APAC Procurement Business Module

Logistics Inbound Delivery Procedure Training Document

Local Group Companies

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Logistics Inbound Delivery

Goods Receipt Process for Inbound Deliveries

Purpose

The goods receipt process for inbound deliveries is an essential part of the supply chain. This process includes the steps after creation of the purchase order: notification, the inbound delivery, subsequent put-away of goods, and the goods receipt posting of the ordered goods.

The significant advantage of depicting the goods receipt process through the inbound delivery function is that the company can execute many processes in advance, even before the actual goods receipt posting takes place. In this case, all the necessary information is available beforehand as notification of the inbound delivery will be released ahead of time by the supplier. The inbound delivery describes exactly which materials or pallets can be received on what date and at what time.

The following functions are available with the goods receipt process for inbound deliveries:

- *Transfer order for inbound delivery*
  Like the outbound delivery, the inbound delivery is a request for put-away that is sent to the warehouse. In this particular case, a transfer order for put-away can be created from an inbound delivery.

- *Batch information*
  The batch split that is already possible for outbound deliveries is also available for inbound deliveries, since batches are often first identified in the inbound delivery.

- *Inventory management of packaging materials*

- *Goods receipt for inbound deliveries*

- *Define order confirmation for inbound delivery*
  It is possible to use this key to configure the settings in such a proper manner that planned inbound deliveries are automatically created through a collective processing run.

- *Inbound delivery monitor*

- *Determination of goods receiving point*

- *Incompletion log*

- *Change documents*

- *Document flow for inbound delivery*

Noted to make absolutely sure that there will **not** be any mix up of the goods receipt process for inbound delivery (for example, transaction VL32N) with such functions as goods receipt (post) for unknown purchase order (transaction MBOA/MIGO), or cancellation of the goods receipt (transaction VL09 as opposed to MBST/MB0A). It is mandatory to organize the tasks in such a way that the goods receipt posting is only executed using one of the two ways described.

Process Flow

The inbound delivery process starts when the goods are staged at the vendor's shipping point, and it ends when the ship-to party makes an acquisition posting for the goods.

1. Create a purchase order or a scheduling agreement.

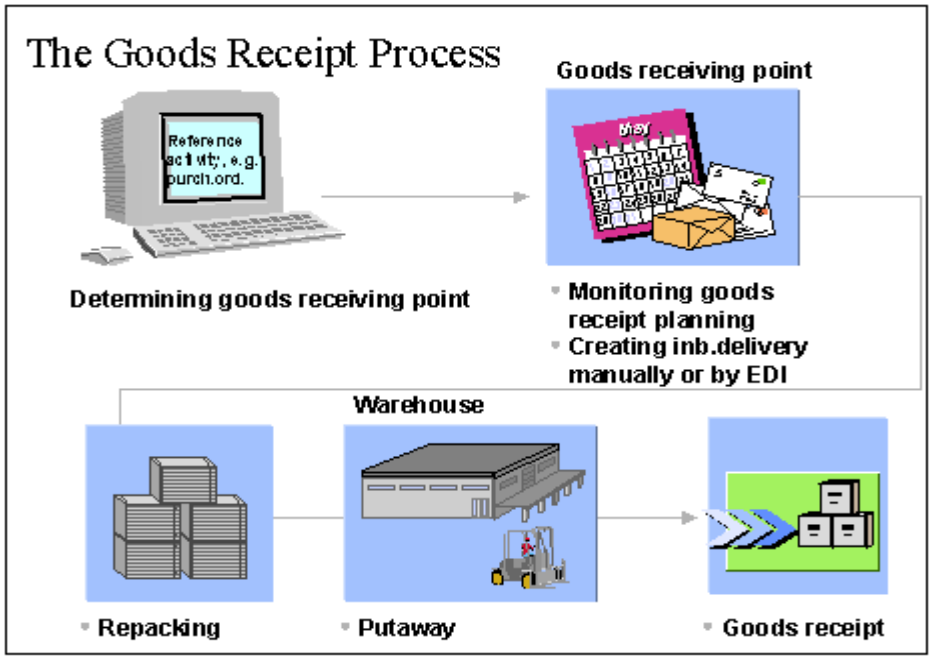
2. The system can determine a goods receiving point.

3. The system creates an inbound delivery automatically if a shipping notification is received via Electronic Data Interchange (EDI).
   An inbound delivery can also be created manually in the case EDI is not purposely used for communication with the nominated supplier.

4. Repack the goods, if necessary.

5. Put the materials away by creating a transfer order in the warehouse.

6. Post the goods receipt.



Creating Inbound Deliveries

Implementation Options

In its role as central object of the inbound process, the inbound delivery supports all activities such as put-away, packing, transportation and goods receipt. During the inbound delivery process, planning information is recorded, the status of different activities is monitored, and data accumulated during inbound shipment processing is documented. When the inbound delivery is created, activities such as put-away or scheduling are initiated, and data that is generated during processing of the inbound delivery is included in the delivery.

Prerequisites

Define the *Order Acknowledgment for Inbound Deliveries* in the Implementation Guide (IMG) under *Logistics Execution → Shipping → Deliveries.* It can be set in the system so that inbound deliveries are created automatically only for a certain combination of plant / storage location.

1. Check which warehouse number the decentralized Warehouse Managing System is active for.
2. Check for which order type inbound deliveries are to be created automatically.
3. Assign an order confirmation to each combination of order type and plant/storage location so that inbound deliveries can be created automatically

Process Flow

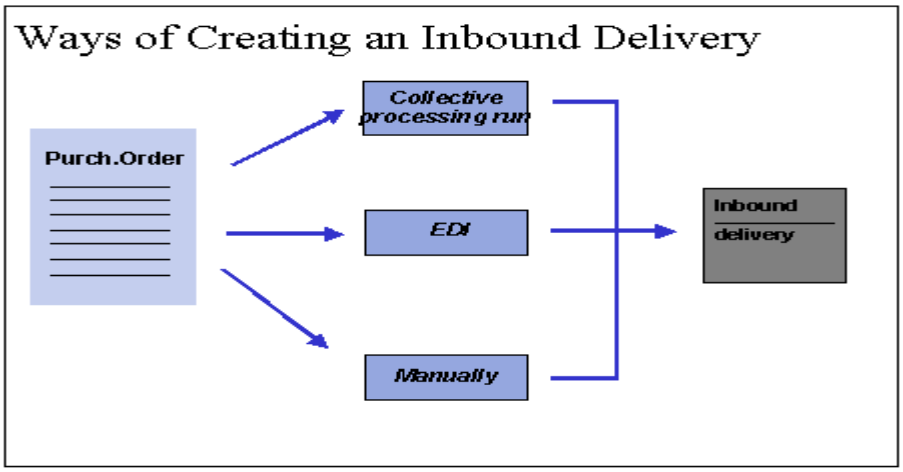
An inbound delivery can be created as follows:

- With reference to a purchase order
- With collective processing for several purchase orders
- With reference to a stock transport order
- With reference to a customer return

Depending on specific requirements, inbound deliveries can be created automatically using work lists, or manually. Overviews allow to monitor the inbound deliveries that were created and activities relating to those deliveries that are due to be carried out. The system carries out the following activities when an inbound delivery is created:

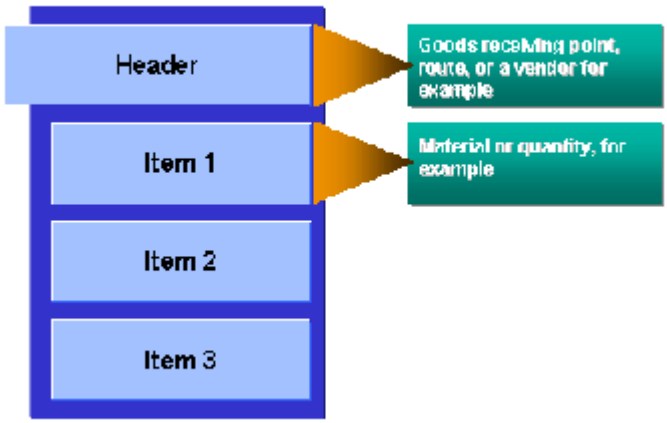
- Checks the order and materials to make sure an inbound delivery is possible
- Determines the delivery quantity of an item
- Calculates the weight and volume of the delivery
- Calculates work expenditure
- Assigns a storage location for put-away
- Updates order processing

It can be subsequently possible to change in a delivery in order to report the quantity that was put away or if the delivery situation changes in any way. In addition, the display function can be used to access inbound-delivery information in a delivery.



Inbound Delivery Structure

The inbound delivery is made up of a document header and any number of items. The following figure shows the structure of the inbound delivery.



Document Header

The general data relevant for the inbound delivery is stored in the document header. This data is valid for the entire document and may include:

- Goods receiving point
- Scheduling data (goods receipt date or delivery date, for example)
- Weights and volumes for the entire inbound delivery
- Vendor number
- Route

Document Item

In the items, you find data that applies to one particular item. This data may include:

- Material number
- Delivery quantity
- Plant and storage location specifications
- Put-away date
- Weights and volumes of the individual items

Delivery Types

Various delivery types can be used to deal with the different kinds of business transactions necessary for delivery processing. In the standard version of the SAP System, delivery types include:

Name	Delivery type
Outbound delivery	LF
Outbound delivery without reference	LO
Returns delivery	LR
Replenishment delivery	NL
Outbound deliveries from projects	LP
Outbound delivery for subcontractor	LB
Inbound delivery	EL
WMS outbound delivery	WOD
WMS inbound delivery	WID
Replenishment WMS	WNL
Customer returns WMS	WRD

Delivery for stock transfer	UL
R/2-R/3 Link	LD

When an outbound delivery is entered with reference to a sales order, for example, the system automatically proposes the delivery document type on the basis of the underlying order.

Control Elements

Specific functions can be defined for each delivery document type. This is done using control elements that are specified in tables. The document types can be tailored to meet the needs of the company. New document types can also be defined if it is found out that the business needs a wider selection than those specified in the standard version of the SAP System.

