

Logistics Execution (LE)



ADDON.IDESLE

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Icons

| Icon | Meaning |
|---|----------------|
|  | Caution |
|  | Example |
|  | Note |
|  | Recommendation |
|  | Syntax |

Typographic Conventions

| Type Style | Description |
|---------------------|--|
| <i>Example text</i> | Words or characters that appear on the screen. These include field names, screen titles, pushbuttons as well as menu names, paths and options. Cross-references to other documentation |
| Example text | Emphasized words or phrases in body text, titles of graphics and tables |
| EXAMPLE TEXT | Names of elements in the system. These include report names, program names, transaction codes, table names, and individual key words of a programming language, when surrounded by body text, for example, SELECT and INCLUDE. |
| Example text | Screen output. This includes file and directory names and their paths, messages, names of variables and parameters, source code as well as names of installation, upgrade and database tools. |
| Example text | Exact user entry. These are words or characters that you enter in the system exactly as they appear in the documentation. |
| <Example text> | Variable user entry. Pointed brackets indicate that you replace these words and characters with appropriate entries. |
| EXAMPLE TEXT | Keys on the keyboard, for example, function keys (such as F2) or the ENTER key |

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Logistics Execution (LE)

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[Picking-Wave Supported Outbound Deliveries and Transport \[Page 30\]](#)

[Goods Receipt in a Decentralized Warehouse \[Page 46\]](#)

[Goods Issue for Delivery to a Decentralized Warehouse \[Page 56\]](#)

Inbound Deliveries and Putaway in a WM Warehouse

The IDES Purchasing department orders goods for plant 1000 (Hamburg). The purchase order is to be confirmed by the vendor using a shipping notification. When the shipping notification is received, the data is transferred to an inbound delivery document within the Logistics Execution System. The putaway takes place in the central warehouse of plant 1000. Goods movements and inventory management in this central warehouse are supported by the Warehouse Management system (WM).

Process Flow

You can find the data for this process under [?](#) [Page 8].

1. [Creating a Purchase Order \[Page 9\]](#)
2. [Creating the Inbound Delivery \[Page 11\]](#)
3. [Executing the Putaway \[Page 12\]](#)
4. [Resetting the Starting Situation \[Page 15\]](#)

Data Used During This Process**Data Used During This Process**

| Field | Data | Description |
|---------------------|--------------|-------------------------|
| Purch. organization | IDES Germany | Germany |
| Purchasing group | Dietl.B | Purchasing group |
| Plant | 1000 | Hamburg |
| Storage location | 0088 | Central warehouse |
| Order type | NB | Standard purchase order |
| Vendor | 1000 | Vendor |
| Material | M-01 | Trading goods |
| Material | M-02 | Trading goods |
| Material | M-03 | Trading goods |

Creating a Purchase Order

Use


As an IDES purchasing employee, you place an order for goods for plant 1000 (Hamburg).



Procedure

1. Call up the transaction as follows:


| | |
|-------------------------|---|
| Menu Path | <i>Logistics → Materials Management → Purchasing → Purchase Order → Create → Vendor/Supplying Plant Known</i> |
| Transaction Code | ME21N |

2. Enter the following data:

| Field | Data |
|---|-------------------------|
| (Field)  | Standard purchase order |
| Vendor | 1000 |
| Document date | Today's date (default) |

3. Choose .
4. If required, you can expand the header data area, by choosing  *Header*.
5. On the *Org. Data* tab page of the header data area, use the F4 input help to enter the following data:




| Field | Data |
|------------------|---------------------|
| Purchasing org. | IDES Germany (1000) |
| Purchasing group | Dietl.B (001) |
| Company code | IDES AG (1000) |

6. If required, you can expand the item overview area, by choosing  *Item overview*.
7. Enter the following data:

| Field | Data |
|---------------|--------------|
| Material | M-01 |
| PO quantity | 150 |
| Material | M-02 |
| PO quantity | 120 |
| Material | M-03 |
| PO quantity | 120 |
| Net price | Any |
| Delivery date | Today's date |

Creating a Purchase Order

| | |
|------------------|------|
| Plant | 1000 |
| Storage location | 0088 |

8. Choose .
9. Choose .
10. The system confirms the posting and assigns a purchase order document number. Make a note of this number.
11. Choose .

Creating Inbound Deliveries

Use

The vendor confirms the delivery date in the shipping notification. In this case, however, it is a partial delivery. You enter this in an inbound delivery document.


Procedure

1. Call the transaction as follows:

| | |
|-------------------------|--|
| Menu Path | <i>Logistics → Logistics Execution → Inbound Process → Goods Receipt for Inbound Delivery → Inbound Delivery → Create → Single Documents</i> |
| Transaction Code | VL31N |

2. Enter the following data:


| Field | Data |
|----------------|----------------|
| Purchase order | Your PO number |

3. Choose .

4. Enter the following data:

| Field | Data |
|---------------------------------------|------|
| Delivery quantity (in the first line) | 135 |

5. Choose .

6. Choose .

If any warning message appear, choose .

7. The system issues a document number. Note this number.

8. Choose .

Executing the Putaway

Executing the Putaway

Use

When the ordered goods arrive, they are put into stock in the central warehouse. You use the delivery monitor to start and oversee the various putaway steps.


Procedure


9. Call the transaction as follows:

| | |
|-------------------------|--|
| Menu Path | <i>Logistics → Logistics Execution → Inbound Process → Goods Receipt for Inbound Delivery → Putaway → Create Transfer Order → Via Inbound Delivery Monitor</i> |
| Transaction Code | VL06IP |

10. Enter the following data:

| Field | Data |
|----------------------|------------------------------|
| Delivery date (from) | No entry |
| Delivery date (to) | Today's date |
| Inbound delivery | Your inbound delivery number |

11. Choose .

12. Select your inbound delivery, then choose  *TO in backgr.*



The transfer order contains all the information required to execute the physical transfer into the warehouse. As you do not need to make any manual entries, you can process the transfer order in the background.

13. In the dialog box, enter the following data:

| Field | Data |
|--------------|--------------------------|
| Select items | Select (default setting) |

14. Choose .

15. Select your inbound delivery, then choose *Environment → Document flow.*

16. Position your cursor on the transfer order line, then choose  *Display document.*

17. Position your cursor on the first item, then choose *Goto → Item → Single item.*



The transfer order item contains two subsections that detail the stock movement. The quantity specified in the item is transferred from the goods receipt zone (storage type 902) to a storage bin in a high rack storage area (storage type 001).

18. Choose .


Executing the Putaway


19. Call the transaction as follows:

| | |
|-------------------------|---|
| Menu Path | <i>Logistics → Logistics Execution → Inbound Process → Goods Receipt for Inbound Delivery → Putaway → Confirm Transfer Order → Via Inbound Delivery Monitor</i> |
| Transaction Code | VL06IC |

20. On the *Inbound Deliveries for Confirmation* screen, enter the following data:

| Field | Data |
|---------------------|-----------------|
| Delivery date | Confirm default |
| Purchasing document | Your PO number |

21. Choose .

22. Select your inbound delivery, then choose .

This confirmation informs the system that the transfer order has been processed and that the goods have reached their destination. As no differences have occurred, you can confirm in the background.

23. In the dialog box, enter the following data:

| Field | Data |
|-------------------|------|
| Adopt putaway qty | 1 |

24. Choose .

25. Choose .


Warehouse management is linked to the SAP application component *Inventory Management (IM)*. Up to this point, the goods movement has been executed in warehouse management. In the next step, you post the goods movement to Inventory Management.

26. Call the transaction as follows:




| | |
|-------------------------|---|
| Menu Path | <i>Logistics → Logistics Execution → Inbound Process → Goods Receipt for Inbound Delivery → Post Goods Receipt → Collective Processing Via Inbound Delivery Monitor</i> |
| Transaction Code | VL06IG |

27. Enter the following data:

| Field | Data |
|---------------------|-----------------|
| Delivery date | Confirm default |
| Purchasing document | Your PO number |

28. Choose .

Executing the Putaway

29. Select your inbound delivery, then choose  *Post goods receipt*.
30. Choose .
31. Select your inbound delivery, then choose *Environment* → *Document flow*.
32. Choose .

