Goods Receipt Process for Inbound Deliveries

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Icons

Icon	Meaning
⚠	Caution
	Example
➡	Note
🧭	Recommendation
SYN	Syntax
💡	Tip

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Goods Receipt Process for Inbound Deliveries

Implementation Options

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

The significant advantage of illustrating the inbound process in the system with inbound deliveries is that you can depict the several processes that occur prior to the actual goods receipt posting. You have all the necessary information beforehand, because the vendor notifies you of the inbound delivery ahead of time. 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 deliveries

  Like the outbound delivery, the inbound delivery is a request for putaway that is sent to the warehouse. You can create a transfer order for putaway 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 shipping materials

- Goods receipt for inbound deliveries

- Define order confirmation for inbound deliveries

  You can use this key to make settings so that planning inbound deliveries will be created automatically using a collective run.

- Inbound delivery monitor

- Determination of goods receiving point

- Incompletion log

- Change documents

- Document flow for inbound deliveries

Process Flow

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

1. Create a purchase order or scheduling agreement.

2. The system can determine a goods receiving point.

3. The system creates an inbound delivery automatically if you receive a shipping notification via Electronic Data Interchange (EDI).

   You can also create an inbound delivery manually if you do not use EDI to communicate with your vendor.

4. Repack the goods, if necessary.

Goods Receipt Process for Inbound Deliveries

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

6. Post goods receipt.

The Inbound Process

Goods receiving point

Determination of goods receiving point

- **Monitor goods receipt planning**
- **Create inbound delivery manually or via EDI**

Warehouse

- **Repacking**
- **Putaway**
- **Goods receipt**
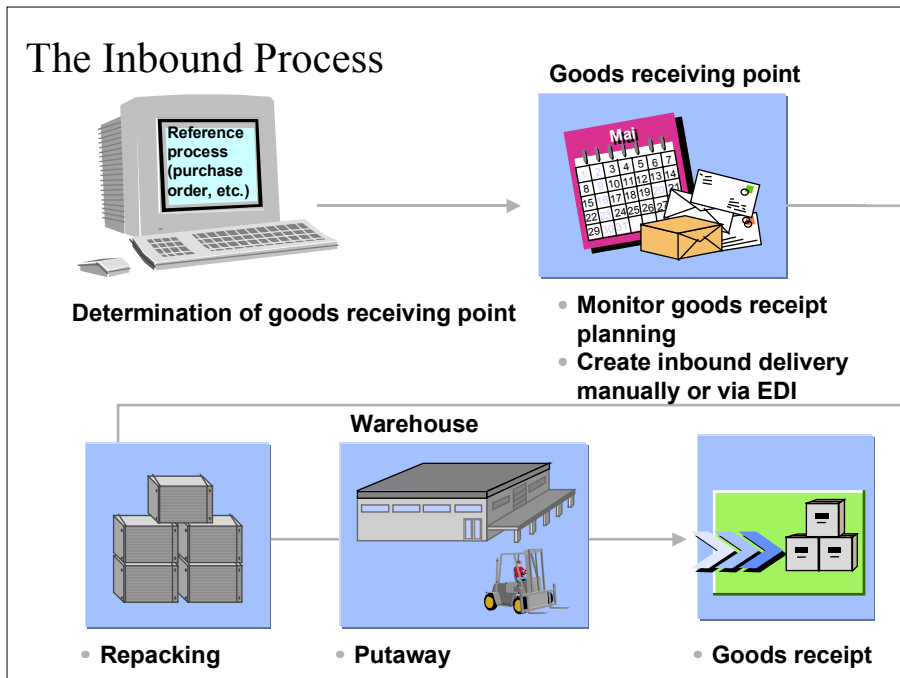
Creating Inbound Deliveries

Implementation Options

In its role as central object of the inbound process, the inbound delivery supports all activities such as putaway, 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 shipping-processing is documented. When the inbound delivery is created, activities such as putaway or scheduling are initiated, and data that is generated during processing of the inbound delivery is included in the delivery.

Prerequisites

Define the order acknowledgements for inbound deliveries [Ext.] in the Implementation Guide (IMG) under *Logistics Execution → Shipping → Deliveries.* You can make settings so that an inbound delivery is only created automatically for a specific plant/storage location combination.

1. Check which warehouse number the decentralized Warehouse Managing System is active for.

2. Check which order type inbound deliveries are to be created automatically for.

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 your requirements, you can create inbound deliveries automatically using work lists, or manually. Overviews allow you to monitor [Page 51] 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 putaway

- Updates order processing

You can subsequently make changes in a delivery in order to report the quantity that was put away or if the delivery situation changes in any way. In addition, you can use the display function to access inbound-delivery information in a delivery.

Creating Inbound Deliveries

Ways to Create an Inbound Delivery
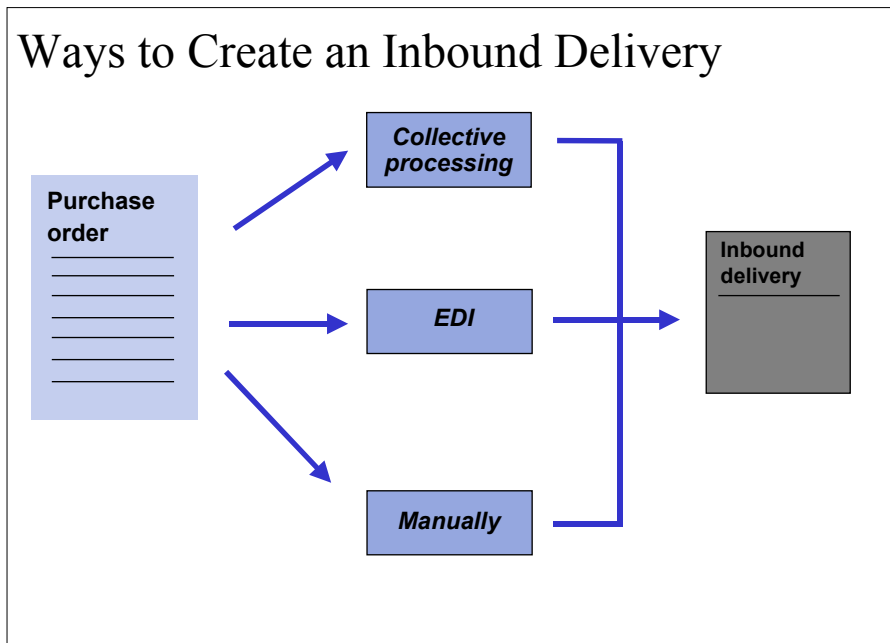
Inbound Delivery Structure

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.
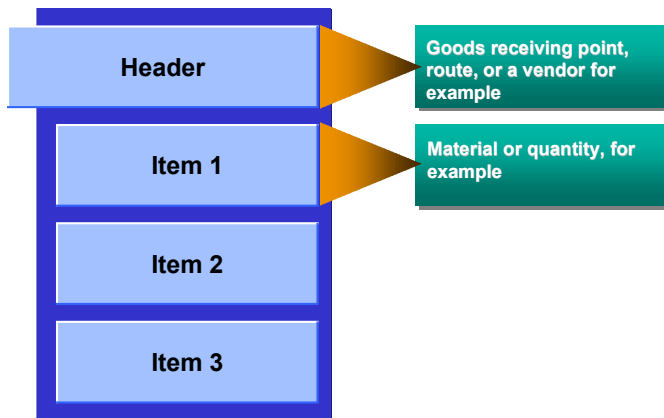
Document Header

The general data relevant for the inbound delivery is stored in the document header. This data is valid for the entire document. This data 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 Items

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

- Putaway date

- Weights and volumes of the individual items

Delivery Data and Screens

The user interface for processing deliveries gives you the following advantages:

- Intuitive navigation among various processing screens results in a user-friendly interface

- Fewer screen changes necessary during processing

- Easily comprehensible data presentation

- Clear presentation of processing screens even when the screen is small

Since the new interface works with flexible tables, you can tailor screen appearance to your needs even during processing. You can change the width and sequence of the columns as you see fit simply by dragging them with the mouse. You can also save various display variants.

Tab pages are an important element of the interface. They represent a file of index cards and make the interface easier to use. Each tab page has a title that is always visible. By simply clicking on the tab page title, you can move a tab page to the front of the stack and begin editing it.

This tab page method of organization allows related data to be displayed in one place despite limited screen space.

Shipping data generally appears on the following three screens on which multiple tab pages can be found:

- Overview screen

- Header screen

- Item screen

You can switch quickly from one screen to another by using icons.

Tab pages are arranged according to delivery process, which makes it easier to figure out which of the three overview screens you should switch to in order to find the data you are looking for.

The stage that the processing of a delivery item has reached is displayed on the *Status Overview* tab page on the *Overview* screen.

Delivery Types

You can use the various delivery types 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 you enter an outbound delivery 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 your company. New document types can also be defined if you find that your business needs a wider selection than those specified in the standard version of the SAP System. Your system administrator is responsible for maintaining control elements.