Delivery document types can be distinguished according to the following criteria:

- Which **number range** does the document number come from for internal and external number assignment?
- Which **partner functions** are allowed and which must be entered?
- Does an order have to be based on a preceding document?
- Which requirements must items fulfill to be included in the delivery?
- Should the **route** be re-determined? Should a check then be carried out to determine whether the new route is permissible?
- According to which rule should the **storage location** be determined for an item if a storage location is not specified?
- Which **output types** are allowed for the business transaction and according to which procedure are they proposed?

Create Inbound Deliveries

Use

When an inbound delivery is created individually, it is true that exactly one inbound delivery is generated for a purchase order. In addition, changes to the inbound delivery can be made, if necessary

Procedure

Proceed as follows to create an individual inbound delivery:

1. From *inbound delivery*, choose *Inbound Delivery* → *Create* → *Single Documents*.
   The initial screen for creating inbound deliveries appears.

2. Enter the appropriate vendor.

3. Enter the delivery date.
   The system automatically proposes the current date as the delivery date.

4. If it is wanted to select only one particular purchase order, enter its number. Otherwise, the system automatically finds all purchase orders due for inbound delivery.

5. Choose *Enter*.
   The inbound delivery is put together according to the pre-defined specifications. The inbound delivery overview screen then appears. Data is copied into the inbound delivery from the purchase order to which it refers. On the header screens and item screens, additional specifications (for example, how the goods are to be transported) can be entered. The specifications from the purchase order can also be changed. *A note is entered in the error log if inconsistencies occur in a schedule line*.

If a purchase order whose items are to be put away in different warehouse complexes (warehouse numbers) is chosen, the system automatically creates several inbound deliveries in the background.

6. Save the inbound delivery by choosing *Inbound delivery* → *Save*.
   When the system has saved the document, it informs you of the inbound delivery's number

From the delivery creation screen, the *Subsequent functions* menu can be used to print or to create a transfer order in warehouse management. When one of these functions is called up, the system saves the inbound delivery automatically and calls up the corresponding subsequent function.

Error Logs

If errors occur while a delivery is being created, the system notes them in a log. The system issues a message if any errors have occurred.

To find out the cause of the error, the log can be branched from any of the overview screens in the delivery by choosing *Edit* → *Error log*. From there, possible changes can be made directly to the document.

Determination of goods receiving point

The system determines the goods receiving point according to the receiving plant and receiving storage location that were specified in the inbound delivery. It is possible to define several entries for the goods receiving point and assign a priority to each one.

Goods Receipt

Implementation Options

From the inbound process perspective, as soon as goods receipt is posted for the goods, the business activity is finished. This is illustrated by the posting of goods receipt for inbound deliveries.

The following options are available for posting goods receipt:

- *Goods Receipt Posting* for individual inbound deliveries
- *Goods Receipt in Collective Processing* to post goods receipt for multiple inbound deliveries
- *Goods Receipt in Collective Processing* for posting goods receipt for multiple inbound deliveries in the background without manual intervention
- *Posting Goods Receipt for an Entire Shipment*

Range of Functions

The inbound delivery is the basis for goods receipt posting. The data required for goods receipt posting is copied from the inbound delivery into the goods receipt document, which cannot be changed manually. Any changes must be made in the inbound delivery itself. In this way, it can be sure that the goods receipt document is an accurate reflection of the inbound delivery.

When a goods receipt is posted for an inbound delivery, the following functions are carried out on the basis of the goods receipt document:

- Warehouse stock of the material is increased by the delivery quantity
- Value changes are posted to the balance sheet account in inventory accounting
- Goods receipt posting is automatically recorded in the document flow

After goods receipt is posted for an inbound delivery, the scope for changing the delivery document becomes very limited. This prevents any discrepancies between the goods receipt document and the inbound delivery.

Goods Receipt Posting

Implementation Options

When processing individual inbound deliveries, it can also be possible to post goods receipt for them directly.

Prerequisites

In order to post goods receipt, all necessary activities must be completed. These activities include:

- The data in the inbound delivery must be complete. For example, all entries relating to the storage location must be made.
- Put-away of the individual inbound delivery items must be complete for all items for which the *Relevant for picking* indicator has been set in the Implementation Guide in the section *Logistics Execution* → *Shipping* → *Picking* under *Define relevant item categories.* It is possible to only post goods receipt for quantities that have been put away.

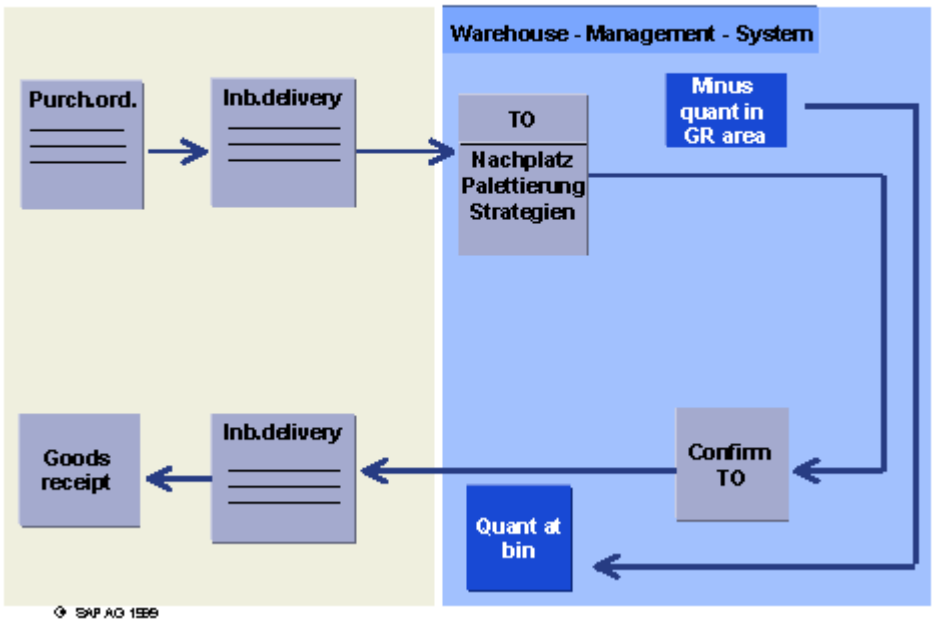
Process Flow

To post goods receipt for an inbound delivery, proceed as follows:

When creating or changing an inbound delivery, select *Edit* → *Post goods receipt* on one of the overview screens.

Noted before a goods receipt is posted, the actual goods receipt date can be specified without having to change the planned date. Simply enter the actual goods receipt date on an overview screen in the delivery. If an entry for the goods receipt date has not been explicitly made, the system uses the current date.

Flow of Goods Receipt with Inbound Deliveries



Goods Receipt in Collective Processing

Use

The collective processing function can be used to post goods receipt for multiple inbound deliveries at the same time.

First, select all inbound deliveries ready for goods receipt posting. It is possible to limit the selection by goods receipt date, for example. The inbound deliveries for which a goods receipt is wished to be posted, can be chosen from the list that appears.

Prerequisites

Only inbound deliveries that have been put away completely and fulfill the *Prerequisites for Goods Receipt Posting* are included in the goods receipt overview.

Procedure

To select inbound deliveries for which goods receipt is to be posted, proceed as follows:

1. From *inbound delivery*, choose *Post Goods Receipt* → *Collective Processing Via Inb. Delivery Monitor.*
   The *Inbound Deliveries for Goods Receipt* screen appears.

2. Enter your selection criteria. It can also be possible to specify intervals for certain data.

3. Choose *Execute*.

The *Goods Receipt for Inbound Deliveries to be Posted* screen that displays the deliveries to be posted for goods receipt for each goods receipt date, can be seen together with other relevant information.

To post goods receipt for the inbound deliveries included in the overview, proceed as follows:

1. Select the deliveries for which a goods receipt is required to be posted on the *Goods Receipt for Inbound Deliveries to be Posted* screen.

2. Choose *Subsequent functions* → *Post goods receipt*.
   Goods receipt is posted for the deliveries selected and the message: *<n> goods movements posted <n> goods movements not posted* is received. This enables to establish whether goods receipt could not be posted for some of the deliveries.

   In addition there is a separate overview for each delivery that indicates whether goods receipt has been posted successfully or not.

3. Select *Goto* → *Back* to return to the goods receipt overview.

Business Process Procedure

1. Creation of Purchase Order with Vendor Confirmation Requirement

1.1. Access Transaction by

Via Menu	Logistics → Materials Management → Purchasing → Purchase Order → Create → Vendor/Supplying Plant Known
Via Transaction Code	ME21N

