Materials Management (MM)

ADDON.IDESMM

Release 4.6C

SAP™

Copyright

Icons

Icon	Meaning
	Caution
	Example
	Note
	Recommendation
	Syntax

Typographic Conventions

Type Style	Description
Example text	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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Valuation For A Single Batch

Purpose

If a material is subject to split valuation, the material is managed in different sub-stocks, where each sub-stock is valuated separately.

Every transaction that is relevant for the valuation – goods receipt, goods issue, invoice receipt or physical inventory – is performed at sub-stock level.

When you process one of these transactions, you must always enter the sub-stock that should be used. In this way, the value change is limited to the sub-stock you choose. All other sub-stocks remain unchanged.

The total stock and the sub-stocks are both updated. The value of the total stock is calculated as the sum of the stock values and stock quantities of all sub-stocks. Valuation for a single batch is a special form of valuation. In valuation for a single batch, one valuation record exists for each batch.

In the following exercises you will create two purchase orders with different prices for the same material. You then post the goods receipt to different batches. You then check the prices at plant level and batch level.

You can find more information about this process under [Page 17].

Process Flow

You can find the data for this process under [Page 18].

1. Creating a Purchase Order for the Material [Page 19]
2. Creating the Second Purchase Order with a Different Price [Page 21]
3. Posting the Goods Receipt for the Purchase Order [Page 23]
4. Displaying the Accounting Data for Plant Level or Batch Level [Page 25]
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Additional Process Information

Information about split valuation

For certain materials, it is necessary to valuate the different stocks separately in a special valuation area. There can be several reasons for this:

- The material comes from different sources.
- The material has different quality levels.
- The material has different statuses.
- Differentiation between materials produced in-house, and materials produced externally.
- Differentiation between different deliveries.

Note that you must make the following prerequisite settings in the system:

- *Material Master → Accounting View*
- The *Valuation Category* indicator is set to *X* (autom. Batch).
- The *Price Control* indicator is set to *V* (Moving average price).
- The accounting view is displayed in the *Display Accounting Data For Plant Level Or Batch Level* process step.

Data Used During This Process

Field	Data	Description
Currency	EUR	
Material number	CH_1103	Printex
Movement type	101	Goods receipt for purchase order
Order type	NB	Standard purchase order
Plant	1100	Berlin
Purchasing group	025	Bering, H.
Purchasing organization	1000	IDES Deutschland
Company Code	1000	IDES AG
Storage location	0001	Storage location
Vendor account (1.) Vendor account (2.)	1060 1032	Chemische Werke Halle Wesson Ltd.

Creating A Purchase Order For The Material

1. Call up the transaction as follows:

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

   You now have the option of setting default entries for the PO document. To do this, choose Default Settings for Order Document Fields [Page 179].

   If you do modify your personal settings, this could mean that the entries you see on your screens might differ from those described in the IDES processes. To avoid this situation, when you have completed this process we strongly advise you to reset any changes you make to your personal settings.

2. Enter the following data:

Field	Data
	Standard PO
Vendor	1060
Document date	Today's date

3. Choose .

4. If required, you can expand the header detail area by choosing *Header.*

5. On the *Org. Data* tab of the header data area, use the F4 input help to enter the following data:

Field	Data
Purchasing org.	IDES Germany
Purchasing group	Bering, H.
Company code	IDES AG

6. If required, you can expand the item overview area, by choosing *Item overview.*

7. Enter the following data:

Field	Data
Material	CH_1103
PO quantity	1000
C (Category of delivery date)	D
Delivery date	One month from today's date
Net price	20
Currency	EUR
Plant	1100

Creating A Purchase Order For The Material

Storage location	0001

8. Choose .

   It is possible that the material CH_1103 already has an info record that overwrites the amount you have just entered. If necessary, correct the net price, then choose .

9. If required, you can expand the item detail area by choosing *Item detail.*
10. On the *Invoice* tab page, select *GR-based IV* (Goods receipt based invoice verification).
11. Choose .

    The system confirms the transaction and displays the purchase order number. Make a note of this number.

12. Choose until the overview tree appears.

Creating The Second Purchase Order With A Different Price

13. Call up the transaction as follows:

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

14. Enter the following data:

Field	Data
	Standard PO
Vendor	1032
Document date	Today's date

15. Choose .
16. If required, you can expand the header detail area by choosing *Header.*
17. On the *Org. Data* tab of the header data area, use the F4 input help to enter the following data:

Field	Data
Purchasing org.	IDES Germany
Purchasing group	Bering, H.
Company code	IDES AG

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

Field	Data
Material	CH_1103
PO quantity	1000
C (Category of delivery date)	D
Delivery date	One month from today's date
Net price	25
Currency	EUR
Plant	1100
Storage location	0001

20. Choose .

Creating The Second Purchase Order With A Different Price

It is possible that the material CH_1103 already has an info record that overwrites the amount you have just entered. If necessary, correct the net price, then choose .

21. If required, you can expand the item detail area by choosing *Item detail.*
22. On the *Invoice* tab page, select *GR-based IV* (Goods receipt based invoice verification).
23. Choose .

    The system confirms the transaction and displays the purchase order number. Make a note of this number.
24. Choose until the overview tree appears.

Posting The Goods Receipt For The Purchase Order

1. Call up the transaction as follows:

Menu Path	From the *Inventory Management* node, choose *Goods Movement* → *Goods Receipt* → *For Purchase Order* → *PO Number Known.*
Transaction Code	MIGO

2. Enter the following data:

Field	Data
Purchase order	Number of your first purchase order

3. Choose .

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

   The purchase order items are transferred to the item overview.

   The PO number you entered appears in the *Current purchase order* field, and the *PO number* field is once again ready to accept input.

   If you click on individual items, the system displays an item data screen (allowing you to change the incoming quantity, for example).

4. In the header data area of the *General* tab page, enter the following data:

Field	Data
Document date	Today's date
Posting date	Today's date

5. Select your item, then choose the *Wk* tab page at the bottom of the screen to check your organizational data.

6. Enter the following data:

Field	Data
Movement type	101
Plant	1100
Storage location	0001

7. Choose the *Batch* tab page.

8. Choose *Classification*.

9. For the characteristic *Color Pigment*, select the value *White* using the F4 input help.

10. Choose

11. To confirm your entries, choose .

Posting The Goods Receipt For The Purchase Order

If stocks of the material are low, or the material is missing, then the system displays a message informing you that the shortfall quantity control has been notified. Acknowledge this message.

If you receive a message concerning a price change, confirm the message to accept it.

12. Choose .

    The system has allocated a batch number to the item.

13. Set the *Item OK* indicator for your item in the item overview area.

    If the *OK* indicator in the item overview area is not active, either close the item detail area or select *Item OK* at the bottom of the item detail area.

14. Choose .

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

15. Repeat the process steps 2 – 14 for your second purchase order.

16. Choose until the overview tree appears.

Displaying The Accounting Data For Plant Level Or Batch Level

1. Call up the transaction as follows:

Menu Path	From the *Materials Management* node, choose *Material Master* → *Material* → *Display* → *Display Current*
Transaction Code	MM03

2. Enter the following data:

Field	Data
Material	CH_1103

3. Choose .
4. In the *Select View(s)* dialog box, select *Accounting 1*, then choose .
5. In the *Organizational Levels* dialog box, enter the following data:

Field	Data
Plant	1100

6. Choose .

   Note the *Moving Average Price* on the *Display Material CH_1103 (Raw material)* screen.

7. Choose Organizational Levels.
8. In the *Organizational Levels* dialog box, in the *Valuation type* field, choose the input help.
9. Select a batch and choose .
10. In the *Organizational Levels* dialog box, choose .

    Note that the *Moving Average Price* has changed.

11. Repeat steps 7 – 10 for the other batches.

    Note the moving prices and the total value. These are different for each batch because the material has been purchased with different prices.

    Check the valuations of all batches present for this plant. You can see that the moving price at plant level is the average value of all moving prices at batch level.

12. Choose until the overview tree appears.

Valuation Record Of The Material: Overview

1. Call up the transaction as follows:

Menu Path	From the *Material Master* node, choose *Others* → *Materials List*.
Transaction Code	MM60

2. Enter the following data:

Field	Data
Material	CH_1103
Plant	1100

3. Choose .

   The system displays the valuation records for each batch.

4. Choose until the overview tree appears.

Material Master Change Management and Planning

Purpose

You can change the material master using one of three different methods. The easiest method is to change the required fields in the material master and activate these changes immediately. Changes can also be planned in advance. You do this either by entering a planned change for a single material master (with the date on which the changes are activated) or using the Engineering Change Management function. In this case, changes to several objects (materials, BOMs, task lists, and so on) can be grouped together in a change master record and activated on a defined date.

Process Flow

You can find the data for this process under [Page 28].

1. Changing the Material Master [Page 29]
2. Planning Changes to the Material Master [Page 30]
3. Displaying the Change Master Record [Page 31]
4. Displaying Planned Changes [Page 32]
5. Activating Planned Changes [Page 33]

Data Used During This Process

Field	Europe	North America
Plant	1000	3000
Material	1300-520	1300-520
Change master record	MMCM-PUR	MMCM-PUR

Changing the Material Master

1. Call up the transaction as follows:

Menu Path	*Logistics* → *Materials Management* → *Material Master* → *Material* → *Change* → *Immediately*
Transaction Code	MM02

2. Enter the following data:

Field	Europe	North America
Material	1300-520	1300-520

3. Choose *Select view(s)*.
4. Choose *Purchasing*.
5. Choose ✔.
6. In the *Organizational Levels* dialog box, enter the following data:

Field	Europe	North America
Plant	1000	3000

7. Choose ✔.
8. To display all possible entries, place the cursor in the *Plant-sp. matl status* field and choose F4 input help.
9. In the *Plant-Specific Material Status* dialog box, select status *01* (blocked for procurement/warehouse), and choose ✔.
10. Choose 💾.

    The system informs you that the material has been changed.
11. Choose ⟲ until the overview tree appears.

Planning Material Master Changes

1. Call up the transaction as follows:

Menu Path	From the *Material* node, choose *Change* → *Schedule*
Transaction Code	MM12

2. Enter the following data:

Field	Europe	North America
Material	1300-520	1300-520
Chge sched. for	Today's date + 1 week	Today's date + 1 week

As an alternative, you can use a change master record (use the *Change number* field) to define the planned change date.

3. Choose *Select view(s)*.
4. Choose *Purchasing*.
5. Choose ✔.
6. In the *Organizational Levels* dialog box, enter the following data:

Field	Europe	North America
Plant	1000	3000

7. Choose ✔.
8. To display all possible entries, place the cursor in the *Plant-sp. matl status* field, and choose the F4 input help.
9. In the *Plant-Specific Material Status* dialog box, select status *BP* (Blocked for Purchasing), and choose ✔.

   You have now blocked the purchasing activities for this material beginning on the specified date.

10. Choose 💾.

    The system informs you that the data will be changed on the specified date.

11. Choose ⇦ until the overview tree appears.

Displaying the Change Master Record

1. Call up the transaction as follows:

Menu Path	From the *Logistics* node, choose *Central Functions* → *Engineering Change Management* → *Change Number* → *Display*
Transaction Code	CC03

2. Enter the following data:

Field	Europe	North America
Change number	MMCM-PUR	MMCM-PUR

3. Choose .

   The system displays the general data for the change master record.

4. Choose *Object types*.

   The system displays a list of the different object types for which the change master is valid. The change master can be used to plan changes for the material master.

5. Choose until the overview tree appears.

Displaying Planned Changes

1. Call up the transaction as follows:

Menu Path	From the *Materials Management* node, choose *Material Master* → *Material* → *Display Changes* → *Planned Changes*
Transaction Code	MM14

2. Enter the following data:

Field	**Europe**	**North America**
Material	1300-520	1300-520
Change number	No selection	No selection
Plant	1000	3000
Changes scheduled until	Two weeks from today	Two weeks from today

   If necessary, delete the entry in the *Change number* field.

3. Choose .

   The system displays all the changes scheduled to take place on or before this date. Your changes are displayed with your logon ID.

4. Position your cursor on the line containing your logon ID, then choose .

   The system displays the changes you have made (in this case the change to the plant-specific material status from 01 to BP in the relevant plant).

5. Choose until the overview tree appears.

Activating Planned Changes

1. Call up the transaction as follows:

Menu Path	From the *Material* node, choose *Change* → *Activate*
Transaction Code	MM13

2. Enter the following data:

Field	Europe	North America
Material	1300-520	1300-520
Activate to	Today's date + 1 week	Today's date + 1 week

3. Choose .

   The system informs you that the material has been changed.

4. Choose until the overview tree appears.

Creating a Material Master

Purpose

In this IDES scenario, you create a new material in the Material Master, then make changes to it and activate these changes immediately.

Process Flow

You can find the data for this process under [Page 35].

1. Creating the Material Master [Page 36]
2. Changing the Material Master [Page 38]

Data Used During This Process

Field	Europe	North America
Plant	1000	3000
Purchasing group	001	001

Creating a Material Master

12. Call up the transaction as follows:

Menu Path	*Logistics → Materials Management → Material Master → Material → Create (General) → Immediately*
Transaction Code	MM01

13. Enter the following data:

Field	Europe	North America
Material	User-defined short text	User-defined short text
Industry sector	Mechanical engineering	Mechanical engineering
Material type	Raw material	Raw material

14. Choose .

    The *Select Views* dialog box appears.

15. Select *Basic data 1, Purchasing, and Accounting 1*, then choose .
16. In the *Organizational Levels* dialog box, enter the following data:

Field	Europe	North America
Plant	1000	3000

17. Choose .
18. Enter the following data:

Field	Europe	North America
Material	User-defined short text	User-defined short text
Base unit of measure	PC	UN
Material group	01005	01005

19. Choose .
20. Enter the following data:

Field	Europe	North America
Purchasing group	001	001

21. Choose .
22. Enter the following data:

Field	Europe	North America
Valuation class	3000	3000
Price control	V	V
Moving average price	Any price	Any price

23. Choose .

    The system informs you that the material has been created. Make a note of this material description.

24. Choose until the overview tree appears.

Changing the Material Master

1. Call up the transaction as follows:

Menu Path	From the *Material Master* node, choose *Material* → *Change* → *Immediately*.
Transaction Code	MM02

2. Enter the following data:

Field	Europe	North America
Material	Your material description	Your material description

3. Choose *Select view(s)*.

   The *Select Views* dialog box appears.

4. Choose *Purchasing*, then choose ✔.
5. In the *Organizational Levels* dialog box, enter the following data:

Field	Europe	North America
Plant	1000	3000

6. Choose ✔.
7. In the *Purchasing group* field, choose the F4 input help.
8. In the *Purchasing Group* dialog box, select PGr *004 (Eiffel,J.)*, then choose .
9. Choose .

   The system informs you that the material has been changed.

10. Choose until the overview tree appears.

Vendor Evaluation

Purpose

You can evaluate vendors, compare the evaluations of several vendors, and automatically run a new evaluation.

In this process, you display the results of the vendor evaluation for several vendors. Subsequently a new evaluation is performed for one vendor. The results of the single evaluation criteria are also displayed.

You can find more information about this process under [Page 40].

Process Flow

You can find the data for this process under [Page 41].

1. Displaying Ranking Lists of the Evaluation Results [Page 42]
2. Performing a New Evaluation Automatically and Displaying the Log [Page 43]

Additional Process Information

Vendor evaluations are best illustrated by assigning a vendor to a purchase requisition. You can, for example, open a new session and perform a vendor evaluation there, while the price simulation is displayed in the first session. The transaction *Standard purchase order with shipping notification* is most suited to this.

Data Used During This Process

Field	Europe	North America
Company code	1000	3000
Plant	1000	3000
Purchasing organization	1000	3000
Vendor	1005, 1045, 1050	3000, 3100, 3910

Displaying Ranking Lists of the Evaluation Results

1. Call up the transaction as follows:

Menu Path	*Logistics → Materials Management → Purchasing → Master Data → Vendor Evaluation → List Displays → Ranking Lists*
Transaction Code	ME65, ME62

2. Enter the following data:

Field	Europe	North America
Purchasing organization	1000	3000
Vendor(s) to	1000 2000	3000 3910

3. Choose .

   A ranking list for the vendor is displayed.

4. Select a vendor, then choose *Evaluation*.

   An overview of the main criteria is displayed on the *Display Vendor Evaluation: Overview of Main Criteria* screen.

5. If you want to display the subcriteria in detail, select the relevant main criteria and choose .

   Some subcriteria are automatically entered from the statistic file, others are maintained manually using the Info record (For example, the subcriteria for *Service*).

6. Choose until the overview tree appears.

Performing a New Evaluation Automatically and Displaying the Log

1. Call up the transaction as follows:

Menu Path	From the *Vendor Evaluation* node, choose *Automatic New Evaluation*
Transaction Code	ME63

2. Enter the following data:

Field	Europe	North America
Vendor	1000	3000
Purchasing organization	1000	3000

3. Choose .

An overview of the old and the new evaluation is shown on the *Scores for Semi-Automatic and Automatic Subcriteria* screen.

4. Choose *All logs*.

A list of all materials with the relevant evaluations is displayed.

5. Choose until the overview tree appears.

In the *Automatic Evaluation* dialog box, choose *No*.

Purchasing Information System

Purpose

In this process, you perform a standard analysis with SAP graphics. You also define a flexible analysis. Subsequently you will carry out planning.

Process Flow

You can find the data for this process under [Page 45].

1. Displaying a Standard Analysis with SAP graphics [Page 46]
2. Defining Flexible Analyses [Page 48]

Data Used During This Process

Field	Europe	North America
Company code	1000	3000
Purchasing organization	1000	3000
Currency	EUR	USD

Displaying a Standard Analysis with SAP Graphics

1. Call up the transaction as follows:

Menu Path	*Logistics → Logistics Controlling → Purchasing Information System → Standard Analyses → Purchasing Group*
Transaction	MCE1

2. Enter the following data:

Field	Europe	North America
Purch.organization from to	0001 1000	1 1000
Period to analyze	Any period	Any period

All other fields must remain empty.

3. Choose .

   The system displays the results of the analysis on the *Purchasing Group Analysis: Basic List* screen.

4. Choose .
5. Enter a currency in the dialog box (for example, USD or EUR), then choose .
6. Position your cursor on one of the purchasing groups (object), then choose *View → Drill down by → Month.*
7. On the *Purchasing Group Analysis: Drilldown* screen, double-click on one of the key figures to display all available key figures. To return to the analysis, choose .
8. Select a key figure (For example *Order value*), then choose *Edit → Cumulative curve*.

   The *SAP Statistic Graphics* screen appears.

9. To return to the analysis, choose .
10. Select the key figure *Order value*, then choose *Edit → Comparisons → Planned/Actual*.
11. In the *Planned/Actual Comparison* dialog box, enter version `001`, then choose .

    The system shows a Planned/Actual comparison in a dialog box.

12. To quit the *Planned/Actual Comparison* screen, choose *Close*.
13. Choose *Settings → Value display → Percent*.
14. Choose *Purchas.Grp.Analysis → Export → Transfer to XXL*.
15. In the dialog box, select the characteristics to be exported, then choose .
16. In the dialog box, select a table format, then choose .
17. Select a processing mode that is possible on your PC, then choose .

The system confirms that the data have been exported. The existing data in the list cannot be processed. However, you can add new data.

18. Choose .
19. To quit the list display, choose .

    Do NOT save the analysis.

20. Choose until the overview tree appears.

Defining Flexible Analyses

Use

Using flexible analyses you can create your own reports, define layouts, and generate new key figures using mathematical formulae that refer to present key figures.

Procedure

1. Call up the transaction as follows:

Menu Path	From the *Flexible Analyses* node, choose *Evaluation* → *Create.*
Transaction Code	MCDA, MCDG

2. Enter the following data:

Field	Europe	North America
Evaluation structure	S011	S011
Evaluation	Any name	Any name
Description	Any text	Any text

3. Choose .
4. Choose *Characteristics*, then select a characteristic.
5. Choose *Copy+Close*, then choose *Copy.*
6. Choose *Key Figures*, then select your preferred key figures (for example *Order value* and *PO Items*) from the selection list.
7. Choose *Copy+Close*, then choose *Copy.*
8. Position your cursor on a key figure, then choose *Insert formula.*
9. In the *Name* field, enter any name, for example, *Average*.
10. To copy a key figure (for example *Order value*) double-click on it.
11. Enter an arithmetical operator (/) then double-click on another key figure (for example, *PO Items*).

    In this case, the formula calculates the average purchase order value for each purchase order.
12. Choose *Copy*.
13. To generate the analysis, choose *Evaluation* → *Generate*.

    We do not recommend you to create too many formulas in this IDES process. Create only a few analyses and display these by choosing *Evaluation* → *Execute*.

    The *Evaluate Transport* dialog box appears.
14. Choose *Cancel*.

15. Choose .
16. From the *Flexible Analysis* node, choose *Evaluation* → *Execute.*
17. Enter the following data:

Field	Europe	North America
Evaluation structure	S011	S011
Evaluation	The name you entered previously	The name you entered previously

18. Choose .
19. Accept the default values proposed by the system, then choose again.

    Your list / evaluation is prepared according to your entries.
20. Choose .
21. To close the *Exit Report* dialog box, choose *Yes*.
22. Choose until the overview tree appears.

The Enjoy Interface in the Procurement Process

Purpose

As of an earlier Release, the user interface for the central materials management functions has been completely redesigned and simplified within the framework of the Enjoy SAP initiative. The purpose of this redesign was to facilitate an accelerated and more intuitive use of MM functions – particularly on the part of the occasional user – as a major step towards optimizing the logistical processes within an enterprise.

The following process description outlines the new, user-friendly design in the procurement process within materials management.

As of an earlier Release, users have the option of working with a role-based menu. Such a user-specific menu is usually restricted to those activities an employee needs to perform the tasks for which he or she is responsible. This approach considerably simplifies (thus also speeding up) user interaction with the system. The effect of this is an increased degree of acceptance, particularly among inexperienced users.

Prerequisites

The technical prerequisite for working with this process description is that you install a SAPGUI Version 4.6x You must also use a 4.6x R/3 Release. We also recommend the use of the ”New Visual Design” interface. However, this is not a prerequisite for understanding the process.

The steps in the process do not build on each other. You can regard each step in the procurement process described in isolation.

Process Flow

You can find the data for this process under [Page 51].

1. Setting Up a Role-Based Menu Using the Enjoy Interface [Page 52]
2. Document Overview: Example (Creation of Purchase Order): Selection Variant, Sorting, and Display Variant [Page 53]
3. Creating a Purchase Order Using the Enjoy Interface [Page 56]
4. Entering a GR Against a PO Using the Enjoy Interface [Page 60]
5. Entering the Invoice [Page 63]

Data Used During This Process

Field	Data	Description
Activity group	IDES_MM3050	User role
Vendors	1007 1081 1082	Bike Retail & Co. Harley-Davidson Motorcycles Inc. Louis Bike Parts
Purchasing organization	1000	IDES Germany
Plant	1000	Hamburg
Storage location	0001	Material stores
Purchasing group	030	Oswald, G.
PO number	4500009512	for goods receipt
PO number	4500009513	for invoice receipt
Material	1300-260 1300-330 1300-370 1300-372 1300-380	HD rear shock absorbers HD GLAD BOY rear part, standard HD saddle bag, leather HD saddle bag ”Special” HD chrome set
Variant name	BEST_030	
Document type	Standard PO	
Company code	1000	IDES AG

Setting up a Role-Based Menu Using the Enjoy Interface

Use

The purpose of role-based (user-specific) menus is to assign each R/3 System user precisely those activities needed to carry out the tasks for which he or she is responsible. These activities can then be offered in a process-oriented structure that makes them easier to find (in comparison with accessing via the standard menu). As a result, the inexperienced user (in particular) is no longer confronted by the entire SAP menu, with its all-embracing structure and panoply of functions. Instead, a vastly simplified, task-specific view is offered, which exactly covers his or her field of responsibility.

For simplicity's sake, the following example is based on a role covering the following three fields of activity:

- Buyer
- Employee in the warehouse/stores
- Employee in invoice verification

Thus, just a once-only role assignment is necessary to carry out the process, whereas in practice three different members of staff would be involved.

Prerequisites

To be able to assign a specific role to your user, you must have the relevant authorizations. If you cannot carry out the process step described in the following, please contact your system administrator. They need to assign the role *IDES_MM3050* to your user.

Procedure

1. To work with the role-based menu, choose .

   The activity group *IDES_MM3050* is transferred to your work area.

   You can use the (*SAP menu)* and (*User menu)* icons to switch between the general SAP overview tree and your user-specific tree at any time.

   In the following, you can elect to use either the standard or the user-specific menu.

Document Overview: Example (Creation of Purchase Order)

Use

A member of the Purchasing staff can use the document overview as a selection area either for reference documents from which he or she can adopt data in a new document that is to be created, or for documents that are awaiting processing. You can initially choose the documents using selection variants and then influence the way the lists of documents are presented by means of display variants. These functions are also available for other Enjoy activities. They are illustrated taking the creation of a purchase order as an example.

Procedure

1. Call up the transaction as follows:

Menu path from the standard SAP Menu	*Logistics → Materials Management → Purchasing → Purchase Order → Create → Vendor/Supplying Plant Known.*
Menu path from the user menu IDES_MM3050	*Employee in Purchasing → Purchase Order → Enter Purchase Order.*
Transaction Code	ME21N

   In the standard system, explanatory documentation appears on the left side of the screen.

2. Choose *Close* in the left-hand area of the screen to hide this documentation.

   This setting will be stored for the future for your user ID.

   You can reactivate the documentation at any time by clicking *Help*.

3. Choose *Document overview on*.

   The *document overview* now appears in the left-hand part of the screen. Adjust the window to suit your requirements. The right-hand part of the screen contains the actual work area for the activity.

   You are responsible for the purchasing group 030(Oswald, G), belonging to purchasing organization 1000 (IDES Germany) and want to generate a list of the purchase orders created by this group as reference documents.

4. Choose to the right of .

5. Choose *Purchase Orders* from the menu that appears.

6. Enter the following data:

Field	Data
Document date	01.01.99

Document Overview: Example (Creation of Purchase Order)

Document date to	Today's date
Purchasing group	030
Purchasing organization	1000

7. Choose .
8. Enter the following data:

Field	Data
Variant name	BEST_030
Description	Any short text (e.g. POs PURGRP Oswald)

9. Choose .

   Choose *Yes* to skip any warning messages.

   The selection variant is now saved. In future, it will be offered to you by the system for selection in the document overview. In addition, the documents will be suggested in accordance with the last-used selection variant when you invoke the activity.

10. Choose .

    In the document overview of the *Create Purchase Order* screen, a list of the selected PO documents appears. Since you will know the names of the materials you want to order, but not necessarily their numbers, you need a document overview that is sorted by material description.

11. In the document overview area, choose .

    In the standard system, document lists are sorted by purchasing document number in the *Define Sort Order* box. Accordingly, the entry *Purchasing document* appears in the left-hand part of the screen under *Sort Criteria.*

12. Select the entry *Purchasing document*, then choose .

    The *Purchasing document* field disappears from the list display of the *Column Set* area.

13. Now select the fields *Short text* and *Purchasing document* in the *Column Set* area on the right.
14. Choose .

    The *Short text* and *Purchasing document* fields are included in the list display for the *Sort Criteria* area.

15. Choose .

    The document list in the document overview area is now sorted by *Purchasing document* and the subgroup *Material description*. To display the short descriptive text for the material, click the *triangular icon* next to the purchasing document number. To facilitate your choice of document items, you can also display fields such as the *Material number*, *Vendor name, Plant, and Document date/number*.

16. Choose to the right of .
17. Choose *Change Layout* from the menu that appears.

In the *Column set* area of the *Change Layout* dialog box, the system offers you a selection of display fields from the PO documents.

18. Select the *Material*, *Vendor name, Plant,* and *Document date* fields and choose .

    The fields are now included in the *Columns* area.

19. Choose .

    The system displays the selected fields for all purchasing documents.

20. Choose to the right of .
21. Choose *Save Layout* from the menu that appears.
22. In the dialog box, enter the following data:

Field	Data
Layout	BEST_030
User-specific	Select
Description	Any entry

23. Choose *Save*.

    In future, this layout will always be used as the initial variant for the activity.

24. Choose to the right of .
25. Choose *Manage Layout* from the menu that appears.
26. Double-click to select your layout.

    The system now identifies the layout as the default layout with a .

27. Choose .
28. Choose until the overview tree appears.

Creating a Purchase Order Using the Enjoy Interface

Use

In the procurement process, the creation of a purchase order and its issue to a vendor represents the notification to that vendor of a concrete requirement of a certain quantity of materials or services at a certain price and on a certain date.

Procedure

1. Call up the transaction as follows:

Menu path from the standard SAP Menu	*Logistics → Materials Management → Purchasing → Purchase Order → Create → Vendor/Supplying Plant Known.*
Menu path from the user menu IDES_MM3050	*Employee in Purchasing → Purchase Order → Enter Purchase Order.*
Transaction Code	ME21N, ME22N

   The system lists the purchasing documents in accordance with the selection and display variant created in the previous process step.

2. Adjust the size of the *Document Overview* area and the column width of the display fields to suit your requirements.

   In the following steps, you now have the opportunity to specify some default values.

3. To do so, choose *Personal setting.*
4. Choose the *Default Values* tab page.
5. On the *PO Header* tab page, enter the following data using the input help:

Field	Data
Document type	Standard PO
Purchasing organization	IDES Deutschland
Purchasing group	Oswald, G.
Company code	IDES AG

6. On the *PO item* tab page, enter the following data:

Field	Data
Delivery date	Three weeks from today
Plant	1000
Storage location	0001

7. Choose .

The system adopts the default values you entered in the header detail and the item overview areas. The system will now suggest the data entered every time this transaction is invoked.

Now enter a PO item manually.

8. Enter the following data:

Field	Data
Vendor	1082
Document date	Today's date

9. Choose .
10. To open the item overview area, choose *Item overview*.
11. In the item overview area, enter the following data:

Field	Data
Material	1300-330
PO quantity	10
Net price	208,45

12. Choose .

    You can now adopt any PO items that appear in the *Document overview* in the new document you are creating by selecting the items with the cursor and then choosing .

13. To view the single materials from the purchasing documents, choose the triangular icon before you choose the purchase document numbers.
14. Select the purchasing document number with the material *HD Rear Shock Absorber (1300-260)* supplied by the vendor *Louis Bike Parts (1082)* in the document overview.
15. To copy the item into the work area, choose .

    The system now adopts only the item data from the reference items. The header data of the purchasing document is not changed any further, even if the reference item comes from a document with a different vendor.

16. Make a note of the info record number and the net price of an item of your choice.

    You may find it useful to change the column arrangement. For example, for a clearer overview, you could position the *Info record* column next to the *Net price* column. To do so, select the column heading *Info record* and drag it next to the *Net price* column, keeping the left-hand mouse button depressed.

17. Delete the entry in the *Vendor* field and replace it with the vendor *1007 (Bike Retail & Co.).*
18. Choose .

    The system adopts the relevant vendor data (such as info record and net price).

    Compare the entries in the *Info record* and *Net price* fields with the values for the item you noted down.

19. To open the item header area, choose *Header*.
20. In the header data area of the purchasing document you are creating, choose any tab pages and check the data that has been adopted.
21. Select individual document items with the materials *HD Saddle Bag "Special" (1300-372)* and *HD Chrome Set (1300-380)* from any vendors in the document overview.
22. To copy the items into the work area, choose .

    Here, too, the system adopts only the item data from the reference items. The header data of the purchasing document is not changed any further, even if the reference item comes from a document with a different vendor.

    You may be asked to enter a net price for a certain item. If so, make any entry in the *Net price* field of the relevant item.

    The item data is adopted in the item overview (in the middle part of the screen) and the item details (in the lower part of the screen). The detail data for the currently adopted reference item is immediately visible in the lower part of the screen.

    The data in the header and item detail areas is split up among various tab pages and can be displayed directly by a single click on the relevant tab in each case. Explicit multi-step branching to specific data via pull-down menus is no longer necessary.

    All three areas of the screen can be hidden by clicking the icon in the upper left-hand corner of the relevant area, allowing you to set up your work area to suit your own requirements.

    When you adopt the various document items, you also adopt the delivery dates for the items (among other things), which are usually out of date and lie in the past. The system flags these items with a yellow warning triangle in the status column of the item overview. To adjust the delivery dates and other data in the items, you can use the quick change function:

23. To select all items, choose in the upper left-hand corner of the item overview area.
24. In the item overview area, choose .
25. In the *Fast Change* dialog box, enter the following data:

Field	Data
Delivery date	Two weeks from today
All items	Select

26. Choose .

    The delivery date is adjusted in all items. You can proceed in similar fashion for all the other fields offered in the *Fast Change* dialog box.

27. To deselect, choose in the upper left-hand corner of the item overview area.

    Since you don't yet know the precise order quantity for the material *HD Saddle Bags (1300-372),* you must put the document you created "on hold" and continue processing it later.

28. Choose *Hold*.

The system confirms the posting and assigns a purchase order number. Make a note of the number that appears in the status bar.

29. Choose until the overview tree appears.
30. From the *Purchase Order* node, choose *Change* (standard SAP menu) or *Change Purchase Order* (user menu) to continue processing the PO document you put on hold.

    The system automatically offers you the the PO you last processed. Here, too, you have the option of defining your own layouts. It might make sense to have the POs you put on hold listed by order number, for example. To enable you to choose purchase orders from a worklist containing POs that are on hold, you have the option of having all orders you previously created and put on hold listed in the document overview on the left-hand side of the screen.

31. Choose to the right of .
32. Choose *Held Purchase Orders* from the menu that appears.

    The items of the purchase order you put on hold in the previous step are now displayed in the document overview. You can likewise adjust this list to suit your individual requirements via the sort and display variants.

33. In the purchase order item overview area, change the following data:

Field	Data
Order quantity (material 1300-372)	10

34. Choose .

    The system confirms that the already existing purchase order has been changed.

35. Choose until the overview tree appears.

Entering a GR Against the PO Using the Enjoy Interface

1. Call up the transaction as follows:

Menu path from the standard SAP Menu	*Logistics → Materials Management → Inventory Management → Goods Movement → Goods Receipt → For Purchase Order → PO Number Known*
Menu path from the user menu IDES_MM3050	*Employee in Warehouse/Stores → Goods Receipt → From External Procurement*
Transaction Code	MIGO

This screen, is initially subdivided into a document overview area and the actual work area, the latter consisting of a header data area, item overview, and an item data area. Here you have the option of adjusting the size of the areas to suit your individual needs.

2. Enter the following data:

Field	Data
Purchase order	Your noted purchase order number, or 4500009512

3. Choose .

The system transfers the specified *PO number* shown in the left-hand screen area of the document overview to the *My Documents/Purchase Orders* folder. The *Purchase order* field is then immediately ready to accept further input of purchasing document numbers. The purchase order items are transferred to the item overview. By clicking on individual items, you can view and change certain data in the lower item detail area.

4. Choose *Defaults → Default Values*.

The *Change Default Values* dialog box appears.

Here you can make settings for the system to suggest in future. For example, you can store default values for the receiving plant and the storage location. Furthermore, you can preset the *OK* indicator in the item lines (denoting that an item has been checked and giving the go-ahead for the GR posting). Note the standard setting for the *movement type for goods receipt* with the number *101* (goods receipt for purchase order).

5. Enter the following data:

Field	Data
Storage location	0001
In plant	1000
Propose OK in future	Select

6. Choose *Adopt*.

The settings will be taken into account in the case of future GR postings made under your user ID.

If a *Tip* dialog box should appear, choose ✔.

7. Select the first item with the cursor, then choose ⊠.

   If a *Tip* dialog box should appear, choose ✔.

   The *Distribute Quantity* dialog box appears. Here you have the opportunity to apportion the total goods receipt quantity quickly and easily among the different stock types *Unrestricted-use, ,Blocked* and *Quality inspection.* It is also possible to post the total quantity to different storage locations using this function.

8. Choose ✖.

9. Make the following entry in the item overview area for the lines shown:

Field	Data
OK	Select

   If the *OK* indicator in the item overview area is not active, either close the item detail area or select *Item OK* at the bottom of the item detail area.

   The last item of the purchase order has not yet arrived in the warehouse or stores. For this reason, deselect the *OK indicator* for the last item.

   However, you want to enter the material document for the entire PO.

10. Choose *Hold*.

    If a *Tip* dialog box should appear, choose ✔.

    The *Hold Document* dialog box appears.

11. Choose ✔.

    The system transfers the active PO number to the *My documents/Held data* folder of the document overview on the left of the screen.

12. Choose until the overview tree appears.

    Choose *No* in any dialog box that might appear.

13. To process the held data, choose *PO number known* under the *For purchase order* node from the standard SAP menu , or *Goods Receipt from External Procurement* under the *Goods Receipt* node from the user menu in order to resume processing the held data.

    You will now find your PO document that is on hold in the left-hand area of the screen.

14. Select your PO number in the document overview under the folder *My documents/Held data* and move the data to your work area by a double-click of the mouse.

    In the meantime, the material covered by the last item of the PO document has arrived.

15. Now you can also set the *OK* indicator for the last PO item.

16. Choose *Post*.

Entering a GR Against the PO Using the Enjoy Interface

The system confirms the posting and assigns a material document number. Make a note of the number that appears in the status bar.

The material number is immediately inserted in the *Material Documents* folder in the document overview area on the left of the screen. In the course of time, this area is automatically filled with closed or still-to-be-processed documents and held data.

17. Choose until the overview tree appears.

Entering the Invoice

Use

This revised activity enables the user to enter, check, and post invoices on a single screen. Credit memos and subsequent debits and credits can also be processed.

Procedure

1. Call up the transaction as follows:

Menu path from the standard SAP Menu	*Logistics → Materials Management → Logistics Invoice Verification → Document Entry → Enter Invoice*
Menu path from the user menu IDES_MM3050	*Employee in Invoice Verification → Enter Invoice → Enter.*
Transaction Code	MIRO

2. In the *Transaction* field, choose *Invoice* using the Help button.
3. Choose *Edit → Switch company code.*
4. Enter the following data:

Field	Data
Company code	1000

5. Choose ✔.

   The work area consists of a header data area and the item overview. In the header data area, the *Basic Data* tab is active.

6. Enter the following data:

Field	Data
Invoice date	Today's date
Posting date	Today's date
Tax amount (right-hand field)	V0 (Domestic input tax 0%)
Calculate tax	Select

7. Choose .

   In the item overview area, you will find a field with variable content and the value "Purchase order/scheduling agreement". Alternatively, you can enter invoices with reference to a delivery note, for example. Here the system suggests the last-entered value.

8. Choose the entry *Purchase order/scheduling agreement* using the Help button.

   The input field for the document number is located to the right of the latter field.

9. Enter the purchase order number you noted or *4500009513* in this field.

Entering the Invoice

10. Choose .

    In the item overview area, the system now suggests the amounts due to be paid for the goods you have received. During the invoice entry process, you can change the document number at any time. In this case, the system will suggest the items for which settlement is due from the other document.

    You now see the vendor data in the upper right-hand part of the screen. Here you have the opportunity to look over this data.

11. Choose in the lower right-hand area of the screen (*Other bank details*).

    Details of payment transactions with this vendor plus all entered bank details are now displayed. You can change the data at this point. To do so, choose .

12. Choose .

    In the *Balance* field, the system shows the difference between the gross amount entered by you and the total amount due for settlement suggested by the system. Since in our example we have not yet entered a total gross amount on the *Basic Data* tab page, the balance is identical to the amount requiring settlement suggested by the system. The red traffic light shows that the system has detected a difference and will not allow the document to be posted. You can adopt this amount. (In practice, you would enter the amount shown in the vendor invoice at this point.)

13. Enter the value of the *Balance* field in the *Amount* field on the *Basic Data* tab page.

14. Choose .

    The color signal next to the *Balance* field now changes from *red* to *green*. The difference between the total amount and the amount suggested by the system is now *zero*. The document can be posted, but is blocked for payment purposes.

15. Choose *Show PO structure*.

    A vertically separated screen area now appears, in which the purchasing document is displayed with its items in the form of a tree structure.

16. Widen the document structure area using the cursor.

    A complete overview of the document history is revealed, showing all the activities that have taken place with respect to the purchasing document and its items to date (goods receipts, GR reversals, invoice receipts).

    This detailed overview enables the user to subject each item of a vendor's invoice to thorough scrutiny.

17. After checking, set the indicator for each item in the item overview.

    You also still have the option of displaying a detailed simulation of the document, showing the accounting consequences of the invoice document.

18. Choose *Simulate*.

    In the dialog box *Simulate Document in EUR (Document Currency),* the system now displays all the posting items. You could now post the invoice document directly in this box.

19. Choose at the bottom of the dialog box.

The system issues an invoice document number to confirm the posting.

20. Choose until the overview tree appears.

Standard Purchase Order With Shipping Notification

Purpose

The purchase requisitions are copied from Material Requirements Planning (MRP). Material 100-310 is a component of Pump P-100 and is therefore planned deterministically. The vendor is determined by means of a price simulation and manual assignment. During the price simulation, you can access the information record to display the conditions.

After creating the standard purchase order, you can process the shipping notification. If you do not want to use this function, you can continue by entering the goods receipt. You can display the confirmations of the individual PO items. This is of interest with regard to the shipping notifications.

Process Flow

You can find the data for this process under [Page 67].

1. Creating a Purchase Requisition [Page 68]
2. Source Determination for the PReq. via Price Simulation [Page 69]
3. Creating a Purchase Order (from the Purchase Requisition) [Page 70]
4. Creating the Shipping Notification [Page 72]
5. Entering the Goods Receipt for the Purchase Order [Page 73]
6. Displaying the Material Documents [Page 74]
7. Entering the Invoice [Page 75]
8. Displaying the Accounting Documents [Page 78]
9. Displaying the PO History and Print Preview [Page 80]
10. Printing the Purchase Order [Page 81]

Data Used During This Process

Field	Europe	North America	Description
Document type	NB	NB	Purchase requisition
Plant	1000	3000	
Company code	1000	3000	
Material	100-310	100-310	Slug for shaft
Purchasing group	001	003	
Purchasing organization	1000	3000	
Vendor	1005, 1008, 1011	3000, 3100, 3910	

Creating a Purchase Requisition

1. Call up the transaction as follows:

Menu Path	*Logistics → Materials Management → Purchasing → Purchase Requisition → Create*
Transaction Code	ME51N

2. Enter the following data:

Field	Data
	Purchase req. standard
Source determination	Select

3. To open the item overview area, choose *Item overview*.
4. Enter the following data:

Field	Europe	North America
Material	100-310	100-310
Quantity req.	100	100
Delivery date	Two weeks from today	Two weeks from today
Plant	1000	3000
Storage location	0001	0001
PGr (purchasing group)	001	003

5. Choose .

   If the system questions whether you can keep the delivery date, choose .

6. Choose .

   To skip any warning messages, choose . Then choose .

   The R/3 System confirms the transaction and displays the assigned purchase requisition number. Make a note of this number.

7. Choose until the overview tree appears.

Source Determination for the PReq. via Price Simulation

1. Call up the transaction as follows:

Menu Path	From the *Purchase Requisition* node, choose *Follow-On Functions* → *Assign and Process*
Transaction Code	ME57

2. Enter the following data:

Field	Europe	North America
Material	100-310	100-310
Plant	1000	3000
Fixed vendor	No entry	No entry

3. Choose .
4. Select your purchase requisition number, then choose *Assign automatically*.

   In the *Source Overview for Purchase Requisition* dialog box, you see a list of all possible vendors.

5. Choose *Price simulation/all*.

   The *Price Simulation for Material 100-310 with Parameters* dialog box appears.

6. Select all three parameters *Incl. cash discount*, *Delivery costs,* and *Effective price*. Choose .

   You can also vary the simulation quantity. However, we recommend that you use the quantity defaulted from the requisition.

7. On the *Price Simulation for Sources of Supply* screen, make a note of the vendor offering the lowest price. The first line for this vendor reads: *Calculated value.*
8. Select the vendor number, then choose *Info record*.
9. Choose twice.
10. Position your cursor on the vendor number, then choose .
11. Choose .

    The information record for the source determination is assigned to the vendor.

12. Choose until the overview tree appears.

Creating a Purchase Order (from the Purchase Requisition)

1. Call up the transaction as follows:

Menu Path	From the *Purchase Requisition* node, choose *Follow-on Functions* → *Create Purchase Order* → *Via Assignment List*.
Transaction Code	ME58, ME21N

2. Enter the following data:

Field	Europe	North America
Purchasing group	001	003
Purchasing organization	1000	3000
Vendor	Your vendor number	Your vendor number
Plant	1000	3000

3. Choose .
4. On the *Ordering for Assigned Purchase Requisitions: Overview of Assignments* screen, position your cursor on the second line for your vendor, then choose *Process assignment*.
5. If the *Process Assignment: Create PO* dialog box appears, enter *NB* in the *Order type* field.
6. Choose .

   Skip any warning messages by choosing .

   If the *Create Purchase Order: Extension Option* dialog box appears, choose *New Purchase Order*.

7. On the *Create Purchase Order: Selection List: Purchase Requisitions* screen, select your requisition, then choose *Adopt + details.*

   Skip any warning messages by choosing .

   The system has inserted the key *0004* (taken from the info record) into the *ConfContrK* field of the purchase order.

8. Position your cursor on the *ConfContrK* field, then choose the F4 input help.

   In the *Confirmation control key* dialog box, you see that key *0004* stands for shipping notifications as a possible confirmation type.

9. Choose .
10. Choose .

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

To skip any warning messages, choose .

11. Choose until the overview tree appears.

Creating a Shipping Notification

1. Call up the transaction as follows:

Menu Path	From the *Purchase Order* node, choose *Inbound Delivery* → *Create*
Transaction Code	VL31N, ME23N

2. Enter the following data:

Field	Europe	North America
Vendor	Your vendor number	Your vendor number
Purchase order	No entry	No entry
Delivery date	Delivery date should be before the delivery date of the purchase order.	Delivery date should be before the delivery date of the purchase order.

3. Choose .

   If desired, you can enter additional details at header or item level. You can also specify the delivery quantity.

4. Choose .

   The R/3 System confirms the transaction and displays the assigned shipping notification number.

5. Choose .

6. From the *Purchase order* node, choose *Display*

   If your purchase order is not displayed, choose . In the *Select Purchase Order* dialog box, select *Purchase order*, enter your PO number, then choose *Other purchase order.*

7. To open the item detail area, choose *Item detail*.

8. Choose the *Confirmations* tab page.

   If the tab is not visible, click until it appears.

9. Choose *MRP-reduced qties.*

10. In the *Standard PO ### Created by <User>* dialog box, choose *MRP relevant qty.*

11. In the *MRP-Relevant Quantities Item ###* dialog box, choose *Back.*

12. Choose until the overview tree appears.

Entering the Goods Receipt for the Purchase Order

1. Call up the transaction as follows:

Menu Path	From the *Inventory Management* node, choose *Goods Movement* → *Goods Receipt* → *For Purchase Order* → *PO Number Known.*
Transaction Code	MIGO

   The *Goods Receipt Purchase Order - User* screen appears.

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 GR document.

   The purchase order items are transferred to the item overview.

   The PO number you entered appears in the *Current purchase order* field, and the *PO number* field is once again ready to accept input.

   If you click on individual items, the system displays an item data screen (allowing you to change the incoming quantity, for example).

4. In the header data area of the *General* tab page, enter the following data:

Field	Data
Document date	Today's date (default)
Posting date	Today's date (default)

5. Select your item, then choose the *Wk* tab page at the bottom of the screen to check your organizational data.

6. In the *Item detail* area, on the *Wk* tab page, enter the following data:

Field	Data
Storage location	0001

7. Select *Item OK*, then choose .

   If the *OK* indicator in the item overview area is not active, either close the item detail area or select *Item OK* at the bottom of the item detail area.

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

8. Choose until the overview tree appears.

Displaying the Material Documents

1. Call up the transaction as follows:

Menu Path	From the *Inventory Management* node, choose *Material Document* → *Display*
Transaction Code	MB03

2. Enter the following data:

Field	Europe	North America
Material document	Your goods receipt document number	Your goods receipt document number
Mat. doc. year	Current year	Current year

3. Choose .

   The system displays an overview of the material document.

4. Choose *Details fm. item*.

   On the *Display Material Document ###: Details ###/###* screen, you see the detail data for your goods receipt item.

5. To return to the previous screen, choose .

6. Choose *Accounting docs*.

   The system displays a list of accounting documents in the *List of Documents in Accounting* dialog box.

