.cust.w/o cons.	☑	☑		☐
041	Order/delivery req.	☑	☑		☑

2. Save your settings.

Process Flow for Each Schedule Line Category

We determine for each schedule line category, whether or not an availability check against product allocation is to be carried out.

The availability check against product allocation can only be deactivated at schedule line category level. It cannot be activated if the availability check is not already activated at requirements class level

Procedure

1 Access the activity using one of the following navigation options:

IMG Menu	*Sales and Distribution → Basic Functions → Availability Check and Transfer of Requirements → Availability Check → Availability Check Against Product Allocation → Process Flow For Each Schedule Line Category*
Transaction Code	**SPRO**

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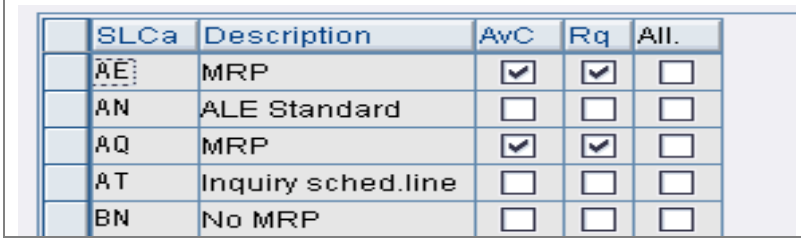
2 On the *Change View "Rel Requirement and Availability for Schedule line category"* screen, enter the following data:

SL Ca	Description	AvC	Rq	All
BP	MRP	√	√	√
CP	MRP	√	√	√
CV	Consumption MRP			



SLCa	Description	AvC	Rq	All.
AE	MRP	☑	☑	☐
AN	ALE Standard	☐	☐	☐
AQ	MRP	☑	☑	☐
AT	Inquiry sched.line	☐	☐	☐
BN	No MRP	☐	☐	☐

3 Save your settings

Info Structure

Create Info Structure

Procedure

1. Access the activity using one of the following navigation options:

SAP Easy Access Menu	*Tools → ABAP Workbench → Development → SAP Business Workflow → Reporting → Workflow Information System (WIS) → Environment → Info structures*
Transaction Code	**MC21**

2. In the dialog box of the Create Info structure: Initial Screen, enter **S940** in field Info structure.
3. Confirm with Enter.
4. Enter the values shown below.

Info structure	Info structure description	Application	Type of IS	Plng Possible
S940	Product Allocations	01	Standard	X

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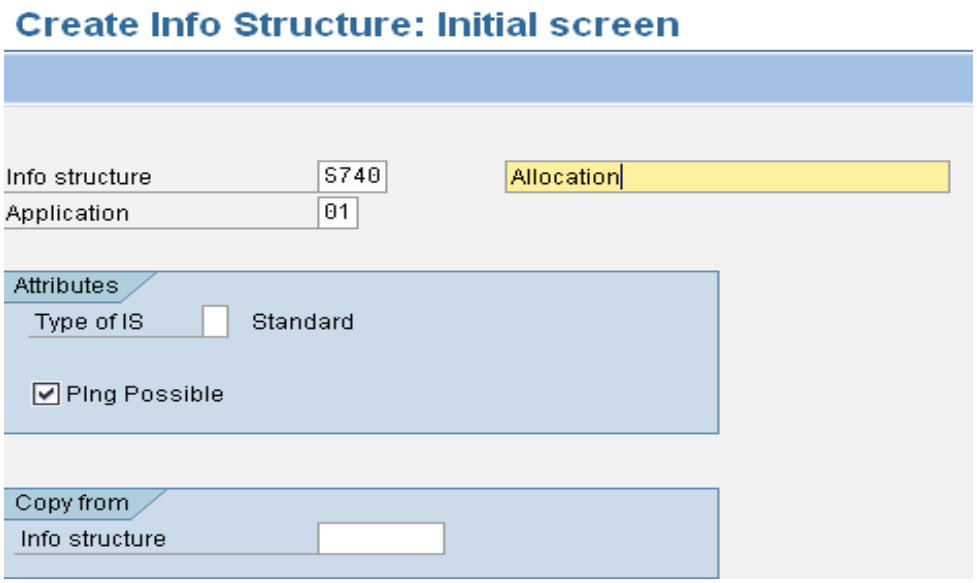
Info structure	Info structure description	Application	Type of IS	Plng Possible