Resetting the Starting Situation

Use

To avoid exceeding the storage capacity in the warehouse by repeating this demo several times, you now start a CATT that clears the stocks you have just placed into storage.



However, if you intend to execute the outbound delivery using the next IDES process, you should not run this CATT. The quantities in storage can be used for the outbound delivery.

Procedure

33. Call the transaction as follows:

| | |
|-------------------------|---|
| Menu Path | <i>Tools → ABAP Workbench → Test → Test Workbench → CATT Extended</i> |
| Transaction Code | SCAT |


34. Enter the following data:

| Field | Data |
|-----------|-------------|
| Test case | ZIDES_LE001 |

35. Choose .

36. Select the following options:

| Block | Option |
|-----------------|------------|
| Log type | W/o |
| Processing mode | Background |
| Variants | W/o |

37. Choose .

38. Choose .

Quality Management in Warehouse Management

Purpose

This process covers the transport and placement in storage of the inspection lot and the sample within Warehouse Management (WM).

After posting the goods receipt, you can follow the sample as it is transported to the work center, while the remainder of the inspection lot is stored in the high rack storage area. The sample and inspection lot are "in quality inspection" and have not been posted to unrestricted use. After the usage decision has been made, the sample is placed in storage with the rest of the inspection lot. By consulting the storage location data, you can determine which purchase order and goods receipt posting the goods stem from and which inspection lot was used to inspect them.



If you want to continue directly with the process *Acceptance Inspection (Simplified)*, after completing this process, use material QS8X20 instead of material QS6X20.

Prerequisites

This process does not require any data from other processes. It is a more detailed version of the "QM in Procurement and Inventory Management" process.

Process Flow

You can find the data for this process under [?](#) [Page 18].

1. Creating a Purchase Order

You send a purchase order to the vendor.

[Creating a Purchase Order \[Page 19\]](#)

2. Goods receipt

You post the goods receipt to the warehouse managed by Warehouse Management (WM). The system generates an inspection lot and determines the sample. During the receiving inspection, the goods have the status "in quality inspection", which means that it is restricted-use stock.

[Posting the Goods Receipt \[Page 21\]](#) and [Displaying the WM Stock Overview \[Page 22\]](#)

3. Transporting the sample to the work center.

The sample is transported to the work center and the rest of the inspection lot is taken to the high storage area.

[Processing the Transfer Order for the Work Center \[Page 23\]](#)

4. Receiving inspection

You inspect the sample from the inspection lot. No defects are found and you accept the inspection lot. You post the inspection lot quantity to unrestricted-use stock.



You could also use the *Acceptance Inspection (Simplified)* process at this point.

Quality Management in Warehouse Management

[Processing \[Page 25\] the Inspection Lot](#)

5. Making a transfer posting to unrestricted-use stock.

You display the posting change notice using the usage decision and create a (pseudo) transfer order from inspection stock to unrestricted-use stock for the sample and inspection lot.

[Processing the Posting Change Notice \[Page 27\]](#)

6. Transporting the sample to the warehouse

The sample is now transported from the work center to the high storage rack, where it is stored with the inspection lot.

[Transporting the Sample to the Warehouse \[Page 29\]](#)

Data Used During This Process**Data Used During This Process**

| Field | Data | Description |
|-------------------------|---------|---------------------------------|
| Company code | 1000 | IDES AG |
| Purchasing organization | 1000 | IDES Deutschland |
| Purchasing group | 001 | Dietl, B. |
| Vendor | 1234 | K.F.W. Berlin (German version) |
| | or 1235 | K.F.W. London (English version) |
| Material | QS6X20 | Hexagonal head screw M6X20 |
| Net price | 0.10 | Price per screw |
| Plant | 1000 | Hamburg |
| Storage location | 0088 | Central warehouse WM |
| Storage type | 001 | High rack storage area |
| | 917 | Work center |
| | 922 | Transfer posting area |

Creating a Purchase Order

Use


You now create a purchase order that contains the terms of delivery defined by QM.



Procedure

1. Call up the transaction as follows:


| | |
|-------------------------|---|
| Menu Path | <i>Logistics → Materials Management → Purchasing → Purchase Order → Create → Vendor/Supplying Plant Known</i> |
| Transaction Code | ME21N |

2. Enter the following data:

| Field | Data | Description |
|---|--------------------------|---------------------------------|
|  field | Standard PO | |
| Vendor | 1234 | K.F.W. Berlin (German version) |
| | 1235 | K.F.W. London (English version) |
| Invoice date | Today's date (defaulted) | |

3. Choose .
4. If required, you can expand the area for the item header data by choosing  *Header*.
5. On the *Org. Data* tab page of the header data area, use the possible entries help to enter the following data:


| Field | Data | Description |
|------------------|------|------------------|
| Purchasing org. | 1000 | IDES Deutschland |
| Purchasing group | 001 | Dietl, B. |
| Company code | 1000 | IDES AG |


6. If required, you can expand the item overview area by choosing  *Item overview*.
7. Enter the following data:

| Field | Data |
|-------------------------------|---|
| Material | QS6X20 |
| PO quantity | 1000 |
| C (Category of delivery date) | D (Day format) |
| Deliv. date | Today's date + 7 days (possible entries help) |
| Net price | 0.10 |
| Plant | 1000 |


8. Choose .

Creating a Purchase Order

It is possible that the material already has an info record, which overwrites the amount you have entered. If required, correct the net price and choose .


9. If required, you can expand the item detail area, by choosing  *Item details*.

10. On the *Invoice* tab page, choose *V1 (Domestic input tax 15%)*.

11. Choose .



The system confirms the posting and assigns a purchase order document number. Make a note of this number.

12. Choose  until the overview tree appears.

Posting the Goods Receipt

Use

You now post the goods receipt for a delivery. As you do this, the system generates an inspection lot in the background. Select storage location 0088. This includes the components Inventory Management (IM) and Warehouse Management (WM).

Procedure

1. Call up the transaction as follows:

| | |
|-------------------------|---|
| Menu Path | From the <i>Inventory Management</i> node, choose <i>Goods Movement</i> → <i>Goods Receipt</i> → <i>For Purchase Order</i> → <i>PO Number Known</i> . |
| Transaction Code | MIGO |

2. Enter the following data:

| Field | Data |
|----------------|----------------------------|
| Purchase order | Your purchase order number |

3. Choose .

The system copies the header data of the purchase order into the header data area of the goods receipt document.

The purchase order item is copied into the item overview.


4. If required, you can close the item detail data area by choosing  *Detail data*.

5. Enter the following data:

| Field | Data | Description |
|------------------|--------|----------------------|
| Storage location | 0088 | Central warehouse WM |
| OK | Select | |

6. Choose *Post*.

The system confirms the posting and assigns a material document number. Make a note of this number.

7. Choose  until the overview tree appears.


Displaying the WM Stock Overview

Displaying the WM Stock Overview

Use

You now display a WM-specific stock overview. You can see which material is located in which storage location and in which storage bin. Open a second session to monitor the stock during this process.


Procedure

1. To call up a new session, choose .
2. Call up the transaction as follows:

| | |
|-------------------------|---|
| Menu Path | <i>Logistics → Logistics Execution → Information System → Warehouse → Stock → Total Stock per Material (Inventory Management)</i> |
| Transaction Code | MMBE |

3. Enter the following data:


| Field | Data |
|----------|--------|
| Material | QS6X20 |

4. Choose .
5. Position your cursor on line 0088 and choose *Environment → WM stocks*.

You can see that storage location 0088 of MM corresponds to warehouse number 001 (central warehouse) of WM. You can also see the quantity of stock in each stock type and storage type.



Double-click on one of the plant stock lines to call up information about the storage bin. Click on the *Storage bin* field to call up more information, including a list of the stock (quantities) for each storage bin. If you select a partial stock and then choose *Quant details*, you can see that the number of the goods receipt document and the stock qualification Q are saved in the Quant.