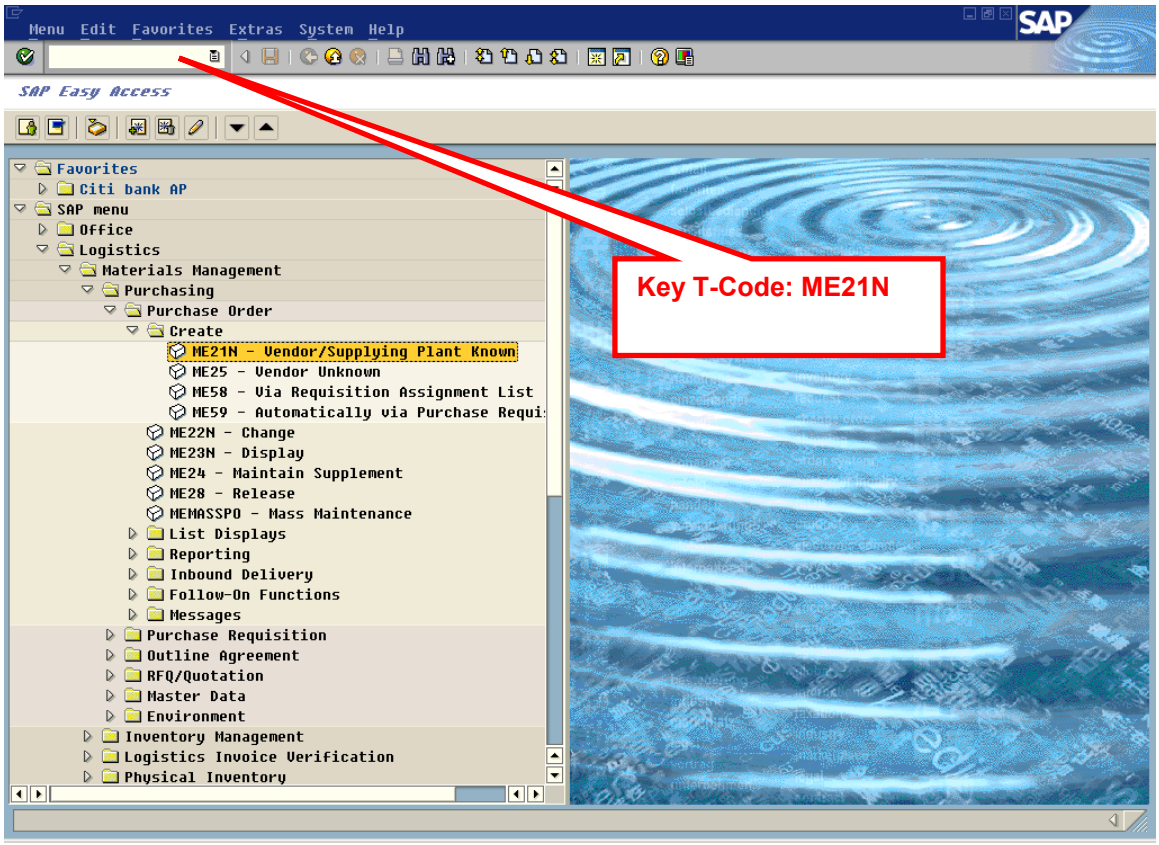


Fig-01

1.2. On "Create Purchase Order" screen, fill in the data as below:

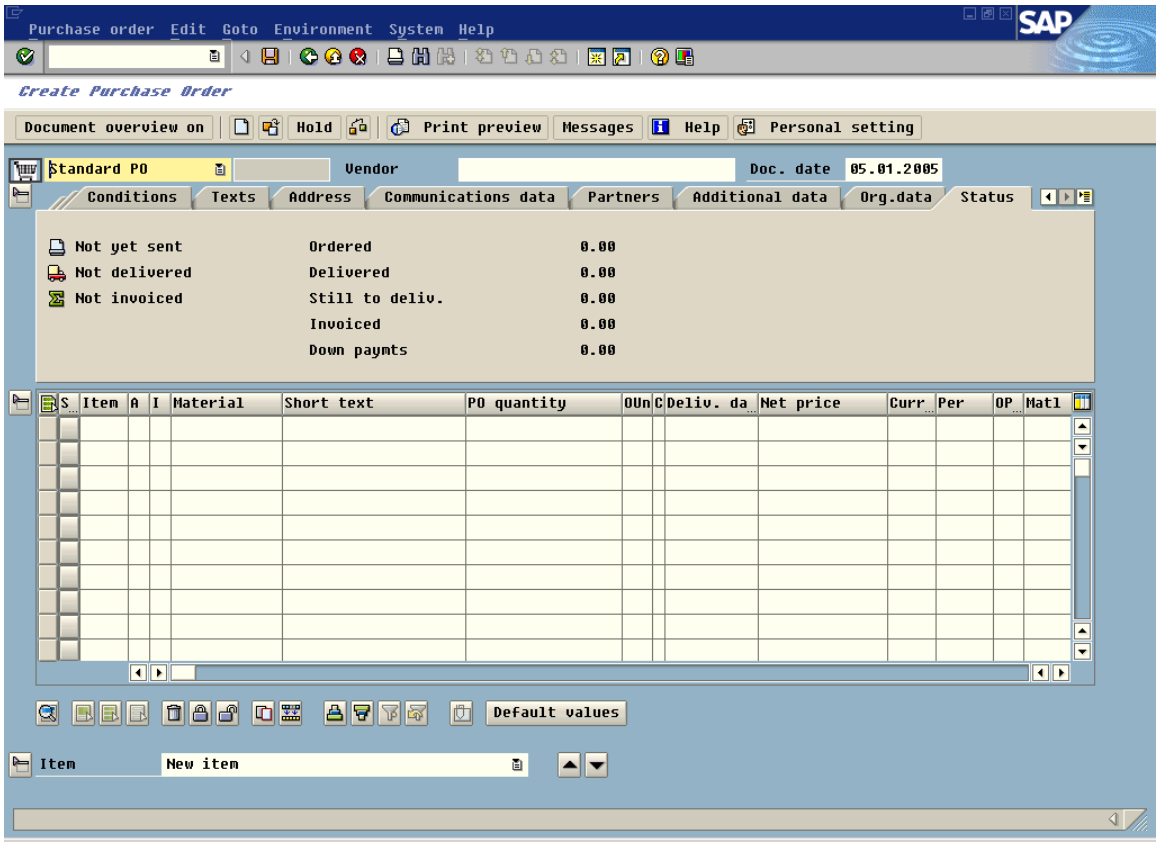


Fig-02

Field Name	Description	R/O/C/D	User Action and Values
Purchase document number	Alphanumeric key uniquely identifying purchasing document	R	Enter the purchase document number
Vendor/ Supplying plant	Name and number of the vendor or supplying plant from which the materials are to be procured	R	Enter the vendor or supplying plant name and number
Material number	Uniquely identifies a material	R	Enter the material number
PO quantity	Quantity ordered by the buyer, to be supplied by the vendor	R	Enter the PO quantity number
Deliv. date	Date on which the goods are to be delivered or the service is to be performed	R	Enter the delivery date
Plnt	Plant in which you produce or for which you wish to produce materials or services	R	Enter the plant number

Legend: R = Required, O = Optional, C = Conditional, D = Display

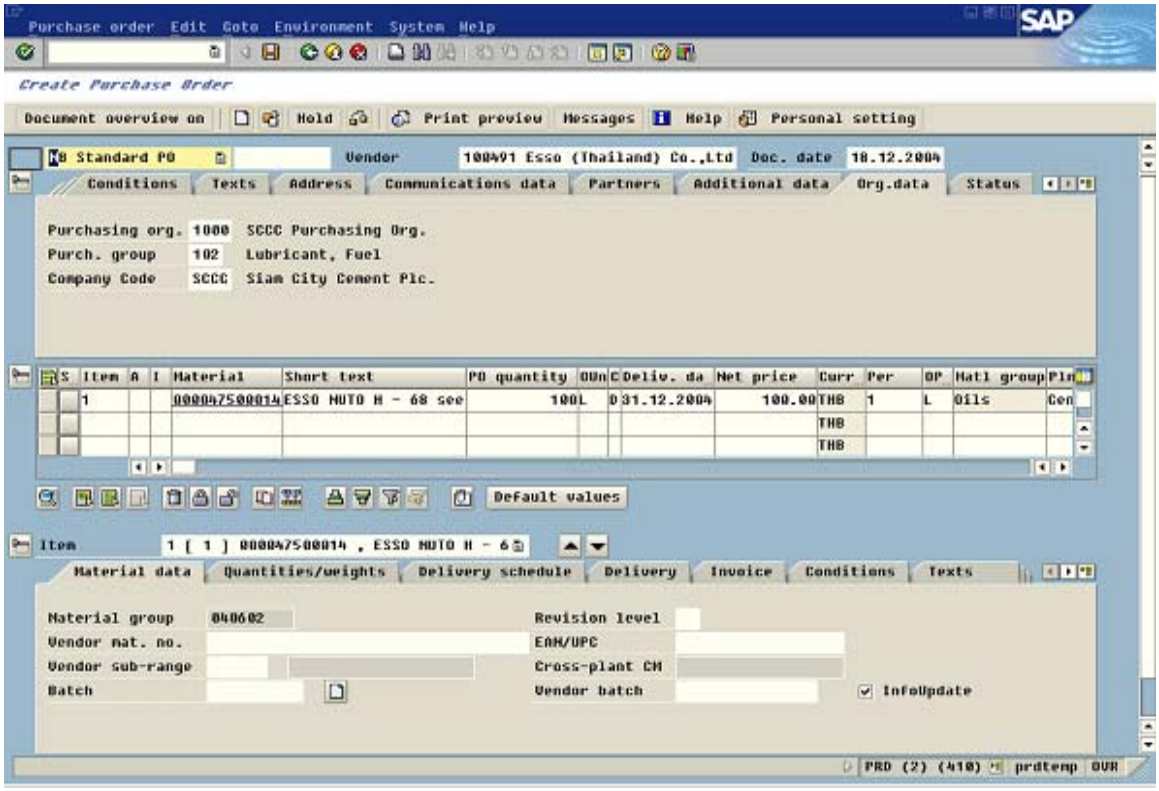

Purchase order Edit Goto Environment System Help
Create Purchase Order
Document overview on
Hold
Print preview
Messages
Help
Personal setting
Standard PO
Vendor
100491 Esso (Thailand) Co.,Ltd
Doc. date
18.12.2004
Conditions
Texts
Address
Communications data
Partners
Additional data
Org.data
Status
Purchasing org. 1000 SCCC Purchasing Org.
Purch. group 102 Lubricant, Fuel
Company Code SCCC Siam City Cement Plc.
Item A I Material Short text PO quantity OUn C Deliv. da Net price Curr Per OP Matl group
1 000047500014 ESSO NUTO H - 68 see 100 L D 31.12.2004 100.00 THB 1 L Oils
Default values
Item 1 [1] 000047500014 , ESSO NUTO H - 6
Material data
Quantities/weights
Delivery schedule
Delivery
Invoice
Conditions
Texts
Material group 040602
Vendor mat. no.
Vendor sub-range
Batch
Revision level
EAN/UPC
Cross-plant CM
Vendor batch
InfoUpdate
PRD (2) (410) prdtemp OVR

