

Customer Service (CS)



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Icons

Icon	Meaning
	Caution
	Example
	Note
	Recommendation
	Syntax

Typographic Conventions

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

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Customer Service (CS)

Overview

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Service Processing

[Selling a Serialized Product and Creating an Equipment Master Record \[Page 20\]](#)

[Service Management - Spare Part Delivery \[Page 30\]](#)

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Service Contracts

[Processing Service Contracts with Periodic Billing \[Page 115\]](#)

[Service Processing and Resource-Related Billing with a Service Contract \[Page 139\]](#)

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Controlling

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Workflow in Customer Service

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Overview

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Customer Service (CS) in IDES

Customer Service (CS) in IDES

The following documentation displays the organization of the Customer Service in IDES as well as the embedding of this service organization into the complete IDES enterprise. Above that, you will get an overview on the characteristics and specifications of the Customer Service module within IDES.

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[Organization \[Page 12\]](#)

[Characteristic Values and Special Features \[Page 14\]](#)

[Note for IDES Processes in the Customer Service Area \[Page 18\]](#)



Introduction

The IDES AG produces PC workstations for use in commercial or technical areas. The enterprise offers services for these products (installation, maintenance, repair). For some customers, the service agreements are determined via service contracts. Other customers, however, order services individually. The service measures are carried out either in the IDES service plant or at the customer location.

Organization



Organization

Planning Plant

The workstations are produced in the Dresden plant (1200) of the IDES AG (production plant). This plant is responsible for the planning and preparation of service measures (maintenance planning plant). The service measures are also executed in plant 1200.

Plant	Description
1200	Dresden

Work Center

Service technicians are collected into service groups using work places.

Work center	Description	Assigned Technician (personnel number)
PC-SERV	TS technician north (DE)	1522, 1523, 1525, 1528, 1529
PC-SERVS	TS technician south (DE)	1504, 1505, 1500
PC-REP	Repair center	1955, 1956
PC-HELP	Help desk	1957, 1958

Planner Groups

There are three planner groups in the service plant that are responsible for materials planning for the work centers.

Planner group	Description
200	Service north
201	Service south
202	Repair service

Sales Organization in the Service Area

The sale of services and spare parts is handled by sales organization 1000. All sales activities in the service area are represented in this sales organization through an individual distribution channel. Sales in IDES occur across divisions through division 00. The following table lists the combinations of sales organization, distribution channel, and division that represent the sales area. This is used to enter all contracts, replacement part orders and other sales orders in the service area.

Organizational Unit	Key	Description
Sales organization	1000	Germany
Distribution channel	14	Service
Division	00	Cross-divisional

Integration with Financial Accounting

Service plant 1200 is assigned to company code IDES AG. Within this company code, the service represents its own business area. The service objects are assigned to this company code and business area. This assignment is transferred to a service order for this object. For service contracts, replacement part orders, and other sales orders, business area 8000 is derived from the sales area 1000/14/00.

Organizational Unit	Key	Description
Company code	1000	IDES AG
Business area	8000	External service

Integration with Controlling

Company code 1000 belongs to controlling area 1000 (Europe). From the Profitability Analysis perspective, this controlling area belongs to operating concern IDEA.

Organizational Unit	Key	Description
Controlling area	1000	CO Europe
Operating concern	IDEA	Operating concern IDES global

Integration with Materials Management

From the Materials Management perspective, all materials used for service measures are administered in plant 1200. Replacement parts and external services are procured via sales organization 1000.

Organizational Unit	Key	Description
Plant	1200	Dresden
Warehouse	0001; 1500 to 1507	Material storage; Service vehicles 1 to 8
Purch. organization	1000	IDES Germany

Characteristic Values and Special Features



Characteristic Values and Special Features

Service Customer

IDES provides services for external customers. Long-term contracts exist for specific customers to process the service agreements.

Customer number	Name	Service contracts
1032	Institute for Environmental Studies	Yes
1034	ERL Freiburg	Yes
1171	Hitech AG	No
1172	CBD Computer Based Design	Yes
1177	Computer Competence Center AG	No
2141	Jasper's Computer	Yes

Service Objects

Equipment

IDES uses equipment as technical reference objects for services. An equipment master record exists for each workstation delivered to a customer. This means that each work station is an individual, physical object, which is viewed individually from the service perspective. The equipment master record also has serialization data (a unique combination of material number and serial number). This ensures that the equipment is also recorded for stock purposes as a serialized material.

Functional Locations

The equipment delivered to the customer is included in a functional location. The functional locations are used to organize the customer's company structure according to functional and spatial viewpoints. Assuming that a hierarchical structure exists, the following list shows the highest level of the relevant location hierarchy.

Functional Locations	Description
1171	Hitech
1172	CBD Computer Based Design
1177	Computer Competence Center AG
1032	Institute for Environmental Studies
1034	ERL Freiburg
2141	Jasper's Computer

Characteristic Values and Special Features

Bills of Materials

The BOM of this material is used to describe the structure of the service object. This material BOM is indirectly assigned to each equipment through the construction type entered in the equipment master record. The BOM is also used to enter components and spare parts in Service Management.

The following list describes the BOM of material R-1001:

Material	Description
R-1001	Maxitec R-3100 Personal Computer

Component	Description
R-1111	Main circuit board 3100
R-1120	Cable 220/235 V with safety plug
R-1130	Keyboard, English international
R-1140	PAQ screen, 17", color
R-1150	Floppy disk drive, 3.5", HD
R-1160	Hard disk, 4.3 GB
R-1170	Slimline PC casing

Service Products

The services provided by IDES are described as service products using a product master record. In those cases in which the characteristic attributes of the given service have varying characteristics, the services are offered as either configurable or pre-configured products.

The following list shows the material numbers of the service products used in the IDES services:

service product	Description	Comment
HOTLINE_SERVICE	Hotline service	Configurable
HOTLINE_SERVICE_A	Hotline service package A (Mo-Fr/3h)	Pre-configured
HOTLINE_SERVICE_B	Hotline service package B (24h/3h)	Pre-configured
PC_SERVICE_CONF	PC Service	Configurable
PC_SERVICE_CONF	PC Service plus	Pre-configured
REPAIR_SERVICE	Desktop repair service	
INSPECTION_SERVICE	Inspection service	Configurable
SM-PCREP	PC repair	
SM-NETINST	Network installation	Configurable

Characteristic Values and Special Features

Service Contracts

IDES contains all the service contracts listed in the table below. The table lists the customer number and the characteristic attributes of each contract. The technical reference object of the contracts is the functional location. Provided that a location hierarchy exists, the highest level of this hierarchy is the reference object. The contract therefore comprises all equipment included in a functional location of the customer.

Document number	Customer	Characteristic attribute
40000073	1032	Configurable service product Transfer from response profile and service profile to service notifications Variant conditions Price agreement in the form of a percentage discount for individual spare parts Reference object = functional location 1032
40000074	1034	Configurable service product Transfer from response profile and service profile to service notifications Variant conditions Price agreement in the form of a percentage discount for individual spare parts Reference object = functional location 1034
40000075	1172	Pre-configured service product Transfer from response profile and service profile to service notifications Price agreement in the form of a percentage discount for the material group "spare parts" and for individual spare parts; Condition exclusion for transfer to spare parts orders or for resource-related billing Reference object = functional location 1172
40000076	2141	Simple service product Price agreement in the form of a 100 % discount for the material group "spare parts" Reference object = functional location 2141

Periodic Billing and Settlement

The service contracts available in IDES are billed and settled monthly by job processing. This automated periodic billing and settlement ensures that the sales information system and Profitability Analysis are continually supplied with data from Service Management.

The billing and settlement is executed by the jobs SM_01 and SM_02, which are automatically started by the system at the beginning of each month with the user name IDADMIN (see *System* → *Services* → *Jobs* → *Job Overview*).

Note for IDES Processes in the Customer Service Area**Note for IDES Processes in the Customer Service Area**

Each IDES process in the area of Customer Service can be executed using data existing in the system, independently from other processes. The sequence of the processes, however, also enables you in some processes to use data that you created in a preceding process. If this is the case, the accompanying process documentation describes both possibilities.

In the process for the controlling of services, the report displays current data even if the preceding processes have not yet been executed. This is because the service contracts in IDES are billed and settled automatically each month.

Service Processing

[Selling a Serialized Product and Creating an Equipment Master Record \[Page 20\]](#)

[Customer Service - Spare Part Delivery \[Page 30\]](#)

[Performing a Service Order and Billing \[Page 36\]](#)

[Returns and Repair Processing \[Page 59\]](#)

[Creating a Service Order from a Sales Order \[Page 85\]](#)

[Processing Telephone Calls in a Call Center \[Page 104\]](#)

Selling a Serialized Product and Creating an Equipment Master Record

Selling a Serialized Product and Creating an Equipment Master Record

Purpose

The customer orders a personal computer. During outbound delivery, serial numbers are used to determine which individual units of the material are to be delivered to the customer. IDES uses equipment as the technical reference object for service processing. This means that you need to create additional equipment data following the outbound delivery to a customer.

Process Flow

You can find the data for this process under [?](#) [Page 21].

1. [Creating a Sales Order for a Serialized Product \[Page 22\]](#)
2. [Creating a Delivery \[Page 23\]](#)
3. [Creating a Billing Document \[Page 25\]](#)
4. [Checking the Sales Document Flow \(Optional\) \[Page 26\]](#)
5. [Creating the Equipment Data \[Page 27\]](#)
6. [Related IDES Processes \[Page 29\]](#)

Data Used During This Process

Field	Data	Description
Order type	TA	Order type (SD)
Sales organization	1000	Sales organization (SD)
Distribution channel	10	Distribution channel (SD)
Division	00	High-tech division (SD)
Sold-to party	1171	Customer number
Material	R-1001	Desktop Computer
Plant	1200	
Warehouse number	012	Warehouse Dresden / Atlanta
Business area	8000	Business area
Maintenance planning plant	1200	Planning Plant (PM)
Maintenance plant	1200	Maintenance Plant (PM)

Creating a Sales Order for a Serialized Product


Creating a Sales Order for a Serialized Product

1. Call up the transaction as follows:

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


2. Enter the following data:


Field	Data
Order type	TA
Sales organization	1000
Distribution channel	10
Division	00

3. Choose .

4. Enter the following data:

Field	Data
Sold-to party	1171
Purch. order no.	TA-1171-SM
Req. deliv. date	Current date + 7 working days
Material	R-1001
Order quantity	2

5. Choose .

6. In the dialog, box choose .




The system produces a BOM explosion. This generates additional items which serve as an explanation.

7. Choose the *Shipping* tab page, and note the material staging date of the first item.

8. Choose .

9. Make a note of the sales order number.

10. Choose  until the overview tree appears.

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

Creating a Delivery

1. Call up the transaction as follows:

Menu Path	<i>Logistics → Sales and Distribution → Shipping and Transportation → Outbound Delivery → Create → Single Document → With Reference to Sales Order</i>
Transaction Code	VL01N, LT03

2. Enter the following data:

Field	Data
Shipping point	1200
Selection date	Material staging date
Order	Sales order number
From item	No entry
To item	No entry

3. Choose .

You now see the overview screen for the delivery document.

4. Select the first item, then choose *Extras → Serial numbers*.

The *Maintain Serial Numbers* dialog box appears.

5. Choose .

6. In the *Serial number selection* screen area, enter the following data:

Field	Data
Plant	1200
Storage location	0001

7. Choose .



The system produces a list of serial numbers occurring in the specified plant and storage location.

8. Select the first two entries in the list, then choose .

9. Make a note of the selected serial numbers.

10. Choose .

11. Choose *Subsequent functions → Create transfer order*.


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

13. Enter the following data:

Field	Data


Creating a Delivery

Warehouse number	012
Plant	1200
Delivery	Proposed by the system
Foreground/Background	Background
Adopt picking quantity	2

14. Choose .

15. Note the delivery number.

The system creates a transfer order for picking the delivery quantities. The option 2 (Adopt picking quantity) means that the goods issue is posted immediately for that delivery.

16. Choose  until the overview tree appears.



Creating a Billing Document

1. Call up the transaction as follows:


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

2. Enter the following data:

Field	Data
Document	Your delivery number

3. To display the overview of the billing item, choose .
4. To create the billing document, choose .

You see the number of the new billing document. The system posts the corresponding accounting documents in the background.

5. Choose  until the overview tree appears.

Checking the Sales Document Flow (Optional)


Checking the Sales Document Flow (Optional)


1. Call up the transaction as follows:


Menu Path	<i>Logistics → Sales and Distribution → Sales → Order → Display</i>
Transaction Code	VA03

2. Enter the following data:

Field	Data
Order	Your sales order number

3. Choose .

You now see the document flow for all documents involved in this sales process. To display any of the documents, position your cursor on the relevant line, then choose  *Display document*.

4. Choose  until the overview tree appears.

Creating the Equipment Data

Use

When the PC has been delivered to the customer, you create equipment data for the individual items.




Procedure

1. Call up the transaction as follows:

Menu Path	<i>Logistics → Customer Service → Technical Objects → Serial Numbers → List Editing → Change</i>
Transaction Code	IQ08, IQ02

2. Enter the following data:


Field	Data
Material	R-1001
Current customer (in the <i>Serial number selection</i> screen area)	1171

3. To start the serial number selection, choose .
4. Select the serial numbers you have noted.
5. Choose .
6. Choose  *Equipment view*.

You can also maintain the equipment data.

7. Choose the *Sales and Distribution* tab page.
8. Enter the following data:


Field	Data
Sales org.	1000
Distrib. channel	14
Division	00


9. Choose the *Organization* tab page.
10. To confirm possible warning messages, choose .
11. Enter the following data:


Field	Data
Company code	1000
Business area	8000
Planning Plant	1200
Planning group	200

Creating the Equipment Data

Main WorkCtr	PC-SERV / 1200
Catalog profile	PC


12. Choose .

13. To confirm possible warning messages, choose .

14. Choose .



You can now process the second serial number. Make the same entries for this serial number.

15. Choose  until the overview tree appears.

Related IDES Processes

You could now continue with one of the following business processes:

1. [Customer Service - Spare Part Delivery \[Page 30\]](#)
2. [Processing a Service Order and Billing \[Page 36\]](#)
3. [Returns and Repair Processing \[Page 59\]](#)

Service Management - Spare Part Delivery

Service Management - Spare Part Delivery

Purpose

The customer reports a damaged part on a piece of equipment. The information about the equipment, customer, and damage is stored in a service notification. The object information screen displays the structure of the equipment (material number of the spare parts).

A sales order is generated directly from the notification and processed when the spare part information is entered. When the notification is saved, the sales order is also saved in the background.

Process Flow

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

1. [Creating a Service Notification and a Spare Parts Order \[Page 32\]](#)
2. [Creating a Spare Parts Order \[Page 158\]](#)
3. [Creating a Billing Document \[Page 159\]](#)



Instead of working with the defaulted equipment number, you can also create your own equipment number if you first run the process [Selling a Serialized Product and Creating an Equipment Master Record \[Page 20\]](#) .

Data Used During This Process

Data Used During This Process

Field	Data	Description
Warehouse number	012	Warehouse Dresden or Atlanta
Plant	1200	Plant of the model company
Material number	R-1001 R-1120	Desktop Computer cable / spare part
Sales organization	1000	Sales organization (SD)
Distribution channel	14	Distribution channel (SD)
Division	00	Division (SD)
Sold-to party	1171	Customer number
Equipment	10003562 or equipment from previous process	Equipment (PM)
Planning plant	1200	Planning plant (PM)

Creating a Service Notification and a Spare Parts Order


Creating a Service Notification and a Spare Parts Order

1. Call up the transaction as follows:

Menu Path	<i>Logistics → Customer Service → Service Processing → Notification → Create (Special) → Problem Notification</i>
Transaction Code	IW54

2. Enter the following data:


Field	Data
Equipment	10003562 or equipment from previous process




3. Choose .
4. Choose the *Contact person address* tab page.
5. Enter the following data:

Field	Data
Description (notification)	Defective cable, replacement required.
Contact person	Choose a contact person using the F4 help





You access the list of contact persons by positioning your cursor in the second entry field of the *Contact person* line and choosing the F4 help button.

In the *Hit List* dialog box, position your cursor on a contact person and choose .

6. Choose .
7. To check the object information for your equipment, in the *Reference object* section, choose .
8. In the *Object Information* dialog box, choose  (*Obj. Display* section).







The system displays information about spare parts that you can use for your object.