To return to the stock overview, choose .

6. Switch sessions.

Processing the Transfer Order for the Work Center

Use

You now create and confirm a transfer order for the material document.

Procedure



Creating the Transfer Order



1. Call up the transaction as follows:


| | |
|-------------------------|--|
| Menu Path | <i>Logistics → Logistics Execution → Internal Whse Processes → PostChange → Via Inventory Management → Transfer Order → Create → By Material Document.</i> |
| Transaction Code | LT06 |

2. Enter the following data:


| Field | Data |
|--------------------|---|
| Material document | Your material document number (defaulted) |
| Mat. document year | Current year |

3. Choose .
4. To confirm that the sample quantity of the inspection lot is to be transferred to the quality work center, choose .

The prepared sample item is transferred from goods receipt (storage type 902) to the work center (storage type 917).
5. Choose . If any system messages appear, choose .

The second item, the remaining 920 pieces, are transferred to the high storage rack (storage type 001).
6. Choose .

The system creates the transfer order.

The system confirms the posting and assigns a number. Make a note of this number.
7. Choose  until the overview tree appears.

The goods are now taken to the storage bins. When the goods arrive, you confirm the transfer order.

Confirming the Transfer Order


1. Call up the transaction as follows:

| | |
|-------------------------|--|
| Menu Path | <i>From the Internal Whse Processes node, choose Stock Transfer → Confirm Transfer Order → Single Document → In One Step</i> |
| Transaction Code | LT12 |

Processing the Transfer Order for the Work Center


2. Enter the following data:

| Field | Data |
|--------------------|-------------------------------|
| Transfer order no. | Number of your transfer order |

3. Choose .


You now see an overview of the transfer order items.

You can see that 80 pieces of your material have been posted to the quality work center and 920 pieces to the high storage rack.

4. To confirm the transfer order, choose .

Monitoring the Warehouse Stock

1. Call up the second session with the WM stock overview.

2. To update the data, choose .

You can see that the sample is now stored in storage type 917 Quality Assurance. The remainder of the inspection lot is stored in the high storage rack.

Result

You have now processed and confirmed the transfer order.

Processing the Inspection Lot

Use

When you inspect the sample from the inspection lot you do not note any defects and, therefore, accept the inspection lot. You post the inspection lot quantity to unrestricted-use stock.



Procedure



1. Call up the transaction as follows:

| | |
|-------------------------|---|
| Menu Path | From the <i>Quality Management</i> node, choose <i>Quality Inspection</i> → <i>Inspection Lot</i> → <i>Usage Decision</i> → <i>Record</i> |
| Transaction Code | QA11 |

2. Enter the following data:

| Field | Data |
|----------------|-----------------------------------|
| Inspection lot | Inspection lot number (defaulted) |

If you need to search for the number, use the possible entries help for the *Inspection lot* field. In the dialog box, choose the tab page *Goods Movement*. Enter your material document number and choose . In the list, select your inspection lot and choose . The system copies the number into the field.

3. Choose .
4. Choose *Edit* → *Confirm receipt of certificate*.
5. In the UD code field, use the possible entries help to select A1.
6. Choose .


The system determines the quality score 100 (very good) for this inspection lot.


7. On the *Inspection lot stock* tab page choose *Proposal*.

The system proposes the quantity of goods ready to be posted to unrestricted-use stock.

8. Choose .

The system confirms the posting.

9. Choose  until the overview tree appears.

10. Switch to the second session and choose .

You can see the posted quantity in storage type 922 – transfer posting area.

11. Switch sessions.

Processing the Inspection Lot

Processing the Posting Change Notice

Use

You now display the posting change notice. When you made the usage decision, the system generated a posting change notice for all items in the inspection lot (the sample in the work center and the rest of the inspection lot in the high rack storage area). You now need to create and confirm a (Pseudo) transfer order to close the activities from the WM perspective.

Procedure





Displaying the Posting Change Notice

1. Call up the transaction as follows:


| | |
|-------------------------|--|
| Menu Path | From the <i>Logistics Execution</i> node, choose <i>Internal Whse Processes</i> → <i>PostChange</i> → <i>Via Inventory Management</i> → <i>Transfer Order</i> → <i>Create</i> → <i>From List of Posting Change Notices</i> |
| Transaction Code | LU04 |

2. Enter the following data:

| Field | Data | Description |
|------------------|--------|----------------------------|
| Warehouse number | 001 | Central warehouse |
| Material | QS6X20 | Hexagonal head screw M6X20 |

3. Choose .
4. Select your material and then choose *Display Posting Chge.*
5. To return to the *List of Posting Change Notices* screen, choose .
6. Select your entry, then choose *Create trans. order.*
7. Select both items, then choose  *Quant list.*
8. Choose .

The system confirms the posting and assigns a TO number. Make a note of this number.

9. Choose  until the overview tree appears.

Confirming the Transfer Order


1. Call up the transaction as follows:

| | |
|-------------------------|--|
| Menu Path | From the <i>Internal Whse Processes</i> node, choose <i>Stock Transfer</i> → <i>Confirm Transfer Order</i> → <i>Single Document</i> → <i>In One Step</i> |
| Transaction Code | LT12 |


2. Enter the following data:


| Field | Data |
|--------------------|-------------------------------|
| Transfer order no. | Number of your transfer order |

Processing the Posting Change Notice

3. Choose .

You now see an overview of the transfer order items.

4. To confirm the transfer order, choose .

5. Choose .

Result

Switch to the other session to verify that the stock type has changed from inspection stock to unrestricted-use stock in the WM stock overview. However, the sample is still in the work center.

Transporting the Sample to the Warehouse

Use

You now transport the sample from the work center to the high rack storage area, where it is stored with the inspection lot.



Procedure

1. Call up the transaction as follows:




| | |
|-------------------------|---|
| Menu Path | From the <i>Stock Transfer</i> node, choose <i>Create Transfer Order</i> → <i>From Stock List</i> |
| Transaction Code | LT10 |

2. Enter the following data:

| Field | Data | Description |
|--------------|------|-------------|
| Storage type | 917 | Work center |

3. Choose .
4. Select the quantity to be transferred and choose .
5. In the dialog box, enter the following data:

| Field | Data | Description |
|-----------------|--------|------------------------|
| Storage type | 001 | High rack storage area |
| Storage section | 001 | Total area |
| Confirm immed | Select | |

6. Choose  *Copy*.
The sample is transferred to the main warehouse.
7. Choose  until the overview tree appears.
8. To monitor the warehouse stock, switch to the second session and choose .
The sample quantity is now in unrestricted-use stock.
9. Close the second session.

Picking-Wave Supported Outbound Deliveries and Transport

Picking-Wave Supported Outbound Deliveries and Transport

Shipping point 1001 of the IDES Hamburg plant is processing outbound deliveries from the central warehouse. Goods movements and management of stocks in this central warehouse are supported by the Warehouse Management System (WM).

This shipping point is responsible for the outbound delivery of goods to domestic customers in the retail sector. It has been agreed with this customer that the goods are to be delivered within 24 hours, so long as the purchase order arrives by 12.00 today.

The picking process in the central warehouse is planned and supported by picking waves.

Within the wider logistic chain, the deliveries are collected together for one outgoing transport.

Process Flow

You can find the data for this process under [?](#) [Page 31].