7. Choose *Accounting document.*

   On the *Document Overview* screen, you see the accounts to which postings have been made in Financial Accounting and the amounts posted.

8. Choose .

9. To quit the dialog box, choose .

10. Choose until the overview tree appears.

Entering the Invoice

1. Call up the transaction as follows:

Menu Path	From the *Purchase Order* node, choose *Follow-On Functions* → *Logistics Invoice Verification*.
Transaction Code	MIRO, MRBR

2. Choose *Edit* → *Switch company code.*

   In the *Enter Company Code* dialog box, the system displays the company code that is currently active for invoice verification. This is the company code last used by the user.

3. Enter the following data:

Field	Europe	North America
Company code	1000	3000

4. Choose ✔.
5. In the field directly above and to the left of the item overview, use the input help to choose *Purchase order/scheduling agreement* (if it does not already appear as the default text) .

   You can also use this activity to enter invoices with reference to a delivery note, for example. The system proposes the value last entered by the user in each case.

6. In the header data area, on the *Basic Data* tab page, enter the following data:

Field	Europe	North America
Document date	Today’s date	Today’s date
Posting date	Today's date (default)	Today's date (default)
Tax amount, right-hand field	VN (Domestic input tax 16%)	IO (A/P sales tax, exempt)
To the right of the *Purchase order/scheduling agreement* input field	Your purchase order number	Your purchase order number

7. Choose .

   In the item overview, the system displays the purchase order data, as well as the net amount in the balance field that is required to calculate the gross amount. The traffic light for the *Balance* field is red.

   The value of the goods delivered plus tax (in Europe, VAT) is normally entered on the invoice sent to you by the vendor. In this process, we simulate this procedure and determine the invoice amount ourselves.

8. Enter the following data:

Field	Data
Calculate tax	Select

Entering the Invoice

When you activate *Calculate tax* the system displays the gross amount in the balance field. The corresponding tax portion appears in the *Tax amount* field.

If you have selected the tax code *No tax procedure*, or *A/P tax exempt*, the *Tax amount* field contains the value *0*. In this case, the *Balance* field contains the net amount.

9. Enter the following data:

Field	Europe	North America
Amount	Gross amount determined	Gross amount determined
	Select	Select

10. Choose .

When you confirm your entries, the traffic light to the left of the *Balance* field changes to green.

In this example, we assume that the invoiced amount equals the calculated amount.

11. Choose .

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

The invoice is initially blocked for payment. Possible reasons include variances (settlement date too early, for example), or sporadic "control blocks". From a logistics perspective, the procurement process has been successfully completed. You can now display and change the blocking reasons.

12. Choose until the overview tree appears.

13. From the *Materials Management* node, choose *Logistics Invoice Verification* → *Further Processing* → *Release Blocked Invoices.*

14. Enter the following data:

Field	Europe	North America
Company code	1000	3000
Invoice document	Your number	Your number

15. Choose .

To display the blocking reasons, scroll to the right of the table. The blocking reasons for your item are highlighted with *X*. To display the full descriptions, position your cursor on the column header.

Possible reasons for blocking an invoice include:

Column	Description

Qua (Blocking reason: Quality)	Quality variance
Qty (Blocking reason: Quantity)	Quantity variance
Prc (Blocking reason: Price)	Price variance
Dte (Blocking reason: Date)	Delivery date variance

16. If you want to release your invoice, select the blocking reason for your item, then choose *Blocking reason*.
17. Choose *Save changes*.

    In the status bar, the system confirms that the invoice has been released.
18. Choose until the overview tree appears.

Displaying the Accounting Documents

1. Call up the transaction as follows:

Menu Path	From the *Purchase Order* node, choose *Follow-On Functions* → *Logistics Invoice Verification*.
Transaction Code	MIRO, MIR4

2. Choose *Accounting document* → *Display*.
3. Choose *Follow-on documents*.
4. In the *List of Documents in Accounting* dialog box , choose *Accounting document*.

   On the *Document Overview* screen you now see the accounts to which postings have been made in Financial Accounting, with the corresponding amounts.

5. Choose .
6. To quit the dialog box, choose .
7. Choose until the overview tree appears.

Displaying the PO History and Print Preview

1. Call up the transaction as follows:

Menu Path	From the *Purchase Order* node, choose *Display*
Transaction Code	ME23N

If your purchase order is not displayed on the *Standard PO ### Created by User* screen, choose . In the *Select Purchase Order* dialog box, enter your PO number, then choose *Other document.*

2. Choose *Print preview*.

   The *Print Preview for ### Page ### of ###* screen appears. The system displays your print form. Choose to display additional pages of your purchase order. Choose to return to the previous page.

3. Choose .

Printing the Purchase Order

Prerequisites

To print out the PO document, an existing printer that is recognized by the system must be assigned to your workplace.

Procedure

1. Call up the transaction as follows:

Menu Path	From the *Purchase Order* node, choose *Messages* → *Print/Transmit*
Transaction Code	ME9F

2. Enter the following data:

Field	Europe	North America
Document number	No entry	No entry
Vendor	Your vendor number	Your vendor number
Purchasing organization	1000	3000
Purchasing group	001	003
Application	EF (Purchase order)	EF (Purchase order)

3. Choose .

   The system displays a list of purchase orders for this vendor.

4. Select your document item, then choose *Message detail*.

   On the *Message Processing, Purch. Documents: Output* screen, you see all the message records for the selected purchasing document.

5. Select your message record, then choose *Communication method*.

6. Enter the following data:

Field	Data
Logical destination	The printer assigned to your workplace
Number of messages	1
Print immediately	Select
Release after print	Select

7. Choose .

8. On the *Message Processing, Purch. Documents: Output* screen, choose .

   The *Message Output* screen appears.

9. On the *Message Output* screen, select your purchase order, then choose *Output message*.

   The symbol appears to the left of the item to confirm the message output. The message is now printed out on the printer assigned to your workplace.

Printing the Purchase Order

10. Choose until the overview tree appears.

POs and Follow- On Functions With Batches, QM and Sample Admin.

Purpose

In this process, you order a material, post the goods receipt for the purchase order, and then settle the order.

You can find more information about this process under [Page 84].

Process Flow

You can find the data for this process under [Page 85].

1. Creating a Purchase Order [Page 86]
2. Posting the Goods Receipt for the Purchase Order [Page 88]
3. Entering the Invoice [Page 90]

Additional Process Information

This process demonstrates a one-time order. A material procurement could also be the result of a process chain triggered by materials planning. There are various other types of purchase orders and outline agreements in the Purchasing application. This process reduces procurement to only the most fundamental steps of external materials procurement in the R/3 System. To do this, we use the basic form of a purchase order document, the standard purchase order. The settings in the material master record ensure that a goods receipt is automatically posted to the inspection stock and that an inspection lot is generated.

Data Used During This Process

Field	Data	Description
Vendor	1006	Blacks AG
Order type	NB	Standard PO
Purchasing organization	1000	IDES AG
Purchasing group	008	
Plant	1100	Berlin
Storage location	0001	Material stores
Material	300-130	

Creating a Purchase Order

1. Call up the transaction as follows:

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

2. Enter the following data:

Field	Data
	Standard PO
Vendor	1006
Document date	Today's date

3. Choose .
4. To open the item header area, choose *Header*.
5. On the *Org.data* tab page, enter the following data:

Field	Data
Purchasing org.	1000
Purchasing group	008
Company code	1000

6. To open the item overview area, choose *Item overview*.
7. Enter the following data:

Field	Data
Material	300-130
PO quantity	1000
C (Category of delivery date)	D
Delivery date	Today's date + 1 month
Net price	Any price
Plant	1100
Storage location	0001

8. Choose .

It is possible that the material already has an info record, which overwrites the amount you have just entered.

9. Choose .

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

10. Choose until the overview tree appears.

Posting the Goods Receipt for the Purchase Order

1. Call up the transaction as follows:

Menu Path	*Logistics → Materials Management → Inventory Management → Goods Movement → Goods Movement*
Transaction Code	MIGO

2. Enter the following data:

Field	Data
Purchase order	Your PO number

3. Choose .

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

   The purchase order items are transferred to the item overview.

   The PO number you entered appears in the *Current purchase order* field, and the *PO number* field is once again ready to accept input.

   If you click on individual items, the system displays an item data screen (allowing you to change the incoming quantity, for example).

4. In the header data area of the *General* tab page, enter the following data:

Field	Data
Document date	Today's date
Posting date	Today's date

5. Select your item, then choose the *Where* tab page at the bottom of the screen to check your organization data.

6. On the *Where* tab page, enter the following data:

Field	Data
Movement type	101
Plant	1100
Storage location	0001

7. On the *Quantity* tab page, enter the following data:

Field	Data
Number of containers	50 CAN

8. Choose .

9. In the item overview area, select *OK* for your item.

   If the *OK* indicator in the item overview area is not active, either close the item detail area or select *Item OK* at the bottom of the item detail area.

10. Choose *Post*.

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

You have thus increased the warehouse stock and generated an inspection lot.

11. Choose until the overview tree appears.

Entering the Invoice

1. Call up the transaction as follows:

Menu Path	From the *Purchase Order* node, choose *Follow-On Functions* → *Logistics Invoice Verification*.
Transaction Code	MIRO, MRBR

2. Choose *Edit* → *Switch company code.*

   In the dialog box, the system displays the company code that is currently active for invoice verification. This is the company code last used by the user.

3. If necessary, enter the following data:

Field	Data
Company code	1000

4. Choose ✔.

5. In the field directly above and to the left of the item overview, use the input help to choose *Purchase order/scheduling agreement* (if it does not already appear as the default text).

   You can also use this activity to enter invoices with reference to a delivery note, for example. The system proposes the value last entered by the user in each case.

6. On the *Basic Data* tab page, in the header data area, enter the following data:

Field	Data
Invoice date	Today's date
Posting date	Today's date
Tax amount, right-hand field	VN (Domestic input tax 16%)
To the right of the *Purchase order/scheduling agreement* input field	Your PO number

7. Choose .

   In the item overview, the system displays the purchase order data, as well as the net amount in the balance field that is required to calculate the gross amount. The traffic light for the *Balance* field is red.

   The value of the goods delivered plus tax (in Europe, VAT) is normally entered on the invoice sent to you by the vendor. In this process, we simulate this procedure and determine the invoice amount ourselves.

8. Enter the following data:

Field	Data
Calculate tax	Select

When you activate *Calculate tax* the system displays the gross amount in the balance field. The corresponding tax portion appears in the *Tax amount* field.

If you have selected the tax code *No tax procedure*, or *A/PSales tax exempt*, the *Tax amount* field contains the value 0. In this case, the *Balance* field contains the net amount.

9. Enter the following data:

Field	Data
Amount	Gross amount determined
	Select

10. Choose .

When you confirm your entries, the traffic light to the left of the *Balance* field changes to green.

In this example, we assume that the invoiced amount equals the calculated amount.

11. Choose .

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

The invoice is initially blocked for payment. Possible reasons include variances (settlement date too early, for example), or sporadic "control blocks". From a logistics perspective, the procurement process has been successfully completed. You can now display and change the blocking reasons.

12. Choose until the overview tree appears.
13. From the *Materials Management* node, choose *Logistics Invoice Verification* → *Further Processing* → *Release Blocked Invoices.*
14. Enter the following data:

Field	Europe
Company code	1000
Invoice document	Your invoice document number

15. Choose .

You can display the blocking reasons on the right-hand side of the table. If required, use the scroll bar. The blocking reasons for your item are highlighted with *X*. To display the full descriptions, position your cursor on the column header.

Possible reasons for blocking an invoice include:

Entering the Invoice

Column	Description
Qua (Blocking reason: Quality)	Quality variance
Qty (Blocking reason: Quantity)	Quantity variance
Prc (Blocking reason: Price)	Price variance
Dte (Blocking reason: Date)	Delivery date variance

16. If you want to release your invoice, select the blocking reason for your item, then choose *Blocking reason*.
17. Choose *Save changes*.

    In the status bar, the system confirms that the invoice has been released.
18. Choose until the overview tree appears.

Procurement with a Scheduling Agreement

Purpose

In this IDES process, you display manually created delivery schedules, compare the stock/requirements list with the scheduling agreement, and get information about the effects of the agreement during the goods receipt.

You can find more information about this process under [Page 94].

Process Flow

You can find the data for this process under [Page 95].

1. Displaying the Scheduling Agreement [Page 96]
2. Scheduling the Delivery [Page 98]
3. Displaying the Stock/Requirements Lists [Page 99]
4. Creating a Goods Receipt for the Scheduling Agreement [Page 100]
5. Displaying Effects on the S/R List and Delivery Schedule [Page 102]

Additional Process Information

What is a Scheduling Agreement?

Scheduling agreements are similar to quantity contracts in that they state the target quantity of a material to be ordered from a vendor over a period of time, as well as the price.

You create a line item for each material to be procured. For each scheduling agreement item, you subsequently set up a rolling delivery schedule by creating a number of individual schedule lines.

In vendor scheduling, vendors receive a scheduling agreement release (comprising a header and a rolling delivery schedule made up of individual schedule lines) rather than discrete purchase or release orders. The delivery schedule specifies the quantities to be delivered, delivery dates, and possibly also delivery time slots, and may contain data on previous goods receipts. A delivery schedule may contain firm, semi-firm, or planned (forecast) delivery dates.

Advantages of Vendor Scheduling

Procurement via scheduling agreements has several significant advantages:

- It streamlines paperwork and shortens processing times. One delivery schedule can replace many purchase orders or contract release orders.
- It promotes low inventories. You can specify the exact delivery times, allowing for minimum stock levels and just-in-time (JIT) deliveries.
- It shortens vendor lead times. Because the delivery schedule extends into the future, the vendor has less need to backlog orders, thus reducing the lead time for a delivery.
- It enables automatic generation of delivery schedule lines via the MRP system. (A precondition for this is that Purchasing must assign a scheduling agreement as a unique source of supply using the quota arrangement and source list mechanisms.)

Data Used During This Process

Field	Data	Description
Scheduling agreement	5500000036	
Company code	1000	IDES AG
Material	99-160	Hub
Plant	1000	Hamburg
Storage location	0001	Material warehouse
Movement type	101	Goods receipt for purchase order
Vendor	1930	Schmalenbach

Displaying the Scheduling Agreement and the Source List

Use

We have already created a scheduling agreement. For demonstration purposes, we recommend that you use this scheduling agreement. If there are not enough schedule lines, you can simply create new ones. The scheduling agreement is valid until12.31.2000, but you can, of course, extend it.

In this case, the schedule lines were created manually. The example for the stock transport order demonstrates how you can automatically create the delivery schedules for MRP.

Procedure

1. Call up the transaction as follows:

Menu Path	*Logistics → Materials Management → Purchasing → Outline Agreement → Scheduling Agreement → Display.*
Transaction Code	ME33L, ME03

2. Enter the following data:

Field	Data
Agreement	5500000036

3. Choose .

   The *Display Scheduling Agreement: Item Overview* screen appears.

4. Select the first item, then choose .

   On the *Display Scheduling Agreement: Item ###* note the target quantity and the net price.

5. Choose .

   On the *Display Scheduling Agreement: Item ### Additional Data* screen, note the entries in the *Firm zone* and *Trade-off zone* fields.

   To call up additional information for these fields, position your cursor on one of the fields, then choose the F1 help. These fields appear again in the delivery schedule.

6. Choose until the overview tree appears.

7. From the *Purchasing* node, choose *Master Data → Source List → Display.*

8. Enter the following data:

Field	Data
Material	99-160

Plant	1000

9. Choose .

   On the *Display Source List: Overview Screen*, note the *Fix* and *MRP* fields. These two fields affect vendor source determination and the automatic creation of the delivery schedule.

10. Choose until the overview tree appears.

Scheduling the Delivery

1. Call up the transaction as follows:

Menu Path	From the *Scheduling Agreement* node, choose *Delivery Schedule* → *Maintain.*
Transaction Code	ME38

2. Enter the following data:

Field	Data
Agreement	5500000036

3. Choose .
4. Select the first item and choose .
5. Enter the following data:

Date type	Delivery date	Scheduled quantity	Time
D	Today's date (MM.DD.YYYY)	200	8:00
D	5 weeks from today (MM.DD.YYYY)	150	8:00
M	In 3 months (MM.YYYY)	300	8:00

Note the different time formats, time, scheduled quantities, and the *Fixed* indicator. Do not overwrite any existing data.

Note the scheduled quantity under 1). You will require this again later.

6. Choose .

To skip any warning messages, choose .

7. Choose .

If the *Save Document?* dialog box appears, choose *Yes*. The system informs you that scheduling agreement has been saved.

8. Choose until the overview tree appears.

Displaying the Stock/Requirements Lists

1. Call up the transaction as follows:

Menu Path	*Materials Management → Material Requirements Planning → MRP → Evaluations → Stock/Reqmts List*
Transaction Code	MD04

2. On the *Individual access* tab page, enter the following data:

Field	Data
Material	99-160
Plant	1000

3. Choose .

   You see an overview of the delivery schedules, as well as the available quantity, which changes with each delivery.

4. To open a new session, choose .

5. In the new session, continue with the next process step *Creating the Goods Receipt for the Scheduling Agreement*.

   Do not close the first session, which displays the stock/requirements list. You will use this list again after the goods receipt.

Creating a Goods Receipt for the Scheduling Agreement

12. Call up the transaction as follows:

Menu Path	*Logistics → Materials Management → Inventory Management → Goods Movement → Goods Receipt → For Purchase Order → PO Number Known.*
Transaction Code	MIGO

13. Enter the following data:

Field	Data
Purchase order	5500000036

14. Choose .

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

    The purchase order items appear in the GR item overview.

    The PO number / scheduling agreement number you entered appears in the *Current purchase order* field, and the *PO number* field is once again ready to accept input.

    In the *Quantity* field, the system defaults the quantity you already noted.

15. In the header data area of the *General* tab page, enter the following data:

Field	Data
Document date	Today's date
Posting date	Today's date

16. Select your item, then choose the *Wk* tab page at the bottom of the screen to check your organizational data.

17. If necessary, enter the following data:

Field	Data
Storage location	0001

18. In the *Item Overview* area, select *OK*. If the *OK* indicator is not active in the item overview, select *Item OK* in the lower part of the item details.

19. Choose .

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

20. Choose until the overview tree appears.

Displaying the S/R List and Delivery Schedule

1. In the first session, on the *Stock/Requirements List as of xx:xx Hrs* screen, choose .

   The system displays a new value for the next possible delivery schedule. This new value has been reduced by the quantity of the goods received.

2. Switch to the second session. From the *Purchasing* node, choose *Outline Agreement* → *Scheduling Agreement* → *Delivery Schedule* → *Maintain.*

3. Enter the following data:

Field	Data
Agreement	5500000036

4. Choose .

5. On the *Maintain Scheduling Agreement Schedule: Item Overview* screen, select the first item and choose .

6. You see an overview of the various delivery schedules and quantities.

7. Choose , then close this session.

   You return to the first session.

8. Choose until the overview tree appears.

Consignment Contract

Purpose

The following section describes the creation of a consignment contract, the creation of a release order referencing that contract, the posting of the relevant goods receipt, the transfer of the consignment stock to a cost center, and how the liabilities incurred as a result of these transactions are determined.

> It is not necessary to create a new consignment contract and a source list each time in order to illustrate this process. If you merely want to demonstrate the processing of requisitions and purchase orders, display the existing consignment contract **46000018** (USA) or **4600000002** (Germany) and start with the procedure Creating a Purchase Requisition [Page 109].

You can find more information about this process under [Page 104].

Process Flow

You can find the data for this process under [Page 105].

Additional Process Information

“Consignment” stands for a process in which a vendor makes a material available to you, that you then keep in one of your storage facilities. The vendor remains the legal owner of the material until such time as you take it out of the consignment stores to use. Payment is not due to the vendor until you do so. The quantity of material withdrawn from consignment stores for use in this way is invoiced at previously agreed intervals (e.g. monthly). You can also agree with the vendor that any remaining consignment stock is taken over into your own stock after a certain period of time.

The SAP R/3 System satisfies the following prerequisites for the management of consignment stocks:

- Consignment stock is managed under the same material number as your own stock. In this way, you can make consignment stock part of the available stock of a material.
- Consignment stocks of the same material supplied by different vendors are managed separately from each other, at the price charged by the relevant vendor in each case.
- Consignment stocks are not valuated. When the material is withdrawn from storage, it is valuated at the price charged by the vendor in question.
- A consignment material can be managed as one of three stock types:
  - Unrestricted-use stock
  - Stock in quality inspection
  - Blocked stock

You can make transfer postings between all three types of stock. However, you can only make withdrawals from unrestricted stock.

Data for Consignment Contract

Field	Europe	North America	Description
Agreement type	MK	MK	Quantity contract
Company code	1000	3000	
Cost center	4200	4200	
Currency	DEM	USD	
Document type for requisition	NB	NB	Standard purchase requisition
Item category	K	K	Consignment item
Material	99-130	99-130	Hexagon head screw, type M10
Plant	1000	3100	
Purchasing group	001	004	
Purchasing organization	1000	3000	
Storage location	0001	0001	Storage location
Vendor	1000	3000	

Displaying Data on Consignment Stock

1. Call up the transaction as follows:

Menu Path	*Logistics → Materials Management → Purchasing → Master Data → Info Record → Display*
Transaction Code	ME13

2. Enter the following data:

Field	Europe	North America
Vendor	1000	3000
Material	99-130	99-130
Purchasing organization	1000	3000
Plant	1000	3100
Consignment	Select	Select

3. Choose .

   The *Display Info Record: General Data* screen appears.

4. Choose *Purch. org. data 1*.

   Make a note of the consignment price. This price was agreed with the vendor and is due for payment if the material is used.

5. Choose until the overview tree appears.

Creating a Consignment Contract

1. Call up the transaction as follows:

Menu Path	From the *Outline Agreement* node, choose *Contract* → *Create*
Transaction Code	ME31K

If you don't want to create a new contract, you can display an existing one: **46000018** (USA) or **4600000002** (Germany).

2. Enter the following data:

Field	Europe	North America
Vendor	1000	3000
Agreement type	MK	MK
Purch. organization	1000	3000
Purchasing group	001	004
Item category	K	K
Plant	1000	3100
Storage location	0001	0001

3. Choose .
4. Enter the following data:

Field	Europe	North America
Validity end	Any date in the future	Any date in the future

5. Choose .
6. Enter the following data:

Field	Europe	North America
Material	99-130	99-130
Target quantity	5000	5000

7. Choose .
8. Choose .

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

9. Choose until the overview tree appears.

Source List Administration

1. Call up the transaction as follows:

Menu Path	From the *Master Data* node, choose *Source List* → *Maintain*.
Transaction Code	ME01

2. Enter the following data:

Field	Europe	North America
Material	99-130	99-130
Plant	1000	3100

3. Choose .
4. Create a new line with the following data:

Field	Europe	North America
Valid from	Today's date	Today's date
Valid to	End of next month	End of next month
Vendor	1000	3000
Purchasing organization	1000	3000
Agreement	Contract number from previous exercise	Contract number from previous exercise
Item	10	10
Fix	Select	Select

5. To check whether the entries are correct, choose .

   If any problesm occur with the source book records, proceed as follows: If the list already contains data, delete them by selecting the corresponding items and choosing . In the *Delete Source List Records* dialog box, choose *Yes*. To check again whether the entries are correct, choose .

6. Correct your entries, if required.
7. Choose .
8. To override any warning messages, choose .

   The system confirms the transaction.

9. Choose until the overview tree appears.

Creating a Purchase Requisition

1. Call up the transaction as follows:

Menu Path	From the *Purchasing* node, choose *Purchase Requisition* → *Create*
Transaction Code	ME51N

2. Enter the following data:

Field	Data
	Purch.requis.Stand.
Source determination	Select

3. To open the item overview area, choose *Item overview*.
4. Enter the following data:

Field	Europe	North America
Item category	K	K
Material	99-130	99-130
Quantity requested	100	100
Delivery date	Within the next month	Within the next month
Plant	1000	3100
Storage location	0001	0001
Purchasing group	001	004

5. Choose .

   If a warning messages appears regarding the delivery date, choose .

6. To open the item detail area, choose *Item detail.*

   The number of the outline agreement you created now appears on the *Supply source* tab page. The system assigned the purchase requisition item to this supply source via the source list entry.

7. Choose .

   The system confirms the posting and assigns a purchase requisition number. Note this number.

8. Choose until the overview tree appears.

Creating a Purchase Order from a Requisition

1. Call up the transaction as follows:

Menu Path	From the *Purchase Order* node, choose *Create* → *Vendor/Supplying Plant Known*
Transaction Code	ME21N

In the standard system, explanatory documentation appears on the left side of the screen.

Choose *Close* in the left-hand area of the screen to hide this documentation.

In future, this setting will be stored for your user ID.

You can reactivate the documentation at any time by clicking *Help*.

2. Choose *Document overview on*.

   The *document overview* now appears in the left-hand part of the screen. Adjust the window to suit your requirements. The right-hand part of the screen contains the actual work area for the activity.

3. On the left side of the screen, next to , choose .
4. In the menu that appears, select *Purchase requisitions*.
5. Enter the following data:

Field	Data
Material	99-130

6. Choose .

   A list of requisition documents selected according to the criterion “material” appears in the document overview.

7. Select your purchase requisition document.
8. Choose .

   The system adopts both the header data (document type, vendor, purchasing organization...) and the item data (material numbers, quantity, delivery date) in the PO being created.

9. Choose .

   The system confirms the transaction and assigns a PO number. Make a note of this number.

10. Choose until the overview tree appears.

Posting a Goods Receipt

1. Call up the transaction as follows:

Menu Path	From the *Inventory Management* node, choose *Goods Movement* → *Goods Receipt* → *For Purchase Order* → *PO Number Known.*
Transaction Code	MIGO

The screen is initially subdivided into a document overview area and the actual work area, the latter consisting of a header data area, item overview, and an item data area. Here you have the option of adjusting the size of the areas to suit your individual needs.

2. Enter the following data:

Field	Data
Purchase order	Your purchase order number

3. Choose .

The system transfers the specified *PO number* shown in the left-hand screen area of the document overview to the *My Documents/Purchase Orders* folder. The *Purchase order* field is then immediately ready to accept further input of document numbers. The purchase order items are transferred to the item overview. By clicking on individual items, you can view and change certain data in the lower item detail area.

4. In the header data area of the *General* tab page, enter the following data:

Field	Data
Document date	Today's date
Posting date	Today's date

5. Select your item, then choose the *Wk* tab page at the bottom of the screen to check your organizational data.
6. Select the *Item OK indicator* for your item in the item overview area.

If the *OK indicator* in the item overview area is not active, either close the item detail area or select *Item OK* at the bottom of the item detail area.

7. Choose *Post*.

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

The material number is immediately inserted in the *Material Documents* folder in the document overview area on the left of the screen. In the course of time, this area is automatically filled with closed or still-to-be-processed documents and held data.

8. Choose until the overview tree appears.

Displaying a Goods Receipt

1. Call up the transaction as follows:

Menu Path	From the *Purchasing* node, choose *Inventory Management* → *Material Document* → *Display.*
Transaction Code	MB03

2. Enter the following data:

Field	Europe	North America
Material document	Goods receipt from previous step	Goods receipt from previous step
Material document year	Current year	Current year

3. Choose .
4. Choose *Accounting docs*.

The system issues a warning message pointing out that a receipt of consignment material does not generate an accounting document. The consignment stock is not valuated because it still belongs to the vendor.

5. Choose until the overview tree appears.

Displaying Stock Levels

1. Call up the transaction as follows:

Menu Path	From the *Inventory Management* node, choose *Environment* → *Stock* → *Stock Overview*.
Transaction Code	MMBE

2. Enter the following data:

Field	Europe	North America
Material	99-130	99-130
Plant	1000	3100
Storage location	0001	0001

3. Choose .

The quantity of the last goods receipt is added to the vendor's consignment stock.

4. Choose until the overview tree appears.

Transferring Consignment Stock to a Cost Center

1. Call up the transaction as follows:

Menu Path	From the *Inventory Management* node, choose *Goods Movement* → *Goods Issue.*
Transaction Code	MB1A

2. Enter the following data:

Field	Europe	North America
Movement type	201	201
Special stock	K	K
Plant	1000	3100
Storage location	0001	0001

3. Choose .

4. Enter the following data:

Field	Europe	North America
Cost center	4200	4200
Vendor	1000	3000
Material	99-130	99-130
Quantity	10	10

5. Choose .

The system confirms the transaction and assigns a goods issue number. Note this number.

6. Choose until the overview tree appears.

Displaying a Goods Issue

1. Call up the transaction as follows:

Menu Path	From the *Inventory Management* node, choose *Material Document* → *Display*
Transaction Code	MB03

2. Enter the following data:

Field	Europe	North America
Material document	Goods issue number from previous exercise	Goods issue number from previous exercise
Material document year	Current year	Current year

3. Choose .
4. Choose *Accounting docs*.
5. Note the number of the accounting document shown in the dialog box.
6. Select the accounting document.

The system displays the G/L accounts to which postings have been made as a result of the goods issue receipt.

7. Choose .
8. Choose .
9. Choose until the overview tree appears.

Determining Liabilities

1. Call up the transaction as follows:

Menu Path	From the *Inventory Management* node, choose *Environment* → *Consignment* → *Consignment from Vendor* → *Liability.*
Transaction Code	MRKO

2. Choose .

   You can see the level of the liabilities in the *Amount* column.

3. Choose until the overview tree appears.

Pipeline Handling

Purpose

A pipeline material is a material that enters the production process directly from a pipeline (for example, oil), from a pipe (for example, mains water), or via a cable (for example, electricity), and can be consumed. Pipeline materials are represented by the material type PIPE. These materials have the following business characteristics:

- They are not obtained or planned. The required quantity can be removed from the pipeline at any time.
- They are not stored and they are not managed in inventory management. No physical inventory is performed.
- You can only post withdrawals for this material using account assignment.
- Posting withdrawals creates liabilities to the vendor from whom the pipeline material is obtained. These liabilities are settled periodically.

Process Flow

You can find the data for this process under [Page 120].

1. Displaying the Pipeline Material [Page 121]
2. Displaying the Pipeline Info Record [Page 122]
3. Displaying the Source List [Page 123]
4. Posting Pipeline Withdrawals [Page 124]
5. Settling Pipeline Liabilities [Page 126]

Data Used During This Process

Field	Data	Description
Company code	1000	IDES AG
Currency	EUR	
Plant	1000	Hamburg
Material	1300-800	Pipeline material
Vendor	1050	Humpert und Töchter GmbH
Purchasing org.	1000	IDES Germany
Movement type Special stock	201 P	Consumption by cost center from pipeline
Cost center	1000	Corporate Services

Displaying the Pipeline Material

1. Call up the transaction as follows:

Menu Path	*Logistics* → *Materials Management* → *Material Master* → *Material* → *Display* → *Display Current*
Transaction Code	MM03

2. Enter the following data:

Field	Data
Material	1300-800

3. Choose *Select view(s)*.
4. In the dialog box, select *Basic Data 1, Purchasing, and Accounting 1*, then choose ✔ .
5. In the *Organizational Levels* dialog box, enter the following data:

Field	Data
Plant	1000

6. Choose ✔.

   On the *Display Material 1300-800 (Pipeline material)* screen, you can display various views (Basic Data, Purchasing, Accounting, and so on) by choosing the relevant tab page.

7. Choose ⟲ until the overview tree appears.

Displaying the Pipeline Info Record

1. Call up the transaction as follows:

Menu Path	From the *Materials Management* node, choose *Purchasing* → *Master Data* → *Info Record* → *Display*.
Transaction Code	ME13

2. Enter the following data:

Field	Data
Vendor	1050
Material	1300-800
Purchasing org.	1000
Plant	1000
Info category: Pipeline	Select

3. Choose .

   To call up different information, choose *Purch.org.data 1* and *Conditions*. For example, the price used to periodically settle the pipeline liabilities incurred is defined on the *Display Info Record: Purch. Organization Data 1* screen. If the pipeline material is obtained from more than one vendor, then there is also more than one pipeline info record.

4. Choose until the overview tree appears.

Displaying the Source List

1. Call up the transaction as follows:

Menu Path	From the *Materials Management* node, choose *Purchasing* → *Master Data* → *Source List* → *Display*.
Transaction Code	ME03

2. Enter the following data:

Field	Data
Material	1300-800
Plant	1000

3. Choose .

   One or more sources of supply are defined for the material in the source list. You can select a source of supply as the fixed source of supply. You can block one or more sources of supply. You can specify the validity periods for source assignment in the source list.

4. Choose until the overview tree appears.

Posting Pipeline Withdrawals

Use

When a pipeline material is consumed (for example, for a withdrawal by a cost center), it must be documented in the R/3 System. All withdrawals also create a liability towards the vendor from whom the relevant pipeline material is obtained.

Procedure

1. Call up the transaction as follows:

Menu Path	From the *Materials Management* node, choose *Inventory Management* → *Goods Movement* → *Goods Issue.*
Transaction Code	MB1A, MB03, FB03

2. Enter the following data:

Field	Data
Movement type	201
Special stock	P
Plant	1000

3. Choose .
4. Enter the following data:

Field	Data
Cost center	1000
Material	1300-800
Quantity	2000

5. Choose .

   If any warning messages appear, choose . The system issues a material document number to confirm the posting.

6. To display the resulting material document, choose *Goods issue* → *Display*.
7. Choose .

   You can also display the accounting document from this screen.

8. Choose *Accounting docs*.
9. In the dialog box, select the accounting document.
10. Choose .
11. In the dialog box, choose .

12. Choose until the overview tree appears.

Settling Pipeline Liabilities

Use

Liabilities towards the vendor that are incurred due to consumption of pipeline materials must be settled periodically. The accounting documents are created using the price specified in the info record. They are then used by Financial Accounting in the next payment run.

Procedure

1. Call up the transaction as follows:

Menu Path	From the *Materials Management* node, choose *Logistics Invoice Verification* → *Automatic Settlement* → Consignment and Pipeline Settlement.
Transaction Code	MRKO, FB03, MR91, SP01

2. Enter the following data:

Field	Data
Company code	1000
Material	1300-800
Settle	Select

3. Choose .
4. Select your *Document no*.

   Make a note of this document number. You will need this later.
5. Position your cursor on the first line item.
6. Choose .

   The system displays the accounting document.
7. To see more documents, choose .
8. To display the *Consignment and Pipeline Settlement* screen again, choose .
9. Select your item.
10. Choose *Messages*.
11. Enter the following data:

Field	Data
Created on	Today's date
Document number	Delete the entry

12. Choose .
13. Select your document, then choose .

14. Choose *System* → *Services* → *Output controller.*
15. Choose .
16. Select your item, then choose .

    The pipeline settlement is displayed on the *Print Preview for LP01 Page XXX of XXX*.
17. Choose until the overview tree appears.

Cross-Company Purchasing

Purpose

If purchasing is set up on a cross-company-code basis, the customer works with a central purchasing organization that is responsible for worldwide outline purchase agreements and the negotiation of the relevant terms and conditions. This means that the purchasing organization is active for more than one enterprise and, in organizational terms, is not linked to one specific company code or particular plants.

If you do not want to create an outline agreement, you can use the existing one (4600000010).

Process Flow

You can find the data for this process under [Page 129].

1. Creating a Central Outline Agreement [Page 130]
2. Creating a Purchase Requisition [Page 132]
3. Converting Purchase Requisitions into Purchase Orders Using Source Determination [Page 133]
4. Displaying the Statistical Data for the Agreement History [Page 135]
5. Processing the Goods Receipt for the Purchase Order [Page 136]
6. Displaying the Material Document [Page 138]
7. Verifying the Invoice [Page 139]

Data Used During This Process

Field	Germany	Great Britain	Description
Purchasing organization	1	1	Central purchasing organization
	1000	2000	
Purchasing group	001	001	Dietl, B.
Company code	1000	2000	
Plant	1000	2000	
Vendor	1003	1003	Gusswerke GmbH
Material	1300-340	1300-340	HD GLAD BOY Tank, silver
Storage location	0001	0001	Material stores

Creating a Central Outline Agreement

1. Call up the transaction as follows:

Menu Path	*Logistics → Materials Management → Purchasing → Outline Agreement → Contract → Create*
Transaction Code	ME31K

2. Enter the following data:

Field	Germany	Great Britain
Vendor	1003	1003
Agreement type	MK	MK
Agreement date	Today's date	Today's date
Purch. organization	1	1
Purchasing group	001	001
Plant	No entry	No entry

3. Choose .

If the *Enter Company Code* dialog box appears, enter *1000* for IDES AG Deutschland or *2000* for IDES UK and choose .

The company code determines the reference currency for the agreement price. You can now reference the outline agreement from the various company codes.

4. Enter the following data:

Field	Germany	Great Britain
Validity start	Today's date	Today's date
Validity end	Today's date + 1 month	Today's date + 1 month

The terms of delivery and terms of payment are adopted from the vendor master record. If required, you can change these data.

You can also supplement the reference data.

5. Choose .

6. Enter the following data:

Field	Germany	Great Britain
Material	1300-340	1300-340
Target quantity	10000	10000

7. Choose .

If the *Funds Assignment for Item XXX* dialog box appears, enter the value `9993`. Choose .

If a net price is requested, enter any price. Otherwise, the amount is taken from the info record. The other information is copied from the material master record.

8. Select your item.
9. Choose .

   The system displays the info record. If necessary, you can change the price.

   The first line shows the gross price (PB00) from the info record. You can enter additional condition types in the empty section below the condition types. To display all of the available condition types, choose the F4 input help. If you select a condition type and choose *Copy*, the system copies the condition type into the condition scheme. In the *Rate* field, enter any value. Confirm your entries. The conditions that you have entered here centrally will be adopted later in all local contract release orders.

10. Choose .

    If you have selected a condition type, you can see that the system has adjusted the net price to meet the new condition.

11. Choose .

    To skip any warning messages, choose .

    If the *Save Document* dialog box appears, choose *Yes*.

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

12. Choose until the overview tree appears.

Creating a Purchase Requisition

1. Call up the transaction as follows:

Menu Path	From the *Purchasing* node, choose *Purchase Requisition* → *Create*
Transaction Code	ME51N

2. Enter the following data:

Field	Data
	Purchase req. Standard

3. To open the item overview area, choose *Item overview*.
4. Enter the following data:

Field	Germany	Great Britain
Material	1300-340	1300-340
Quantity requested	100	100
Delivery date	Today's date + 1 month	Today's date + 1 month
Plant	1000	2000
PGr (purchasing group)	001	001

5. Choose .

   If the system questions whether you can keep the delivery date, choose .

6. Choose .

   The R/3 System confirms the transaction and displays the assigned purchase requisition number. Make a note of this number.

7. Choose until the overview tree appears.

Converting PReqs into POs Using Source Determination

1. Call up the transaction as follows:

Menu Path	From the *Purchase Requisition* node, choose *Follow-On Functions* → *Assign and Process*.
Transaction Code	ME57, ME21N

2. Enter the following data:

Field	Germany	Great Britain
Purchasing group	001	001
Plant	1000	2000

3. Choose .

   The R/3 System displays a list of all purchase requisitions that have not yet been assigned to a source of supply.

4. Select your purchase requisition.

5. Choose *Assign automatically*.

   In the dialog box, you see an overview of the supply sources for this item. The list contains all current outline agreements or info records that are available for the material. You can also see a price comparison.

6. Position your cursor on the outline agreement number you created, then choose .

   The system assigns the outline agreement as a supply source to your purchase requisition item.

7. Select your item, then choose *Assignments*.

   The R/3 System displays an overview of all purchase requisitions that have not yet been assigned to a source of supply.

8. Double-click on your outline agreement number.

9. In the *Process Assignment: Create PO* dialog box, enter the following data:

Field	Germany	Great Britain
Order type	NB	NB
Purchase order date	Today's date	Today's date
Purchasing group	001	001
Purch. organization	1	1

10. Choose .

    If a dialog box appears, informing you that you have already created a purchase order for this vendor today, choose *New purchase order*.

Converting PReqs into POs Using Source Determination

11. Select your purchase requisition in the *Document overview* screen area.
12. Choose .
13. To display the net price calculation for an item, choose the *Conditions* tab page in the item overview area.

    The system shows you how the net price was calculated.
14. Choose .

    To skip any warning messages, choose .

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

    In the *Exit list* dialog box, choose *Yes.*

Displaying the Statistical Data for the Agreement History

Use

The central purchasing organization can use this function to monitor the use of an outline agreement.

Procedure

1. Call up the transaction as follows:

Menu Path	From the *Contract* node, choose *Display*
Transaction Code	ME33K

2. Enter the following data:

Field	Germany	Great Britain
Agreement	Your outline agreement number	Your outline agreement number

3. Choose .
4. Select your item, then choose .

   The system displays an overview of all the quantities for the agreement and their corresponding amounts. You can display individual documents by double-clicking on them.

5. Choose until the overview tree appears.

Processing the Goods Receipt for the Purchase Order

Use

The individual plants execute this procedure when the ordered goods are received from the vendor.

Procedure

1. Call up the transaction as follows:

Menu Path	From the *Inventory Management* node, choose *Goods Movement* → *Goods Receipt* → *For Purchase Order* → *PO Number Known.*
Transaction Code	MIGO

2. Enter the following data:

Field	Data
Purchase order	Your PO number

3. Choose .

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

   The purchase order items are transferred to the item overview.

   The PO number you entered appears in the *Current purchase order* field, and the *PO number* field is once again ready to accept input.

   If you click on individual items, the system displays an item data screen (allowing you to change the incoming quantity, for example).

4. In the header data area of the *General* tab page, enter the following data:

Field	Data
Document date	Today's date
Posting date	Today's date

5. Select your item, then choose the *Wk* tab page at the bottom of the screen to check your organizational data.

6. On the *Wk* tab page, enter the following data:

Field	Data
Storage location	0001

7. In the item overview area, select *OK.*

   If the *OK* indicator in the item overview area is not active, either close the item detail area or select *Item OK* at the bottom of the item detail area.

8. Choose *Post*.

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

9. Choose until the overview tree appears.

Displaying the Material Document

11. Call up the transaction as follows:

Menu Path	From the *Inventory Management* node, choose *Material Document* → *Display*
Transaction Code	MB03

12. Enter the following data:

Field	Germany	Great Britain
Material document	Your document number	Your document number
Mat. doc. year	Current year	Current year

13. Choose .

    The system displays an overview of the material document.

14. Choose *Details fm item*.

    The system displays detail data for the goods issue item.

15. Choose .

16. Choose *Accounting docs*.

    The system displays a list of accounting documents in the *List of Documents in Accounting* dialog box.

17. Choose the *Accounting document.*

    You now see the accounts to which postings have been made in Financial Accounting, with the corresponding amounts.

18. Choose .

19. To quit the dialog box, choose .

20. Choose until the overview tree appears.

Executing Invoice Verification

Use

The invoice date is very important for the statistical update. The data of the statistics update, however, are a requirement for the settlement of the arrangement. The system settles invoiced amounts (sales revenue), that fall within a settlement period.

Procedure

1. Call up the transaction as follows:

Menu Path	From the *Purchase Order* node, choose *Follow-On Functions* → *Logistics Invoice Verification*.
Transaction Code	MIRO, MRBR

2. Choose *Edit* → *Switch company code.*

   In the *Enter Company Code* dialog box, the system displays the company code that is currently active for invoice verification. This is the company code last used by the user.

3. Enter the following data:

Field	Germany	Great Britain
Company code	1000	2000

4. Choose ✔.
5. In the field directly above and to the left of the item overview, use the input help to choose *Purchase order/scheduling agreement* (if it does not already appear as the default text).

   You can also use this activity to enter invoices with reference to a delivery note, for example. The system proposes the value last entered by the user in each case.

6. On the *Basic Data* tab page, in the header data area, enter the following data:

Field	Germany	Great Britain
Invoice date	Today's date	Today's date
Posting date	Today's date	Today's date
Tax amount, right-hand field	V0 (Domestic input tax 0%)	V0 (Exempt from input VAT)
To the right of the *Purchase order/scheduling agreement* input field	Your PO number	Your PO number

7. Choose ✔.

   In the item overview, the system displays the purchase order data, as well as the net amount in the balance field that is required to calculate the gross amount. The traffic light for the *Balance* field is red.

The value of the goods delivered plus tax (in Europe, VAT) is normally entered on the invoice sent to you by the vendor. In this process, we simulate this procedure and determine the invoice amount ourselves.

8. Enter the following data:

Field	Germany	Great Britain
Calculate tax	Select	Select

When you activate *Calculate tax* the system displays the gross amount in the balance field. The corresponding tax portion appears in the *Tax amount* field.

If you have selected the tax code *No tax procedure*, or *A/PSales tax exempt*, the *Tax amount* field contains the value 0. In this case, the *Balance* field contains the net amount.

9. Enter the following data:

Field	Germany	Great Britain
Amount	Gross amount determined	Gross amount determined
	Select	Select

10. Choose .

When you confirm your entries, the traffic light to the left of the *Balance* field changes to green.

In this example, we assume that the invoiced amount equals the calculated amount.

11. Choose .

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

The invoice is initially blocked for payment. Possible reasons include variances (settlement date too early, for example), or sporadic "control blocks". From a logistics perspective, the procurement process has been successfully completed. You can now display and change the blocking reasons.

12. Choose until the overview tree appears.

13. From the *Materials Management* node, choose *Logistics Invoice Verification* → *Further Processing* → *Release Blocked Invoices.*

14. Enter the following data:

Field	Germany	Great Britain
Company code	1000	2000
Invoice document	Your invoice document number	Your invoice document number

15. Choose .

    To display the blocking reasons, scroll to the right of the table. The blocking reasons for your item are highlighted with *X*. To display the full descriptions, position your cursor on the column header.

    Possible reasons for blocking an invoice include:

Column	Description
Qua (Blocking reason: Quality)	Quality variance
Qty (Blocking reason: Quantity)	Quantity variance
Prc (Blocking reason: Price)	Price variance
Dte (Blocking reason: Date)	Delivery date variance

16. If you want to release your invoice, select the blocking reason for your item, then choose *Blocking reason*.

17. Choose *Save changes*.

    In the status bar, the system confirms that the invoice has been released.

18. Choose until the overview tree appears.

Quota Arrangements

Purpose

This process principally involves procurement aspects of the supply chain (MM).

The system can make use of a certain mechanism to determine which source is to be assigned to a material requirement. The assignment of requirements to different vendors and plants is based on quota arrangements. 60% of a material requirement can be automatically assigned to one vendor and the remaining 40% to another, for example.

In this process, you display the material master record (quota arrangement field) and a quota arrangement. To see how the system assigns sources on the basis of quota arrangements, you enter two manual purchase requisitions and have the sources assigned. The system assigns different sources in accordance with the quota arrangement.

You can find more information about this process under [Page 143].

Process Flow

You can find the data for this process under [Page 144].

1. Displaying a Material Master Record [Page 145]
2. Displaying a Quota Arrangement [Page 146]
3. Entering Manual Purchase Requisitions [Page 147]
4. Assigning and Processing Purchase Requisitions [Page 148]
5. Displaying Quota Arrangement and Updated Quota Allocation Procedure [Page 150]

Additional Process Information

To activate quota arrangements, proceed as follows:

- In the material master record for the item, specify that a quota arrangement applies to this item.

  There is a field in the master record that indicates whether a quota arrangement applies to the relevant material. By entering the appropriate value in this field, you specify whether the quota arrangement applies to requisitions, purchase orders, planned orders, requisitions generated via MRP, or items of scheduling agreements. The quota arrangement can be used for any combination of the aforementioned documents.

- Specify the vendors or plants that are to be covered by the quota arrangement.

  Quota arrangements are specified individually. You specify the vendors affected by the quotas and the share to be allocated to each individual vendor. A quota arrangement consists of a record containing the vendor or plant, a validity period, a maximum quantity, and the percentage distribution between various vendors and/or plants. If the maximum quantity is exceeded, the system suggests **no** source on the basis of the quota arrangement.

Data Used During This Process

Field	Europe	North America	Description
Company code	1000	3000	
Document type	NB	NB	Standard PO
Material	99-110	99-110	Metallic glaze
Plant	1100	3100	
Purchasing group	001	001	
Vendor	1910, 1920	3910, 3920	
Scope of list	A	A	

Displaying a Material Master Record

1. Call up the transaction as follows:

Menu Path	*Logistics → Materials Management → Material Master → Material → Display → Display Current*
Transaction Code	MM03

2. Enter the following data:

Field	Europe	North America
Material	99-110	99-110

3. Choose .

   The *Select Views* dialog box appears.