You can distinguish between delivery document types 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 redetermined? Should a check then be carried out to determine whether the new route is permissible?

Delivery Types

- 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?

Creating Inbound Deliveries

Use

When you create an inbound delivery individually, you create exactly one inbound delivery for a purchase order. You can make changes to the inbound delivery, if necessary.

Procedure

Proceed as follows to create an individual inbound delivery:

1. From inbound delivery [Ext.], 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 you want 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 outbound delivery is put together according to your specifications. The inbound delivery overview screen appears. Data is copied into the inbound delivery from the purchase order to which it refers. On the header screens and item screens, you can enter additional specifications (for example, how the goods are to be transported). You can also change the specifications from the purchase order.

   A note is entered in the error log if inconsistencies occur in a schedule line.

   ➡

   If you select a purchase order whose items are to be put away in different warehouse complexes (warehouse numbers), 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, you can use the *Subsequent functions* menu to print or to create a transfer order in warehouse management. When you call up one of these functions, 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, you can branch to the log from any of the overview screens in the delivery by choosing *Edit → Error log*. From there, you can make changes directly to the document.

Creating Inbound Deliveries

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. You can define several entries for the goods receiving point and assign a priority to each one.

Changing Inbound Deliveries

In addition to changing header and item data, you can also make structural changes to inbound deliveries. For example, you can delete individual items from the inbound delivery or add new items to it, provided that those items exist in the relevant purchase order.

There are several methods that you can use to change inbound deliveries in the inbound process for inbound deliveries [Ext.]:

- By choosing *Inbound Delivery → Change → Single Document*, you can access the delivery overview screen directly using the document number.

- By choosing *Inbound Delivery → Lists →* Inbound Delivery Monitor [Page 51]*,* you can create a list of deliveries. You can then select the delivery that you want to change from this list.

Changing inbound deliveries directly

To change an inbound delivery, proceed as follows:

1. From inbound delivery [Ext.], choose *Inbound Delivery → Change → Single Document*.

   The *Change Inbound Delivery* screen appears.

2. Enter the number of the inbound delivery you want to change or select it by using a matchcode.

   From the *Goto* menu on this screen, you can call up a specific view of the inbound delivery and make changes there.

3. Choose *Enter*.

   The overview screen that you chose appears.

4. Make your changes to the inbound delivery.

5. Save the changes by choosing *Inbound delivery → Save*.

   A message appears informing you that the inbound delivery has been saved.

Changing inbound deliveries by using a list

If you want to use a deliveries list to access a delivery that you want to change, proceed as follows:

1. From inbound delivery [Ext.], choose *Inbound Delivery → Lists →* Inbound Delivery Monitor [Page 51].

   The *Inbound Delivery Monitor* initial screen appears.

2. Choose *List inbound deliveries*.

3. Enter your selection criteria and also decide whether you want to display all deliveries or only the open ones.

   If you want to display a list of open deliveries, make an entry other than C in the *Total gds mvt stat.* field in the *Status deliveries* section of the screen.

4. Choose *Execute*.

   The system displays a list of inbound deliveries that meet your selection criteria.

Changing Inbound Deliveries

5. Select the inbound delivery you wish to change from the list by selecting the appropriate line and choosing *Subsequent functions → Change inbound deliveries*.

> The overview screen of the delivery you selected appears.

6. Enter your changes.

7. Save the changes by choosing *Inbound delivery → Save*.

> A message appears informing you that the inbound delivery has been saved.

Displaying Inbound Deliveries

Use

You use the display mode to look for specific information. For example, you can use the display mode to check which materials are in the inbound delivery. You **cannot** make changes to the inbound delivery in display mode.

Procedure

If you want to display an inbound delivery, proceed as follows:

1. From inbound delivery [Ext.], choose *Inbound Delivery → Display → Single Document*.

   The *Display Inbound Delivery* screen appears.

2. Enter the number of the inbound delivery that you want to display or select it using a matchcode.

   On this screen, you can use the menu options under *Goto* to call up a specific view of the inbound delivery.

3. Choose *Enter*.

   The overview screen appears.

   You can access various functions from this screen. For example, by selecting an item and then choosing *Goto → Item* followed by the detail screen of your choice, you can obtain further information about that particular item.

Deleting Inbound Deliveries

You can delete the following:

- Entire inbound deliveries

- Individual inbound delivery items

Deleting entire inbound deliveries

You can delete an entire inbound delivery as follows:

1. From inbound delivery [Ext.], choose *Inbound Delivery → Change → Single Document*.

   The *Change Inbound Delivery* screen appears.

2. Enter the number of the inbound delivery you want to delete or select it using a matchcode.

3. Choose *Enter*.

   The inbound delivery screen appears.

4. Select *Inbound delivery → Delete*.

   The *Delete Delivery Processing* dialog box appears. The system asks you to confirm that you really want to delete the delivery.

5. Choose *Yes* and press *Enter.*

   You receive a message informing you that the delivery has been deleted.

Deleting inbound delivery items

To delete individual items from inbound deliveries, proceed as follows:

1. Select the item or the items in the inbound delivery that you want to delete on an overview screen.

2. Choose *Delete item(s).*

   A dialog box appears in which you must confirm that you want to delete the items.

3. Choose *Yes*.

   The items that you selected are deleted and no longer appear on the overview screen.

4. Save the inbound delivery by choosing *Inbound delivery → Save*.

Executing Batch Splits in Deliveries

Batch split describes the situation when you want to specify quantities from more than one batch for a particular delivery item. The batch split function in the delivery includes a batch selection screen and an availability check. In addition, batch processing is linked to the SAP Classification System, enabling you to select batches according to classes and characteristics. For more information about the Classification System, see the CA Classification System [Ext.] documentation.

Master data

In Materials Management (MM), you can specify basic data for each batch, such as Available from and Expiry dates, and data about the origin of the batch. For more information about creating master data for batches, see the batch handling [Ext.] documentation.

Splitting Batches in a Delivery

To carry out batch split in a delivery, proceed as follows:

1. In the delivery, mark the item for which you want to split batches and choose *Goto → Item → Batch split*.

   You see the following overview screen for batch split items.

2. Choose a batch by using batch determination [Ext.].

   The system proposes the corresponding quantity, which can be assigned to a delivery item.

3. Select the batches that you want for the delivery item and press *Copy*.

4. Either copy the quantities the system suggested or enter the appropriate quantities for each batch.

   The open quantity is decreased by the assigned quantity.

5. Choose *Back* to return to the delivery overview screen.

   ⇨

   For delivery items with a batch split, the picked- or putaway quantities are determined individually for each split item. If you want to maintain or check this quantity for split items, go to the batch structure view of the main item in question by selecting the '+' button.

Incompleteness in the Delivery

Use

When you are creating and processing deliveries, it is often necessary to check the completeness of the delivery. A delivery is considered to be incomplete if fields relevant for the delivery have not been filled, or if certain settings defined in Customizing have not been taken into account. The delivery incompletion log ensures that this completion check is executed **automatically**.

In the delivery, you can check the following levels for completeness:

- Header data of the delivery

- Item data of the delivery

- Partner data

- Texts

You can either display a list of all incomplete deliveries or go directly from delivery processing to the incompletion log. See also Processing Incompletion Log [Page 21]

Integration

The incompletion log controls whether the next subsequent functions are allowed in the case of an incomplete delivery:

Inbound delivery	Outbound delivery
Putaway	Picking
Packing	Packing
Goods receipt	Goods issue
	Billing document

Also, it is possible to set the system so that incomplete deliveries cannot be saved to the database. If, in such a case, the delivery is created in a collective processing run, the reasons for the incompleteness are printed in the collective processing log and the delivery is not created by the system.

For example, you can detect the following situations through the incompletion log:

- Batches for an item were not assigned completely

- Too many items were picked or put away

- Required description texts are missing

Editing the Incompletion Log

1. For an outbound delivery, start at shipping [Ext.] and choose *Outbound Delivery → Lists and Logs → Incomplete Outbound Deliveries*.
   For an inbound delivery, start at inbound delivery [Ext.] and choose *Inbound Delivery → Lists → Incomplete Inbound Deliveries*.

   The system displays the selection screen for incomplete sales documents. The respective selection criteria for the overview of all incomplete deliveries already appear as defaults. By specifying further selection criteria, you can limit the delivery display even more.

2. Choose *Program → Execute*.

3. Position your cursor on the delivery document you want to process and choose *Edit → Change document*.

   The *Change: Overview* screen appears.

4. Choose *Edit → Incompletion*.

   A screen with the incompletion list for the selected delivery appears. This screen lists the data that the system still requires to complete the document.

5. Select the lines that you want to edit and choose *Edit data*.

   Now you can process all the selected items, one after the other, from the list of incomplete data. The program automatically goes to the field that is still incomplete.