9. To return to the *Create Service Notification: Service Notification* screen, choose , then choose .
10. To create the spare parts order for the customer equipment directly from the service notification, choose *Service notification → Create sales order → Standard*.
11. Enter the following data:

Field	Data
Purch. order no.	ERS-1171-SM
Material	R-1120
Order quantity	1

Creating a Service Notification and a Spare Parts Order

12. Choose .
13. Choose the *Shipping* tab page and note the material availability date.
14. Choose .
15. Choose .
The system saves the notification and the sales order. Make a note of the notification and sales order numbers.
16. Choose  until the overview tree appears. In the dialog box, choose *No*.

Creating a Spare Parts Order


Creating a Spare Parts Order

1. Call up the transaction as follows:


Menu Path	<i>Logistics → Sales and Distribution → Shipping and Transportation → Outbound Delivery → Create → Single Document → With Reference to Sales Order</i>
Transaction Code	VL01N, LT03

2. Enter the following data:

Field	Data
Shipping point	1200
Selection date	Material availability date
Order	Number of your order
From item	No entry required
To item	No entry required


3. Choose .
4. Choose *Subsequent functions → Create transfer order*.
5. In the dialog box, choose Yes.
6. Enter the following data:

Field	Data
Warehouse number	012
Plant	1200
Delivery	Proposed by the system
Foreground/background	Background
Adopt pick. quantity	2

7. Choose .



The system creates a transfer order for picking the delivery quantity. The option 2 (Adopt picking quantity) means that the goods issue is posted immediately for that delivery.

8. Note down your delivery number.
9. Choose  until the overview tree appears.



Creating the Billing Document

1. Call up the transaction as follows:

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


2. Enter the following data:

Field	Data
Document	Your delivery number

3. To display the overview of the billing items, choose .
4. Choose .



The system posts the corresponding accounting documents in the background.

5. Choose  until the overview tree appears.

Performing a Service Order and Billing

Performing a Service Order and Billing

Purpose

In response to a problem notification, a service order is created for the repair of an installed equipment at the customer site. After completion of the service order, the repair is billed to the customer.

You can find more information about this process under [i](#) [Page 37].

Process Flow

You can find the data for this process under [?](#) [Page 41].

1. [Creating the Initial Situation \[Page 42\]](#)
2. [Entering a Problem Notification and Creating a Service Order \[Page 43\]](#)
3. [Processing a Service Order \[Page 45\]](#)
4. [Confirming a Service Order \[Page 47\]](#)
5. [Creating a Billing Request \(Resource-Related Billing\) \[Page 50\]](#)
6. [Creating a Billing Document \[Page 52\]](#)
7. [Settling and Completing the Service Order \[Page 53\]](#)
8. [Displaying Line Items in Profitability Analysis \[Page 55\]](#)
9. [Displaying a CS Report in Profitability Analysis \[Page 57\]](#)



Instead of working with the default equipment number, you can also create your own equipment number if you first run the [Selling a Serialized Product and Creating an Equipment Master Record \[Page 20\]](#) process.

Additional Process Information

Additional Process Information


The following, additional information is aimed at IDES users who are already familiar with Customizing for the application components CS (Customer Service) and SD (Sales and Distribution). The aim is to show the billing of a service order from a Customizing perspective using the data contained in this process. Because this text refers to this IDES demo, you should read it after completing the process flow.

Dynamic Item Processor Profile (DIP Profile)


Derivation of Sales Materials

When you execute the service order, costs are incurred due to internal activities, external activities, or material consumption. These costs are posted to the service order, where they form the basis for a billing request. The service order is billed to the customer using the billing document generated by the billing request. The cost data of the order are converted to billing request items through dynamic items. These dynamic items are created when the billing request is generated. You copy information from the service order. The R/3 System uses this information to generate the billing request items. The rules for structuring the dynamic items and for converting these items into material numbers for the billing request items are defined in Customizing using the dynamic item processor profile (DIP profile).

You also use Customizing to determine that DIP profile 00000001 is the automatic default for service order type SM02, which was used to create the service order in this IDES process.

(see  *SAP Reference IMG: Plant Maintenance and Customer Service → Maintenance and Service Processing → Maintenance and Service Orders → Functions and Settings for Order Types → Credit Limit Checks, Sales Document Types for Service Orders*).

In this IDES process, order costs are incurred due to two activity confirmations with activity type 1410 for cost center 4100, and due to the consumption of materials R-1150 and R-1160. The rules of the DIP profile 00000001 are explained based on this information.

(see  *SAP Reference IMG: Plant Maintenance and Customer Service → Maintenance and Service Processing → Basic Settings → Quotation Creation and Billing for Service Orders → Profiles for Quotation Creation, Billing, Results Analysis*).

When creating the billing request, the system takes the entries for usage 1 (that is, billing and calculation of profits).

On the level “Sources”, it has been defined for this use that source 0001 (that is, actual costs – line items) is evaluated for the creation of dynamic items.

The line items created due to the first activity confirmation contains the information that the costs were incurred under activity type 1410 in cost center 4100. On the level “Characteristics”, the characteristics “cost center” and “activity type” has been marked as relevant for usage 1. Thus, the system copies activity type 1410 and cost center 4100 from the line item to the dynamic item. They can now be used for further processing. Both characteristics are used to derive a material for the billing request (see indicator “Material determination”). With regard to the characteristics relevant for the creation of a dynamic item, the line item of the second activity confirmation is identical to the first line item. The system therefore creates one common dynamic item for both line items that displays the sum of the costs incurred.

On the level “Material determination”, the system lists the material SM-REPHOUR. It is therefore one of the materials intended for transfer to a billing request item.

Additional Process Information

On the "Criterion" level, it has been defined that this material is derived from the criteria "cost center" and "activity type". The criterion "cost center" is met if the cost center of the dynamic item corresponds to a value of set SM-CC1. The set SM-CC1 contains the cost center 4100.

(see: *Accounting* → *Financial Accounting* → *Special Purpose Ledger* → *Tools* → *Set maintenance* → *Sets* → *Display*).

The criterion "Activity type" is met if the activity type of the dynamic item corresponds to a value of set SM-AT1. Set SM-AT1 contains the value 1410. Both criteria have been met in this example. The material number SM-REPHOUR is therefore allocated to the dynamic item.

The line item created due to the withdrawal of material R-1150 contains, for example, information about the cost element and the material number. The characteristic "Cost element" and "Material" are relevant for the creation of dynamic items and are therefore copied to the dynamic item. The characteristic "Cost element" is used for material determination. On the level "Material determination" you will find an entry without a material number where the indicator "Direct material" is set. This indicator ensures that the R/3 System assigns the material contained in the line item to the dynamic item. On the level "Criteria", it is defined that this type of assignment only occurs if the line item was posted to the cost element in the set CO-PC-MAT. This set comprises the cost elements used to post material consumption. In this example, the withdrawal of material R-1150 was posted under cost element 410000. This cost element belongs to the cost element set CO-PC-MAT. This means that the criteria for the material determination have been fulfilled, and that the material R-1150 contained in the line item is transferred to the dynamic item.

The line items for the consumption posting of material R-1160 leads to a separate dynamic item as the characteristic "Material" has a different value. The material determination is processed according to the same logic described above.

Billing Form

The billing form for the service order decides whether the order is billed as flat rate or resource-related. To make this distinction, information about the billing form must be available when the billing request is created. For this reason the billing form is selected as a relevant characteristic.

Product

The characteristic "Product" is marked as relevant for further processing. This control data is a prerequisite for copying a service product specified in the service order to the billing request.

Accounting Indicator

When posting the material consumption for material R-1150, the system enters the accounting indicator K1 (goodwill 100%). This entry is copied to the line item. The accounting indicator is also a relevant characteristic in the DIP profile 00000001 for usage 1. The entries concerning the accounting indicator are therefore copied from the line item to the dynamic item. The accounting indicator can thus be used to price the billing request item resulting from the dynamic item. The costing sheet PSER02 used in the billing request contains the condition type KBM1 (goodwill/warranty). The access sequence assigned to this condition type allows you to enter condition records dependent on the accounting indicator. In this example, there is a condition record that determines a 100 per cent deduction if the accounting indicator K1 is available.

To avoid the summarization of several dynamic items with various accounting indicators in one billing request item, the indicator "No summarization" was set in the DIP profile for the characteristic "Accounting indicator".

Additional Process Information

Transferring Costs into the Billing Request

You can also determine for which condition types entries can be made for the document type of the billing request on the overview screen of the dynamic items. You must specify the defined condition type if the costs of the dynamic items should be copied to the price determination of the respective billing request items. In this example, the costs are copied to the condition type EK01 (see SAP Reference IMG: *Plant Maintenance and Customer Service* → *Maintenance and Service Processing* → *Basic Settings* → *Quotation Creation and Billing for Service Orders* → *Assign Conditions to Sales Document Types*).

Item Category Determination

When a service order is billed, the billing form determines whether the order is billed at flat rate (billing form = 01) or resource-related (billing form = 02). In this IDES process, we offer an example for resource-related billing. We explain item category determination for creating the billing request for this example:

The billing form is not explicitly specified. In this case, the system assumes a resource-related billing. The service order is created without entering a service product in this example. When creating the billing request, the dynamic items become the main items of the sales document. With resource-related billing, the item category determination for the dynamic items is processed with the item usage SEIN.


Item category determination for items with material SM-REPHOUR is executed using the following entry:

Sales document type *LV* + item category group *LEIS* + usage *SEIN* → L2N.

Item category determination for items with material R-1150 or R-1160 is executed using the following entry:

Sales document type *LV* + item category group *NORM* + usage *SEIN* → L2N.

Item category L2N is priced, then it is billed.

(See  SAP Reference IMG: *Sales and Distribution* → *Sales* → *Sales Documents* → *Sales Document Item* → *Assign Item Categories* or *Define Item Categories*).

Data Used During This Process

Field	Europe	Description
Plant	1200	
Material numbers	R-1150 R-1160 SM-REPHOUR SM-PCREP	Disk drive / spare part hard disk drive / spare part repair hours Service product
Service order type	SM02	Service order type (revenues)
Sales organization	1000	Sales organization (SD)
Distribution channel	14	Distribution channel (SD)
Division	00	Division (SD)
Sold-to party	1171	Customer number
Equipment	10003562 or equipment from previous process	
Planning Plant	1200	
Maintenance plant	1200	
Business area	8000	
Operating concern	IDEA	Global IDES
Type of profitability analysis	Costing-based	
Report	IDES-090	SM reporting

Creating the Initial Situation

Creating the Initial Situation

Use

You start a CATT procedure that performs an inventory posting for the materials used in the process. This ensures that the process can run through several times.


Procedure

6. Call up the transaction as follows:

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

7. Enter the following data:

Field	Data
Test case	ZIDES_SMASC03


8. Choose .

9. Enter the following data:

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

10. Choose .

In the bottom part of the screen, the system displays which transactions are being processed. When the process flow is completed, the system notifies you that a document number has been assigned for the inventory posting.

11. Choose  until the overview tree appears.

Entering a Problem Notification and Creating a Service Order

Use

The customer informs you about a defective piece of equipment. You accept a problem notification and enter the notification data in the system. The service order is created directly from problem notification processing.

Procedure

1. Call up the transaction as follows:

Menu Path	<i>Logistics → Customer Service → Service Processing → Notification → Create (Special) → Problem Notification</i>
Transaction Code	IW54

2. Enter the following data:

Field	Data
Equipment	10003562 or equipment from previous process

3. Choose .



The system copies further information from the equipment master record into the notification (for example, sold-to party, functional location).

4. Enter the following data:


Field	Data
Notification (in the first line)	Hard disk + CD disk drive defective

5. Choose .

6. Check the object information, by selecting  in the section *Reference object*.

The dialog box informs you which notifications and orders were entered regarding this equipment.

7. Choose .


8. To create a service order directly from notification processing, choose .

The *Create order* dialog box appears.

9. Choose .

10. In the *First operation* screen area, enter the following data:

Field	Data
Operation	Check/change hard disk + CD disk drive

11. Choose .


Entering a Problem Notification and Creating a Service Order

The system proposes further information necessary from the equipment master record into the service order (for example, work center).


12. Choose *Extras* → *Sales data*.

You can recognize that the service order is assigned to a sales organization (that is, a combination of the sales organization, distribution channel, and division). This proposal was also taken from the equipment master record data. The assignment of a sales area is required for service order billing.

13. Choose .


14. To put the order in process, choose .

15. Select *W/o print*, then choose .

16. To confirm possible warning messages, choose .

The system saves the service order and the corresponding notification.

17. Note the number of the order.

18. Choose , until the overview tree appears..

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

Processing a Service Order

Use

In the following process, you play the role of a service employee who is responsible for repairing the equipment. First of all, you plan the work to be performed in the service order.



Procedure

1. Call up the transaction as follows:


Menu Path	<i>Logistics → Customer Service → Service Processing → Order → Service Order → Change</i>
Transaction Code	IW32

2. Enter the following data:




Field	Data
Order	Number of your service order

3. Choose .
4. To check the object information for your piece of equipment, choose  in the *Reference object* section.

The notification that triggered the service order is listed here.


5. Choose .
6. Enter the following data:

Field	Data
Work durtn (in the section 'First operation')	2

7. Choose .
8. Choose the *Components* tab page.
9. To call up the Structure list, choose  *List*.
The structure list informs you about the components of the equipment to be repaired. The materials necessary for processing the repairs can be copied from this list into the service order.
10. Select the materials R-1150 and R-1160, then choose .

11. Enter the following data:

Field	Data
SLoc (in the line for material R-1150)	1500 (overwrite the default value)
SLoc (in the line for material R-1160)	1500 (overwrite the default value)

12. Choose .





Processing a Service Order


The system calculates the planned costs of the order according to the entries made for the planned working hours and the materials necessary.

13. Choose *Extras* → *Cost reports* → *Plan/actual comparison*.

The planned costs are displayed under the corresponding cost element types.

14. Choose .

15. Choose .

16. Choose  until the overview tree appears.

Confirming a Service Order

Use

You confirm the effort necessary for the repair now. It is assumed that you enter the effort in two partial confirmations. All materials used for the repair are also confirmed. You decide whether the floppy disk drive is exchanged for goodwill.

Procedure

1. Call up the transaction as follows:

Menu Path	<i>Logistics → Customer Service → Service Processing → Confirmation → Entry → Individual Confirmation (Time)</i>
Transaction Code	IW41


2. Enter the following data:

Field	Data
Order	Your order number

3. Choose .

4. Enter the following data:

Field	Data
Actual work	1
Final confirmat	Deselect
Clear open res.	Deselect
Work start	Current date
Work end	Current date


5. Choose .

6. Choose .

7. Enter the following data:

Field	Data
Order	Your order number

8. Choose  *Parameters*.

9. In the *Goods movements* area, select *All comps*, then choose .




Setting this indicator causes the system to display all the materials assigned to the operation to be confirmed in the goods movement overview.

10. Choose .

Confirming a Service Order

11. Enter the following data:

Field	Data
Actual work	2
Work start	Current date
Work end	Current date

12. Choose .

13. Choose  *Goods movements*.

The materials assigned to the operation are listed. The withdrawal of the materials listed here is posted when the confirmation is saved.

14. Move the screen section to the right by scrolling the horizontal scrollbar until you can see the column *Accounting Indicator (Alnd)*.


15. Enter the following data:

Field	Data
Alnd (in the line of material R-1150)	K1



Using the accounting indicator, you can differentiate between costs in service processing. When billing the service order, the accounting indicator K1 leads to a price reduction of 100 %. All costs marked with this accounting indicator are therefore not billed to the customer.

16. Choose .

17. Choose  until the overview tree appears.

18. Call up the transaction as follows:

Menu Path	<i>Logistics → Customer Service → Service Processing → Order → Service Order → Change</i>
Transaction Code	IW32

19. Enter the following data:

Field	Data
Order	Your order number

20. Choose .


21. Choose *Extras → Cost Reports → Planned/actual comparison*.

The completion confirmation has caused the order to be debited with actual costs. These are compared to the planned costs.

22. Choose .

23. To complete your order, choose .

24. In the dialog box, choose .

25. Choose  until the overview tree appears.

Creating a Billing Request (Resource-Related Billing)

Creating a Billing Request (Resource-Related Billing)

Prerequisites

In this step, you create a billing request for the processed service order. No particular billing form is specified in the service order. In this case, the system assumes a resource-related billing.

Procedure

1. Call up the transaction as follows:

Menu Path	<i>Logistics → Customer Service → Service Processing → Completion → Create Billing Request → Process Individually</i>
Transaction Code	DP90, VA02

2. Enter the following data:

Field	Data
Service order	Number of your service order
Posting date to	Today's date

3. Choose  *Expenses*.

The service order costs incurred due to material consumption and the repair hours are listed. The costs incurred due to the work hours are summarized under the material number SM-REPHOUR. The costs incurred due to the material consumption are displayed under each respective material number.