5. Select the Characteristics and Key figures
   a) Characteristics, information with reference to which other information is cumulated
   b) Key figures, information that is cumulated with reference to characteristics

Characteristics	Key figures	Unit
Prod. allocation obj.	Prod Alloc Qty	01
Prod.allocation obj.	Incoming orders qty	01
Sales Organization	Customer reqmts	01
Distribution Channel	ProdAllocQty	01
Material	Reqs not covered	01
Division	Open product alloc.	01
	Def. division	00

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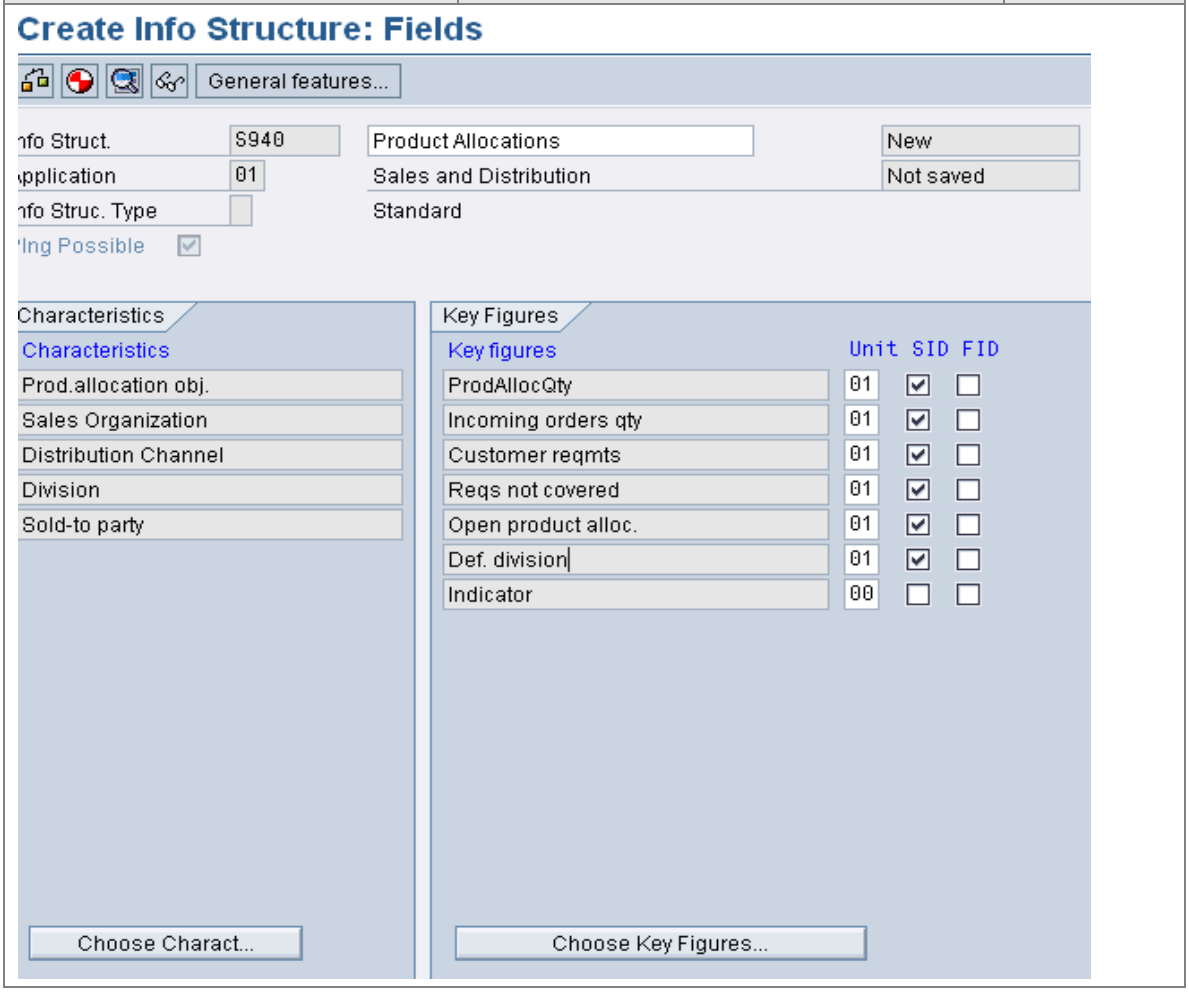
Characteristics	Key figures	Unit