1. [Setting the Starting Situation \(1\) \[Page 32\]](#)
2. [Creating the Sales Orders \[Page 33\]](#)
3. [Creating the Outbound Deliveries \[Page 36\]](#)
4. [Creating Picking Waves \[Page 37\]](#)
5. [Executing the Picking \[Page 39\]](#)
6. [Creating and Processing Transportation \[Page 43\]](#)
7. [Setting the Starting Situation \(2\) \[Page 45\]](#)

Data Used During This Process

| Field | Data | Description |
|----------------------|------|----------------------------|
| Sales organization | 1000 | Germany |
| Distribution channel | 12 | Repeat buyer |
| Division | 00 | Cross-divisional |
| Plant | 1000 | Hamburg |
| Shipping point | 1001 | Central warehouse, Hamburg |
| Warehouse number | 001 | Central warehouse |
| Order type | OR | Standard order |
| Sold-to party | 2152 | Customer |
| Sold-to party | 2153 | Customer |
| Sold-to party | 2154 | Customer |
| Sold-to party | 2155 | Customer |
| Sold-to party | 2156 | Customer |
| Material | M-01 | Trading goods |
| Material | M-02 | Trading goods |
| Material | M-03 | Trading goods |

Setting the Starting Situation (1)

Setting the Starting Situation (1)

Use

You now start a CATT that posts the material stocks required for this IDES process.



If you run the IDES processes *Inbound delivery* and *Outbound delivery* immediately after one another, you do not need to start this CATT. This is because the stocks required for this outbound delivery already exist. If this is the case, start this demo with *Creating the Sales Orders*.

Procedure

1. Call up the transaction as follows:

| | |
|-------------------------|---|
| Menu Path | <i>Tools → ABAP Workbench → Test → Test Workbench → CATT Extended</i> |
| Transaction Code | SCAT |


2. Enter the following data:

| Field | Data |
|-----------|-------------|
| Test case | ZIDES_LE002 |

3. Choose .

4. Select the following options:

| Field | Data |
|-----------------|------------|
| Log type | W/o |
| Processing mode | Background |
| Variants | W/o |

5. Choose .

6. Choose .

Creating the Sales Orders

Use

You now take the role of an employee in order processing and create the sales orders.



To ensure that the same starting situation always exists, regardless of when the IDES user runs this demo, the orders you create are actually valid for the next working day. This means, for example, that the orders with today's date as the required date represent the orders of the previous working day, and the orders with the next working day as the required date represent today's orders for the purposes of this demo.

Procedure

39. Call up the transaction as follows:

| | |
|-------------------------|--|
| Menu Path | <i>Logistics → Sales and Distribution → Sales → Order → Create</i> |
| Transaction Code | VA01 |

40. Enter the following data:

| Field | Data |
|----------------------|------|
| Order type | OR |
| Sales organization | 1000 |
| Distribution channel | 12 |
| Division | 00 |

41. Choose

42. Enter the following data:

| Field | Data |
|----------------|--------------|
| Sold-to party | 2152 |
| PO number | BI-123786 |
| Req.deliv.date | Today's date |

43. Choose

44. Choose in the dialog box.

45. Choose

46. In the *Propose Items* dialog box, choose *Default with quantity*.


47. Choose

The system issues a standard order number. Note this number.


48. Enter the following data:

Creating the Sales Orders

| Field | Data |
|----------------|--------------|
| Sold-to party | 2153 |
| PO number | EL-783786 |
| Req.deliv.date | Today's date |

49. Choose .

50. Choose  in the dialog box.

51. Choose .


52. In the *Propose Items* dialog box, choose *Default with quantity*.

53. Choose .


The system issues a standard order number. Note this number.

54. Enter the following data:

| Field | Data |
|----------------|------------------|
| Sold-to party | 2154 |
| PO number | TE-453786 |
| Req.deliv.date | Next working day |

55. Choose .

56. Choose  in the dialog box.

57. Choose .


58. In the *Propose Items* dialog box, choose *Default with quantity*.

59. Choose .


The system issues a standard order number. Note this number.

60. On the *Create Standard Order: Overview* screen, enter the following data:

| Field | Data |
|----------------|------------------|
| Sold-to party | 2155 |
| PO number | CO-323786 |
| Req.deliv.date | Next working day |

61. Choose .

62. Choose  in the dialog box.

63. Choose .


64. In the *Propose Items* dialog box, choose *Default with quantity*.

65. Choose .


The system issues a standard order number. Note this number.

66. Enter the following data:


| Field | Data |
|----------------|------------------|
| Sold-to party | 2156 |
| PO number | CO-123786 |
| Req.deliv.date | Next working day |

67. Choose .


68. Choose  in the dialog box.

69. Choose .

70. In the *Propose Items* dialog box, choose *Default with quantity*.

71. Choose .

The system issues a standard order number. Note this number.

72. Choose .

73. In the dialog box, choose *No*.

Creating the Outbound Deliveries

Creating the Outbound Deliveries

Use

You now create the outbound deliveries for the sales orders you just created.

Procedure

74. Call up the transaction as follows:

| | |
|-------------------------|---|
| Menu Path | <i>Logistics → Logistics Execution → Outbound Process → Goods Issue for Outbound Delivery → Outbound Delivery → Create → Collective Processing of Documents for Shipment → Sales Orders</i> |
| Transaction Code | VL10A |

75. Choose the *General Data* tab page.


76. Enter the following data:

| Field | Data |
|--------------------------|----------------------|
| Shipping point | 1001 |
| Deliv.creation date | Today's date |
| Deliv.creation date (to) | Next working day |
| Ship-to party | Delete default entry |
| Sales organization | 1000 |
| Distribution channel | 12 |
| Division | 00 |

77. Choose the *Sales orders* tab page.

78. Enter the following data:

| Field | Data |
|-------------------------|--|
| SD document (1st field) | The first sales order number you noted |
| SD document (2nd field) | The final sales order number you noted |

79. Choose .

80. Choose .

If this list contains any orders that are not the sales orders you created, simply deselect them.

81. Choose  *Background*.

82. Choose .

Creating the Picking Waves

Use

You now play the role of an employee in the central warehouse of the Hamburg plant. Certain conditions apply to this central warehouse:

The working hours of 07.00 to 17.00 for the picking are split into 4 time slots:

07.00 to 08.00

In this time period, you process any deliveries left over from the previous day.

8 to 12.

Deliveries are processed for orders received before 12.00.

12.00 to 17.00.

Deliveries are processed for orders received after 12.00.

We now check which of your deliveries need to be processed in the specified time slots. You then collect these deliveries into picking waves. These picking waves represent the work packages for subsequent goods distribution.

Procedure

83. Call up the transaction as follows:

| | |
|-------------------------|--|
| Menu Path | <i>Logistics → Logistics Execution → Outbound Process → Goods Issue for Outbound Delivery → Picking → Wave Picks → Create → Acc.to Delivery Time</i> |
| Transaction Code | VL35 |

84. Enter the following data:

| Field | Data |
|--------------------------|------------------|
| Warehouse number | 001 |
| Reference date | Next working day |
| Timeslot group | Z001 |
| Surplus deliveries as of | Today's date |



The assignment of a delivery to a time slot is dependent on the time when the order is recorded. To ensure that this demo runs correctly, the deadlines for the orders you are about to process are set one working day in the future. You need to be aware, however, that the comments for this process describe the deliveries as if they are to be processed on today's date, or that they are from the previous day.

85. Choose .

The system displays only 2 picking waves.


86. Choose *Settings → Display variant → Choose*.

Creating the Picking Waves

87. In the dialog box, select display variant *IDES-001*, then choose  *Copy*.



This display variant shows the maximum weight of the picking wave and the weight of the assigned deliveries. As the list of deliveries to be picked is checked at hourly intervals, the maximum weight of the waves is based on these entries.

88. Position your cursor on the line of the second planned picking wave, then choose . You now see a list of the deliveries assigned to this picking wave.



The deliveries of the first picking wave have the status *Stop*. These are the unprocessed deliveries of the previous working day. They are assigned to the first picking wave.

The traffic light for the second picking wave is red. The system informs you that the capacity limit for this picking wave has been exceeded. The capacity limit has been exceeded with the third delivery of this wave (note the red light for this delivery).

As the capacity limit of the first picking wave has not yet been exhausted, you can now move a delivery from the second wave into the first wave.

89. Position your cursor on the line for the third delivery of the second picking wave.

This line is highlighted in color.

90. Position your cursor on the line of the first picking wave, then double-click on it.



The highlighted delivery has now been moved to the first picking wave.

91. Choose .

The system informs you that the picking waves have been saved as groups.