4. Move the screen section to the right by scrolling the horizontal scrollbar until you can see the column *Alnd* (Accounting Indicator).

The system transfers the information that the accounting indicator K1 (goodwill 100%) has been specified on confirmation of the withdrawal of the hardiest.

5. Choose  *Sales price*.

The *Billing request for resource-related billing document <new>*: *Sales price* screen appears.

6. Position your cursor on the *billing request* row, then choose .

The system displays the billing request items that are generated when you save on the second level. The expenses and value (column *Net value*) with which the expenses are billed are compared with one another.

7. To call up the sales price determination, double-click on the row for material *R-1150* (floppy disk drive).

The costs have been copied to the condition EK01 (actual costs). The material has a price (condition type PR00) with which it is invoiced. Due to accounting indicator K1, however, the invoice is issued with a price reduction of 100% with condition type KBM1 (goodwill/guarantee).

8. Double-click on the row for material *R-1160* (harddisk).

Creating a Billing Request (Resource-Related Billing)


The service order costs have been copied to the condition EK01 (actual costs). A price exists for the material (condition type PR00). The material is billed with this price.

9. Double-click on the row for material *SM-REPHOUR (Repair Hour)*.

The service order costs have been copied to the condition EK01 (actual costs). The material has a sales price (condition type PR00) with which it is invoiced.

10. Choose  *Billing request*.

The *Create billing request* dialog box appears.

11. Choose  Yes.


The billing request created by the system is automatically displayed due to a default setting.

12. Note the number of the billing request in the *Deb.Memo Req.f. Ctrct* field.

13. The billing request is initially blocked for billing. To delete this billing block, enter the following data:

Field	Data
Billing block	Delete existing block

14. Choose .

15. Choose  until the overview tree appears.

Creating a Billing Document

Creating a Billing Document

Use

You create the billing document for the checked billing request.


Procedure

1. Call up the transaction as follows:

Menu Path	<i>Logistics → Customer Service → Service Processing → Completion → Billing Document → Create</i>
Transaction Code	VF01


2. Enter the following data:


Field	Data
Document	Number of the billing request

3. Choose .



The system displays an overview of the billing items.

4. Choose .

5. Choose  until the overview tree appears.

Settling and Completing the Service Order

Use

All costs and revenues posted to the order are transferred to the profitability analysis via a settlement. As no further costs or revenues occur for the service order, you complete it from a business perspective.

Procedure

1. Call up the transaction as follows:


Menu Path	<i>Logistics → Customer Service → Service Processing → Order → Service Order → Display</i>
Transaction Code	IW33

2. Enter the following data:

Field	Data
Order	Number of your service order

3. Choose .
4. Choose *Extras → Cost reports → Planned/actual comparison*.

The revenues earned are posted to the order when the billing document is created.

5. Choose  until the overview tree appears.
6. Call up the transaction as follows:


Menu Path	<i>Logistics → Customer Service → Service Processing → Completion → Order Settlement → Settle Individually</i>
Transaction Code	KO88

7. If the *Set controlling area* dialog box appears, enter the following data and choose :

Field	Data
Controlling area	1000

8. Enter the following data:

Field	Data
Order	Number of your service order
Settlement period	Current period
Fiscal year	Current fiscal year
Test run	Deselect

9. Choose .

Settling and Completing the Service Order



If you have previously processed a service order that belonged to another controlling area than your current service order, the system will at first display an error message. Should this occur, choose *Extras* → *Controlling Area*, then enter 1000. To continue with the order settlement, choose

10. To call up the detail list, choose

11. Position your cursor on the service order number row and choose *Sender*.

The system lists all values that are posted from the service order to the profitability segment.

12. Choose until the overview tree appears.

13. Call up the transaction as follows:

Menu Path	<i>Logistics</i> → <i>Customer Service</i> → <i>Service Processing</i> → <i>Order</i> → <i>Service Order</i> → <i>Change</i>
Transaction Code	IW32

14. Enter the following data:

Field	Data
Order	Number of your service order

15. Choose .

16. Choose *Extras* → *Cost reports* → *Planned/actual comparison*.



Due to the order settlement, the service order was credited.

17. Choose .

18. Choose *Order* → *Functions* → *Complete* → *Complete (business)*.

The system saves your order.

19. Choose until the overview tree appears.

The operative service process is complete after settlement. Both steps deal with the transaction from the Profitability Analysis view CO-PA). Firstly, you deal with the line item generated during settlement. You then execute a report that analyzes all present profitability data relating to services. The values for the present process flow into this report.

Displaying Line Items in Profitability Analysis

Use

The costs and revenues are stored under record type C (order and project settlement) in Profitability Analysis through the settlement of the service order.

Procedure

20. Call up the transaction as follows:


Menu Path	<i>Accounting → Controlling → Profitability Analysis → Information System → Display Line Items → Actual</i>
Transaction Code	KE24



If you are processing an operating concern in this session for the first time, the system displays the dialog box *Set Operating Concern*.

21. Enter the following data:


Field	Data
Operating concern	IDEA
Type of profitability analysis	Costing-based

22. Choose .

This dialog box is only displayed once per session. Once you have made your selection, the system assumes that you will only work in this operating concern and type in this session.

23. Enter the following data:

Field	Data
Currency type	B0
Date created	Today's date
Entered by	Your user name

24. Choose .

25. In the dialog box, choose .

You find the item or items (depending on whether you created the billing request according to variant A or B or both versions) that has/have the record type C and that was/were posted to CO-PA via settlement from Customer Service.

26. Double-click on one of these line items.


You are now on the initial selection screen for the line items. Here you can see all the characteristics that can be analyzed in Profitability Analysis. The values for these characteristics were derived from the customer and material master records, the SD

Displaying Line Items in Profitability Analysis

partner functions (such as the sales representative), or from CO-PA-specific characteristics.



For example, you see the customer, industry, product, and so on.



To view further characteristics, choose  .

27. Choose the *Value fields* tab page.

You can see detailed information about the billed quantities, revenues, discounts, and detailed product cost components that were derived from SD and CO-PC. Note that the list of value fields spans several screens.

28. To scroll through the value field screens, choose  .


You see the revenue generated due to order billing.

The costs incurred due to goodwill relate to the usage of materials exchanged out of goodwill.

The customer discount is calculated from the discount of 100% which has been granted out of goodwill. Material usage is made up of the costs that were generated through the use of materials for the service order. Excluded from this is any material exchanged for reasons of goodwill.

Sales commission is calculated by valuating anticipated costs from Profitability Analysis.

Maintenance costs represent the costs of services provided by a service technician.

29. Choose  until the overview tree appears.

Displaying a CS Report in Profitability Analysis


Use

The report *IDES-090 Reporting Service Management* uses different accounts receivable and service products to demonstrate how the reporting procedure for service management can be structured. The revenues and costs produced in the previous steps have been made compatible with reporting and also analyzed in the form of key figures.

Procedure


1. Call up the transaction as follows:

Menu Path	<i>Accounting</i> → <i>Controlling</i> → <i>Profitability Analysis</i> → <i>Information System</i> → <i>Execute Report</i>
Transaction Code	KE30

2. Select the *IDES-090* report and choose .

3. Enter the following data:

Field	Data
Fiscal year	Current fiscal year
From period	1
To period	Current period

4. Choose .

The report data is selected again.


You arrive at the basic screen of the report. In the report header, you see the dimensions defined for this report: sales organization 1000 Germany Frankfurt, and distribution channel *14 Service*.

Beneath the report header, you find the navigation field which enables you to navigate through the individual service products. In the form of key figures, you find revenues, sales deductions, costs and the resultant contribution margins which are displayed in the additional columns and are cumulated for the individual accounts receivable.

In the first column, you find the customer "Hitech" (customer number 1171) for which you have created the service order or order(s).



For more information about navigating within a report, see [Executing an Existing Report in Profitability Analysis and Getting to know Reporting Functions \[Page 169\]](#).

5. Choose *Report* → *Exit*.
6. In the dialog box, choose Yes.
7. Choose  until the overview tree appears.

Displaying a CS Report in Profitability Analysis

Returns and Repair Processing

Purpose

The service department of the IDES AG receives a repair request from a customer. The customer sends the defect piece of equipment to our company. This equipment is then checked technically and subsequently we process the repair. After completion of the repair, the piece of equipment is delivered to the customer. The repair will then be invoiced.

You can find more information about this process under [i \[Page 60\]](#).

Process Flow

You can find the data for this process under [? \[Page 63\]](#).

1. [Activating the QM Check \[Page 64\]](#)
2. [Creating the Service Notification and the Repair Request \[Page 66\]](#)
3. [Posting the Goods Receipt of a Piece of Equipment to be Repaired \[Page 68\]](#)
4. [Processing the Technical Check \[Page 70\]](#)
5. [Displaying the Repair Request and the Service Order \[Page 71\]](#)
6. [Editing the Service Order \[Page 72\]](#)
7. [Processing and confirming the Service Order \[Page 73\]](#)
8. [Technically Completing the Service Order \[Page 76\]](#)
9. [Delivering the Repaired Piece of Equipment \[Page 78\]](#)
10. [Creating the Billing Request \[Page 79\]](#)
11. [Invoicing the Repair Request \[Page 80\]](#)
12. [Settling and Completing the Service Order \[Page 81\]](#)
13. [Analyzing the Result of the Repair request \[Page 83\]](#)
14. [Deactivating the QM Check \[Page 84\]](#)

Additional Process Information

Additional Process Information

The following information is directed towards IDES users with a customizing background knowledge of the application components SD and CS. Its objectives are to explain the determination of the item categories in the repair request as well as the control of the repair scheme. The text uses the concrete IDES demo. Therefore it is advised to read it after completing the process chain.

Sales Document RAS (Repair Service)

The repairs processing of the present IDES process is based on the sales document RAS. In this type of sales document, the material number of the service product is leading. The service product is coupled to data that is used for the automatic creation of the service order when starting the repair.

The data transferred to the service order via the service product can be seen in the system as follows:


Logistics → Customer Service → Service Processing → Environment → Sales and distribution → Billing Document → Service Products.

Repair Maintenance Request Item (IRRS)

When creating the repair request using the sales document RAS, the system creates a repair maintenance request item with the item category IRRS. This repair maintenance request item administers the expenses and revenues of the repair as well as the sales order stock of the pieces of equipment to be repaired. The item category is determined via the item category group of the service products SM-PCREP due to the following system settings:


Sales document *RAS* + item category group *LEIS* → *IRRS*.

The item category IRRS controls that the repair is invoiced according to the expenses caused by the repair. (form of billing = 02). The repair maintenance request item itself is not relevant for billing (billing relevance = blank). The rules for the billing according to expenses are determined via the Dynamic item processor profile that is assigned to the item category (DPP profile = 00000002). In the item category, we also embodied the repair scheme 0001 that controls which repair operations can be processed at a specific time within repairs processing:

(see  *SAP Reference IMG* → *Sales and distribution* → *Sales* → *Sales Document* → *Sales document Item* → *Assign item category* or *Define item category*).

Returns Item (IRRE)

When creating the repair maintenance request item the *repairs receipt* should take place at the same time. Repair scheme 0001 is defined so that the operation *Returns* (101) is possible as well at the same time. Due to the default characteristic set for this operation within the scheme, the system automatically generates the returns item. One can set default characteristics for operations that are not linked to completion confirmations of inspection lots or service orders:

(see  *SAP Reference IMG* → *Sales and distribution* → *Sales* → *Sales Documents* → *Repairs Processing* → *Define repair procedures*).

The item category determination takes place in connection with the item category group of the equipment material R-1001: sales document *RAS* + item category group *NORM* + usage *R101* + item category of the main item *IRRS* → *IRRE*.

Additional Process Information


The usage is composed of the operation number and starts with an R.

Repair Item (IRRP)

Within the framework of the technical check, the system processes a write-off of the equipment materials of the stock in quality inspection. The equipment can either be posted to the blocked stock or the unrestricted-use stock or can be scrapped. The system derives a key from each respective goods movement (01 = repair; 02 = not to be repaired/delivered; 03 = scrapped). In combination with the time *start of repair* that has been reached by the end of the completion of the technical check, the system determines the next operation via this key in the repair scheme of the repairs processing and proposes it in the repair request. In the displayed IDES process, the system makes a posting to the blocked (i.e. to be repaired) stock. From here, the system derives the key 01. The time *start of repair* earmarked the operation 102 (repair) for this key. As we did not set the characteristic „manual“ (manual processing not necessary) for this operation, the system automatically creates another sub-item in the repair request. The item category IRRP is determined via the following entry in the item category assignment:


Sales document *RAS* + item category group *LEIS* + usage *R102* + item category of main item *IRRS* → IRRP.

The system derives the schedule line category CD (without delivery) from the item category IRRP:


(see  *SAP Reference IMG* → Sales and distribution → Sales → Sales Document → Schedule Lines → Define Schedule Line Categories or → Assign Schedule Line Categories).

The requirement type SERP (maintenance service) is not – as usually – derived from the strategy group of the material but directly from the operation:

Item category *IRRP* + availability indicator *Blank* → requirements type *SERP* / source 1:

(see  *SAP Reference IMG* → Sales and distribution → Basic Functions → Availability Check and Transfer of Requirements → Transfer of Requirements → Determination of Requirement Types Using Transaction).

The requirements class 204 is assigned to requirements type SERP. This requirements class controls, due to assembly type 2 and the assigned order type, SM03 (service order/repairs processing) that the system generates a service order of this order type by taking the repair item of the sales and distribution document:

(see  *SAP Reference IMG* → Sales and distribution → Basic Functions → Availability Check and Transfer of Requirements → Transfer of Requirements → Define requirements classes or Define Requirements Classes).

Delivery Item (IRAL)

We coupled the technical completion of the service order to the time *Repair confirmation*. All equipment in our demo have been posted from the blocked stock into the unrestricted-use stock beforehand. The system derives the key 04 (repaired/to be delivered) from this type of goods movement. For this combination of time and key, the repair scheme intended the operation *Delivery* (103). As we did not set the characteristic „manual“ (manual processing not necessary) for this operation, the system automatically creates another sub-item in the repair request:

Sales Document *RAS* + item category group *NORM* + Usage *R103* + item category of the main item *IRRS* → IRAL.

Additional Process Information**Billing Item (IRIN)**

When creating the billing request on basis of the service order, the cost information of the order is converted into sub-items for the repair maintenance request item.

Items created due to the Dynamic item for the material consumption and the working hours are assigned to the item category determination with usage SEIN:

Sales document *RAS* + item category group *NORM* or *LEIS* + Usage *SEIN* + item category of the main item *IRRS* → *IRIN*.

The items of item category *IRIN* are billed order-related. The pricing is active but not statistical.

Data used during this Process

Field	Data	Description
Material	R-1001	Personal Computer
Order type	RAS	Repair Service
Sales organization	1000	Sales Germany
Distribution channel	14	Service
Division	00	Cross-division
Sold-to party	1177	Customer
Material	R-1150	spare part
Material	R-1111	spare part
Delivery type	LR	Returns delivery
Shipping point	1200	shipping point in plant 1200
Plant	1200	Plant
Storage location	0001	storage location in plant 1200
Warehouse number	012	warehouse Lean WM
Controlling area	1000	Controlling area Europe

Activating the QM Check

Activating the QM Check

Use

A pre-requisite for executing this process is the activation of QM inspection type 05 (inspection for other goods receipt) in the material master of used material R-1001. This is done within this step.



So that the run of other IDES processes using material R-1001 is not impaired, it is important to process *Deactivating the QM Check* even if you finish it early. If you set up a stock in quality inspection already, due to the goods receipt of the equipment to be repaired, it is necessary to execute the process step *Processing the Technical Check* as well. Here, the stock in quality inspection is reduced. A deactivation of the inspection is only possible if the system contains no stock in quality inspection.

Procedure

1. Call up the transaction as follows:

Menu Path	<i>Logistics → Quality management → Quality planning → Logistics Master Data → Material → Change</i>
Transaction Code	MM02

2. Enter the following data:

Field	Data
Material	R-1001

3. Choose *Select view(s)*.

4. Enter the following data:

Field	Data
Quality Management	Select

5. Choose

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

Field	Data
Plant	1200


7. Choose


8. Choose *Insp.setup*.

9. Enter the following data:

Field	Data
Active (in the line inspType 05)	Select

10. Choose

11. Choose .

12. Choose  until the overview tree appears.

Creating the Service Notification and the Repair Request

Creating the Service Notification and the Repair Request

Use

The customer notifies the breakdown of three pieces of equipment and the service department dispatches this equipment for repair. You receive the malfunction message and enter a Repair request in the system.