6. Enter the missing data and choose *Next incompl. data field*.

   This takes you to one of the following screens:

- If you selected additional items from the incompletion log, the next screen that has data missing appears.

- If you did not select any other incomplete items in the incompletion log, the system takes you to the original screen from which you accessed the incompletion data. You have finished processing incomplete data.

7. As soon as you have entered all missing data, choose *Save*.

   If you have changed the settings in Customizing for the incompletion log, you can have the system redetermine the incompletion data by choosing *Edit → Redetermine incompletion.*

Putaway

Implementation Options

The putaway process includes putting goods away in storage bins in the warehouse. There are putaway strategies [Ext.] in the Warehouse Management (WM) system that simplify the search for appropriate storage bins.

Regardless of how your company executes the putaway process, you can make settings in the system so that goods are put away:

- Automatically when you create inbound deliveries [Page 7]

- Routinely at certain times

- Manually according to overviews of the day's workload that a co-worker has requested

A putaway status [Page 32] is recorded in each delivery item for the purpose of scheduling and monitoring the putaway process. This status indicates what stage the item is at in the putaway process (putaway has started for item A, for instance).

Prerequisites

In the system standard settings, it is a prerequisite for goods receipt to be posted before the item relevant for putaway can be put away completely. This means that the delivery quantity must be the same as the putaway quantity in the inbound delivery.

The Warehouse Management system (WMS) module is fully integrated in Logistics Execution (LE). For example, you can create a WM transfer order directly from the inbound delivery. The current status of the warehouse management process can also be monitored from the delivery, for instance.

Process Flow

Putaway with Warehouse Management allows you to use the transfer order as a putaway order.

This is possible in the following scenarios:

- Lean-WM [Page 25]

    Implementation of the basic functions of the Warehouse Management module (WM) in simply-structured warehouses with no stock management at storage bin level.

- Implementation of all functions in Warehouse Management (WM) [Ext.]

The use of the WM transfer order [Ext.] as a putaway order offers you the following advantages:

1. Determination of target data for transfer orders

2. Splitting transfer orders according to target data

3. Printing transfer orders or transmitting them in IDoc format

4. Creation of actual data from the putaway

5. Confirmation of transfer orders

Inbound Delivery Information

Inbound delivery #180005614

Vendor

Inbound delivery

What
How much   **?**
When
From where
Vendor
Status

| Items | Putaway | Shipment | Status overview |

10   *Material 1 Plant   Storage location ...*

20   *Material 2 Plant   Storage location ...*

Display Inbound Deliveries for Putaway

Use

In the putaway overview, the system only includes inbound deliveries that have not been putaway or have only been partially putaway. You can limit the selection by putaway date, for example.

Procedure

To select deliveries that are to be put away, proceed as follows:

1. From inbound delivery [Ext.], choose *Putaway → Create Transfer Order → Via Inb. Delivery Monitor.*

   The *Inbound Deliveries for Putaway* screen appears.

2. Enter the delivery date or an interval for the delivery date in the *Time data* section.

3. Choose *Program → Execute.*

   The *Inbound Deliveries for Putaway* screen appears. In this list, the system displays the deliveries for putaway, sorted by delivery date.

   ➡

   For more information on working with the delivery monitor [Page 51], see Calling up List Functions [Page 59], and Carrying out Subsequent Processing [Page 63].

Creating transfer orders

In the *Inbound Deliveries for Putaway* list, you can create transfer orders for the selected deliveries with WM putaway. These transfer orders are used in Warehouse Management to process the various goods movements (putaway, stock transfer, picking). For more information on transfer orders, see Warehouse Management [Ext.].

To create transfer orders from this list, proceed as follows:

1. On the *Inbound Deliveries for Putaway* screen, select the deliveries for which you want to create transfer orders.

2. Choose either *TO in backgr.* or *TO in foregr.*

   If you choose *TO backgr*, the system creates transfer orders in the background for the deliveries selected.

   If you choose *TO foregr*, the system creates transfer orders for the selected deliveries in the foreground.

   In the overview screen, a message appears to inform you of how many transfer orders were created successfully. If the system was not able to create transfer orders, you receive a corresponding message with the reason.

Using a Transfer Order (TA) for Putaway in Lean WM

Implementation Options

You can use transfer orders that are created for deliveries in Lean WM to put away stock in available fixed storage bins that are not managed with WM.

In the normal WM structure, you process goods receipts that result in an increase in inventory in the warehouse and goods issues that result in a decrease in inventory in the warehouse. The stock is managed in individual storage bins in the warehouse for this normal process. For Lean WM, you do not process goods receipts or goods issues as a subsequent process in WM and no storage bins are managed in the WM application. This also means that the Lean WM system does not update stock data using **quants**. Instead, this transaction takes place entirely at the storage location level.

Since Lean WM is used at the storage location level, you can only display quantities of stock in Inventory Management (IM) and not with the WM stock overview task.

Transport order characteristics

The characteristics of a transfer order created for Lean WM are basically the same as for any transfer order:

- It is **optional** as to whether transfer orders created for Lean WM are subject to confirmation.
- You can confirm overdeliveries, shortages and batches.
- You can print transfer orders.
- You can transmit Lean WM transfer order data to external systems.
- You can record performance data for this type of TO. Examples of this include assignment to a picker, return confirmation of actual times or determining planned times.

Prerequisites

Before you use Lean WM, you need to make a few configuration changes in Customizing as follows:

1. Assign (and create, if necessary) a storage location to a warehouse number.
2. You should define at least the following three storage types:
   – A storage type (to be used as a source storage type) with one or more fixed storage bins
   – A shipping area (as a destination storage type) for deliveries
   – An interim storage area for differences

For Customizing activities, see *Picking → Lean WM* in the Implementation Guide (IMG).

Process Flow

Generally, the processes used in Lean WM are similar to those in normal WM. You work with deliveries and transfer orders that you create for the deliveries. However, with Lean WM, it is much easier to create transfer orders.

To carry out a stock transfer in Lean WM, follow these 3 steps:

Using a Transfer Order (TA) for Putaway in Lean WM

1. Create an inbound delivery [Page 13].

2. Create a transfer order for the delivery [Page 30].

3. Confirm [Page 31] the transfer order.

Storage Location for Putaway

Implementation Options

Putaway always occurs into a particular storage location. This means that if a delivery item is relevant for putaway, a storage location must be entered in the delivery.

- The goods are put away in the stock of the storage location that is specified in the delivery.

- If the putaway is carried out using the WM System, the storage location in the delivery determines which storage location in the Warehouse Management System is responsible for putting the goods away.

The item category of the delivery item determines whether the item is relevant for putaway and whether a storage location must be specified. For example, text items are not relevant for putaway, so there is no need to specify a storage location for them. Item category controls can be set in Customizing.

Process Flow

Since the information necessary for specifying a putaway location may not be available when the purchase order is entered, the person responsible for processing purchase orders cannot usually decide into which storage location the goods are to be put away. The storage location for the putaway is specified when the delivery is created.

There are two ways in which the putaway storage location can be specified:

1. It can be determined automatically when the delivery is created and then entered into the delivery item.

   For further information on this, refer to Determining the Putaway Storage Location Automatically [Page 28].

2. You can specify it manually in the delivery item.

   For more information, see Entering the Putaway Storage Location Manually [Page 29].

Determining the Putaway Storage Location Automatically

Automatic determination of the storage location for the putaway depends on the following criteria:

- Plant
- Storage conditions

The storage location for the putaway appears both in the delivery item and on the putaway overview screen:

- In the delivery item, you will find the storage location on the stock placement item-details screen in the *Stor. location* field of the *Warehouse* section of that screen. To call up this screen, select the item whose status you want to display on a delivery overview screen and choose *Goto → Item → Putaway*.

- On the putaway overview screen, you will find the storage location for the items in the *SLoc* column. To call up this screen, choose the *Stock placement* tab page in delivery processing.

You can change the storage location that the system determines as long as putaway has not yet been started.

Storage conditions

The storage conditions that apply to storage of a material are stored in the material master record. You will find this entry on the *Plant data/stor. 1* tab page in the *Storage conditions* field.

The storage conditions are displayed in the delivery on the stock placement item-details screen. To call up this screen, select the item whose status you want to display on the delivery overview screen and choose *Goto → Item → Putaway*. The storage condition is stored in the *Stor. cond.* field of the *Material* section.

Prerequisites for determining the storage location automatically

Putaway storage-location determined automatically by the system depends on the delivery type and item category of the delivery item:

- Each delivery type has its own rules regarding the automatic determination of a storage location.

- The system only determines a storage location for a delivery item if this is defined for the item category assigned to this item.

Controls for delivery types and item categories can be set in Customizing.

Entering the Putaway Storage Location Manually

In the delivery, you can either specify the storage location for each individual item or you can enter it on an overview screen for several items:

• To specify the storage location for one item, enter it on the stock placement item-details screen. To call up this screen, select the item whose status you want to display on the delivery overview screen and choose *Goto → Item → Putaway.*

  You can enter the storage location in the *Storage location* section.