92. Make a note of the group numbers issued by the system.

93. Choose .

Executing the Picking

Executing the Picking

Use

You now monitor the processing status of your picking waves using a monitor. You use the monitor to trigger a two-step picking for one of the picking waves. As the name implies, two-step picking splits the picking operation into two separate steps. In the first step, the total quantity of the required materials is taken from the warehouse and brought to a temporary storage area (material withdrawal). In the second step, the withdrawn quantities are allocated to the individual deliveries and sent to the relevant goods issue zones (stock allocation).

Procedure

94. Call up the transaction as follows:


| | |
|-------------------------|---|
| Menu Path | <i>Logistics → Logistics Execution → Outbound Process → Goods Issue for Outbound Delivery → Picking → Picking Waves → Monitor</i> |
| Transaction Code | VL37 |

95. Enter the following data:

| Field | Data |
|----------------------|---------------------|
| Warehouse number | 001 |
| Group (first field) | First group number |
| Group (second field) | Second group number |

96. Choose .

97. Choose *Settings → Display variant → Choose*.

98. In the dialog box, select variant *IDES-001*, then choose  *Copy*.

99. Select the + symbol in the first line. You now see a list of the corresponding deliveries.



The system displays the processing statuses of the picking waves in the status fields. The list has two levels. The top level represents the picking wave, the second level represents the corresponding deliveries.

100. Select the first group, then choose *Subseq. processing → 2-step picking → Analysis → Analysis of 2-step procedure*.

101. Retain the defaulted entries, and choose .

102. Position your cursor on the *Pick* line, then choose *Create TOs*.

103. Retain the defaulted entries, and choose .



The removal must be confirmed. This confirmation informs the system that the transfer order has been processed and that the goods have reached their destination.

Executing the Picking

104. Position your cursor on the *Pick* line, then choose *Goto* → *Confirm TOs*.



You see that the transfer order consists of several items. The number of items depends on how many storage bins the system requires to prepare the quantities requested in the transfer order. Each transfer order item contains two or three subsections that detail the stock movement. The system displays a *Source storage bin* and a *Target storage bin* for each item. Due to the picking control for the high rack storage area (storage type 001) one complete pallet is always removed from the *Source storage bin*. If there is a remainder quantity, the system also specifies a return storage bin. For storage type 001 it is defined that the remainder quantity is to be returned to the source storage bin.

105. Choose *Remaining*.

106. Choose .

107. Choose *Data*.

108. Position your cursor on the *Pick* line, then choose .



The removal operation has now been completed. The material quantities required for the deliveries of the picking waves are now in a temporary storage area, from which they are allocated to the various deliveries.

You now perform this second step of the 2-step picking process.

109. Position your cursor on the *Allocation* line, then choose *Create TOs*.

110. Enter the following data:

| Field | Data |
|------------------------|---------------------------------|
| Warehouse number | 001 |
| Group | First group number is defaulted |
| Process Flow | Background |
| Adopt picking quantity | 1 |

111. Choose *Start multiple proc*.

112. Choose .

113. Choose twice.

114. In the dialog box, choose *Yes*.

115. Choose *Data*.




116. Position your cursor on the allocation line, then choose .



The allocation operation has now been completed. The material quantities required for the deliveries of the picking waves have now been allocated to the deliveries, and

Executing the Picking

are located in the goods issue zone. The current system setting defines that the items of the transfer orders generated by the allocation do not have to be confirmed. This means that you do not have to execute an explicit confirmation.



117. Position your cursor on the *Allocation* line, then choose *Display TOs*.
You see that a transfer order has been generated for each of the three deliveries of the picking wave.
118. Position your cursor on the first item of the first transfer order, then choose .
You see the reference to the delivery (see sales document). The transfer is made from the temporary storage area (storage type 200) to the shipping zone for the delivery (storage type 916).
119. Choose  until the *Picking Wave Monitor: List* screen appears.
120. Choose .
You can see that the status of the WM activities for the processed groups is completed.
121. Remain on this screen.

Creating and Processing Transportation


Use

You now prepare the transportation. Once you have completed the planning of your transportation you can complete it. When you complete transportation, the system automatically posts the goods issue and creates the billing document for the deliveries included in the transport.




Procedure

1. Select one of the group numbers you have just processed, then choose *Subseq. processing* → *Shipment* → *Shipment coll proc.run*.
2. Choose .
3. Position your cursor on variant 0003-01-A, then choose .




In the *Select deliveries* screen area, you see selection variant 1001.

4. In this screen area, choose  *Maintain*.
5. Scroll down the page until the *W.ref.to (Reference)* section appears.
6. Enter the following data:

| Field | Data |
|--------------------|---------------------------|
| Grouped deliveries | Number of the first group |

7. Choose .
8. Choose .
9. Choose .

You now see the results of the collective processing run.

10. Choose  until the *Picking Wave Monitor: List* screen appears.
11. Select the first group number, then choose *Subseq. processing* → *Shipment* → *Shipment list: Planning*.
12. Choose .
13. Select the line of the first shipment, then choose .
14. Choose the *Deadl.* tab page.
15. Choose *Planning*.



As soon as you have set the *Planned* indicator for the shipment, no additional deliveries can be included in the shipment. The system also executes a leg determination. You will see the results of this in the next process step.


16. Choose the *Stages* tab page.
17. Choose the *Deadl.* tab page.


Creating and Processing Transportation


18. Choose *Shipment completion*.




When you set the *Completion* indicator, the system closes activities such as weighing and loading. The shipment type ensures that goods issue posting and billing are triggered automatically when you set the completion indicator.

19. Choose .

20. Choose  until the *Picking Wave Monitor: List* screen appears.

21. Choose .

You can see that the processing of this group has now been completed.

22. Choose  until the overview tree appears.

Setting the Starting Situation (2)

Use

You do not process the deliveries of the second picking wave in this IDES process. To avoid exceeding the storage capacity in the warehouse when you repeat this demo several times, you now post the goods issue for the deliveries of the second picking wave.





Procedure

122. Call up the transaction as follows:

| | |
|-------------------------|--|
| Menu Path | <i>Logistics → Logistics Execution → Outbound Process → Goods Issue for Outbound Delivery → Picking → Create Transfer Order → For Picking Wave</i> |
| Transaction Code | LT42 |

123. Enter the following data:

| Field | Data |
|------------------------|----------------------------|
| Warehouse number | 001 |
| Group | Number of the second group |
| Process Flow | Foreground |
| Adopt picking quantity | 2 |

- 124. Choose Start multiple proc.
- 125. You see the transfer order for the first delivery of the group.
- 126. Choose .
- 127. You see the transfer order for the second delivery of the group.
- 128. Choose .
- 129. Choose .
- 130. In the dialog box, choose Yes.
- 131. Choose .

Goods Receipt in a Decentralized Warehouse

Goods Receipt in a Decentralized Warehouse

Purpose

In the Dallas plant of IDES Corp., the warehouse stock is administered in a decentralized warehouse management system. As the Dallas plant is a delivering plant with a closed distribution center, all stock receipts are handled as goods receipts for purchase orders with an external vendor.

In this example, you create a purchase order for trading goods and process the goods receipt from the creation of the inbound delivery, through the putaway of the materials in the warehouse management system and the goods receipt in inventory management. The warehouse management system is located in a different logical system. This is because the distribution center should work independently of the processes in the central system. While processes in Accounting, Purchasing, Inventory Management or Sales and Distribution are executed in the central system (Enterprise Resource Planning System, ERP), the concrete, physical processing of the stock placement occurs in the warehouse management system. The Warehouse Management System, WMS, is located in its own, decentralized system, which communicates with the central system via ALE. The Dallas warehouse complex is set up as just such a decentralized warehouse.

In this example you will work in both the central system and the decentralized system, and switch between the ERP and the WMS.

You can find more information about this process under [i](#) [Page 47].

Process Flow

You can find the data for this process under [?](#) [Page 49].