Fig-03

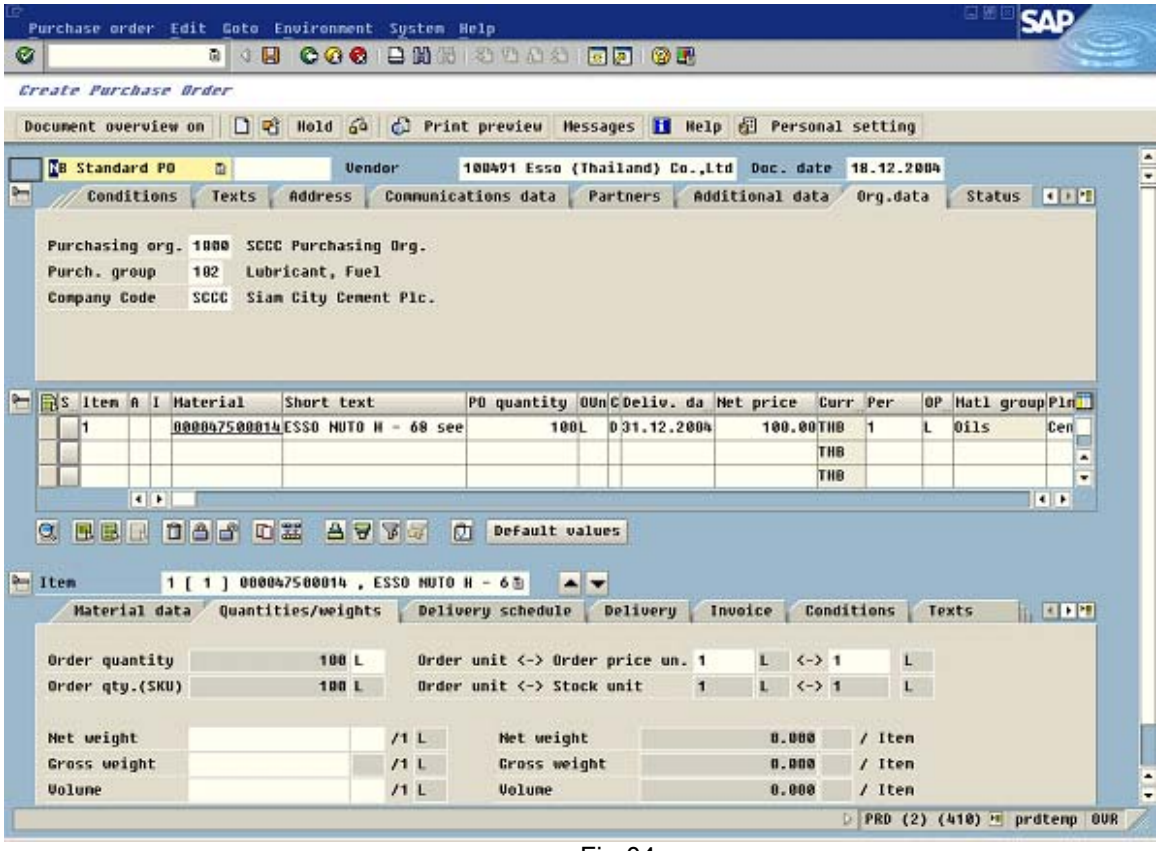

Purchase order Edit Goto Environment System Help
Create Purchase Order
Document overview on
Hold
Print preview
Messages
Help
Personal setting
Standard PO
Vendor
100491 Esso (Thailand) Co.,Ltd
Doc. date
18.12.2004
Conditions
Texts
Address
Communications data
Partners
Additional data
Org.data
Status
Purchasing org. 1000 SCCC Purchasing Org.
Purch. group 102 Lubricant, Fuel
Company Code SCCC Siam City Cement Plc.
Item A I Material Short text PO quantity OUn C Deliv. da Net price Curr Per OP Matl group
1 000047500014 ESSO NUTO H - 68 see 100 L D 31.12.2004 100.00 THB 1 L Oils
Default values
Item 1 [1] 000047500014 , ESSO NUTO H - 6
Material data
Quantities/weights
Delivery schedule
Delivery
Invoice
Conditions
Texts
Order quantity 100 L
Order qty.(SKU) 100 L
Order unit <-> Order price un. 1 L <-> 1 L
Order unit <-> Stock unit 1 L <-> 1 L
Net weight /1 L
Gross weight /1 L
Volume /1 L
Net weight 0.000 / Iten
Gross weight 0.000 / Iten
Volume 0.000 / Iten
PRD (2) (410) prdtemp OVR

Fig-04

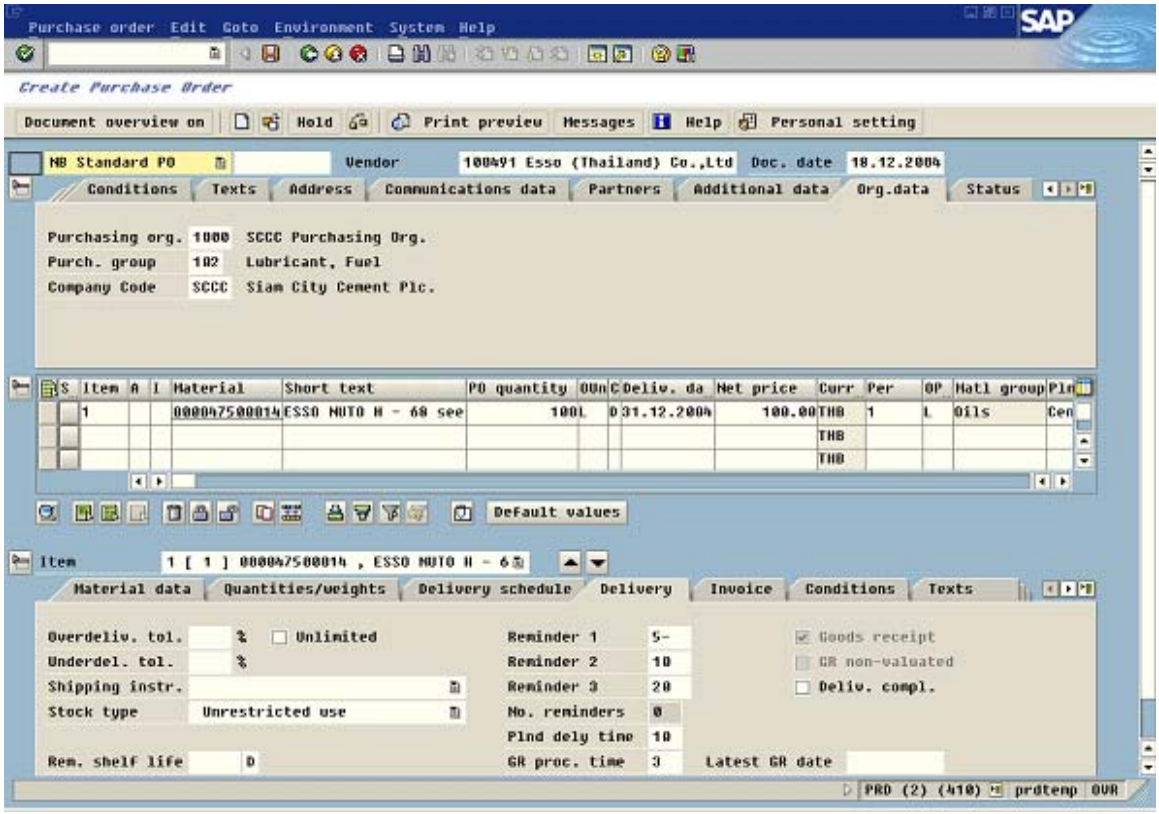

Purchase order Edit Goto Environment System Help
Create Purchase Order
Document overview on
Hold
Print preview
Messages
Help
Personal setting
NB Standard PO
Vendor
100491 Esso (Thailand) Co.,Ltd
Doc. date
18.12.2004
Conditions
Texts
Address
Communications data
Partners
Additional data
Org.data
Status
Purchasing org. 1000 SCCC Purchasing Org.
Purch. group 102 Lubricant, Fuel
Company Code SCCC Siam City Cement Plc.
S Item A I Material Short text PO quantity OUn C Deliv. da Net price Curr Per OP Matl group Pln
1 000047500014 ESSO NUTO H - 68 see 100L D 31.12.2004 100.00 THB 1 L Oils Cen
THB
THB
Default values
Item 1 [1] 000047500014 , ESSO NUTO H - 6
Material data
Quantities/weights
Delivery schedule
Delivery
Invoice
Conditions
Texts
Overdeliv. tol. % Unlimited
Underdel. tol. %
Shipping instr.
Stock type Unrestricted use
Rem. shelf life D
Reminder 1 5-
Reminder 2 10
Reminder 3 20
No. reminders 0
Plnd dely time 10
GR proc. time 3
Goods receipt
GR non-valuated
Deliv. compl.
Latest GR date
PRD (2) (410) prdtemp OVR