6. Generate, Check and Save your settings.

Maintain Info Structure Planning Parameters

Procedure

We set the planning parameters of information structures and their key figures

1 Access the activity using one of the following navigation options:

IMG Menu	*Logistics - General→ Logistics Information System (LIS)→ Planning→ Master Data→ Set parameters for info structures and key figures*
Transaction Code	**MC7F**

2 Select the Info structure S940

3 Go to Details.

4 Enter the values shown below

Planning method	Planning plant	Base Unit of Measure
K	WH01	EA

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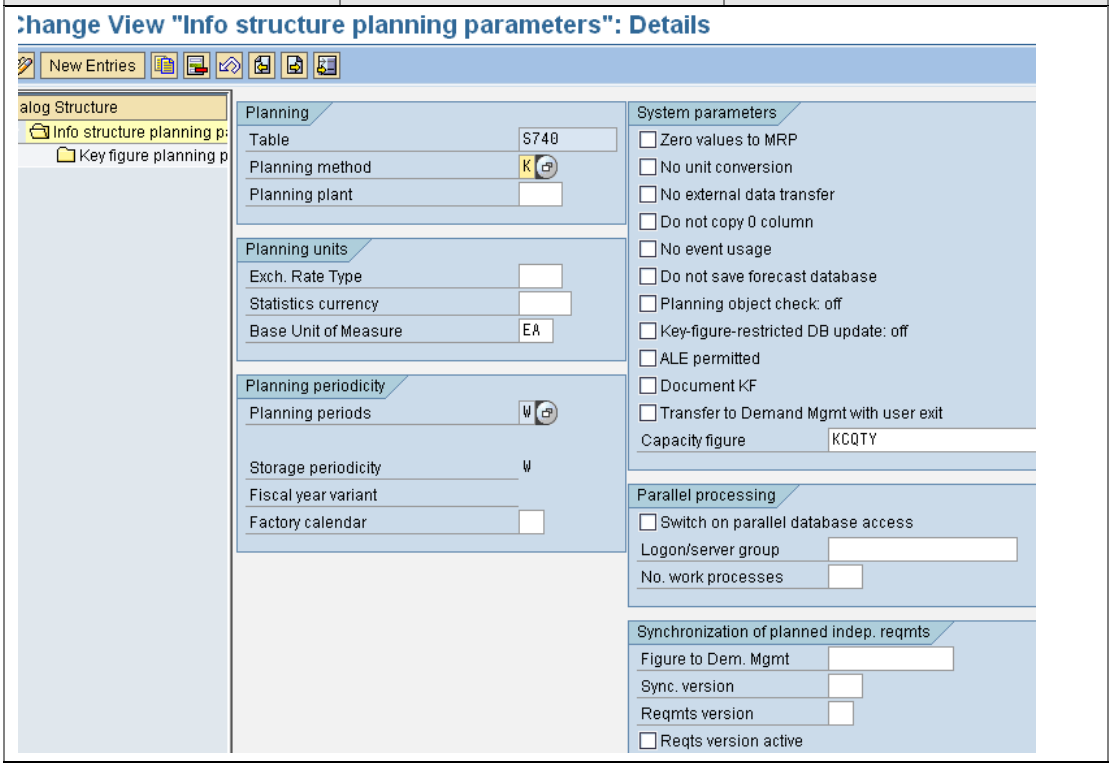
Planning method	Planning plant	Base Unit of Measure



5 Save your settings.

Create Updating

Procedure

We can create, change and display update rules.