1. [Creating a Purchase Order \[Page 50\]](#)
2. [Creating an Inbound Delivery in the Central System \[Page 52\]](#)
3. [Processing an Inbound Delivery in the Dezentralized Warehouse \[Page 53\]](#)
4. [Checking an Inbound Delivery in the Central System \[Page 55\]](#)

Additional Information About this Demo

The following additional information is aimed at IDES users with prior knowledge in the areas of Warehouse Management (WM) and ALE.

In the Dallas plant, storage location 0095 is managed as a decentralized warehouse. This is determined by the assignment of the plant – storage location combination for warehouse number 005, which is defined in Customizing. To see the Customizing of the decentralized warehouse management, see the IMG, under *Logistics Execution → Decentralized WMS Integration*. This is where the settings are made for the central and decentralized processing.

In this example, the warehouse is a distribution center for trading goods. In the Dallas plant, PCs and accessories are procured via purchase orders and put into stock in the WM-administrated warehouse complex. To ensure permanent availability and the greatest possible independence of the warehouse processes, this warehouse complex should be administered in a separate system. Processes for Inventory Management, Financial Accounting and Controlling are executed in the central R/3 System. Physical warehouse processes such as creating transfer orders for putaway, the picking of outbound deliveries or the planning and monitoring of stock movements are handled separately. The warehouse processes are also executed in an SAP R/3 System in warehouse management. The two systems are represented by different logical systems.

In order to separate the functions, the master data and transaction data must also be split up. Information concerning the valuation of materials is not relevant to the decentralized Warehouse Management System (WMS). The basic data of a material must be identical in both systems. The warehouse-management specific material data, however, are only relevant to the WMS. The material master data are therefore distributed between the central ERP and the decentralized WMS via message type MATMAS_WMS to reduce the number of fields not relevant to the WMS. Transaction data, such as the inbound delivery of a vendor, must exist in both systems. An inbound delivery is generated for the purchase order in the ERP. This inbound delivery contains information for the putaway, and is therefore distributed to the WMS. A transfer order is generated for the putaway in Warehouse Management.

The PCs are placed in bulk storage, the monitors are put in a high rack storage area. For this reason, material M-01 has a stock placement and stock removal type indicator in the material master, which controls the stock placement in warehouse type 004 (bulk storage). Once the transfer order has been created, the physical transfer is carried out, and then confirmed to the warehouse management system through the confirmation of the transfer order. Only when the physical stock placement in the relevant storage bins has been completed, is the goods receipt posted for the inbound delivery. The confirmation of the goods receipt is distributed from the WMS to the ERP, where it is posted in inventory management.

Communication between the logical systems is defined through the WMS distribution model. You can find the distribution model in Customizing, under *Logistics Execution → Decentralized WMS Integration → Central Processing → Distribution → Generate Distribution Model*. You can also find this distribution model in Customizing for ALE.

The following steps describe how you set up a decentralized warehouse.

1. Create a warehouse number in the central system (do not make a copy), then activate it for decentralized processing. This warehouse number is not used in the ERP. It is required only to assign a delivery to the decentralized processing.
2. Create the warehouse number in the decentralized system and set up the processes for warehouse management.

Additional Information About this Demo

3. Define the interface for warehouse management to inventory management.
4. Define the necessary message categories (for example, the reduced messages for the material master).
5. Generate the distribution model in the central system.
6. Generate the partner agreements in the central system.
7. Distribute the distribution model to the decentralized system.
8. Generate the partner agreements in the central system.
9. Define the number range for the warehouse document in the decentralized system and assign it.
10. Activate the link to the ERP system.
11. Define the conversion of the delivery types between ERP and WMS.
12. Define the requirement types for the WMS.
13. Define the confirmation control for the creation of inbound deliveries.

Data Used During This Example

| Field | Data | Description |
|---------------------|-------------------------|--|
| Vendor | 3740 | Materials vendor |
| Order type | Standard purchase order | Standard purchase order |
| Purch. organization | IDES USA or 3000 | Purchasing organization North America |
| Plant | 3500 | Dallas plant |
| Storage location | 0095 | Decentralized WM-administered warehouse location Dallas |
| Warehouse number | 005 | Decentralized warehouse in Dallas |
| Material | M-01 | Sunny Sunny 01 |
| Material | M-08 | Flatscreen MS |
| Material | M-10 | Flatscreen MS |

Creating a Purchase Order

Creating a Purchase Order

Use

At the start of the process you create a purchase order in the central system via the materials.



Procedure

1. Log on to the central system (client 800).
2. Call up the transaction as follows:


| | |
|-------------------------|---|
| Menu Path | <i>Logistics → Materials Management → Purchasing → Purchase Order → Create → Vendor/supplying plant known</i> |
| Transaction Code | ME21N |

3. Enter the following data:

| Field | Data |
|----------------------------|-------------------------|
| Vendor | 3740 |
| Shopping basket/Order type | Standard purchase order |
| Document date | Today's date |



4. Choose .
 - If a dialog box appears, choose *New purchase order*.
 - If any warning messages appear, choose .
5. Choose the *Org. data* tab page.
6. Use the F4 input help to enter the following data:

| Field | Data |
|---------------------|-----------------------------|
| Purch. organization | IDES USA or 3000 |
| Purchasing group | Corporate Purchasing or 100 |
| Company code | IDES US INC or 3000 |

7. Choose  *Item overview*.
8. Enter the following data:

| Field | Data |
|------------------|------|
| Plant | 3500 |
| Storage location | 0095 |
| Material | M-01 |
| PO quantity | 50 |
| Material | M-08 |
| PO quantity | 48 |

| | |
|-------------|------|
| Material | M-10 |
| PO quantity | 24 |

9. Choose .
10. Note the purchase order number.
11. Choose .

Creating an Inbound Delivery in a Central System

Creating an Inbound Delivery in a Central System

1. Call up the transaction as follows:


| | |
|-------------------------|--|
| Menu Path | <i>Logistics → Logistics Execution → Inbound Process → Goods Receipt for Inbound Delivery → Inbound Delivery → Create → Single Documents</i> |
| Transaction Code | VL31N |

2. Enter the following data:

| Field | Data |
|----------------|---------------------|
| Vendor | 3740 |
| Purchase order | Your purchase order |


3. Choose .

Check the different statuses of the inbound delivery.

4. Select an item of the inbound delivery, then choose .

You can see the putaway status of the item.

The warehouse number assigned to this inbound delivery is the decentralized warehouse in Dallas. As this is a decentralized warehouse, the *Putaway* status in the central system is *Not for putaway*.


5. Choose .

You can see the distribution status of the decentralized warehouse processing. As the warehouse number for Dallas is decentralized, this inbound delivery is relevant for distribution and therefore has the status *Relevant*.

6. Choose .

When you save your entries, the inbound delivery is sent via ALE to the decentralized system. This changes the status of the inbound delivery in the central system. Check the status of the inbound delivery.

7. Note the shipping notification number.

8. Choose *Inbound delivery → Display*, then choose .

9. To check the distribution status of the decentralized warehouse processing, choose .

The inbound delivery has now been distributed to the decentralized system and therefore has the status *Distributed*.

10. Choose .

Processing an Inbound Delivery in a Decentralized Warehouse

Use

You should now switch to the decentralized WMS (client 812) to put the incoming materials into stock. You create a transport request for the incoming delivery, and quit this once you have completed the putaway into the relevant storage bin.



Procedure






1. Sign in to the decentralized WMS (client 812) with the User **WMS-User** and the Password **WELCOME**.
2. Call up the transaction as follows:

| | |
|-------------------------|---|
| Menu Path | <i>Logistics → Logistics Execution → Inbound Process → Goods Receipt for Inbound Delivery → Inbound Delivery → Lists → Inbound Delivery Monitor</i> |
| Transaction Code | VL06i |


3. Choose *For putaway*.
4. Enter the following data:

| Field | Data |
|------------------|------|
| Warehouse number | 005 |
| Vendor | 3740 |

5. Choose .
6. Double-click on your inbound delivery.
7. Select an item, then choose  to display the status of the inbound delivery.