Fig-05

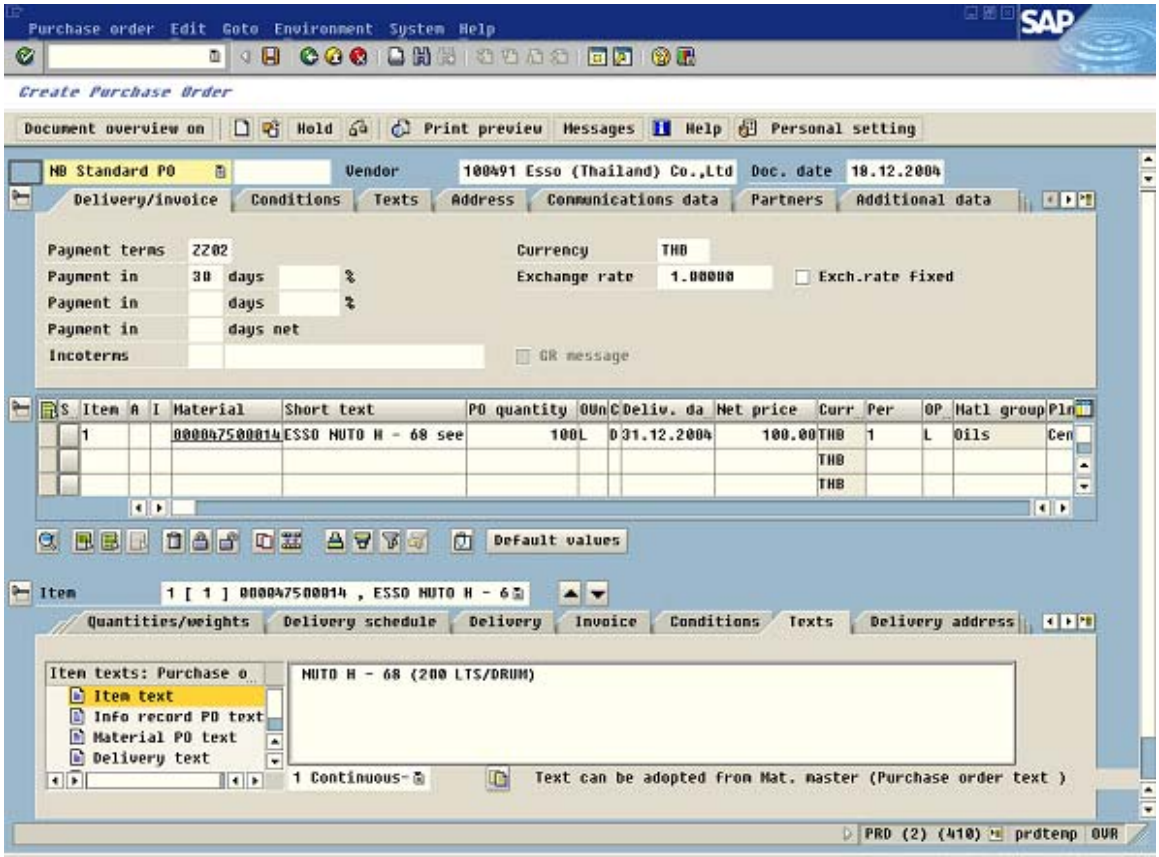

Purchase order Edit Goto Environment System Help
Create Purchase Order
Document overview on
Hold
Print preview
Messages
Help
Personal setting
NB Standard PO
Vendor
100491 Esso (Thailand) Co.,Ltd
Doc. date
18.12.2004
Delivery/invoice
Conditions
Texts
Address
Communications data
Partners
Additional data
Payment terms Z202
Payment in 30 days %
Payment in days %
Payment in days net
Incoterms
Currency THB
Exchange rate 1.00000
Exch.rate fixed
GR message
S Item A I Material Short text PO quantity OUn C Deliv. da Net price Curr Per OP Matl group Pln
1 000047500014 ESSO NUTO H - 68 see 100L D 31.12.2004 100.00 THB 1 L Oils Cen
THB
THB
Default values
Item 1 [1] 000047500014 , ESSO NUTO H - 6
Quantities/weights
Delivery schedule
Delivery
Invoice
Conditions
Texts
Delivery address
Item texts: Purchase o
Item text
Info record PO text
Material PO text
Delivery text
NUTO H - 68 (200 LTS/DRUM)
1 Continuous
Text can be adopted from Mat. master (Purchase order text)
PRD (2) (410) prdtemp OVR

Fig-06

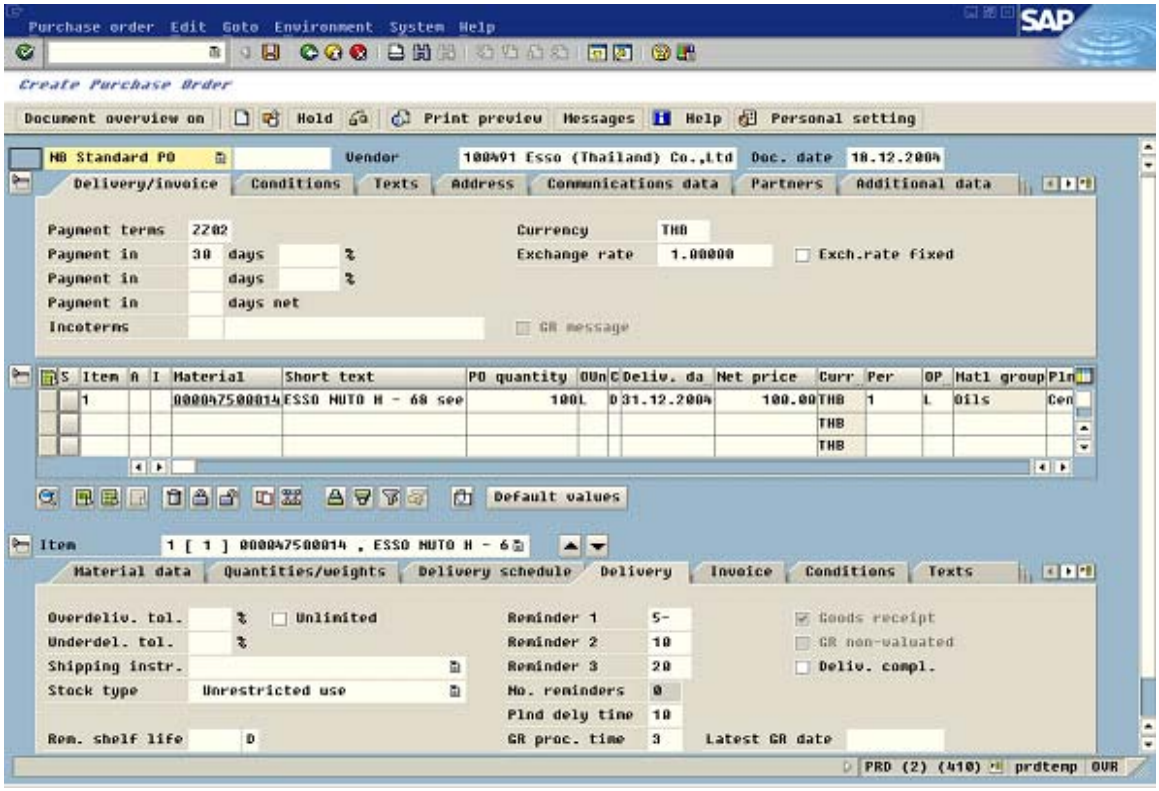

Purchase order Edit Goto Environment System Help
SAP
Create Purchase Order
Document overview on
Hold
Print preview
Messages
Help
Personal setting
NB Standard PO
Vendor
100491 Esso (Thailand) Co.,Ltd
Doc. date
18.12.2004
Delivery/invoice
Conditions
Texts
Address
Communications data
Partners
Additional data
Payment terms
2202
Payment in
30
days
%
Payment in
days
%
Payment in
days net
Incoterms
Currency
THB
Exchange rate
1.00000
Exch.rate fixed
GR message
S
Item
A
I
Material
Short text
PO quantity
OUn
C
Deliv. da
Net price
Curr
Per
OP
Matl group
Pln
1
000047500014
ESSO HUTO H - 68 see
100L
D
31.12.2004
100.00
THB
1
L
Oils
Cen
THB
THB
Default values
Item
1 [1] 000047500014 , ESSO HUTO H - 6
Material data
Quantities/weights
Delivery schedule
Delivery
Invoice
Conditions
Texts
Overdeliv. tol.
%
Unlimited
Underdel. tol.
%
Shipping instr.
Stock type
Unrestricted use
Rem. shelf life
0
Reminder 1
5-
Reminder 2
10
Reminder 3
20
No. reminders
0
Plnd dely time
10
GR proc. time
3
Latest GR date
Goods receipt
GR non-valuated
Deliv. compl.
PRD (2) (410)
prdtemp
OVR

Fig-07

1.3. On "Create Purchase Order" screen, fill in the data as below:

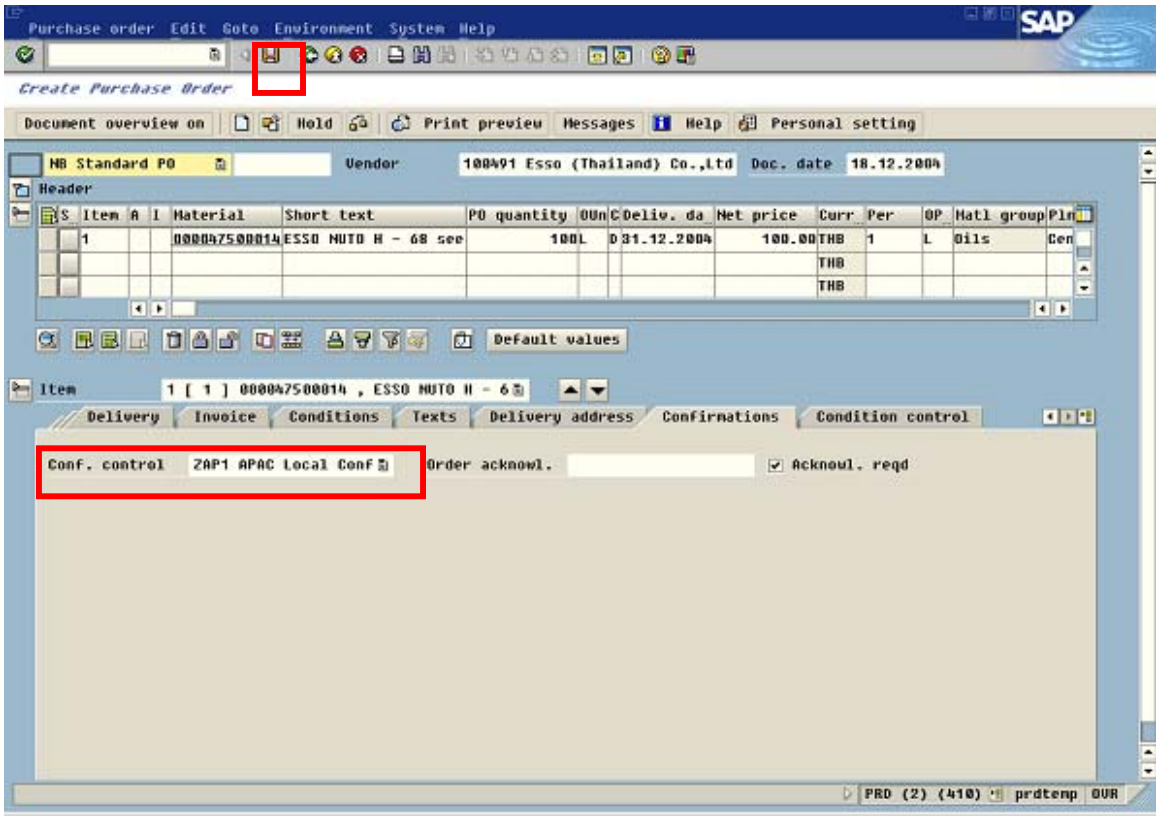


Fig-08

Field Name	Description	R/O/C/D	User Action and Values
			Make sure that the "Confirmation Control Key" – ZAP1 or ZAP2 should be maintained
			Click on icon to save this Purchase Order