Update rules consist, for example, of the source field, the event which triggers the update, requirements and formulas.

Once we have defined the update rules, the corresponding update programs are automatically generated.

1 Access the activity using one of the following navigation options:

IMG Menu	*Logistics - General→ Logistics Information System (LIS)→ Logistics Data Warehouse→ Updating→ Updating Definition→ Specific Definition Using Update Rules→ Maintain Update Rules*
Transaction Code	**MC24**

2 In the create updating initial screen Enter the values shown below

Info structure	Info structure description	Update group (stats)
S940	Product Allocations	1

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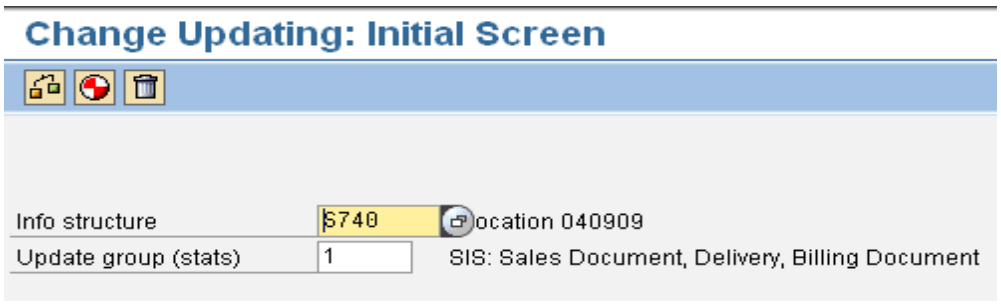
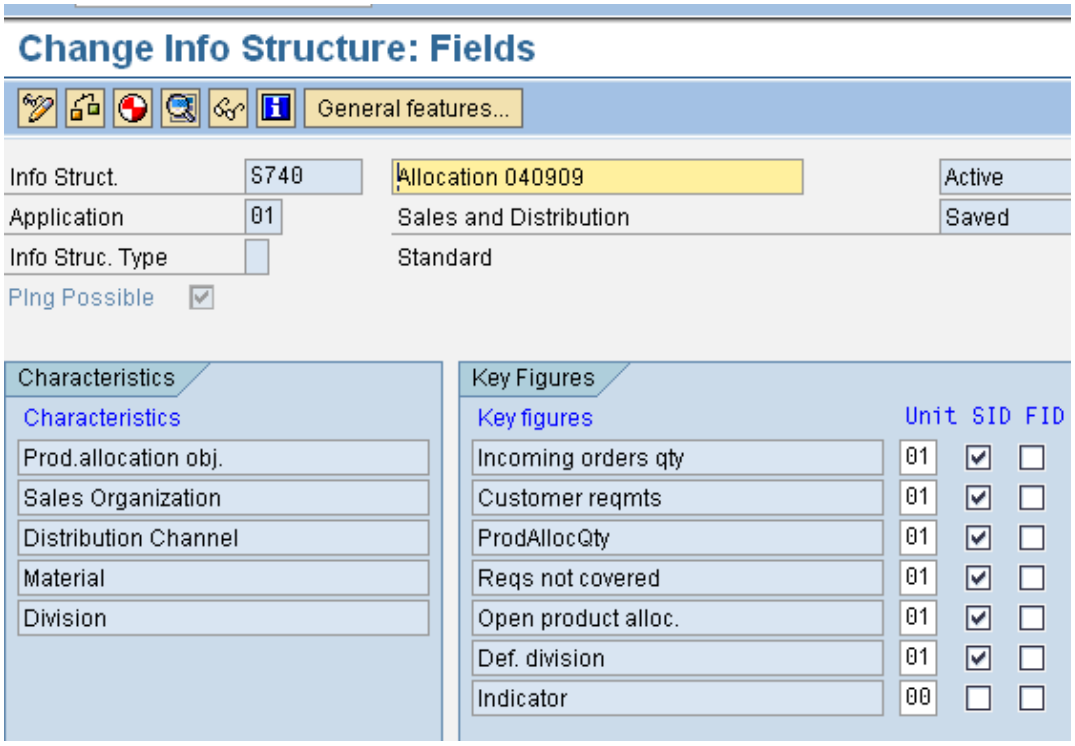
Info structure	Info structure description	Update group (stats)





3 Generate, Check, and Save

Activate Update

Procedure

We make settings for updating the information structures.