4. Select *Purchasing*, then choose .

5. In the *Organizational Levels* dialog box, enter the following data:

Field	Europe	North America
Plant	1100	3100

6. Choose .

   Note that the *Quota arrangement usage* field contains the entry *3*.

7. Position your cursor on the *Quota arrangement usage* field, then choose the input help.

   Four values are now shown in the *Quota Arrangement Usage* dialog box. For each value, the system indicates the purchasing documents for which a quota arrangement is effective. The field value in this example is *3*, meaning that quota arrangement rules can apply to all the purchasing documents for this item if a quota arrangement exists.

8. Choose .

9. Choose .

Displaying a Quota Arrangement

1. Call up the transaction as follows:

Menu Path	From the *Purchasing* node, choose *Master Data* → *Quota Arrangement* → *Display.*
Transaction Code	MEQ3

2. Enter the following data:

Field	Europe	North America
Material	99-110	99-110
Plant	1100	3100

3. Choose .

   The system displays the validity data and the quota number.

4. Select the first item, then choose *Item*.

   Each quota arrangement item contains a vendor, a maximum quantity, and an allocated quantity indicating which portion of the requirement is to be procured from the relevant vendor. In addition, the quota is shown as a percentage, together with the total quantity procured from this vendor to date.

   Note the values in the *Allocated quantity* field for each vendor.

5. Choose until the overview tree appears.

Entering Manual Purchase Requisitions

1. Call up the transaction as follows:

Menu Path	From the *Purchasing* node, choose *Purchase Requisition* → *Create*
Transaction Code	ME51N

2. Enter the following data:

Field	Data
	Purchase req. Standard

3. To open the item overview area, choose *Item overview*.
4. Enter the following data:

Field	Europe	North America
Material	99-110	99-110
Quantity requested	100	100
Delivery date	Today's date + 1 month	Today's date + 1 month
Plant	1100	3100

5. Choose .

   If the system questions whether you can keep the delivery date, choose .

6. Choose .

   The R/3 System confirms the transaction and displays the assigned purchase requisition number. Make a note of this number.

   The *Create Purchase Requisition: Initial Screen* is still displayed, enabling you to enter a new requisition directly.

7. Repeat steps 2 to 6.

   Make a note of the second purchase requisition number.

8. Choose until the overview tree appears.

Assigning and Processing Purchase Requisitions

1. Call up the transaction as follows:

Menu Path	From the *Purchasing* node, choose *Purchase Requisition* → *Follow-on Functions* → *Assign and Process.*
Transaction Code	ME57, ME21N

2. Enter the following data:

Field	Europe	North America
Purchasing group	001	001
Material	99-110	99-110
Scope of list	A	A
Plant	1100	3100
Fixed vendor	No entry	No entry

3. Choose .

   A list of purchase requisitions is displayed, including the two new ones.

4. Select these two requisitions.

5. Choose *Assign automatically*.

   The system assigns a different vendor to each requisition in accordance with the specified quota arrangement. Note which vendor number has been assigned to which requisition.

6. Select the first requisition, then choose *Assignments*.

   The system displays the vendor information.

7. Find the vendor suggested by the system for this purchase requisition. Position the cursor on the second line for this vendor and choose *Process assignment*.

   The *Process Assignment: Create PO* dialog box appears, in which you can create the purchase order.

8. Enter the following data:

Field	Europe	North America
Purchasing group	001	001
Purchasing organization	1000	3000

9. Choose .

10. Select your purchase requisition in the *Document overview* screen area.

11. Choose .

12. To skip any warning messages, choose .

13. Choose .

The system confirms the transaction and assigns a PO number. Note this number.

14. To return to the previous screen *Assign and Process Purchase Requisitions*, choose .

    The system displays the purchase order number for your first purchase requisition.

15. Deselect your first requisition and select the second one.

16. Choose *Assignments*.

17. Find the vendor suggested by the system for your second purchase requisition. Position the cursor on the second line for this vendor and choose *Process assignment*.

18. Enter the following data:

Field	Europe	North America
Purchasing group	001	001
Purchasing organization	1000	3000

19. Choose .

    If a purchase order has already been created on this day, the system provides you with the opportunity to extend it. You can either extend an already existing purchase order or create a new one. Choose *New Purchase Order*.

20. Select your purchase requisition in the *Document overview* screen area.

21. Choose .

    If you are asked to make an entry in the *Order quantity* field on the *Create Purchase Order: Item ####* screen, enter any quantity (e.g. *10*) and choose .

22. To skip any warning messages, choose .

23. Choose .

    The system confirms the transaction and assigns a PO number. Note this number.

24. Choose until the overview tree appears.

    In the dialog box, choose *Yes*. The number of processed requisitions is updated.

Displaying Quota Arr. and Updated Quota Allocation Procedure

1. Call up the transaction as follows:

Menu Path	From the *Master Data* node, choose *Quota Arrangement* → *Display.*
Transaction Code	MEQ3

2. Enter the following data:

Field	Europe	North America
Material	99-110	99-110
Plant	1100	3100

3. Choose .

   The system shows you the validity periods, quantities, and quota arrangement numbers.

4. Select the item, then choose *Item*.

   Note that the quantity assigned has been increased by the quantity covered by the two requisitions. Compare the values in the *Allocated Quantity* field with the values you noted down previously.

   Although this process involves manually created purchase requisitions only, quota arrangements can be applied to purchase orders, planned orders, and material requirements planning, depending on the entry made in the quota arrangement field in the Purchasing view of the item master record.

   If you create a purchase order for an item with a quota arrangement and use a vendor that is not specified in this arrangement, the system will issue a warning message and suggest a vendor from the quota arrangement. You can change this system message from a warning to an error message. In this way, you can prevent the use of a vendor that is not included in the quota arrangement.

5. Choose until the overview tree appears.

Outline Agreement/Quantity Contract

Purpose

In this process, you create an outline agreement for a specified target quantity. You then maintain the source list for the vendor and material. Next, you manually create a purchase requisition and the contract release order (2 variants). You enter a goods receipt for this purchase order and display the respective material document. You enter and verify the received invoice. Finally, you display the accounting document.

If you do not want to create a new outline agreement each time, we recommend that you display the existing outline agreement (4600000003 for Europe and 4600000014 for US data) and the source list.

You can find more information about this process under [Page 152].

Process Flow

You can find the data for this process under [Page 153].

Additional Process Information

About Outline Agreements

An outline agreement is a long term arrangement with a vendor regarding the supply of materials or the performance of services according to predetermined terms and conditions. Outside the SAP System, outline agreements are also referred to as *blanket*, *master*, *framework,* or *umbrella* agreements. In MM Purchasing, outline agreements are subdivided into *contracts* and *scheduling agreements*. Outline agreements may be subject to a release (approval or clearance) procedure.

How Outline Agreements Are Structured

As with other purchasing documents, an outline agreement consists of a *document header* and one or more *items*:

- *Document header* - contains information specific to the entire agreement (for example, vendor information and conditions applicable for all items).
- *Items* - contain information specific to the material or service. Example

  Statistics on ordering activities for the item

  Quantity or price of the item

  Pricing conditions, such as quantity discounts and surcharges

  Conditions entered at the item level will override the header level conditions for that item. For example, a 5% discount might apply to all items ordered from this vendor, but one particular item might get a 10% discount. In this case, 5% would be entered at the header level, but 10% would be entered for the specific item at the item level.

Data Used During This Process

Field	Europe	North America	Description
Outline agreement	4600000003	4600000014	
Agreement type	MK	MK	Quantity contract
Purchasing organization	1000	3000	
Purchasing group	001	010	
Vendor	1000	3000	
Plant	1000	3000	
Company code	1000	3000	
Material	100-430	100-430	Lantern ring
Target quantity	10000	10000	Quantity covered by the agreement
Net price	20	20	Net price per unit
Tax code	V0	I0	Non-taxable

Creating the Outline Agreement

1. Call up the transaction as follows:

Menu Path	*Logistics → Materials Management → Purchasing → Outline Agreement → Contract → Create*
Transaction Code	ME31K

Alternatively, you can simply choose *Display* (ME33K) instead of *Create* if you do not want to create a new entry. To display a valid contract, use agreement number 4600000003 for Europe and 4600000014 for North America.

2. Enter the following data:

Field	Europe	North America
Vendor	1000	3000
Agreement type	MK	MK
Purch. organization	1000	3000
Purchasing group	001	010
Plant	1000	3000

3. Choose .

4. Enter the following data:

Field	Europe	North America
Validity start	Today's date	Today's date
Validity end	End of next year	End of next year

5. Choose .

6. Enter the following data:

Field	Europe	North America
Material	100-430	100-430
Target quantity	10000	10000
Net price	20	20

7. Choose .

8. Choose .

The system confirms the transaction and displays the assigned quantity contract number. Make a note of this number.

9. Choose until the overview tree appears.

Maintaining the Source List

1. Call up the transaction as follows:

Menu Path	From the *Master Data* node, choose *Source List* → *Maintain* (or *Display,* if no new outline agreement has been created).
Transaction Code	ME01

2. Enter the following data:

Field	Europe	North America
Material	100-430	100-430
Plant	1000	3000

3. Choose .

   The *Maintain Source List: Overview Screen* displays the available source list records.

4. Enter the following data in a new line:

Field	Europe	North America
Valid from	Today's date	Today's date
Valid to	End of this year	End of this year
Agreement	Your outline agreement number	Your outline agreement number
Item	10	10
Fix	Select	Select

5. To check the accuracy of your entries, choose .

   If you note any problems with the source list records proceed as follows: If the list already contains data, select the relevant items, then choose . In the *Delete Source List Records* dialog box, choose *Yes.* To check the accuracy of your entries once again, choose .

6. If required, correct your entries.

7. Choose .

   The system issues a message to confirm the transaction.

8. Choose until the overview tree appears.

Creating a Purchase Requisition with Automatic Source Determination

1. Call up the transaction as follows:

Menu Path	From the *Purchase Requisition* node, choose *Create*
Transaction Code	ME51N

2. Enter the following data:

Field	Data
	Purchase requisition Standard
Source determination	Select

3. To open the item overview area, choose *Item overview*.
4. Enter the following data:

Field	Europe	North America
Material	100-430	100-430
Quantity requested	50	50
Deliv.date	Today's date + 1 month	Today's date + 1 month
Plant	1000	3000
PGr (purchasing group)	001	010

5. Choose .

   If the system questions whether you can keep the delivery date, choose .

6. To open the item detail area, choose *Item detail*.

   You can now see the number of your outline agreement on the *Source of supply* tab page. The system assigned the purchase requisition item to this procurement reference via the source list.

7. Choose .

   The R/3 System confirms the transaction and displays the assigned purchase requisition number. Make a note of this number.

8. Choose until the overview tree appears.

Converting the Purchase Requisition into a Purchase Order

1. Call up the transaction as follows:

Menu Path	From the *Purchase Requisition* node, choose *Follow-On Functions* → *Create Purchase Order* → *Via Assignment List*.
Transaction Code	ME58, ME33K, ME23N, ME53N

2. Enter the following data:

Field	Europe	North America
Purchasing group	001	010
Purchasing organization	1000	3000
Vendor	1000	3000
Scope of list	A	A

3. Choose .

   The R/3 System displays an overview of the assigned purchase requisitions.

4. Position your cursor on your outline agreement number, then choose *Process assignment*.
5. In the *Process Assignment: Create PO* dialog box, enter the following data:

Field	Data
Order type	NB

6. Choose .
7. If the system displays the *Create Purchase Order: Extension Option* dialog box, choose *New Purchase Order*.

   The R/3 System displays a selection list of purchase requisitions.

8. In the document overview, select your purchase requisition number, then choose .

   The system displays an overview of the purchase order items.

9. If a warning message appears regarding the delivery date, choose .
10. Select your item, then choose .

    The R/3 System confirms the transaction with a message and displays the assigned purchase order number. Note this number.

11. Choose until the overview tree appears.
12. From the *Outline Agreement* node, choose *Contract* → *Display*
13. Enter the following data:

Field	Data

Converting the Purchase Requisition into a Purchase Order

Agreement	Quantity contract number

14. Choose .
15. Select your item, then choose *Item* → *Statistics* → *Release documentation*.

    The R/3 System displays the quantity released to date, the target quantity, and the open target quantity.

    The order date is when the order was created, not when the goods will be delivered.
16. Select your PO number, then choose to display the date the goods will be delivered to the customer.
17. Choose until the overview tree appears.
18. From the *Purchase Requisition* node, choose *Display.*
19. In the item header area, choose the *Status* tab page.

    In the *Processing status* field, you can see that the purchase order has been created.
20. Choose until the overview tree appears.

Manually Creating a Release Order for the Outline Agreement

1. Call up the transaction as follows:

Menu Path	From the *Purchase Order* node, choose *Create* → *Vendor/Supplying Plant Known*
Transaction Code	ME21N, ME33K, ME23N

2. Enter the following data:

Field	Data
	Standard PO

3. In the *Item Overview* section, enter the following data:

Field	Europe	North America
PO quantity	50	50
C	D	D
Delivery date	Today's date + 1 week	Today's date + 1 week
Outline agreement number	Quantity contract number	Quantity contract number

4. Choose .

   If the system questions whether you can keep the delivery date, choose .

5. To open the item detail area, choose *Item detail*.

   In the header area of the vendor, as well as in the item area, the system displays the item data of the outline agreement item.

6. On the *Org.data* tab page, enter the following data:

Field	Europe	North America
Purchasing org.	1000	3000
Purchasing group	001	010
Company code	1000	3000

7. Choose .

8. Choose .

   The R/3 System confirms the transaction and displays the assigned purchase order number. Note this number.

9. Choose until the overview tree appears.

10. Choose *Outline agreement* → *Contract* → *Display.*

11. Enter the following data:

Manually Creating a Release Order for the Outline Agreement

Field	Data
Agreement	Quantity contract number

12. Choose .
13. Select your item, then choose *Item* → *Statistics* → *Release documentation*.

    The R/3 System displays the quantity released to date, the target quantity, and the open target quantity.

    The order date is when the order was created, not when the goods will be delivered.

14. Select your PO number, then choose to display the date the goods will be delivered to the customer.
15. Choose until the overview tree appears.

Entering the Goods Receipt for the Purchase Order

1. Call up the transaction as follows:

Menu Path	From the *Purchase Order* node, choose *Follow-On Functions* → *Goods Receipt*.
Transaction Code	MIGO

2. Enter the following data:

Field	Data
Purchase order	Previously noted PO number

3. Choose .

   In the item overview, the system displays the purchase order.

4. In the detail area, on the tab page *Wk*, enter the following data:

Field	Europe	North America
Storage location	0001	0001

5. In the item overview area, select *OK.*

   If the *OK* indicator in the item overview area is not active, either close the item detail area or select *Item OK* at the bottom of the item detail area.

6. Choose .

   The R/3 System confirms the transaction and displays the goods receipt number. Make a note of this number.

7. Choose until the overview tree appears.

Displaying the Material Document

1. Call up the transaction as follows:

Menu Path	From the *Inventory Management* node, choose *Material Document* → *Display*
Transaction Code	MB03

2. Enter the following data:

Field	Data
Material document	Your material document number
Material document year	Current year

3. Choose .

   The system displays an overview of the material document.

4. Choose *Details fm. item*.

   The system displays detail data for the goods issue item.

5. Choose .
6. Choose *Accounting docs*.

   The system displays a list of accounting documents in the *List of Documents in Accounting* dialog box.

7. Choose *Accounting document.*

   You now see the accounts to which postings have been made in Financial Accounting, with the corresponding amounts.

8. Choose .
9. To quit the dialog box, choose .
10. Choose until the overview tree appears.

Entering and Checking Invoices

1. Call up the transaction as follows:

Menu Path	From the *Purchase Order* node, choose *Follow-On Functions* → *Logistics Invoice Verification*.
Transaction Code	MIRO, MRBR

2. Choose *Edit* → *Switch company code.*

   In the *Enter Company Code* dialog box, the system displays the company code that is currently active for invoice verification. This is the company code last used by the user.

3. Enter the following data:

Field	Europe	North America
Company code	1000	3000

4. Choose ✔.

5. In the field directly above and to the left of the item overview, use the input help to choose *Purchase order/scheduling agreement* (if it does not already appear as the default text) .

   You can also use this activity to enter invoices with reference to a delivery note, for example. The system proposes the value last entered by the user in each case.

6. On the *Basic Data* tab page, in the header data area, enter the following data:

Field	Europe	North America
Invoice date	Today’s date	Today’s date
Posting date	Today's date (default)	Today's date (default)
Tax amount, right-hand field	V0 (Domestic input tax 0%)	I0 (A/P Sales Tax Exempt)
To the right of the *Purchase order/scheduling agreement* input field	Previously noted PO number	Previously noted PO number

7. Choose .

   In the item overview, the system displays the purchase order data, as well as the net amount in the balance field that is required to calculate the gross amount. The traffic light for the *Balance* field is red.

   The value of the goods delivered plus tax (in Europe, VAT) is normally entered on the invoice sent to you by the vendor. In this process, we simulate this procedure and determine the invoice amount ourselves.

8. Enter the following data:

Field	Europe	North America
Calculate tax	Select	Select

When you activate *Calculate tax* the system displays the gross amount in the balance field.

If you have selected the tax code *No tax procedure*, or *A/PSales tax exempt*, the *Tax amount* field contains the value 0. In this case, the *Balance* field contains the net amount.

9. Enter the following data:

Field	Europe	North America
Amount	Gross amount determined	Gross amount determined
	Select	Select

10. Choose .

When you confirm your entries, the traffic light in the balance field changes to green.

In this example, we assume that the invoiced amount equals the calculated amount.

11. Choose .

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

The invoice is initially blocked for payment. Possible reasons include variances (settlement date too early, for example), or sporadic "control blocks". From a logistics perspective, the procurement process has been successfully completed. You can now display and change the blocking reasons.

12. Choose until the overview tree appears.
13. From the *Materials Management* node, choose *Logistics Invoice Verification* → *Further Processing* → *Release Invoices.*
14. Enter the following data:

Field	Europe	North America
Company code	1000	3000
Invoice document	Your invoice document number	Your invoice document number

15. Choose .

Possible reasons for blocking an invoice include:

Column	Description
Qua (Blocking reason: Quality)	Quality variance
Qty (Blocking reason: Quantity)	Quantity variance

Prc (Blocking reason: Price)	Price variance
Dte (Blocking reason: Date)	Delivery date variance

16. If you want to release your invoice, select the blocking reason for your item, then choose *Blocking reason*.
17. Choose *Save changes*.

    In the status bar, the system confirms that the invoice has been released.
18. Choose until the overview tree appears.

Displaying the Accounting Documents

8. Call up the transaction as follows:

Menu Path	From the *Materials Management* node, choose *Logistics Invoice Verification* → *Further Processing* → *Display Invoice Document.*
Transaction Code	MIR4

9. Enter the following data:

Field	Data
Invoice doc. number	Your invoice document number
Fiscal year	Current year

10. Choose *Display doc.*.
11. Choose *Follow-on documents*.
12. In the *List of Documents in Accounting* dialog box, choose *Accounting document*.
13. Choose .

    The *Document Header: ### Company Code 1000* dialog box appears.
14. To quit the dialog box, choose .
15. Choose .
16. To quit the dialog box, choose .
17. Choose until the overview tree appears.

Consumable Materials With Multiple Account Assignment

Purpose

You can specify multiple account assignments for an item. For example, it is possible to allocate the costs associated with a particular item to several different cost centers. With multiple account assignment, the entered account data represents individual account assignment items.

In this process, you order a consumable material and assign it to several cost center accounts. Then you enter the goods receipt for the purchase order and display the respective material document. You can then enter and verify the received invoice. Finally, you display the accounting document.

You can find more information about this process under [Page 170].

Process Flow

You can find the data for this process under [Page 171].

1. Creating a Purchase Order [Page 172]
2. Posting the Goods Receipt for the Purchase Order [Page 174]
3. Displaying the Material Document [Page 175]
4. Entering the Invoice [Page 176]

Additional Process Information

When specifying multiple account assignment for an item, you must consider the following points:

1. How is the net value of a PO item to be distributed (apportioned) to the individual account assignment items?

   The costs can be allocated on a quantity or percentage basis (for example, 10 pieces or 10% of the order value to cost center 100).

2. How are the costs to be apportioned if only a part of the ordered quantity has been delivered and invoiced?

   In this case, the accounts are charged with the invoiced amount of the partial delivery. For each purchase order item with multiple account assignments, you can specify whether the cost allocation is carried out *proportionally* or on a *progressive fill-up* basis.

- If you allocate the costs proportionally, the invoiced amount is distributed equally among the accounts.
- If you allocate the costs on a progressive fill-up basis, the invoiced amount is allocated to the individual account assignment items one after the other. In this case, the costs are only assigned to account assignment item 2, if item 1 has been completely exhausted. This procedure is continued with each partial invoice until the full invoiced amount has been reached.

Data Used During This Process

Field	Europe	North America	Description
Company code	1000	3000	
Material	99-100	99-100	lubricating oil
Plant	1000	3000	
Purchasing group	003	003	Schrempf, D.
Purch. organization	IDES Germany	IDES US	
Vendor	1000	3000	
Net price	2.00	1.00	
Account assignment category	K	K	Cost center assignment
Cost centers	4200, 4220, 4240	4200, 4220, 4240	
Tax code	VN (Domestic input tax 16%)	I1 (A/P Sales Tax, Taxable)	

Creating a Purchase Order

1. Call up the transaction as follows:

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

You now have the option of setting default entries for the PO document. To do this, choose Default Settings for Order Document Fields [Page 179].

If you do modify your personal settings, this could mean that the entries you see on your screens might differ from those described in the IDES processes. To avoid this situation, when you have completed this process we strongly advise you to reset any changes you make to your personal settings.

2. Enter the following data:

Field	Europe	North America
	Standard PO	Standard PO
Vendor	1000	3000
Document date	Today's date	Today's date

3. Choose .
4. To open the item header area, choose *Header*.
5. On the *Org.data* tab page, enter the following data:

Field	Europe	North America
Purchasing org.	1000	3000
Purchasing group	003	003
Company code	1000	3000

6. To open the item overview area, choose *Item overview*.
7. Enter the following data:

Field	Europe	North America
A	K	K
Material	99-100	99-100
PO quantity	600	600
D	D	D
Delivery date	Today's date + 1 month	Today's date + 1 month
Net price	2,00	2,00

Plant	1000	3000
Storage location	0001	0001

8. Choose .

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

9. To open the item detail area, choose *Item detail*.
10. Choose the *Account assignment* tab page.

    If the *Account assignment* tab page is not displayed in tabular form, choose .

11. To delete the first item, select it, then choose .
12. Enter the following data:

Field	**Europe**	**North America**
Quantity	200 for each cost center	200 for each cost center
First cost center	4200	4200
Second cost center	4220	4220
Third cost center	4240	4240

13. Choose .
14. On the *Invoice* tab page, select *GR-based IV* (Goods receipt based invoice verification).
15. Choose the *Delivery* tab page, then select *GR Non-valuated*.

    To skip any warning messages, choose .

16. Choose .

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

17. Choose until the overview tree appears.

Posting the Goods Receipt for the Purchase Order

1. Call up the transaction as follows:

Menu Path	From the *Inventory Management* node, choose *Goods Movement* → *Goods Receipt* → *For Purchase Order* → *PO Number Known.*
Transaction Code	MIGO

2. Enter the following data:

Field	Data
Purchase order	Your PO number

3. Choose .

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

   The purchase order items are transferred to the item overview.

   The PO number you entered appears in the *Current purchase order* field, and the *PO number* field is once again ready to accept input.

   If you click on individual items, the system displays an item data screen (allowing you to change the incoming quantity, for example).

4. In the header data area of the *General* tab page, enter the following data:

Field	Data
Document date	Today's date
Posting date	Today's date

5. Select your item, then choose the *Wk* tab page at the bottom of the screen to check your organization data.

6. On the *Wk* tab page, enter the following data:

Field	Europe	North America
Unloading point	0001	0001

7. In the item overview area, select *OK.*

   If the *OK* indicator in the item overview area is not active, either close the item detail area or select *Item OK* at the bottom of the item detail area.

8. Choose *Post*.

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

9. Choose until the overview tree appears.

Displaying the Material Document

1. Call up the transaction as follows:

Menu Path	From the *Inventory Management* node, choose *Material Document* → *Display*
Transaction Code	MB03

2. Enter the following data:

Field	Europe	North America
Material document	Your document number	Your document number
Mat. doc. year	Current year	Current year

3. Choose .

   The system displays an overview of the material document.

4. Choose *Details fm. item*.

   On the *Display Material Document ###: Details ###/###* screen, you see the detail data for your goods receipt item.

5. To return to the previous screen, choose .

6. Choose *Accounting docs*.

   Since the material was received as non-valuated, no accounting document exists.

7. Choose until the overview tree appears.

Entering the Invoice

1. Call up the transaction as follows:

Menu Path	From the *Purchase Order* node, choose *Follow-On Functions* → *Logistics Invoice Verification*.
Transaction Code	MIRO, MRBR

2. Choose *Edit* → *Switch company code.*

   In the *Enter Company Code* dialog box, the system displays the company code that is currently active for invoice verification. This is the company code last used by the user.

3. Enter the following data:

Field	Europe	North America
Company code	1000	3000

4. Choose ✔.

5. In the field directly above and to the left of the item overview, use the input help to choose *Purchase order/scheduling agreement* (if it does not already appear as the default text) .

   You can also use this activity to enter invoices with reference to a delivery note, for example. The system proposes the value last entered by the user in each case.

6. On the *Basic Data* tab page of the header data area, enter the following data:

Field	Europe	North America
Document date	Today's date	Today's date
Posting date	Today's date	Today's date
Tax amount, right-hand field	VN (Domestic input tax 16%)	I1 (A/P Sales Tax, taxable)
To the right of the *Purchase order/scheduling agreement* input field	Your PO number	Your PO number

7. Choose .

   In the item overview, the system displays the purchase order data, as well as the net amount in the balance field that is required to calculate the gross amount. The traffic light for the *Balance* field is red.

   The value of the goods delivered plus tax (in Europe, VAT) is normally entered on the invoice sent to you by the vendor. In this process, we simulate this procedure and determine the invoice amount ourselves.

8. Enter the following data:

Field	Data
Calculate tax	Select

When you activate *Calculate tax* the system displays the gross amount in the balance field. The corresponding tax portion appears in the *Tax amount* field.

9. Enter the following data:

Field	Data
Amount	Gross amount determined
	Select

10. Choose .

When you confirm your entries, the traffic light to the left of the *Balance* field changes to green.

In this example, we assume that the invoiced amount equals the calculated amount.

11. Choose .

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

The invoice is initially blocked for payment. Possible reasons include variances (settlement date too early, for example), or sporadic "control blocks". From a logistics perspective, the procurement process has been successfully completed. You can now display and change the blocking reasons.

12. Choose until the overview tree appears.
13. From the *Materials Management* node, choose *Logistics Invoice Verification* → *Further Processing* → *Release Blocked Invoices.*
14. Enter the following data:

Field	Europe	North America
Company code	1000	3000
Invoice document	Your invoice document number	Your invoice document number

15. Choose .

To display the blocking reasons, scroll to the right of the table. The blocking reasons for your item are highlighted with *X*. To display the full descriptions, position your cursor on the column header.

Possible reasons for blocking an invoice include:

Column	Description
Qua (Blocking reason: Quality)	Quality variance
Qty (Blocking reason: Quantity)	Quantity variance

Entering the Invoice

Prc (Blocking reason: Price)	Price variance
Dte (Blocking reason: Date)	Delivery date variance

16. If you want to release your invoice, select the blocking reason for your item, then choose *Blocking reason*.
17. Choose *Save changes*.

    In the status bar, the system confirms that the invoice has been released.
18. Choose until the overview tree appears.

Default Settings for Order Document Fields

Use

You can set default entries for the header and item fields of a purchasing document.

Procedure

1. Choose *Personal setting.*

   In the dialog box, you can specify basic settings (*Basic settings* tab page) or default values (*Default values* tab page) for the purchasing document. These settings are copied into each new purchase order, and can be changed at any time.

2. Choose the *Default Values* tab page.

3. To make changes to fields at document header level, choose the *Document Header* tab page.

   You can now change the default values.

4. To make changes to fields at document item level, choose the *Document Item* tab page, then enter the default values you require.

   These settings are copied into each new purchase order, and can be changed at any time.

   If you choose *More fields*, you can add even more fields to your list of default values.

5. To adopt the entries, choose .

   If you do modify your personal settings, this could mean that the entries you see on your screens might differ from those described in the IDES processes. To avoid this situation, when you have completed this process we strongly advise you to reset any changes you make to your personal settings.

Subcontract Orders

Purpose

You process a subcontract (SC) order from order entry through to invoice verification.

You can find more information about this process under [Page 182].

Process Flow

You can find the data for this process under [Page 183].

1. Creating a Subcontract Order [Page 184]
2. Checking SC Stock Levels and Transfer Postings [Page 186]
3. Posting the Goods Receipt for the SC Order [Page 187]
4. Posting the Invoice for the SC Item [Page 189]
5. Displaying the Purchase Order History [Page 192]

Additional Process Information

Subcontract Procurement Processing

In subcontracting, the vendor (subcontractor) is provided with input materials (components) by the buying entity, which are then used to manufacture the end product. This involves the following steps:

1. You order the end product by means of a subcontract order. The components that the vendor needs to manufacture the end product are specified in the purchase order.
2. In Inventory Management, the components are posted to the stock of material provided to the vendor. The components are then supplied to the vendor.
3. The vendor performs the necessary service (i.e. does the required assembly or processing work) and delivers the ordered material (the end product). You post the consumption of the components.
4. If, after the goods receipt has been posted, the vendor informs you that a larger or smaller quantity of the components was actually consumed than planned in the purchase order, you must make an adjustment posting.
5. The vendor issues an invoice for the service provided. This invoice is then checked in Invoice Verification.

Items provided to the subcontractor

The quantities of the components to be provided to the vendor are entered into the stock of material to be provided to vendor. This stock has the following features:

- It is managed as part of your total valuated stock, and is available for MRP.
- This is managed only at plant level, since it is not stored at your own company but on the vendor's site.
- Two stock types are possible:

  Unrestricted-use stock

  Stock in quality inspection

  The stock can be transferred between the two stock types. Material withdrawals, however, can only be posted from unrestricted stock.
- You can take a physical inventory of the stock of material to be provided to vendor.

Data Used During This Process

Field	Europe	North America	Description
Company code	IDES AG	IDES US INC.	
Currency	EUR	USD	
Item category	L	L	Subcontracting item
Material number	101-100	101-100	Subcontracting material
Material	101-110 100-120 100-130	101-110 100-120 100-130	Materials provided to subcontractor
Movement type	541 101	541 101	Transfer posting to stock of material provided to subcontractor Goods receipt for purchase order
Plant	1000	3000	
Order type	Standard PO	Standard PO	
Purchasing group	Harnisch, H.	Diller, M.	
Purch. organization	IDES Germany	IDES USA	
Storage location	0001	0001	Material stores
Vendor	1000	3000	

Creating a Subcontract Order

1. Call up the transaction as follows:

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

2. Enter the following data:

Field	Europe	North America
	Standard PO	Standard PO
Vendor	1000	3000
Document date	Today's date	Today's date

3. Choose .
4. To open the item header area, choose *Header*.
5. On the *Org. data* tab page in the header data area, use the F4 input help to enter the following data:

Field	Europe	North America
Purchasing org.	IDES Germany	IDES USA
Purchasing group	Harnisch, H.	Diller, M.
Company code	IDES AG	IDES US INC.

6. To open the item overview area, choose *Item overview*.
7. Enter the following data:

Field	Europe	North America
I (Item category)	L	L
Material	101-100	101-100
PO quantity	100	100
Delivery date	Today's date + 1 month	Today's date + 1 month
Plant	1000	3000
Storage location	0001	0001

8. Choose .
9. To open the item detail area, choose *Item detail*.
10. On the *Delivery schedule* tab page, select your item.
11. Choose .

    The system displays a list of material components (defined by bill of materials) and the quantities required to fulfill the order.

If no material components are listed, choose . Check your entries to see if they are correct, then choose . Repeat step 11.

You can check if there is enough material provided available. To do this, choose . Then choose *AvailCheck*. You see the *open quantity* and the *confirmed quantity*. If available stocks have been used up, you will have to replenish them. To do this, use the process Purchase Order Entry and Subsequent Functions [Page 210]. To return to the *Process Component XXX-XXX; Storage Location Item* screen, choose *Continue*. To check the stocks for the other materials, choose and check the availability (*AvailCheck)*.

12. Choose .
13. Choose .

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

14. Choose until the overview tree appears.

Checking SC Stock Levels and Transfer Postings

1. Call up the transaction as follows:

Menu Path	From the *Purchase Order* node, choose *Reporting* → *SC Stocks per Vendor*
Transaction Code	ME2O

2. Enter the following data:

Field	Europe	North America
Vendor	1000	3000
Plant	1000	3000

3. Choose .

   The system shows you whether there is enough stock at the vendor site for each of the materials. If there is not enough material (shortages are highlighted in red), then carry out the following transfer posting: Select the item, then choose *Post goods issue*. In the *Post goods issue* dialog box enter *Storage Location 0001*, then choose . The system informs you that the item has been posted. Choose .

4. Choose until the overview tree appears.

Posting the Goods Receipt for the SC Order

21. Call up the transaction as follows:

Menu Path	From the *Inventory Management* node, choose *Goods Movement* → *Goods Receipt* → *For Purchase Order* → *PO Number Known.*
Transaction Code	MIGO

22. Enter the following data:

Field	Data
Purchase order	Your PO number

23. Choose .

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

    The purchase order items are transferred to the item overview.

    The PO number you entered appears in the *Current purchase order* field, and the *PO number* field is once again ready to accept input.

    If you click on individual items, the system displays an item data screen (allowing you to change the incoming quantity, for example).

24. In the header data area of the *General* tab page, enter the following data:

Field	Data
Document date	Today's date
Posting date	Today's date

25. Select your item, then choose the *Wk* tab page at the bottom of the screen to check your organizational data.

26. On the *Wk* tab page, enter the following data:

Field	Data
Storage location	0001

27. In the item overview area, select *OK.*

    If the *OK* indicator in the item overview area is not active, either close the item detail area or select *Item OK* at the bottom of the item detail area.

28. Choose .

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

29. Choose until the overview tree appears.

Posting the Invoice for the SC Item

1. Call up the transaction as follows:

Menu Path	From the *Purchase Order* node, choose *Follow-On Functions* → *Logistics Invoice Verification*.
Transaction Code	MIRO, MRBR

2. Choose *Edit* → *Switch company code.*

   In the *Enter Company Code* dialog box, the system displays the company code that is currently active for invoice verification. This is the company code last used by the user.

3. Enter the following data:

Field	Europe	North America
Company code	1000	3000

4. Choose ✔.

5. In the field directly above and to the left of the item overview, use the input help to choose *Purchase order/scheduling agreement* (if it does not already appear as the default text).

   You can also use this activity to enter invoices with reference to a delivery note, for example. The system proposes the value last entered by the user in each case.

6. On the *Basic Data* tab page of the header data area, enter the following data:

Field	Europe	North America
Document date	Today's date	Today's date
Posting date	Today's date	Today's date
Tax amount, right-hand field	V0 (Domestic input tax 0%)	I0 (A/P Sales Tax Exempt)
PO order/scheduling agreement	Your PO number	Your PO number

7. Choose ✔.

   In the item overview, the system displays the purchase order data, as well as the net amount in the balance field that is required to calculate the gross amount. The traffic light for the *Balance* field is red.

   The value of the goods delivered plus tax (in Europe, VAT) is normally entered on the invoice sent to you by the vendor. In this process, we simulate this procedure and determine the invoice amount ourselves.

8. Enter the following data:

Field	Data
Calculate tax	Select

Posting the Invoice for the SC Item

When you activate *Calculate tax* the system displays the gross amount in the balance field.

If you have selected the tax code *No tax procedure*, or *A/P Sales tax exempt*, the *Tax amount* field contains the value *0*. In this case, the *Balance* field contains the net amount.

9. Enter the following data:

Field	Europe	North America
Amount	Gross amount determined	Gross amount determined
	Select	Select

10. Choose .

When you confirm your entries, the traffic light to the left of the *Balance* field changes to green.

In this scenario, we assume that the invoiced amount equals the calculated amount.

11. Choose .

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

The invoice is initially blocked for payment. Possible reasons include variances (settlement date too early, for example), or sporadic "control blocks". From a logistics perspective, the procurement process has been successfully completed. You can now display and change the blocking reasons.

12. Choose until the overview tree appears.

13. From the *Materials Management* node, choose *Logistics Invoice Verification* → *Further Processing* → *Release Invoices.*

14. Enter the following data:

Field	Europe	North America
Company code	1000	3000
Invoice document	Your invoice document number	Your invoice document number

15. Choose .

To display the blocking reasons, scroll to the right of the table. The blocking reasons for your item are highlighted with *X*. To display the full descriptions, position your cursor on the column header.

Possible reasons for blocking an invoice include:

Column	Description

Qua (Blocking reason: Quality)	Quality variance
Qty (Blocking reason: Quantity)	Quantity variance
Prc (Blocking reason: Price)	Price variance
Dte (Blocking reason: Date)	Delivery date variance

16. If you want to release your invoice, select the blocking reason for your item, then choose *Blocking reason*.
17. Choose *Save changes*.

    In the status bar, the system confirms that the invoice has been released.
18. Choose until the overview tree appears.

Displaying the Purchase Order History

1. Call up the transaction as follows:

Menu Path	From the *Purchase Order* node, choose *Display*
Transaction Code	ME23N

If your purchase order is not displayed, choose . In the *Select Purchase Order* dialog box, enter your PO number, then choose *Other document.*

2. Choose *Print preview*.

   The system displays your print form. To display the other pages of a purchase order with more than one page, choose . To return to the previous page, choose .

3. Choose .

4. To open the item detail area, choose *Item detail*.

5. Choose the *Purchase order history* tab page.

   The system displays a history of the goods receipts and invoice receipts. By double-clicking on the document numbers, you can call up the material document or the accounting document. The GR document records both the receipt of the finished material and the issues of the materials provided to the subcontractor to produce that finished material. The invoice document shows that whereas the product of the subcontracting work has been invoiced, the input materials provided to the subcontractor have not. Choose .

6. Choose until the overview tree appears.

Processing RFQs and Quotations

Purpose

If the need for externally supplied materials should arise within your enterprise, the specific requirements are converted into purchase requisitions – either manually or automatically (through the MRP runs).

If the sources from which to procure the materials automatically (within the framework of optimized purchasing) can not be found, further system support in selecting vendors is available to users in the shape of the RFQ/quotation processing functionality. This enables the purchasing entity to implement a closed competitive bidding procedure. In such a procedure, any number of potential suppliers can be requested to submit quotations. These quotations are then entered in the system, after which a price comparison is carried out.

After this, it is possible to generate the corresponding purchase orders (to be issued to the selected vendors) quickly and straightforwardly direct from the RFQs, to thus initiate the actual external procurement process. Unfavorable bids can be rejected.

In the following process, 100 PCs, type Maxitec R 375 Persona (material number R-1000), are to be manufactured in plant 1200 (Dresden). The MRP run has determined a need for various components of which no stocks are currently available. The components involved are as follows: R-1150 (3.5” diskette drive), R-1160 (4.3GB hard disk), and R-1170 (Slimline PC case).

The purchase requisitions are to be created manually.

You can display the manufacturing bill of material (BOM) for the Maxitec R 375 PC as follows: Choose *Logistics* → *Production* → *Master Data* → *Bills of Material* → *Evaluations* → *BOM Explosion* → *Material BOM* → *Structure (Multi-Level)*. In the *Material* field, enter the material number `R-1000`. Enter `1200` in the *Plant* field. In the *BOM application* field, enter `PP01` for general production. Choose . The system shows you the multi-level BOM for the PC. Choose until the overview tree appears.

Process Flow

You can find the data for this process under [Page 194].

1. Creating a Purchase Requisition [Page 195]
2. Converting a Purchase Requisition into an RFQ [Page 197]
3. Displaying an RFQ [Page 200]
4. Entering Quotations [Page 201]
5. Comparing Quotations [Page 204]
6. Ordering an Item from One-Time Vendor who Quoted Lowest Price [Page 206]
7. Ordering an Item from Vendor w. Master Record who Quoted Lowest Price [Page 208]

Data Used During This Process

Field	Data	Description
Company code	1000	IDES AG
Plant	1200	Dresden
Vendors	1010 1030 1950	Sunny Electronics GmbH Jotachi Deutschland AG CPD L-Z
Material numbers	R-1150 R-1160 R-1170	3.5” HD Diskette drive Harddisk, 20 GB Slimline PC case
Purchasing organization	1000	IDES Germany
Purchasing group	007	Lux, L

Creating a Purchase Requisition

1. Call up the transaction as follows:

Menu Path	*Logistics → Materials Management → Purchasing → Purchase Requisition → Create*
Transaction Code	ME51N

2. Enter the following data:

Field	Data
	Purchase requis. Standard

3. To expand the item overview area, choose *Item overview*.
4. Enter the following data:

Field	Data
Material	R-1150
Quantity requested	100
Delivery date	Four weeks from today
Plant	1200
PGr (purchasing group)	007

5. Choose .

   If the system questions whether you can keep the delivery date, choose .
6. Repeat the entries for item 20 with the following data:

Field	Data
Material	R-1160
Quantity requested	100

7. Choose .

   If the system questions whether you can keep the delivery date, choose .
8. Repeat the entries for item 30 with the following data:

Field	Data
Material	R-1170
Quantity requested	100

9. Choose .

   If the system questions whether you can keep the delivery date, choose .
10. Choose .

The R/3 System confirms the transaction and displays the assigned purchase requisition number. Make a note of this number.

11. Choose until the overview tree appears.

Converting a Purchase Requisition into an RFQ

1. Call up the transaction as follows:

Menu Path	From the *Purchase Requisition* node, choose *Follow-On Functions* → *Assign and Process*
Transaction Code	ME57, ME41

2. Enter the following data:

Field	Data
Purchasing group	007
Scope of list	A
Plant	1200
Sort indicator	1

3. Choose .

   The purchase requisition you created is displayed in the item overview area.

4. Select one of the items you created. Choose *Edit* → *Flag for RFQ* → *With vendor*.

   The *Flag for RFQ Processing* dialog box appears.

5. Enter the following data:

Field	Data
Vendor	1010 1030 1950
Purchasing organization	1000 1000 1000

   Ignore any existing entries.

6. Choose *Flag for RFQ.*

7. Carry out the process for the other items you entered by repeating steps 4 to 6.

   Once the comment *Flagged for RFQ processing (several vendors)* appears in all items, you can resume your processing.

8. Choose *Assignments*.

Converting a Purchase Requisition into an RFQ

9. On the *Assign and Process Requisitions: Overview of Assignments* screen, you see which vendors have been flagged for the issue of RFQs. Select the lower line for vendor 1010 and choose *Process assignment.*

   The *Process Assignment: Create RFQ* dialog box appears. Here you can change the RFQ header data.

10. Enter the following data:

Field	Data
Quotation deadline	Two weeks from today

11. Choose ✔.

12. Enter the following data:

Field	Data
Collective no.	Any number (as long as it is the same as the one entered for the next RFQ)

   The collective number is used to group together the RFQs you create. If you group together all the RFQs belonging to a certain collective bidding procedure (bid invitation/tendering process) under the same number, it is then easier to select the RFQs under this number in list displays and for price comparison purposes.

13. Choose .

14. Choose .

15. Choose *Adopt + details*.

   The system now shows the data for the item level. To skip any warning messages, choose . Here you have the opportunity to check the data and make any necessary changes. Choose .

16. Choose .

   If the *Exit purchase requisitions* dialog box appears, choose *Yes*. Choose again.

   The system confirms the posting and assigns an RFQ number to it. Make a note of this number.

17. Choose .

   The system shows the status of the vendor in the *Processing note* column as *RFQ issued*

18. Repeat steps 9 to 18 for the vendors that do not yet have the status *RFQ issued*.

   If this process is carried out with the one-time vendor 1950, the error message *Please first maintain vendor's address* appears.

19. To do so, choose .

20. Enter the address data of your choice and pay attention to any error messages.
21. Choose .

    The system confirms the posting and assigns an RFQ number for the one-time vendor 1950. Make a note of the number that appears in the status bar.

22. Choose .
23. Choose until the overview tree appears.

    If the *Exit List* dialog box appears, choose *Yes*.

Displaying an RFQ

1. Call up the transaction as follows:

Menu Path	From the *RFQ/Quotation* node, choose *Request for Quotation* → *List Displays* → *By Collective Number*.
Transaction Code	ME4S, SPRO, OMEM

2. Enter the following data:

Field	Data
Collective number	Your collective number
Scope of list	ANFR
Plant	1200

Via the “scope of list” you determine which information is displayed in the list. You can adjust the scope of list parameters in Customizing for Materials Management. Now choose *Purchasing* → *Reporting.* Choose *Maintain Purchasing Lists*. To change the scope of list, choose *Scope of list.* Here you will find the parameter ANFR and its settings. You also have the opportunity to create new parameters at this point, allowing you to adjust your lists on an individual basis.

3. Choose .

   All assigned RFQs are now displayed.

4. Choose until the overview tree appears.

Entering Quotations

1. Call up the transaction as follows:

Menu Path	From the *RFQ/Quotation* node, choose *Quotation* → *Maintain*.
Transaction Code	ME47

2. Enter the following data:

Field	Data
RFQ	Quoted RFQ number for vendor 1010. (Use the input help to conduct a vendor-specific search for an RFQ number.)

3. Choose .
4. Enter the following data:

Line	Field	Data
Quotation 1 (vendor 1010)		
10 R-1150	Net price	65
20 R-1160	Net price	178
30 R-1170	Net price	47,50

5. Choose .
6. Choose .
7. Choose to display the item details.
8. Enter the following data:

Field	Data
Tax code	VN (Domestic input tax 16%)

9. Choose .
10. Enter the following data:

Field	Data
Tax code	VN (Domestic input tax 16%)

11. Choose .
12. Enter the following data:

Field	Data
CnTy (Condition type)	RA00 (Discount % on net)
Rate	5
Currency	%

13. Choose .

Entering Quotations

14. Choose .
15. Enter the following data:

Field	Data
Tax code	VN (Domestic input tax 16%)

16. Choose .
17. Choose .

    The system confirms that the quotation has been maintained with a message in the status line.

18. Repeat steps 3 to 17 for the second RFQ (to be issued to vendor 1030) with the data below:

Line	Field	Data
Quotation 2 (vendor 1030)		
10 Material R-1150:	Net price Tax code	75 VN
20 Material R-1160:	Net price Tax code	190 VN
30 Material R-1170:	Net price Tax code	50 VN

Vendor *1030* grants you a discount of 10 % on the total delivery value. This is a header condition, relating not to individual items but to the purchasing document as a whole.

19. To maintain the header conditions, choose *Header* → *Conditions.*
20. Enter the following data:

Field	Data
Condition type	RL01 (Vendor discount)
Rate	10
Currency	%

21. Choose .
22. Choose .
23. Choose .
24. Repeat steps 3 to 17 for the third RFQ (to be issued to vendor 1950) with the data below:

Line	Field	Data
Quotation 3 (vendor 1950)		

10 Material R-1150:	Net price Tax code	61,50 VN
20 Material R-1160:	Net price Tax code	193 VN
30 Material R-1170:	Net price Tax code	52,5 VN

This vendor offers *no* additional concessions, neither at item, nor at header level.

25. Choose .
26. Choose until the overview tree appears.

Comparing Quotations

Use

In the following process step, you first compare the quotations that have been submitted. From the quotation comparison list created, you can see which are the best prices for individual items and which vendor has submitted the most favorable quotation overall. A purchase order can be created on the basis of either the lowest overall quotation or the lowest quote for individual items.

Procedure

1. Call up the transaction as follows:

Menu Path	From the *RFQ/Quotation* node, choose *Quotation* → *Price Comparison*.
Transaction Code	ME49, ME13, ME47, ME62

2. Enter the following data:

Field	Data
Purchasing organization	1000
Collective RFQ	Your collective number

3. Choose .
4. The system shows an overview of the available quotations, sorted according to lowest total price. The lowest individual prices are marked accordingly.

   The quotation price comparison list shows the lowest individual prices. You can save these for the relevant materials as market prices in order to document them as generally valid.

   Make a note of the lowest individual prices with the relevant material number. You will need this data later.