• To specify the storage location for several items at once, enter it on the putaway overview screen. To call up this screen, use the *Stock placement* tab page in delivery processing.

  Specify the storage location for **each** item in the *SLoc* column.

You can change the location that is specified in this field as long as the putaway has not yet been started.

Creating Transfer Orders for Inbound Deliveries

To create a transfer order (TO) manually, proceed as follows:

1. From inbound delivery [Ext.], choose *Putaway → Create Transfer Order → Single Document.*

2. On the initial screen, enter the delivery number, select **Foreground** in the *Foreground/backgrnd* field for foreground processing and choose ENTER.

3. Continue as described in Creating a Transfer Order for a Material Document [Ext.].

    After you have created the transfer order items for a delivery, the system automatically goes to the *Processed items* tab page. Although the TO column is marked for all the items on this list, the transfer orders are only processed completely after they are posted.

4. To save the transfer order, choose *Transfer order → Post*.

What Happens in the System?

After the transfer order has been created, the system makes the following settings in the delivery document:

*   The system updates the quantity to be put away.

*   The putaway status [Page 32] is set to C, meaning that the material has been put away.

*   The WM activity status is set to B, which means that a transfer order has been created but has not been confirmed.

Automatic/Immediate Transfer Order Creation for Deliveries

To create a transfer order automatically for a delivery, see Automatic/Immediate Transfer Order Creation [Ext.].

Confirming Transfer Orders for Inbound Deliveries

After the goods have been put away in the warehouse, you confirm the transfer order in WM. When you put inventory away in the warehouse, you would normally confirm the entire transfer order at the same time.

To do so, choose *Putaway → Confirm Transfer Order → Single Document → In One Step* from inbound delivery [Ext.]*.* You can also access the confirmation function from the display functions for transfer orders.

See also:

Confirming Transfer Orders [Ext.]

What Happens in the System?

After the transfer order has been confirmed, the system makes the following settings in the delivery document:

- The putaway status [Page 32] stays set to C, meaning that the material has been put away.

- The WM activity status is set to C, which means that the transfer order has been confirmed.

See also:

Processing Differences for a Delivery [Ext.]

Putaway Status

You can determine to what extent putaway has been carried out for a delivery from the putaway status. The putaway status is stored in each item in the delivery.

In the standard version of the SAP R/3 System, the following indicators are defined for the putaway status:

Standard Putaway Status Indicators

Indicator	Significance
Blank	The item is not relevant for putaway
A	Putaway has not been started yet
B	The item has been partially put away
C	The item has been completely put away

A delivery item is regarded as partially put away if the quantity that was put away is smaller than the delivery quantity.

Putaway Status on the Delivery Item Level

You will find the putaway status on the *Stock placement* item details screen. To call up this screen, select the item whose status you want to display on the delivery overview screen. Then choose *Goto → Item → Putaway*. You will find the status indicator in the *PutawyStatus* field.

If a delivery item was put away in the Warehouse Management System WM, the processing status of the item in the WM System is also shown on the screen.

Putaway Status in the Overview

The putaway status of each delivery item is shown in the status overview. To call up this overview screen, choose *Status overview* in a delivery. The overall status of the putaway can be found in the *OvrPtawySt* column.

Putaway Status and Goods Receipt

You can only post goods receipt for a delivery once all items relevant for putaway have been completely put away.

Therefore, the delivery cannot be put away in the system if the putaway quantity that was reported to the warehouse is smaller than the delivery quantity. In this case, you must decide whether to reduce the delivery quantity and post goods receipt immediately or whether to carry out putaway again to determine if the entire quantity can be made available for the warehouse.

Putaway Status and the Decentralized Warehouse Management System

If you implement decentralized Warehouse Management [Ext.], the individual delivery items are not relevant for putaway in the central system. As described in goods receipt [Page 34], the delivery is reported to the decentralized system. Putaway occurs in the decentralized system.

Following the putaway step, the delivery is reported back to the central system, where goods receipt is posted.

> ⚠️
>
> If the item category is marked as relevant for putaway, the process of distributing it to the decentralized system automatically sets the item to not relevant for putaway, since putaway takes place in the decentralized system.

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.

You have the following options for posting goods receipt:

- Goods Receipt Posting [Page 35] for individual inbound deliveries

- Goods Receipt in Collective Processing [Page 37] to post goods issue for multiple inbound deliveries

- Goods Receipt in Collective Processing [Page 37] for posting goods issue for multiple inbound deliveries in the background without manual intervention

- Posting Goods Receipt for an Entire Shipment [Page 38]

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, you can be sure that the goods receipt document is an accurate reflection of the inbound delivery.

When you post goods receipt 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, you can also 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.

- Putaway of all individual inbound delivery items must be complete for all items for which you have set the *Relevant for picking* (which is also relevant for putaway, if the delivery in question is an inbound delivery*)* indicator in the Implementation Guide (*Logistics Execution → Shipping → Picking* section, Define relevant tem categories [Ext.] activity)*. You can only post goods receipt for quantities that have been put away.

- All transfer orders must be confirmed for individual inbound delivery items if those items were put away using the Warehouse Management System (WMS) or Lean WM and if you have indicated them as being subject to confirmation in the following sections of the Implementation Guide:

    - Warehouse Management System (WMS)

        The Define storage type [Ext.] activity in the *Logistics Execution → Warehouse management → Master data* section.

    - Lean WM

        The Define storage type [Ext.] activity in the *Logistics Execution → Shipping → Picking → Lean WM* section.

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.

> Before posting goods receipt, you can specify the actual goods receipt date without having to change the planned date. Simply enter the actual goods receipt date on an overview screen in the delivery.
>
> If you have not made an explicit entry for the goods receipt date, the system uses the current date.

You can find more information about posting goods receipt for more than one inbound delivery in the Posting Goods Receipt with Collective Processing [Page 37] section.

Goods Receipt Posting

Process Flow - Goods Receipt with Inbound Deliveries

SAP AG 1999
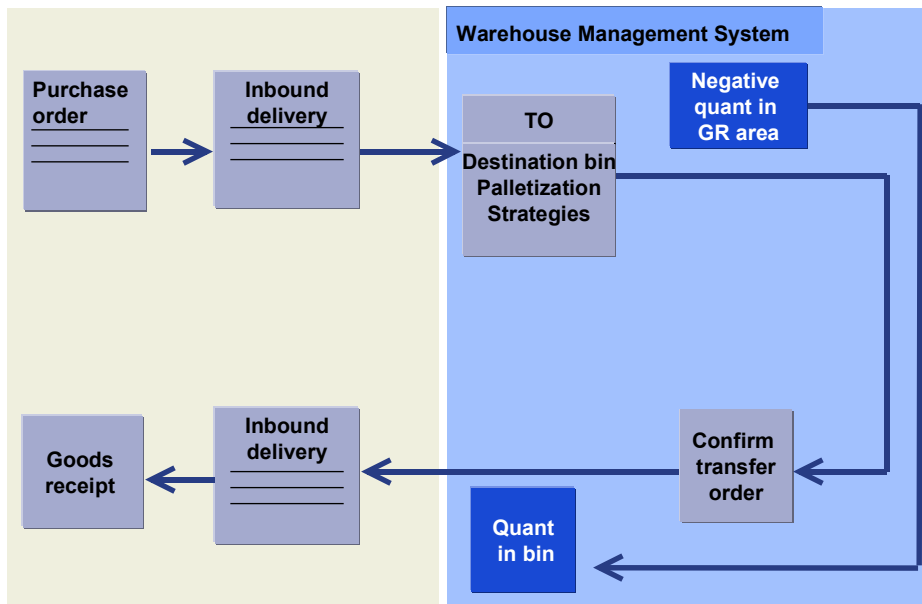
Goods Receipt Using the Decentralized Warehouse Management System

If you implement the Decentralized Warehouse Management System [Ext.], you cannot post goods receipt using one integrated step. Goods receipt in the decentralized WMS is controlled by using the following process flow:

1. The delivery is reported to the decentralized system.

2. Putaway takes place in the decentralized system.

3. Goods receipt is also posted in the decentralized system. This main objective of this process is to keep goods receipt areas well organized.

4. Then, the decentralized system reports the delivery to the central system (Enterprise Resource Planning, or ERP system).

5. Finally, stock is increased in the central system.

Result

As soon as the delivery is saved and goods receipt is posted, you receive a message that contains the delivery number. The goods-receipt document number is not shown.

Goods Receipt in Collective Processing

Use

You can use the collective processing function to post goods receipt for multiple inbound deliveries at the same time.

First, select all the inbound deliveries ready for goods receipt posting. You can limit the selection by goods receipt date, for example. You can choose the inbound deliveries for which you want to post goods receipt from the list that appears.

Prerequisites

Only inbound deliveries that have been put away completely and fulfill the Prerequisites for Goods Receipt Posting [Page 35] 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 [Ext.], choose *Post Goods Receipt → Collective Processing Via Inb. Delivery Monitor.*

    The *Inbound Deliveries for Goods Receipt* screen appears.