Procedure

1. Call up the transaction as follows:


Menu Path	<i>Logistics → Customer Service → Service Processing → Notification → Create (General)</i>
Transaction Code	IW51, IW53, VA03

2. Enter the following data:



Field	Data
Notification type	S4



This type of notification enables the entry of a material number as reference object.

3. Choose .
4. Note the notification number.
5. Enter the following data:


Field	Data
Sold-to party	1177
Material	R-1001
Description (in the block <i>Subject</i>)	R-1001: Returns and Repair

6. Choose .
7. In the action box, choose  *Create repair order*.
8. Enter the following data:



Field	Data
Order type	RAS
Sales org.	1000
Distr channel	14
Division	00
Sold-to party	1177 (default)
PO number	Notification number (default)

Creating the Service Notification and the Repair Request

PO date	Current date
Material	R-1001 (default)
Order quantity	3


9. Choose  *Notification and order*.
10. Choose *Service notification* → *Display*.
11. Enter the following data:

Field	Data
Notification number	Noted Notification number

12. Choose *Notification*.
13. To display the *Document flow*, choose .
14. Position your cursor on the line for the sales order and choose  *Display document*.




The notification number has been transferred to the repair request as the order number. In the item displayed, you can see the detailed data of the repair request of the customer. The defect personal computers are listed as equipment material in this repair maintenance request item.

15. Select the item and then select  *Repairs*.

The system proposes a returns for the piece of equipment to be repaired as the next operation within the repairs processing (see characteristic *Returns* in the block *Overview of repair request*). The business decision to process the proposed returns operation has been made by the system automatically (see *RepStatus*).

16. Choose .
17. Choose *Edit* → *Display criteria* → *All items*.

Due to the decision made to process the returns operation, the system created a sub-item for the repair maintenance request item. It contains the necessary information for the creation of the returns delivery.

18. Note the Repair request number given in the *Repairs/ Service* field.
19. Choose  until the overview tree appears.

Posting the Goods Receipt of a Piece of Equipment to be Repaired

Posting the Goods Receipt of a Piece of Equipment to be Repaired

Use

The pieces of equipment to be repaired are delivered. In the returns delivery, enter the serial numbers of the devices. They are posted to the non-valuated stock as sales order stock using the number of the Repair requests. At the same time, the system creates an inspection lot on the basis of which the technical check of the devices will take place.



Procedure

1. Call up the transaction as follows:


Menu Path	From the <i>Service Processing</i> node, choose <i>Order</i> → <i>Customer Repair</i> → <i>Returns Delivery</i>
Transaction Code	VRRE, VL01

2. Enter the following data:



Field	Data
Repair request	Noted number of the repair request
Delivery type	LR
Shipping point/ recei	1200

3. Choose .
4. Select the item and choose *Item* → *Serial numbers*.
5. Choose .
6. Enter the following data:

Field	Data
Period from	Default
Partner (first field)	Sold-to party (possible entries button)
Partner (second field)	1177

7. Choose .

The system lists all serial numbers of material *R-1001* that were delivered to customer.

8. Select three entries for serial numbers.
9. Choose .
10. In the dialog box, choose .

The System lists the selected serial numbers.


11. Choose .
12. Choose *Edit* → *Post goods issue*.

Posting the Goods Receipt of a Piece of Equipment to be Repaired



In the case of returns, the function done before posts a goods receipt.

13. Note the delivery number.

14. Choose  until the overview tree appears.

Processing the Technical Check

Processing the Technical Check


Use

After the goods receipt has been posted, execute a technical check of the devices, based on the goods receipt posting of the inspection lot created. In the framework of this check, you will decide what operations are necessary in the further run of the repairs processing.

Procedure

1. Call up the transaction as follows:

Menu Path	From the <i>Service Processing</i> node, choose <i>Order</i> → <i>Inspection Processing</i> → <i>Usage Decision</i> → <i>Enter</i>
Transaction Code	QA11

2. Choose .

3. Enter the following data:

Field	Data
UD Code (Usage decision Code)	A


4. Choose the *Inspection lot stock* tab page.

5. Enter the following data:




Field	Data
To blocked / Repair	3



The technical check made clear that all devices send by the customer by the customer, can be repaired. Therefore, you post 3 pieces of equipment from the stock in quality inspection into a blocked repair stock.

6. Choose *Serial numbers*.
7. To confirm possible warning messages, choose .

You can see that the serial numbers of the devices have been transferred to the inspection lot.

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

Displaying the Repair Request and the Service Order

Use

From the transfer posting of the checked devices the blocked repair stock, the system derives a new operation *Repair* in the order. The decision to execute this operation has been made automatically due to the settings in the repair scheme, the repairs processing is controlled by. The execution of the repair is done with the help of a service order.

Procedure

1. Call up the transaction as follows:


Menu Path	From the <i>Service Processing</i> node, choose <i>Order</i> → <i>Customer Repair</i> → <i>Display</i>
Transaction Code	VA03

2. Enter the following data:

Field	Data
Order	Noted number of the Repair request

3. Choose .
4. Choose *Edit* → *Display criteria* → *All items*.


Due to the result of the technical check, the system created a new sub-item in the repair request (10200). This repair item is coupled to a service order that has also been created automatically by the system.

5. Select the first item and choose  *Repairs*.

The result of the technical check has been send to the repair request screen. The decision to execute this operation has been made automatically. (see field *RepStatus*). The repair item mentioned above and the service order are the result of this decision. The *Overview for Repair Request* not only displays the *Returns* but also a new operation *Repair*.

6. Choose *SM Order*.

Based on the service order, the devices are repaired. Specifications such as sold-to party, equipment and service product are taken from the repair request.

7. Note the number of the service order (in the field *Order* in the first line).
8. Choose  until the overview tree appears.

Editing the Service Order

Editing the Service Order

Use

In this step you determine the materials necessary for the repair and also plan the working hours necessary. In the service order, the system calculates the planning costs with this entries.


Procedure

1. Call up the transaction as follows:

Menu Path	From the <i>Service Processing</i> node, choose <i>Order</i> → <i>Service Order</i> → <i>Change</i> .
Transaction Code	IW32

2. Enter the following data:



Field	Data
Order	Noted number of the service order

3. Choose .
4. Choose The *Operations* tab page.
5. Enter the following data:

Field	Data
Work (in the line for operation 0010)	2

6. Choose the *Components* tab page.
7. Enter the following data:

Field	Data
Component (in the line of item number 0010)	R-1150
Reqmts.qty. (in the line of item number 0010)	2
Component (in the line of item number 0020)	R-1111
Reqmts.qty. (in the line of item number 0020)	1

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

Processing and confirming the Service Order

Use

Playing the role of a service technician, you take the materials necessary for the repair. After completing the repair, you confirm the working hours. You post the repaired devices from the blocked stock into the unrestricted-use sales order stock.

Procedure





1. Call up the transaction as follows:

Menu Path	From the <i>Service Processing</i> node, choose <i>Confirmation</i> → <i>Goods Movement</i> → <i>Goods Movement</i>
Transaction Code	MB11

2. Choose *To order...*

3. Enter the following data:




Field	Data
Order	Noted number of the service number

4. Choose .
5. If necessary, enter the storage location *0001* and choose .
6. Choose .
7. Choose .
8. Call up the transaction as follows:

Menu Path	From the <i>Service Processing</i> node, choose <i>Confirmation</i> → <i>Entry</i> → <i>Individual Confirmation (Time)</i>
Transaction Code	IW41

9. Enter the following data:

Field	Data
Order	Noted number of the service order

10. Choose .
 11. Enter the following data:
- | Field | Data |
|-------------|-------------|
| Actual work | 2 (default) |
12. Choose .
 13. Choose  until the overview tree appears.
 14. Call up the transaction as follows:

Processing and confirming the Service Order

Menu Path	From the <i>Service Processing</i> node, choose <i>Confirmation</i> → <i>Goods Movement</i> → <i>Goods Movement</i>
Transaction Code	MB11

15. Enter the following data:

Field	Data
Document Date	Current date
Posting date	Current date
Movement type	343
Special stock	E
Plant	1200
Storage location	0001



The movement type 343 and the special stock characteristic trigger a stock transfer of the quantity entered from the blocked stock to the unrestricted-use stock of the respective order.

16. Choose .

17. Enter the following data:

Field	Data
Order	Noted number of the repair request
Item number (in the line Sales Order)	10000
Material (1. line)	R-1001
Quantity	3

18. Choose .

19. Choose .

The system displays the serial number selection.

20. Choose .


The system lists the serial number that are in the blocked stock of the repair request.

21. Choose .

22. Choose .

23. In the dialog box, choose .

24. Choose .

25. Choose  until the overview tree appears.

Technically Completing the Service Order

Technically Completing the Service Order

Use

In the service order, you register the completion of the repair. The result is documented on the repair request screen.

Procedure

1. Call up the transaction as follows:

Menu Path	From the <i>Service Processing</i> node, choose <i>Order</i> → <i>Service Order</i> → <i>Change</i> .
Transaction Code	IW32

2. Enter the following data:


Field	Data
Order	Noted number of the service order

3. Choose .

4. Choose .



You posted all devices to the unrestricted-use sales order stock. Thus the system proposes the delivery of the repaired equipment to the customer as the next step. Due to the pre-setting in the repair scheme that is controlled via the schedule, the system automatically creates the sub-item necessary for this operation in the repair request.

5. Choose *Continue*.
6. In the dialog box, choose .
7. Choose *Order* → *Display*.
8. Enter the following data:

Field	Data
Order	Noted number of the service order


9. Choose .

10. To see the document flow, choose .

11. Position your cursor on the line of the sales Order and choose  *Display document*.

12. Choose *Edit* → *Display criteria* → *All Items*.

The item with the number 10300 was created automatically by the system on completing the service order technically. Based on this item, the delivery of the repaired devices to the customer takes place.

13. Choose  until the overview tree appears.

Delivering the Repaired Piece of Equipment


Delivering the Repaired Piece of Equipment

1. Call up the transaction as follows:

Menu Path	From the <i>Order</i> node, choose <i>Customer Repair</i> → <i>Shipping</i> → <i>Outbound Delivery</i> → <i>Create</i> → <i>Single Document</i> → <i>With Reference to Sales Order</i> .
Transaction Code	VL10N

2. Enter the following data:

Field	Data
Shipping point	1200
Selection date	Current date
Order	Noted number of the repair request


3. Choose .
4. Choose *Subsequent functions* → *Create transfer order*.
5. In the dialog box, choose *Yes*.
6. Enter the following data:

Field	Data
Warehouse number	012
Plant	1200
delivery	Default
Select items	Select (default)
Foreground/background	Background
Adopt pick quantity	2

7. Choose .



Due to the entry in the field *Adopt pick quantity* the system posts the goods issue directly with this function.

8. Choose  until the overview tree appears.

Creating the Billing Request

Use

By entering the service order, you create a billing request. With it, the system creates new items in the repair request based on the cost data of the service order. These items are the basis for a later invoice.




Procedure

1. Enter the following data:

Menu Path	From the <i>Service Processing</i> node, choose <i>Completion → Billing Request → Process Individually</i>
Transaction Code	DP90

2. Enter the following data:



Field	Data
Sales document	Noted number of the service order
Posting date to	Default

3. Choose  *Expenses*.
4. Choose  *Billing Request*.
5. In the dialog box, choose  *Yes*.

Due to the settings entered before, the system displays the repair request.

6. Choose *Edit → Display criteria → All Items*.
7. To display the items with the numbers 10400 to 10600, shift the screen area using the scroll bar, if necessary.

When creating the billing request, the system also created the listed items with the numbers 10400 to 10600. They are transferred to the invoice. These items evaluate the consumed materials or the working hours done. The calculation takes place using service prices entered in the system beforehand.

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

Invoicing the Repair Request


Invoicing the Repair Request

1. Call up the transaction as follows:

Menu Path	From the <i>Service Processing</i> node, choose <i>Completion</i> → <i>Billing Document</i> → <i>Create</i> .
Transaction Code	VF01


2. Enter the following data:

Field	Data
Document	Noted number of the repair request

3. Choose .

The system displays the billing items overview.

4. Choose .

5. Choose  until the overview tree appears.

Settling and Completing the Service Order

Use

The following function settles the costs of the service order to the repair request. As there will be no further costs, you will also do the business completion for the service order.

Procedure

1. Call up the transaction as follows:



Menu Path	From the <i>Completion</i> node, choose <i>Order Settlement</i> → <i>Settle Individually</i>
Transaction Code	KO88

2. If the *Set controlling area* dialog box appears, enter the following data and choose :

Field	Data
Controlling area	1000

3. Enter the following data:



Field	Data
Order	Noted number of the SM order
Settlement period	Current month three-digit (e. g. 010 for October)
Fiscal year	Current year
Test run	Deselect

4. Choose .
5. Choose  until the overview tree appears.
6. Call up the transaction as follows:

Menu Path	From the <i>Service Processing</i> node, choose <i>Order</i> → <i>Service Order</i> → <i>Change</i> .
Transaction Code	IW32

7. Enter the following data:

Field	Data
Order	Noted number of the service order

8. Choose .
9. Choose *Order* → *Functions* → *Complete* → *Complete (business)*.
10. Choose  until the overview tree appears.

Settling and Completing the Service Order

Analyzing the Result of the Repair request

Use

The billing request triggered the update of revenues and the service order settlement triggered an update of costs of the main item in the repair request. You display the result of the repair.


Procedure

1. Call up the transaction as follows:


Menu Path	From the <i>Order</i> node, choose <i>Customer Repair</i> → <i>Display</i> .
Transaction Code	VA03

2. Enter the following data:

Field	Data
Order	Noted number of the repair request

3. Choose .
4. Select the first item and choose *Environment* → *Cost report*.

The report lists the costs and revenues of the repair. The repair was processed with gains. For the period-end closing, the system finally settles the repair request within the profitability analysis.

5. Choose  until the overview tree appears.

Deactivating the QM Check

Deactivating the QM Check

Use

So that other IDES processes using material R-1001 are not restricted, you will deactivate the QM inspection for this material once again.

Procedure

1. Call up the transaction as follows:

Menu Path	<i>Logistics → Quality Management → Quality Planning → Logistics Master Data → Material → Change.</i>
Transaction Code	MM02

2. Enter the following data:

Field	Data
Material	R-1001

3. Choose *Select view(s)*.

4. Enter the following data:

Field	Data
Quality Management	Select

5. Choose .

6. Enter the following data:

Field	Data
Plant	1200

7. Choose .


8. Choose *Insp.setup*.

9. Enter the following data:

Field	Data
Active (in the line of InspType 05)	Deselect

10. Choose .

11. Choose .

12. Choose  until the overview tree appears.

Creating a Service Order from a Sales Order

Purpose

Sales organization 1000 (Germany) of the IDES company sells personal computers and provides a maintenance and repair service for these products. The IDES model company also install networks. If a customer orders the installation of a network, the system determines the network characteristics according to the customers specifications. The system then determines the sales price. The network characteristics also influence the service order that is created simultaneously with the sales order. An employee from the service department of the IDES model company will then execute the network installation at the customer's based on this service order. The controlling application is able to check the profitability of the individual order, because revenues and costs of the network installation were posted to the sales order.

You can find more information about this process under [i](#) [Page 86].

Process Flow

You can find the data for this process under [?](#) [Page 88].

1. [Entering a Customer Notification and Creating a Service Order \[Page 90\]](#)
2. [Setting an Service Order to „In Process“ \[Page 93\]](#)
3. [Processing the Service Order \[Page 95\]](#)
4. [Settling the Service Order \[Page 98\]](#)
5. [Invoicing the Sales Order \[Page 99\]](#)
6. [Analyzing the Cost Report in the Sales Order \[Page 100\]](#)
7. [Settling the Sales Order \[Page 101\]](#)
8. [Analyzing Line Items in the Financial Statement \[Page 102\]](#)

Additional Process Information

Additional Process Information

Default Values for the Service Order via the Service Product

The automatic creation of a sales order into a service order requires that plant specifications have been made for the material (service product) of the sales order item which can then be taken into the service order as default values. These specifications contain a link to a general maintenance task list. The general maintenance task list is a work list defining all procedures to be processed. In the call management of the IDES model company we assigned the general maintenance task list NETINST to the service product SM-NETINST. The specifications of this task list are taken into the service order.

The default value determination for a service product is processed via *Logistics* → *Service Management* → *Service processing* → *Environment* → *Sales and distribution* → *Service products*.

The general maintenance task list NETINST is defined via *Logistics* → *Plant Maintenance* → *Work Centers* → *Task Lists* → *general task list* (Planning group = NETINST).