5. Select the lowest price for the material *R-1150* and choose *Edit* → *Save market price.*

   A dialog box appears, stating that *Price from quotation XXX will be saved as market price.*

6. Choose .

   A message appears in the status line indicating that the market price for material XXX has been saved.

7. Repeat steps 5 to 7 for materials *R-1160* and *R-1170*.

   As a further aid to the decision-making process, you have the option of displaying the current vendor evaluations for vendors *1010* and *1030.*

8. Position the cursor on one of the two vendors (*Bidder* line) and choose *Environment* → *Vendor evaluation*.

   The system provides information on the main criteria, the corresponding scores, and their weighting in the calculation of the overall score (which is also shown).

Furthermore, from within the price comparison list you can have information records created or updated. In the process, the conditions from the quotation items are adopted in the info record. This is not possible for the one-time vendor *1950* because a collective account is involved in this case.

To access the *Price Comparison List in Currency EUR* screen, choose .

9. Select the most favorable individual quotation line for material *R-1160* and choose *Quotation*.
10. Enter the following data:

Field	Data
InfoUpdate	B

11. Choose .

    After saving, you can view the purchasing info records.

12. Reselect the item you have just processed and choose *Quotation*.
13. Choose *Environment* → *Info record*.
14. Choose *Conditions.*

    The system displays the conditions that have just been adopted from the quotation.

15. Choose until the *Price Comparison List in Currency EUR* screen appears.
16. Repeat steps 9 to 14 for the most favorable quotation item for material *R-1170*. For both materials note the vendor numbers of the most favorable quotation.

    On the *Display Gross Price Condition (PB00): Condition Supplements* screen, the RL01 condition is not displayed as it concerns a header condition of the vendor *1030*.

17. Choose until the *Price Comparison List in Currency EUR* screen appears.

    Make a note of the RFQ/Quotation number of one-time vendor *1950* in order to issue a purchase order to this vendor.

18. Choose until the overview tree appears.

Ordering an Item from One-Time Vendor who Quoted Lowest Price

1. Call up the transaction as follows:

Menu Path	From the *Materials Management* node, choose *Purchasing* → *Purchase Order* → *Create* → *Vendor/Supplying Plant Known*
Transaction Code	ME21N, ME53N

2. Enter the following data:

Field	Data
	Standard PO

3. Choose *Document overview on*.
4. Choose , next to .
5. Choose *Requests for quotations* from the menu that appears.
6. Enter the vendor number *1950* (one-time vendor) in the *Vendor* field as a selection criterion.
7. Choose .

   All RFQ numbers found for vendor 1950 are now listed in the purchasing document overview.

8. Choose from the document overview area.
9. In the *Sort criteria* area of the dialog box *Define sort order*, select all column names and choose .
10. In the *Column set* area select *Purchasing document* and *Material* and then choose .
11. Choose .
12. To display the individual materials of the document noted by you, choose the triangular icon next to the document number.
13. Select the material *R-1150* in the document overview area and choose .

    If the icon should not be visible, enlarge the *Document Overview* area accordingly.

    The RFQ item is adopted in the purchase order and listed in the item overview. In the *RFQ* field of the item, you again find the RFQ number you chose.

14. To open the item overview area, choose *Item details*.
15. If necessary, enter the following data:

Field	Data
Material	R-1150

PO quantity	100
C (Category of delivery date)	D
Delivery date	Four weeks from today
Net price	Previously entered net price
Plant	1200
Storage location	0001

16. Choose .
17. To open the item header area, choose *Header*.
18. Choose the tab page *Address.*
19. To maintain the delivery address, enter an address here.
20. Choose .

    The system confirms that a purchase order has been created under the number indicated. Note this number.

21. Choose until the overview tree appears.

    You now have the opportunity of displaying the ordering status of the underlying requisition.

22. Call up the transaction as follows:

Menu Path	From the *Purchase Requisition* node, choose *Display.*
Transaction Code	ME53N

23. Choose .
24. In the *Select document* dialog box, enter the quoted purchase requisition number and select *Purchase Requisition.* Choose *Other document*.
25. To open the item detail area, choose *Item detail*.
26. Choose the tab page *Status*.

    On the tab page *Status* you will see the purchase order and its number assigned to material *R-1150.*

27. Choose until the overview tree appears.

Ordering Item fr. Vendor w. Master Rec. who Quoted Lowest Price

Use

In the following process, the two requisition items that have not yet been ordered are to be procured from the vendor who submitted the lowest quotation. In this case, the automatic source determination facility is to be used, based on the updating of the purchasing info records outlined above.

However, the first step is to reject the quotation items of the unsuccessful bidders.

Procedure

1. Call up the transaction as follows:

Menu Path	From the *RFQ/Quotation* node, choose *Quotation* → *Price Comparison*.
Transaction Code	ME49, ME57

2. Enter the following data:

Field	Data
Purchasing organization	1000
Collective RFQ	Your collective number

3. Choose .

   In the following section, the individual quotation items of the unsuccessful bidders will be rejected.

4. Select one of the line items that you want to reject, and choose *Quotation.*
5. In the screen area *Quotation data*, select *Rejection ind.*

   You have the opportunity to qualify a rejection. To do so, position the cursor on the *Quotation comment* field and choose a reason for rejection with the aid of the input help (e.g. *Rejection for price reasons*).

6. Choose .

   If a warning message appears, choose . If the *Save Document* dialog box appears, choose .

7. You can repeat steps 4 to 6 for the remaining items that are to be rejected.
8. Choose until the overview tree appears.
9. From the *Purchase Requisition* node, choose *Follow-On Functions* → *Assign and Process*.

10. Enter the following data:

Field	Data
Purchasing group	007
Plant	1200

11. Choose .
12. Select the item relating to material *R-1160*, and then choose *Assign automatically*.

    The *Source Overview for Purchase Requisition XXX XXX* dialog box may appear. In this dialog box, the system suggests other vendors that are not included in the quotation price comparison list as a source of supply. In this function, the system offers all sources found for the material for selection. This includes any existing outline agreements in addition to the normal info records.

13. Position the cursor on the number of the vendor with the most favorable quotation from the price comparison list and choose .
14. Repeat steps 12 – 13 for the item covering material *R-1170*.
15. Choose *Assignments*.

    On the screen you see which vendor is flagged for ordering purposes.

16. Select the lower line for the chosen vendor and choose *Process assignment.*

    In the *Process Assignment: Create PO* dialog box, you can change the header data for the purchase order.

17. Choose .

    The system shows a purchase order item overview for the current purchase requisition item.

18. In the document overview area, select your purchase requisition.
19. Choose .
20. Choose .

    The message *Standard PO created under the number 45000xxxx* appears in the status line.

21. Choose .
22. If necessary, repeat steps 16 – 20 for another vendor.
23. Choose .

    If a dialog box should appear at this point, choose *Yes* to continue.

24. Choose until the overview tree appears.

Purchase Order Entry and Subsequent Functions

Purpose

In this process, you order a material, post the goods receipt for the purchase order, and then settle the order.

You can find more information about this process under [Page 211].

Process Flow

You can find the data for this process under [Page 213].

1. Displaying Material Stock for the Material [Page 214]
2. Creating a Standard Purchase Order [Page 216]
3. Posting the Goods Receipt for the Purchase Order [Page 218]
4. Entering the Invoice [Page 220]

Additional Process Information

This process demonstrates a one-time order. A material procurement could also be the result of a process triggered by materials planning. There are various other types of purchase orders and outline agreements in the Purchasing application. This process reduces procurement to only the most fundamental steps of external materials procurement in the R/3 System. To do this, we uses the basic form of a purchase order document, the standard purchase order.

Data Used During This Process

Field	Data	Description
Vendor	1111	NSM Marschfelden
Order type	Standard PO	
Purchasing organization	1000	IDES Germany
Purchasing group	002	Harnisch, H.
Company code	1000	IDES AG
Plant	1000	Hamburg
Storage location	0001	Material stores
Material	101-110	Slug for spiral casing - cast steel

Displaying Material Stock for the Material

Use

If you want to determine the material requirements manually, instead of automatically via materials planning, there are various functions available to get an overview of the material stock level:

Procedure

1. Call up the transaction as follows:

Menu Path	*Logistics → Materials Management → Inventory Management → Environment → Stock → Stock Overview*
Transaction Code	MMBE, SPRO, OMBG, MB52

2. Enter the following data:

Field	Data
Material	101-110
Plant	1000
Storage location	0001

Please note the additional opportunities for the selection of additional special stock types (for example stock to be provided or vendor consignment stock) as well as specific organizational levels (company code / plant / storage location / batch) the display can be restricted to.

3. Choose .
4. Make a note of the unrestricted-use stock in plant 1000 (Hamburg).

The following list overview displays the material stock - grouped according to organizational levels. You can also see the quality controlled stock and the reserved stock of the material.

If you position your cursor on a line in the stock display and choose , the system displays a detailed view of the stock categories. To quit the dialog box, choose .

5. Choose until the overview tree appears.

In *Customizing*, you can configure both the overview list, as well as the detail display, which are controlled via the display version field of the stock overview selection screen. For this IDES scenario, we have used display version 01, which has already been configured in the IDES system.

6. To customize the display variants for the stock overview, choose *Tools* → *Accelerated SAP* → *Customizing* → *Edit Project*.
7. On the *Customizing: Execute Project* screen, choose *SAP Reference IMG.*
8. In the customizing application tree, choose *Materials Management* → *Inventory Management and Physical Inventory* → *Reporting*.
9. Choose *Define Stock List Display*.
10. To create a new display version, choose *Display version*. Choose .
11. To define the stock types you want to display in the overview list, choose *Rules for display of stock balances*. Choose .
12. To define the stock types you want to display on the list display detail screen, choose *Detail Screen for Stock Balance Display*. Choose .
13. Choose until the overview tree appears.
14. From the *Inventory Management* node, choose *Environment* → Stock → Warehouse Stock.
15. Enter the following data:

Field	Data
Material	101-110
Plant	1000
Storage location	0001

16. Choose .

    This function allows you to display the valuated stock of multiple materials and multiple combinations of plant/storage location. The list display of this function is therefore - regarding the stock categories - less detailed than the stock overview of a material described above.

    For material 101-110, the system displays a three-line display containing stock quantity and value for various stock categories (unrestricted-use, quality inspection, and so on).

    You can also make changes to the display of the stock categories. For information, see the SAP Library, under *CA-Cross Application Components* → *General Application Functions* → *ABAP List Viewer* → *Display Variants*.

17. Choose until the overview tree appears.

Creating a Standard Purchase Order

1. Call up the transaction as follows:

Menu Path	From the *Materials Management* node, choose *Purchasing* → *Purchase order* → *Create* → *Vendor/Supplying Plant Known*
Transaction Code	ME21N

You now have the option of setting default entries for the PO document. To do this, choose Default Settings for Order Document Fields [Page 179].

If you do modify your personal settings, this could mean that the entries you see on your screens might differ from those described in the IDES processes. To avoid this situation, when you have completed this process we strongly advise you to reset any changes you make to your personal settings.

2. Enter the following data:

Field	Data
	Standard PO
Vendor	1111
Document date	Today's date

3. Choose .
4. To open the item header area, choose *Header*.
5. On the *Org.data* tab page, enter the following data:

Field	Data
Purchasing org.	1000
Purchasing group	002
Company code	1000

6. To open the item overview area, choose *Item overview*.
7. Enter the following data:

Field	Data
Material	101-110
PO quantity	10

8. Choose .
9. To open the item detail area, choose *Item detail*.
10. On the *Invoice* tab page, select *GR-based IV* (Goods receipt based invoice verification).
11. In the item row, enter the following data:

Field	Data
Plant	1000

If you have already set a default plant using *Personal Setting*, you do not need to enter any data here.

12. Choose .

    The system now determines the net price from the purchasing information record of the material and calculates the earliest possible delivery date via the planned delivery time. These values are inserted into the relevant item fields as changeable default values.

    If the system is unable to find a purchasing information record, a red icon appears in the status column.

13. In the item row, enter the following data:

Field	Data
Delivery date	Two weeks from today
Net price	Any value
Storage location	0001

14. Choose .

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

15. Choose until the overview tree appears.

Posting the Goods Receipt for the Purchase Order

1. Call up the transaction as follows:

Menu Path	From the *Inventory Management* node, choose *Goods Movement* → *Goods Receipt* → *For Purchase Order* → *PO Number Known.*
Transaction Code	MIGO, MB03

2. Enter the following data:

Field	Data
Purchase order	Your PO number

3. Choose .

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

   The purchase order items are transferred to the item overview.

   The PO number you entered appears in the *Current purchase order* field, and the *PO number* field is once again ready to accept input.

   If you click on individual items, the system displays an item data screen (allowing you to change the incoming quantity, for example).

4. In the header data area of the *General* tab page, enter the following data:

Field	Data
Document date	Today's date
Posting date	Today's date

5. To open the item detail area, choose *Item detail*.
6. Select your item, then choose the *Wk* tab page at the bottom of the screen to check your organization data.
7. In the *Item detail* area, on the *Wk* tab page, enter the following data:

Field	Data
Storage location	0001

8. In the item overview area, select *OK.*

   If the *OK* indicator in the item overview area is not active, either close the item detail area or select *Item OK* at the bottom of the item detail area.

9. Choose *Post*.

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

10. Choose until the overview tree appears.

You can also display the material document and the corresponding accounting document.

11. From the *Inventory Management* node, choose *Material Document* → *Display*
12. Enter the following data:

Field	Data
Material document	Your material document number. Should you ever forget this number, see the IDES scenario Finding a Material Document [Page 223]
Material document year	Current year

13. Choose .

    The system displays the material document.

14. Position your cursor on the material document line, then choose *Accounting documents*.
15. In the *List of Documents in Accounting* dialog box, choose *Accounting document*.

    The system shows you the G/L accounts where postings have been made and the updated values.

    This example shows how the value of the stock account “Unfinished products” (79000) is increased, and at the same time a corresponding posting is made to the GR/IR clearing account. These postings are also the result of the Customizing settings already made for you in the IDES system.

16. Choose .
17. To quit the dialog box, choose .
18. Choose until the overview tree appears.

Entering the Invoice

1. Call up the transaction as follows:

Menu Path	From the *Purchase Order* node, choose *Follow-On Functions* → *Logistics Invoice Verification*.
Transaction Code	MIRO, MRBR

2. Choose *Edit* → *Switch company code.*

   In the *Enter Company Code* dialog box, the system displays the company code that is currently active for invoice verification. This is the company code last used by the user.

3. Enter the following data:

Field	Data
Company code	1000

4. Choose ✔.
5. In the field directly above and to the left of the item overview, use the input help to choose *Purchase order/scheduling agreement* (if it does not already appear as the default text).

   You can also use this activity to enter invoices with reference to a delivery note, for example. The system proposes the value last entered by the user in each case.

6. On the *Basic Data* tab page of the header data area, enter the following data:

Field	Data
Document date	Today's date
Posting date	Today's date
Tax amount, right-hand field	VN (Domestic input tax 16%)
To the right of the *Purchase order/scheduling agreement* input field	Your PO number

7. Choose .

   In the item overview, the system displays the purchase order data, as well as the net amount in the balance field that is required to calculate the gross amount. The traffic light for the *Balance* field is red.

   The value of the goods delivered plus tax (in Europe, VAT) is normally entered on the invoice sent to you by the vendor. In this process, we simulate this procedure and determine the invoice amount ourselves.

8. Enter the following data:

Field	Data
Calculate tax	Select

When you activate *Calculate tax* the system displays the gross amount in the balance field. The corresponding tax portion appears in the *Tax amount* field.

If you have selected the tax code *No tax procedure*, the *Tax amount* field contains the value 0. In this case, the *Balance* field contains the net amount.

9. Enter the following data:

Field	Europe
Amount	Gross amount determined
	Select

10. Choose .

When you confirm your entries, the traffic light to the left of the *Balance* field changes to green.

In this example, we assume that the invoiced amount equals the calculated amount.

11. Choose .

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

The invoice is initially blocked for payment. Possible reasons include variances (settlement date too early, for example), or sporadic "control blocks". From a logistics perspective, the procurement process has been successfully completed. You can now display and change the blocking reasons.

12. Choose until the overview tree appears.

13. From the *Materials Management* node, choose *Logistics Invoice Verification* → *Further Processing* → *Release Blocked Invoices.*

14. Enter the following data:

Field	Europe
Company code	1000
Invoice document	Your invoice document number

15. Choose .

To display the blocking reasons, scroll to the right of the table. The blocking reasons for your item are highlighted with *X*. To display the full descriptions, position your cursor on the column header.

Possible reasons for blocking an invoice include:

Column	Description
Qua (Blocking reason: Quality)	Quality variance

Entering the Invoice

Qty (Blocking reason: Quantity)	Quantity variance
Prc (Blocking reason: Price)	Price variance
Dte (Blocking reason: Date)	Delivery date variance

16. If you want to release your invoice, select the blocking reason for your item, then choose *Blocking reason*.
17. Choose *Save changes*.

    In the status bar, the system confirms that the invoice has been released.
18. Choose until the overview tree appears.

Finding Material Documents

Use

You now see how you can find an existing material document.

You start the search for the material document on the current screen.

Procedure

1. Position your cursor on the *Material document* field, then choose the F4 input help.
2. Enter as many search criteria as possible. The data can be taken from the data table given in the script.
3. Choose .

   The *Material Document List* screen appears.
4. Double-click on a material document number.

   You return to the initial screen. The document number is transferred.

Message Determination in Purchasing

Purpose

Message determination represents the classic interface to business partners. It is used across applications, in Materials Management (Purchasing, Inventory Management, Invoice Verification), Sales and Distribution (Shipping, Delivery, Picking), Production Planning and Control, Plant Maintenance, Project System (Order Confirmation) and Financial Accounting (Document Printing).

In addition to print output with subsequent dispatch, which we describe here, you can also transfer requirements to vendors via fax, EDI or SAPOffice.

In this IDES process, you demonstrate message output by creating and changing a purchase order, as well as dunning and reminding the vendor using a delivery reference.

Process Flow

You can find the data for this process under [Page 225].

1. Adjusting Message Records in Purchasing [Page 226]
2. Creating a Standard Purchase Order [Page 227]
3. Displaying the Purchase Order [Page 230]
4. Message Output for the Purchase Order [Page 231]
5. Message Output to Dun the Delivery Date [Page 233]
6. Changing the Standard Purchase Order [Page 235]
7. Changing the Message Output [Page 236]

Data Used During This Process

Field	Data	Description
Vendor	1111	NSM Marschfelden GmbH
Order type	NB	Standard PO
Purchasing organization	1000	IDES Germany
Purchasing group	002	Harnisch, H.
Company code	1000	IDES AG
Plant	1000	Hamburg
Storage location	0001	Material stores
Material	101-110	Slug for spiral casing - cast steel
Message type	NEU MAHN	New PO printout Dunning

Adjusting Message Records in Purchasing

Use

This process step is optional. The message determination records are predefined in the IDES standard delivery with dummy printer *LP01*. To print the forms, you first need to assign a printer to your workplace. If you do not know your printer ID, ask your system administrator. You generally make this adjustment in the message record. However, it is also possible when you create the purchase order or at the time of printing.

We now describe the optional step of adjusting the Purchasing message records:

Procedure

1. Call up the transaction as follows:

Menu Path	*Logistics → Materials Management → Purchasing → Master Data → Messages → Purchase Order → Change.*
Transaction Code	MN05

2. In the *Output type* field, enter *NEU*, then choose *Key combination*.

   The *Key Combination* dialog box appears. The system displays possible search criteria for the message records. In the IDES standard delivery, you select the message records through the document type of the PO document.

3. Select *Purchasing Output Determination: Document Type*, then choose ✔.
4. In the *Purchasing document type* field, enter *NB* for a standard purchase order.
5. Choose .

   You see your message record with document type *NB*.

6. Select your message record, then choose *Communication*.
7. Enter the following data:

Field	Data
Output device	Name of your printer
Number of messages	1
Print immediately	Select
Release after output	Select

8. Choose .
9. Repeat steps 2 through 8 for message type *MAHN* (*Dunning)*.
10. Choose until the overview tree appears.

Creating a Standard Purchase Order

Use

To manufacture pump *P-101* you need to buy the externally procured component *101-110 (Slug for spiral casing - cast steel*). You print out the purchase order once it has been created and send the form to the vendor.

Prerequisites

To print out the PO document, an existing printer that is recognized by the system must be assigned to your workplace.

Procedure

1. Call up the transaction as follows:

Menu Path	From the *Materials Management* node, choose *Purchasing* → *Purchase Order* → *Create* → *Vendor/Supplying Plant Known*
Transaction Code	ME21N

2. Enter the following data:

Field	Data
	Standard PO
Vendor	1111
Document date	Today's date

3. Choose .
4. To open the item header area, choose *Header*.
5. On the *Org. data* tab page in the header data area, use the F4 input help to enter the following data:

Field	Data
Purchasing org.	IDES Germany
Purchasing group	Harnisch, H.
Company code	IDES AG

6. To open the item overview area, choose *Item overview*.
7. Enter the following data:

Field	Data
Material	101-110
PO quantity	100
C (Category of delivery date)	D

Delivery date	Today's date minus 2 weeks
Plant	1000
Storage location	0001

8. Choose .
9. To open the item detail area, choose *Item detail*.
10. In the item detail area, choose the *Texts* tab.

    On the left side of the tab page, you see an overview of the existing text elements for this PO item. The filled item text areas are indicated by .

    You can use the scroll arrow to display all of the item texts. You can also enter text manually for any of the unfilled item texts.

    Note that the *Info record note* is not displayed when you print out the message. This text element is used for internal information purposes only, which is why it is excluded from the print-out during Customizing.

    The item text, however, is displayed in the print-out. Note that in practice, PO documents generally have a large number of items, which means that the PO form can be excessively long if you have entered lengthy item texts.

11. Enter an appropriate item text.

    You only need to carry out steps 11 to 15 if you have not already adjusted the message records in the activity Adjusting Message Records in Purchasing [Page 226].

12. Choose *Messages*.

    The system lists all the messages for the PO document. In this process, you see the entry with message type *NEU (New PO print-out)*.

    In the *Status* field, the yellow traffic light informs you that the message has not yet been output. The message is to be printed (*Medium* field, *Print output*). The *Time* (*3*) field shows that the output of the message / PO form is to be triggered separately by the user. Use the scroll bar to display the *Time* column.

    Alternatively, you can define that the print-out is to occur immediately when you create the purchase order.

13. Select your message record, then choose *Communication method*.

    In the *Logical destination* field, you see the value *LP01*. This is the name of the dummy printer in the IDES standard delivery. To print out the form from your printer, you first need to assign the printer to your workplace. If you do not know your printer ID, ask your system administrator.

14. Enter the following data:

Field	**Data**
Logical destination	Name of your printer
Number of messages	1

Print immediately	Select
Release after output	Select

15. Choose twice.

    The *Create Purchase Order* screen appears.

16. To open the item header area, choose *Header.*

17. .In the header data area, choose the *Texts* tab.

    You now see an overview of the text elements available for the document header.

    As the text elements appear in the PO form at header level, they are cross-item.

18. Select the *Header text* text element.

19. Enter an appropriate text in the input field.

20. In the *Item detail* area, choose the *Delivery* tab page.

    In this area, you see, for example, the reminder data for this item. The contents of the fields *Reminder 1 (10), Reminder 2 (20*) and *Reminder 3 (30*) inform you that the system is to send a reminder for this PO item to the vendor if the delivery date has been exceeded by more than 10 days. The second and third reminders are to be sent 20 / 30 days after the delivery date. These reminder dates are taken automatically from the material master, but can be changed at any time.

    You now see the reason why the selected delivery date lies in the past: This means that we can simulate a two week delivery delay, which we can use to generate a reminder notice. For this, we can use the activity Message Output for Reminder Notice at Delivery Date [Page 233] .

21. Choose .

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

22. Choose until the overview tree appears.

Displaying the Purchase Order

1. Call up the transaction as follows:

Menu Path	From the *Purchase Order* node, choose *Display*
Transaction Code	ME23N

If your purchase order is not displayed on the *Standard PO XXX Created by User* screen, choose . In the *Select Purchase Order* dialog box, enter your PO number, then choose *Other document.*

2. Choose *Print preview*.

   The system displays your print form. Check that the data and the item are correct.

- Header text
- Material PO text
- PO Info text
- Item text

  Choose to display additional pages of your purchase order. Choose to return to the previous page.

3. Choose until the overview tree appears.

Message Output for the Purchase Order

Use

Now that you have created the purchase order, the requirements information now needs to be transferred separately to the vendor, according to the system settings described here:

Procedure

1. Call up the transaction as follows:

Menu Path	From the *Purchase Order* node, choose *Messages* → *Print/Transmit*
Transaction Code	ME9F

2. Enter the following data:

Field	Data
Document number	Your PO number
Purchasing organization	1000
Purchasing group	002

3. Choose .

   The system lists all of the documents found for your selection that still have messages to be processed. Your PO document is now displayed according to the PO number.

   Steps 4 to 8 are optional.

4. Select your document item, then choose *Message detail*.

   The system displays all the message records for the selected purchasing document.

5. Select your message record, then choose *Communication method*.

   You could also change the print parameters at this point. Use the settings entered in the previous activity.

6. Check the following data:

Field	Data
Logical destination	Name of your printer
Number of messages	1
Print immediately	Select
Release after output	Select

7. Choose .
8. Choose .
9. Select your item, then choose *Display message*.

Message Output for the Purchase Order

The system displays your print form. Check that the data and the item are correct for the:

- Header text
- Material PO text
- PO Info text
- Item text

If required, use the scroll bar or the , icons to scroll within your form.

10. Choose .
11. Select your item, then choose *Output message*.

    The symbol appears to the left of the item to confirm the message output. The message is now printed out on the printer assigned to your workplace.

12. Choose until the overview tree appears.

Message Output to Dun the Delivery Date

Use

As already mentioned, the delivery date has been set in the past to allow you to trigger reminder print-outs for the PO item. Before you print the message, the documents to be dunned and the corresponding message records must be selected through a dunning run.

Procedure

1. Call up the transaction as follows:

Menu Path	From the *Purchase Order* node, choose *Messages* → *Urging/Reminders*
Transaction Code	ME91F; ME9F

2. Enter the following data:

Field	Data
Document number	Your PO number
Purchasing organization	1000
Purchasing group	002
Reference date	Today's date

3. Choose .

   The system lists all of the documents found for your selection. Your PO document is now displayed according to the PO number.

4. Select your item, then choose *Generate messages*.

   The system informs you that the message has been generated. The system has now selected a message record for the document.

   Steps 5 to 8 are optional.

5. Select your message record, then choose *Messages*.

   The system displays all the message records for the selected purchasing document.

   The system displays the message record with message type *MAHN*.

6. Select your message record, then choose *Communication method*.

7. Enter the following data:

Field	Data
Logical destination	Name of your printer
Number of messages	1
Print immediately	Select
Release after print	Select

8. Choose .
9. Choose .

   The system confirms with a corresponding message.

10. Choose until the overview tree appears.

11. In the dialog box, choose *Yes*.
12. From the *Messages* node, choose *Print/Transmit.*
13. Enter the following data:

Field	Data
Document number	Your PO number
Purchasing organization	1000
Purchasing group	002

14. Choose .

    The system lists all of the documents found for your selection that still have messages to be processed. Your PO document is now displayed.

    In the document item, you see message type *MAHN*. This is the message record generated in steps 1 through 9.

15. Select your message record, then choose *Display message*.

    The system displays your print form.

    Note that the form differs from the first PO form. You can define the layout of this form using the SAPScript word processing.

16. Choose .
17. Select your item, then choose *Output message*.

    The symbol appears to the left of the item to confirm the message output. The message is now printed out on the printer assigned to your workplace.

    Note that the dunning form differs from the first PO form. You can define the layout of this form using the SAPScript word processing.

18. Choose until the overview tree appears.

Changing the Standard Purchase Order

Use

You can still make changes to the purchase order, even after it has been transmitted to the vendor. This means, for example, that you can change the required material quantity, delivery date, and so on. Message determination is still available in the system, even after these changes have been transmitted.

Procedure

1. Call up the transaction as follows:

Menu Path	From the *Purchase Order* node, choose *Change*
Transaction Code	ME22N

If your purchase order is not displayed, choose . In the *Select Purchase Order* dialog box, select *Purchase Order*, then enter your PO number. Choose *Other document*.

2. To open the item overview area, choose *Item overview*.
3. Overwrite the *PO quantity* for your item with any other value.
4. Choose .
5. Choose until the overview tree appears.

Changing the Message Output

Use

On the basis of the changes made to your PO document, the system generates a corresponding message record. You can select, adjust, display and print this message record, just as in the activity Message Output for the Purchase Order [Page 231].

Procedure

1. To do this, repeat steps 1 through 9 of the activity Message Output for Purchase Order [Page 231] .

   This form also differs from the first PO print-out. Note that in the form header, the change character has been highlighted, and the system informs you in the item that the ordered quantity has been changed.

   All of the forms described in this IDES process correspond to the SAP standard delivery. You can also use SAPScript word processing to adapt the forms to your company's requirements.

Release Procedure w. Classification for Purch. Docs: Customizing

Purpose

Depending on the areas of responsibility within a company, you might want to make operational procurement possible only after checks have been made on the created purchasing documents by a superior authority. In the SAP procurement process, a control mechanism of this kind can be implemented for each individual customer on the basis of a release procedure. This release procedure uses classification, and can be applied to all purchasing documents where it is possible to build up a differentiated and multi-level control system. Requests for quotation, outline agreements, scheduling agreements, and purchase orders can all be brought into this process using the purchase requisition.

You can use workflow to speed up this process.

In the following process, the necessary classification and Customizing settings for a release procedure in the purchase requisition are shown using links to the workflow.

At the end of the process, the functionality in the application area is explained using an example.

Process Flow

You can find the data for this process under [Page 238].

1. Displaying Classifying Attributes [Page 239]
2. Displaying Classifying Classes [Page 240]
3. Displaying MM Customizing – Release Group (1) [Page 241]
4. Displaying MM Customizing – Release Code (2) [Page 242]
5. Displaying MM Customizing – Release Indicator (3) [Page 243]
6. Detail Screen [Page 244]
7. Displaying MM Customizing – Release Strategy (4) [Page 245]
8. Displaying MM Customizing – Workflow Role Resolution (5) [Page 247]
9. Creating a Purchase Requisition [Page 248]
10. Releasing the Purchase Requisition in MM, Level 1 [Page 250]
11. Releasing the Purchase Requisition in MM, Level 2 [Page 252]

Data Used During This Process

Field	Europe	North America	Description
Company code	1000	3000	
Plant	1000	3000	
Material number	1300-320	1300-320	HD Handle bar without crook lock
Class type	032	032	Release strategy
Class	FRG_EBAN	FRG_EBAN	Release purchase requisition item
Characteristic	FRG_EBAN_KNTTP FRG_EBAN_MATKL FRG_EBAN_WERKS FRG_GSWRT FRG_EBAN_EKGRP	FRG_EBAN_KNTTP FRG_EBAN_MATKL FRG_EBAN_WERKS FRG_GSWRT FRG_EBAN_EKGRP	Account category Material group Plant Value Purchasing group
Communication structure	CEBAN	CEBAN	Purchase requisition item
Release group	01	01	Purchase requisition
Release code	TD KY EX	TD KY EX	Technical dept. Key account Executive board member
Release indicator	L 1 2	L 1 2	Blocked RFQ Released for RFQ or purchase order
Release strategy	TF	AF	Purchase requisition, partial release
Vendor	1005	3730	
Purchasing organization	1	3000	
Purchasing group	001	001	Dietl, B.

Displaying Classifying Attributes

Use

The characteristics for this example have already been created. You should still follow the process through to see the link to classification in Customizing for MM.

Procedure

1. Call up the transaction as follows:

Menu Path	*Logistics → Central Functions → Classification → Master Data → Characteristics*
Transaction Code	CT04

2. Enter the following data:

Field	Data
Characteristic name	FRG_EBAN_KNTTP

3. Choose .

   The system displays the *Description*, the *Data type*, and the *No. of characters* on the tab page.

4. Choose the *Additional data* tab page.

   The *Table name* field contains the entry *CEBAN*. The table CEBAN is the communication structure used to assign a release strategy to the purchase requisition item. You can select fields from this structure. The content of these fields determines which release strategy the system selects.

The data type and the field length have been pulled from the ABAP Dictionary definitions for the CEBAN table and from the field name KNTTP . When you create a characteristic, you need to enter the field lengths and the data type. First, create a reference to the ABAP Dictionary field. You can enter any value here. All entries will be overwritten by values from the ABAP dictionary.

5. Choose until the overview tree appears.

Displaying Classification Classes

Use

Two classes are required for the new functionality. One for purchase requisition items and one for other purchasing documents. These classes have already been created. In this step you can display the classes for purchase requisitions to familiarize yourself with the links with classification you will see later in Customizing for MM.

Procedure

1. Call up the transaction as follows:

Menu Path	From the *Classification* node, choose *Master Data* → *Classes*
Transaction Code	CL02

2. Enter the following data:

Field	Data
Class	FRG_EBAN
Class type	032

3. Choose .
4. Choose the *Characteristics* tab page.

The system displays an overview list of the characteristics belonging to this class. The combination of fields in *CEBAN* forms the basis for the classification used in Customizing for MM to determine release strategies.

5. Place your cursor on the first characteristic and choose *Edit* → *Characteristic* →*Display characteristic*.

The same entries are shown on the *Display Characteristic* screen as in the *Display characteristic* area from the previous activity.

6. Choose the *Additional data* tab page.

Again, you can see the same entries as in the *Display characteristic* area. Note the reference to table *CEBAN*.

The ABAP dictionary link to the communication structure CEBAN is displayed at class level. However, the link is created at characteristic level. When the characteristic is added to the class, the information about this link can be displayed at class level of the characteristic.

7. Choose until the overview tree appears.

Displaying MM Customizing – Release Group (1)

Use

Here you can make the Customizing settings required in MM for the release strategy. The release group has already been created. It identifies the purchasing object to be released, in this case a purchase requisition. Because of this new feature, you can now make separate groups available for purchase requisitions and other purchasing documents. You will notice later that using release groups allows you to use separate release codes and release strategies for purchase requisitions and other purchasing documents.

Procedure

1. Call up the transaction as follows:

Menu Path	*Tools → AcceleratedSAP → Customizing → Edit Project*
Transaction Code	SPRO, OMGQ

2. Choose *SAP Reference IMG*.
3. From the *Materials Management* node, choose *Purchasing → Purchase Requisition → Release Procedure → Procedure with Classification.*
4. Choose *Set Up Procedure with Classification.*
5. Choose *Release group*.

   Release group *01* has been defined for the release object *1*.

6. To display the *Release Procedure: Purchase Requisitions* screen again, choose .

   From this screen you can perform the next activity.

Displaying MM Customizing – Release Code (2)

Use

The release codes have already been created. The release code functionality from earlier releases has been kept, and has also been enhanced by the addition of release groups. Codes and authorizations can be separated with reference to purchase requisitions and other purchasing documents.

Procedure

1. On the *Release Procedure: Purchase Requisition* screen, choose *Release code*.

The codes are listed next to the release groups. These are the available codes for strategies within a release group. You enter the descriptions when you create the code.

2. To display all possible entries for this field, position the cursor in the *Workflow* column, and choose the F4 input help.

The following entries are displayed in the dialog box*: No workflow*, *Role resolution with group, code, and plant (T16FW) (1)* and *Role resolution via User Exit (9)*. You will be shown how to use workflow later in this process.

3. Choose ✔.

Note the entry *1* in release code line *KY* in the *Workflow* field.

4. To display the *Release Procedure: Purchase Requisitions* screen again, choose .

   If the *Exit maintenance* dialog box appears, choose *No*.

   From this screen you can perform the next activity.

Displaying MM Customizing – Release Indicator (3)

Use

The release indicator's functionality has been retained from earlier releases. This means that the indicators show you whether a purchasing document is blocked or released. Purchase requisitions can have different indicators for the release of requests for quotation and purchase orders. The indicator was enhanced in a later release to include two further subindicators.

Procedure

1. On the *Release Procedure: Purchase Requisition* screen, choose *Release indicator*.

   The system displays a list of indicators and their descriptions. The release indicators are the only part of Customizing for releasing purchase requisitions that are not grouped into release codes. For this reason, all indicators are available for use in all release strategies.

2. Select the first release indicator.

3. Choose .

   Here you see the description on the Detail screen [Page 244].

4. To display the *Release Procedure: Purchase Requisitions* screen again, choose .

   If the *Exit maintenance* dialog box appears, choose *No*.

   From this screen you can perform the next activity.

Detail Screen

On the detail screen, the system displays the following information in the *Detail* screen area.

Field	Description
Fixed for MRP	Whether MRP can change this purchase requisition.
Released for quotation	Whether a RFQ can be created for a quotation with reference to the purchase requisition.
Released for ordering	Whether a PO can be created with reference to the purchase requisition.
Field selection key	Checks whether certain fields can be changed according to specific release approval levels.

There are two new subindicators in the *Changes made after Release start* screen area. These indicators determine whether changes to a purchase requisition, either during or after release, are permitted. If they are permitted, they determine whether a new release procedure and a new strategy assignment are required. The two fields are:

Field	Description
Changeability	Checks whether a document can be changed, and whether the system begins a new release procedure with a new release strategy.
Value changes	A percentage tolerance for value changes during or after the release.

These fields are important, because the indicator can be changed as part of Customizing for a release strategy, as a result of each release code.

Displaying MM Customizing – Release Strategy (4)

1. On the *Release Procedure: Purchase Requisition* screen, choose *Release strategy*.

   The overview displays a list of strategies and their descriptions, sorted by group.

2. Select the release strategy TF (for Europe) or AF (for North America).

3. Choose .

   You can define the strategy description and the release codes you want to use. The release codes TD, KY, and EX are used here. You can also define user-specific prerequisites, strategies and classifications in this menu.

4. Choose *Release prerequisites*.

   The dialog box shows that the release code *TD* has no prerequisites. The release code *KY* has code *TD* as a prerequisite. For release code *EX* you also have to release the code *KY*.

   You can change these selections as required. You can define alternative release codes for multi-level release strategies by selecting the relevant prerequisites, or by removing existing selections.

5. Choose *Cancel*.

6. Choose *Release statuses*.

   Here you can define the indicators for the purchase requisition status. You do this before release and after each combination of release codes. The purchase requisition is blocked before release. After you use release code *TD*, the purchase requisition is still blocked. After you use release code *KY*, you can create a request for quotation with reference to the purchase requisition. After you release *EX*, you can create a request for quotation and/or a purchase order with reference to the purchase requisition.

   Note that there are three alternative release sequences: EX,TD-EX, and TD-KY-EX lead to status 2 (RFQ/PO).

7. Choose *Cancel*.

8. Choose *Classification*.

   The system displays a list of fields defined for releasing purchase requisitions in the classification class (FRG_EBAN). Each default value has already been entered in a field. The stock value field has been limited to one interval. All other fields in *CEBAN* are also available using the classification structure.

9. Choose .

10. Choose *Release simulation*.

    The system displays the current status of the release procedure. You can now change the strategy.

11. Choose *Simulate release*.

12. Position the cursor on *TD* and choose *Set/reset release*.

This simulates the effect of release code *TD*, and the purchase requisition is still blocked.

Displaying MM Customizing – Release Strategy (4)

13. Position the cursor on *KY* and choose *Set/reset release*.

    This simulates the effect of release code *KY*, and the purchase requisition is released for RFQ.

14. Position the cursor on *KY* again and choose *Set/reset release*.

    The purchase requisition is now blocked again.

15. To return to the *Release strategy* dialog box, choose .

16. Choose .

17. Choose until the *Release Procedure: Purchase Requisitions* screen appears.

    From this screen you can perform the next activity.

Displaying MM Customizing – Workflow Role Resolution (5)

Use

To create the link from the release procedure to the workflow, you first need to define certain release codes as relevant to the workflow. The following table contains the reference to a user. When a purchase requisition is due to be released, this user receives a relevant workflow item in his/her inbox. The release can be performed directly from this workflow item. After the release the initiator of the purchase requisition receives a corresponding message. The allocation of workflow items to users occurs according to release group, release code, and plant. If you want to use other criteria to find a user to receive the workflow item, you can implement user exit M0B00001.

Procedure

1. On the *Release Procedure: Purchase Requisition* screen, choose *Workflow*.
2. Position your cursor on an entry in the *O* (object type) column, then choose the F4 input help.

   In the *Choose agent type* dialog box, the system suggests single users (*US*) and also other types of recipient of workflow messages. Using these types you can refer to complete organizational units stored in the HR component of the R/3 system. For this reason, the system shows the key for the selected HR organizational unit and not the specific user IDs in the *Agent ID* column.
3. To quit the dialog box, choose ✖.

   The user identified by the table entries automatically receives a message via the workflow, informing him/her that a purchase requisition with the relevant release code is ready to be released. In our process, the assigned user WF-MM-3 is identified using release code *KY* in plant 1000 (Europe) and in plant 3000 (North America). You will need this user later in the process for the second level release.
4. Choose until the overview tree appears.

Creating a Purchase Requisition

Prerequisites

Before you create the purchase requisition, log on to the system again with user *WF-MM-1* and password *Welcome*.

Procedure

1. Call up the transaction as follows:

Menu Path	*Logistics → Materials Management → Purchasing → Purchase Requisition → Create*
Transaction Code	ME51N

2. Enter the following data:

Field	Data
	Purchase req. Standard

3. To open the item overview area, choose *Item overview*.
4. Enter the following data:

Field	Europe	North America
A (Account assignment category)	K	K
Material	1300-320	1300-320
Quantity requested	700	700
Delivery date	Any date in the future	Any date in the future
Plant	1000	3000
PGr (purchasing group)	001	001

5. Choose .
6. To open the item detail area, choose *Item detail*.
7. On the *Account assignment* tab page, enter the following data:

Field	Data
G/L account	400000
Cost center	1000

8. Choose .
9. Choose the *Release strategy* tab page.

The release strategies *TF* and/or *AF*, and the release indicator *S* (blocked) are active for your item.

10. Choose .

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

11. Choose until the overview tree appears.

Releasing the Purchase Requisition in MM, Level 1

Use

In this step you use the release single documents function to release the purchase requisition you created earlier.

Prerequisites

To perform the level 1 release, log on again to the system with user *WF-MM-2*, password *Welcome*.

Procedure

1. Call up the transaction as follows:

Menu Path	*Logistics → Materials Management → Purchasing → Purchase Requisition → Release → Individual Release*
Transaction Code	ME54 , ME53

2. Enter the following data:

Field	Data
Purchase requisition	Your purchase requisition number
Release code	TD

3. Choose .
4. Select your item.
5. Choose *Release + save*.

   The system confirms that the purchase requisition has been changed.

6. Choose *Purchase requisition → Display*.
7. Enter the following data:

Field	Data
Purchase requisition	Your purchase requisition number

8. Choose .
9. Select your item.
10. Choose .

The purchase requisition is still blocked. However, you can see that the release has been changed using release code *TD*, and that a release is now possible for release codes *KY* and *EX*.

11. Choose .
12. Choose until the overview tree appears.

Releasing the Purchase Requisition in MM, Level 2

Use

You release the purchase requisition with the release code *KY* so that you can create a purchase order. Because you defined the release code *KY* as relevant to the workflow, the purchase requisition can be edited straight from the workflow inbox.

Prerequisites

To perform the release using the workflow inbox, log on again to the system with user *WF-MM-3*, password *Welcome*.

Procedure

1. Call up the transaction as follows:

Menu Path	*Office → Workplace*
Transaction Code	SBWP

2. Choose *Inbox.*

   The inbox is integrated into the *Business Workplace: WF-MM-3* and displays an overview of the whole office inbox as well as the workflow inbox. There is a message to be processed in the workflow inbox.

3. Choose *Workflow*.

   The system displays a list of workflow messages that are assigned to the user. The system shows only the purchase requisition number and today's date.

4. To call up the workflow item, double-click on next to your purchase requisition number.

5. Choose *Goto → Account assignments*.

   Check the account assignment information.

6. To return to the previous screen, choose .

7. Choose *Release*.

   The system shows you in the dialog box that the release was performed with release code *KY*. You do not need to enter a release code.

8. To return to the detail screen, choose .

9. Choose .

   The system shows you that the releases have taken place. The release indicator is now *1*.

10. Choose .

11. Choose .

    The system confirms that the purchase requisition has been changed.

12. Choose .

The message about the purchase requisition is no longer in the inbox.

13. Choose until the overview tree appears.
14. Log off all *WF-MM-X* users.

Rebate Processing in Purchasing – Subsequent Settlement

Purpose

Rebate processing deals with rebate arrangements that will be affected by long-term customer-vendor relationships. The customer performs a settlement at predefined times. The settlement can be created as an interim settlement or as a final settlement. This settlement effectively cancels any existing provisions and posts the income from the rebate arrangement.

You should view the whole settlement transaction in the context of a normal logistics chain.

Process Flow

You can find the data for this process under [Page 255].

1. Displaying a Vendor Master Record [Page 256]
2. Creating a Rebate Arrangement [Page 257]
3. Creating a Purchase Order [Page 259]
4. Processing the Goods Receipt for the Purchase Order [Page 261]
5. Processing the Incoming Invoice on the Basis of a Purchase Order [Page 263]
6. Creating an Interim Settlement [Page 266]
7. Creating a Business Volume Comparison [Page 268]
8. Creating a Final Settlement [Page 270]

Data Used During This Process

Field	Data	Description
Company code	1000	IDES AG
Currency	EUR	
Plant	1200	Dresden
Vendor	1002	Müller KG
Material	M-10	Flatscreen MS 1775P
Order type	NB	Standard PO
Purchasing organization	1000	IDES Germany
Purchasing group	006	Sommer, St.
Storage location	0001	Material stores
Arrangement type	1000	Vendor rebate

Displaying a Vendor Master Record

1. Call up the transaction as follows:

Menu Path	*Logistics → Materials Management → Purchasing → Master Data → Vendor → Purchasing → Display (Current)*
Transaction Code	MK03

2. Enter the following data:

Field	Data
Vendor	1002
Purchasing organization	1000
Purchasing data	Select

3. Choose .

   The system displays the purchasing data for the vendors. *Subsequent settlement* and *Business volume comparison/agreement necessary* are selected in the *Control data* area.

4. Choose until the overview tree appears.

Creating a Rebate Arrangement

1. Call up the transaction as follows:

Menu Path	From the *Purchasing* node, choose *Master Data* → *Subsequent Settlement* → *Vendor Rebate Arrangements* → *Rebate Arrangement* → *Create*
Transaction Code	MEB1

2. Enter the following data:

Field	Data
Agreement type	1000

3. Choose .
4. In the *Organizational Data* dialog box, enter the following data:

Field	Data
Purch. organization	1000
Purchasing group	006

5. Choose *Copy*.
6. Enter the following data:

Field	Data
Condition granter	1002
Currency	EUR
External description	Vendor rebate
Validity period	Start of the current month
To	Year end

7. Choose .
8. To skip any warning messages, choose .
9. Choose *Conditions.*
10. In the dialog box, select *Vendor.*
11. Choose .
12. Enter the following data:

Field	Data
Vendor	1002
Rate	2
Accruals	3

The units for amounts and provisions depend on the arrangement type (Customizing).

Creating a Rebate Arrangement

13. Choose .
14. Select your item, then choose .
15. Enter the following data:

Field	Data
Material for settlement	M-10

For technical reasons, you need to determine a material for the settlement. From a business point of view, there is no use for this here, as we are working with a vendor rebate.

16. Choose .
17. Enter the following data:

Field	Data
Scale value from	1 1000 5000
Amount	2 3 4

18. Choose .
19. Choose .
20. Select your item, then choose .
21. Choose .
22. Choose .

For each period, check the fields *Rate* and *Accruals* and, if necessary, enter any missing data. If necessary, you can also change the amounts and provisions for a period.

23. To display the conditions for other periods, choose .

When you reach the last condition, the button is inactive.

24. Choose .

To skip any warning messages, choose .

The system displays the rebate arrangement number. Note this number.

25. Choose until the overview tree appears.

Creating a Purchase Order

Use

The delivery date for each item in a purchase order determines the condition (provision) that is copied from the conditions for the period into the arrangement. When a purchase order is created, the system performs an update of the statistical data.