As the inbound delivery is only relevant for the stock placement in the decentralized system, it has the putaway status *For putaway* and a status for Warehouse Management Activities *WM-TA trnsf order reqd*.
8. Choose  twice.
9. Choose your inbound delivery and choose  *TO in foregr*.
10. Choose *Foreground*.
11. Choose .
12. To put away the first item, choose *Palletization*.
13. To display the destination storage bins for the individual pallets, choose . If a warning message appears for the individual items, choose .
14. To create the transfer order item for this material, choose *Gen + next material*.
15. To create the transfer order item for the next material, choose *Gen + next material*.
16. To create the remaining TO items, choose *Transfer order → Post*.


Processing an Inbound Delivery in a Decentralized Warehouse


17. Choose  twice.


18. Choose *For confirmatn.*


19. Enter the following data:

| Field | Data |
|------------------|------|
| Warehouse number | 005 |
| Vendor | 3740 |

20. Choose .

21. Select both of your inbound delivery numbers and choose .


22. In the dialog box, choose .


23. Choose  twice.

24. Choose *For gds receipt.*

25. Enter the following data:

| Field | Data |
|------------------|------|
| Warehouse number | 005 |
| Vendor | 3740 |

26. Choose .

27. Select your inbound delivery and choose  *Post goods receipt.*

28. In the dialog box, choose .

29. Choose .

Checking the Inbound Delivery in a Central System





Use

Once the completed putaway has been confirmed, the inbound delivery is distributed to the central system (client 800) and posted there with the relevant goods receipt quantity.

Procedure

1. Log on to the central system (client 800).
2. Call up the transaction as follows:

| | |
|-------------------------|--|
| Menu Path | <i>Logistics → Logistics Execution → Inbound Process → Goods Receipt for Inbound Delivery → Inbound Delivery → Display → Single Document</i> |
| Transaction Code | VL33N |

3. Enter your inbound delivery number, then choose .
Check the different statuses of the inbound delivery.
4. Select an item of the inbound delivery, then choose .
You can see the putaway status of the item. The putaway process is now complete, which is why the goods movements status now shows as *Completed*.
5. Choose .
You can see the distribution status of the decentralized warehouse processing. The status for the decentralized warehouse is now *Confirmed*.
6. Choose .

Goods Issue in a Decentralized Warehouse

Purpose

In the Dallas plant of IDES Corp., the warehouse stock is administered in a decentralized warehouse management system. As the Dallas plant is a delivering plant with a closed distribution center, all stock receipts are handled as goods receipts for purchase orders with an external vendor.

In this example, you create a purchase order for trading goods and process the goods receipt from the creation of the inbound delivery, through the putaway of the materials in the warehouse management system and the goods receipt in inventory management. The warehouse management system is located in a different logical system. This is because the distribution center should work independently of the processes in the central system. While processes in Accounting, Purchasing, Inventory Management or Sales and Distribution are executed in the central system (Enterprise Resource Planning System, ERP), the concrete, physical processing of the stock placement occurs in the warehouse management system. The Warehouse Management System, WMS, is located in its own, decentralized system, which communicates with the central system via ALE. The Dallas warehouse complex is set up as just such a decentralized warehouse.

In this example you will work in both the central system and the decentralized system, and switch between the ERP and the WMS.

You can find more information about this process under [i](#) [Page 57].

Process Flow

You can find the data for this process under [?](#) [Page 59].

1. [Creating a Sales Order \[Page 60\]](#)
2. [Creating an Outbound Delivery in the Central System \[Page 62\]](#)
3. [Displaying an Outbound Delivery in a Decentralized Warehouse \[Page 63\]](#)
4. [Creating and Confirming a Transport Order for the Outbound Delivery \[Page 64\]](#)
5. [Posting a Goods Issue \[Page 66\]](#)
6. [Checking an Outbound Delivery in the Central System \[Page 67\]](#)
7. [Billing a Sales Order \[Page 68\]](#)

Additional Process Information

The following additional information is aimed at IDES users with prior knowledge in the areas of Warehouse Management (WM) and ALE.

In the Dallas plant, storage location 0095 is managed as a decentralized warehouse. This is determined by the assignment of the plant – storage location combination for warehouse number 005, which is defined in Customizing. To see the Customizing of the decentralized warehouse management, see the IMG, under *Logistics Execution → Decentralized WMS Integration*. This is where the settings are made for the central and decentralized processing.

In this example, the warehouse is a distribution center for trading goods. In the Dallas plant, PCs and accessories are delivered via purchase orders and picked in the WM-administrated warehouse complex. To ensure permanent availability and the greatest possible independence of the warehouse processes, this warehouse complex should be administered in a separate system. Processes for Inventory Management, Financial Accounting and Controlling are executed in the central R/3 System. Physical warehouse processes such as creating transfer orders for putaway, the picking of outbound deliveries or the planning and monitoring of stock movements are handled separately. The warehouse processes are also executed in an SAP R/3 System in warehouse management. The two systems are represented by different logical systems.

In order to separate the functions, the master data and transaction data must also be split up. Information about the valuation of materials is not relevant to the decentralized warehouse management system (WMS). The basic data of a material must be identical in both systems, but the warehouse-management specific material data, however, are relevant only to the WMS. The material master data are therefore distributed between the central ERP and the decentralized WMS via message type MATMAS_WMS to reduce the number of fields not relevant to the WMS. Transaction data, such as the outbound delivery of a vendor, must exist in both systems. An outbound delivery is generated for the sales order in the ERP. This outbound delivery contains information for picking, and is therefore distributed to the WMS. A transfer order is generated for the picking in Warehouse Management.

The PCs are placed in bulk storage, the monitors are put in a high rack storage area. For this reason, material M-01 has a stock placement and stock removal type indicator in the material master, which controls the picking in warehouse type 004 (bulk storage). Once the transfer order has been created, the physical transfer is carried out, and then confirmed to the warehouse management system through the confirmation of the transfer order. Only when the physical picking from the relevant storage bins has been completed, is the goods issue posted for the outbound delivery. The confirmation of the goods issue distributed from the WMS to the ERP, where it is posted in inventory management.

Communication between the logical systems is defined through the WMS distribution model. You can find the distribution model in Customizing, under *Logistics Execution → Decentralized WMS Integration → Central Processing → Distribution → Generate Distribution Model*. You can also find this distribution model in Customizing for ALE.

The following steps describe how you set up a decentralized warehouse.

1. Create a warehouse number in the central system (do not make a copy), then activate it for decentralized processing. This warehouse number is not used in the ERP. It is required only to assign a delivery to the decentralized processing.
2. Create the warehouse number in the decentralized system and set up the processes for warehouse management.

Additional Process Information

3. Define the interface for warehouse management to inventory management.
4. Define the necessary message categories (for example, the reduced messages for the material master).
5. Generate the distribution model in the central system.
6. Generate the partner agreements in the central system.
7. Distribute the distribution model to the decentralized system.
8. Generate the partner agreements in the central system.
9. Define the number range for the warehouse document in the decentralized system and assign it.
10. Activate the link to the ERP system.
11. Define the conversion of the delivery types between ERP and WMS.
12. Define the requirement types for the WMS.
13. Define the confirmation control for the creation of inbound deliveries.

Data Used During This Process

| Field | Data | Description |
|--------------------|------|---------------------------------------|
| Customer | 4130 | Sold-to party |
| Order type | OR | Standard order |
| Sales organization | 3000 | Purchasing organization North America |
| Plant | 3500 | Dallas plant |
| Storage location | 0095 | Decentralized warehouse in Dallas |
| Warehouse number | 005 | Decentralized warehouse in Dallas |
| Material | M-01 | Sunny Sunny 01 |
| Material | M-08 | Flatscreen MS |
| Material | M-10 | Flatscreen MS |

Creating a Sales Order

Creating a Sales Order

Use

You first create a sales order using several materials.