Configuration

In the sales order which is the starting point of the process described, the system determines the characteristics of the network installation within the framework of a configuration. The following information assume basic knowledge of variant configuration.

The configuration influences the pricing in the sales order, the activity and component selection in the service order as well as the execution factor of the selected transactions.

When configuring the sales order the system evaluates the characteristics of class SM_NETINST. The class comprises six characteristics:

SM_NETWORK_TYPE	Network type
SM_CABLE	Cable type
CH0038	Cable length
SM_CLIENTS	Number of PCs
SM_NET	Network scope
C_OPERATING_SYSTEM	Operating system

Configuration also uses the following two characteristics:

SURCHARGE2	Surcharge
SM_FACTOR	Execution factor

The characteristic SURCHARGE2 links to the table field SDCOM-VCOND. Table SDCOM connects the communication between the module SD (Sales and Distribution) and the variant configuration. The link to the field VCOND (Variant condition) in the table makes the evaluation of the characteristic available for the pricing in the customer order. The automatic pricing determines a surcharge in dependence of this characteristic value.

The characteristic SM_FACTOR links to the table field PLPO-AUFKT. In table PLPO the system saves the activity data of the work list. The field AUFKT contains the respective execution factor.

Additional Process Information

By using object dependencies the system evaluates the characteristic within the framework of the configuration and therefore influences the execution factor of the respective activity in the service order.

Configuration of the Service Product

The service product „Network installation“ is represented by the material master record SM-NETINST. This is a configurable material. Assigned to the configuration profile of this material is the class SM_NETINST. The profile contains two object dependencies. The system derives the scope of network (characteristic SM_NET) from the number of computers in the net (characteristic SM_CLIENTS) via one of the two object dependencies. The other object dependency determines a value for price surcharge (characteristic SURCHARGE2) dependent from the network scope (characteristic SM_NETINST).

Configuration of the General Maintenance Task List

Via default values that are defined for the service product SM_NETINST the system uses the general maintenance task list NETINST (see above) in the service order. The class SM_NETINST has also been assigned to the configuration profile of this general maintenance task list. In the general maintenance task list we determined object dependencies for the individual activities. In the laying cables activity (activity number 0010) the system derives the execution factor from the value of characteristic "cable length" (characteristic CH0038) with the help of which the system determines the work and activity duration in the service order. The execution factor of activity „connect PCs“ (activity 0020) is determined by the number of computers to be installed (characteristic SM_CLIENTS). The activities 0021 to 0023 (Installation of the respective operating systems) are alternative and are selected in the service order due to the specification of the characteristic „operating system “ (characteristic C_OPERATING_SYSTEM). The object dependencies of activity 0030 (install application software) makes its execution factor dependent from the respective operating system. We did not define object dependencies for the last activity.

Configuration of the Material BOM

The general maintenance task list for the network installation (NETINST) contains a link to the assembly SM-NETINST. For material SM-NETINST a BOM exists. This BOM contains three different cable types as components (material number C-1030 to C-1032). Each component has an object dependency assigned to it. The conditions defined there select the components according to the cable type (characteristic SM_CABLE).

In the general maintenance task list NETINST the first activity has three components assigned to it.

Data Used During This Process

Data Used During This Process

Field	Data	Description
Order type	TA	Sales order
Sales organization	1000	Germany
Distribution channel	14	Distribution channel for end customer
Division	00	Cross-company division
Ordering party	1177	
Material	SM-NETINST	Material number for network installation
Technical work center	1177-ADMI	Customer's technical work center
Evaluation of characteristic <i>Network type</i>	WIN_311	
Evaluation of characteristic <i>cable type</i>	COAX	
Evaluation of characteristic <i>cable length</i>	100	
Evaluation of characteristic <i>Number of PCs</i>	15	
Evaluation of characteristic <i>Operating system</i>	WINDOWS	
Order type	SM01	Order type of the service order
Working place responsible	PC-SERV	Working center im service order
Plant	1200	Dresden
Controlling area	1000	CO Europe
Operating concern	IDEA	IDES global

Entering a Customer Notification and Creating a Service Order

Entering a Customer Notification and Creating a Service Order

Use

The customer orders a network installation. The person responsible enters a sales order and determines the characteristics of the network to be installed according to the customer data within the framework of a configuration. The system derives the prices from these network characteristics. Together with the sales order, the system also creates a service order for the technical service that is to process the installation. This service order is also influenced by the network configuration.


Procedure

1. Call up the transaction as follows:

Menu Path	<i>Logistics → Customer Service → Service Processing → Environment → Sales and Distribution → Sales → Order → Create</i>
Transaction Code	VA01, VA03


2. Enter the following data:

Field	Data
Order type	OR
Sales organization	1000
Distribution channel	14
Division	00

3. Choose .

4. Enter the following data:

Field	Data
Sold-to party	1177
Purch. order no.	SM-459000
Req.deliv.date	Current date
Material	SM-NETINST
Order quantity	1

5. Choose .

6. In the dialog box, choose .

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

Field	Data
FunctLocation	1177-ADMI

Entering a Customer Notification and Creating a Service Order



The functional location represents the place where the installation will be processed for the customer. The entry made here will be copied into the service order.

8. Choose

You can see a net value of 2045 EUR.

9. In the *Characteristic Value Assignment* screen area, choose the F4 input help for each characteristic. The system lists default attributes of each characteristic in a window. These can be chosen. For other characteristics you have to enter a value yourself in the window.

After making your selection in the window, choose . Choose the characteristics as follows:

Field	Data
Network type	WIN_311
Type of Cable	COAX
Cable Length	100 (enter)
No. of PCs	15 (enter)
Operating system	Windows

10. Choose

You can see that the system has derived a scope of network (10 to 20 PCs) from the number of PCs to be installed.

Due to the characteristic valuation, there is a new net value of 2812 EUR.

11. Choose *Conditions...*

12. The system displays an overview of the resulting variant conditions.



The attribute A (10 to 20 PCs) of the scope of network is linked to a surcharge of 767EUR for each network installation.

13. Choose

14. Choose

15. Choose

16. Note the order number.

17. Choose *Sales document* → *Display*.


18. Enter the following data.

Field	Data
Order	Your order number

19. Choose *Item Overview*.

20. Select the item, then choose

Entering a Customer Notification and Creating a Service Order


21. Select the schedule line, then choose .

22. Choose the *Procurement* tab page.



In the *Customer Service* screen area, the system displays the order number issued by the system for the service order.

23. Note this order number.

24. Choose  until the overview tree appears.

Setting an Service Order to “In Process”

Use

In this process step you play the role of an employee in the technical service of the IDES AG and have the system list service orders that have not yet been processed. You determine the employee responsible for the processing of the service order created in the previous step. Afterwards you set the service order to “in process”.

Procedure

1. Call up the transaction as follows:


Menu Path	From the <i>Service Processing</i> node, choose <i>Order</i> → <i>Service Order</i> → <i>Service Order List</i> → <i>Change</i>
Transaction Code	IW72

2. Enter the following data:

Field	Data
Order status outstanding	Select
Order type	SM01
MainWorkCenter	PC-SERV
Period	Current date
Period to	Delete default entry
Entered by (in the section “general data/administrative data)	Your user name
Created on	Current date


3. Choose .



If several service orders correspond to these selection criteria, the *Change Service Orders: List of Orders* screen appears. In this case, select the entry with your noted service order number, then choose .

4. In the Person responsible screen area, enter the following data:

Field	Data
Person res	1523


5. Choose .

6. Choose .

7. In the dialog box, select *W/o print*.

8. Choose .

Setting an Service Order to “In Process”

9. Choose  until the overview tree appears.

Processing the Service Order

Use

In this process, you play the role of a service technician who is responsible for the order processing. At first inform yourself which orders have to be processed by you.


Procedure

1. Call up the transaction as follows:


Menu Path	From the <i>Service Processing</i> node, choose <i>Order</i> → <i>Service Order</i> → <i>Service Order List</i> → <i>Display</i>
Transaction Code	IW73


2. Enter the following data:

Field	Data
Order status In process	Select
Order type	SM01
Main work center	PC-SERV
Period	Current date
Period to	Delete the default entry
Partner	Person responsible (F4 help) / 1523
Entered by (in the section "general data/administrative data")	Your user name
Created on	Today's date

3. Choose .



If several service orders correspond to these selection criteria, the *Display Service Orders: List of Orders* screen appears. In this case, select the entry with your noted service order number, then choose .

4. Choose  until the overview tree appears.

5. Call up the transaction as follows:

Menu Path	From the <i>Service Procession</i> node, choose <i>Confirmation</i> → <i>Goods Movement</i> → <i>Goods Movement</i>
Transaction Code	MB11

6. Enter the following data:

Field	Data
Document date	Current date

Processing the Service Order

Posting date	Current date
Plant	1200


7. Choose *To Order...*

8. Enter the following data:

Field	Data
Order	Your order number


9. Choose .

The system defaults the quantity defined in the order.

10. Choose .

If the system requests a storage location, enter 0001 in the field *SLoc*.

The system issues a document number for the goods movement. All costs incurred by the goods withdrawal are posted to the service order.

11. Choose  until the overview tree appears.



12. Call up the transaction as follows:


Menu Path	From the <i>Service Procession</i> node, choose <i>Confirmation</i> → <i>Entry</i> → <i>Individual Confirmation (Time)</i>
Transaction Code	IW41

13. Enter the following data:

Field	Data
Order	Service order number

14. Choose .

15. In the *Overview* screen area, choose , then choose  *Actual Data*.


16. Choose  until a message informs you that the last operation has been reached.

17. Enter the following data:

Field	Data
Actual Work	3

Choose .

Due to the confirmed data, the system posts the personnel costs to the service order.

18. Choose  until the overview tree appears.

Settling the Service Order

Settling the Service Order


Use

After the service order has been completed, it has to be settled. With this order settlement, the system transfers the accumulated costs to the relevant recipient. The recipient will be the sales order that triggered the service order.

Procedure

1. Call up the transaction as follows:



Menu Path	From the <i>Completion</i> node, choose <i>Order Settlement</i> → <i>Single</i>
Transaction Code	KO88

2. If the controlling area has not yet been determined, the system displays the *Set Controlling Area* dialog-box. Enter the following data and choose :

Field	Data
Controlling area	1000

3. Enter the following data (retain the other default values):

Field	Data
Order	Service order nummer
Settlement period	Current period (three digit; e. g. 003)
Test run	Deselect

4. Choose .
5. Choose  until the overview tree appears.

Invoicing the Sales Order

Use

After completion of the network installation, you invoice the service delivered to the customer.


Procedure

1. Call up the transaction as follows:


Menu Path	From the <i>Environment</i> node, choose <i>Sales and Distribution</i> → <i>Billing Document</i> → <i>Billing Document</i> → <i>Create</i> .
Transaction Code	VF01

2. Enter the following data:

Field	Data
Document	Your sales order number

3. Choose .

The system informs you that the invoice document has been added.

4. Choose  until the overview tree appears.

Analyzing the Cost Report in the Sales Order

Analyzing the Cost Report in the Sales Order

Use

When you settle the service order, the costs are transferred to the sales order. When you created the billing document, the system also updated the revenues on the sales order. You can now analyze the result on the individual sales order.

Procedure

1. Call up the transaction as follows:



Menu Path	From the <i>Environment</i> node, choose <i>Sales and Distribution</i> → <i>Sales</i> → <i>Order</i> → <i>Display</i> .
Transaction Code	VA03

2. Enter the following data:

Field	Data
Order	Your sales order number

3. Choose .
4. Choose *Environment* → *Cost Report*.

The cost report displays costs of material consumption and personnel costs that occurred when you executed the service order derived from the sales order item. You also see the net sales incurred due to the sales order invoicing compared to the costs.

5. Choose .
6. Choose  until the overview tree appears.

Settling the Sales Order

Use

The sales order for the network installation has been executed and invoiced. The costs and revenues are now transferred to the financial statement.


Procedure

1. Call up the transaction as follows:


Menu Path	From the <i>Sales</i> node, choose <i>Order</i> → <i>Subsequent Functions</i> → <i>Settlement</i> .
Transaction Code	VA88

2. Enter the following data:

Field	Data
Sales organization	1000
Sales document	Your sales order number
Settlement period	Current period (three digits: such as 003)
Fiscal year	Current year
Test run	Deselect

3. Choose .

The sales order item settles your result in the profitability segment of the financial statement.

4. Choose  until the overview tree appears.

Analyzing Line Items in the Financial Statement

Analyzing Line Items in the Financial Statement

Use

The costs and revenues were forwarded to the financial statement when you settled the sales order. The data are recorded via a line item in the financial statement.



The information system of the financial statement lets you evaluate the dataset created due to the lines items. In this process step you analyze specific line items.

Procedure

5. Call up the transaction as follows:

Menu Path	<i>Accounting → Controlling → Profitability Analysis → Environment → Set Operating Concern</i>
Transaction Code	KEBC

6. Enter the following data:

Field	Data
Operating concern	IDEA
Costing-based	Select

7. Choose .


8. Call up the transaction as follows:

Menu Path	From the <i>Profitability Analysis</i> node, choose <i>Actual Postings → Display Line Items</i> .
Transaction Code	KE24

9. Enter the following data:

Field	Data
Record Type	C
Period/year	Current period (three digits: such as 004.1998)
Date created	Current date
Entered by	Your user name

10. Choose .


11. Position your cursor on the line of currency type B0 (field Ct.), then choose  *Profitability segment*.



The system displays the value characteristics. These were used to post the line item in the financial statement.

Analyzing Line Items in the Financial Statement


12. Choose  *Continue*.


13. Position your cursor on the line of currency type B0 (profitability segment), then choose .

14. Choose the *Value fields* tab page.

For the value characteristics mentioned above, the system posted revenues and the average delivered price to the financial statement.



To scroll through the list of value fields, choose  if necessary.

15. Choose  until the overview tree appears.

Processing Telephone Calls in a Call Center

Processing Telephone Calls in a Call Center

Purpose

The IDES AG has set up a call center for the areas Sales and Distribution and Service Management. Incoming customer calls are routed to the call center employees via Computer Telephony Integration (CTI). The call center makes it possible to execute a variety of telephone operations – such as, receiving calls, forwarding calls and callbacks. The call center employees can use call processing to call up the R/3 functions required for the specific Sales or Service area (for example, creating a service notification).



Two variants exist for this: **Variant A** displays the call center with Computer Telephony Integration. The incoming customer call is simulated. **Variant B** displays the call center without Computer Telephony Integration.

The first two preparatory steps required to run this IDES process are carried out just once by the system administrator when they set up the call center.

Process Flow

You can find the data for this process under [?](#) [Page 105].

1. [Preparations - Assigning the CIC Profile \[Page 106\]](#)
2. [Preparations - Defining the Work Center \[Page 108\]](#)
3. [Processing a Customer Call \(Variant A\) \[Page 109\]](#)
4. [Processing a Customer Call \(Variant B\) \[Page 112\]](#)

Data Used During This Process

Field	Data	Description
User	P00001990	R/3 User ID
Organizational Unit	50014697	Call center
Telephony server	NOSERV	Server simulation
ANI	040-567-712	Telephone number of the caller
Equipment	10003562	Personal computer

Preparations: Assigning the CIC Profile

Preparations: Assigning the CIC Profile

Use

The organizational structure of IDES AG is defined in organization management. The call center is an organizational unit within this organizational structure. Positions are assigned to the call center. The position is the individual assignment of an employee to the call center.

Call centers can be characterized in different ways. You define the relevant characteristic in a CIC-Profile (CIC = Customer Interaction Center). You assign the CIC profile either at organizational unit level, or at position level. In this demo, you assign the profile to the call center (organizational unit). This means that all employees belonging to this call center work using this profile.

The R/3 user ID with which you log on to the system for this process has been assigned the personnel number 1990. The employee with personnel number 1990 belongs to the organizational unit *Call center*.



Procedure

1. Log on to the IDES system with user ID **P0001990** (password: **IDES**).
2. Call up the transaction as follows:

Menu Path	<i>Logistics → Customer Service → Customer Interaction Center → Administration → CIC Structure → Organizational Structure → Change</i>
Transaction Code	PPOM, PP01

3. If the *Organization and Staffing (Workflow) Change* screen appears, choose *Settings → Maintenance interface*
4. Enter the following data:

Field	Data
Organizational unit	50014697

5. Choose .
6. Choose *Staff assignments*.
7. Choose *View → Key on*.
8. Choose *View → Assignments → User on*.
9. Position your cursor on *Call Center*, then choose .
10. Choose *View → Color legend*.