Procedure

1. Call up the transaction as follows:

Menu Path	From the *Materials Management* node, choose *Purchasing* → *Purchase Order* → *Create* → *Vendor/Supplying Plant Known*
Transaction Code	ME21N

2. Enter the following data:

Field	Data
	Standard PO
Vendor	1002

3. Choose .
4. To open the item header area, choose *Header*.
5. On the *Org.data* tab page, enter the following data:

Field	Data
Purchasing org.	1000
Purchasing group	006
Company code	1000

6. To open the item overview area, choose *Item overview*.
7. Enter the following data:

Field	Data
Material number	M-10
PO quantity	25
Delivery date	Two weeks from today
Plant	1200

8. Choose .

Creating a Purchase Order

If a net price is requested, enter any price. If you do not enter a price, the system uses the purchase order price from the info record, or if no price exists there, then from the last purchase order.

9. To open the item detail area, choose *Item detail*.
10. Choose the *Invoice* tab page, and enter VN in the *Tax code* field.
11. Choose .
12. Choose the *Conditions* tab page and check whether the condition type *A001* is displayed.
13. Select the item *A001 Rebates*
14. Choose , and check whether the *Retroactive* field is selected in the screen area *Rebates*.
15. Choose .
16. Choose .

    The system confirms the posting and assigns a purchase order number. Note this number.
17. Choose until the overview tree appears.

Processing the Goods Receipt for the Purchase Order

1. Call up the transaction as follows:

Menu Path	From the *Inventory Management* node, choose *Goods Movement* → *Goods Receipt* → *For Purchase Order* → *PO Number Known.*
Transaction Code	MIGO, MB03, FB03, ME23N

2. Enter the following data:

Field	Data
Purchase order	Your PO number

3. Choose .

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

   The purchase order items are transferred to the item overview.

   The PO number you entered appears in the *Current purchase order* field, and the *PO number* field is once again ready to accept input.

   If you click on individual items, the system displays an item data screen where you can change the incoming quantity, for example.

4. In the header data area of the *General* tab page, enter the following data:

Field	Data
Document date	Today's date
Posting date	Today's date

5. Select your item, then choose the *Wk* tab page at the bottom of the screen to check your organization data.

6. On the *Wk* tab page, enter the following data:

Field	Data
Storage location	0001

7. In the item overview area, select *OK.*

   If the *OK* indicator in the item overview area is not active, either close the item detail area or select *Item OK* at the bottom of the item detail area.

8. Choose .

   The system confirms the posting and assigns a material document number. Note this number.

9. Choose until the overview tree appears.

   You can also display the material document and the corresponding accounting document.

Processing the Goods Receipt for the Purchase Order

10. From the *Inventory Management* node, choose *Material Document* → *Display*
11. Enter the following data:

Field	Data
Material document	Your material document number (you can also find this by using the search help process Find Material Document [Page 223]
Material document year	Current year

12. Choose .
13. Position your cursor on your item, then choose *Accounting documents*.
14. In the dialog box, select the accounting document.

    The system shows you the G/L accounts where postings have been made and the updated values.

    The posting document contains a posting to the provision account (account number 192700).

15. Choose .
16. To quit the dialog box, choose .
17. Choose until the overview tree appears.
18. From the *Purchase Order* node, choose *Display.*
19. Enter the following data:

Field	Data
Purchase order	Your PO number

20. Choose .
21. To open the item detail area, choose *Item detail*.
22. Choose the *Purchase order history* tab page.

    The system displays two categories: *NAbr* (provisions) and *WE* (goods receipt).

23. Choose until the overview tree appears.

Processing the Incoming Invoice on the Basis of a Purchase Order

Use

The invoice date is very important for the statistical update. The data of the statistics update, however, are a requirement for the settlement of the arrangement. The system settles invoiced amounts (sales revenue), that fall within a settlement period.

Procedure

19. Call up the transaction as follows:

Menu Path	From the *Purchase Order* node, choose *Follow-On Functions* → *Logistics Invoice Verification*.
Transaction Code	MIRO, MRBR

20. Choose *Edit* → *Switch company code.*

    In the *Enter Company Code* dialog box, the system displays the company code that is currently active for invoice verification. This is the company code last used by the user.

21. Enter the following data:

Field	Europe
Company code	1000

22. Choose ✔.

23. In the field directly above and to the left of the item overview, use the input help to choose *Purchase order/scheduling agreement* (if it does not already appear as the default text).

    You can also use this activity to enter invoices with reference to a delivery note, for example. The system proposes the value last entered by the user in each case.

24. In the header data area, on the *Basic Data* tab page, enter the following data:

Field	Europe
Invoice date	Today's date
Posting date	Today's date
Tax amount, right-hand field	VN (Domestic input tax 16%)
To the right of the *Purchase order/scheduling agreement* input field	Your PO number

25. Choose .

    In the item overview, the system displays the purchase order data, as well as the net amount in the balance field that is required to calculate the gross amount. The traffic light for the *Balance* field is red.

The value of the goods delivered plus tax (in Europe, VAT) is normally entered on the invoice sent to you by the vendor. In this process, we simulate this procedure and determine the invoice amount ourselves.

26. Enter the following data:

Field	Data
Calculate tax	Select

When you activate *Calculate tax* the system displays the gross amount in the balance field.

27. Enter the following data:

Field	Data
Amount	Gross amount determined
	Select

28. Choose .

When you confirm your entries, the traffic light to the left of the *Balance* field changes to green.

In this example, we assume that the invoiced amount equals the calculated amount.

29. Choose .

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

The invoice is initially blocked for payment. Possible reasons include variances (settlement date too early, for example), or sporadic "control blocks". From a logistics perspective, the procurement process has been successfully completed. You can now display and change the blocking reasons.

30. Choose until the overview tree appears.

31. From the *Materials Management* node, choose *Logistics Invoice Verification* → *Further Processing* → *Release Blocked Invoices.*

32. Enter the following data:

Field	Europe
Company code	1000
Invoice document	Your invoice document number

33. Choose .

To display the blocking reasons, scroll to the right of the table. The blocking reasons for your item are highlighted with *X*. To display the full descriptions, position your cursor on the column header.

Possible reasons for blocking an invoice include:

Column	Description
Qua (Blocking reason: Quality)	Quality variance
Qty (Blocking reason: Quantity)	Quantity variance
Prc (Blocking reason: Price)	Price variance
Dte (Blocking reason: Date)	Delivery date variance

34. If you want to release your invoice, select the blocking reason for your item, then choose *Blocking reason*.
35. Choose *Save changes*.

    In the status bar, the system confirms that the invoice has been released.
36. Choose until the overview tree appears.

Creating an Interim Settlement

Use

An interim settlement is performed for all monthly settlements. If you enter the last day of the month (or of the period), the system automatically determines that it needs to create an interim settlement. You need to create an interim settlement separately for each vendor.

The settlement for the previous month is generated as part of the final settlement (see Creating a Final Settlement [Page 270]).

Procedure

1. Call up the transaction as follows:

Menu Path	From the *Purchasing* node, choose *Master Data* → *Subsequent Settlement* → *Vendor Rebate Arrangements* → *Rebate Arrangement* → *Create Settlement Document* → *Via Report*
Transaction Code	MEB4

2. Enter the following data:

Field	Data
Rebate Arrangement	Your number (or use Finding Rebate Arrangements [Page 272])
Condition granter	1002
Settlement date	End of the current month
Purchasing group	No entry
Billing date (Posting date)	Today's date

3. Choose .
4. In the screen area *Control data: settlement run*, select *Simulate.*
5. Choose .

   Check that the simulated data is correct. The provisions posted at the time of the goods receipt should appear as cleared.

6. Choose .
7. In the screen area *Control data: settlement run*, select *Execute.*
8. Choose .

   In the *Confirmation Prompt* dialog box, choose *Yes*.

   Instead of starting this program manually, you can also execute the program periodically using a background job.

As a result of the settlement, the clearing account for provisions in FI is balanced. Additionally, the statistical data is updated (PO history and LIS structure S015).

9. Choose until the overview tree appears.

Creating a Business Volume Comparison

Use

Comparing the business volume figures from the customer and the vendor is a purely organizational transaction. The system offers you help using various sales evaluations. If a difference in the business volume occurs between customer and vendor due to different limits, then a business volume comparison and/or adjustment is required here.

This step is essential for the final settlement because:

- Business volume comparison (BVC) takes account of the cumulative business volumes for all valid periods of the arrangement, including those from the previous month. In this process, the amounts and scalings defined in the arrangement are compared in order to be able to use the smallest amount for calculation.
- The values can be corrected using the conditions provided by the vendor.
- The business volume comparison starts the update of the statistical data required for the final settlement (info structure S015).

Procedure

1. Call up the transaction as follows:

Menu Path	From the *Purchasing* node, choose *Master Data* → *Subsequent Settlement* → *Vendor Rebate Arrangements* → *Business Volume Comparison* → *Execute*
Transaction Code	MEU2

2. Enter the number of the arrangement, then choose .

   Any value changes that occur can be carried out in the *Scale basis* field after agreement with the vendor. Choose .

3. Choose *Settlement* → *Display business volume*.
4. In the *Execute Business Volume Comparison Rebates XXX as of XXX* dialog box, choose .

   In the rebate comparison, you can check the condition basis values for the comparison between the actual conditions received from the vendor, and those from your arrangement. Note that no taxes are included in the basis values.

5. Choose .
6. Choose Comparison.
7. Choose .
8. Choose until the overview tree appears.

Creating a Final Settlement

Use

The final settlement is performed at the end of the validity period for the arrangement. In this case, the validity period is one year. If you enter the last day of the current year, the system automatically determines that a final settlement is taking place. The system also recognizes if you select a period occurring after the end of the validity period. The settlement for the previous month (December) takes place at the same time. The statistical data updated during the business volume comparison is used for the final settlement.

Because of the time required, you will use a different arrangement for this example as mentioned above.

Procedure

10. Call up the transaction as follows:

Menu Path	From the *Purchasing* node, choose *Master Data* → *Subsequent Settlement* → *Vendor Rebate Arrangements* → *Rebate Arrangement* → *Create Settlement Document* → *Via Report*
Transaction Code	MEB4, WLF3

11. Enter the following data:

Field	Data
Arrangement	Your number (or use Finding Rebate Arrangements [Page 272])
Condition granter	1002
Settlement date	End of the current year
Purchasing group	No entry
Billing date (Posting date)	Today's date

12. Choose .
13. In the screen area *Control data: settlement run*, select *Simulate.*
14. Choose .

    Check that the simulated data is correct. The provisions posted during the goods receipt must appear as cleared.

15. Choose .
16. In the screen area *Control data: settlement run*, select *Execute.*
17. Choose .

    In the *Confirmation Prompt* dialog box, choose *Yes*.

    The final settlement is executed.

You can also display the accounting document from Financial Accounting. Position your cursor on the first item, then choose *Settlement doc.*. In the dialog box, position your cursor on your vendor billing document, then choose . Choose *Accounting*. In the *List of Documents in Accounting* dialog box, choose *Accounting document*. The system displays the accounting document. Choose . To quit the dialog box, choose .

After you execute the final settlement, you cannot enter any further corrections.

18. Choose until the overview tree appears.

Finding Rebate Arrangements

Use

You now see how you can find an existing rebate arrangement.

You start the search for the rebate arrangement on your current screen. You can generally use the F4 input help to search for a document on any screen in the R/3 system.

Procedure

1. Position your cursor on the *Rebate arrangement* field, then choose the F4 input help.

   In the *Rebate Arrangement (1)* dialog box, you can choose the type of search help.

2. Choose the *Arrangements by Condition Granter* tab page. If required, use the scroll bar.
3. Enter as many search criteria as possible. The data can be taken from the data table given in the script.

   The fields on the tab page also have F4 input fields. You can also perform a detailed search here.

4. Choose ✔.

   The *(1) ### Entries Found* dialog box appears.

5. Select the required rebate arrangement, then choose ✔.

   The system automatically inserts the rebate arrangement number in the relevant item of the initial screen.

INTRASTAT Processing in Purchasing

Purpose

With the INTRASTAT system, statistical data is produced for domestic trade within the EU. The INTRASTAT processing in Purchasing depends on the Sales and Distribution module. You must take this function into account when adjusting the settings in Customizing.

Process Flow

You can find the data for this process under [Page 274].

1. Changing Import Data in the Vendor Master [Page 275]
2. Changing Import Data in the Material Master [Page 276]
3. Changing Import Data in the Info Record [Page 277]
4. Creating a Purchase Order for the Import [Page 278]
5. Entering the Goods Receipt for the Purchase Order [Page 280]
6. Entering the Invoice Receipt for the Purchase Order [Page 282]
7. Creating an INTRASTAT Report [Page 285]

Data Used During This Process

Field	Data	Description
Vendor	1008	Motor Constructions Ltd.
Mode of Transport - Border	3	Road
Material	1300-310	HD GLAD BOY front fender silver
Country of origin	GB	Great Britain
Plant	1000	Hamburg
Storage location	0001	Material stores
Movement type	101	GR Goods receipt
Purchasing group	001	Dietl, B.
Purchasing organization	1000	IDES Germany
Company code	1000	IDES AG
Tax amount	V0	Domestic input tax 0%
Country of declaration	DE	Germany
Declaration currency	EUR	

Changing Import Data in the Vendor Master

1. Call up the transaction as follows:

Menu Path	*Logistics → Materials Management → Purchasing → Master Data → Vendor → Purchasing → Change (Current)*
Transaction Code	MK02

2. Enter the following data:

Field	Data
Vendor	1008
Purchasing organization	1000
Purchasing data	Select

3. Choose .
4. Enter the following data:

Field	Data
Mode of Transport - Border	3
Office of entry	Position the cursor in the input field and choose an entry using the input help

The *Control data* belongs to the vendor master which controls INTRASTAT.

5. Choose .
6. Choose until the overview tree appears.

Changing Import Data in the Material Master

1. Call up the transaction as follows:

Menu Path	*Logistics → Materials Management → Material Master → Material → Change → Immediately*
Transaction Code	MM02

2. Enter the following data:

Field	Data
Material	1300-310

3. Choose *Select view(s)*.
4. In the dialog box *Select view(s)* select *Foreign Trade: Import Data* and choose *Organizational levels*.
5. In the *Organizational Levels* dialog box, enter the following data:

Field	Data
Plant	1000

6. Choose ✔.
7. Enter the following data:

Field	Data
Comm./imp.code no.	Position the cursor in the input field and choose an entry using the input help
Country of origin	GB
Region of origin	Position the cursor in the input field and choose an entry using the input help

The fields in the *Foreign trade data* screen area in the material master control the INTRASTAT report.

8. Choose 💾.
9. To skip any warning messages, choose ✔.
10. Choose ⇦ until the overview tree appears.

Changing Import Data in the Info Record

1. Call up the transaction as follows:

Menu Path	*Logistics → Materials Management → Purchasing → Master Data → Info Record → Change*
Transaction Code	ME12

2. Enter the following data:

Field	Data
Vendor	1008
Material	1300-310
Purchasing org.	1000
Plant	1000

3. Choose .
4. Choose *Purch. org. data 1*.
5. Enter the following data:

Field	Data
Exp./imp proced.	Position the cursor in the input field and choose an entry using the input help

The field under *Control* belongs to the info record which controls INTRASTAT.

6. Choose .
7. Choose until the overview tree appears.

Creating a Purchase Order for the Import

1. Call up the transaction as follows:

Menu Path	From the *Materials Management* node, choose *Purchasing* → *Purchase Order* → *Create* → *Vendor/Supplying Plant Known*
Transaction Code	ME21N

You now have the option of setting default entries for the PO document. To do this, choose Default Settings for Order Document Fields [Page 179].

If you do modify your personal settings, this could mean that the entries you see on your screens might differ from those described in the IDES processes. To avoid this situation, when you have completed this process we strongly advise you to reset any changes you make to your personal settings.

2. Enter the following data:

Field	Data
	Standard PO
Vendor	1008
Document date	Today's date

3. Choose .
4. To expand the item header area, choose *Header*.
5. On the *Org. data* tab page, enter the following data:

Field	Data
Purchasing org.	1000
Purchasing group	001
Company Code	1000

6. To expand the item overview area, choose *Item overview*.
7. Enter the following data:

Field	Data
Material	1300-310
PO quantity	10

8. Choose .
9. Choose the *Import* tab page from the header area.

The import header data is displayed. The value of the *Mode of Transport - Border* field is transferred from the vendor master.

10. On the *Handling* tab page, enter the following data:

Field	Data	Description
Transport - Arrival	any entry	Indicator showing means of transport at goods issue
second input field	GB	Nationality of means of transport at goods issue
Means of trsp - border	any entry	Indicator showing the means of transport used to cross the border
second input field	GB	Nationality of means of transport used to cross the border
Container	1	The goods cross the border in a container

11. Choose .
12. Select your item in the item overview area.
13. To expand the item details area, choose *Item details*.

    Information from the material master, the info records and the configuration is transferred. Check this data in the tab pages. This information can be changed if necessary.

14. Make a note of the net price of your item from the item overview area.

    The price is displayed in British pounds (GBP) in the *Currency* column.

15. Choose .

    To ignore any warning messages, choose *Save*.

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

16. Choose until the overview tree appears.

Entering the Goods Receipt for the Purchase Order

30. Call up the transaction as follows:

Menu Path	From the *Purchasing* node, choose *Purchase Order* → *Follow-On Functions* → *Goods Receipt*.
Transaction Code	MIGO

31. Enter the following data:

Field	Data
Purchase order	Your PO number

32. Choose .

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

    The purchase order items are transferred to the item overview.

    The PO number you entered appears in the *Current purchase order* field, and the *PO number* field is once again ready to accept input.

    If you click on individual items, the system displays an item data screen (allowing you to change the incoming quantity, for example).

33. In the header data area of the *General* tab page, enter the following data:

Field	Data
Document date	Today's date
Posting date	Today's date

34. To open the item detail area, choose *Item detail*.
35. Select your item, then choose the *Where* tab page to check your organizational data.
36. On the *Where* tab page, enter the following data:

Field	Data
Movement type	101
Storage location	0001

37. In the item overview area, select *OK* for your item.

    If the *OK* indicator in the item overview area is not active, either close the item detail area or select *Item OK* at the bottom of the item detail area.

38. Choose *Post*.

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

39. Choose until the overview tree appears.

Entering the Invoice Receipt for the Purchase Order

37. Call up the transaction as follows:

Menu Path	From the *Purchase Order* node, choose *Follow-On Functions* → *Logistics Invoice Verification*.
Transaction Code	MIRO, MRBR

38. Choose *Edit* → *Switch company code.*

    In the *Enter Company Code* dialog box, the system displays the company code that is currently active for invoice verification. This is the company code last used by the user.

39. Enter the following data:

Field	Data
Company code	1000

40. Choose ✔.

41. In the field directly above and to the left of the item overview, use the input help to choose *Purchase order/scheduling agreement* (if it does not already appear as the default text).

    You can also use this activity to enter invoices with reference to a delivery note, for example. The system proposes the value last entered by the user in each case.

42. On the *Basic data* tab page, in the header data area, enter the following data:

Field	Europe
Invoice date	Today's date
Posting date	Today's date
Tax amount, right-hand field	V0 (Domestic input tax 0%)
To the right of the *Purchase order/scheduling agreement* input field	Your PO number

43. Choose .

    In the item overview, the system displays the purchase order data, as well as the net amount in the balance field that is required to calculate the gross amount. The traffic light for the *Balance* field is red.

    The value of the goods delivered plus tax (in Europe, VAT) is normally entered on the invoice sent to you by the vendor. In this process, we simulate this procedure and determine the invoice amount ourselves.

44. Enter the following data:

Field	Data
Calculate tax	Select

When you activate *Calculate tax* the system displays the gross amount in the balance field.

If you have selected the tax code *No tax procedure*, or *A/PSales tax exempt*, the *Tax amount* field contains the value 0. In this case, the *Balance* field contains the net amount.

45. Enter the following data:

Field	Data
Rate	Gross amount determined
	Select

46. Choose .

When you confirm your entries, the traffic light to the left of the *Balance* field changes to green.

In this example, we assume that the invoiced amount equals the calculated amount.

47. Choose .

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

The invoice is initially blocked for payment. Possible reasons include variances (settlement date too early, for example), or sporadic "control blocks". From a logistics perspective, the procurement process has been successfully completed. You can now display and change the blocking reasons.

48. Choose until the overview tree appears.

49. From the *Materials Management* node, choose *Logistics Invoice Verification* → *Further Processing* → *Release Blocked Invoices.*

50. Enter the following data:

Field	Europe
Company code	1000
Invoice document	Your invoice document number

51. Choose .

To display the blocking reasons, scroll to the right of the table. The blocking reasons for your item are highlighted with *X*. To display the full descriptions, position your cursor on the column header.

Possible reasons for blocking an invoice include:

Entering the Invoice Receipt for the Purchase Order

Column	Description
Qua (Blocking reason: Quality)	Quality variance
Qty (Blocking reason: Quantity)	Quantity variance
Prc (Blocking reason: Price)	Price variance
Dte (Blocking reason: Date)	Delivery date variance

52. If you want to release your invoice, select the blocking reason for your item, then choose *Blocking reason*.
53. Choose *Save changes*.

    In the status bar, the system confirms that the invoice has been released.
54. Choose until the overview tree appears.

Creating an INTRASTAT Report

1. Call up the transaction as follows:

Menu Path	From the *Purchasing* node, choose *Purchase Order* → *Reporting* → *Declaration to Authorities* → *Operational* → *Create Periodic Declarations* → *European Union* → *INTRASTAT* → *Business Transactions* → *Receipt*
Transaction Code	MEIS, VE02, VE73

2. Enter the following data:

Field	Data
Company code	1000
Reporting month	Current month
Reporting year	Current year
Country of declaration	DE
Declaration curr.	EUR
Log type	B

3. Choose .

   You can see all entries for the reporting month.

4. To print the selection, choose .
5. Enter the following data:

Field	Data
Output device	Name of your printer
Number of copies	1
Print immediately	Select
Delete after output	Select

6. Choose *Continue*.
7. Choose until the overview tree appears.
8. Call up the transaction as follows:

Menu Path	From the *Purchasing* node, choose *Purchase Order* → *Reporting* → *Declaration to Authorities* → *Operational* → *Create Periodic Declarations* → *European Union* → *INTRASTAT* → *Create Document* → *Germany*
Transaction Code	VE02

9. Enter the following data:

Field	Data
Reporting month	Current month

Reporting year	Current year
Company code	1000
Receipt (1) / Dispatch (2)	1
Federal state of tax office	Choose any state from the input field using the input help
Printer for forms	Name of your printer

10. Choose .
11. Choose .
12. Enter the following data:

Field	Data
Output device	Name of your printer
Number of printouts	1
Print immediately	Select
Delete after print	Select

13. Choose *Continue*.
14. Choose until the overview tree appears.
15. Call up the transaction as follows:

Menu Path	From the *Purchasing* node, choose *Purchase Order* → *Reporting* → *Declaration to Authorities* → *Goods Catalog* → *Create Document*
Transaction Code	VE73

16. Enter the following data:

Field	Data
Plant	1000
Country	DE
Company code	1000

17. Choose .

    The system displays a list of all items with statistical goods numbers, which can be sent as a report to the Wiesbaden-based Federal Statistical Office. You can print this list too, if needed.

18. Choose until the overview tree appears.

Cross-Company-Code Stock Transfer

Purpose

In Materials Management – Inventory Management, you can transfer goods between different company codes. You can perform these stock transfers as one-step stock transfers (material movement in a single step) or as two-step stock transfers (material movement in two steps). You can also use the purchasing and distribution functions (that is, stock transport orders). In the following process, only one-step and two-step stock transfers are explained. In the case of a one-step stock transfer, the goods are issued and received in a single transaction; in the case of a two-step stock transfer, you enter the goods issue and then the goods receipt. If the valuation procedures and delivery prices are different in the two plants, the receiving plant bears all the costs and value differences that occur.

Process Flow

You can find the data for this process under [Page 288].

1. Transfer Material: One-Step Stock Transfer [Page 289]
2. Displaying the Material Document for a One-Step Transfer Posting [Page 291]
3. Transfer Material: Two-Step Stock Transfer – Issue [Page 292]
4. Transfer Material: Two-Step Stock Transfer – Receipt [Page 293]

Data Used During This Process

Field	Europe	Description
Plant	1000	Hamburg
Storage location	0001	Material stores
Receiving plant	2000	Heathrow / Hayes
Receiving location	0001	Material stores
Material	1300-270	
Movement type	301, 303, 305	Transfer posting plant to plant (one-step), remove from storage, place in storage

Transfer Material: One-Step Stock Transfer

1. Call up the transaction as follows:

Menu Path	*Logistics → Materials Management → Inventory Management → Goods Movement → Transfer Posting*
Transaction Code	MB1B

2. Enter the following data:

Field	Data
Movement type	301
Plant	1000
Storage location	0001

3. Choose .

   To skip any warning messages, choose .

4. Enter the following data:

Field	Data
Receiving plant	2000
Recv. Sloc	0001
Material	1300-270
Quantity	100

5. Choose .
6. Choose .

   The system confirms the posting and assigns a document number. Make a note of the number that appears in the status bar.

7. Choose until the overview tree appears.

Displaying the Material Document for a One-Step Transfer Posting

21. Call up the transaction as follows:

Menu Path	From the *Inventory Management* node, choose *Material Document* → *Display*
Transaction Code	MB03

22. Enter the following data:

Field	Data
Material document	Your document number
Mat. doc. year	Current year

23. Choose .

    The system displays an overview of the material document. In the *FIs* column, you can see that the stock in plant 1000 has been reduced by the quantity to be transferred and added to the stock in plant 2000.

24. Choose until the overview tree appears.

Transfer Material: Two-Step Stock Transfer – Issue

1. Call up the transaction as follows:

Menu Path	From the *Goods Movement* node, choose *Transfer Posting*.
Transaction Code	MB1B

2. Enter the following data:

Field	Data
Movement type	303
Plant	1000
Storage location	0001

3. Choose .
4. Enter the following data:

Field	Data
Receiving plant	2000
Material	1300-270
Quantity	100

5. Choose .
6. Choose .
7. Choose until the overview tree appears.

Transfer Material: Two-Step Stock Transfer – Receipt

1. Call up the transaction as follows:

Menu Path	From the *Goods Movement* node, choose *Transfer Posting*.
Transaction Code	MB1B

2. Enter the following data:

Field	Data
Movement type	305
Plant	2000
Storage location	0001

3. Choose .
4. Enter the following data:

Field	Data
Material	1300-270
Quantity	100

5. Choose .
6. Choose .
7. Choose until the overview tree appears.

Cross-Company-Code Stock Transfer Using a Purchase Order

Purpose

In view of the accelerating trend towards globalization and the rapid increase in the number of company mergers, internal financial and logistical processes within corporate groups are acquiring increasing significance.

For example, a production plant in the automotive industry may procure components from a supplier that, despite legally and technically belonging to a different company, is actually a member of the same corporate group - a far from exceptional situation these days.

Such a procurement process differs from true external procurement largely as a result of the fact that the associated value flows have to be consolidated for group accounting purposes.

In all other respects, the processing of a normal customer-supplier relationship is necessary. Above all, this involves the following:

It should be possible to carry out a complete ordering process in the procuring plant. For this purpose, it is necessary to be able to treat the supplying plant as a vendor in the system. It must be possible to carry out a complete price determination process in the purchase order, taking delivery costs (incidental procurement costs) into account where applicable. Furthermore, it should ideally be possible to monitor delivery of the goods. This requires continuous updating of the PO history (history of the transactions ensuing from the purchase order) and possibly the use of vendor confirmations (which may or may not be MRP-relevant).

In the supplying plant, the implementation of a complete sales order processing cycle is desirable. This includes order entry (with the receiving plant as the customer), a sales-side price determination function, delivery and billing options, and monitoring of the document flow.

All processes must be capable of being monitored by the inventory management department in both the receiving and the supplying plants. In particular, the volume of stock in transit must be known at all times.

In the following process, the Hamburg plant (1000) of the IDES Corp. (company code 1000) procures shock absorbers (material number 1300-260) from the Heathrow/Hayes plant (2000) of IDES UK (company code 2000). To enable the Hamburg plant to order materials, a vendor master record exists for the Heathrow/Hayes plant (4444). The assignment of this record to the plant is carried out in the ”additional data” for Purchasing. Conversely, the Hamburg plant is linked to a customer master record (1185) to facilitate shipping operations on the part of the supplying plant Heathrow/Hayes.

Process Flow

You can find the data for this process under [Page 296].

1. Checking the Current Stock of a Material in the Supplying Plant [Page 297]
2. Creating a Purchase Order [Page 298]
3. Checking the Stock/Requirement List in the Receiving Plant [Page 300]
4. Creating and Processing a Delivery [Page 301]
5. Stock Situation in Receiving Plant After Goods Issue Posting [Page 303]

Data Used During This Process

Field	Data	Description
Vendor	4444	London Supplying Plant
Order type	Standard PO	
Purchasing organization	1000	IDES Germany
Purchasing group	001	Dietl, B.
Receiving plant	1000	Hamburg
Receiving storage location	0001	Material stores
Material	1300-260	HD rear shock absorbers
PO quantity	10	
Import procedure	10000	
Supplying plant	2000	Heathrow / Hayes
Supplying storage location	0002	Warehouse
Shipping point	2000	
Sold-to party	1185	Hamburg
Sales organization	2000	IDES UK

Checking the Current Stock of a Material in the Supplying Plant

1. Call up the transaction as follows:

Menu Path	*Logistics → Materials Management → Inventory Management → Environment → Stock → Stock Overview*
Transaction Code	MMBE

2. Enter the following data for the delivering plant:

Field	Data
Material	1300-260
Plant	2000
Storage location	0001

3. Choose .

   The system displays the current warehouse stock for the material 1300-260 in the *Unrestricted-use* column. Make a note of the current stock quantity. You will need it later for comparison purposes.

   A stock of at least 10 pc should be available for unrestricted use. If this is not the case, you will have to replenish the stock in the supplying plant. To do this, you need to first carry out the process Purchase Order Entry and Subsequent Functions [Page 210].

4. Choose .

5. Enter the following data for the receiving plant:

Field	Data
Material	1300-260
Plant	1000
Storage location	0001

6. Choose .

   The system displays the current warehouse stock for the material 1300-260 in the *Unrestricted-use* column. Make a note of the current stock quantity. You will need it later for comparison purposes.

7. Choose until the overview tree appears.

Creating a Purchase Order

15. Call up the transaction as follows:

Menu Path	From the *Materials Management* node, choose *Purchasing* → *Purchase Order* → *Create* → *Vendor/Supplying Plant Known*
Transaction Code	ME21N

You now have the option of setting default entries for the PO document. To do this, choose Default Settings for Order Document Fields [Page 179].

If you do modify your personal settings, this could mean that the entries you see on your screens might differ from those described in the IDES processes. To avoid this situation, when you have completed this process we strongly advise you to reset any changes you make to your personal settings.

16. Enter the following data:

Field	Data
	Standard PO
Vendor	4444
Document date	Today's date

17. Choose .

18. To open the header data area, choose *Header*.

19. On the *Org.data* tab page, enter the following data:

Field	Data
Purchasing org.	1000
Purchasing group	001
Company code	1000

20. To open the item overview area, choose *Item overview*.

21. Enter the following data:

Field	Data
Material	1300-260
PO quantity	10
C (Category of delivery date)	D
Delivery date	Two weeks from today
Net price	10
Plant	1000

Storage location	0001

22. Choose .

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

23. To open the item detail area, choose *Item detail*.
24. On the *Invoice* tab page, select *GR-based IV* (goods-receipt-based invoice verification).
25. Choose .

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

26. Choose until the overview tree appears.

Checking the Stock/Requirement List in the Receiving Plant

Use

The creation of the purchase order has a direct effect on the quantity of the material regarded as available in the receiving plant as per the planned delivery date (plus a GR processing time of 3 days). The transaction is thus immediately MRP-relevant in this plant.

Procedure

1. Call the transaction as follows. Enter the following data:

Menu Path	From the *Materials Management* node, choose *Inventory Management* → *Environment* → *Stock* → *Stock/Requirements List*.
Transaction Code	MD04

2. On the *Individual access* tab page, enter the following data:

Field	Data
Material	1300-260
Plant	1000

3. Choose .

   The system displays the expected receipts and requirements. Next to your stock transport order, you see an expected receipt of 10 pc as per the delivery date plus the GR processing time of 3 days.

4. Choose until the overview tree appears.

Creating and Processing a Delivery

8. Call up the transaction as follows:

Menu Path	From the *Logistics* node, choose *Sales and Distribution* → *Shipping and Transportation* → *Outbound Delivery* → *Create* → *Collective Processing of Documents Due for Delivery* → *Purchase Orders.*
Transaction Code	VL10B, ME22N, VL02N, LT03, VL03N

9. Enter the following data:

Field	Data
Shipping point/receiving point	2000
Delivery creation date from	Today's date
Delivery creation date to	Four weeks from today

Make sure that all further input fields remain empty (and that the content of any other populated fields is deleted).

10. Choose .

    The delivery list is created and displayed on the *Activities Due for Shipping: Purchase Orders, Fast Display* screen.

11. Choose the *OriginDoc*. field in your item line.

    The purchase order information is displayed.

12. Choose .
13. Select your purchase order.
14. Choose *Background*.

    The system confirms the transaction and draws your attention to a log that has been created for it.

15. To display the log, choose .
16. Select your item in the *Group no.* field and choose *Documents.*

    Note the delivery document number shown in the *Document* field. You will need this later.

17. Choose until the overview tree appears.
18. From the *Shipping and Transportation* node, choose *Outbound Delivery* → *Change* → *Single Document*.
19. Enter the following data:

Field	Data

Outbound delivery	Your delivery document number

20. Choose .
21. Choose *Subsequent functions* → *Create transfer order*.

    Respond to the question in the *End Document Processing* dialog box with *Yes*.
22. Enter the following data:

Field	Data
Warehouse number	020
Plant	2000
Delivery	Your delivery document number
Foreground/background	Background
Adopt picking quantity	2

23. Choose .

    The system generates a transfer order for the picking of the delivery quantities. Option 2 (Adopt picking quantity) ensures that the goods issue posting is made at the same time as the delivery.
24. Choose until the overview tree appears.
25. Call up the transaction as follows:

Menu Path	From the *Outbound Delivery* node, choose *Display*
Transaction Code	VL03N

26. Enter the following data:

Field	Data
Outbound delivery	Your delivery document number

27. Choose .
28. Choose .

    The document flow is displayed.
29. Choose until the overview tree appears.

Stock Situation in Receiving Plant After Goods Issue

Use

When the goods issue is posted in the supplying plant, the quantity of unrestricted-use stock at that plant decreases, whereas the *Stock in transit CC* (company code stock in transit) increases accordingly.

Procedure

1. Call up the transaction as follows:

Menu Path	From the *Logistics* node, choose *Materials Management* → *Inventory Management* → *Environment* → *Stock* → *Stock Overview.*
Transaction Code	MMBE, MB52, MB5T

2. Enter the following data:

Field	Data
Material	1300-260
Plant	1000
Storage location	0001

3. Choose .

   The system first lists the unrestricted-use stock at company code, plant, and storage location level.

4. Position your cursor on the stock line for the Hamburg plant and choose .

   The box that now appears contains a differentiated list of stocks.

5. To display entries lower down in the list, scroll down.

   The category *Stock in transit CC* now contains the quantity of materials currently in transit. The quantity of *Unrestricted-use stock* is not increased as a result of this.

   Furthermore, it is still recorded on a non-valuated basis.

6. To quit the active dialog box, choose .
7. Choose until the overview tree appears.
8. From the *Stock* node, choose *Warehouse Stock*.
9. Enter the following data:

Field	Data
Material	1300-260
Plant	1000
Storage location	0001

Stock Situation in Receiving Plant After Goods Issue

10. Choose .
11. Make a note of the stock value (totals line).
12. Choose until the overview tree appears.
13. From the *Stock* node, choose *Stock in Transit*.
14. Enter the following data:

Field	Data
Material	1300-260
Receiving plant	1000

15. Choose .

    The system displays the current stock in the stock transfer. The net order value is shown as the stock value. However, the stock value at the receiving plant does not yet increase.

16. Choose until the overview tree appears.

Creating Billing Documents

1. Call up the transaction as follows:

Menu Path	From the *Sales and Distribution* node, choose *Billing* → *Billing Document* → *Process Billing Due List.*
Transaction Code	VF04

2. Enter the following data:

Field	Data
Billing date from	No entry
Billing date to	Today's date
Sold-to party	1185
Intercompany billing	Select

3. Choose *DisplayBillList.*
4. Select your delivery document. Deselect all others.
5. Choose .

   The system confirms the transaction and displays the billing log with one created billing document.

6. Choose until the overview tree appears.

Posting the Goods Receipt in the Receiving Plant

40. Call up the transaction as follows:

Menu Path	From the *Inventory Management* node, choose *Goods Movement* → *Goods Receipt* → *For Purchase Order* → *PO Number Known.*
Transaction Code	MIGO, MB03

41. Enter the following data:

Field	Data
Purchase order	Your PO number

42. Choose .

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

    The purchase order items are transferred to the item overview.

    The PO number you entered appears in the *Current purchase order* field, and the *PO number* field is once again ready to accept input.

    If you click on individual items, the system displays an item data screen (allowing you to change the incoming quantity, for example).

43. In the header data area of the *General* tab page, enter the following data:

Field	Data
Document date	Today's date
Posting date	Today's date

44. Select your item, then choose the *Wk* tab page at the bottom of the screen to check your organizational data.

45. On the *Wk* tab page, enter the following data:

Field	Data
Storage location	0001

46. In the item overview area, select *OK.*

    If the *OK* indicator in the item overview area is not active, either close the item detail area or select *Item OK* at the bottom of the item detail area.

47. Choose *Post*.

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

48. Choose .

    You can also display the material document and the corresponding accounting document.

49. From the *Inventory Management* node, choose *Material Document* → *Display*
50. Enter the following data:

Field	Data
Material document	Your material document number. Should you ever forget this number, see the IDES scenario Finding a Material Document [Page 223]
Material document year	Current year

51. Choose .

    The system displays the material document.

52. Position your cursor on the material document line, then choose *Accounting documents*.
53. In the *List of Documents in Accounting* dialog box, choose *Accounting document*.

    The system shows you the G/L accounts where postings have been made and the updated values. The stock value is posted to the stock account.

    This example shows how the value of the stock account “Unfinished products” (79000) is increased, and at the same time a corresponding posting is made to the GR/IR clearing account. These postings are also the result of the Customizing settings already made for you in the IDES system.

54. Choose .
55. To quit the dialog box, choose .
56. Choose until the overview tree appears.

Stock Situation After Goods Receipt

1. Call up the transaction as follows:

Menu Path	From the *Environment* node, choose *Stock* → *Warehouse Stock*.
Transaction Code	MB52

2. Enter the following data:

Field	Data
Material	1300-260
Plant	1000
Storage location	0001

3. Choose .

   The goods receipt posting at the Hamburg plant leads directly to an increase in the quantity of unrestricted-use stock and the stock value.

   The stock value in the totals line has increased accordingly. The movement is effected on the basis of the order value.

4. Choose until the overview tree appears.

Posting the Invoice in the Receiving Plant

1. Call up the transaction as follows:

Menu Path	From the *Purchase Order* node, choose *Follow-On Functions* → *Logistics Invoice Verification*.
Transaction Code	MIRO, MRBR

2. Choose *Edit* → *Switch company code.*

   In the *Enter Company Code* dialog box, the system displays the company code that is currently active for invoice verification. This is the company code last used by the user.

3. Enter the following data:

Field	Data
Company code	1000

4. Choose ✔.

5. In the field directly above and to the left of the item overview, use the input help to choose *Purchase order/scheduling agreement* (if it does not already appear as the default text).

   You can also use this transaction to enter invoices with reference to a delivery note, for example. The system proposes the value last entered by the user in each case.

6. On the *Basic Data* tab page of the header data area, enter the following data:

Field	Data
Document date	Today's date
Posting date	Today's date
Tax amount, right-hand field	VN (Domestic input tax 16%)
To the right of the *Purchase order/scheduling agreement* input field	Your PO number

7. Choose .

   In the item overview, the system displays the purchase order data, as well as the net amount in the balance field that is required to calculate the gross amount. The traffic light for the *Balance* field is red.

   The value of the goods delivered plus tax (in Europe, VAT) is normally entered on the invoice sent to you by the vendor. In this process, we simulate this procedure and determine the invoice amount ourselves.

8. Enter the following data:

Field	Data
Calculate tax	Select

Posting the Invoice in the Receiving Plant

When you activate *Calculate tax* the system displays the gross amount in the balance field. The corresponding tax portion appears in the *Tax amount* field.

If you have selected the tax code *No tax procedure*, or *A/PSales tax exempt*, the *Tax amount* field contains the value 0. In this case, the *Balance* field contains the net amount.

9. Enter the following data:

Field	Data
Amount	Gross amount determined
	Select

10. Choose .

When you confirm your entries, the traffic light to the left of the *Balance* field changes to green.

In this example, we assume that the invoiced amount equals the calculated amount.

11. Choose .

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

The invoice is initially blocked for payment. Possible reasons include variances (settlement date too early, for example), or sporadic "control blocks". From a logistics perspective, the procurement process has been successfully completed. You can now display and change the blocking reasons.

12. Choose until the overview tree appears.
13. From the *Materials Management* node, choose *Logistics Invoice Verification* → *Further Processing* → *Release Invoices.*
14. Enter the following data:

Field	Europe
Company code	1000
Invoice document	Your invoice document number

15. Choose .

To display the blocking reasons, scroll to the right of the table. The blocking reasons for your item are highlighted with *X*. To display the full descriptions, position your cursor on the column header.

Possible reasons for blocking an invoice include:

Column	Description
Qua (Blocking reason: Quality)	Quality variance

Qty (Blocking reason: Quantity)	Quantity variance
Prc (Blocking reason: Price)	Price variance
Dte (Blocking reason: Date)	Delivery date variance

16. If you want to release your invoice, select the blocking reason for your item, then choose *Blocking reason*.
17. Choose *Save changes*.

    In the status bar, the system confirms that the invoice has been released.
18. Choose until the overview tree appears.

Stock Transport Scheduling Agreement

Purpose

A scheduling agreement has been created for material R-1310 with plant 1000 as the supplier. Manually created delivery schedule lines are displayed. To illustrate the effects of these receipts, you will compare the stock/requirements list during the process of recording the goods receipts with the scheduling agreement.

The scheduling agreement has already been created. It is advisable to use this scheduling agreement for demo purposes in order to avoid a proliferation of data in the system. If existing schedule lines no longer suffice, you can simply create new ones. The scheduling agreement (SA) is valid until 31.12.2000. You can, of course, extend it if you wish. In this case, the schedule lines were created manually. The IDES process for the stock transport order illustrates how scheduling agreement schedule lines can be created automatically through the requirements planning (MRP) process.

In the following procedure, it is to be assumed that a strategic (long-term) purchasing operation is initiated by the materials planner, involving the setting up of a vendor scheduling agreement for a certain material. Up until now, the material has been procured on the basis of discrete purchase orders. The materials planner gives instructions to Purchasing with regard to the material and the validity period of the new long-term purchase agreement.

Process Flow

You can find the data for this process under [Page 313].

1. Changing the Scheduling Agreement and Displaying the Source List [Page 314]
2. Changing the Scheduling Agreement Delivery Schedule [Page 316]
3. Displaying the Stock/Requirements List [Page 318]
4. Creating a Delivery Note in the Supplying Plant: Delivery List [Page 319]
5. Goods Receipt from Stock in Transit [Page 321]
6. Generating a Goods Receipt as a Replenishment Delivery [Page 323]
7. Displaying Effects on Stock/Reqts. List and Delivery Schedule [Page 325]

Data Used During This Process

Field	Data	Description
Company code	1000	IDES AG
Plant	1000	Hamburg
Plant (Vendor)	1000	Hamburg
Plant (Customer)	1200	Dresden
Purchasing organization	1000	IDES Germany
Material	R-1310	
Scheduling agreement no.	5500000037	
Shipping point/receiving point	1000	
Warehouse number	010	
Storage location	0001	Material stores
Movement type	101	

Restriction:

1. The material is assigned to the special procurement type *40* in the receiving plant.
2. The customer/vendor relationship is flexibly defined in Customizing for Purchasing.

Changing the Sched. Agreement and Displaying the Source List

1. Call up the transaction as follows:

Menu Path	*Logistics → Materials Management → Purchasing → Outline Agreement → Scheduling Agreement → Change.*
Transaction Code	ME32L, ME03

2. Enter the following data:

Field	Data
Agreement	5500000037

3. Choose .

4. Enter the following data:

Field	Data
Target quantity	5000

5. Choose .

6. Enter the following data:

Field	Data
Validity end	End of the current year

7. Choose .

   To skip any warning messages, choose .

8. Select the first item, then choose .

   The system shows the *Target quantity* and other details.

9. Choose .

   The firm and trade-off zones are now shown. Select a value with the cursor and press F1 to get help documentation regarding the significance of the field. You will see this data again in the SA delivery schedule.

10. Choose *Environment → Source list.*

    The validity periods of the item are shown. The *Fixed* indicator shows that the scheduling agreement entered is the only allowed source for the material *R-1310* in plant *1200*. The materials planning key determines whether schedule lines are MRP-relevant and whether they can be generated automatically.

11. Choose .

12. Choose .

    In the status line, the system informs you that the stock transport scheduling agreement has been changed.

13. Choose until the overview tree appears.

Changing the Scheduling Agreement Delivery Schedule

1. Call up the transaction as follows:

Menu Path	From the *Outline Agreement* node, choose *Scheduling Agreement* → *Delivery Schedule* → *Maintain.*
Transaction Code	ME38

2. Enter the following data:

Field	Data
Agreement	5500000037

3. Choose .
4. Select the first item, then choose .

   The system now shows you all the schedule lines created to date. Note the date formats, the time, the scheduled quantities, and the *Fixed* indicator.

5. In the first blank line, enter the following data:

Field	Data
D (date category)	D
Delivery date	Today's date
Scheduled quantity	100
Time	12:00
Statistics-relevant delivery date	Today's date

6. Choose .
7. To skip any warning messages, choose .
8. Choose .

   If, in the dialog box *Save Document,* the system informs you that no message record was found, choose *Yes*.

   Alternatively, you can specify the message record in the master data for Purchasing. In the dialog box *Save document,* choose *No* until you return to the overview tree. From the Purchasing node, choose *Master Data* → *Messages* → *Scheduling Agreement Delivery Schedule* → *Change.* In the *Output Type* field, enter **LPET.** Choose *Continue.* Choose *Key combination*. In the dialog box *Key Combination,* choose the entry *Purchasing Output Determination: Document type*. Choose . Enter **LU** in the *Purchasing doc. type* field and then choose . Choose *Communication*. Enter a printer assigned to your workplace in the *Output device* field. Choose . Return to the overview tree and start again with step 2.

   In the status line, the system informs you that the stock transport scheduling agreement has been changed.

9. Choose until the overview tree appears.

Displaying the Stock/Requirements List

1. Call up the transaction as follows:

Menu Path	From the *Materials Management* node, choose *Material Requirements Planning* → *MRP* → *Evaluations* → *Stock/Reqmts List*
Transaction Code	MD04

2. On the *Individual access* tab page, enter the following data:

Field	Data
Material	R-1310
Plant	1200 (Ordering plant)

3. Choose .

   You will see an overview of the SA schedule lines. The column *MRP element* shows the entry: *SchLne.*

4. Overwrite any existing entry in the *Plant* field with 1000 (supplying plant).

5. Choose .

   The system shows you the relevant SA releases with the entry SAgRel. The source of the requirement is now also shown.

6. In the line containing the entry SagRel, note the next possible delivery date from the *Date* column.

7. Choose until the overview tree appears.

Creating a Delivery Note in the Supplying Plant

Use

The transportation functionality controls and monitors the entire transportation process as a central element of the supply chain. Transportation processing is integrated as a distinct element within the **Sales and Distribution** overview tree.

Procedure

1. Call up the transaction as follows:

Menu Path	From the *Logistics* node, choose *Sales and Distribution* → *Shipping and Transportation* → *Outbound Delivery* → *Create* → *Collective Processing of Documents Due for Delivery* → *Purchase Orders.*
Transaction Code	VL10B, VL02N, LT03

2. Enter the following data:

Field	Data
Shipping point/receiving point	1000
Delivery creation date from	Today's date minus 1 week
Delivery creation date to	Today's date + 1 week

Make sure that all further input fields are empty (and that the content of any other populated fields is deleted).

3. Choose .

   The delivery due list is created and displayed.

4. Select your item.
5. Choose *Background*.

   The system confirms the transaction and draws your attention to a log that has been created for it.