1 Access the activity using one of the following navigation options:

IMG Menu	*Logistics - General→ Logistics Information System (LIS)→ Logistics Data Warehouse→ Updating→ Updating Control→ Activate Update→Sales and Distribution*
Transaction Code	**OMO1**

2 Select Info structure S940, go to Details select the updating

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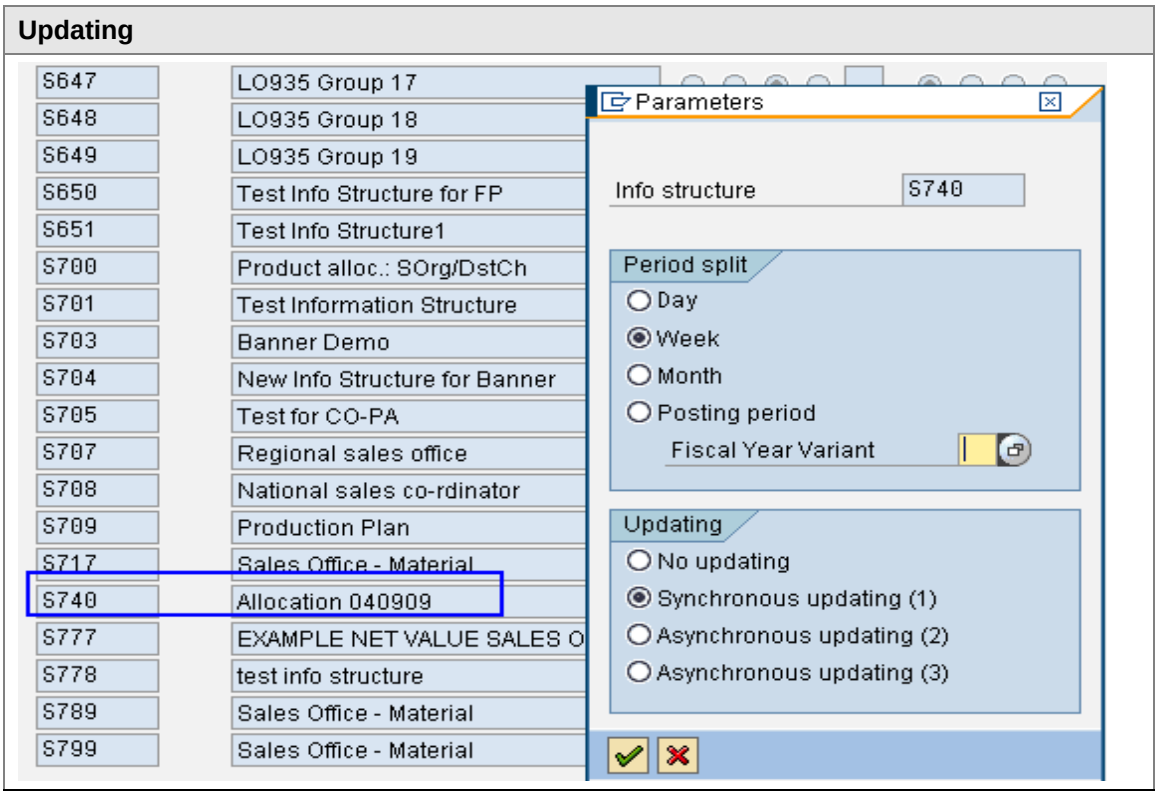
3 Input the details as below



4 Updating

Updating is triggered by an event in a logistics application (e.g. purchase order, sales order). An event is a point in time when information is created that needs to be recorded.