You can see that a position belongs to the call center. In this demo, the position is assigned to personnel number 1990 - Marek Czarny, in the personnel administration department. This employee has the R/3 User ID P00001990. It is also possible to assign an R/3 User ID directly to the position.


11. In the *Legend* dialog box, choose .

Preparations: Assigning the CIC Profile

12. Position your cursor on *Call center*, then choose *Goto* → *Object description*.
13. Choose the *Active* tab page.
14. Select *CIC Profile*.



If necessary, use the scroll bar until you see the infotype name *CIC Profile*.

15. Choose .



The following entry depends on the type of variant you have selected.

Start Variant A (Simulation of Computer Telephony Integration)

16. Enter the following data:

Field	Data
CIC Profile ID	00000002

End Variant A (Simulation of Computer Telephony Integration)

17. Continue with No.19.


Start Variant B (Without Computer Telephony Integration):

18. Enter the following data:

Field	Data
CIC Profile ID	00000001

End Variant B (Without Computer Telephony Integration):

19. Choose .

20. Choose  until the overview tree appears.

Preparation: Defining the Work Center

Preparation: Defining the Work Center

Use

The work center settings summarize the attributes of the PC and telephone. SAPphone can therefore assume a constant relationship between these two components. The assignment of the user ID to the work center, however, is made dynamically, that is, it occurs each time the user logs on to a PC.


Procedure

1. Call up the transaction as follows:

Menu Path	<i>Logistics → Customer Service → Customer Interaction Center → Administration → Agent → Settings</i>
Transaction Code	SPHA


2. Choose *Work center*.
3. Enter the following data:

Field	Data
Telephone number	12345
Telephony server	NOSERV
User	P00001990

4. Choose .
5. If the *Copy Data* dialog box appears, choose *Yes*.
6. The *Delete Old Work Center* may also appear. Choose *Yes*.



If you are running this demo at a different PC, this process step deletes the work center data that you have just created. For this reason, the demo sequence ensures that the work center data are checked, and recreated, if required, before you call up the call center.

7. Choose  until the overview tree appears.

Processing a Customer Call (Variant A)

Use

You play the role of an employee in a call center of the IDES AG. You take a call from a customer. The customer informs you about a defect of an equipment. On the basis of this information, you create a service notification.



In this process, we simulate Computer Telephony Integration (CTI). During this simulation session, dialog boxes appear in which you can make technical entries for test purposes. To skip the dialog boxes, choose . Of course, these dialog boxes do not appear when you are working in a productive system.

Procedure

1. Call up the transaction as follows:

Menu Path	<i>Logistics → Customer Service → Customer Interaction Center → Front Office → Front Office</i>
Transaction Code	CICO

2. In the subsequent technical dialog boxes, choose , until the *Customer Interaction Center* screen appears.



We now simulate an incoming customer call in the Call center.

3. Choose *Inwait*.



The wait mode informs the system that the agent is ready to take incoming calls.

4. In the dialog box, choose .
5. Enter the following data:

Field	Data
Call status	Ringing
ANI	040-567-712 (The telephone number of the calling communication partner)
DNIS	0800-123456 (Telephone number dialed by the communication partner)

6. Choose .


The system responds to the new call and displays the incoming telephone number. The system uses the ANI function (Automatic Number Identification) to identify the name of the caller on the customer side.

Processing a Customer Call (Variant A)

The system also displays the service number dialed by the customer and an accompanying description.

7. Choose the  *Search/Display* tab page.

You can see that the caller is an employee of the company Hitech AG.

8. Choose the  *Callstate* tab page.
9. Position your cursor on the caller row, then choose *Answer*.


You are now connected with the caller.

10. Choose the  *Search/Display* tab page.

11. Choose .

12. Enter the following data:

Field	Data
Customer number	1171 (defaulted)
Sales organization	1000 (defaulted)
Distribution channel	Not selected
Division	Not selected

13. Choose .

The system lists information for the customer.


14. Choose  until the *Customer Interaction Center* screen appears.

15. Choose the  *Business Data* tab page.

You see the information for this business transaction (customer and contact person).

The customer reports a defective piece of equipment. You enter a service notification.

16. Choose the  *Service* tab page.

17. Choose .



The system defaults the notification type, the customer number of the sold-to-party is taken from the business data display.

18. Enter the following data:

Field	Data
Notification (in the first line)	Problem with hard disc
Equipment	10003562
Object part (1 st field)	PC
Object part (2 nd field)	5
Damage (1 st field)	PC


Processing a Customer Call (Variant A)

Damage (2 nd field)	E
--------------------------------	---

19. Choose .
20. Choose .
21. Choose the  *Business Data* tab page.



The system displays the issued notification number.

22. Choose *Edit* → *End call*.
23. Choose  until the overview tree appears.

Processing a Customer Call (Variant B)

Processing a Customer Call (Variant B)

Use

You play the role of an employee in a call center of the IDES AG, where you take a call from a customer. The customer informs you about a defect of an equipment. On the basis of this information, you create a service notification.

Procedure

8. Call up the transaction as follows:

Menu Path	<i>Logistics → Customer Service → Customer Interaction Center → Front Office → Front Office</i>
Transaction Code	CICO

You take a call from a Hitech AG customer.


9. Enter the following data:


Field	Data
The right-hand entry field of the Customer line	Hitech

10. Choose .

The system displays customer number 1171.

11. In the *Contact Person* line, choose the possible entries pushbutton.

12. In the *Hit List* dialog box, position your cursor on a contact person, then choose .

13. In the middle of the screen, choose .




Your entries are now transferred to the business data (upper screen area), where you can use them for additional processing in the R/3 System (for example, creating a service notification).

14. Choose .

15. Enter the following data:

Field	Data
Customer number	1171 (defaulted)
Sales organization	1000 (defaulted)
Distribution channel	Not selected
Division	Not selected

16. Choose .


The system lists information for the customer.

17. Choose  until the *Customer Interaction Center* screen appears.

Processing a Customer Call (Variant B)

The customer reports a defective piece of equipment. You enter a service notification.

18. Choose the  *Service* tab page.


19. Choose .




The system defaults the notification type, the customer number of the sold-to-party is taken from the business data display.

20. Enter the following data:

Field	Data
Equipment	10003562
Object part (1 st field)	PC
Object part (2 nd field)	5
Damage (1 st field)	PC
Damage (2 nd field)	E


21. Choose .

22. Choose .



The system displays the issued notification number.

23. Choose *End contact*.

24. Choose  until the overview tree appears.

Service Contracts

Service Contracts

[Processing Service Contracts with Periodic Billing \[Page 115\]](#)

[Service Processing and Resource-Related Billing with Service Contracts \[Page 139\]](#)

[Spare Parts Delivery with a Service Contract \[Page 153\]](#)

Processing Service Contracts with Periodic Billing

Purpose

This process shows you how to create and process service contracts for customer equipment. It contains periodic billing for service contracts and a link to a further process containing resource-related billing.

Prerequisites

The process begins with the delivery of a personal computer to the customer. Once delivered, an equipment master record is created. The customer would like to conclude a service contract for the equipment. If the customer desires, configurable or preconfigured service packages can be used in the service contract. It includes special price agreements for the materials that can be used in subsequent service measures. These price agreements are automatically taken into account in resource-related billing (see the scenario [Service Processing and Resource-Related Billing with Service Contracts \[Page 139\]](#)). The service contract also contains the standard charge billed each month. A settlement is drawn up for the monthly charge, and the revenues (as well as any costs) are settled to Profitability Analysis (CO-PA).

The scenario can be performed separately or together with the scenario [Service Processing and Resource-Related Billing with Service Contracts \[Page 139\]](#).

Process Flow

You can find the data for this process under [?](#) [Page 116].

1. [Creating and Delivering Sales Orders \[Page 117\]](#)
2. [Creating the Equipment Master Record \[Page 120\]](#)
3. [Creating Service Contracts for the Plant Maintenance of Customer Equipment \[Page 122\]](#)
4. [Maintaining Price Agreements in the Service Contract \[Page 123\]](#)
5. [Service Processing and Resource-Related Billing \[Page 124\]](#)
6. [Performing Periodic Billing Document \[Page 125\]](#)
7. [Settlement of Service Contracts \[Page 127\]](#)
8. [Displaying Line Items in Profitability Analysis \[Page 135\]](#)
9. [Displaying a CS Report in Profitability Analysis \[Page 137\]](#)

Data Used During This Process

Data Used During This Process

Field	Data	Description
Plant	1200	Dresden
Company code	1000	IDES AG
Business area	8000	External Services
Main work center	PC-SERVS/1200	
Service contract type	WV	Service and maintenance
Material numbers	R-1001 R-1111 R-1120	Maxitec-R3100 PC Motherboard M-3100 Cable with earthed plug
Service materials	REPAIR SERVICE PC_SERVICE_CON F PC_SERVICE_A	
Sold-to party	1032	Inst.f. Environmental Research
Sales organization	1000	Germany Frankfurt
Distribution channel	14	Service
Division	00	Cross-division

Creating and Delivering Sales Orders

1. Call up the transaction as follows:

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

2. Enter the following data:

Field	Data
Order type	TA
Sales organization	1000
Distribution channel	10
Division	00

3. Choose .

4. Enter the following data:

Field	Data
Sold-to party	1032
PO number	SM-329800
Req. deliv. date	Today's date + 7 working days
Material	R-1001
Order quantity	1

5. Choose .




The system produces a BOM explosion. This generates additional items which serve as an explanation.

6. Choose the *Shipping* tab page, and note the material availability date of the first item.

7. Choose .

8. Make a note of the sales order number.

9. Choose  until the overview tree appears.

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


11. Call up the transaction as follows:

Menu Path	<i>Logistics → Sales and Distribution → Shipping and Transportation → Outbound Delivery → Create → Single Document → With Reference to Sales Order</i>
Transaction Code	VL01N, LT03

12. Enter the following data:


Creating and Delivering Sales Orders

Field	Data
Shipping point	1200
Selection date	e.g. today's date + 1 month
Order	No. of your customer order
From item	Empty
To item	Empty

13. Choose .

You now see the overview screen for the delivery document.

14. Select the first item, then choose *Extras* → *Serial numbers*.


15. Choose .

16. In the *Serial number selection* screen area, enter the following data:

Field	Data
Plant	1200
Storage location	0001

17. Choose .

The system produces a list of serial numbers occurring in the specified plant and storage location.

18. Select the first entry in the list, then choose .

19. Make a note of the selected serial number.

20. In the dialog box, choose .

21. Choose *Subsequent functions* → *Create transfer order*.


22. In the dialog box, choose Yes.

23. Enter the following data:

Field	Data
Warehouse number	012
Plant	1200
Delivery	Proposed by the system
Foreground/Background	Background
Adopt picking quantity	2

24. Choose .

The system creates a transfer order for picking the delivery quantities. The option 2 (Adopt picking quantity) means that the goods issue is posted immediately for that delivery.

25. Choose  until the overview tree appears.

Creating the Equipment Master Record




Creating the Equipment Master Record

1. Call up the transaction as follows:

Menu Path	<i>Logistics → Customer Service → Management of Technical Objects → Serial Numbers → List Editing → Change</i>
Transaction Code	IQ08, IQ02

2. Enter the following data:




Field	Data
Material	R-1001
Partner (1st field)	Sold-to-party
Partner (2nd field)	1032

3. Choose .
4. Select the line for your serial number, then choose .
5. Choose  *Equipment view*.
6. Choose the *Sales and Distribution* tab page.
7. Enter the following data:

Field	Data
Sales org.	1000
Distribution channel	14
Division	00

8. Choose the *Organization* tab page.
9. Enter the following data:

Field	Data
Company code	1000
Business area	8000
Planning plant	1200
Planning group	201
Main work center	PC-SERVS/1200

10. Choose the *Ser.data* tab page.
11. If any warning messages appear, choose .
12. Note the equipment number.
13. Choose .
14. Choose  until the overview tree appears.

Creating Service Contracts for Maintenance of Customer Equipment

Creating Service Contracts for Maintenance of Customer Equipment

You now see how to create service contracts for customer equipment. You can choose whether you wish to use nonconfigurable, configurable or preconfigured service packages in your service contract.

Choose one of the three possible options:

[Creating Service Contracts \(Nonconfigurable\) \[Page 129\]](#)

[Creating Service Contracts with a Configurable Service Package \[Page 131\]](#)

[Creating Service Contracts with a Preconfigured Service Package \[Page 133\]](#)




Maintaining Price Agreements in the Service Contract

1. Call up the transaction as follows:


Menu Path	<i>Logistics → Customer Service → Service Agreements → Contracts → Contract → Change</i>
Transaction Code	VA42

2. Enter the following data:





Field	Data
Contract	Your service contract number

3. Choose .
4. Select your item, then choose  *Price agreements*.
5. Choose .
6. In the dialog box, enter the following data:

Field	Data
Condition type	ZZDC (Item Discount Contract)

7. Choose .
8. Enter the following data:

Field	Data
Material	R-1120
Rate	10
Material	R-1111
Rate	15

9. Choose .
10. Choose .
11. Choose  again.
12. Choose  until the overview tree appears.

Service Processing and Resource-Related Billing (optional)

Service Processing and Resource-Related Billing (optional)

This step enables you to process a complete service case for the customer equipment relating to the service contract created previously. Since this is an optional enhancement for contract processing itself, you can also proceed with the following step.

If you wish to process a service notification and a service order relating to your contract, select the following process:

[Service Processing and Resource-Related Billing with Service Contracts \[Page 139\]](#)

Performing Periodic Billing Document

Use

In this step, you bill the monthly amounts that are due according to the billing plan for the service contract.



Procedure

1. Call up the transaction as follows:

Menu Path	<i>Logistics → Customer Service → Service Agreements → Contracts → Contract → Display</i>
Transaction Code	VA43



2. Enter the following data:

Field	Data
Contract	Your service contract number

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

The basic price for the service (condition type PPSV) and where applicable the surcharges/deductions are used to calculate the net price (Target: net value for item). This net price is then billed each month.


Check the monthly standard price for your service (condition type PPSV).

5. Choose .
6. Select your service item, then choose  *Billing plan*.



Check the rules and items of the billing plan. Note how the billing amount for the first and last month is confined to the billing horizon.

Only the billing items in the selected horizon are displayed. Depending on the setting, the billing date or billing value of the last month of validity for your contract is not displayed.

7. Choose , until the overview tree appears.
8. Call up the transaction as follows:

Menu Path	<i>Logistics → Customer Service → Service Processing → Environment → Sales and Distribution → Billing Document → Billing Document → Process Billing Due List</i>
Transaction Code	VF04, VF01


9. Enter the following data:

Field	Data
-------	------

Performing Periodic Billing Document


Billing date until	Last day of current month
Billing type	F2
Sold-to party	1032
Order-related	Select

10. Choose  *DisplayBill.list*.

11. Choose .

12. Select the line containing your service contract and choose *Individual billing document*.

13. Choose .

14. Choose  until the overview tree appears.


15. Call up the transaction as follows:

Menu Path	<i>Logistics → Customer Service → Service Agreements → Contracts → Contract → Display</i>
Transaction Code	VA43

16. Enter the following data:


Field	Data
Contract	Your service contract number

17. Choose .

18. Select your service item, then choose  *Billing plan*.



The status (column BillSt in the table) of the billing item has changed from status *A* (not billed) to status *C* (completely processed).

19. Choose  until the overview tree appears.

Settlement of Service Contracts

1. Call up the transaction as follows:

Menu Path	<i>Logistics → Customer Service → Service Agreements → Contracts → Contract → Display</i>
Transaction Code	VA43

2. Enter the following data:


Field	Data
Contract	Your service contract number

3. Choose .

4. To check the actual sales revenue for your service contract, choose *Environment → Cost report*.



If you have settled a service order to your service contract (using, for example, the process [Service Processing and Resource-Related Billing with Service Contracts \[Page 139\]](#)), then you will also find the costs and revenues for that service order in the cost report. The planned revenues that are produced from the validity period of the billing plan are compared with the actual revenues obtained so far.

5. Choose  until the overview tree appears.

6. Call up the transaction as follows:


Menu Path	From the <i>Contracts</i> node choose <i>Contract → Follow-on functions → Settlement</i>
Transaction Code	VA88

7. If the *Set Controlling Area* dialog box appears, enter the following data and choose :

Field	Data
Controlling area	1000


8. Enter the following data:

Field	Data
Sales Organization	1000
Sales document	No. of your service contract
Settlement period	Current period (current month)
Fiscal year	Current fiscal year
Test run	Deselect

9. Choose .

You see a detailed list of the settled amounts.