6. Choose .
7. Select your item in the *Group* field and choose *Documents.*

   Note the delivery document number shown in the *Document* field. You will need this later.

8. Choose until the overview tree appears.
9. From the *Shipping and Transportation* node, choose *Outbound Delivery* → *Change* → *Single Document*.
10. Enter the following data:

Creating a Delivery Note in the Supplying Plant

Field	Data
Outbound delivery	Your delivery document number

11. Choose .
12. Choose *Subsequent functions* → *Create transfer order*.

    In the *End document processing* dialog box, choose *Yes.*

13. Enter the following data:

Field	Data
Warehouse number	010
Plant	1000
Delivery	Your delivery document number
Foreground/background	Background
Adopt pick. quantity	2

14. Choose .

    In the status line, the system informs you that a transport order for the picking of the delivery quantity has been created. Option 2 (Adopt picking quantity) ensures that the goods issue posting is made at the same time as the delivery.

15. Choose until the overview tree appears.

Goods Receipt from Stock in Transit

57. Call up the transaction as follows:

Menu Path	From the Inventory Management node, choose *Goods Movement* → *Goods Receipt* → *For Purchase Order* → *PO Number Known.*
Transaction Code	MIGO

58. Enter the following data:

Field	Data
Purchase order	5500000037

59. Choose .

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

    The purchase order items are transferred to the item overview.

    The PO number you entered appears in the *Current purchase order* field, and the *PO number* field is once again ready to accept input.

    If you click on individual items, the system displays an item data screen (allowing you to change the incoming quantity, for example).

60. In the header data area of the *General* tab page, enter the following data:

Field	Data
Document date	Today's date
Posting date	Today's date

61. Select your item, then choose the *Where* tab page at the bottom of the screen to check your organizational data.

62. On the *Where* tab page, enter the following data:

Field	Data
Movement type	101
Plant	1200
Storage location	0001

63. On the *Quantity* tab page, enter the following data:

Field	Data
Quantity in unit of entry	50

    Here you enter a smaller quantity than specified so that you are left with a residual quantity in the next process step that you can then post as a goods receipt.

64. In the item overview area, select *OK.*

    If the *OK* indicator in the item overview area is not active, either close the item detail area or select *Item OK* at the bottom of the item detail area.

65. Choose *Post*.

    To skip any warning messages, choose .

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

66. Choose until the overview tree appears.

Generating a Goods Receipt as a Replenishment Delivery

67. Call up the transaction as follows:

Menu Path	From the Inventory Management node, choose *Goods Movement* → *Goods Receipt* → *For Purchase Order* → *PO Number Known.*
Transaction Code	MIGO

68. Choose *Outbound delivery* and *Goods receipt* using the Help button.
69. Enter the following data:

Field	Data
Outbound delivery	Your delivery document number

70. Choose .

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

    The purchase order items are transferred to the item overview.

    The PO number you entered appears in the *Current purchase order* field, and the *PO number* field is once again ready to accept input.

    If you click on individual items, the system displays an item data screen (allowing you to change the incoming quantity, for example).

71. In the header data area of the *General* tab page, enter the following data:

Field	Data
Document date	Today's date
Posting date	Today's date

72. Select your item, then choose the *Where* tab page at the bottom of the screen to check your organizational data.
73. On the *Where* tab page, enter the following data:

Field	Data
Storage location	0001

74. On the tab page *Quantity*, make the following changes:

Field	Data
Quantity in unit of entry	50

75. In the item overview area, select *OK.*

    If the *OK* indicator in the item overview area is not active, either close the item detail area or select *Item OK* at the bottom of the item detail area.

76. Choose *Check*.

    In the status line, the system informs you that the document is OK.

77. Choose *Post*.

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

78. Choose until the overview tree appears.

Displaying Stock/Reqts. List and Delivery Schedule

1. Call up the transaction as follows:

Menu Path	From the *Materials Management* node, choose *Material Requirements Planning (MRP)* → *MRP* → *Evaluations* → *Stock/Reqmts List*
Transaction Code	MD04, ME38

2. Enter the following data:

Field	Data
Material	R-1310
MRP area	No entry
Plant	1200

3. Choose .

   The system shows you a new value (which has been reduced by the GR quantity) for the next possible schedule line.

4. Choose until the overview tree appears.
5. From the *Purchasing* node, choose *Outline Agreement* → *Scheduling Agreement* → *Delivery Schedule* → *Maintain.*
6. Enter the following data:

Field	Data
Agreement	5500000037

7. Choose .
8. Select the first item, then choose .

   The table provides you with an overview of the delivery schedule lines with the associated release values.

9. Choose until the overview tree appears.

One-Step Procedure for Stock Transport Orders

Purpose

Performing a stock transfer using a stock transport order with the one-step procedure means that the goods receipt posting in the receiving plant takes place at the same time as the goods issue posting in the supplying plant. In this case, the goods issue must be performed using an SD delivery. There is no longer any transit stock, the material is posted to the unrestricted-use stock in the receiving plant immediately.

You can find more information about this process under [Page 327].

Process Flow

You can find the data for this process under [Page 328].

1. Creating a Stock Transport Order [Page 329]
2. Delivering to a Receiving Plant Using the One-Step Procedure [Page 331]

Additional Process Information

You make the necessary settings in Customizing. The system is configured so that the stock transfer takes place using SD for plant 1200 (Dresden) and so that the one-step procedure is used for the delivery to plant 1400 (Stuttgart). These plants are located relatively close together. Therefore, it does not make sense to use transit stocks.

Data Used During This Process

Field	Data	Description
Supplying plant	1200	Dresden
Purchasing organization	1000	IDES Germany
Purchasing group	008	Zuse, K.
Receiving plant	1400	Stuttgart
Storage location	0001	Material stores
Material	C-1030	Twisted pair cable
Warehouse number	12	Warehouse Dresden

Creating a Stock Transport Order

1. Call up the transaction as follows:

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

You now have the option of setting default entries for the PO document. To do this, choose Default Settings for Order Document Fields [Page 179].

If you do modify your personal settings, this could mean that the entries you see on your screens might differ from those described in the IDES processes. To avoid this situation, when you have completed this process we strongly advise you to reset any changes you make to your personal settings.

2. Enter the following data:

Field	Data
	Stock transport order
Supplying plant	1200
Document date	Today's date

3. Choose .
4. To open the item header area, choose *Header*.
5. On the *Org. Data* tab page, enter the following data using the input help:

Field	Data
Purchasing org.	IDES Germany
Purchasing group	Zuse, K.
Company code	IDES AG

6. To open the item overview area, choose *Item overview*.
7. Enter the following data:

Field	Data
I (Item category)	U
Material	C-1030
PO quantity	1000
C (Category of delivery date)	D
Delivery date	Two weeks from today
Plant	1400
Storage location	0001

8. Choose .

Creating a Stock Transport Order

9. Choose .

   The system confirms the posting and assigns a stock transport order number. Make a note of the number that appears in the status bar.

10. Choose until the overview tree appears.

Delivering to a Receiving Plant Using the One-Step Procedure

16. Call up the transaction as follows:

Menu Path	*Logistics* → *Sales and Distribution* → *Shipping and Transportation* → *Outbound Delivery* → *Create* → *Collective Processing of Documents Due for Delivery* → *Purchase Orders*
Transaction Code	VL10B, ME22N, VL02N, LT03, VL03N

17. Enter the following data:

Field	Data
Shipping point/receiving point	1200
Delivery creation date from	Today's date
Delivery creation date to	Two weeks from today

Take care that all further input fields remain empty (and that the content of any other populated fields is deleted).

18. Choose .

    The delivery list is created and displayed on the *Activities Due for Shipping "Purchase Orders, Fast Display"* screen.

19. Choose the *OriginDoc*. field in your item line.

    The purchase order information is displayed on the *Stock transport ord. XXX Created by USER*.

20. Choose .
21. In the *Exit Document* dialog box, choose *No.*
22. Select your item.
23. Choose *Background*.

    The system confirms the transaction and draws your attention to a log.

24. To display the log, choose .
25. Select your item in the *Group* field and choose *Documents.*

    Note the delivery document number shown in the *Document* field. You will need this later.

26. Choose until the overview tree appears.
27. From the *Shipping and Transportation* node, choose *Outbound Delivery* → *Change* → *Single Document*.

28. Enter the following data:

Field	Data
Delivery	Your delivery document number

29. Choose .

30. Choose *Subsequent functions* → *Create transfer order*.

    In the *End document processing* dialog box, choose *Yes.*

31. Enter the following data:

Field	Data
Warehouse number	012
Plant	1200
Delivery	Your delivery document number
Foreground/background	Background
Adopt picking quantity	2

32. Choose .

    The system generates a transfer order for the picking of the delivery quantities. Option 2 (*Adopt picking quantity*) ensures that the goods issue posting is made at the same time as the delivery.

33. Choose until the overview tree appears.

34. From the *Outbound Delivery* node, choose *Display*.

35. In the *Outbound delivery* field, enter your delivery document number.

36. Choose .

37. Choose .

    The processing history is displayed on the *Document Flow* screen.

38. Position your cursor on the *TF to stck in trans.* document, then choose *Display document.*

    The system displays the goods movements performed.

39. Choose until the overview tree appears.

Sending Materials Provided to a Subcontractor via an SD Delivery

Purpose

You send the materials provided to a subcontractor for subcontracting work (assembly or further processing) via an SD delivery.

You are contracting out some production work to an external supplier. This involves sending this supplier (the subcontractor) certain components, which are to be used to manufacture the end product. From the list of stocks for the subcontractor, an SD delivery is created for the components and the associated goods issue is posted. As a result, shipping papers and delivery notes are made available to ship the materials you are providing to the subcontractor. The quantities increase the stock of ”material provided”. Conversely, when the end product is received from the subcontractor, the quantities of input materials you provided to produce it are *deducted* from the stock of ”materials provided”.

You can find more information about this process under [Page 334].

Process Flow

You can find the data for this process under [Page 335].

1. Creating a Subcontract Order [Page 336]
2. Checking and Sending Materials Provided to the Subcontractor [Page 338]
3. Posting a Goods Receipt for a Subcontract Order [Page 340]
4. Posting the Invoice for a Subcontracting Item [Page 341]
5. Displaying the Purchase Order and PO History [Page 344]

Additional Process Information

In subcontracting, the vendor (subcontractor) is provided with input materials (components) by the buying entity, which are then used to manufacture the end product. These materials can be sent to the subcontractor via an SD delivery. For this purpose, the vendor must also be created in the customer master record. The two master records reference each other. The shipping functionality can only be used for material types that are relevant to sales and distribution (SD).
Procedure:

1. You order the end product by means of a subcontract order. The components that the vendor needs to manufacture the end product are specified in the purchase order.
2. From the Purchasing menu, you can invoke a list showing the materials the subcontractor needs you to provide him with in order to manufacture the end product specified in the subcontract order. In the event of a shortage (insufficient stock to cover the requirement), the user can initiate a transfer posting or send the necessary materials to the vendor by means of SD functions.
3. The vendor performs the necessary service (i.e. does the required assembly or processing work) and delivers the ordered material (the end product). You post the consumption of the components.
4. If, after the goods receipt has been posted, the vendor informs you that a larger or smaller quantity of the components was actually consumed than planned in the purchase order, you must make an adjustment posting.
5. The vendor submits an invoice for the service provided, which is then posted as part of the invoice verification process.

Data Used During This Process

Field	Data	Description
Company code	1000	IDES AG
Currency	EUR	
Item category	L	Subcontracting item
Material number	101-100	Subcontracting material
Material	101-110 100-120 100-130	Materials provided to subcontractor
Movement type	541 101 543	Stock of material provided to subcontractor Goods receipt for purchase order Posting of stock of material provided to vendor
Plant	1000	Hamburg
Order type	Standard PO	
Purchasing group	002	Harnisch, H.
Purch. organization	1000	IDES Germany
Storage location	0001	Material stores
Vendor	1111	NSM Marschfelden GmbH
Customer number	1380	
Shipping point	1000	Provision of material (components)

Creating a Subcontract Order

1. Call up the transaction as follows:

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

2. Enter the following data:

Field	Data
	Standard PO
Vendor	1111
Document date	Today's date

3. Choose .
4. To open the item header area, choose *Header*.
5. On the *Org. data* tab page in the header data area, use the F4 input help to enter the following data:

Field	Data
Purchasing org.	IDES Germany
Purchasing group	Harnisch, H.
Company code	IDES AG

6. To open the item overview area, choose *Item overview*.
7. Enter the following data:

Field	Data
I (Item category)	L
Material	101-100
PO quantity	100
Delivery date	Today's date + 1 month
Net price	15
Plant	1000
Storage location	0001

8. Choose .

   It is possible that the material already has an info record, which overwrites the amount you have just entered.

9. To open the item detail area, choose *Item detail*.

10. Select your item on the *Delivery schedule* tab page.
11. Choose .

    On the *Processing Components: Component Overview* screen, you see a list of material components (defined by bill of materials) and the quantities required to fulfill the order.

    You can check if there is enough material provided available. Select the desired item. Choose . Then choose *AvailCheck*.

    On the *Confirmation Proposal* screen you can see the quantity required (*open quantity*) and the *confirmed quantity*. If available stocks have been used up, you will have to replenish them. To do replenish the stocks, you need to carry out the process Purchase Order Entry and Follow-On Functions [Page 210]. Make sure that you replenish the correct materials. For this reason, you should note the relevant material number and the requirement quantity you need to replenish.

    To return to the *Process Component XXX-XXX; Storage Location Item* screen, choose *Continue*. To check the stocks for the other materials, choose and carry out the usage check.

    If the system questions whether you can keep the delivery date, choose .
12. Choose .
13. Choose .

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

Checking and Sending Materials Provided to the Subcontractor

1. Call up the transaction as follows:

Menu Path	From the *Purchase Order* node, choose *Reporting* → *SC Stocks per Vendor*
Transaction Code	ME2O, VL06O, VL03N

2. Enter the following data:

Field	Data
Vendor	1111
Plant	1000

3. Choose .

   On the *SC Stock Monitoring for Vendor* screen, you can see whether there is enough stock at the vendor site for each of the materials. If there is too little material, the shortage (undercoverage) is highlighted in red. Send the vendor the quantities he is short of.

4. Select the raw materials (materials *100-110*, *100-120*, and *100-130*) and choose *Post Goods Issue*.

5. In the dialog box, enter *Storage location* **0001** and choose for each item.

   The system informs you that the items have been posted.

6. Choose .

7. Select the semi-finished product (material *101-110*) and choose *Create Delivery*.

   The *Create Delivery* dialog box already contains default data for the delivery.

8. Enter the following data:

Field	Data
Storage location	0001
Quantity	100

9. Choose .

   A further dialog box appears, informing you that a delivery has been successfully saved. Note the delivery number.

10. Choose .

11. Choose in the lower line for material *101-110*.

A further line is opened, showing the goods issue date, and the document and item numbers. Note the date shown in the *Date* column.

12. Choose until the overview tree appears.

    The delivery will be handled using WM functionality. Process your specific delivery.

13. From the *Sales and Distribution* node, choose *Shipping and Transportation* → *Outbound Delivery* → *Lists and Logs* → *Outbound Delivery Monitor.*
14. Choose *List outbound deliveries*.
15. Enter the following data:

Field	Data
Shipping point/receiving point	1000
Planned goods mvmnt. date from to	No entry. Delete the proposed values.
Delivery date	Previously noted date
Material	101-110

16. Choose .
17. Select your delivery.
18. Choose *Subsequent functions* → *Create transfer order*.
19. In the dialog box, enter the following data:

Field	Data
Select items	Select
Adopt picking quantity	2

20. Choose .

    The system saves the transfer order, assigns it a number, and posts the goods issue.

21. Choose until the overview tree appears.
22. From the *Outbound Delivery* node, choose *Display*.
23. Enter your delivery number.
24. Choose .
25. Choose .

    You see the processing history. You can display documents by selecting the one you want to view and then choosing .

26. Choose until the overview tree appears.

Posting a Goods Receipt for a Subcontract Order

79. Call up the transaction as follows:

Menu Path	From the *Inventory Management* node, choose *Goods Movement* → *Goods Receipt* → *For Purchase Order* → *PO Number Known*.
Transaction Code	MIGO

80. Enter the following data:

Field	Data
Purchase order	Your PO number

81. Choose .

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

    The purchase order items are transferred to the item overview.

    The PO number you entered appears in the *Current purchase order* field, and the *PO number* field is once again ready to accept input.

    If you click on individual items, the system displays an item data screen (allowing you to change the incoming quantity, for example).

82. On the *General* tab page in the header data area, enter the following data:

Field	Data
Document date	Today's date
Posting date	Today's date

83. Select your item, then choose the *Wk* tab page at the bottom of the screen to check your organizational data.

84. On the *Wk* tab page, enter the following data:

Field	Data
Storage location	0001

85. In the item overview area, select *OK.*

    If the *OK* indicator in the item overview area is not active, either close the item detail area or select *Item OK* at the bottom of the item detail area.

86. Choose *Post*.

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

87. Choose until the overview tree appears.

Posting an Invoice for a Subcontracting Item

1. Call up the transaction as follows:

Menu Path	From the *Purchase Order* node, choose *Follow-On Functions* → *Logistics Invoice Verification*.
Transaction Code	MIRO, MRBR

2. Choose *Edit* → *Switch company code.*

   In the *Enter Company Code* dialog box, the system displays the company code that is currently active for invoice verification. This is the company code last used by the user.

3. Enter the following data:

Field	Data
Company code	1000

4. Choose ✔.

5. In the field directly above and to the left of the item overview, use the input help to choose *Purchase order/scheduling agreement* (if it does not already appear as the default text).

   You can also use this activity to enter invoices with reference to a delivery note, for example. The system proposes the value last entered by the user in each case.

6. On the *Basic Data* tab page in the header data area, enter the following data:

Field	Data
Document date	Today's date
Posting date	Today's date
Tax amount, right-hand field	V0 (Domestic input tax 0%)
To the right of the *Purchase order/scheduling agreement* input field	Your PO number

7. Choose .

   In the item overview, the system displays the purchase order data, as well as the net amount in the balance field that is required to calculate the gross amount. The traffic light for the *Balance* field is red.

   The value of the goods delivered plus tax (in Europe, VAT) is normally entered on the invoice sent to you by the vendor. In this process, we simulate this procedure and determine the invoice amount ourselves.

8. Enter the following data:

Field	Data
Calculate tax	Select

Posting an Invoice for a Subcontracting Item

When you activate *Calculate tax* the system displays the gross amount in the balance field.

If you have selected the tax code *No tax procedure*, or *A/PSales tax exempt*, the *Tax amount* field contains the value 0. In this case, the *Balance* field contains the net amount.

9. Enter the following data:

Field	Data
Amount	Gross amount determined
	Select

10. Choose .

When you confirm your entries, the traffic light to the left of the *Balance* field changes to green.

In this scenario, we assume that the invoiced amount equals the calculated amount.

11. Choose .

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

The invoice is initially blocked for payment. Possible reasons include variances (settlement date too early, for example), or sporadic "control blocks". From a logistics perspective, the procurement process has been successfully completed. You can now display and change the blocking reasons.

12. Choose until the overview tree appears.

13. From the *Materials Management* node, choose *Logistics Invoice Verification* → *Further Processing* → *Release Invoices.*

14. Enter the following data:

Field	Europe
Company code	1000
Invoice document	Your invoice document number

15. Choose .

To display the blocking reasons, scroll to the right of the table. The blocking reasons for your item are highlighted with *X*. To display the full descriptions, position your cursor on the column header.

Possible reasons for blocking an invoice include:

Column	Description

Qua (Blocking reason: Quality)	Quality variance
Qty (Blocking reason: Quantity)	Quantity variance
Prc (Blocking reason: Price)	Price variance
Dte (Blocking reason: Date)	Delivery date variance

16. If you want to release your invoice, select the blocking reason for your item, then choose *Blocking reason*.
17. Choose *Save changes*.

    In the status bar, the system confirms that the invoice has been released.
18. Choose until the overview tree appears.

Displaying the Purchase Order and PO History

1. Call up the transaction as follows:

Menu Path	From the *Purchase Order* node, choose *Display*
Transaction Code	ME23N

If your purchase order is not displayed on the *Standard PO ### Created by User* screen, choose . In the *Select Purchase Order* dialog box, enter your PO number, then choose *Other document.*

2. Choose *Print preview*.

   The *Print Preview for ### Page ### of ###* screen appears. The system displays your print form. Choose to display additional pages of your purchase order. Choose to return to the previous page.

3. Choose .

4. To open the item detail area, choose *Item detail*.

5. Choose the *Purchase order history* tab page.

   The system displays a history of the goods receipts and invoice receipts. If you double-click on a document number, you can display the material document or the accounting document. The GR document records both the receipt of the finished material and the issues of the materials provided to the subcontractor to produce that finished material. The invoice document shows that whereas the product of the subcontracting work has been invoiced, the input materials provided to the subcontractor have not.

6. Choose until the overview tree appears.

Evaluated Receipt Settlement

Purpose

To simplify the invoice and payment process with vendors, invoices can be automatically generated on the basis of goods receipt documents. It is possible to define that certain products are to be excluded from this procedure.

Due to an organizational reshaping of its business processes, the Purchasing department would like to minimize operating expenses for Invoice Verification. Price and quantity differences are no longer applicable as a result of the credit memo and/or the ERS procedure. For this reason, Purchasing is initiating a scheduling agreement, whose vendor is subject to an ERS procedure.

Process Flow

You can find the data for this process under [Page 346].

1. Displaying the Vendor Master Record [Page 347]
2. Displaying the Purchasing Info Record [Page 348]
3. Displaying the Scheduling Agreement [Page 349]
4. Displaying the SA Schedule Lines [Page 350]
5. Creating the Goods Receipt Document [Page 351]
6. Generating Invoices Based on GR Documents [Page 352]

Data Used During This Process

Field	Data	Description
Company code	1000	IDES AG
Currency	EUR	
Plant	1200	Dresden
Vendor	1021	Noe´Tech Company AG
Material	R-1210 R-1211 R-1220	
Order type	Standard PO	
Scheduling agreement type	LP	
Purchasing organization	1000	IDES Germany
Purchasing group	001	Dietl, B.
Storage location	0001	Material stores
Scheduling agreement number	5500000015	

Displaying the Vendor Master Record

1. Call up the transaction as follows:

Menu Path	*Logistics → Materials Management → Purchasing → Master Data → Vendor → Purchasing → Display (Current)*
Transaction Code	MK03

2. Enter the following data:

Field	Data
Vendor	1021
Purchasing organization	1000
Purchasing data	Select

3. Choose .

AutoEvalGRSetmtDel. is selected in the *Control data* screen area.

4. Choose until the overview tree appears.

Displaying the Purchasing Info Record

1. Call up the transaction as follows:

Menu Path	From the *Master Data* node, choose *Info Record* → *Display.*
Transaction Code	ME13

2. Enter the following data:

Field	Data
Vendor	1021
Material	R-1210
Purchasing org.	1000
Plant	1200
(Info category) Standard	Select

3. Choose .
4. Choose *Purch. org. data 1*.

   No ERS is not selected in the *Control* screen area. To call up the field help, position your cursor on this field, then choose F1. This indicator is selected only if the material is not to participate in the ERS procedure.

5. Choose until the overview tree appears.

Displaying the Scheduling Agreement

1. Call up the transaction as follows:

Menu Path	From the *Outline Agreement* node, choose *Scheduling Agreement* → *Display*
Transaction Code	ME33L

2. Enter the following data:

Fields	Data
Agreement	5500000015

3. Choose .
4. Select one of the items from the agreement.
5. Choose .

In the *Administration* screen area, you can see the start date of the settlement in the *GR-b sett.from* field. This date depends on the goods receipt.

6. Choose until the overview tree appears.

Displaying the SA Schedule Lines

1. Call up the transaction as follows:

Menu Path	From the Outline Agreement node, choose *Scheduling Agreement* → *Delivery Schedule* → *Maintain.*
Transaction Code	ME38

2. Enter the following data:

Field	Data
Agreement	5500000015

3. Choose .
4. Select the first item, then choose .

   The system now displays all the schedule lines created to date.

   Note the date formats, the time, the scheduled quantities, and the *Fixed* indicator.

5. Enter the following data:

Field	Data
D	D
Delivery date	Today's date
Scheduled quantity	200
D	D
Delivery date	Today's date + 1 week
Scheduled quantity	300

6. Choose .

   To skip any warning messages, choose .

7. Choose until the overview tree appears.

Creating the Goods Receipt Document

1. Call up the transaction as follows:

Menu Path	From the *Inventory Management* node, choose *Goods Movement* → *Goods Receipt* → *For Purchase Order* → *PO Number Known*.
Transaction Code	MIGO

2. Enter the following data:

Field	Data
Purchase order	5500000015

3. Choose .

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

   The purchase order items are transferred to the item overview.

   The PO number you entered appears in the *Current purchase order* field of the document overview, and the *PO number* field is once again ready to accept input.

4. In the header data area of the *General* tab page, enter the following data:

Field	Data
Document date	Today's date
Posting date	Today's date

5. Select your item, then choose the *Where* tab page at the bottom of the screen to check your organization data.

6. On the *Where* tab page, enter the following data:

Field	Data
Storage location	0001

7. In the item overview area, select *OK.*

   If the *OK* indicator in the item overview area is not active, either close the item detail area or select *Item OK* at the bottom of the item detail area.

8. Choose *Post*.

   The system confirms the posting and assigns a material document number.

9. Choose until the overview tree appears.

Generating Invoices Based on GR Documents

1. Call up the transaction as follows:

Menu Path	From the *Materials Management* node, choose *Logistics Invoice Verification* → *Automatic Settlement* → *Evaluated Receipt Settlement.*
Transaction Code	MRRL, MR90

2. Enter the following data:

Field	Data
Vendor	1021
Doc. selection	3
Test run	Select

3. Choose .

You now see a log of the valid and invalid GR documents for ERS.

4. Choose .
5. Enter the same data as in step 2, but this time deselect *Test run*.
6. Choose .

You have now created the invoices. The system displays a log of all the GR documents (selected and not selected). Note the number of the postable invoice document (X).

7. To return to the overview tree, choose .
8. To display the invoice document, from the *Logistics Invoice Verification* node, choose *Further Processing* → *Output Messages*.
9. Enter the following data:

Field	Data
Message type	ERS
Invoice doc. number	Your noted number

10. Choose .
11. Select your document, then choose .

    The print preview appears.

12. Choose until the overview tree appears.

Physical Inventory

Purpose

Every company must perform a physical inventory of its warehouse stocks at least once every fiscal year in order to balance its stocks. Several different procedures can be used to do this.

Physical inventory can be carried out in the system for a company's own stock and for special stock.

You can find more information about this process under [Page 354].

Process Flow

You can find the data for this process under [Page 355].

1. Displaying Stock Levels [Page 356]
2. Creating a Physical Inventory Document [Page 357]
3. Attempting a Goods Receipt [Page 359]
4. Entering Inventory Count Results [Page 360]
5. Posting Differences [Page 361]
6. Attempting a Goods Receipt Again [Page 362]
7. Displaying the Accounting Document [Page 363]

Additional Process Information

In this IDES process, you perform a periodic inventory for a material. During the physical inventory the material is blocked for all other goods movements. The material is only available again after the physical inventory count results have been recorded and the difference, if any, has been posted. An accounting document is created when the difference is posted.

R/3 supports the following inventory procedures:

- **Periodic inventory**

  In a periodic inventory, the total company stocks are counted on the balance sheet key date. Every material must be counted in this procedure.

  The whole warehouse must be blocked for material movements during the count.

- **Continuous inventory**

  In continuous inventory, stocks are constantly counted throughout the fiscal year. You must ensure that every material is counted at least once in each year in this procedure.

- **Cycle counting**

  In cycle counting, stocks are counted at regular intervals during the fiscal year. These intervals (also called cycles) depend on the cycle counting indicator that is set for each material.

  In cycle counting, fast-moving items can be counted more often than slow-moving items, for example.

- **Inventory sampling**

  In inventory sampling, randomly selected stocks are counted on the balance sheet key date. If the variances between the actual count result and the book inventory do not exceed a certain value, the system assumes that the book inventories for the other stocks are also correct.

Data Used During This Process

Field	Europe	North America	Description
Company code	1000	3000	Model company
Plant	1200	3200	Model plant
Storage location	0001	0001	Model storage location
Material	99-100	99-100	Lubricating oil
Movement type	501	501	Goods receipt without purchase order into warehouse

Displaying Stock Levels

1. Call up the transaction as follows:

Menu Path	*Logistics → Materials Management → Inventory Management → Environment → Stock → Stock Overview*
Transaction Code	MMBE

2. Enter the following data:

Field	Europe	North America
Material	99-100	99-100
Plant	1200	3200

3. Choose .

   Note the total unrestricted-use stock. Make a note of this number.

4. Choose until the overview tree appears.

Creating a Physical Inventory Document

1. Call up the transaction as follows:

Menu Path	From the *Physical Inventory* node, choose *Phys. Inventory Doc.*→ *Create*
Transaction Code	MI01, MI21

2. Enter the following data:

Field	Europe	North America
Document date	Today's date	Today's date
Planned count date	Today's date	Today's date
Plant	1200	3200
Storage location	0001	0001
Posting block	Select	Select
Freeze book inventory	No entry	No entry
Batches w. del. flag	Select	Select

3. Choose .
4. Enter the following data:

Field	Europe	North America
Material	99-100	99-100

5. Choose .

   On the *Create Physical Inventory Document: Initial Screen* the system confirms the transaction and creates a physical inventory document number. Make a note of the document number that appears in the status line for use in a subsequent process step.

6. Choose .
7. From the *Phys. Inventory Doc.* node, choose *Print*

   The R/3 System should display your physical inventory document number on the *Print Physical Inventory Document* screen. If this is not the case, enter the number here.

8. Choose .
9. In the *Print* dialog box, enter the following data:

Field	Data

Output device	Printer number assigned to your work station
Print immediately	Select

Because you are only displaying the document here, (not actually printing it), it does not matter which output device you select. To actually print the document, choose *Print*.

10. To accept the selected output device, choose *Print Preview*.

    The layout of the report is displayed on the *Print Preview for xxx Page yyy of zzz* screen.

11. Choose until the overview tree appears.

Attempting a Goods Receipt

Use

Now you can attempt to carry out a goods movement (in this case, a goods receipt). However, you will notice that this is not possible because goods movements are blocked whilst a physical inventory document is created.

Procedure

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

Menu Path	*Logistics → Materials Management → Inventory Management → Goods Movement → Goods Receipt → Other*
Transaction Code	MB1C

3. Enter the following data:

Field	Europe	North America
Document date	Today's date	Today's date
Movement type	501	501
Plant	1200	3200
Storage location	0001	0001

4. Choose .
5. Enter the following data:

Field	Europe	North America
Material	99-100	99-100
Quantity	10	10

6. Choose .

   The system informs you that the material is blocked.

7. Choose .
8. Choose until the overview tree appears.
9. Close the new session.

Entering Inventory Count Results

Use

At this point it is assumed that you have closed the physical inventory and wish to enter the count results.

Procedure

1. Call up the transaction as follows:

Menu Path	From the *Physical Inventory* node, choose *Inventory Count* → *Enter*
Transaction Code	MI04

   The system shows the inventory document number and the count date.

2. Choose .
3. Enter the inventory count results in the *Quantity* field. To perform a difference posting, enter a quantity that is smaller than the quantity in the warehouse (this being the total unrestricted-use stock noted earlier).
4. Choose .
5. Choose *Phys. inv. history*.

   The quantity difference is displayed in the *Difference qty.* field of the *Display Physical Inventory History XXX/XXX* screen. Make a note of this number.

6. Choose .
7. Choose .

   The system confirms the posting in the status line.

8. Choose until the overview tree appears.

Posting Differences

1. Call up the transaction as follows:

Menu Path	From the *Physical Inventory* node, choose *Difference* → *Post*
Transaction Code	MI07

   The system shows the inventory document number and the posting date.

2. Choose .

   The system displays the difference quantity (the actual number of items) and the difference amount (the value of the missing items).

3. Select the material, then choose *Physical Inventory History*.

   The counted quantity, the book quantity and the difference quantity are displayed in the lower part of the screen.

4. Choose .

5. Choose .

   The system confirms the posting. This completes the physical inventory.

6. Choose until the overview tree appears.

Attempting a Goods Receipt Again

Use

Attempt to post a goods receipt again. Because the physical inventory is closed, the stock is no longer blocked and goods movements are allowed.

Procedure

1. Call up the transaction as follows:

Menu Path	*Logistics → Materials Management → Inventory Management → Goods Movement → Goods Receipt → Other*
Transaction Code	MB1C

2. Enter the following data:

Field	Europe	North America
Document date	Today‘s date	Today‘s date
Movement type	501	501
Plant	1200	3200
Storage location	0001	0001

3. Choose .

4. Enter the following data:

Field	Europe	North America
Material	99-100	99-100
Quantity	Difference quantity calculated earlier	Difference quantity calculated earlier

5. Choose .

6. Choose .

   The R/3 System confirms the transaction and displays the new material document number. Make a note of this number, you will need it in the next process step.

7. Choose until the overview tree appears.

Displaying the Accounting Document

25. Call up the transaction as follows:

Menu Path	From the *Inventory Management* node, choose *Material Document* → *Display*
Transaction Code	MB03

26. Enter the following data:

Field	Europe	North America
Material doc.	Your goods receipt document number	Your goods receipt document number
Mat. doc. year	Current year	Current year

27. Choose .

    The system displays an overview of the material document.

28. Choose *Details fm. item*.

    The detail data for your goods receipt item appears.

29. Choose .

30. Choose *Accounting docs*.

    The system displays a list of accounting documents in the *List of Documents in Accounting* dialog box.

31. Choose the *Accounting document.*

    On the *Display Document: Initial Screen* , you see the accounts to which postings have been made in Financial Accounting and the amounts posted.

32. Choose .

33. To close the dialog box, choose .

34. Choose until the overview tree appears.

Periodic and Continuous Physical Inventory

Purpose

Every company must perform a physical inventory of its warehouse stocks at least once in a fiscal year to balance the stock account. In addition to cycle counting, you can also use the periodic and continuous inventory procedures. You can perform a periodic inventory in the form of a complete inventory count or as a sample-based inventory count. In the SAP R/3 System, the term physical inventory refers to the functions used for performing the physical inventory. You can valuate stocks for balance sheet purposes based on the data counted. You can find these functions under the node *Balance Sheet Valuation* in the SAP R/3 System.

During the periodic inventory (complete inventory count), all of the company's stocks are physically counted on the balance sheet key date. You must count every material. The whole warehouse must be blocked at an organizational level for material movements during the count.

On the other hand, all the stock in the company will be physically included in the continuous inventory (complete inventory count) throughout the year. Every material must be counted here as well. In the same way, the stock of materials for goods movements must be blocked during the counting of stock. The timing of the count throughout the year is freely definable and is only displayed at an organizational level.

Process Flow

You can find the data for this process under [Page 365].

1. Creating Physical Inventory Documents [Page 366]
2. Blocking a Material for Posting [Page 369]
3. Printing Physical Inventory Documents [Page 370]
4. Freezing Book Inventory Balances [Page 371]
5. Entering the Physical Inventory Count [Page 372]
6. Creating a List of Differences [Page 375]
7. Changing the Physical Inventory Count [Page 376]
8. Initiating a Recount [Page 377]
9. Posting Inventory Differences [Page 378]

Data Used During This Process

Fields	Data	Description
Company code	1000	IDES AG
Currency	EUR	
Plant	1100	Berlin
Material	400-300 400-400 400-500 Y-351 Y-352 Y-353	Material numbers not subject to batch management Material numbers subject to batch management
Storage location	0001	Material stores

Creating Physical Inventory Documents

Use

You can use a folder to create the physical inventory documents for a physical inventory with a complete inventory count.

Procedure

1. Call up the transaction as follows:

Menu Path	*Logistics → Materials Management → Physical Inventory → Sessions → Create Phys.Inv.Docs → W/o Special Stock*
Transaction Code	MI31, MI01,SM35, MI22

2. Enter the following data:

Field	Data
Material to	400-300 400-500
Plant	1100
Storage location	0001
Planned count date	Today's date

3. Choose *Acc. to stck*

4. Enter the following data:

Field	Data
Unrestricted-use	Select
In quality inspection	Deselect
Incl. inventoried materials	Select

This process is limited to performing the physical inventory for unrestricted-use stock.

5. Choose .

   A log appears containing all items, for which, according to your selection, a physical inventory should be carried out. The system issues a message in the status line stating that session XXX has been created.

6. To process this session, choose *Process session*.

7. Select your session and choose *Process.*

8. In the *Process Session MB_XXX* dialog box, select *Process/foreground,* then choose *Process*.

9. In the *Create Physical Inventory Document* dialog box, keep choosing ✔, until the processing of the session is completed.
10. In the *Information* dialog box, choose *Exit batch input*.
11. Call up the transaction as follows:

Menu Path	*Logistics → Materials Management → Physical Inventory → Sessions → Create Phys.Inv.Docs → W/o Special Stock*
Transaction Code	MI31

12. Enter the following data:

Field	**Data**
Material to	Y-351 Y-353
Plant	1100
Storage location	0001
Materials marked for deletion	Deselect
Planned count date	Today's date

13. Choose ▶ *Acc. to stck*
14. Enter the following data:

Field	**Data**
Unrestricted-use	Select
In quality inspection	Deselect
Incl. inventoried materials	Select
Incl. inventoried batches	Select

This process is limited to performing the physical inventory for unrestricted-use stock.

15. Repeat steps 5 to 10.
16. Call up the transaction as follows:

Menu Path	*Logistics → Materials Management → Physical Inventory → Environment → Phys. Inv. Doc for Mat.*
Transaction Code	MI22

17. Enter the following data:

Field	**Data**
Material to	400-300 400-500
Phys. inventory doc.	No entry

Creating Physical Inventory Documents

18. Choose .

    The system displays the physical inventory document. Make a note of the physical inventory document number.

19. Position your cursor on the physical inventory document number, then choose *Display document.*

    A physical inventory document has a status at both header and item level. This shows the processing status of the item and/or the entire document. After a document has been created, the status in the header and the item area is *Not yet counted.* To display the document header, choose . Choose . To display the status of the individual items, choose *Phys. Inv. history.* To switch between the items, choose or .

20. Choose , until the *Display Physical Inventory Document for Material* screen appears.

21. Repeat steps 17 to 19 for materials *Y-351* to *Y-353*.

22. Choose until the overview tree appears.

Blocking a Material for Posting

Use

To prevent any goods movements being posted for the materials that you have selected for the periodic inventory, you should set a posting block.

Procedure

1. Call up the transaction as follows:

Menu Path	From the *Physical Inventory* node, choose *Physical Inventory Document* → *Change*
Transaction Code	MI02

2. Enter the following data:

Field	Data
Phys. inventory doc.	First document number
Fiscal year	Current year

3. Choose .
4. Select *Posting block*
5. Choose .

   The system issues a message in the status line confirming the change.
6. Repeat steps 2 to 5 for the second physical inventory document.
7. Choose until the overview tree appears.

Printing Physical Inventory Documents

1. Call up the transaction as follows:

Menu Path	From the *Physical Inventory* node, choose *Physical Inventory Document* → *Print*
Transaction Code	MI21, SP01

2. Enter the following data:

Field	**Data**
Physical inventory document to	First document number Second document number
Plant	1100
Storage location	0001
Planned count date	Today's date

3. Choose .
4. In the *Print* dialog box, enter the relevant output device and choose *Print Preview.*

   Read the physical inventory documents.
5. To display the other pages, choose .
6. Choose .

   The document is printed directly or created in a spool request according to the specific user settings.

   To print the spool request, choose *System* → *Services* → *Output controller.* Choose . Select your spool request, then choose . To close the window, choose .
7. Choose until the overview tree appears.

Freezing Book Inventory Balances

Use

If you cannot enter your count results in full on the day on which you block your warehouse for goods movements, you can freeze the book inventory balance for your physical inventory documents. This allows you to save the book inventory balance in the physical inventory document for the documents for which you have not entered a count. This prevents incorrect differences due to goods movements posted after the physical inventory has been performed. You can freeze the book inventory balance when creating the physical inventory document, when entering the count results, or after entering the count results for items that have not been counted. You can freeze the book inventory balance in an individual function or using session processing.

Procedure

1. Call up the transaction as follows:

Menu Path	From the *Physical Inventory* node, choose *Physical Inventory Document* → *Change*
Transaction Code	MI02

2. Enter the following data:

Field	Data
Phys. inventory doc.	Second document number

3. Choose .
4. Select *Freeze book inventory.*
5. Choose .

   The system issues a message to confirm the change.
6. Choose until the overview tree appears.

Entering the Physical Inventory Count

1. Once you have performed the physical count, call up the following transaction:

Menu Path	From the *Physical Inventory* node, choose *Inventory Count* → *Enter*
Transaction Code	MI04, MI03

2. Enter the following data:

Field	Data
Phys. inventory doc.	First document number

3. Choose .

   If any warning messages appear, choose .

4. Enter the following data:

   You can view the book inventory of the particular material by placing the cursor on the material, and choosing *Environment* → *Stock overview* → *Stock material*. You then enter the stock according to the stock overview in the following fields.

Field	Data
400-300: Quantity	Book inventory
400-400: Quantity	Book inventory plus 10 pieces
400-500: Quantity	Zero count

   For items with zero count, select the column *ZC*, or choose *Set zero count* after entering a stock quantity for all items. All items without quantity are now set to zero count.

5. Choose .

   The system issues a message to confirm your entries.

6. Enter the following data:

Fields	Data
Phys. inventory doc.	Second document number

7. Choose .
8. Enter the following data:

You can view the book inventory of the particular material by placing the cursor on the material, and choosing *Environment → Stock Overview → Stock Material*. The book inventories are then displayed in the relevant batch number line (for ex. C1) Note the stock amount in the column *Unrestricted-Use* and choose

Field	Data
Y-351 C1: Quantity	Book inventory
Y-351 C2: Quantity	Book inventory minus 20 kg
Y-351 C3: Quantity	Book inventory
Y-351 C7: Quantity	Zero count
Y-351 C8: Quantity	Book inventory
Y-352 FB123: Quantity	Book inventory
Y-353 FB87: Quantity	Zero count

Select the column *ZC* for the items with a zero count.

9. Choose .

The system issues a message to confirm your entries.

10. Choose .

Entering the Physical Inventory Count

The system tells you if you have already entered count results for all items in the document.

11. Choose until the overview tree appears.
12. Call up the transaction as follows:

Menu Path	*Inventory → Physical Inventory Document → Display*
Transaction Code	MI03

13. Choose .

On the next screen, the count status is selected.

14. Choose until the overview tree appears.

Creating a List of Differences

1. Call up the transaction as follows:

Menu Path	From the *Physical Inventory* node, choose *Difference* → *Difference List*
Transaction Code	MI20

2. Enter the following data:

Field	Data
Material	No entry
Plant	1100
Storage location	0001
Batch	No entry
Physical inventory document to	First document number Second document number
Threshold value	0,01

3. Choose .
4. Select the first item, then choose .

   Check the listed differences.
5. Choose .
6. Repeat steps 4 to 5 for all items.

   You can correct the difference in the physical inventory count either by changing the physical inventory count or by performing a recount. The next two steps describe these alternatives.
7. Correct the first physical inventory document using the process step Changing the Physical Inventory Count [Page 376] and initiate a recount for the second physical inventory document using Initiating a Recount [Page 377].
8. Choose until the overview tree appears.

Changing the Physical Inventory Count

Use

You can use the following activity to change the quantities already entered for the individual items.

Procedure

1. Call up the transaction as follows:

Menu Path	From the *Physical Inventory* node, choose *Inventory Count* → *Change*
Transaction Code	MI05

2. Enter the following data:

Field	Data
Phys. inventory doc.	First document number
Fiscal year	Current year

3. Choose .
4. Correct at least one of the given quantities counted, so that there is an inventory difference.
5. Choose .

   The system issues a message to confirm the change.
6. Choose until the overview tree appears.

Initiating a Recount

1. Call up the transaction as follows:

Menu Path	From the *Physical Inventory* node, choose *Phys. Inventory Doc.* → *Recount*
Transaction Code	MI11

2. Enter the following data:

Field	Data
Phys. inventory doc.	Second document number
Fiscal year	Current year

3. Choose .
4. To select all items for a recount, choose *Edit* → *Select all.*
5. Choose .

   The system confirms that the recount has been initiated and creates a new document. Make a note of this number as you will require it later.

6. Choose until the overview tree appears and perform the activity Entering the Physical Inventory Count [Page 372] again for your recount document. Change the values slightly.

   Once you have entered the count, the system removes the posting block for the material or batch. If you want to block the materials again for a recount, repeat the activity Blocking a Material for Posting [Page 369].

Posting Inventory Differences

Use

Each physical inventory item must be posted so that the system recognizes the physical inventory as closed. This applies to items with and without stock differences. To perform the adjustment posting, all physical inventory items must have the status *Counted*.

Procedure

1. Call up the transaction as follows:

Menu Path	From the *Physical Inventory* node, choose *Sessions* → *Post Difference*
Transaction Code	MI37

2. Enter the following data:

Field	Data
Physical inventory document to	First document number Document number of the recount document
Plant	1100
Storage location	0001

3. Choose .

   The system displays the name of your created session in the status bar.

4. To process this session, choose *Process session*.
5. Select your session and choose *Process.*
6. In the *Process Session XXX* dialog box, select *Display errors only*, and then choose *Process*.
7. In the *Information* dialog box, choose *Exit batch input*.

   Each posted physical inventory item now has the status *Posted*. When all items in a physical inventory document are posted, then the whole document has the status *Posted* in the header area.

   If the system identifies any stock differences during the adjustment posting, then these are posted using a material document in Inventory Management and an accounting document in Financial Accounting. The material document is stored in the relevant physical inventory item.

Lowest Value Principle

Purpose

The lowest value principle is a method of balance sheet valuation for material stocks. The aim of this principle is to valuate the present stocks as carefully as possible according to the recognition-of-loss principle.

- Pure paper gains that occur through changes in the market price should be avoided. For example, if a material is procured at a price of $10, and the current market price is $15, then the expected gain for each unit of measure is $5. However, this gain should only be entered in the financial statements when it is actually realized. Therefore the material is still valuated at $10.
- Expected losses should be entered in the financial statements. For example, if a procured material has a price of $10 and the actual market price is $7, then you should valuate the material at $7.
- You should, in fact, view material stocks as having reduced in value when they are no longer needed. Therefore, a material is examined according to its movement rate or its range of coverage. A low movement rate or a large range of coverage probably means that the material will not be needed in the future. In order to avoid having to post the entire loss at the time when the material is taken out of the accounts (e.g. it is scrapped), the value of a material is written down as soon as a low movement rate or high range of coverage is detected.

After these principles you have a choice of three processes for lowest value determination that are available: according to the lowest market price, according to range of coverage, or according to movement rate.

Process Flow

You can find the data for this process under [Page 380].

1. Determining Lowest Value: Market Prices [Page 381]
2. Determining the Lowest Market Prices [Page 382]
3. Determining Lowest Value: Range of Coverage [Page 383]
4. Displaying the Material Master [Page 384]
5. Determining the Lowest Market Prices [Page 385]
6. Determining Lowest Value: Movement Rate [Page 386]
7. Displaying the Material Master [Page 384]
8. Balance Sheet Value For Each Account: Displaying and Comparing Results [Page 389]

Data Used During This Process

Field	Data	Description
Company code	1000	IDES AG
Currency	EUR	
Plant	1100	Berlin
Valuation area	1100	IDES AG
Storage location	0001	Material stores
Material type	ROH	Raw material
Materials	500-120 ... 500-220	

Determining Lowest Value: Market Prices

1. Call up the transaction as follows:

Menu Path	*Logistics → Materials Management → Valuation → Balance Sheet Valuation → Determination of Lowest Value → Market Prices*
Transaction Code	MRN0

2. Enter the following data:

Field	Data
Company code	1000
Material number (*from*)	500-120
Material number (*to*)	500-220
Valuation area	1100

3. Choose *Market price* and select all price sources.
4. Choose ✔.
5. Choose *Comparison price* and select *Current material price.*

   A price change of the tax-based and/or the commercial price only occurs in batch mode.

6. Choose ✔.
7. Choose .

   The system displays a list of the materials with the lowest market prices.