Legend: R = Required, O = Optional, C = Conditional, D = Display

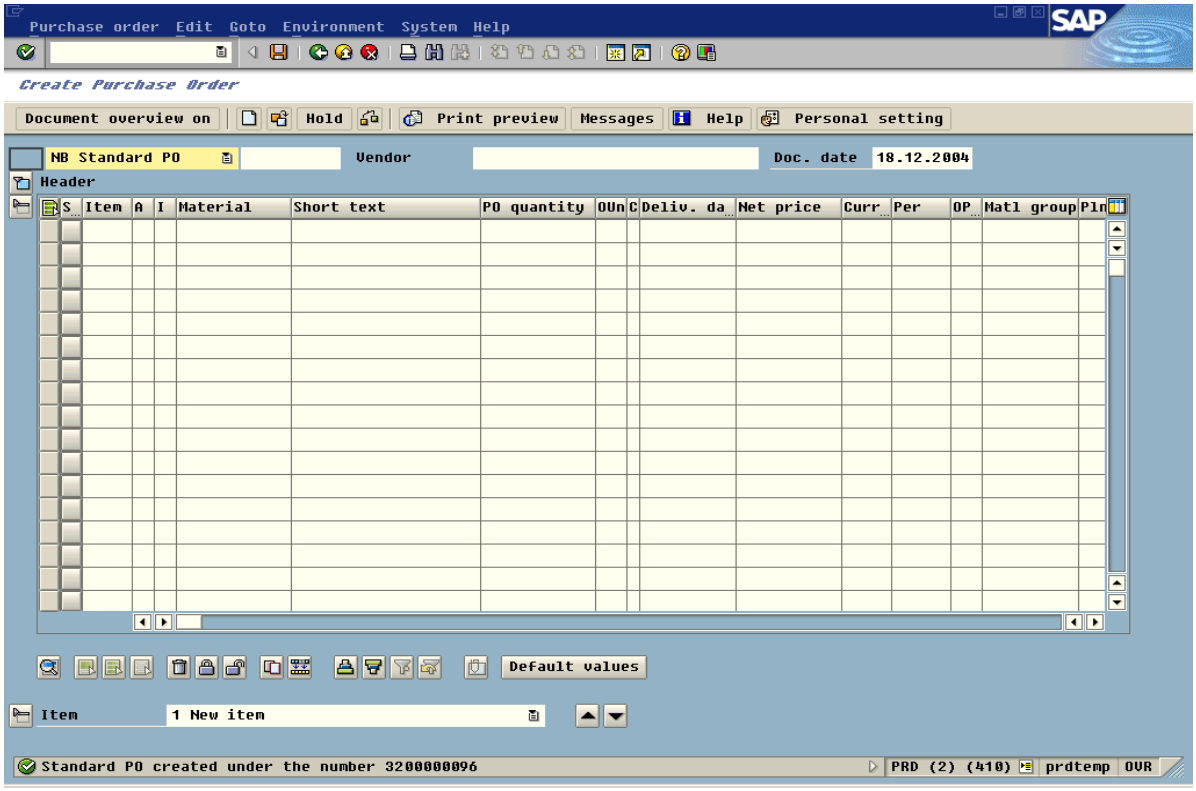

Purchase order Edit Goto Environment System Help
SAP
Create Purchase Order
Document overview on
Hold
Print preview
Messages
Help
Personal setting
NB Standard PO
Vendor
Doc. date
18.12.2004
Header
S
Item
A
I
Material
Short text
PO quantity
OUn
C
Deliv. da
Net price
Curr
Per
OP
Matl group
Pln
Default values
Item
1 New item
Standard PO created under the number 3200000096
PRD (2) (410)
prdtemp
OVR

Fig-09

2. Automatic Creation of Inbound Delivery Document

2.1. Access Transaction by

Via Menu	Logistics → Logistics Execution → Inbound Process → Goods Receipt for Inbound Delivery → Inbound Delivery → Create → Collective Processing of Purchase Orders
Via Transaction Code	VL34