2. Enter your selection criteria. You can also specify intervals for certain data.

3. Choose *Execute*.

    You see 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, 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 you want to post goods receipt 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 you receive the message: *<n> goods movements posted <n> goods movements not posted*. This enables you 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.

Posting Goods Receipt for Shipments

Use

You can post goods receipt for an entire shipment. This is appropriate, for example, if you have several deliveries in a shipment that you do not want to have to select and post individually.

When you enter the shipment number, the system automatically selects all the deliveries belonging to the shipment and then posts goods receipt for them.

Procedure

1. From inbound delivery [Ext.], choose *Post Goods Receipt → Collective Processing Via Inb. Delivery Monitor.*

2. The delivery monitor [Page 51] leads you to the *Inbound Deliveries for Goods Receipt* screen. Enter the desired shipment number and choose *Program → Execute*.

Parcel Tracking for Express Delivery Companies

Use

You can use this function to track the path of individual deliveries or parcels that were sent via express delivery company. You can also exchange the necessary data with the express delivery company and ship-to parties and print the labels needed for parcel tracking.

Integration

The data determination procedure occurs in the background of the delivery.

As the system saves data, it checks whether express-delivery-company processing is activated. The data fields defined for the express delivery company are determined in the order specified. If a value cannot be determined, the system makes an entry in the incompletion log.

Parcel tracking for the express delivery company is available for both inbound and outbound deliveries.

Prerequisites

The following prerequisites must be met in order to implement parcel tracking for express delivery companies:

- The express delivery company is entered in the system as a service agent.

- The express delivery company has been created in the system and is active (see also: Creating an Express Delivery Company in the System [Page 41])

- An express-delivery-company indicator is assigned to the service agent.

- At least one shipping point is assigned to the express delivery company.

- Label printing is set up [Page 48]

- IDoc interface between partners and service agents is established.

Range of Functions

Parcel tracking for express delivery companies with express-delivery-company processing offers you the following options:

- You can define any number of fields for each express delivery company. These fields are then automatically filled in when a delivery is created and then made available to the IDocs.

- Express-delivery-company processing makes available additional information that the express delivery company may need. This function allows you to use XML-enabled Remote Function Call (RFC) interfaces.

- The necessary information can be printed right on the package label. This allows the parcels to pass thorough the express delivery company's automatic sorting machines, for example. Settlement is also made easier, thanks to this function.

- The parcel-tracking status in the SAP System is set automatically via the parcel-tracking interface. This way, the sender can display all tracking data in the document flow, the delivery or in a separate transaction in the SAP System. A workflow connection makes it easier to implement customer-specific processes.

Parcel Tracking for Express Delivery Companies

- The ordering party can also track the progress of his or her order. The ordering party can either make an inquiry via Internet or receive the necessary data via the delivery IDoc. If the ordering party also has an SAP System, he or she can access the same function from an incoming delivery point-of-view.

- XML-enabled Remote Frequency Call (RFC) interfaces are available for master data maintenance.

- Express-delivery-company data can be processed directly from the delivery.

Creating Express Delivery Companies in the System

Use

Express delivery companies allow:

- Goods to be delivered quickly

- Customers to track the progress of their parcel at any time

You must create express delivery companies in the system so that you can establish communication with express delivery companies, print special labels for express shipping purposes, and track parcels you send to your customers.

Prerequisites

The SAP Business Connector or a Remote Frequency Call (RFC) server solution must be active so that service-agent data can be automatically read in.

Procedure

To create an express delivery company, proceed as follows:

1. Choose *Logistics → Logistics Execution → Master Data → Partners → Service agent → Maintain Express Delivery Company*.

   The *Express Delivery Company (XSI) Cockpit* appears. Use this cockpit to carry out all functions related to parcel tracking and express delivery companies.

2. Choose *Express delivery company → Create express delivery company* and enter an ID for the express delivery company.

3. To upload data from an external system, select *Express delivery company → Non-SAP system.*

4. On the *Data provider* tab page, choose *Load list of exp. dlv. companies.*

5. From the list that appears, select the express delivery company that you want to create in the system.

   The system copies the name and key (ID) for the express delivery company in the external system and also copies the Internet address (target URL) for the SAP Business Connector.

6. Choose *Express delivery company → Load all master data*.

   The system gets all existing master data from this express delivery company and copies it into your SAP System.

   This process may take a few minutes.

7. Activate the express delivery company on the *Exp. dlv. cmpny control* tab page and save the entries.

Creating Express Delivery Companies in the System

Assigning service agents

1. From the *Express Delivery Company (XSI) Cockpit*, choose *Goto → Assign svc. agnt to express delivery co*.

2. Make a new entry for the service agent for each export ID (for domestic and foreign countries).

3. Save your entries.

   The service agent is assigned to an express delivery company.

Assigning shipping points

1. From the *Express Delivery Company (XSI) Cockpit*, choose *Goto → Express delivery company and meta data*.

2. On the right-hand side of the screen, select the express delivery company of your choice and then choose *Shipping point: active* on the left-hand side of the screen.

3. Make a new entry on the *Shipping point: active* screen for each shipping point that is to be valid for this express delivery company.

   ⮕

   If you want to make an express delivery company active for all shipping points, choose *Activate all shipping points* on the *Exp. dlv. cmpny control* tab page.

Editing meta data

1. Choose *Express delivery company's info (i)* on the *Meta-data* tab page in the *Express Delivery Company (XSI) Cockpit*.

   The system displays the express delivery company's Web site, which describes which meta data you still need to edit.

2. Follow the instructions on this Web site and edit all the meta data that is not active by choosing *Edit meta data*.

   Establishing number ranges

   If a tracking number is not active in the meta data and the information provided indicates that you are to create a number-range object, proceed as follows:

1. Choose *Edit meta data* on the *Meta-data* tab on the *Express Delivery Company (XSI) Cockpit - Change* screen.

   A list of all meta data appears.

2. Select the line that contains the tracking number data field and then choose *Details*.

3. Enter a number range object (such as `TRACK` for a non-rolling interval or `TRACKN` for a rolling interval) and a number range interval in the *Number range* section of the *Details* screen.

   You will find all meta data that needs number ranges on the *Number range* tab page in the *Express Delivery Company (XSI) Cockpit*. This tab page also contains a function you can use to request number ranges from the express delivery company.

Determining service code

A service code is a code specific to the express delivery company that must be printed on the label so that the express delivery company can deliver the parcel by the requested time. An example of a service code would be: tomorrow before 8:00; day after tomorrow before 10:00. You can derive the service code from the following criteria:

- Special processing

- Delivery priority

- Shipping conditions

- Route

To specify which of the above criteria the service code is to be derived from, proceed as follows:

1. Choose *Edit meta data* on the *Meta-data* tab on the *Express Delivery Company (XSI) Cockpit - Change* screen.

   A list of all meta data appears.

2. Select the line with the *Service code* data field and then choose *Details*.

3. Enter one of the following function modules in the *Function module* field in the *Determine data* section of the *Details* screen:

   - XSI_GET_SERVICE_CD_SDABW to derive service codes from special processing

   - XSI_GET_SERVICE_CD_LPRIO to derive service codes from delivery priority

   - XSI_GET_SERVICE_CD_VSBED to derive service codes from shipping conditions

   - XSI_GET_SERVICE_CD_ROUTE to derive service codes from routes

Master Data

The following master data tables are available for small parcel carriers:

- Service codes

- URLs

- Weight codes

- Product codes

- Routing information

- Parcel tracking status

You can make all necessary settings and establish communications with small parcel carriers by using the small parcel carrier cockpit. XML-enabled Remote Function Call (RFC) interfaces are defined for some master data.

Shipper account number

The shipper account number is the sender's account number with the small parcel carrier. You can store this number in the SAP System in one of the following ways:

- Define an external account number in the small parcel carrier cockpit. This number is automatically included as identification every time an RFC is carried out.

- Define an external account number with the vendor for each company code. If a delivery is made up of orders from various company codes, the number cannot be uniquely defined.

> Enter the predefined function module XSI_GET_SHIPPER_ACCOUNT in the *Shipper account number* field so that the system determines an external account number.

- If the shipper account number is always the same, use the XSI_GET_SHIPPER_ACCOUNT_DEF function module.

- If the shipper account number is different for one shipping point, maintain the standard value for the *Shipper account number* data field in *Shipping point: meta data*.

- You can change the shipper account number manually in the delivery, provided you have flagged the field as able to be changed manually.

> The qualifier for external communication must have SHIPACCT as its value.

Service codes

The service code specifies when the goods are to arrive at the customer's place of business (same day or next day, for example).

You need to make a setting for the *Service code* data field so that the system knows how to find the service code. There are predefined function modules available in the system that determine the service code according to the following parameters (see also: Creating Small Parcel Carriers [Page 41]):

- Special processing indicator

- Delivery priority

- Shipping conditions

- Route

> The qualifier for external communication must have XSISRVC as its value.