Settlement of Service Contracts

10. Choose  until the overview tree appears.

11. Call up the transaction as follows:

Menu Path	<i>Logistics → Customer Service → Service Agreements → Contracts → Contract → Display</i>
Transaction Code	VA43


12. Enter the following data:

Field	Data
Contract	Your service contract number

13. Choose .

14. Choose *Environment → Cost report*.

You can now check that the contract has been credited by the order settlement and that the total of debits and credits is now zero.

15. Choose  until the overview tree appears.

The operative service process is complete after settlement. Both steps deal with the transaction from the Profitability Analysis view CO-PA). Firstly, you deal with the line item generated during settlement. You then perform a report, which analyzes all present profitability data relating to services. The values for the present process flow into this report.

Creating Service Contracts (Nonconfigurable)

1. Call up the transaction as follows:

Menu Path	<i>Logistics → Customer Service → Service Agreements → Contracts → Contract → Create</i>
Transaction Code	VA41

2. Enter the following data:


Field	Data
Contract type	WV
Sales organization	1000
Distribution channel	14
Division	00

3. Choose .

4. Enter the following data:

Field	Data
Sold-to party	1032
PO number	e.g. service/001
Contract end date	Contract start date + 2 years
Material	REPAIR_SERVICE
Target quantity	1

5. Choose .

6. To skip the warning message regarding the end date, choose .

7. In the dialog box, choose Yes.

8. Select your item.

9. Choose *Extras → Technical objects*.


10. Enter the following data:

Field	Data
Equipment	Your equipment number

11. Choose .

12. Choose .




13. Choose the *Item overview* tab page.

14. Select your service item, then choose  *Billing plan*.

Verify the entries in the billing plan. Note that the billing document value for the first and last month is delimited.

Creating Service Contracts (Nonconfigurable)

Only the billing items in the selected horizon are displayed. Depending on the setting, the billing date or billing value of the last month of validity for your contract is not displayed.

15. Choose .
16. Choose .
17. Make a note of the contract number.
18. Choose  until the overview tree appears.
19. In the dialog box, choose *No*.

To continue processing your service contract in the next process step, choose: [Maintaining the Price Agreements in the Service Contract \[Page 123\]](#)


Creating Service Contracts with a Configurable Service Package

1. Call up the transaction as follows:

Menu Path	<i>Logistics → Customer Service → Service Agreements → Contracts → Contract → Create</i>
Transaction Code	VA41

2. Enter the following data:

Field	Data
Contract type	WV
Sales organization	1000
Distribution channel	14
Division	00

3. Choose .

4. Enter the following data:

Field	Data
Sold-to party	1032
PO number	e.g. service/001
Contract end date	Defaulted
Material	PC_SERVICE_CONF
Target quantity	1

5. Choose .

6. Choose *Continue*.

7. Enter the following data:

Field	Data
Response profile	EPRESS
Service profile	EVERYDAY
Travel zone	50 (less than 50 km)
Repair location	Customer location

8. Choose .




9. Choose .

10. Select the item. Choose *Extras → Technical objects*.

11. Enter the following data:

Creating Service Contracts with a Configurable Service Package




Field	Data
Equipment	Your equipment number

12. Choose .
13. Choose .
14. Select your service item, then choose  *Billing plan*.

Verify the entries in the billing plan. Note that the billing document value for the first and last month is delimited.



Only the billing items in the selected horizon are displayed. Depending on the setting, the billing date or billing value of the last month of validity for your contract is not displayed.

15. To quit the billing plan, choose .
16. Choose .
17. Note the number of the contract.
18. Choose  until the overview tree appears.

Continue processing your service contract with [Maintaining Price Agreements in the Service Contract \[Page 123\]](#).


Creating Service Contracts with a Preconfigured Service Package

1. Call up the transaction as follows:

Menu Path	<i>Logistics → Customer Service → Service Agreements → Contracts → Contract → Create</i>
Transaction Code	VA41, VA45

2. Enter the following data:


Field	Data
Contract type	WV
Sales organization	1000
Distribution channel	14
Division	00

3. Choose .

4. Enter the following data:


Field	Data
Sold-to party	1032
PO number	e.g. service/001
Contract end	Contract start date + 2 years
Material	PC_SERVICE_A
Target quantity	1

5. Choose .

6. To skip any warning messages regarding the end date, choose .

7. In the dialog box, choose Yes.

8. Select your item.

9. To display the characteristic value assignment predefined for this service material, choose .

10. Choose .





11. Select your item. Choose *Extras → Technical objects*.

12. Enter the following data:

Field	Data
Equipment	quoted equipment number




13. Choose .

Creating Service Contracts with a Preconfigured Service Package

14. Choose .
15. Choose  *Contracts* and check the contract duration.
16. Choose .
17. Select your service item, then choose  *Billing plan*.
18. Verify the entries in the billing plan. Note that the billing document value for the first and last month is delimited.



Only the billing items in the selected horizon are displayed. Depending on the setting, the billing date or billing value of the last month of validity for your contract is not displayed.

19. Choose .
20. Choose .
21. Make a note of the contract number.
22. Choose  until the overview tree appears.
23. In the dialog box, choose *No*.

Continue processing your service contract with [Maintaining Price Agreements in the Service Contract \[Page 123\]](#).

Displaying Line Items in Profitability Analysis

Use

The costs and revenues are attained under record type C (order and project settlement) in Profitability Analysis through the settlement of the service contract.

Procedure

1. Call up the transaction as follows:

Menu Path	<i>Accounting → Controlling → Profitability Analysis → Information System → Display Line Item List → Actual</i>
Transaction Code	KE24



If you are processing an operating concern in this session for the first time, the *Set Operating Concern* dialog box appears.

2. Enter the following data:

Field	Data
Operating concern	IDEA
Type of profitability analysis	Costing-based

3. Choose .



This dialog box is only displayed once per session. Once you have made your selection, the system assumes that you will only work in this operating concern and type in this session.

4. Enter the following data:

Field	Data
Currency type	B0
Date created	Today's date
Entered by	Your user name

5. Choose .

6. Choose .

You can see that the item with record type C has been posted from service management to CO-PA through settlement.

7. Double-click on this line item.


You now see, for example, the customer name and the organizational units.

The item reference is actually the material number for the service product. You see the corresponding assignments to a plant, profit center level, and so on.

Displaying Line Items in Profitability Analysis

Here you can see all the characteristics that can be analyzed in Profitability Analysis. The values for these characteristics were derived from the customer and material master records, the SD partner functions (such as the sales representative), or from CO-PA specific characteristics.



Note that the list of characteristic values is displayed over several screens. To scroll through the characteristics, choose .

8. Choose the *Value fields* tab page.

9. To scroll down, choose .

You can see detailed information about the order and billed quantities, revenues, discounts, and detailed product cost components that were derived from SD and CO-PC. Note that the list of value fields spans several screens.


Revenue is made up of the total from contract billing and the total from the billing of the service order assigned to the contract (although the latter is only involved if you integrated the process [Service Processing and Resource-Related Billing with Service Contracts \[Page 139\]](#) into the current process).

Customer discount is calculated from the total of sales deductions posted during contract billing or during the billing of the service order assigned to the contract (although the latter is only involved if you integrated the process [Service Processing and Resource-Related Billing with Service Contracts \[Page 139\]](#) into the current process).

Sales commission is calculated by valuating anticipated costs from Profitability Analysis.

Material usage is made up of the costs that were generated through the use of materials for the service order (although only if you integrated the process [Service Processing and Resource-Related Billing with Service Contracts \[Page 139\]](#) into the current process).

Maintenance costs represent any service technician charges (although only if you integrated the process [Service Processing and Resource-Related Billing with Service Contracts \[Page 139\]](#) into the current process).

10. Choose  until the overview tree appears.

Displaying a CS Report in Profitability Analysis


Use

The report IDES-090 CS reporting uses different accounts receivable and service products to demonstrate how the reporting procedure for service management can be structured. The costs and revenues generated in the previous steps have been prepared for reporting and evaluated as key figures.


Procedure

1. Call up the transaction as follows:

Menu Path	<i>Accounting → Controlling → Profitability Analysis → Information System → Execute Report</i>
Transaction Code	KE30

2. Select the report IDES-090 and choose .
3. Enter the following data:



Field	Data
Fiscal year	Current fiscal year
From period	1
To period	Current period

4. Choose .

You see the basic screen of the report. In the report header, you see the dimensions defined for this report. Sales organization *1000, Germany, Frankfurt* and distribution channel *14 Service*.

Beneath the report header, you find the navigation field which enables you to navigate through the individual service products. The key figures include revenues, sales deductions, costs and the resultant contribution margins which are displayed in the additional columns and are accumulated for the individual accounts receivable.

In the fourth column, you see the customer Institute for Environmental Research (customer number *1032*) for which you have created the service contract (and service order, if applicable).

5. To access the product level, choose *Product* in the Navigation field.
6. If the *Drilldown: Callup Documentation on Hotspots* screen appears, choose .
7. Choose  next to the field *Product*.
8. Select the product(s) which you used in the previous process.

The totals of the value fields for the customer Institute for Environmental Research are obtained from the line items showed previously as well as from any other postings.

9. Choose .

The characteristic *Product* now appears in a different color.

Displaying a CS Report in Profitability Analysis


10. To call up the drilldown list choose *Product*.

For each individual key figure, you obtain an overview of all products in sales organization *1000* and distribution channel *14* and of the customers who have generated revenues or costs for these products. It is now possible to perform a direct comparison of all service products. The overall result is displayed in the last line.

11. To view other key figures for this listing, choose .



For more information on navigation within a report, see [Performing Defined Reports in Profitability Analysis \[Page 169\]](#).

12. Choose  until the overview tree appears.

13. In the dialog box, choose Yes.

Service Processing and Resource-Related Billing with a Service Contract

Purpose

This process shows you how to create and process a service order for repair or maintenance work at a customer device for which a service contract was completed. It incorporates the confirmation of the service order and resource-related billing with reference to the service contract.

Prerequisites

The customer calls to report an equipment breakdown. A service technician must replace the damaged parts in the equipment. A service contract exists for this equipment. The contract incorporates special price agreements for the materials to be used during the repair work. You create a service order, and the system displays the contract for the damaged equipment on the object information screen. The components required for the repair work are assigned to the individual operations in the order. The cost report gives you an overview of the planned costs determined for the order as a result. The actual hours worked by the service technician as well as the components replaced are confirmed for the service order. The system creates a billing request for resource-related billing. In doing this, the system takes price determination information from the service contract including any additional price agreements into account. The billing request is processed in the Sales and Distribution application component and released for billing.



This process can also be executed in conjunction with the process [Processing a Service Contract with Periodic Billing \[Page 115\]](#) instead of the prepared contract and equipment number specified. This enables you to use the contract and equipment number you have created.

Process Flow

You can find the data for this process under [?](#) [\[Page 140\]](#).

1. [Creating a Service Order from a Notification \[Page 141\]](#)
2. [Assigning Components and Releasing a Service Order \[Page 144\]](#)
3. [Posting Goods Issues for a Service Order \[Page 145\]](#)
4. [Confirming a Service Order \[Page 146\]](#)
5. [Creating a Billing Request \[Page 147\]](#)
6. [Creating a Billing Document from a Billing Request \[Page 149\]](#)
7. [Settling the Costs of the Service Order to the Service Contract \[Page 150\]](#)

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

Field	Data
Plant	1200
Service order type	SM01
Equipment	10003552
Service contract	40000073
Billing request	LV
Sold-to party	1032
Materials	R-1120 R-1111
Sales organization	1000
Distribution channel	14
Division	00
Maintenance planning plant	1200
Maintenance plant	1200
Business area	8000

Creating a Service Order from a Notification

1. Call up the transaction as follows:

Menu Path	<i>Logistics → Customer Service → Service Processing → Notification → Create (Special) → Problem Notification</i>
Transaction Code	IW54, VA43

2. Enter the following data:

Field	Data
Equipment	10003552 or equipment number generated in the scenario <i>Processing a Service Contract with Periodic Billing</i>

3. Choose the *Contact person address* tab page.

4. Enter the following data:

Field	Data
Description (notification)	CPU defective (in the first row)
Contact person	Contact person (using the input help)
Priority	High



You access the list of contact persons by positioning your cursor in the second entry field of the *Contact person* line and choosing the input help.


5. In the dialog box, position your cursor on a contact person, then choose .

6. Choose .

7. To check the object information, select  in the *Reference object* screen area.

The *Object information* dialog box appears. You can check both existing notifications and contract data.

8. To view the detailed data for the order, choose  in the *Contract* screen area.

9. To display the items and rules of the billing plan, select your service item and choose  *Bill. Plan.*

10. Choose .


11. Choose  *Pricing agrt.*

12. Check the following entries:


Field	Data
Material	R-1111
Amount	15
Unit per unit of measure	%

Creating a Service Order from a Notification

Material	R-1120
Amount	10
Unit	%

13. Choose  twice.



If your contract contains configurable or configured service materials, you will also see the *Configuration* icon  in the dialog box in the *Contract* screen area.

14. To display the characteristic value assignments, choose  if it appears on your screen.

15. To leave the dialog box with the characteristic values, choose .

16. Choose .

17. To generate tasks immediately for your notification that are based on the contract configuration, choose *Edit* → *Tasks* → *Determine*.

The system displays the message *2 tasks were created from the response profile*.

18. Choose the *Tasks* tab page.

You see a list of tasks that the system has created for your notification.

19. To check the planned start and finish date for each task, select the first task, then choose .



The system calculates this data from the response and service profiles that were defined in PM Customizing. If the service contract contains a configurable service with a response profile and a service profile, both profiles are determined with the help of the assigned characteristic values. If not, the system proposes the values as a default based on the notification category.

20. Choose  *Close*, then choose the *Notification* tab page.


21. To create a service order from the service notification, choose  in the *order* line.


22. Choose .

23. Check the following entries:

Field	Data
Description	CPU defective
Mn.wk.ctr	PC-SERVS/1200
WkCtr/Plnt	PC-SERVS/1200
Work durtn	2

24. Choose .

25. Choose  and note the number of your service order.

26. Choose  until the overview tree appears.

Creating a Service Order from a Notification

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

Assigning Components and Releasing a Service Order





Assigning Components and Releasing a Service Order

1. Call up the transaction as follows:

Menu Path	<i>Logistics → Customer Service → Service Processing → Order → Service Order → Change</i>
Transaction Code	IW32

2. Enter the following data:




Field	Data
Order	Number of your service order

3. Choose .
4. Choose the *Components* tab page.
5. Choose  *List*.
6. Select the items R-1111 and R-1120, then choose .
7. Choose .
8. Enter the following data:

Field	Data
Order	Number of your service order (is proposed by the system per default)

9. Choose *Costs*.

The system displays the planned costs for the order.

10. Choose the *Header data* tab page.
11. To release the order, choose .
12. In the dialog box, select *W/o print*, then choose .
13. Choose  until the overview tree appears.


Posting Goods Issues for a Service Order

1. Call up the transaction as follows:


Menu Path	<i>Logistics → Customer Service → Service Processing → Confirmation → Goods Movement → Goods Movement</i>
Transaction Code	MB11

2. Choose *To order*.
3. In the dialog box, enter the following data:

Field	Data
Order	Number of your service order

4. Choose .
5. If necessary, enter the following data:

Field	Data
SLoc (first item)	0001
SLoc (second item)	0001

6. Select the items you want to post, then choose *Goods movement → Post*.
7. Choose  until the overview tree appears.
8. In the dialog box, choose Yes.

Confirming a Service Order


Confirming a Service Order

9. Call up the transaction as follows:

Menu Path	<i>Logistics → Customer Service → Service Processing → Confirmation → Entry → Individual Confirmation (Time)</i>
Transaction Code	IW41


10. Enter the following data:


Field	Data
Order	Number of your service order

11. Choose .

12. Enter the following data:

Field	Data
Actual work	3
Work start	Today's date
Work end	Today's date

13. Choose .

14. Choose  until the overview tree appears.

Creating a Billing Request

1. Call up the transaction as follows:


Menu Path	<i>Logistics → Customer Service → Service Processing → Order → Service Order → Display</i>
Transaction Code	IW33

2. Enter the following data:

Field	Data
Order	Number of your service order

3. Choose *Costs*.

Compare the actual costs with the planned costs for labor and materials for this service order on this screen.

4. Choose  until the overview tree appears.

5. Call up the transaction as follows:

Menu Path	From the <i>Completion</i> node, choose <i>Billing Request → Process Individually</i>
Transaction Code	DP90, VA02


6. Enter the following data:

Field	Data
Order	Number of your service order

7. Choose  *Expenses*.

The service order costs incurred due to the material consumption and the repair hours are listed. The costs incurred due to the material consumption are displayed under each respective material number.