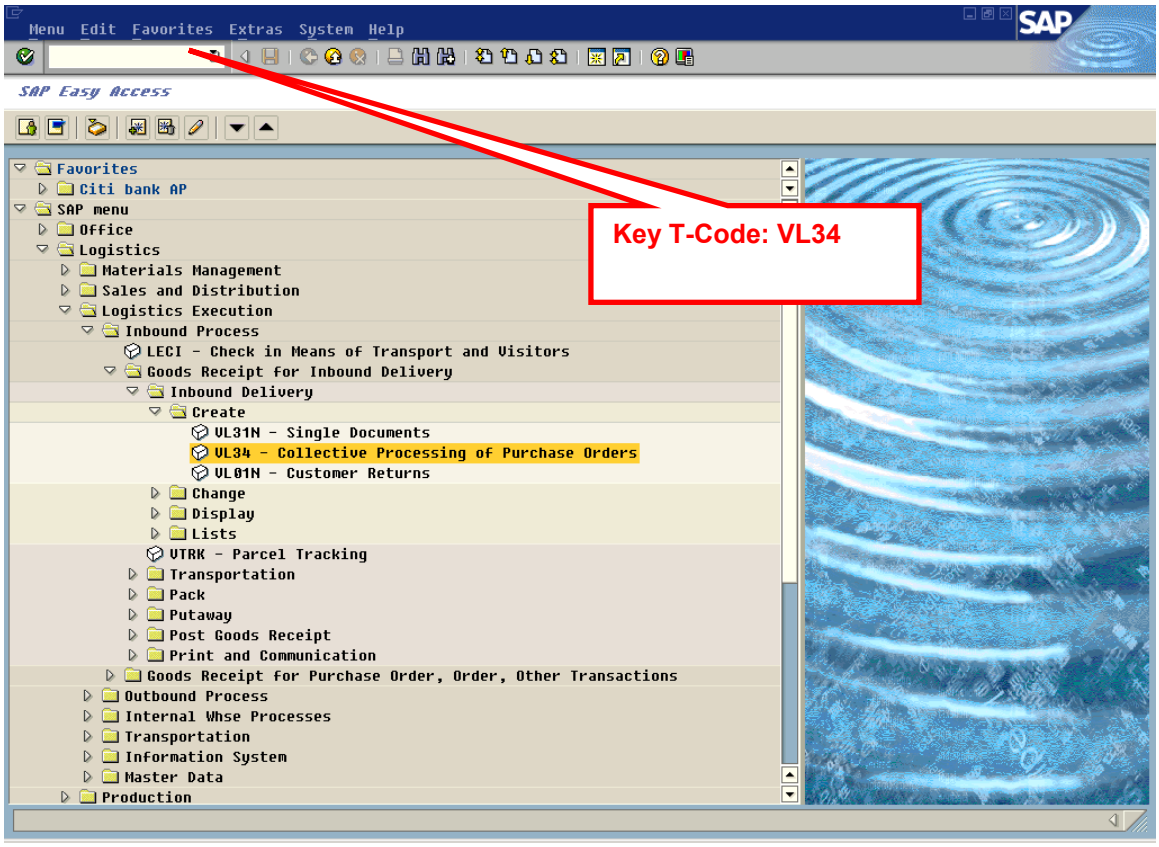


Fig-10

2.2. On "Generation of Inbound Deliveries" screen, fill in the data as below:

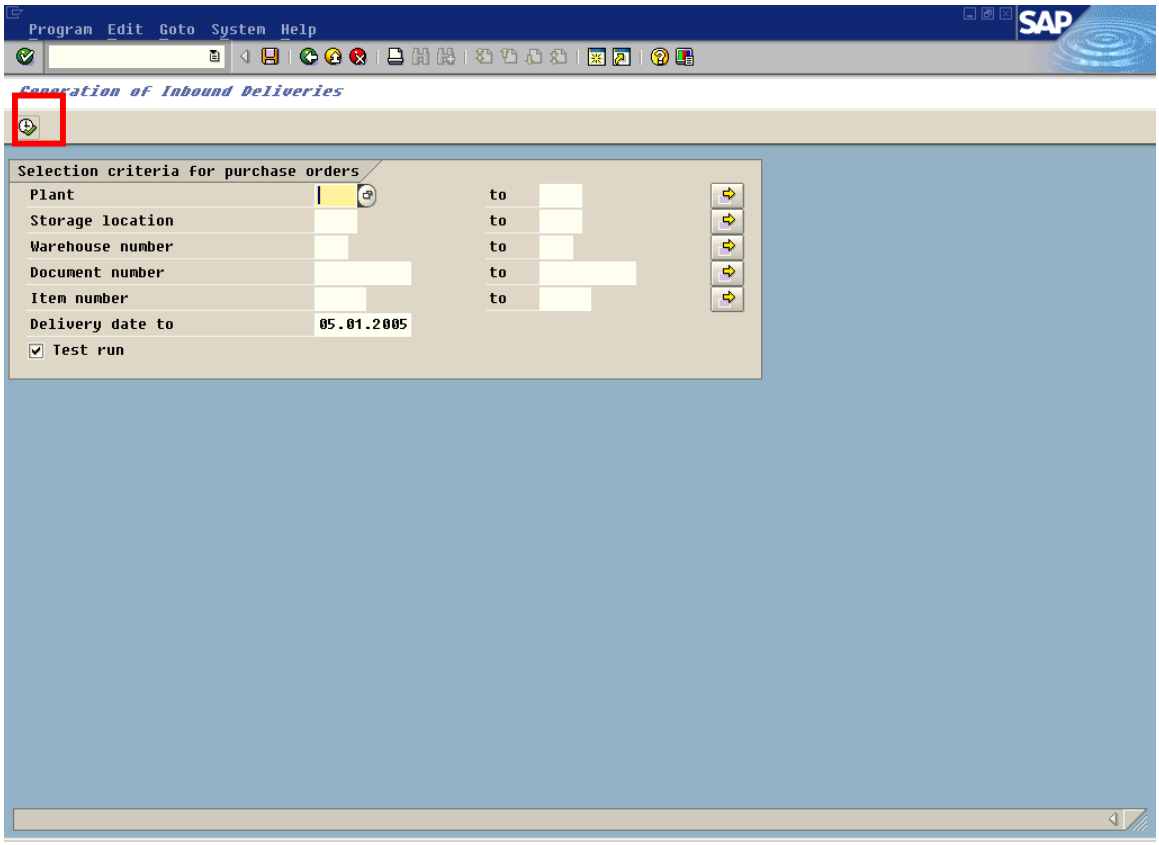


Fig-11

Field Name	Description	R/O/C/D	User Action and Values
Plant	Specifies the key for a production facility or branch office within the company	R	Enter the plant number
Document number	Alphanumeric key uniquely identifying purchasing document	R	Enter the document number
Delivery date to	Date on which an item is to be delivered or the service provided	R	Enter the delivery date
			Click on icon

Legend: R = Required, O = Optional, C = Conditional, D = Display

2.3. On "Generation of Inbound Deliveries" screen, fill in the data as below:

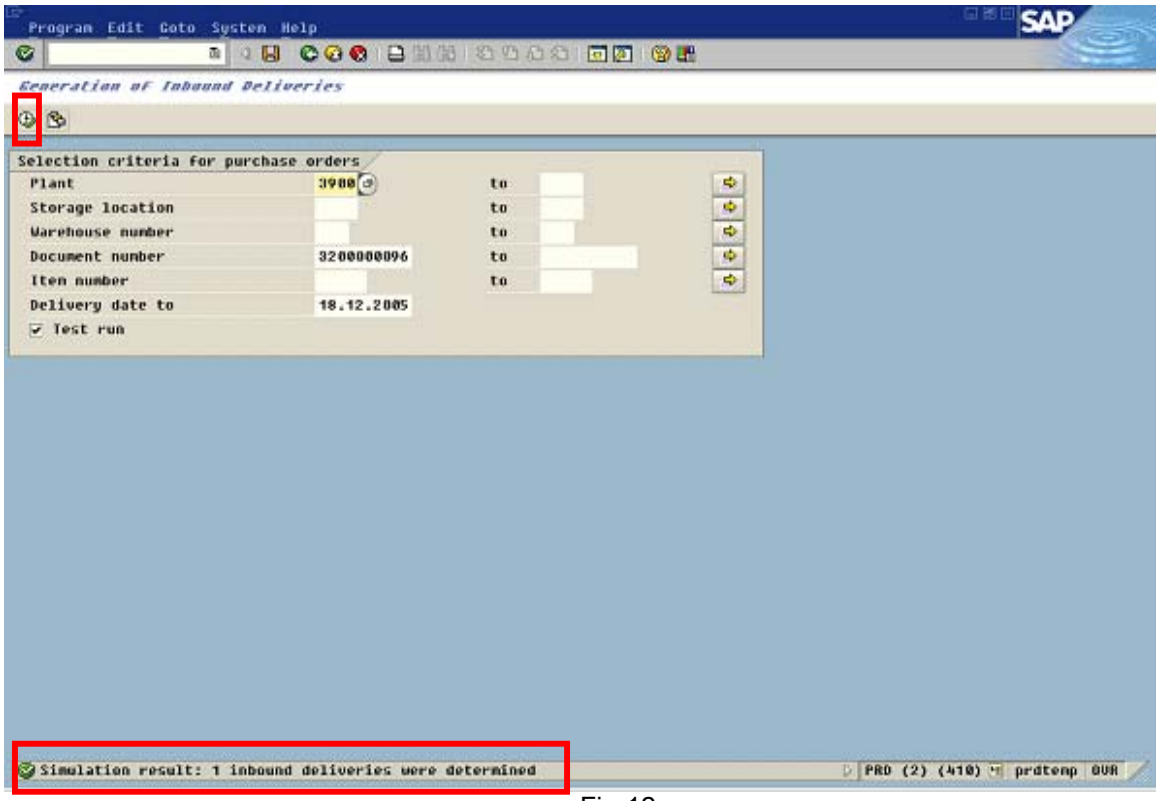


Fig-12

Field Name	Description	R/O/C/D	User Action and Values
			The message indicated that the Inbound Delivery Document will be generated for this PO.
			Deactivate the 'Test run' indicator checkbox and click again on icon

Legend: R = Required, O = Optional, C = Conditional, D = Display

2.4. On the pop up screen, the message shown that the Inbound Delivery Document Number 1800000011 has been successfully generated:

Fig-13

2.5. In addition to the creation of Inbound Delivery Document automatically, the Inbound Delivery Document can also be made via the Transaction VL31N:

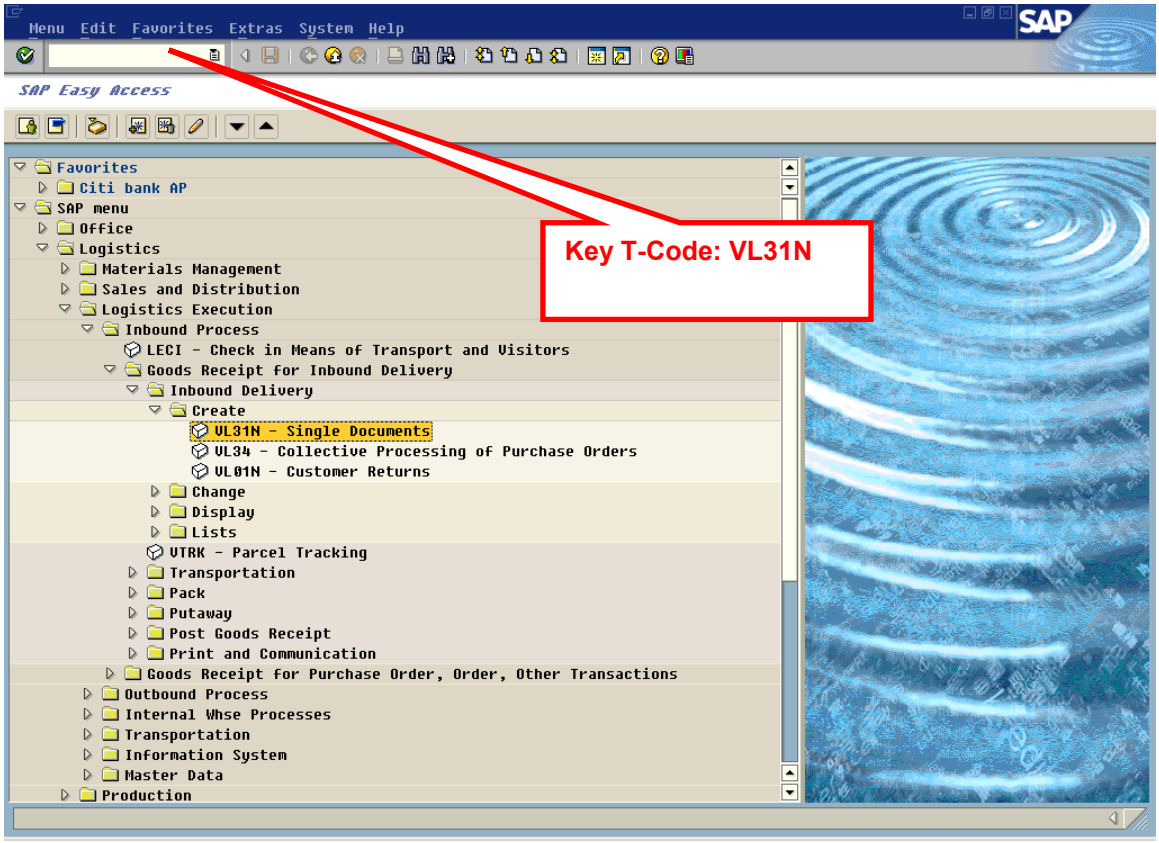


Fig-14

2.6. On "Create Inbound Delivery" screen, fill in the data as below:

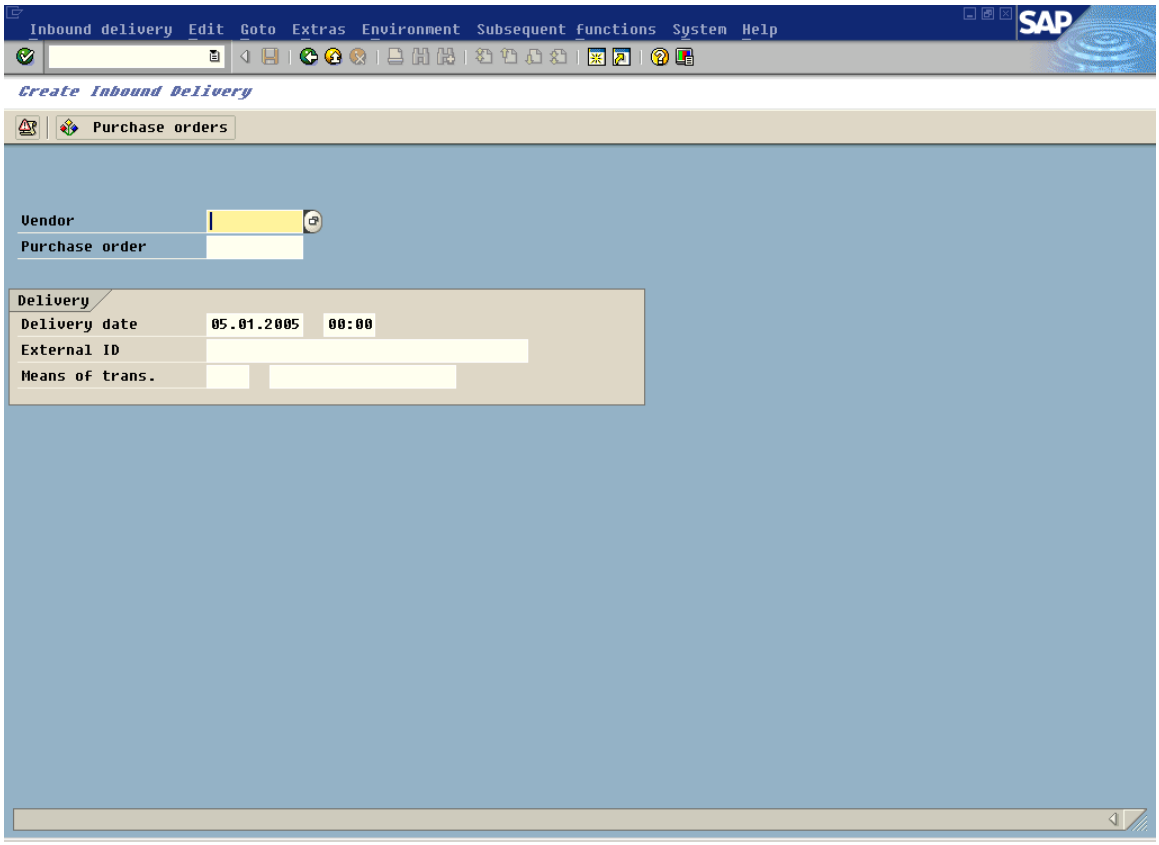


Fig-15

Field Name	Description	R/O/C/D	User Action and Values
Vendor	Alphanumeric key uniquely identifying a vendor	R	Enter the vendor's account number
Purchase order	Alphanumeric key uniquely identifying a purchase order	R	Enter the purchase order number
Delivery date	Date notified by the vendor for goods delivery	R	Enter the delivery date
			Press 'ENTER' to get access to the initial screen of Shipping Notification Creation

Legend: R = Required, O = Optional, C = Conditional, D = Display

2.7. On "Shipping Notifiecat. Create: Overview" screen, maintain information as specified in the table below:

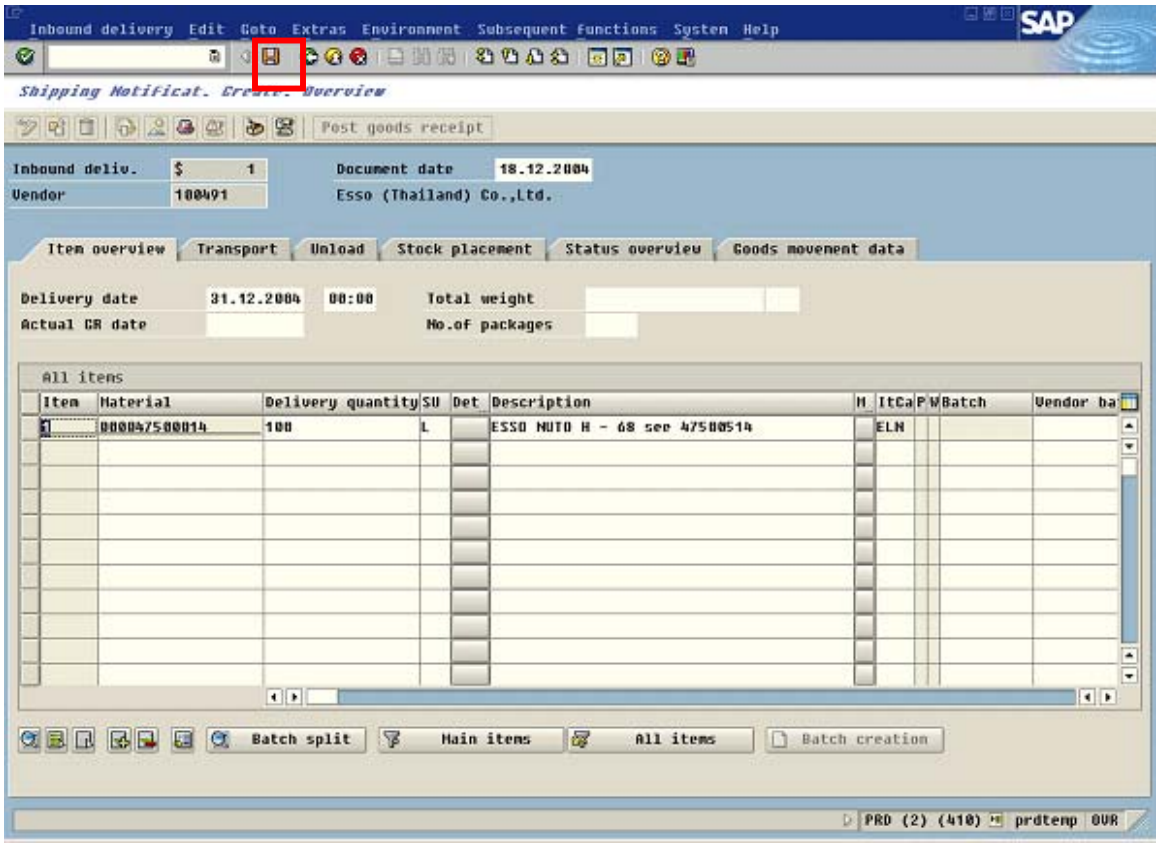


Fig-16

Field Name	Description	R/O/C/D	User Action and Values
			Maintain the appropriate delivery date and quantity as confirmed by the vendor.
			Click on icon to save this Inbound Delivery Document.

Legend: R = Required, O = Optional, C = Conditional, D = Display

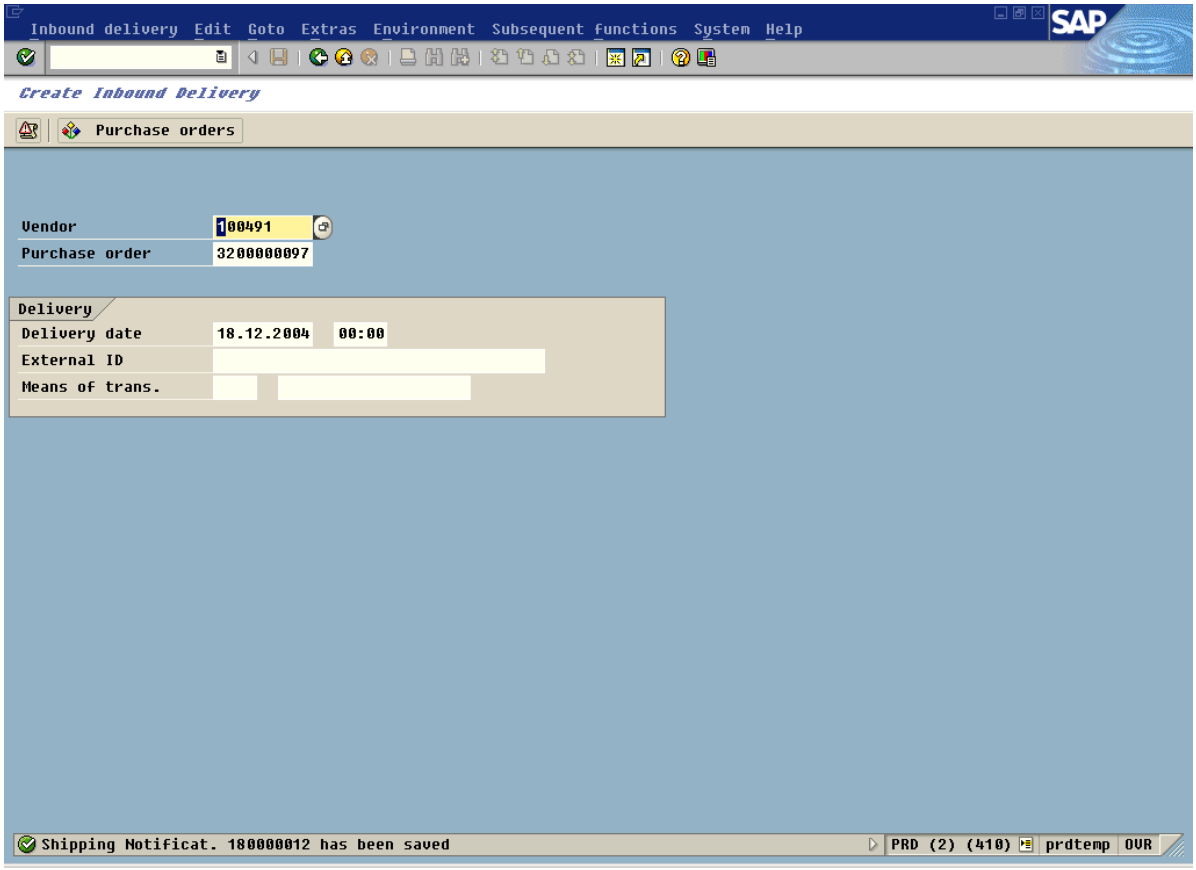

Inbound delivery Edit Goto Extras Environment Subsequent functions System Help
SAP
Create Inbound Delivery
Purchase orders
Vendor 100491
Purchase order 3200000097
Delivery
Delivery date 18.12.2004 00:00
External ID
Means of trans.
Shipping Notificat. 180000012 has been saved
PRD (2) (410) prdtemp OVR

Fig-17