Product codes

The product code is similar to the service code. Some small parcel carriers differentiate between service and product codes. There are no predefined function modules for product code determination.

> The qualifier for external communication must have PRDCD as its value.

Routing information

You can record routing information regardless of postal code, postal code area or location. You can upload routing information from the small parcel carrier via an XML-enabled Remote Function Call (RFC) interface from the small parcel carrier cockpit.

> The qualifier for external communication must have ROUTECODE as its value. The XSI_GET_CARRIER_ROUTING function module finds the corresponding information.

Parcel tracking number

The parcel tracking number uniquely identifies a parcel or delivery and its shipper account number.

The following two procedures are normally used to create parcel tracking numbers:

- Unique number originating from number range assignment by the small parcel carrier There is a number range interface available for this purpose.

- Unique number resulting from incorporation with the shipper account number

Some small parcel carriers also store other information such as product code or service code in the parcel tracking number.

The last digit is normally a check digit. Some of the major small parcel carriers program some check digit procedures into function module XSI_CHECK_DIGIT_nn. Since most procedures follow the same formula (digit weighting +/- value of modulo n), it is relatively simple to copy an existing routine and make the appropriate changes if you do not find another procedure that meets your needs.

You can also specify sequence numbers by way of an internal number range.

You can use variable substitution to create parcel tracking numbers when you are dealing with compound parcel tracking numbers (UPS tracking numbers, FedEx Astra codes or German Post Identcode, for example).

Master Data

You still have the option of copying the tracking number (or any other data field) from an external server such as FedEx OnSite Server, for example.

The qualifier for external communication must have TRACKN as its value.

Internet sites (URLs)

You can store the following URLs in the system for each small parcel carrier:

- URL for the small parcel carrier's documentation (editing meta data, for example)
- Target URL for the SAP Business Connector
- Sample URL for the small parcel carrier's parcel tracking page

Other data fields

You can define as many data fields as you like.

You must enter a qualifier for external communication in the definition of the data field so that the field appears in IDocs and the transaction data interface.

Editing Express Delivery Company Data in the Delivery

Use

Normally, all data necessary for parcel tracking is automatically determined when you create or save a delivery. If certain important pieces of data are missing, the system makes an entry in the incompletion log. You can change this data in the delivery manually, if necessary.

Procedure

To edit express delivery company data in the delivery, proceed as follows:

1. From shipping [Ext.], choose *Outbound Delivery* → *Change* → *Single Document.* Display the desired delivery and then choose *Goto* → *Header* → *Tracking*.

   All express delivery company data fields appear. All incomplete or incorrect fields are marked with a red traffic light and the section containing the incomplete data is opened automatically.

3. Put the cursor on the field that you would like to change and choose *Change*.

4. Save your entries.

Setting up Labels for Small Parcel Carriers

Use

Small parcel carriers normally work with automatic sorting machines. Labels should meet the specifications of each small parcel carrier so that parcels can go through these machines without having to be re-labeled.

Prerequisites

There are two output types that are predefined for label printing.

* KEP2, for printing all labels in a delivery

* KEP6 for printing one label in a shipping unit

There are no label forms defined.

Procedure

There are no specific small package carrier forms available in the SAP System. You have to upload these forms according to a certain procedure (see also: Printing Labels [Ext.]).

To set up labels for small parcel carriers, proceed as follows:

1. Enter the names of the forms in the small parcel carrier cockpit for each small parcel carrier.

2. Add access sequence `0013` to the output determination procedure you are using.

If you need various forms, you must

* either write your own print program (copy SDPACKD2 or SDPACKD3 and adapt FINDFORM)

* or define new output types

Access Delivery Tracking Status

Use

You can access information about the current location and status of parcels or deliveries en route to customers via the Internet directly from the small parcel carrier.

Procedure

1. For outbound deliveries, start at shipping [Ext.] and choose *Tracking* and for inbound deliveries, start at Inbound delivery [Ext.] and choose *Tracking*.

2. Enter the document number on the selection screen and choose *Display*. You can select according to the following documents:

    −   Sales document

    −   Purchasing document

    −   Delivery

    −   Shipment number

    −   Shipping unit

    −   Tracking number

        A hierarchical list appears that includes all documents that meet the selection criteria you specified together with their delivery tracking status.

3. From this overview screen, you can:

    −   Get delivery tracking data from the small parcel carrier ($\rightarrow$ *Refresh tracking data*)

        In the small parcel carrier cockpit, you can make a setting to update this status automatically each time you call up this screen.

    −   Display the small parcel carrier's delivery tracking page on the Internet ($\rightarrow$ *Internet delivery tracking*)

    −   Display the name of the recipient, point of destination, and the recipient's signature (optional) by using the context menu

    −   Go to and display the corresponding document

    −   Set the tracking status

        In the small parcel carrier cockpit, you can indicate whether the status can be set manually.

Planning, Monitoring and Analysis in Inbound Deliveries

Use

In inbound processing, you have various information and analysis functions at your disposal. To monitor and optimize the processes and operations during inbound delivery, you can analyze them using the following questions:

- Which deliveries are pending for goods receipt?

- Which deliveries are being processed?

- For which materials have the most deliveries been created?

- Which deliveries are based on certain purchase orders?

- Which deliveries result from which purchase orders?

- Which deliveries included certain purchase-order items?

- For which deliveries do you need to initiate activities in the warehouse?

To determine this and other information, and to execute subsequent activities, you can use the delivery monitor [Page 51].

For example, you can create the following lists with the delivery monitor:

- Lists of deliveries with certain partners

- Lists of deliveries with certain materials

- List of deliveries according to specific purchasing parameters

- Lists of deliveries according to specific goods-receipt parameters

You can decide yourself which fields of the deliveries are to appear in the list and which selection criteria you use, without having to change the settings in Customizing.

Working with the Delivery Monitor

Use

The delivery monitor is used to display and process completed deliveries and deliveries that are still open. Both inbound and outbound deliveries can be processed using the delivery monitor. Since several functions are performed in the same way for both delivery types, this description will use the general term "delivery", which covers both types of delivery (inbound and outbound).

Prerequisites

Customizing

No Customizing is required for the display variants because these can be maintained on a user-specific basis.

To allow selection using the material, you must, however, activate the material index (in Customizing choose *Sales and Distribution → Sales → Lists → Set updating of item index*). The material index is already activated in the standard system.

To achieve good performance in the selection of partners, we recommend that you update the partner index (in Customizing choose *Sales and Distribution → Sales →Lists → Set updating of partner index*. Selection of partners is possible even without index updating, but it then requires a longer runtime.

Authorizations

To be able to work with the delivery monitor, you must have display authorization for the shipping points you want to work with. To process the subsequent functions, you need separate authorizations that are checked every time you call up each function.

Range of Functions

The delivery monitor is set up as a central transaction for collective processing of deliveries and for obtaining information on general shipping processing. The user can call up deliveries with different statuses in one single list and from there initiate further processing, as required. The following collective processes are available:

- Selection of deliveries that are due for picking or putaway and creation of transfer orders

- Selection of deliveries for which picked quantities or putaway stocks need to be confirmed

- Grouping together of deliveries for which transportation needs to be organized

- Selection of outbound deliveries that are due for loading

- Collective processing of deliveries that are due for goods issue or goods receipt

You can create lists of deliveries for collective processing using a number of selection criteria. However, depending on the processing type selected, many of the selection criteria may be preset. With the current functionality, for example, you can also call up selections using additional partners and other sales-specific criteria (delivery type, sales organization, division, and so on). You can store selection criteria that you use often in a selection variant, which can simplify routine work with the delivery monitor.

Working with the Delivery Monitor

In addition to collective processing, you have the option of creating a "general" selection of deliveries where you can generate a type of worklist based on delivery- and sales-specific criteria. You can then store these selection criteria in a selection variant.