8. Choose until the overview tree appears.

Determining the Lowest Market Prices

1. Call up the transaction as follows:

Menu Path	*Logistics → Materials Management → Valuation → Balance Sheet Valuation → Results → Price Variances*
Transaction Code	MRN8

2. Enter the following data:

Field	Data
Company code	1000
Material number (from)	500-120
Material number (to)	500-220
Valuation area	1100

3. In the *Evaluation* area, choose *Phys. Inv. Price.*
4. In the dialog box, select only *Tax Price 1*, then choose ✔.
5. Choose *Comparison price* and select *Current material price* in the dialog box. Choose ✔
6. Choose .

   The system displays a list of relevant materials and their variances.

   Note the tax price 1 for several materials.
7. Choose until the overview tree appears.

Determining Lowest Value: Range of Coverage

1. Call up the transaction as follows:

Menu Path	*Logistics → Materials Management → Valuation → Balance Sheet Valuation → Determination of Lowest Value → Range of Coverage*
Transaction Code	MRN1

2. Enter the following data:

Field	Data
Company code	1000
Material number (from)	500-120
Material number (to)	500-220
Valuation area	1100

3. In the *Det. of range of coverage* area, choose *Material stocks*.
4. In the dialog box, enter the following data:

Field	Data
Lower limit	01.01. of the previous year
Upper limit	Today's date

5. Choose ✔.
6. Choose *Material consumption.*

   In the dialog box, you can see that the material consumption is taken straight from the consumption statistics.

7. Choose ✔.
8. In the *Update material master* area, select *Database update* and choose *Change material price*.
9. In the *Automatic Price Change* dialog box, select *Direct Update* and choose ✔.
10. Choose *Update phys.inv.prices*. In the dialog box, select *Tax price 1* and *Commercial price 1*. Choose ✔.
11. Choose *List format*.
12. In the dialog box, select the *Output Details* and *Normal List* fields. Choose ✔.
13. Choose .

    The system displays a list of the materials with the percentage deductions, as well as the determined lowest prices. Compare the new prices with the prices you noted previously.

14. Choose until the overview tree appears.

Displaying the Material Master

1. Call up the transaction as follows:

Menu Path	*Logistics → Materials Management → Material Master → Material → Display → Display Current*
Transaction Code	MM03

2. In the *Material* field, enter one of the material numbers and choose *Select view(s)*.
3. In the *Select View(s)* dialog box, select *Accounting 2*, then choose ✔.
4. In the *Organizational Levels* dialog box, enter *1100* in the *Plant* field and choose ✔.

   You can now see the different tax and commercial prices of the material you have chosen.

5. Choose until the overview tree appears.

Determining the Lowest Market Prices

8. Call up the transaction as follows:

Menu Path	*Logistics → Materials Management → Valuation → Balance Sheet Valuation → Results → Price Variances*
Transaction Code	MRN8

9. Enter the following data:

Field	Data
Company code	1000
Material number (from)	500-120
Material number (to)	500-220
Valuation area	1100

10. In the *Evaluation* area, choose *Phys. Inv. Price.*
11. In the dialog box, select only *Tax Price 2*, then choose ✔.
12. Choose *Comparison price* and select *Current material price* in the dialog box. Choose ✔
13. Choose .

    The system displays a list of relevant materials and their variances.

    Note the tax price 2 for several materials.
14. Choose until the overview tree appears.

Determining Lowest Value: Movement Rate

1. Call up the transaction as follows:

Menu Path	*Logistics → Materials Management → Valuation → Balance Sheet Valuation → Determination of Lowest Value → Movement Rate*
Transaction Code	MRN2

2. Enter the following data:

Field	Data
Company code	1000
Material number	500-120
(Material number) to	500-220
Valuation area	1100

3. Choose *Material movements*, then enter the following data:

Field	Data
From material master data	Select
Consumption	Select
Period under review from to	01.01 of the previous year Today's date

4. Choose ✔.
5. Choose *Material stocks*, then enter the following data:

Field	Data
Lower limit	01.01. of the previous year
Upper limit	Today's date

6. Choose ✔.
7. Choose *Base price* and select *Current MAP*. Choose ✔.
8. Select *Database update* and choose *Change material prices*.
9. In the dialog box, select the *Direct update* field and choose ✔.
10. Choose *Update phys. inv. prices*. In the dialog box, select *Tax price 3* and *Commercial price 3*. Choose ✔.
11. Choose *List format*.
12. In the dialog box, select the *Output Details* and *Normal List* fields. Choose ✔.
13. Choose .

    The system displays a list of the materials with the percentage deductions, as well as the determined lowest prices.

14. Choose until the overview tree appears.

Balance Sheet Val. For Each Accnt: Display and Compare Results

Use

The *Balance Sheet Values per Account* is essentially used to present results from balance sheet valuation. Normally, the user uses several procedures for balance sheet valuation that can build on each other, or can run in parallel. The program lists the single results, creates a link between them, and determines the balance between the book value and balance sheet value. The balance sheet accountant uses the list as a reference for manually performed postings in FI, and at the same time is used as a reference for the external auditor.

Procedure

1. Call up the transaction as follows:

Menu Path	*Logistics → Materials Management → Valuation → Balance Sheet Valuation → Results → Balance Sheet Value Per Account*
Transaction Code	MRN9

2. Enter the following data:

Field	Data
Company code	1000
Material number (from)	500-120
Material number (to)	500-220
Valuation area	1100

3. Choose *Prices / Levels*.

   The system displays the levels assigned to the tax and commercial prices.

4. Choose ✔.
5. Choose *List format*.
6. In the dialog box, select the *Output Details* and *Normal List* fields. Choose ✔.
7. Choose .

   The system displays a list of the stock values for the given materials.

8. To print this list as evidence of the variances, choose .
9. Choose until the overview tree appears.

Inventory Sampling

Purpose

To balance the stock account, every company must perform a physical inventory of its warehouse stocks at least once in a fiscal year. The time and costs of a physical inventory can be considerably reduced if only stocks of individual materials are determined and the count result extrapolated for all stock management units. However, such conclusions (from several counts of all stock management units) are only allowed when certain criteria are fulfilled:

- The scope of the stock management units involved in the physical inventory must be large enough.
- The selection of stock management units to be counted must be “representative”.

Mathematical/statistical processes are used to perform the inventory sampling:

- A sample to be counted is randomly selected from the stock management units to be inventoried. The size of the sample depends on the probable degree of confidence that is valid for the projection of individual count results on all the stock management units involved.
- An extrapolation is carried out for all stock management units included in the inventory sampling, based on the count results posted.
- If the variance between the extrapolated value and the book value is small, and if it is probable that there was only a very small error in the extrapolation, then the inventory sampling has been successful.

In the case of a successful inventory sampling, it is assumed that the estimated variances from the book inventory are so small that they can be safely ignored. Only the stock of items, which are actually counted, is corrected in the same way as for the classic physical inventory. The stock of the remaining stock management units does not change.

If the inventory sampling is not successful, then a complete physical inventory must be performed for the uncounted stock management units.

The inventory sampling can be carried out as a Periodic Physical and Continuous Inventory [Page 364].

Process Flow

You can find the data for this process under [Page 392].

1. Creating an Inventory Sampling [Page 393]
2. Allocating Stock Management Levels [Page 394]
3. Creating the Stock Population and Division into Classes [Page 396]
4. Dividing the Sampling Area into Strata [Page 398]
5. Determining the Sample Elements (Random Selection) [Page 399]
6. Creating Physical Inventory Documents [Page 400]
7. Printing Physical Inventory Documents [Page 401]
8. Entering the Physical Inventory Count [Page 402]

Data Used During This Process

Field	Data	Description
Company code	1000	IDES AG
Currency	EUR	
Plant	1100	Berlin
Storage location	0001	Material stores
Material type	HAWA	Trading goods
Stock type	1	Warehouse stock

Creating an Inventory Sampling

1. Call up the transaction as follows:

Menu Path	*Logistics → Materials Management → Physical Inventory → Special Procedures → Inventory Sampling → Create → R/3 System*
Transaction Code	MIS1

2. Enter the following data:

Field	**Data**
Count date	Today's date
Area	1
Text	Any
Inv. sampling profile	01

3. Choose *Parameters*.
4. Deselect *Include deletion flag* and *Consider zero stock balances.*
5. Choose .

   An inventory sampling number appears. Note this number.
6. Choose .

Allocating Stock Management Levels

Use

First you must determine which stock management units will be included in the inventory sampling. A stock management level consists of all stock management units possessing the following characteristics:

Plant, Storage Location, Material Type, Stock Type.

A stock management unit is a part of a material stock. It cannot be subdivided further, and a specific book inventory exists for it. The physical inventory is based on the stock management units. Each stock management unit of a material is counted separately, and inventory differences are posted for each stock management unit.

Different stock management levels are allocated to every inventory sampling. All the stock management units belonging to these levels are included in an inventory sampling. The only exceptions are stock management units that already have an active physical inventory.

Procedure

1. Call up the transaction as follows:

Menu Path	From the *Physical Inventory* node, choose *Special Procedures* → *Inventory Sampling* → *Change*
Transaction Code	MIS2

2. Enter the following data:

Field	**Data**
Inventory sampling	Quoted inventory sampling number
Year	Current year

3. Choose .
4. Choose *Transaction* → *Stock mgmt levels* → *Selectable.*
5. Select the stock management level (line) for:

Field	**Data**
Plant	1100
Storage location	0001
Material type	HAWA
Stock type	1

6. Choose *Copy.*
7. Choose .

Stay on the *Change Inventory Sampling: Initial Screen*.

Creating the Stock Population and Division into Classes

Use

The stock population is the number of stock management units that belong to an inventory sampling. These stock management units are clearly defined by the allocation of the stock management levels for an inventory sampling. This allocation process also defines the stock population. However, the stock management levels themselves contain no information about the stock management units. For this reason, the stock population must be created in a separate step after the allocation of the stock management levels. Afterwards, you can change the stock population until you start the random selection. When creating the stock population, the system checks if there is already an active physical inventory for each stock management unit of the allocated stock management levels. If this is the case, then the stock management unit does not belong to the stock population. The stock population is divided into sampling area and complete-count area.

The term sampling area means the quantity of stock management units in an inventory sampling, of which only a selection has to be counted. Elements are drawn by random selection from the elements of the sampling area. The elements selected are counted, and their physical inventory results are extrapolated to the sampling area.

The term complete-count area means the quantity of stock management units in an inventory sampling, of which all have to be counted.

A stock management unit is an element of the complete-count area if:

- The book inventory is zero.
- The deletion indicator is set for the material in the material master record.
- The material shows a certain ABC indicator.
- The price of the material exceeds the upper price limit.
- The value of the material exceeds the upper value limit.

The sampling area of an inventory sampling usually contains many stock management units with very different values. The bigger the margin between the smallest and largest values, the more stock management units must be counted in order for the statement to be statistically reliable. To reduce the number of counts necessary, the system splits the sampling area into classes, so that elements in a certain class have (approximately) the same value. Using classification, the system can later create strata where the random selection and the extrapolation are performed separately. A class is therefore the number of stock management units in a sampling area that fall within a certain value interval. All intervals (possibly with the exception of the last one) are equal in size, but usually contain different numbers of stock management units. The classification of the sampling area occurs automatically when the stock population is formed. For this the system uses the parameters you set.

Procedure

1. On the *Change Inventory Sampling: Initial Screen*, enter the following data:

Field	Data
Inventory Sampling	Quoted inventory sampling number

Year	Current year

2. Choose .
3. Choose *Transaction* → *Stock population*.
4. In the *Form stock population* dialog box, choose *Yes*.

   The system displays the *Simulate Upper Price and Value Limits* dialog box, containing information about the size of the stock population, the division into sampling and complete-count areas, as well as price and value limits to differentiate between the sampling and complete-count areas. The price and value limits can be changed.
5. Choose *Copy.*
6. To see the results of this step, choose *Goto* → *List* → *Stock population* → *Total.*
7. Choose .
8. Choose *Goto* → *List* → *Classification* → *Only classes w. stock.*
9. Choose .
10. Choose .

    Stay on the *Change Inventory Sampling: Initial Screen*.

Dividing the Sampling Area into Strata

Use

The strata are formed on the basis of the classification. Successive individual classes are grouped into strata. Random selection and extrapolation occur in specific strata. Two parameters are predefined for stratification:

- A variation interval

  This interval determines the limits for an optimum stratification.

- The minimum sample size

  If the strata have a large number of elements, the minimum sample size determines the minimum number of elements in a stratum to be counted.

The R/3 System determines the following in stratification:

- The stratification for each strata number in the variation interval
- The number of elements to be counted for each stratum
- The optimal stratifications created

Procedure

1. On the *Change Inventory Sampling: Initial Screen*, enter the following data:

Field	Data
Inventory Sampling	Quoted inventory sampling number
Year	Current year

2. Choose .
3. Choose *Transaction* → *Stratification*.
4. In the *Stratification* dialog box, choose *Yes*.

   To acknowledge any information messages, choose .

5. To see the results of this step, choose *Goto* → *List* → *Stratification* → *Optimum variant.*
6. Choose .
7. Choose .

   Stay on the *Change Inventory Sampling: Initial Screen*.

Determining the Sample Elements (Random Selection)

Use

Random selection determines which elements are to be counted from every stratum. When you perform the random selection, any previous actions become binding. Stock management levels, stock population and stratification can no longer be changed. A session for physical inventory documents is automatically created during the random selection process. You can also choose if the physical inventory is to be performed (in which you run the session), or not. Random selection occurs with the help of the random numbers that are created in the SAP System by an internal random number generator.

Procedure

1. Enter the following data:

Field	Data
Inventory Sampling	Quoted inventory sampling number
Year	Current year

2. Choose .
3. Choose *Transaction* → *Random selection.*
4. In the *Rand. selection* dialog box, choose *Yes*.
5. Choose .
6. To see the results of this step, choose *Goto* → *List* → *Random selection.*
7. Choose .
8. Choose .

   Stay on the *Change Inventory Sampling: Initial Screen*.

Creating Physical Inventory Documents

Use

To create physical inventory documents, you can use the session created during the random selection.

Procedure

1. Enter the following data:

Field	Data
Inventory Sampling	Quoted inventory sampling number
Year	Current year

2. Choose .
3. Choose *System* → *Services* → *Batch input* → *Sessions*.
4. Delete any entries in the *Sess.* field and choose the tab page .
5. Select your session and choose *Process.*
6. In the *Process Session XXX* dialog box, select *Display errors only*, and choose *Process*.

   After processing the session, an information window appears, informing you the batch input processing is complete.
7. Choose *Exit batch input.*
8. Call up the transaction as follows:

Menu Path	*Logistics* → *Materials Management* → *Physical Inventory* → *Phys.Inventory Document* → *Display*
Transaction Code	MI03

   The system automatically enters the number of your physical inventory document in the relevant field. Note the physical inventory document number.
9. Choose .
10. Choose *Phys. inv. history*.

    You can view the status on the following screen.
11. Choose until the overview tree appears.

Printing Physical Inventory Documents

1. Call up the transaction as follows:

Menu Path	From the *Physical Inventory* node, choose *Physical Inventory Document* → *Print*
Transaction Code	MI21, SP01

2. Enter the following data:

Field	**Data**
Physical inventory document	Quoted physical inventory document number
Plant	1100
Storage location	0001

3. Choose .
4. In the *Print* dialog box, enter the relevant output device and choose *Print Preview.*

   Read the physical inventory documents.
5. Choose .

   The document is printed directly or created in a spool request according to your specific user settings.

   To print the spool request, choose *System* → *Services* → *Output controller*. Choose . Select your spool number and choose . On the *Output Controller: List of Spool Requests* screen, choose and close the dialog box.
6. Choose until the overview tree appears.

Entering the Physical Inventory Count

1. Call up the transaction as follows:

Menu Path	*Logistics* → *Materials Management* → *Physical Inventory* → *Inventory Count* → *Enter*
Transaction Code	MI04

2. Enter the following data:

Field	Data
Phys. inventory doc.	Quoted physical inventory document number

3. Choose .
4. Enter your results of count for the particular material in the *Quantity* field.

   Your count results are fictitious. They can be higher than, lower than, or equal to the book inventory. You can view the book inventory of the particular material by placing the cursor on the material, and choosing *Environment* → *Stock overview* → *Stock material*. To go back, choose .

   For items with zero count, select the column *ZC*, or choose *Set zero count* after entering a stock quantity for all items. All items without quantity are now set to zero count.

   Note that for all items, either a positive stock quantity or a zero count must be entered, otherwise the document cannot be processed further in the activity *Posting Differences*.

5. Choose .

   The system issues a message to confirm your entries.

6. Choose until the overview tree appears.

Creating a List of Differences

1. Call up the transaction as follows:

Menu Path	From the *Physical Inventory* node, choose *Difference* → *Difference List*
Transaction Code	MI20

2. Enter the following data:

Field	**Data**
Material	No entry
Plant	1100
Storage location	0001
Physical inventory document	Quoted physical inventory document number
Threshold value	0,01

3. Choose .
4. Check the listed differences.
5. Choose until the overview tree appears.

There are two alternative methods of correcting the count. You can either correct or initiate a recount of the physical inventory count. Choose one of these options, and then perform the relevant process step. If required, you can also initiate a recount for a physical inventory count that has already been changed.

Changing the Physical Inventory Count [Page 404]

Initiating a Recount [Page 405]

Changing the Physical Inventory Count

1. Call up the transaction as follows:

Menu Path	From the *Physical Inventory* node, choose *Inventory Count* → *Change*
Transaction Code	MI05

2. Enter the following data:

Field	Data
Phys. inventory doc.	Quoted physical inventory document number
Fiscal year	Current year

3. Choose .
4. Change at least one of the given quantities counted.
5. Choose .

   The system confirms the change with a message.
6. Choose until the overview tree appears.

Initiating a Recount

1. Call up the transaction as follows:

Menu Path	From the *Physical Inventory* node, choose *Phys. Inventory Doc.* → *Recount*
Transaction Code	MI11

2. Enter the following data:

Field	Data
Phys. inventory doc.	Quoted physical inventory document number
Fiscal year	Current year

3. Choose .
4. To select all items for a recount, choose *Edit* → *Select all.*
5. Choose .

   The system confirms creation of the recount and creates a new document. Note the document number for use in step 6.

6. Choose , and then perform the activities Entering the Physical Inventory Count [Page 402] and Creating a List of Differences [Page 403] again.

Posting Differences

Use

For the system to recognize the physical inventory as closed, each physical inventory item must be posted. This applies to items with and without stock differences. To perform the adjustment posting, all physical inventory items must have the status *Counted*.

Procedure

1. Call up the transaction as follows:

Menu Path	From the *Physical Inventory* node, choose *Sessions* → *Post Difference*
Transaction Code	MI37

2. Enter the following data:

Field	Data
Physical inventory document	Quoted physical inventory document number
Plant	1100
Storage location	0001

3. Choose .

   The system displays the name of your created session in the status bar.

   Now process this session

4. Choose *Process session.*
5. Select your session.
6. Choose *Process.*
7. In the *Process Session XXX* dialog box, select *Display errors only*, then choose *Process*.

   The system reports the end of the process in an information window.

8. Choose *Exit batch input.*

   Each posted physical inventory item now has the status *Posted*. When all items in a physical inventory document are posted, then the whole document has the status *Posted* in the header area.

   If the system identifies any stock differences during the adjustment posting, then these are posted using a material document in Inventory Management and an accounting document in Financial Accounting. The material document is stored in the relevant physical inventory item.

   The overview tree automatically appears.

Updating the Inventory Sampling

Use

The system performs three actions during the update:

- Reads any recently posted count results
- Identifies changed book inventories and book values
- Determines the necessity for any subsequent random selections

Procedure

1. Call up the transaction as follows:

Menu Path	*Logistics → Materials Management → Physical Inventory → Special Procedures → Inventory Sampling → Change*
Transaction Code	MIS2

2. Enter the following data:

Field	Data
Inventory sampling	Quoted inventory sampling number
Year	Current year

3. Choose .
4. Choose *Transaction/Event → Update.*
5. In the *Update* dialog box, choose *Yes*.

   If a subsequent random selection is necessary, a dialog box appears for the complete-count area and/or the sampling area and asks if you want to perform the subsequent random selection.

   When you carry out this subsequent random selection, the system creates a new random selection in the sampling area. In order to create physical inventory documents, the system creates a session for the new stock management units to be counted. A list of the additional stock management units to be counted appears, and the system displays the message *Random selection carried out: Inventory sampling saved*

6. Choose .

   Stay on the Change Inventory Sampling: Initial Screen.

Extrapolating the Inventory Sampling

Use

The principle behind inventory sampling is that the count results of the randomly selected stock management units are extrapolated to all stock management units of the sampling area. Moreover, the count results of the complete-count area are taken into account in the total calculation. The system determines an estimated value for the stock population of the inventory sampling from both results.

There are two types of extrapolation:

- A provisional extrapolation exists if differences are posted only for part of the stock management units to be counted. You can create as many provisional extrapolations as you want. Only the last one you create is saved.
- A final extrapolation exists when all differences have been posted, that is to say, all count results are included in the calculation, and no subsequent random selection is necessary. A final extrapolation can only be performed once because no new results can be added.

Various possible mathematical procedures can be used for the extrapolation. The SAP System currently supports the layered mean-value estimation procedure. The following calculations are performed during layered mean-value estimation, based on the values of the posted sample elements:

- The estimated average actual value for each stratum
- The estimated actual value of the total

Procedure

1. Enter the following data:

Field	Data
Inventory sampling	Quoted inventory sampling number
Year	Current year

2. Choose .
3. Choose *Transaction/Event* → *Extrapolation.*
4. To display the results, choose *Goto* → *List* → *Extrapolation.*

After the final extrapolation, the inventory sampling is classed as either successful or unsuccessful. In the case of a provisional extrapolation the inventory sampling can be classed as conditionally successful.

If the inventory sampling is successful or conditionally successful, then you can assume that the book inventory of all the materials included in the inventory sampling agrees with the actual stocks.

If the inventory sampling is not successful, then you must assume that the inventory accounting shows large variances against the actual stocks. For this reason, a complete physical inventory must be performed for all uncounted elements.

5. Choose until the overview tree appears.

   In the *Exit processing* dialog box, choose *Yes.*

Forecast-Based Planning (Forecasting and MRP)

Purpose

In this process, you perform a forecast for material *99-120*. The forecast parameters in the material master are displayed as additional information. Once you have performed the forecast, you execute material requirements planning (single-level single-item planning) for the material. You can process purchase orders and planned orders as required.

You can find more information about this process under [Page 411].

Process Flow

You can find the data for this process under [Page 412].

1. Displaying the Forecast Parameters in the Material Master [Page 413]
2. Performing the Forecast with a Graphical Display [Page 415]
3. Performing Single-Level Material Requirements Planning [Page 417]

Additional Process Information

Forecast-Based Planning

Forecast-based planning uses historical values and forecast values in the same way as reorder point planning does. Future requirements are determined using the integrated forecast program. However, in contrast to reorder point planning, these values then form the basis for requirements planning in forecast-based planning.

The forecast that calculates future requirements using historical data is executed at regular intervals. This procedure has the advantage that automatically determined requirements are continually modified to reflect current consumption requirements. If material has already been withdrawn from stock during the current period, the forecast requirement is reduced by the withdrawn quantity. Therefore the part of the forecast requirement that has already been consumed is not included in requirements planning (MRP run).

You can specify the period split for the forecast (daily, weekly, monthly, or by posting period) and the number of periods in the forecast for each material individually. However, it may be that the period split is not specific enough for planning purposes. Therefore, you can specify for each material whether the forecast requirements values in requirements planning are to be broken down in a more detailed period split. You can also specify how many forecast periods are to be taken into account during requirements planning.

In the case of monthly forecasting, the requirements date is defined as the first working day of the month. For planning purposes, it is assumed that the total requirement must be available at the start of the period. You can then divide these monthly requirements into daily or weekly requirements.

The requirements quantities that the system forecasts are used in requirements planning for performing the net requirements calculation. During this calculation, the system checks each period to ensure that the forecast requirements are covered by available warehouse stocks, planned receipts, or production. If the requirements that the system forecasts are not covered by the options listed above, the system generates an order proposal.

The system calculates the quantity in the order proposal according to the procedure selected for lot size calculation. Depending on the procedure used for lot size calculation, more than one requirements quantity is grouped in a single lot.

The system calculates the date on which each order proposal must be converted to a purchase order or a production order in order for the purchase order to be sent to the vendor or for the production order to be sent to production in time. The vending company can supply the ordered quantity on time only if it receives the purchase order in good time. The same applies to production: The ordered quantity can be produced on schedule only if the production order is submitted in good time.

Data Used During This Process

Field	Europe	North America	Description
Company code	1000	3000	
Material	99-120	99-120	HD Helmet with special varnish
Plant	1000	3000	
MRP type	VV	VV	Forecast-based planning
Lot size	EX	EX	Exact lot size calculation
Forecast indicator	M	M	Forecast values displayed monthly
Create purchase req.	1	1	Purchase requisition in creation horzon
Schedule lines	3	3	Basic schedule lines
Create MRP list	1	1	Basic MRP list
Planning mode	1	1	Adapt planning data
Scheduling	1	1	Determine basic dates for planned orders

Displaying Forecast Parameters in the Material Master

1. Call up the transaction as follows:

Menu Path	*Logistics → Materials Management → Material Master → Material → Display → Display Current*
Transaction Code	MM03

2. Enter the following data:

Field	Europe	North America
Material	99-120	99-120

3. Choose .

   In the *Select view(s)* dialog box, select *MRP 1*, *MRP 2*, and *Forecasting*, and choose .

4. Enter the following data:

Field	Europe	North America
Plant	1000	3000

5. Choose .

   The following fields are of particular interest (the data may change during the course of this process):

Field	Entry	Description
MRP type	VV	Forecast-based planning (forecast-controlled)
Lot size	EX	Determines the precise planning of the values for MRP
Rounding value	10	Round up the purchase quantity to a multiple of 10

6. Choose the *MRP 2* tab page.

   The following fields are of particular interest:

Field	Entry	Description
Safety stock	Current data	Determined by the system since the MRP type is VV
Service level (%)	Current data	Influences the automatic determination of the safety stock

7. Choose the *Forecasting* tab page.

   The following fields are of particular interest:

Field	Entry	Description
Period indicator	M	Forecast values are displayed for each month

Number of periods required	Various entries	Specifies the number of periods for historical values and so on
Control data	Various entries	Various control indicators

8. Choose until the overview tree appears.

Performing the Forecast with a Graphical Display

1. Call up the transaction as follows:

Menu Path	From the *Material Requirements Planning (MRP)* node, choose *Materials Forecast → Forecast → Individual Forecast → Execute.*
Transaction Code	MP30

2. Enter the following data:

Field	Europe	North America
Material	99-120	99-120
Plant	1000	3000

3. Choose .
4. Choose *Historical values.*

   The system displays all the historical values.
5. Choose .
6. Choose *Forecast values*.

   The system displays all the current forecast values. You can change these values.
7. Choose .
8. Choose *Execute*.
9. In the *Enter Forecast Date* dialog box, enter the following data:

Field	Europe	North America
Date	The first day of the next month	The first day of the next month

10. Choose .

    The system displays the new forecast values.
11. Choose *Forecast → Graphic.*

    The system displays the consumption values and forecast values in the form of a graphic.
12. Choose *Global options*.
13. Select a time unit.
14. Choose *Continue*.

    The system generates the graphic again and displays the consumption values and forecast values for the new time unit.

    In the case of small time units, such as days or hours, you can use the scroll bar underneath the graphic to scroll forwards and backwards in the forecast period.

Choose other time units in the *Global Options* dialog box (it remains open) and use them to see how the graphic changes.

15. Choose *Graphic* → *Exit*.
16. Choose .

    The system confirms that the forecast values have been saved.

17. Choose until the overview tree appears.

Performing Single-Level Material Requirements Planning

Use

During this procedure, you perform single-level material requirements planning and display the results in the stock/requirements list.

Procedure

1. Call up the transaction as follows:

Menu Path	From the *Material Requirements Planning (MRP)* node, choose *MRP* → *Planning* → *Single Item, Single-Level*
Transaction Code	MD03

2. Enter the following data:

Field	**Europe**	**North America**
Material	99-120	99-120
Plant	1000	3000
Create purchase req.	1 (You can display a description using the possible entries help)	1 (You can display a description using the possible entries help)
Delivery Schedules	3	3
Create MRP list	1	1
Planning mode	1	1
Scheduling	1	1
Planning date	Today's date	Today's date
Display results before they are saved	Select	Select

3. Choose .
4. To acknowledge that you have checked the input parameters, choose .

   At this point, you can save the values and create purchase orders in the usual way. However, we suggest that you do not do this. This enables your colleagues to work with unchanged maintained planning results in future demonstrations.

5. Choose .

If the *End Planning* dialog box appears, choose *No*.

Pur. Req. – Rel. Proc. with Classification and Workflow

Purpose

In this process, you create a purchase requisition with account assignment that is subject to a release strategy with classification and linked to the workflow system. You execute the entire release process.

We have already entered settings in the application, under *Classification System,* and in Customizing, under *Release Procedure for Purchase Requisitions*. The release strategy comprises a three-step release procedure that allows the executive board member to use release code EX to release the purchase requisition for the purchase order.

The release procedure contains the following three levels:

Level	Position	Release code
1	Technical department	TD
2	Key account	KY
3	Executive board member	EX

The release strategy is triggered if the following prerequisites are fulfilled:

Fields	Data	Description
Account assignment category	K	Cost center
Material group	002	Electronics/Hardware
Plant	1000	Hamburg
Purchasing group	001	Dietl, B.
Total value	> 5000 EUR	

Process Flow

You can find the data for this process under [Page 420].

1. Creating a Purchase Requisition [Page 421]
2. Releasing Purchase Requisitions Individually [Page 423]
3. Releasing Purchase Requisitions Via the Workflow Inbox [Page 424]
4. Rejecting Purchase Requisitions Via the Workflow Inbox [Page 425]
5. Confirming the Rejection Via the Workflow [Page 426]

Data Used During This Process

Field	Data	Description
Company code	1000	IDES AG
Plant	1000	Hamburg
Cost center	1000	Corporate Services
Material number	R-1003	CD Multimedia
Purchasing organization	1000	IDES Germany
Purchasing group	001	Dietel, B.
Process phase 1	WF-MM-1	PReq Creator
Process phase 2	WF-MM-2	Technical dept.
Process phase 3	WF-MM-3	Key account
Process phase 4	WF-MM-4	Executive board member
Password	WELCOME	
Release group	01	Demo PReq
Release code	EX KY TD	Executive board member Key account Technical dept.
Release indicator	L 1 2	Blocked RFQ RFQ/Purchase order
Release strategy	TF	Technical release

Creating a Purchase Requisition

Use

The person responsible wishes to order PCs for several work centers in plant 1000.

Procedure

1. Log on to your IDES system as user **WF-MM-1**, password **WELCOME**, language **EN**.
2. Call up the transaction as follows:

Menu Path	*Logistics* → *Materials Management* → *Purchasing* → *Purchase Requisition* → *Create*
Transaction Code	ME51N

3. Enter the following data:

Field	Data
	Purchase requis. Standard

4. To open the item overview area, choose *Item overview*.
5. Enter the following data:

Field	Europe
A (Account assignment category)	K
Material	R-1003
Quantity requested	500
Delivery date	Two weeks from today
Plant	1000
PGr (purchasing group)	001

6. Choose .

   To skip any warning messages, choose .
7. On the *Account assignment* tab page in the item detail area, enter the following data:

Field	Data
Cost center	1000

8. Choose .
9. To check whether a release strategy has been determined, choose the *Release strategy* tab page.

   The release indicator is set to *S* for *Blocked*. A release strategy has been determined (*TF - Release/BoD GE*). This means that all the criteria from the release strategy have been fulfilled. In our case, the total value of the purchase requisition item exceeds 5000 EUR.

10. To check that the release is technically possible, position the cursor on in the *TD* line.
11. Choose .

    The system confirms the posting and assigns a document number. Make a note of the number that appears in the status bar.

12. Choose until the overview tree appears.

    Do not log off yet as user **`WF-MM-1`**. You will need this user when you confirm the rejection via the workflow in a later process step.

Releasing Purchase Requisitions Individually

Use

In the second activity, the Technical Services department checks the PC configuration.

Procedure

1. Log on to your IDES system as user **WF-MM-2,** password **WELCOME**, language **EN**.
2. Call up the transaction as follows:

Menu Path	*Logistics → Materials Management → Purchasing → Purchase Requisition → Release → Individual Release*
Transaction Code	ME54 , ME53

3. Enter the following data:

Field	Data
Purchase requisition	Your noted purchase requisition number
Release code	TD

4. Choose .
5. Select the item you want to release and choose *Release + save.*

   In the status line, the system informs you that the purchase requisition has been changed.
6. Choose *Purchase requisition → Display*.
7. Enter the purchase requisition number.
8. Choose .
9. Select your item, then choose .

   In the dialog box, the system displays the current status of the purchase requisition. The release indicator is *S* for *Blocked* and release *TD* has been effected.
10. Choose .
11. Choose until the overview tree appears.

    Log off from the system as user **WF-MM-2**.

Releasing Purchase Requisitions Via the Workflow Inbox

Prerequisites

A senior member of staff must release the purchase requisition because their cost center will be charged with the costs.

Procedure

1. Log on to your IDES system as user **WF-MM-3**, password **WELCOME**, language **EN**.
2. Call up the transaction as follows:

Menu Path	*Office* → *Workplace*
Transaction Code	SBWP, ME54

3. Choose *Inbox* → *Workflow*.

   Click on the workflow icon to display the work item with your purchase requisition number and the creation date.
4. Select the purchase requisition number.
5. Choose .
6. To display the release status of the purchase requisition, choose .

   The *Release Strategy Requis. XXX Item XXX* dialog box appears. *KY* is displayed in the *Release Code* field.
7. Choose .
8. To release the purchase requisition, choose *Release*.

   In the dialog box, you see the new release indicator 1 (requisition) and the system informs you that the release has already been effected.
9. Choose .
10. Choose .

    In the status line, the system informs you that the purchase requisition has been changed.
11. To update the display, select your purchase requisition number and choose .

    The system has now deleted your work item from the inbox list.
12. Choose until the overview tree appears.

    Log off from the system as user **WF-MM-3**.

Rejecting Purchase Requisitions Via the Workflow Inbox

Use

The Executive Board wishes to scrutinize all purchase requisitions with order values that exceed a specified limit.

Procedure

1. Log on to your IDES system as user **WF-MM-4,** password **WELCOME**, language **EN**.
2. Call up the transaction as follows:

Menu Path	*Office* → *Workplace*
Transaction Code	SBWP, ME54

3. Choose *Inbox* → *Workflow*.

   Click on the workflow icon to display the work item with your purchase requisition number and the creation date.

4. Select your purchase requisition number, then choose .
5. Choose *Edit* → *Release* → *Reject*.

   In this case, the purchase requisition is rejected and not released. The reason for the rejection is entered in the item note for the PReq item.

6. Choose *Goto* → *Texts* → *Text overview*.
7. In the *Item Note* enter the text on two lines "*The specified qty cannot be justified. Please check*".
8. Choose .
9. Choose .

   The system confirms that the purchase requisition has been changed. You can not repeat the release function.

10. To update the display, select your purchase requisition number and choose .

    The system has now deleted your work item from the inbox list.

11. Choose until the overview tree appears.

    Log off from the system as user **WF-MM-4**.

Confirming the Rejection Via the Workflow

1. Open the session for the user **WF-MM-1**.
2. Call up the transaction as follows:

Menu Path	*Office* → *Workplace*
Transaction Code	SBWP, ME54

3. Choose *Inbox* → *Workflow*.

   Click on the workflow icon to display the work item with your purchase requisition number and the creation date.

4. Position your cursor on the released purchase requisition, then choose .

   The system has now deleted your work item from the workflow inbox.

5. Position your cursor on the rejected purchase requisition, then choose .
6. Choose .

   You can read the reason for the rejection in the item note.

7. Choose until the *Business Workplace of WF-MM-1* screen appears.
8. To update the display, select your purchase requisition number and choose .

   The system has now deleted your work item from the inbox list.

9. Choose until the overview tree appears.

   Following the rejection, the purchase requisition item is closed and cannot be processed further. The user therefore needs to either create a new purchase requisition or open a new item in the existing one. The release process then starts all over again.

   If you wish to create a new purchase requisition, restart at process step Creating a Purchase Requisition [Page 421].

Procuring External Services

Purpose

As of an earlier release, you procure external services using a stand-alone component within Materials Management called *External Services Management* (MM-SRV).

This functionality is completely integrated into the MM procurement process. However, the functionality has been adapted specially to accommodate the differences in the procurement of services.

The following process details the procurement process for moving water pipes within a production plant.

In this process, RFQ and quotation management and vendor selection are shown using the quotation price comparison list – starting with the creation of a purchase requisition. The process is completed when you enter and accept services, and then perform invoice verification.

In this process, you want to have some water pipes in a production plant moved. To do this, you need to create a reference to the model service specifications RV-1001 when you create a purchase requisition for the service selection. To make the process easier to understand, the system displays only a limited selection of the service lines.

Process Flow

You can find the data for this process under [Page 428].

1. Creating Service Master Records [Page 429]
2. Displaying a Model Service Specification [Page 431]
3. Creating a Purchase Requisition for an External Service [Page 432]
4. Making Requests for Quotations to Vendors [Page 436]
5. Entering Quotations and Price Comparison [Page 439]
6. Creating a Purchase Order with Reference to an RFQ/Quotation [Page 442]
7. Displaying a Purchase Order [Page 443]
8. Entering and Accepting Services Performed: Service Entry Sheet [Page 444]
9. Verifying the Invoice [Page 446]

Data Used During This Process

Field	Europe	North America	Description
Company code	1000	3000	
Plant	1000	3000	
Purchasing organization	1000	3000	
Purchasing group	001	001	
Service category	serv	serv	Service type Service master
Material group	007	007	Services
Item category	D	D	Services
Account assignment category	A	A	Account assignment to an asset
Asset	1129	1113	
Vendors	1020 1021	3120 3121	
Service master records	100000 100001 100016 100082 100112 100110	100000 100001 100016 100082 100112 100110	Set up construction site Tear down construction site Pipe-laying Water pipe compression trials Compressor Electric welding set
Tax code	V0	I1	
Payment terms	ZB01	ZB01	
Model service specification	RV-1001	RV-1001	
RFQ	AN	AN	

Creating Service Master Records

Use

External service procurement does not expressly require the existence of service master records. However, using this type of master data can spare you considerable time when entering data, because the master records allow you to store certain information that you would otherwise have to enter for each separate purchasing transaction (for example, texts, posting information, service conditions for the vendor and so on).

Procedure

1. Call up the transaction as follows:

Menu Path	*Logistics → Materials Management → Service Master → Service → Service Master.*
Transaction Code	AC03

2. To open the service overview area, choose .
3. To create a new service, choose .

   One of the services to be performed during the pipe-laying is the creation of a corresponding plan of the plant. To do this, you now need to create a separate service master record.

4. Enter the following data:

Field	Data	Description
Activity number	No entry	Internal number assignment for service master record
Service category	Service: Purchasing	Service category for the service master record
Base unit of measure	H	Hours

5. Choose .
6. Enter the following data:

Field	Data
Activity number short text (right-hand field)	Produce plan of plant for pipe-laying

   Make sure that the short text you enter in the right-hand field of the activity number begins with a capital letter.

   Make a note of the short text. You will need it later to determine the service number.

7. Choose .

   The short description you entered for the service is copied into the service overview area.

8. Enter the following data:

Field	Data
Material group	007
Valuation class	Services

At this point, the system suggests creating a reference to the standard service catalogs that contain the standard texts with exact specifications. To do this, choose *Standard serv. cat.*. You can refer to these by selecting an item in the field *Service type* (or *Edition*) using the F4 help in the dialog box that appears. Choose . To display the standard catalogs, choose the F4 help in the *SSC item* field. The predefined texts can then be copied into the long text of the service master. Double-click on the standard formulations until the *Change Service Master XXX* screen appears again. To update the long text, close and then reopen the long text by choosing *Long text*. For more information on the use of standard service catalogs, see the online documentation.

To continue with the activity, delete your entries in the fields *Service type* (or *Edition),SSC item,* and the copied long text. Make sure, that you reenter the activity number short text (Produce plan of plant for pipe-laying), because the predefined text of the Standard serv. cat. has also been copied in the short text field. Choose .

9. In the *Long txt* area, in the *Lang. to be maint.* field, choose *English* using the F4 help.

   You can enter any long text you want in the large input field at the bottom of the screen. This is then copied into the purchasing document and can be printed along with the document.

10. Choose .

    The overview tree appears.

11. From the *Service* node, choose *Service Master*.

12. To call up the item data, double-click the service you created in the service overview area.

    Note the number displayed in the *Activity number* field.

13. Choose until the overview tree appears.

Displaying a Model Service Specification

Use

If you create the purchasing documents subsequently, then you can enter the services manually. The process is further simplified by creating references to predefined model service specifications. These specifications contain a huge amount of services to be performed from which you can make a selection. In this process, you will make your selections from the model service specification RV-1001.

Procedure

1. Call up the transaction as follows:

Menu Path	From the *Service Master* node, choose *Model Service Specifications* → *Display*.
Transaction Code	ML12

2. Enter the following data:

Field	Data
Model service specification	RV-1001

3. Choose *Services*.

   The *Display Model Service Specifications* overview screen appears. To display the *Service specs. outline* of the model SS, choose . The system uses this to group the service lines together again either logically or chronologically. You will learn more about this service specifications outline in a later activity.

4. Choose any item in the outline.

   In the right-hand screen area, the system now displays the currently selected outline level. (The outline of the service specifications can contain up to 4 levels). In our case, the outline has only the one level. Because of this you go directly to the service lines. Make sure that all the service lines in the current model SS have a service number. You can, however, add service lines without a service master record to the model service specifications.

5. Repeat step 4 for other outline items.

6. Choose until the overview tree appears.

Creating a Purchase Requisition for an External Service

Use

The starting point of any procurement activity is a concrete requirement. This can be transmitted in the R/3 system from neighboring applications (for example, using maintenance plans from PM or projects from PS), or can be maintained manually. The purchasing document contained in the requirement that represents the beginning of the purchasing process, is also the purchase requisition in external services management. In the following case we assume that you have created everything manually.

Procedure

1. Call up the transaction as follows:

Menu Path	From the *Purchasing* node, choose *Purchase Requisition* → *Create*
Transaction Code	ME51N

2. Enter the following data:

Field	Data
	Purch. requis. Standard

3. To open the item overview area, choose *Item overview*.
4. Enter the following data:

Field	Europe	North America
A (Account assignment category)	A	A
I (Item category)	D	D
Short text	Any	Any
Quantity requested	1	1
Unit	AU	AU
Delivery date	Two months from today	Two months from today
Material group	007	007
Plant	1000	3000
Storage location	0001	0001
PGR	001	010

5. Choose .
6. To open the item detail area, choose *Item detail*.
7. Choose .

   You can specify your service outline on the *Service Specifications: Maintain Requisition Specs. for Item* screen. The service outline determines the structure of the service to be

performed. You can specify up to 4 hierarchical outline levels with as many service items as you want. In the service lines themselves, you can work both with and without service master records. From now on we will limit ourselves to a single level service outline.

8. To open the service outline area, choose .
9. Position your cursor on your outline line, then choose .
10. In the *Maintain Outline Level* dialog box, enter the following data:

Field	Data
Outl. level	01
Short text	Plan creation

11. Choose .
12. Repeat steps 9 to 11 with the following data:

    Note that before you create each new outline line, you must reposition the cursor on the first line of the service outline.

Field	Data	Short text
Outl. level	02	Set up construction site
	03	Pipe-laying and pressure tests
	04	Instruments and machines
	05	Tear down construction site

After you have defined the basic structure of the service, you then need to create the actual service lines for the single outline levels.

13. To open the *Services* area, choose *Services*.
14. Position your cursor on the outline level *01 Plan creation*.
15. In the *Service overview* area, enter the following data:

Field	Data
Activity number	Your service master record number
Quantity	1

16. Choose .
17. Enter the following data:

Field	Europe	North America
Asset	1129	1113

18. Choose *Auto repeat AA..*
19. To skip the *Account Assignment Block* dialog box, choose .
20. Choose until the *Service Specifications: Maintain Requisition Specs. for Item* screen appears.

The icon next to the outline level you have just processed tells you that a service assignment exists.

21. Choose the outline level *02 Set up construction site*.
22. Choose *Service selection*.
23. In the dialog box. select *Service selection: Model serv. specs* and enter the value *RV-1001* in the corresponding input field.
24. Choose .

    The system now displays in the outline layout the outline of the model service specifications, from which you can select services.

25. Choose the outline level *01 Preparatory activities*.

    In the right-hand screen area you can see an overview of the services for the model service specification *RV-1001*.

26. Select line *10 (Service number 100000*, *Set up construction site)*.
27. To copy the selected service, choose *Services*.

    The *Service Specifications: Maintain Requisition Specs. for Item* screen appears.

    The system now copies the selected service lines from the model service specification, including the proposed quantity 1, into the outline item in your purchase requisition.

    You can now change the quantity in the copied service item.

    The icon next to the outline level you have just processed tells you that a service assignment exists.

28. Perform steps 21 through 27 for the outline level *03 Pipe-laying and pressure tests* using the following data:

Steps	Data
23.	RV-1001
25.	Outline level *02 Laying the main pipe*
26.	Line *150* (Service number *100016, Pipe-laying: Steel pipe w/o ZMAK)*

29. Enter any value in the *Quantity* field of line 10.

    You now need to select another service line from the model *RV-1001* for outline level *03 Pipe-laying and pressure tests*. This time you should select from a second outline item: *Pressure tests*.

30. Perform steps 21 through 27 for the outline level *03 Pipe-laying and pressure tests* using the following data:

Step	Data
23.	*RV-1001*
25.	Outline level *04 Pressure tests*
26.	Line *10* (Service number *100082*, *Water pipe compression trial)*

31. Perform steps 21 through 27 for the outline level *04 Instruments and machines* using the following data:

Step	Data
23.	RV-1101
25.	Outline level *07 Materials and instruments*
26.	Line *60* (Service number *100110, Electric welding set)* Line *80* (Service number *100112, Compressor)*
	Quantity welding set: 25 H Quantity compressor: 2,5 H
29.	

At this point, you have selected two service lines from the model service specification. Note that you can also select any services you want from the model service specifications, even when they are from different outline levels in the reference model SC, as described in steps 28 and 30. The outline – as in the above process – can match the outline of the model service specifications, but this is not essential.

32. Perform steps 21 through 27 for the outline level *05 Tear down construction site* using the following data:

Step	Data
23.	RV-1001
25.	Outline level *01 Preparatory activities*
26.	Line *20* (Service number *100001*, *Tear down construction site)*

33. Choose .

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

34. Choose until the overview tree appears.

General explanation of procedure for one item:

In this process, we assume that only one document item has been created. The result of this is that the procurement process can only take place at one vendor. If, for example, another vendor creates the plan, then you need to create a separate document item in purchase requisition. To make the process less complex, this will not be the case in the following activities.

Making Requests for Quotations to Vendors

Use

After you have entered the purchase requisition, you need to select a suitable vendor. Materials Management gives you several options for making your selection. In this process you will use RFQ / Quotation processing.

Procedure

1. Call up the transaction as follows:

Menu Path	From the *Purchase Requisition* node, choose *Follow-On Functions* → *Assign and Process*.
Transaction Code	ME57, ME41, ME9A

2. Enter the following data:

Field	Europe	North America
Purchase requisition	Your noted number	Your noted number
Purchasing group	001	010
Scope of list	A	A
Plant	1000	3000

3. Choose .
4. Select your item.
5. Choose *Edit* → *Flag for RFQ* → *With vendor*.
6. In the dialog box, enter the following data:

Field	Europe	North America
Vendor	1120 1121	3120 3121
Purchasing organization	1000 1000	3000 3000

7. Choose *Flag for RFQ.*

   A comment line underlined in green tells you that the item has been flagged for RFQ processing.

8. Select your item again.
9. Choose *Assignments*.
10. Position your cursor on the line item for the first vendor.
11. Choose *Process assignment.*
12. In the dialog box, enter the following data:

Field	Europe	North America
RFQ type	AN	AN
RFQ date	Today's date	Today's date
Quotation deadline	Today's date + 1 month	Today's date + 1 month
Purchasing group	001	010
Purch. organization	1000	3000

13. Choose .
14. In the *Collective no.* field, enter any value. Use this same value for the second RFQ.
15. Choose .
16. Select your item.
17. Choose .
18. Choose .

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

19. Choose .

    The *Assign and Process Requisitions: Assignment Overview* screen appears again.