a)Period unit of the update

- Updating on a daily basis, weekly basis monthly basis

b)Type of updating

- Synchronous update (The statistics update is carried out at the same time as the document update.)
- Asynchronous update (document update and the statistics update take place separately)
- Collective update (document update is separate from the statistics update)

5 Save the Update

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Planning

Create Planning Hierarchy

Procedure

1 Access the activity using one of the following navigation options:

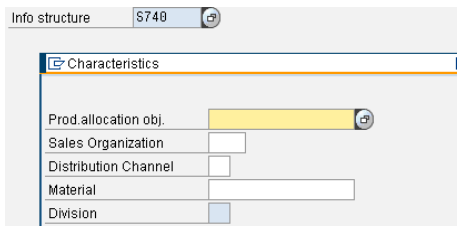
IMG Menu	*Logistics → Logistics Controlling→ Flexible Planning → Master Data → Planning Hierarchy*
Transaction Code	**MC61/MC62**

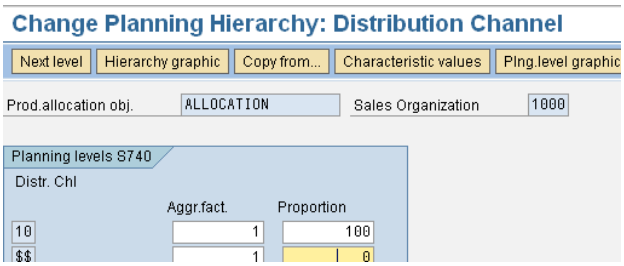
2 In the create planning Hierarchy Initial Screen enter Info Structure S940

3 Confirm with *Enter*

4 Enter the values shown below

Prod. allocation obj.	Sales Organization	Distribution Channel	Division	Sold-to party
S940	SB01	01	01	





5 Save the Planning hierarchy

MaiNtain Planning Type

Procedure

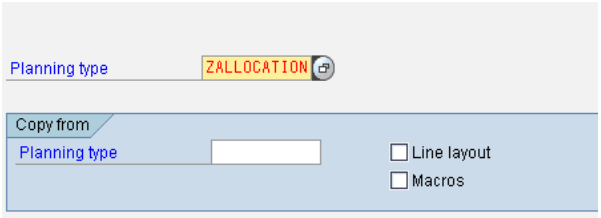
1 Access the activity using one of the following navigation options:

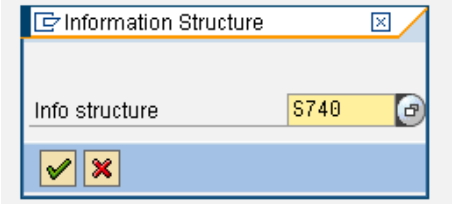
IMG Menu	*Logistics - General→ Logistics Information System (LIS)→ Planning→ Tools→ Maintain planning type*
Transaction Code	**MC8A**