On the initial screen of the delivery monitor, you can switch between the inbound and the outbound delivery views, or you can activate both views at the same time. The functions of the outbound delivery monitor and the inbound delivery monitor are displayed in the overview below:

Functions of the Outbound Delivery Monitor
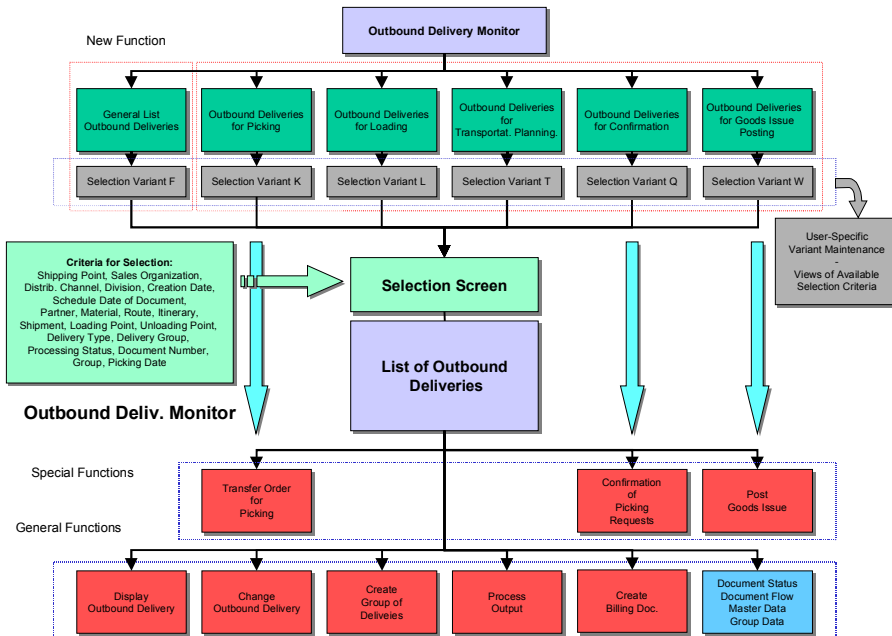
Functions of the Inbound Delivery Monitor

```
                        ┌─────────────────────────┐
                        │ Inbound Delivery Monitor │
                        └─────────────────────────┘
```

General List Inbound Deliveries	Inbound Deliveries for Putaway	Inbound Deliveries for Transportat. Planning	Inbound Deliveries for Confirmation	Inbound Deliveries for Goods Receipt Posting
Selection Variant F	Selection Variant K	Selection Variant T	Selection Variant Q	Selection Variant W

User-Specific Variant Maintenance

Views of Available Selection Criteria

Criteria for Selection:
Shipping Point, Pur.Ord.Date, Creator, Creation Date, Delivery Deadline, Supplier, Doc. Number, External Doc. Number, Material, EAN, Customer Material, Means-of-Transport Identification, Shipment Number, Shipping Unit, Processing Status of Document

Selection Screen

List of Inbound Deliveries

Inbound Delivery Monitor

Special Functions

General Functions

Transfer Order for Stock Putaway	Confirmation of Putaway Transfer-Orders	Post Goods Receipt

Display Inb. Deliveries	Change Inb. Delivery	Process Output	Document Status Document Flow Master Data

Defining Selection Criteria

The following includes information about the delivery monitor that can help you optimize your entries for worklist creation and reduce the amount of time the selection takes.

Initial screen

The first time you call up the delivery monitor, individual selection types appear instead of the SAP standard variants. However, as you work with it, the delivery monitor notes the name of the variant you last entered. You can also enter and maintain a selection variant for individual selection types on the initial screen of the delivery monitor. Use *Display variants* to display or maintain variants. To maintain a variants for selection types on the initial screen, enter the name of the variant you want to maintain and choose the icon in the *Maint.* column. The standard report variant maintenance function appears.

You can also switch back and fourth between the outbound (*Only outbound deliveries*) and inbound (*Only inbound deliveries*) views or activate both views simultaneously (*All deliveries*).

Depending on what you want the worklist to convey, you can select according to the following selection types:

Outbound delivery	Inbound delivery
For picking	For putaway
For confirmation	For confirmation
For loading	
For goods issue	For goods receipt
For transportation planning	For transportation planning
List outbound deliveries	List inbound deliveries

Selection Screen

Depending on the selection type, search criteria from the following areas may appear:

Selection	Remark
Organization data	
Document editing	
Time data	

Picking data	You can enter selection criteria relevant for picking of outbound deliveries in this selection area.
	If *Only picking without WM* is activated, only deliveries picked without Warehouse Management are selected.
	If *Only WM picking* is activated, only deliveries that need Warehouse Management for picking (complete or Lean WM) are selected.
	You can decide whether the warehouse number check should be run on header or item level in the delivery.
	• If you choose *Check at header level*, the system only finds deliveries that have warehouse numbers in the header that meet the selection criteria. For example, you can search for deliveries that are meant to be processed in a Warehouse Management System (WMS) and therefore refer to a warehouse number in the header.
	• If you choose *Check at item level*, all deliveries that include at least one item that meets the warehouse number criteria are selected.
	If you choose *Exclude existing groups in WM*, the system selects only those deliveries that are not yet assigned to a group in WM.
Document data	
Material data	
Partner data	
More partners	

Defining Selection Criteria

Display options	You can use this selection field to influence how the deliveries are displayed. Depending on the weight and volume units of the selected deliveries, the system determines a weight and volume unit that can be used uniformly for all deliveries in the list.
	You can define which units the deliveries should appear in by using the *Display in weight unit* and *Display in volume unit* options.
	If you choose *Display delivery items*, the list appears in the item view. If this field is not selected, the header view appears. You can switch between these two views in the list regardless of whether or not this field is selected on the selection screen.
	➡
	If you select this option, the selection takes more time. The system does require the item data for some subsequent functions and may read it automatically anyway.
	By choosing *Display forwarding agent*, you can also read data about the forwarding agent associated with the delivery.
	➡
	If you select this option, the selection takes more time.
Data for shipment	
Status: inbound/outbound deliveries	You can enter selection criteria for the delivery's processing status here. If you call up the delivery monitor in one of the views from which you want to select deliveries that are still in process, some of the status fields may have defaults that cannot be changed. You can enter other selection criteria (using the following letters) for the fields that are ready for input.
	• *A* stands for *not processed*
	• *B* stands for *partially processed*
	• *C* stands for *completely processed*
	This selection option allows you more flexibility than before for selecting deliveries in specific stages of processing.
	To select open deliveries, choose *Total goods movement status* ≠ C, since completed deliveries have a goods movement status of C.

Background processing control	If you call up the delivery monitor using selection type *Outbound deliveries for picking*, you have the option of creating WM transfer orders for the selected deliveries in the background. You can set the parameters *Adopt pick quantity* and *Select items* for background processing on the selection screen.
	In the *Outbound deliveries for conformation* selection type, you can confirm pick orders in the background. You can set the *Adopt pick quantity* parameter on the selection screen.
Output proposal	You can enter the output type that the system is to use during output processing in the list of deliveries. You can change it again later at any point as you process the list by choosing *Settings → Output selection.*
	If you enter the delivery note as a default value here, you can issue the delivery note directly for the selected deliveries by selecting *Subsequent functions → Outbound deliv. output*.

Notes on selecting the worklist

During the selection criteria check at item level, it follows that a delivery is only selected if at least one of the items meets the selection criteria. If the list is then displayed in item view, only those items that meet the criteria are displayed. The selection criteria entered in a search for deliveries that are in process does not influence the length of time this selection takes, for the most part.

In the *List outbound deliveries* and *List inbound deliveries* selection types, the system runs checks of the selection criteria entered and, in some cases, time-consuming search algorithms. You can reduce the search time if you follow these guidelines:

- When selecting outbound deliveries with the *List outbound deliveries* selection type, specify one or more of the following search criteria:

- Ship-to party

- Sold-to party

- Partners that have a delivery index

- Material

- Goods movement status ≠ C (open deliveries)

- Document number

- When selecting inbound deliveries using the *List inbound deliveries* selection type, specify the following:

- Vendor

- External delivery note number

- Document number

Defining Selection Criteria

Calling up List Functions

You can call up the delivery monitor with a view of **outbound deliveries** by starting at shipping [Ext.] and choosing *Outbound Delivery → Lists and Logs → Outbound Delivery Monitor*.

You can call up the delivery monitor with a view of **inbound deliveries** by starting at inbound delivery [Ext.] and choosing *Inbound Delivery → Lists → Inbound Delivery Monitor*.

You can find general information about List Viewer functions under ABAP List Viewer [Ext.]. The following table lists functions that are more specialized than and contribute to the general List Viewer functions:

Function	Menu path	What you should know
Header and item views	*List → Header view* or *List → Item view*	There are two types of lists for each processing option: a header view with delivery header information and an item view that contains delivery item information. You can switch back and fourth between these views. The system may need to read the items from the database each time you switch views, which may take a little time.
Display variants	*Settings → Display variant → Administration*	Display variants are maintained separately for header view, item view and for each processing option. Administration of display variants completely corresponds to the list viewer standard and is independent of Customizing. You can also configure user-specific display variants. You can designate one of the display variants as the default variant for the initial screen.
	Settings → Color grouping	In the item view, you can make a setting that gives every other document a different background color, which increases the clarity of this screen. In other words, all items of one document would have the same background color and those in the following document would have a contrasting background. The color grouping is not a part of display variants, but it can be especially helpful if a list is sorted according to document and item numbers.