Procedure

1. Log on to the central system (client 800).
2. Call up the transaction as follows:

| | |
|--------------------|--|
| Menu Path | <i>Logistics → Sales and Distribution → Sales → Order ### Create</i> |
| Transaction | VA01 |

3. Enter the following data:


| Field | Data |
|------------|---------------------|
| Order type | OR (standard order) |

4. Choose .

5. Enter the following data:

| Field | Data |
|---------------------|--------------|
| Sold-to party | 4130 |
| PO number | K-WMS-01 |
| Purchase order date | Today's date |
| Material | M-01 |
| Order quantity | 5 |
| Material | M-10 |
| Order quantity | 5 |
| Plant | 3500 |
| Storage location | 0095 |



6. Choose .

7. Position your cursor on sales area 3000/10/00 in the dialog box and choose .

8. Select the items, then choose .

9. Choose the *Schedule lines* tab page.

10. Select the item with the confirmed order quantity, then choose .



11. Choose , then choose  *Shipping*.

To ensure that the most important shipping activities begin on time, for example, picking, loading and transport, the R/3 System automatically executes delivery scheduling. You can see the necessary entries for this shipment.

Creating a Sales Order

12. Make a note of the *Material availability date*, as you will need this as a selection criterion to create the delivery.

If the Transport planning date is earlier than the material availability date, you can create the delivery on this date. You can also see the shipping point responsible for delivering this order.

13. Return to the *Create Standard Order: Overview* screen, then choose *Next item* and repeat your entries as of step 8 for the next item.
14. Choose , then note the sales order number.
15. Choose .

Creating an Outbound Delivery in a Central System

Creating an Outbound Delivery in a Central System

1. Call up the transaction as follows:

| | |
|-------------------------|--|
| Menu Path | <i>Logistics → Logistics Execution → Outbound Process → Goods Issue for Outbound Delivery → Outbound Delivery → Create → Single Document → With Reference to Sales Order</i> |
| Transaction Code | VL01N |

2. Enter the following data:

| Field | Data |
|----------------|---|
| Shipping point | 3500 |
| Selection date | The material availability date or the transport planning date of the first item |
| Order | Your order number |

3. Choose .

Check the different statuses of the inbound delivery.


4. Select an item of the outbound delivery, then choose .

You can see the picking status of the item.


The warehouse number assigned to this outbound delivery is the decentralized warehouse in Dallas. As this is a decentralized warehouse, the *Picking* status in the central system is *Not relevant for picking*.

5. Choose .

You can see the distribution status of the decentralized warehouse processing. As the warehouse number for Dallas is decentralized, this outbound delivery is relevant for distribution and therefore has the status *Relevant*.

6. Choose , then make a note of the outbound delivery number.

When you save your entries, the inbound delivery is sent via ALE to the decentralized system. This changes the status of the outbound delivery in the central system. Check the status of the outbound delivery.

7. Choose *Delivery → Display*, then choose .

8. To check the distribution status of the decentralized warehouse processing, choose .

The outbound delivery has now been distributed to the decentralized system and therefore has the status *Distributed*.

9. Choose .

Displaying an Outbound Delivery in a Decentralized Warehouse



Prerequisites


You should now switch to the decentralized WMS (client 812) to pick the delivery. You create a transfer request for the outbound delivery, then you confirm this once the outbound delivery has been completed.

Procedure

1. Sign in to the decentralized WMS (client 812) with the User **WMS-User** and the Password **WELCOME**.
2. Call up the transaction as follows:

| | |
|-------------------------|---|
| Menu Path | <i>Logistics → Logistics Execution → Outbound Process → Goods Issue for Outbound Delivery → Outbound Delivery → Display</i> |
| Transaction Code | VL03N |

3. Enter your outbound delivery number, then choose .
4. Select an item, then choose  to display the status of the outbound delivery.

As the outbound delivery is only relevant for the picking process in the decentralized system, it has picking status *Not yet picked* and a status for Warehouse Management Activities *WM-TO required*.
5. Choose  and remain in the decentralized system.

Creating and Confirming a Transfer Order for Outbound Delivery


Creating and Confirming a Transfer Order for Outbound Delivery

1. Call up the transaction as follows:

| | |
|-------------------------|---|
| Menu Path | <i>Logistics → Logistics Execution → Outbound Process → Goods Issue for Outbound Delivery → Picking → Create Transfer Order → Single Document</i> |
| Transaction Code | LT03 |

2. Enter the following data:



| Field | Data |
|------------------|-------------------------------|
| Warehouse number | 005 |
| Delivery | Your outbound delivery number |
| Select items | Select |
| Process Flow | Foreground |

3. Choose .
4. Select the first item, then choose *Stor.type srch seq..*

You see an overview of the picking of this material. In the *Storage type search* area, you see the sequence of warehouse type 004 (bulk storage) and 001 (high rack storage), which are to be searched for the requested material. Material M-01 is generally kept in bulk storage, which is why an indicator in the material master proposes this search sequence. However, no partial pallets are to be kept in bulk storage, so any pallets with a quantity of less than 25 pieces are placed in the high storage rack. As some of the stock could be in this storage type, the search is continued in the high rack storage, once the bulk storage area has been searched.

5. Choose .

You can see that the source storage type is a bulk storage location in storage type 004, from which the entire pallet is to be picked. As only a partial quantity is removed, a partial pallet remains. The required quantity for the delivery is transferred to the goods issue zone (storage type 916), and the partial pallet is transferred to the high rack storage (storage type 001).

6. Confirm the warning message.
7. Choose *Generate + Next mat..*
8. To save the remaining items in the background, choose .
9. Make a note of the transfer order number.
10. Choose .

The pallets are now transferred to the goods issue zone, and the partial pallet is returned to stock. Once this transfer has been completed, you can confirm the transfer order.

11. Call up the transaction as follows:

Creating and Confirming a Transfer Order for Outbound Delivery


| | |
|-------------------------|--|
| Menu Path | From the <i>Picking</i> node, choose → <i>Confirm Transfer Order</i> → <i>Single Document</i> → <i>In One Step</i> |
| Transaction Code | LT12 |


12. Enter the following data:

| Field | Data |
|-----------------------|----------------------------|
| Transfer order no. | Your transfer order number |
| Warehouse number | 005 |
| Foreground/background | Foreground |

13. Choose *Input list*.

You now confirm the entire transfer order. You can also confirm the items individually.

14. To confirm that the picking is now complete, choose .

15. Choose .

Posting the Goods Issue

Posting the Goods Issue

Prerequisites

You now need to post the goods issue for the delivery. You execute the posting in the decentralized warehouse, the delivery is then sent to the central system, where it is posted in Inventory Management as a goods issue for the delivery. This step can occur when the transfer order is confirmed.


Procedure

1. Call up the transaction as follows:

| | |
|-------------------------|--|
| Menu Path | <i>Logistics → Logistics Execution → Outbound Process → Goods Issue for Outbound Delivery → Outbound Delivery → Change → Single Document</i> |
| Transaction Code | VL02N |

2. Enter your outbound delivery number, then choose *Post goods issue*.

The system confirms that outbound delivery WMS XXX has been saved.

3. Choose .

Checking the Outbound Delivery in a Central System




Use

Once the picking has been confirmed, the outbound delivery is distributed to the central system, where it is posted with the relevant goods issue quantity.

Procedure

1. Switch to the central system (client 800)
2. Call up the transaction as follows:

| | |
|--------------------|---|
| Menu Path | <i>Logistics → Sales and Distribution → Shipping and Transportation → Outbound Delivery → Display</i> |
| Transaction | VL03N |


3. Enter your delivery number, then choose .
Check the status of the outbound delivery.
4. Choose .
You can see the decentralized warehouse processing status *confirmed*.
5. Choose .

Billing a Sales Order**Billing a Sales Order**



1. Call up the transaction as follows:

| | |
|-------------------------|---|
| Menu Path | <i>Logistics → Sales and Distribution → Billing → Billing Document → Create</i> |
| Transaction Code | VF01 |

Enter your outbound delivery number, if it has not already been defaulted by the R/3 System.

2. Choose .

The system branches to the billing items overview screen.

3. Select both of the billing items, then choose .
4. Choose .