2 Select the Info structure S940

3 Go to Details.

4 Enter the values shown below





5 Save Planning type

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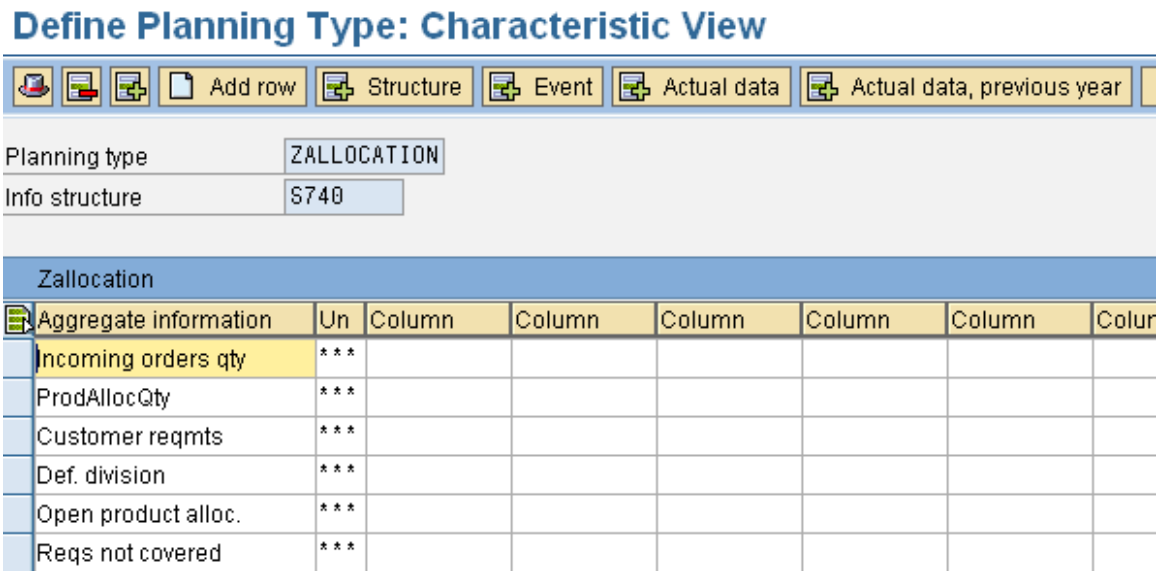
Change Planning Field Settings

Procedure

1. Access the activity using one of the following navigation options:

Menu	*Select Line attributes → select Text Line Radio button, suppress the lines except Product Allocation Quantity*
Transaction Code	**MC8A/MC8B**



2. Planning Type (Plan) suppress the Characteristics except “Prod Allct Qty”
3. Save Planning type

Create Plan

Procedure

1 Access the activity using one of the following navigation options:

IMG Menu	*Logistics →Logistics Controlling → Flexible Planning → Planning→*
Transaction Code	**MC93/MC94**

2 In the create plan initial screen enter Planning type ZS940

3 Confirm with *Enter*

4 Enter the values below

Prod. allocation obj.	Sales Organization	Distribution Channel	Division	Sold-to party

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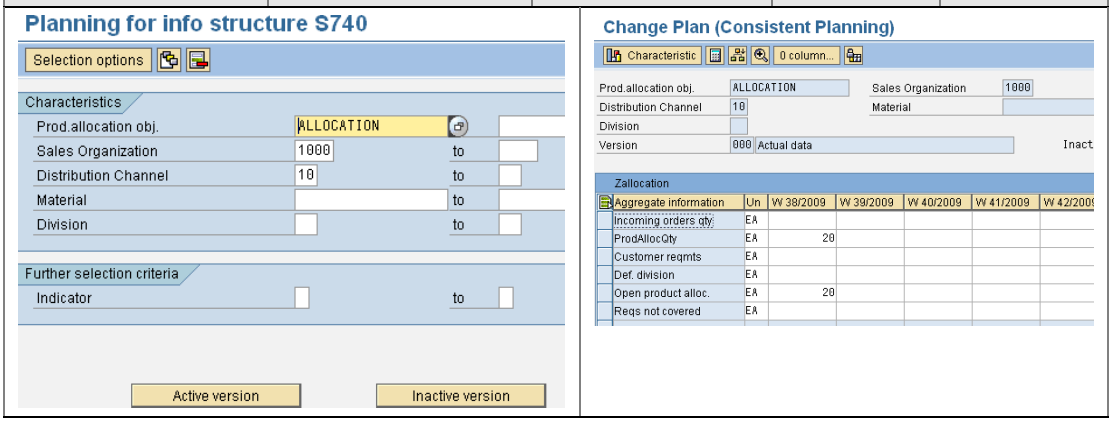
Prod. allocation obj.	Sales Organization	Distribution Channel	Division	Sold-to party



5 Enter the product Allocation Quantity for each period
6 Save the plan

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Process Sales Order

Create Sales order

VA01, Enter the Order Quantity and Check for the Confirmed Quantity

Planning table Overview

Check for the update sin Planning Table

Related Content

www.help.sap.com

For more information, visit the Operations homepage.

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