Calling up List Functions

Displaying units of measure		The data in this list is automatically converted to the same unit of measure, which allows the tool to carry out its total function accurately. If you would like to choose which unit of measure the list appears in, you can enter a unit of measure on the selection screen. See also: Defining Further Selection Criteria [Page 54].
Selecting documents for further processing		Further processing is only triggered if you select at least one delivery or item or if you place the cursor on a document line.
		By using dialog-oriented subsequent functions (*Display outbound deliveries, Change outbound deliveries*, or the functions under *Environment*), you can cancel processing the selected documents after one document or skip an individual document if necessary. See also: Executing Subsequent Processing [Page 63].
Selecting previously processed documents	*Edit → Deselect all*	Documents that were processed previously are marked with a gray background. After the document is successfully or unsuccessfully processed in a subsequent function, the background changes to green or red, respectively.
		You can cancel colored backgrounds and selection check marks with this function.
Refreshing the list		You can refresh the worklist at any time. The new data that is obtained is in accordance with the original selection criteria. Processed documents may disappear from the list as a result of this function.
		➡️
		When you refresh the list, all selections or markings in the list are deselected.

Double-click		Depending on cursor placement, a double-click can trigger different activities.
		• Double-click on a delivery number: The transaction for changing the delivery appears.
		• Double-click on the number, name or location of the ship-to party, sold-to party, forwarding agent or vendor: A dialog box with the partner's address appears.
		• Double-click on a material number: The material master is displayed.
		• Double-click on a pick order: Pick order is displayed (only for WM pick orders).
		• Double-clicking on all other fields has the same result as choosing the document number.

Functions in the Environment Menu

The following is a short summary of the functions in the *Environment* menu:

Function	What you should know
Display originals	The *Display originals* function displays the archived originals of the selected delivery documents (the IDoc linked to the delivery document, for example).
Display document status	The **document status** shows the current status of the selected deliveries or items. The item status appears in an item list; otherwise the header status is displayed.
Document flow	The **document flow** displays the header or item document flow, depending on the kind of list you were in when you chose this command.
Material master	The *Material master* function displays the material master for the materials in each delivery you selected. This function is only available in item lists. It is not active in the header view.
Customer master data	The *Customer master data* function (valid only for outbound deliveries) takes you to the change mode of the customer master for the customers in the documents you have selected. ➡️ *Vendor master data* is the corresponding function for inbound deliveries.

Calling up List Functions

Assigned groups	You can use the *Assigned groups* function (only for outbound deliveries) to display the groups of deliveries that correspond to the outbound deliveries that are selected. You can display the group by double-clicking on the line that contains the group number. When you return to the original list of outbound deliveries, the selected deliveries that belong to a group now appear highlighted in color.

Lists for different types of selections

Generally, the lists for various selection types have a similar structure. There are two exceptions, however:

- For the (outbound or inbound deliveries) *For confirmatn* selection type, pick orders or putaway orders are also included. The *Subsequent functions → Confirm picking or putaway* function is only active in this selection type for that reason. Since more than one delivery item can be in one order, and vice versa (there can be more than one order per delivery item) the structure of the list varies. In the header view, you can see only one entry per delivery document number and order. In the item view, there is a delivery item, order and entry per delivery document number. Only delivery items for picking or putaway orders that must be confirmed are selected.

- There is a two-level list in the *For picking* processing type. On the first level, you find the labor required per shipping point and picking date and the details lists for each worklist. If you double-click on the daily workload line (marked in violet), a **single list** appears. You can select the deliveries or delivery items by going to the single list and then returning to the overview list.

Carrying out Subsequent Processing

Use

Some subsequent processing functions call up other transactions in the batch input procedure. By choosing *Settings → Subsequent functions*, you can define whether subsequent processing should be carried out in the foreground, background, or foreground only when errors occur.

All functions except for confirmation are available in all selection types, which allows the individual scenarios for processing deliveries to run smoothly.

Depending on the selection type, you may also be able to call up the most important subsequent functions using the F6, F7 and F8 function keys.

Procedure

Function	Menu path	Note
Creating a group	*Subsequent functions → Group → Create* *Subsequent functions → Group → Create with WM reference*	The selected deliveries are combined into a group, either with or without WM reference Specify the group type (the system presents a default which is dependent on the selection type). Then, you can enter a descriptive text. If you create a group in WM, you must also enter the warehouse number. The group is created when you press ENTER. If the grouping was successful, the processed deliveries appear green; if errors occurred, they appear red. ➡️ If group output processing is available for the group type you chose, the system requires an exclusive lock for the deliveries involved. This way, it can make sure that none of the deliveries are currently being processed (otherwise, picking lists cannot refresh the delivery properly). This may be the explanation if a message appears stating that the deliveries in question cannot be locked.

Carrying out Subsequent Processing

Creating a wave pick	*Subsequent functions → Group → Wave pick*	A wave pick is created for the selected deliveries. After choosing this function, you can enter a descriptive text. The wave pick is created when you press ENTER. If the wave pick cannot be created, the system either issues an error message or goes to the transaction for displaying collective processing logs.
Creating transfer orders	*Subsequent functions → Create transfer order*	This function is available for both inbound and outbound deliveries.
		If you have set subsequent processing to *Background* or *Foreground for error*, you can enter the initial screen parameters of the transaction for creating a transfer order:
		• If you choose *Select items*, all items of the transfer order that you are creating are flagged for further processing.
		• By choosing *Adopt pick quantity* (outbound deliveries), you control whether you want the pick quantity to be copied into the delivery and whether goods issue should be posted immediately after picking.
		• Similarly, the *Adopt putaway quantity* function (inbound deliveries) controls whether the putaway quantity is to be copied into the delivery quantity and whether goods receipt should be posted immediately.
		If the transfer order creation was successful, the processed deliveries appear green; if errors occurred, they appear red. Deliveries that are not relevant for processing in WM appear dark gray.
		The system needs the delivery item information in order to create transfer orders. If necessary, the delivery items must first be read and added to the system information (by switching to the item view of the list).

Confirmation	*Subsequent functions → Confirm picking* *Subsequent functions → Confirm putaway*	This function is only available on the *Outbound Deliveries for Confirmation* and *Inbound Deliveries for Confirmation* screens, since the picking or putaway entries that can be confirmed are only included here. As with creation of a transfer order, the color of the confirmation indicates its status. If you have set processing of subsequent functions to background mode, you can specify whether the picking or putaway quantity should be copied into the delivery quantity or whether you want to post goods issue/goods receipt immediately following confirmation.
Post goods issue (outbound deliveries only)	*Subsequent functions → Post goods issue*	You can set the actual goods movement date. If the goods issue posting was successful, the processed deliveries appear green; if errors occurred, they appear red. The delivery also appears in green if goods issue was already posted for the delivery in question (because the same delivery was accidentally selected twice, for example).
Post goods receipt (inbound deliveries only)	*Subsequent functions → Post goods receipt*	The procedure is similar to posting goods issue. You can set the actual goods receipt date.
Create billing document (outbound deliveries only)	*Subsequent functions → Create billing document*	Individual billing documents are created for the selected deliveries, one after another. The documents are not combined like they are in collective processing for billing documents.

Carrying out Subsequent Processing

Output processing	*Subsequent functions* → *Delivery output* *Subsequent functions* → *Picking output* *Subsequent functions* → *Group output* *Settings* → *Color grouping*	You can define a default for the output that is to be processed on the initial screen. Unless specified otherwise, the given output type is processed when you carry out the subsequent functions of delivery output, picking output or group output for the selected deliveries. You can define the processing mode (first, repeat, or error processing) before group or delivery outputs are carried out. To change your output selection, choose *Settings* → *Output selection*. You can choose the outputs you want to process for each output category. The outputs you select are copied into the list when you choose *Back* or *Exit*.

Background processing

You can use some of the delivery monitor components for collective background processing of large quantities of documents. To do so, enter a selection variant for the report and then schedule it for background processing.

You can also initiate background processing directly from the report's selection screen. Enter your selection criteria and parameters and choose *Program* → *Output in background*. You can then set the spool parameters and schedule background processing in the dialog box that appears.

Background processing triggers subsequent processing for all documents selected, but it does not issue lists. When processing is complete, a list of documents and their processing status (successful or with errors) appears in the spool.

- Report WS_MONITOR_OUTB_DEL_GDSI is for goods issue posting for all documents that were selected. The actual goods issue date can be set using the appropriate field on the selection screen. You can also schedule this report as a job using *Shipping* → *Goods issue* → *Collective batch processing* (See also: Posting Goods issue with Collective Processing [Ext.]).

- Report WS_MONITOR_OUTB_DEL_PICK is for creating WM transfer orders. You can specify the parameters for creating transfer orders (*Select items* and *Adopt pick quantity*) on the *Control background processing* section of the selection screen.

- Report WS_MONITOR_OUTB_DEL_CONF is for confirming picking orders. You can set the *Adopt pick quantity* parameter in the selection screen (see previous point).

- Report WS_MONITOR_OUTB_DEL_FREE is for processing individual outputs and picking outputs (such as delivery notes or picking lists). All output types specified on the selection screen that appears under *Output selection* are then processed for the selected deliveries. For technical reasons, this type of background processing only results in a message informing you which documents were processed, but does not include whether they were processed successfully.