20. Position your cursor on the line item for the second vendor.
21. Repeat steps 11 through 19 for the second vendor.
22. Choose .
23. Choose until the overview tree appears.
24. From the *Purchasing* node, choose *RFQ/Quotation* → *Request for Quotation* → *Message* → *Print/Transmit*.
25. Enter the following data:

Field	Europe	North America
Document number to	First RFQ number Second RFQ number	First RFQ number Second RFQ number
Purchasing organization	1000	3000
Purchasing group	001	010

26. Choose .

    You can see that in both line items the assigned printer is the dummy printer *LP01*.

    You can now select a message line and then choose *Output message*.

Your RFQ will now be printed. The system shows this using a green checkmark. Alternatively, you can also display the generated form. To do this, choose *Display message*.

27. Choose until the overview tree appears.

Entering Quotations and Price Comparison

Use

After you have entered the RFQs and have sent them to vendors, you need to enter the incoming quotations.

Procedure

1. Call up the transaction as follows:

Menu Path	From the *Purchasing* node, choose *RFQ/Quotation* → *Quotation* → *Maintain*.
Transaction Code	ME47, ME49

2. Enter your first RFQ number in the *RFQ* field.
3. Choose .
4. Select your item.
5. Choose .
6. To open the service outline area, choose .
7. Choose the outline level *01 Plan creation*.
8. To open the service overview area, choose *Services*.
9. Enter the following data:

Service number	Gross Price Europe	Gross Price North America
Your noted service number	2550	2600

10. Choose .
11. Repeat steps 7 through 10 for all outline levels for your service specifications. In step 9, enter the following prices:

Service no.	Gross Price Europe	Gross Price North America
100000	1610	1710
100016 100082	12,50 300	7 340
100110 100112	7 8	6,80 8,80
100001	625	750

12. Choose .

    In the status bar, the system confirms the transaction.

13. Enter your second RFQ number in the *RFQ* field.

Entering Quotations and Price Comparison

14. Choose .
15. Select the item.
16. Choose .
17. Repeat steps 7 through 10 for all outline levels for your service specifications. In step 9, enter the following prices:

Service no.	Gross Price Europe	Gross Price North America
Your noted service number	2700	2800
100000	1550	1600
100016 100082	12,50 300	7 340
100110 100112	7 8	6,80 8,80
100001	900	1000

18. Choose .

    In the status bar, the system confirms the transaction.

19. Choose until the overview tree appears.
20. From the *RFQ/Quotation* node, choose *Quotation* → *Price Comparison*.
21. Enter the following data:

Field	Europe	North America
Purchasing organization	1000	3000
Collective RFQ	Your collective number	Your collective number

Instead of the collective number, you can also enter the RFQ numbers you noted earlier in the *Quotation XXX to XXX* fields.

22. Choose .

    The system displays an aggregated price comparison of the vendors.

23. Position your cursor on a value.
24. To see a detailed display, choose *Services*.

The system now displays a detailed price comparison of all the service lines contained in the quotations. Note the number of the cheapest vendor and the total value of his quotation.

25. Choose until the overview tree appears.

Creating a Purchase Order with Reference to an RFQ/Quotation

Use

After you have determined the cheapest vendor using the quotation price comparison, you can then create a purchase order.

Procedure

1. Call up the transaction as follows:

Menu Path	From the *Materials Management* node, choose *Purchasing* → *Purchase Order* → *Create* → *Vendor/Supplying Plant Known*
Transaction Code	ME21N

2. Choose *Document overview on*.
3. Choose to the right of .
4. Choose *Requests for quotations* from the menu that appears.
5. Delete any entry in the *vendor* field.
6. Choose .
7. Select the RFQ number of the cheapest quotation.
8. Choose .
9. In the header area on the tab page *OrgData*, enter the following data:

Field	Europe	North America
Purchasing org.	1000	3000
Purchasing group	001	010
Company code	1000	3000

10. To open the item overview area, choose *Item overview*.
11. Choose .

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

12. Choose until the overview tree appears.

Displaying a Purchase Order

7. Call up the transaction as follows:

Menu Path	From the *Purchase Order* node, choose *Display*
Transaction Code	ME23N

If your purchase order is not displayed on the *Standard PO XXX Created by User* screen, choose . In the *Select Purchase Order* dialog box, enter your PO number, then choose *Other document.*

8. To open the item header area, choose *Header*.
9. Choose the tab page *Status*.

   The system displays information about ordered, delivered, and invoiced values of the item (cumulated for all services).

10. To open the item overview area, choose *Item overview*.

    In your item line you can see the source PReq (field *Purch. req*) and the RFQ (field *RFQ*).

11. To open the item detail area, choose *Item detail*.
12. Choose the *Services* tab page.
13. Choose .

    The system displays the previously created service specifications outline.

14. Choose *Outline* → *Total values*.

    The system shows you an outline overview of the total values from the ordered services for each outline level. It also displays the service values of any confirmed (entered) services (*"Actual" values* column). By placing your cursor on an outline level, you can go to the service overview within the outline levels.

15. Choose until the overview tree appears.

Entering and Accepting Services Performed: Service Entry Sheet

Use

Entering and accepting services in external services management is the same as a goods receipt posting when procuring materials. However, it consists of two levels.

If the vendor confirms a service, then you can store this service in the system straight away using a service entry sheet. However, you cannot yet enter an invoice from the vendor for the service performed into the system. The prerequisite for this is that you explicitly accept the service entry sheet. For this step, you can make use of the extensive release functionality in ordering. At this point we simply accept the service.

For more information on the use of the release procedure, see the process Release Procedure w. Classification for Purch. Docs: Customizing [Page 237].

Entry sheets can refer to the total service specifications ordered. An essential feature of external services management is that you can also create different entry sheets for single service lines.

In the following activity, the service *Plan creation* from the service specifications of your purchase order should be performed. The service is entered, accepted, and settled.

You can now carry out the following steps for as many outline levels and service lines from the service specifications in your purchase order as you want.

Procedure

1. Call up the transaction as follows:

Menu Path	From the *Purchasing* node, choose *Purchase Order* → *Follow-On Functions* → *Service Entry Sheet* → *Maintain*.
Transaction Code	ML81N

2. Choose *Other purch. order*.
3. In the *Select Purchase Order/Entry Sheet* dialog box, enter the following data:

Field	Data
Purchase order	Your purchase order

4. Choose .
5. Choose .
6. In the header area, enter the following data:

Field	Data
Short text	Any

7. Choose *Service selection*.

In the *Service Selection* dialog box, the indicator *From purchase order* should be set, and your purchase order number should appear in the input field for the purchase order. If this is not the case, set the indicator and enter your purchase order number.

8. Choose .

9. Select outline level *01 Plan creation* and choose *Services*.

   You can now input the quantity into the service line. At this point you could also change the quantity, delete the service line completely, or add new service lines. You can also choose *Service selection* again.

10. Choose .

    The system confirms the transaction and displays the number of the generated service entry sheet. Note this number.

    You have now entered the services performed. However, before the vendor can send an invoice, you need to accept the service. The service entry sheet you have just created is entered in the line item and has the status *No acceptance*.

11. Choose .

12. Choose *Entry sheet* → *Set status* → *Acceptance*.

    The entry sheet now has status *Will be accepted*.

13. Choose .

    The system displays a confirmation and also the number of the acceptance document. The status changes again, to *Accepted*.

14. Choose until the overview tree appears.

    You can perform this activity and the following activity (Executing Invoice Verification [Page 446]) for any other service items from your service specifications. This procedure is consistent with the current practice where the vast majority of trades complete, confirm, and bill services step by step.

    Entering and confirmation of services are updated by the system in the PO history and the total values of the service outline. You can display this data again in the purchase order. To do this, carry out the activity Displaying a Purchase Order [Page 443] again.

Executing Invoice Verification

55. Call up the transaction as follows:

Menu Path	From the *Purchase Order* node, choose *Follow-On Functions* → *Logistics Invoice Verification*.
Transaction Code	MIRO, MRBR

56. Choose *Edit* → *Switch company code.*

    In the *Enter Company Code* dialog box, the system displays the company code that is currently active for invoice verification. This is the company code last used by the user.

57. Enter the following data:

Field	Europe	North America
Company code	1000	3000

58. Choose ✔.

59. In the field directly above and to the left of the item overview, use the input help to choose *Purchase order/scheduling agreement* (if it does not already appear as the default text).

    You can also use this activity to enter invoices with reference to a delivery note, for example. The system proposes the value last entered by the user in each case.

60. On the *Basic data* tab page, in the header data area, enter the following data:

Field	Europe	North America
Invoice date	Today's date	Today's date
Posting date	Today's date	Today's date
Tax amount, right-hand field	V0 (Domestic input tax 0%)	I1 (A/P Sales Tax, Taxable)
To the right of the *Purchase order/scheduling agreement* input field	Your purchase order	Your purchase order

61. Choose .

    In the item overview, the system displays the purchase order data, as well as the net amount in the balance field that is required to calculate the gross amount. The traffic light for the *Balance* field is red.

    The value of the goods delivered plus tax (in Europe, VAT) is normally entered on the invoice sent to you by the vendor. In this process, we simulate this procedure and determine the invoice amount ourselves.

62. Enter the following data:

Field	Data
Calculate tax	Select

When you activate *Calculate tax* the system displays the gross amount in the balance field.

If you have selected the tax code *No tax procedure*, or *A/PSales tax exempt*, the *Tax amount* field contains the value 0. In this case, the *Balance* field contains the net amount.

63. Enter the following data:

Field	Data
Amount	Gross amount determined
	Select

64. Choose .

When you confirm your entries, the traffic light to the left of the *Balance* field changes to green.

In this example, we assume that the invoiced amount equals the calculated amount.

65. Choose .

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

The invoice is initially blocked for payment. Possible reasons include variances (settlement date too early, for example), or sporadic "control blocks". From a logistics perspective, the procurement process has been successfully completed. You can now display and change the blocking reasons.

66. Choose until the overview tree appears.

67. From the *Materials Management* node, choose *Logistics Invoice Verification* → *Further Processing* → *Release Blocked Invoices.*

68. Enter the following data:

Field	Europe	North America
Company code	1000	3000
Invoice document	Your invoice document number	Your invoice document number

69. Choose .

To display the blocking reasons, scroll to the right of the table. The blocking reasons for your item are highlighted with *X*. To display the full descriptions, position your cursor on the column header.

Possible reasons for blocking an invoice include:

Column	Description
Qua (Blocking reason: Quality)	Quality variance
Qty (Blocking reason: Quantity)	Quantity variance
Prc (Blocking reason: Price)	Price variance
Dte (Blocking reason: Date)	Delivery date variance

70. If you want to release your invoice, select the blocking reason for your item, then choose *Blocking reason*.
71. Choose *Save changes*.

    In the status bar, the system confirms that the invoice has been released.
72. Choose until the overview tree appears.

Procuring Configurable External Services

Purpose

We have already described in detail the procurement of external services in Purchasing, using the component MM-SRV, in the process description Procuring External Services [Page 427]. We recommend that you also work through this process to further your understanding of external services procurement. The function of the stored control mechanisms in configuration is explained in the process Classification and Configuration of Services [Page 465].

Creating service specifications within purchasing document items can be extremely time-consuming when the services are complex or extensive.

A data structure is available with the model service specifications that already greatly simplifies service entry in purchasing documents. However, even the task of selecting the services can often be a difficult process, since usually the user needs an in-depth understanding of the service structure.

Implementing the cross-application configuration function that is already available to us will mean vast improvements to service entry, since the user will only need to specify the services using descriptive characteristics. The system then converts these specifications into actual service specifications using stored object dependencies. These service specifications contain the services required according to type, quantity, and structure.

In the following situation, for the sake of simplicity, the process is described using a one-dimensional service specification only. Configuration can also be implemented for service specifications with multi-level outlines.

Process Flow

You can find the data for this process under ? [Page 450].

1. Configurable Model Service Specifications [Page 451]
2. Creating a Purchase Requisition for Model Service Specifications [Page 453]
3. Assigning and Processing PReqs: Creating the Purchase Order [Page 456]
4. Displaying the Purchase Order and Outputting Messages [Page 458]
5. Service Entry and Acceptance for Purchase Orders [Page 460]
6. Invoice Verification [Page 462]

Data Used During This Process

Field	Europe	North America	Description
Vendor	1104	1105	
Outline agreement	4600000025	4600000032	
Document type	Purchase requis. Standard	Purchase requis. Standard	Standard PO
Purchasing group	001	010	
Item category	D	D	Services
Account assignment category	K	K	Cost center
Plant	1000	3000	
Storage location	0001	0001	Material stores
Material group	007	007	Services

Configurable Model Service Specifications

Use

The starting point for selecting and specifying services using configuration is the model service specification. Here you store the superset of services to be performed, from which the user makes a selection using characteristic valuation.

In the following process, the model service specifications are for laying water pipes. To lay the pipes you might need, for example, to set up a construction site, remove a certain area of the road/street surfaces, and dig out a certain volume of earth. You need to construct a barrier around the digging site. The material (cast iron or steel pipe) needs to be delivered to the construction site and must then be laid. After the work is completed, the earth and the road/street surfaces need to be replaced. Finally, the construction site needs to be torn down.

Procedure

1. Call up the transaction as follows:

Menu Path	*Logistics → Materials Management → Service Master → Model Service Specifications → Display.*
Transaction Code	ML12

2. Enter the following data:

Field	Data
Model service specs.	RV-1101

3. Choose .

   The system displays the header data for the model service specifications for RV-1101. Note that the indicator *Configuration/service selection* is selected.

4. Choose *Services*.

   The system displays an overview of the single services contained in the service specifications.

   The following dependencies are stored in the system:

   - The service lines *Set up construction site* and *Tear down construction site* should always be copied over, since these activities are always necessary.

   - The service lines *Transportation of steel pipe* and *Transportation of cast iron pipe* are alternative selections.

   - Depending on the place of activity output entered during configuration,

   Transportation of steel pipe should be pulled, when the work takes place in a production area.

   Transportation of cast iron pipe should be pulled when the work takes place in an open space.

- The quantity in the service lines (transport kilometers) should result when the user enters the transport route during configuration.

- The service lines *Removal of road surface* and *Application of road surface* are also always copied over. The necessary quantity (square meters) results from the length and width of the hole to be dug that the user enters during configuration.

- The service lines *Digging* and *Refilling* are always pulled. The volume (meters cubed) results from the *Length*, *Width*, and *Depth* of the hole to be dug that the user enters during configuration.

- The service lines *Application of side barrier sheeting: Sheet pile* and *Application of side barrier sheeting: Shuttering panels* are also alternative selections. Shuttering panels can be used for holes of up to 2 meters width. Sheet pile is more suited for holes wider than 2 meters, because of its greater stability. The selection of these service lines is therefore dependent on the attributes of the characteristic *Width of hole* entered during configuration.

- The service lines *Laying of pipes, production area* and *Laying of pipes, open space* are used to store markups that should be used, depending on the location where the work is taking place. These should be pulled alternatively:

- If the work takes place in a production area, then a markup of $3.60 is due.

- If the work place takes place in an open space, then the markup is only $2.70.

- The service lines *Laying of steel pipe 15cm/25cm/35cm* and *Laying of cast iron pipe 15cm/25cm/35cm* should be pulled alternatively. This depends on:

The place where the pipes are being laid decides whether steel or cast iron pipes are used.

The length of pipe entered decides how many meters of pipe are required.

The diameter of pipe entered decides which pipe diameter is selected.

Note that

- the *Quantity* field in each line has the value 1. The actual quantity of the single services is determined using configuration only when a purchasing document (e.g. purchase requisition) is created.

- the system displays some alternative service lines. These lines are also only selected using configuration.

You can also display the object dependencies stored for the service lines. Position your cursor on any service line, then choose . This area is described in detail in the process Classifying and Configuring Services [Page 465] (Activity: Object Dependencies in Model Service Specifications [Page 472]).

5. Choose until the overview tree appears.

Creating a Purchase Requisition for Model Service Specifications

Use

Configuration is fully integrated into the external service procurement process. This means that you can use configuration in all purchasing documents. This allows you to work with configurable model service specifications in RFQ/Quotation processing and when creating outline agreements.

The starting point for the procurement process is the purchase requisition. The purchase requisition is eventually converted into a purchase order. This is followed by service entry and invoice verification.

Procedure

12. Call up the transaction as follows:

Menu Path	*Logistics → Materials Management → Purchasing → Purchase Requisition → Create*
Transaction Code	ME51N

13. Enter the following data:

Field	Data
	Purchase requis. Standard

14. To open the item overview area, choose *Item overview*.
15. Enter the following data:

Field	Europe	North America
A (Account assignment category)	K	K
I (Item category)	D	D
Short text	Any	Any
Delivery date	Today's date + 1 month	Today's date + 1 month
Material group	007	007
Plant	1000	3000
Storage location	0001	0001
PGr (purchasing group)	001	010

16. Choose .
17. Choose *Service selection*.

    If the system questions whether you can keep the delivery date, choose .

18. In the *Service Selection* dialog box, select *Model serv. specs.*, then enter *RV-1101* in the line.

19. Choose ✔.

    The *Characteristic Value Assignment* screen appears.

    Here you choose services using the value assignments of the characteristics listed in the previous activity. Note, that the characteristics *Road surface in m2* and *Volume of hole in m3* are not ready for input. The value assignments of these characteristics are determined from the attributes of the other characteristics.

20. Position your cursor on the input field for the characteristic *Location*, then choose the F4 input help.
21. Select *PRODUKTION*, then choose ✔.
22. Enter *1000* for the characteristic *Pipe length in m*.
23. Position your cursor on the input field for the characteristic *Pipe diameter in cm*, then choose the F4 input help.
24. Select *25cm*, then choose ✔.
25. Enter the following data:

Field	Data
Transport distance in km	10
Length of hole in m	1000
Width of hole in m	3
Depth of hole in m	2

26. Choose ✔.

    The system fills the resulting characteristics with values according to the stored object dependencies:

Field	Data	Description
Pipe material	Steel pipe	Location is a production area
Road surface in m2	3000	Length of hole: 1000 m, width of hole: 3 m
Kind of barrier	Sheet pile	Hole is more than 2m wide
Hole in m3	6000	Length of hole: 1000 m, width of hole: 3 m, depth of hole: 2m

You are now able to vary the values of the characteristics ready for input, and can then observe the changes in the resulting characteristic values. To do this, change one or more characteristic values and confirm your entries. Afterwards, make sure that you reset all values to the original configuration.

You can also display the object dependencies pulled by the system during configuration. Position your cursor on the resulting characteristic (for example, *Volume of hole in m3*), then choose . In the *Information* dialog box, the system lists all the involved relationships. For a more detailed description of the stored object dependencies, see the activity Object Dependencies in Model Service Specifications [Page 472]. To quit the dialog box, choose .

27. Choose .
28. To quit the *Error* dialog box, choose .
29. In the *Account Assignment for Service in Line XXX* dialog box, enter *4220* in the *Cost center* field, and then choose *Auto repeat AA*.

    The account assignment for all the selected service lines is now automatically set to the cost center *4220*.

    The system now displays the results of the configuration/characteristic valuation.

30. Choose .

    If the system questions whether you can keep the delivery date, choose .

    The R/3 System confirms the transaction and displays the assigned purchase requisition number. Make a note of this number.

31. Choose until the overview tree appears.

Assigning and Processing PReqs: Creating the Purchase Order

1. Call up the transaction as follows:

Menu Path	From the *Purchasing* node, choose *Purchase Requisition* → *Follow-on Functions* → *Assign and Process.*
Transaction Code	ME57, ME21N

2. Enter the following data:

Field	Data
Purchase requisition	Your noted number
Plant	No entry

3. Choose .

   You see the PReq that you have created.

4. Select your PReq item, then choose *Assign automatically*.

   If the system displays the *Overview Sources of Supply for PReq XXX* dialog box containing possible sources of supply, choose *Price simulation all*.

   The system displays a complete overview of all the service lines contained in the PReq item, with their prices at the vendors in the corresponding outline agreement. At the beginning of the list you can see the total values across all the service lines. Where these prices have been stored for each service line in the service master record, the system displays the prices that resulted from in-house creation of the service in a separate column *Own prices*. (If no condition records are stored, this is shown using a red traffic light against the service line).

   Choose . Position the cursor on the line for vendor *1104* (4600000025) or *1105* (4600000032) for North America, then choose .

   A comment line underlined in green tells you that the assignment to the outline agreement has been made.

5. Choose *Assignments*.

6. Position your cursor on the outline agreement you have assigned, then choose *Process assignment*.

   The *Process Assignment: Create PO* dialog box appears.

7. Choose .

8. Select your PReq item in the document overview, then choose .

9. Choose .

   The system confirms that the standard PO has been created and displays the PO number. Note this number.

10. Choose until the overview tree appears.

In the *Exit list* dialog box, choose *Yes.*

Displaying the Purchase Order and Outputting Messages

Use

This step is not essential for understanding the process. It is an optional step.

Procedure

1. Call up the transaction as follows:

Menu Path	From the *Purchasing* node choose → *Purchase Order* → *Display*
Transaction Code	ME23N, ME9F

2. Select your item.
3. To open the item detail area, choose *Item detail*.
4. Choose the *Services* tab page.

   The system lists the service lines you copied from the PReq.
5. Choose until the overview tree appears.
6. From the *Purchase Order* node, choose *Messages* → *Print/Transmit*
7. Enter the following data:

Field	Europe	North America
Document number	Your PO number	Your PO number
Purchasing organization	1000	3000
Purchasing group	001	010

8. Choose .

   The system now displays the message record generated automatically when the PO was created.
9. Select your message record, then choose *Display message*.

   You see the print preview of the message created. On page 2 of this form, you can see details of the configured service lines. To display the other pages, choose .
10. Choose .
11. Select your message again, then choose *Message detail*.

    You can now see the corresponding message record with message type *NEU*. From the item display, we assume that the message will be output as a printout (Medium: *Print output*).
12. Select the line, then choose *Communication method*.

    The printer entered is *LP01* (field *Logical destination*). To be able to output this message, you need to enter the printer that is assigned to your workplace. You can find out which

printer is assigned to your workplace using either the F4 help in the *Logical destination* field, or by asking your system administrator.

13. Enter the following data:

Field	Data
Logical destination	Your printer
Print immediately	Select

14. Choose .
15. Choose until you return to the *Message Output* screen.

    In the dialog box *Save message*, choose *Yes*.
16. Select your message line.
17. Choose *Output message*.

    The system triggers the printout of the PO form. The system confirms the print job by displaying the icon at the beginning of the message line.
18. Choose until the overview tree appears.

Service Entry and Acceptance for Purchase Orders

Use

After the ordered work has been partially or wholly completed, you can enter the services performed in the system.

Procedure

15. Call up the transaction as follows:

Menu Path	From the *Purchasing* node, choose *Purchase Order* → *Follow-On Functions* → *Service Entry Sheet* → *Maintain*.
Transaction Code	ML81N

16. Choose *Other purch. order*.

17. In the *Select Purchase Order/Entry Sheet* dialog box, enter the following data:

Field	Data
Purchase order	Your PO number

18. Choose .

19. Choose .

20. In the header area, enter the following data:

Field	Data
Short text	Any

21. Choose Service selection.

    In the *Service Selection* dialog box, the indicator *From purchase order* should be set, and your purchase order number should appear in the input field for the purchase order. If this is not the case, set the indicator and enter your purchase order number.

22. Choose .

23. Choose .

24. Choose *Services*.

    You can now input quantities into the service lines. At this point you could also change the quantity, delete the service line completely, or add new service lines. You can also choose *Service selection* again. In the following description we assume that all service lines have been selected with the default quantities.

25. Choose .

    The system confirms the transaction and displays the number of the generated service entry sheet. Note this number.

    You have now entered the services performed. However, before the vendor can send an invoice, you need to accept the service. The service entry sheet you have just created is entered in the line item and has the status *No acceptance*.

26. Choose .
27. Choose *Entry sheet* → *Set status* → *Acceptance*.

    The entry sheet status changes to *Will be accepted*.
28. Choose .

    The system displays a confirmation and the number of the acceptance document. The status changes again, to *Accepted*.
29. Choose until the overview tree appears.

Invoice Verification

73. Call up the transaction as follows:

Menu Path	From the *Purchase Order* node, choose *Follow-On Functions* → *Logistics Invoice Verification*.
Transaction Code	MIRO, MRBR

74. Choose *Edit* → *Switch company code.*

    In the *Enter Company Code* dialog box, the system displays the company code that is currently active for invoice verification. This is the company code last used by the user.

75. Enter the following data:

Field	Europe	North America
Company code	1000	3000

76. Choose ✔.

77. In the field directly above and to the left of the item overview, use the input help to choose *Purchase order/scheduling agreement* (if it does not already appear as the default text).

    You can also use this activity to enter invoices with reference to a delivery note, for example. The system proposes the value last entered by the user in each case.

78. On the *Basic data* tab page, in the header data area, enter the following data:

Field	Europe	North America
Invoice date	Today's date	Today's date
Posting date	Today's date	Today's date
Tax amount, right-hand field	VN (Domestic input tax 16%)	I1 (A/P Sales Tax, Taxable)
To the right of the *Purchase order/scheduling agreement* input field	Your PO number	Your PO number

79. Choose .

    In the item overview, the system displays the purchase order data, as well as the net amount in the balance field that is required to calculate the gross amount. The traffic light for the *Balance* field is red.

    The value of the goods delivered plus tax (in Europe, VAT) is normally entered on the invoice sent to you by the vendor. In this process, we simulate this procedure and determine the invoice amount ourselves.

80. Enter the following data:

Field	Data
Calculate tax	Select

When you activate *Calculate tax* the system displays the gross amount in the balance field.

81. Enter the following data:

Field	Data
Amount	Gross amount determined
	Select

82. Choose .

When you confirm your entries, the traffic light to the left of the *Balance* field changes to green.

In this example, we assume that the invoiced amount equals the calculated amount.

83. Choose .

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

The invoice is initially blocked for payment. Possible reasons include variances (settlement date too early, for example), or sporadic "control blocks". From a logistics perspective, the procurement process has been successfully completed. You can now display and change the blocking reasons.

84. Choose until the overview tree appears.

85. From the *Materials Management* node, choose *Logistics Invoice Verification* → *Further Processing* → *Release Blocked Invoices.*

86. Enter the following data:

Field	Europe	North America
Company code	1000	3000
Invoice document	Your noted invoice number	Your noted invoice number

87. Choose .

To display the blocking reasons, scroll to the right of the table. The blocking reasons for your item are highlighted with *X*. To display the full descriptions, position your cursor on the column header.

Possible reasons for blocking an invoice include:

Column	Description
Qua (Blocking reason: Quality)	Quality variance
Qty (Blocking reason: Quantity)	Quantity variance
Prc (Blocking reason: Price)	Price variance

Dte (Blocking reason: Date)	Delivery date variance

88. If you want to release your invoice, select the blocking reason for your item, then choose *Blocking reason*.
89. Choose *Save changes*.

    In the status bar, the system confirms that the invoice has been released.
90. Choose until the overview tree appears.

Classifying and Configuring External Services

Purpose

The following process contains a detailed description of the basic configuration functionality for external services management. We recommend that you first carry out the processes Procuring External Services [Page 427] and Procuring Configurable External Services [Page 449].

The following process is only suitable for advanced users and consultants. General prerequisites are authorization for Customizing and authorization for configuration and the classification system.

Classification and configuration are two cross-application components that are also used by Production Planning (Open variant BOMs) and Sales and Distribution (Configuration in sales orders) as well as Materials Management.

In a previous release, configuration was also available in the services area of MM for configuring the model service specifications.

Process Flow

You can find the data for this process under ? [Page 466].

1. Configurable Model Service Specifications [Page 467]
2. Classes and Characteristics of Model Service Specifications [Page 468]
3. Configuration of Model Service Specifications: Configuration Profile [Page 470]
4. Object Dependencies in Model Service Specifications [Page 472]
5. Standard Purchase Order with Configurable Model Service Specifications [Page 476]

Data Used During This Process

Field	Europe	North America	Description
Purchasing org.	1000	3000	
Purchasing group	001	010	
Company code	1000	3000	
Material group	007	007	Services
Plant	1000	3000	
Storage location	0001	0001	Material stores
Model service specs.	RV-1101	RV-1101	Water pipe laying
Class	RV_1101	RV_1101	
Class type	301	301	
Configuration profile	RV-1101	RV-1101	
Item category	D	D	Services
Account assignment category	K	K	Cost center
Cost center	4220	4220	
Vendor	1104	1105	
Order type	Standard PO	Standard PO	

Configurable Model Service Specifications

Use

The starting point for selecting and specifying services using configuration is the model service specification. Here you store the superset of services to be performed, from which the user makes a selection using characteristic valuation.

In the following process, the model service specifications are for pipe-laying of water pipes. To lay the pipes, you might need, for example, to set up a construction site, remove a certain area of the road/street surfaces, and dig out a certain volume of earth. You need to construct a barrier around the digging site. The material (cast iron or steel pipe) needs to be delivered to the construction site and must then be laid. After the work is completed, the earth and the road/street surface need to be replaced. Finally, the construction site needs to be torn down.

Procedure

6. Call up the transaction as follows:

Menu Path	*Logistics → Materials Management → Service Master → Model Service Specifications → Display.*
Transaction Code	ML12

7. Enter the following data:

Field	Data
Model service specs.	RV-1101

8. Choose .

   The system displays the header data for the model service specifications for RV-1101. Note that the *Configuration/service selection* indicator is selected.

9. Choose *Services*.

   The system displays an overview of the single services contained in the service specifications.

   Note that:

   - the *Quantity* field in each line has the value 1. The actual quantity of the single services is determined using configuration only when a purchasing document (e.g. purchase requisition) is created.

   - the system displays some alternative service lines. These lines are also only selected using configuration.

10. Choose until the overview tree appears.

Classes and Characteristics of Model Service Specifications

Use

The basic prerequisite for every configuration in the R/3 system is that the object to be configured is assigned to a class. This class also contains the characteristics whose values decide the composition of the object.

In the following process, the configurable object (the model service specifications) and the characteristic values of the class characteristics decide which quantity is used for selection in the procurement process.

Procedure

1. Call up the transaction as follows:

Menu Path	*Logistics → Central Functions → Classification → Master Data → Classes*
Transaction Code	CL02

2. Enter the following data:

Field	Contents
Class	RV_1101
Class type	301

3. Choose .

   On the *Basic data* tab page, the system displays the basic data of class RV_1101.

   Using the assignment to class type 301, the system creates the link to the object *Model service specifications* and the base database structure. Both are of central importance during configuration.

4. Choose the *Characteristics* tab page.

   The system displays a list of the characteristics belonging to that class. The characteristic values of these characteristics decide the type and scope of the services to be procured.

5. Position the cursor on the characteristic *ORT* (Location) and choose *Display values*.

   The characteristic *ORT* can take on the characteristic values *PRODUKTION* (Production area) or *GRÜNFLÄCHEN* (Open space). Other values are not allowed (*Additional values* indicator is not set). The material type of the pipe to be laid will depend entirely on the place where the pipes are to be laid (characteristic *ROHR_MATERIAL*)

6. Choose .

7. Position the cursor on the characteristic *SEITENABSPERRUNG* (Kind of barrier) and choose *Display values*.

8. Choose the *Basic data* tab page.

9. Choose .

The system shows you that the dependency *768* has been assigned to the characteristic *SEITENABSPERRUNG*. This means that it is a precondition.

10. Position your cursor on the dependency, then choose *Dependency editor*.

    The command line explains in an ABAP4-similar syntax, that the characteristic *SEITENABSPERRUNG* should only be offered in later valuation/configuration when the characteristic *Tiefe_Erdaushub* (Depth of hole) has a value greater than 1 (in other words, for safety reasons, you should only construct a barrier when the depth of the hole dug out for pipe-laying is deeper than one meter). In this way, the system creates a causal link between the two characteristics *Tiefe_Erdaushub* and *Seitenabsperrung*. Since this link should have general validity, the dependency was stored at model service specification class level.

    As you will notice later, the object dependencies are stored at the specific levels of the configuration profile and also in the model service specifications themselves.

11. Choose .

12. Position your cursor on the dependency again, then choose *Basic data*.

    The system displays the basic information about the current dependency. The following dependency types are available in the area of Services: *Precondition, Selection condition, Action, Procedure, Constraint*, and *Rule*.

    The *Status* field contains the value *1* (Released). Note that new object dependencies are only taken into account in configuration if they have this status. When you create dependencies, the system sets the default value *2* (Blocked).

13. Choose , until the *Change Class* screen appears.

14. Place your cursor on the ESLL_MENGE characteristic and choose (*Display characteristic*).

15. Choose the *Additional data* tab page.

    The *Table name* and *Field name* fields for this characteristic are populated with the values *ESLL* and *MENGE* under *Reference to table field*. Here, the system has assigned the hidden characteristic to the database field containing the quantities of the single services in the model service specifications. Note that this assignment is used in the next activity for assigning the correct quantities according to the characteristic value assignments.

    The indicators *Not ready for input* and *No display* are selected under *Procedure for Value Assignment*.

16. Choose .

17. Repeat steps 5 and 6 for the other characteristics.

18. Choose until the overview tree appears.

Configuration of Model Service Specs.: Configuration Profile

Use

To make a valuation of object characteristics in configuration the model service specifications possible, we need to create a link between this class and the corresponding class and its characteristics. The configuration profile is used here as the data structure across applications.

Procedure

1. Call up the transaction as follows:

Menu Path	*Logistics* → *Central Functions* → *Variant Configuration* → *Configuration Profile* → *Display*
Transaction Code	CU43

   If the *Select Configurable Object* dialog box appears, select *Model service specifications* and choose ✔.

2. Enter the following data:

Field	Contents
Model specs.	RV-1101

3. Choose .

   If there is no *Model specs.* field on the current screen, choose *Change confble obj.*. In the *Select Configurable Object* dialog box, select *Model service specifications* and choose ✔.

   You can see that the model specification *RV-1101* has the status *1* (Released).

4. Select your item, then choose .

5. Choose *Class Assignment*.

   You can see the configuration profile assigned to class RV_1101.

6. Choose .

7. Choose *Dependencies*.

   The system displays an overview of the dependencies at configuration profile level. These dependencies are only valid for the model specifications RV-1101. The dependencies at class level are valid at class level for all classes in the model specifications (compare with steps in the previous activity).

8. Position your cursor on the dependency FLAECHE_BELAG, then choose *Basic data*.

   You can see that the dependency FLAECHE_BELAG is a procedure (indicator *Procedure* is set).

9. Choose *Dependency editor*.

The system displays a formula with similar syntax to ABAP/4. The value of the characteristic *STRASSENBELAG* results from the product of the values of the characteristics *LAENGE_ERDAUSHUB* and *BREITE_ERDAUSHUB*. The area of road surface to be removed is therefore completely dependent on the length and width of the hole that needs to be dug out.

10. Choose , until the *Display Dependency: Links to Objects* screen appears.
11. Repeat steps 8 through 10 for the other dependencies.

    The following list contains the characteristics and explanations for the corresponding assigned dependency:

    SEITENABSPERRUNG_SCHAL

    The characteristic should take on the value *Schaltafeln*, when the width of the hole (characteristic *BREITE_ERDAUSHUB*) is less than 2 meters, and the depth of the hole (characteristic *TIEFE_ERDAUSHUB*) is more than one meter.

    Or:

    This characteristic should take on the value *Spundwand*, when the width of the hole (characteristic *BREITE_ERDAUSHUB*) is more than 2 meters, and the depth of the hole (characteristic *TIEFE_ERDAUSHUB*) is more than one meter.

    VOLUMEN_ERDAUSHUB

    The value of the characteristic *VOLUMEN_ERDAUSHUB* is a result of the product of length multiplied by the width multiplied by the depth of the hole (characteristics *LAENGE_ERDAUSHUB*, *BREITE_ERDAUSHUB, TIEFE_ERDAUSHUB*)

    ROHR_MATERIAL_GUSS

    The characteristic *ROHR_MATERIAL* should have the value *Guss*, when the characteristic *ORT* has the value *Grünflachen*.

    ROHR_MATERIAL_STAHL

    The characteristic *ROHR_MATERIAL* should have the value *Stahl*, when the characteristic *ORT* has the value *Produktion*.

12. Choose until the overview tree appears.

Object Dependencies in Model Service Specifications

Use

The model service specification is the most specific level for storing object dependencies. While the object dependencies at the superior levels (class and configuration profile) decide characteristic attributes dependent on other characteristics (Example: Raw material is *Steel*, when working in a production area), here you store the rules that aid selection of single service lines according to type and quantity, dependent on the characteristic attributes (Example: Actual service line *Transportation of steel pipe* is pulled when the raw material is *Steel*).

Procedure

1. Call up the transaction as follows:

Menu Path	*Logistics → Materials Management → Service Master → Model Service Specifications → Display.*
Transaction Code	ML12

2. Enter the following data:

Field	Contents
Model service specification	RV-1101

3. Choose *Services*.

   The model service specifications contain all the service lines. In the actual purchasing document, the system should only display some of these lines according to your selected characteristic attributes. The quantities in the service lines are also partly affected by the object dependencies.

4. Position your cursor on the service line 20 (*Transportation of steel pipe*).

5. Choose *Goto → Object dependencies → Assignments*.

6. Position your cursor on the first dependency (*AUSWAHL_STAHL*), then choose *Dependency editor*.

   This is a selection condition: The service line should only be pulled when the characteristic *ROHR_MATERIAL* takes on the attribute *Stahl* during configuration. This is also the case when you enter the attribute *Produktion* for the characteristic *ORT* (see activity *Dependency ROHR_MATERIAL_STAHL*). The selection of the service line *Transportation of steel pipe* is now set.

7. Choose , until the *Display Dependency: Links to Objects* screen appears.

8. Position the cursor on the second dependency line (*UEBERNAHME_TRANSPORTWEG*).

   This is a procedure.

9. Choose *Dependency editor*.

   In the editor, the system has defined that the hidden characteristic *ESLL_MENGE* should have the value of the characteristic *TRANSPORTWEG* ($root.transportweg). The dependency of the characteristic to the quantity field in the model SS described in the previous activity, is used to pass on the value of the characteristic *TRANSPORTWEG*

into this quantity field. The necessary quantity for this service line is now set. You can now appreciate the central importance of the hidden characteristic *ESLL_MENGE*.

10. Choose until the *Display Model Service Specifications* screen reappears.
11. You can repeat steps 4 through 10 for service line 30 (*Transportation of cast iron pipe*) as required.

    This is an alternative to service line 20. The stored object dependency is the same as for service line 20 with regards to the quantity (dependency *UEBERNAHME_TRANSPORTWEG*). In contrast to line 20, the line is pulled dependent on the attribute GUSS for the characteristic ROHR_MATERIAL (dependency *AUSWAHL_GUSS*).

12. Repeat steps 4 and 5 for service line 40 (*Removal of road surface*).
13. Position your cursor on the first dependency (*UEBERTRAG_FLAECHE*), then choose *Dependency editor*.

    You can see that this time, the characteristic *ESLL-MENGE* is filled with the value of the characteristic *STRASSENBELAG* ($root.STRASSENBELAG). The characteristic *STRASSENBELAG* resulted from the product of the characteristics *LAENGE_ERDAUSHUB* and *BREITE_ERDAUSHUB.* Compare to the previous activity, *Dependency FLAECHE_BELAG*.

14. Choose until the *Display Model Service Specifications* screen reappears.
15. Repeat steps 4 through 10 for service line 50 (*Volume of hole*).

    The dependency stored here fills the quantity field in the same way as for line 40. This time the volume of earth is moved into the characteristic ESLL_MENGE using the characteristic ERDAUSHUB.

16. Repeat steps 4 and 5 for service line 60 (*Application of side barrier sheeting: Shuttering wood barrier*).
17. Position your cursor on the first dependency (*ABSPERRUNG_SCHAL*), then choose *Dependency editor*.

    This is a selection condition: The service line should only be pulled when the characteristic *SEITENABSPERRUNG* takes on the attribute *Schaltafeln* during configuration. This is also the case when you enter a value greater than 1m for the characteristic *TIEFE_ERDAUSHUB* (see previous activity, *Dependency SEITENABSPERRUNG_SCHAL*). The selection of the service line *Application of side barrier: Shuttering panel* is now set.

18. Choose .
19. Position your cursor on the second dependency (*UEBERTRAG_UMFANG*), then choose *Dependency editor*.

    The characteristic ESLL_MENGE is filled here also. This time, the dependency contains the following calculation formula: The system calculates a surcharge of 10% on the diameter of the hole (($root.laenge_erdaushub + $root.breite_erdaushub) * 2)). The quantity for this service line is now set.

20. Choose until the *Display Model Service Specifications* screen reappears.
21. If necessary, repeat steps 16 – 19 for service line 70 (*Application of side barrier: Sheet pile*).

This service line is an alternative service line 60, and is pulled when the characteristic *SEITENABSPERRUNG* takes on the attribute *Spundwand* during configuration. The quantity results in the same way as for line 60.

22. Repeat steps 4 through 10 for the other service lines.

    You should be now able to understand the following links between characteristic attributes and service selection in the context of object dependencies:

    If a production area is selected as the place where the work should occur (characteristic *ORT*), then the system should pull the service *Pipe-laying, production area* (line 80). The quantity in the service line is the same as the length of pipe to be laid (characteristic *ROHR_LAENGE*). Relationships to the service line: *ORT_PRODUKTION* and *UEBERTRAG_ROHRLAENGE*.

    If an open space is selected as the place where the work should occur (characteristic *ORT*), then the system should pull the service *Pipe-laying, open space* (line 90). The quantity in the service line is the same as the length of pipe to be laid (characteristic *ROHR_LAENGE*). Relationships to the service line: *ORT_PRODUKTION* and *UEBERTRAG_ROHRLAENGE*.

    If you enter 15cm as the diameter of the pipe to be laid (characteristic *ROHR_DURCHMESSER*) and the material to be used is *Steel*, then the system should pull the service *Laying steel pipe 1,5 cm* (line 100). The quantity in the service line is the same as the length of pipe to be laid (characteristic *ROHR_LAENGE*). Relationships to the service line: *STAHL_15* and *UEBERTRAG_ROHRLAENGE*.
    The same is valid for the service lines 110 – 150 that are also available as alternatives for selection (selection using the characteristic *ROHR_DURCHMESSER*).

    The quantity in service line 160 (Refilling) results in the same way as for line 50. Relationship: *UEBERTRAG_VOLUMEN.*

    The quantity in service line 170 (*Application of road surface*) results in the same way as for line 40 (*Removal of road surface*). Relationship: *UEBERTRAG_FLAECHE.*

    Note that some of the relationships (for example, UEBERTRAG_FLAECHE) are used in more than one service line. These are central relationships that are not edited in the service line in the model SS. Instead they are edited using a central maintenance function. To access this maintenance function, choose *Logistics* → *Central Functions* → *Variant Configuration* → *Relationships* → *Dependency* → *Create* or *Change*.

23. Choose until the overview tree appears.

Stand. Purchase Order with Configurable Model Service Specs.

1. Call up the transaction as follows:

Menu Path	From the *Materials Management* node, choose *Purchasing* → *Purchase Order* → *Create* → *Vendor/Supplying Plant Known*
Transaction Code	ME21N

You now have the option of setting default entries for the PO document. To do this, choose Default Settings for Order Document Fields [Page 179].

If you do modify your personal settings, this could mean that the entries you see on your screens might differ from those described in the IDES processes. To avoid this situation, when you have completed this process we strongly advise you to reset any changes you make to your personal settings.

2. Enter the following data:

Field	Europe	North America
	Standard PO	Standard PO
Vendor	1104	1105
Document date	Today's date	Today's date

3. Choose .
4. To open the item header area, choose *Header*.
5. On the *Org. data* tab page, enter the following data:

Field	Europe	North America
Purchasing org.	1000	3000
Purchasing group	001	010
Company code	1000	3000

6. To open the item overview area, choose *Item overview*.
7. Enter the following data:

Field	Europe	North America
Account assignment category	K	K
Item category	D	D
Delivery date	Today's date + 1 month	Today's date + 1 month
Material group	007	007

Plant	1000	3000
Storage location	0001	0001

8. Choose .

   The system displays a warning message.

9. In the item overview area, enter the following data:

Field	Data
Short text	Any

10. Choose .

11. Choose *Service selection*.

12. In the *Service Selection* dialog box, enter the following data:

Field	Data
Model serv. specs.	Select
Right-hand field	RV-1101

13. Choose .

   Note that on the *Characteristic Evaluation* screen, the characteristics *Road surface in m2* and *Volume of hole in m3* are not ready for input. The evaluation of these takes place using the characteristic values of the other characteristics (for example, the volume of the hole is calculated from the length, breadth, and depth of the hole: Compare with the previous activity). Furthermore, you cannot (yet) see the characteristic *Kind of barrier.* This characteristic is controlled by the system, so that it is appears ready for input only when the hole is deeper than 1 meter.

14. Enter the following data:

Field	Data
Location	Produktion
Pipe length in m	1000
Pipe diameter in cm	25
Transport distance in km	10
Length of hole in m	1000
Width of hole in m	1,5
Depth of hole in m	2

   You can enter the value either directly, by using the F4 help, or, if any are available, you can choose from the given characteristic values. To do this, choose, for example, the characteristic *Location* using the F4 help and select the characteristic value you want (for example, *Production area*). Choose .

15. Choose .

The system now fills in the resulting values/characteristics:

Characteristic	Value	Description
Pipe material	Steel	Pipe material should be steel when the place where work is occurring is a production area
Road surface in m2	1500	Length * Width of the hole
Volume of hole in m3	3000	Length * Width * Depth of the hole

You can also see that the characteristic *Kind of barrier* now appears, and that it is filled with the value *Shuttering wood.* In the previous activity (relationships in the configuration profile) we determined that the barrier should be made of shuttering panels where the width of the hole is less than 2m (relationship *ABSPERRUNG_SCHAL*).

16. Position your cursor on the line for the characteristic *Pipe material*, then choose .

    The system now displays an information dialog box, where you can see that the value of the characteristic *Pipe material* was set by procedure *ROHR_MATERIAL_STAHL*.

17. Position the cursor on the procedure *ROHR_MATERIAL_STAHL* and choose *Detail*.

    In the *Display Procedure: XXX* dialog box, the system displays the source text for the procedure and the attributes of the characteristics that both influence (*$SELF .Location*) and result from (*$SELF .Pipe material*) the procedure. Choose .

18. Choose .

19. Repeat steps 16 through 18 for as many characteristics as you want. Try to understand the stored relationships.

    You should concentrate particularly on reproducing the resulting characteristics *Road surface in m2, Volume of hole in m3* and the characteristic *Kind of barrier*.

20. Choose .

21. To skip the warning message, choose .

22. On the *Account Assignment of Service in Line XXX* dialog box, enter the following data:

Field	Data
Cost center	4220

23. Choose *Auto repeat AA Automatic.*

    The system automatically sets the account assignment to cost center 4220 for all the determined service lines for the PO item.

    The system now displays a list of automatically selected service lines, based on the characteristic valuation you performed previously.

24. Choose .

25. Choose until the overview tree appears.

Quality Management in Materials Management

Purpose

This process describes the interaction of Quality Management with Materials Management. It applies to all branches of industry.

You can learn about the functions of the R/3 application component QM in their basic form in this process. You should use this process as the starting point for the QM application and then look at the other, often industry-specific QM processes.

We recommend that you follow the suggested process flow. However, it is possible for you to run each of the processes individually.

You can find the data for this process under [Ext.].

Process Flow

1. Quality Management in Procurement and Storage [Ext.]

   Quality Management can be used to guide purchasing and inventory management activities. For the main part, it consists of releasing supply relationships, source and receiving inspections, managing stocks during quality inspections, and quality documents.

2. Acceptance Inspection [Ext.]

   The detailed inspection lot processing scenario explains inspection planning, sample creation, printing of shop papers for inspectors, recording of inspection results - characteristic values and defect data -, and it describes how appraisal costs are settled.

3. Quality Notifications as Complaints Against the Vendor [Ext.]

   You see how a defect determined in quality inspection is analyzed and documented in a quality notification. The measures required to correct the problem include a complaint against the vendor and the processing of returns.

4. Quality Control [Ext.]

   Quality control includes vendor evaluation, quality analysis in the QM Information System, and statistical process control using control charts.

5. Quality Management of Batches [Ext.]

   These processes show you how to inspect, classify, and monitor materials that are managed in batches.

6. Quality Management in Sales and Distribution [Ext.]

   Quality Management is linked to sales and distribution processes. Quality documents, quality inspections, and quality records can be controlled independent of customer and material.