8. Choose  *Sales price*.

9. Position the cursor on the billing request row (Deb.Memo Req. F. Ctrct), and choose .

The system displays the billing request items that are generated when you save on the second level. The expenses and value (column *Net value*) with which the expenses are billed are compared with one another.

10. To call up price determination, double-click on the row for material R-1111 (CPU) that is displayed in the lower screen title.

The costs have been copied to the conditions EK01 (actual costs). The material has a price (condition type PR00) with which it is invoiced. The discount agreed upon in the contract (condition type ZZDC) is granted.

11. To call up price determination, double-click on the row for material R-1120 (Cable 220/235 V) that is displayed in the lower screen title.


Creating a Billing Request

The costs have been copied to the conditions EK01 (actual costs). The material has a price (condition type PR00) with which it is invoiced. The discount agreed upon in the contract (condition type ZZDC) is granted.

12. To call up price determination, double-click on the row for material *SM-REPHOUR (Repair Hour)* that is displayed in the lower screen title.

The costs have been copied to the conditions EK01 (actual costs). The material has a price (condition type PR00) with which it is invoiced.


13. Choose  *Billing request*.

14. Choose  *Yes*.


The billing request created by the system is automatically displayed due to a default setting.

15. The billing request is initially blocked for billing. To delete the billing block, enter the following data:

Field	Data
Billing block	Delete existing block

16. Choose .

17. Note the number of the billing request.

18. Choose  until the overview tree appears.

Creating a Billing Document from a Billing Request


Creating a Billing Document from a Billing Request

1. Call up the transaction as follows:

Menu Path	<i>Logistics → Customer Service → Service Processing → Completion → Billing Document → Create</i>
Transaction Code	VF01

2. Enter the following data:


Field	Data
Document	Number of the billing request

3. Choose .



The system displays an overview of the billing items.

4. Choose .

5. Choose  until the overview tree appears.

Settling the Costs of the Service Order to the Service Contract

Settling the Costs of the Service Order to the Service Contract

1. Call up the transaction as follows:

Menu Path	<i>Logistics → Customer Service → Service Processing → Order → Service Order → Display</i>
Transaction Code	IW33



2. Enter the following data:

Field	Data
Order	Number of your service order

3. Choose .
 4. Choose Extras → Cost reports → Planned/actual comparison.





On the *Order cost element display: Selection* screen, you can check the personnel and material costs for your service order.

5. Choose .
 6. Choose  until the overview tree appears.
 7. Call up the transaction as follows:

Menu Path	<i>Logistics → Customer Service → Service Agreements → Contracts → Contract → Display</i>
Transaction Code	VA43

8. Enter the following data:

Field	Data
Contract	40000073 or the contract number generated in the scenario <i>Processing a Service Contract with Periodic Billing</i>

9. Choose .
 10. To display the actual revenues for your service contract, choose *Environment → Cost report*.
 11. Choose  until the overview tree appears.
 12. Call up the transaction as follows:

Menu Path	<i>Logistics → Customer Service → Service Processing → Completion → Order Settlement → Settle Individually</i>
Transaction Code	KO88

13. If the Set controlling area dialog box appears, enter the following data, then choose :


Field	Data


Settling the Costs of the Service Order to the Service Contract

Controlling area	1000
------------------	------

14. Enter the following data:

Field	Data
Order	Number of your service order
Settlement period	Current period
Fiscal year	Current fiscal year
Test run	Deselect

15. Choose .


16. Choose  until the overview tree appears.

17. Call up the transaction as follows:

Menu Path	<i>Logistics → Customer Service → Service Processing → Order → Service Order → Display</i>
Transaction Code	IW33


18. Enter the following data:

Field	Data
Order	Number of your service order

19. Choose .

20. Choose Extras → Cost reports → Planned/actual comparison.

21. Check whether all actual costs for your order have been settled.

22. Choose  until the overview tree appears.

23. Call up the transaction as follows:


Menu Path	<i>Logistics → Customer Service → Service Agreements → Contracts → Contract → Display</i>
Transaction Code	VA43

24. Enter the following data:

Field	Europe
Contract	40000073 or the contract number generated in the scenario <i>Processing a Service Contract with Periodic Billing</i>

25. Choose .

26. Choose *Environment* → *Cost report*, then check whether the costs for materials and wages for your service order are now displayed in addition to the revenues.

27. Choose  until the overview tree appears.

28. In the dialog box, choose Yes.

Settling the Costs of the Service Order to the Service Contract

If you have not performed this scenario *'in isolation'*, but together with the process [Processing a Service Contract with Periodic Billing \[Page 115\]](#), you can continue processing your service order by choosing the following process: [Performing Periodic Billing \[Page 125\]](#).

Spare Parts Delivery with a Service Contract

Purpose

The customer requests spare parts for a piece of equipment. A service contract applies to this equipment. The contract states that a price reduction is to be given when spare parts are delivered.



The logistical structure of this process is identical to that of the process [Service Management - Spare Parts Delivery \[Page 30\]](#). In the environment of the IDES processes for service contracts, we also describe here the transfer of price agreements from a service contract to a spare parts order. We show the function for condition exclusion. You can use the condition exclusion to specify that given price agreements are to be used alternately, and therefore cannot be transferred together in one order item.

You can find more information about this process under [i \[Page 154\]](#).

Process Flow

You can find the data for this process under [? \[Page 155\]](#).

1. [Creating a Service Notification and a Spare Parts Order \[Page 156\]](#)
2. [Creating a Spare Parts Order \[Page 158\]](#)
3. [Creating a Billing Document \[Page 159\]](#)

Additional Process Information

Additional Process Information

The following additional information is aimed at IDES users with prior knowledge of Customizing for Pricing.

Condition Exclusion

Two exclusion groups (SM01 and SM02) have been defined for the condition exclusion described in this process. The first group SM01 contains condition type ZZDC. Condition type ZZWV is assigned to the group SM02. Pricing for sales document type ZERS (spare parts order) is determined through pricing procedure ZSM001. The pricing of this pricing procedure uses an exclusive exclusion method for the two groups. With this method, all condition types contained in the second group are set to inactive if a condition type of the first group exists in the document.

Data Used During This Process

Field	Data	Description
Warehouse number	012	Warehouse Dresden
Plant	1200	Dresden
Material number	R-1130	Spare part
Material number	R-1160	Spare part
Sales organization	1000	Sales organization Germany
Distribution channel	14	Service
Division	00	Cross-divisional division
Sold-to party	1172	Customer
Equipment	10003592	Equipment

Creating a Service Notification and a Spare Parts Order

Creating a Service Notification and a Spare Parts Order

12. Call up the transaction as follows:

Menu Path	<i>Logistics → Customer Service → Service Processing → Notification → Create (Special) → Problem Notification</i>
Transaction Code	IW54

13. Enter the following data:

Field	Data
Equipment	10003592

14. Choose .


15. Choose the *Contact person address* tab page.

16. Enter the following data:


Field	Data
Description (notification)	Spare parts request
Contact person	Select a contact person using the F4 help



To call up the list of contact persons, position your cursor in the second entry field of the *Contact person* line, then choosing the F4 input help.

In the dialog box, position your cursor on a contact person and choose .

17. Choose .

18. To check the object information for your equipment, in the *Reference object* section, choose .

The *Object information* dialog box appears.

19. In the *Obj. Display* section, choose .

The system displays information about spare parts that you can use for your object.

20. Choose .

In the box, you can see that in the *Contract* block there is a contract for the reference object of the notification.

21. Choose .


22. Choose *Service notification → Create sales order → Standard*.


23. Enter the following data:


Field	Data
Purch. order number	CB-334455
Material (1st line)	R-1130

Creating a Service Notification and a Spare Parts Order

Order quantity (1st line)	1
Material (2nd line)	R-1160
Order quantity (2nd line)	1

24. Choose .

25. Choose .

26. Choose .


You see the additional data for material R-1130. The spare part discount (condition type ZZWV) was transferred from the service contract.

27. Choose .

You see the additional data for material R-1160. The pricing has transferred the contract-specific discount for material R-1160 into the item. As the material belongs to the group of spare parts, the general spare part discount (condition type ZZWV) was transferred from the contract. Pricing, however, is customized so that the material-dependent discount excludes the general spare part discount and is therefore deactivated (see the total in *the Discount amount* line).

28. Select the line for condition type ZZWV and choose .

You can see that the condition has not been activated.

29. Choose  twice.


30. Choose the *Shipping* tab page and note the material availability date.

31. Choose .

32. Choose .

The sales order is also saved in the background.

33. Note the displayed numbers of the service notification and the sales order.

34. Choose  until the overview tree appears.

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

Creating a Spare Parts Order

Creating a Spare Parts Order

10. Call up the transaction as follows:

Menu Path	<i>Logistics → Sales and Distribution → Shipping and Transportation → Outbound Delivery → Create → Single Document → With Reference to Sales Order</i>
Transaction Code	VL01N, LT03

11. Enter the following data:

Field	Data
Shipping point	1200
Selection date	Material availability date
Order	Number of your order
From item	No entry required
To item	No entry required


12. Choose .

13. Choose *Subsequent functions → Create transfer order*.

14. In the dialog box, choose Yes.

15. Enter the following data:


Field	Data
Warehouse number	012
Plant	1200
Delivery	Proposed by the system
Foreground/background	Background
Adopt pick. quantity	2

16. Choose .



The system creates a transfer order for picking the delivery quantity. The option 2 (Adopt picking quantity) means that the goods issue is posted immediately for that delivery.

17. Note down your delivery number.

18. Choose  until the overview tree appears.


Creating the Billing Document


36. Call up the transaction as follows:

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

37. Enter the following data:


Field	Data
Document	Your delivery number

38. To display the overview of the billing items, choose .

39. Choose .



The system posts the corresponding accounting documents in the background.

40. Choose  until the overview tree appears.

Controlling

Controlling

[Controlling for Services \[Page 161\]](#)

Controlling for Services

Controlling for Services

Purpose

Controlling for services occurs at two levels in IDES.

A) Controlling at the level of individual service orders and contracts

At this level, you can examine the IDES processes relating to service orders and contracts that use a report to display the costs and revenues for an individual controlling object.

For more information, see the following processes:

[Processing a Service Order and Billing \[Page 36\]](#)

[Processing Service Contracts with Periodic Billing \[Page 115\]](#)

B) Controlling aggregated values in Profitability Analysis

This IDES process deals with this controlling level.

The following overview portrays the flow of costs and revenue for service orders and contracts into Profitability Analysis:

	Costs	Revenues	Settlement to Profitability Analysis
Service order without SD documents	When the order is confirmed, the costs are assigned to it	When the order is billed, the revenue is assigned to it	Settlement object = service order Costs and revenue from the order
Service contract		When the contract is billed periodically, the revenue is assigned to it	Settlement object = service contract Revenue from the contract
Service order with reference to Service contract	When the order is confirmed, the costs are assigned to it When the order is settled, the order costs are assigned to the contract	When the order is billed, the revenue is assigned to the contract When the contract is billed periodically, the revenue is assigned to it	Settlement object = Service contracts Costs and revenue from the order Revenue from the contract

You can find more information about this process under [i](#) [Page 164].

Process Flow

You can find the data for this process under [?](#) [Page 165].

1. [Displaying a CS Report in Profitability Analysis \[Page 166\]](#)
2. [Displaying Line Items \[Page 168\]](#)

Additional Process Information

Additional Process Information

Data Basis

In the IDES processes for Customer Service, values are transferred to Profitability Analysis via:

A) Service Order

Costs and revenues of a service order without reference to a contract are posted to Profitability Analysis when the contract is settled.

B) Service Contract

The revenues arising from the billing of the contract are posted to the contract. The revenues arising from the billing of a service order with reference to a contract are also posted to the controlling object "Contract". When you settle the service order, the order costs are posted to the contract. Once the service contract has been settled, the costs and revenues are posted to Profitability Analysis.



If you have not yet run the IDES processes for Customer Service in your system, the values from contract settlement still appear in Profitability Analysis. This is because the IDES contracts are automatically billed and settled periodically.

C) Spare Part Order

When you bill a spare parts order, the values are transferred to Profitability Analysis. The costs of the products are not billed to the individual sales order. Instead, the costs and revenues are compared on an aggregated level for each profitability segment.

Data Used During This Process

Field	Data	Description
Operating concern	IDEA	Global IDES
Type of CO-PA	Costing-based	
Report	IDES-090	Profitability Reports
Sales organization	1000	Frankfurt, Germany
Distribution channel	14	Service

Displaying a CS Report in Profitability Analysis

Displaying a CS Report in Profitability Analysis

Use

The report *IDES-090 Reporting Service Management* uses different accounts receivable and service products to demonstrate how the reporting procedure for service management can be structured. The revenues and costs produced in service management have been made compatible with reporting and also analyzed in the form of key figures.

Procedure



1. Call up the transaction as follows:

Menu Path	<i>Accounting</i> → <i>Controlling</i> → <i>Profitability Analysis</i> → <i>Information System</i> → <i>Execute Report</i>
Transaction Code	KE30



If you are calling up a profitability analysis transaction for the first time since logging on to the system, you may be requested to enter the operating concern. If the *Set Operating Concern* dialog box appears, enter the following data:

Field	Data
Operating concern	IDEA
Type of CO-PA	Costing-based

2. Choose .
3. Select the *IDES-090* report and choose .
4. Enter the following data:

Field	Data
Fiscal year	Current fiscal year
From Period	1
To Period	Current Period

5. Choose .





The report data is selected again.

You arrive at the basic screen of the report. In the report header, you see the dimensions defined for this report. Sales organization 1000, Germany, Frankfurt and distribution channel 14 Service.

Beneath the report header, you find the navigation field which enables you to navigate through the individual service products. In the form of key figures, you find revenues, sales deductions, costs and the resultant contribution margins, which are displayed in the additional columns and are cumulated for the individual accounts receivable.

6. To access the product level, choose *Product* in the *Navigation* area.


Displaying a CS Report in Profitability Analysis

7. If the *Drilldown: Callup Documentation on Hotspots* screen appears, choose .
8. Next to the *Product* field, choose .
9. Select any product for which you would like to analyze the key figures for all customers and choose .
10. In the *Navigation* area, choose .

The characteristic "Product" now appears in a different color.

11. To access the drilldown list, choose *Product*.

For each individual key figure, you obtain an overview of all products in sales organization 1000 and distribution channel 14 and of the customers who have generated revenues or costs for these products. It is now possible to perform a direct comparison of all service products. The overall result is displayed in the last line.

12. To view other key figures for this list, choose .
13. Remain on this screen.

Displaying Line Items

Displaying Line Items

1. Click on the icon to the left of the row for product PC_Service_CONF.

The system highlights the selected row.

2. Choose *Goto* → *Line Items*.

3. In the dialog box, choose .

You now see a list of the settlement items. The system displays selected detail information for each item, such as, Posting date or Entered by.

4. Double click on one of the line items.


You now see, for example, the customer name and the organizational units.


You also see the product number and the corresponding assignments to plant- and profit-center level.

Here you can see all the characteristics that can be analyzed in Profitability Analysis. The values for these characteristics were derived from the customer and material master records, the SD partner roles (such as the sales representative), or from CO-PA-specific characteristics.

5. Choose the *Value fields* tab page.

You can see detailed information about the billed quantity, revenue, discounts and product cost information that were derived from SD and CO-PC. Note that the list of value fields spans several screens.

6. To scroll through the value field screens, choose .

7. Choose  until the overview tree appears.



For more information about navigating within a report, see [Performing Defined Reports in Profitability Analysis \[Page 169\]](#).

Executing an Existing Report in Profitability Analysis and Getting to Know Reporting Functions

Purpose

This script demonstrates how to execute a predefined report and manipulate the report data using various interactive reporting features. This script also demonstrates how to link several reports via the report-report interface and perform contribution margin analysis.

You can find further information about reporting under [Creating a Basic Report in Profitability Analysis \[Ext.\]](#) and [Creating Forms and Reports in Profitability Analysis \[Ext.\]](#).

Prerequisites

Before you start, the parameters in your user profile must be defined. This is done in [Setting Up Parameters in Your User Profile \[Page 172\]](#).

You can find more information about this process under [i \[Page 170\]](#).

Process Flow

You can find the data for this process under [? \[Page 171\]](#).

1. [Selecting a Report in CO-PA \[Page 173\]](#)
2. [Drilling Down to the Lowest Level \(Including Line Item Detail\) \[Page 174\]](#)
3. [Line Item Analysis \(Including Integration with MM and SD\) \[Page 177\]](#)
4. [Report-Report Interface \[Page 180\]](#)
5. [Displaying Attributes \[Page 182\]](#)
6. [Hit Lists \[Page 183\]](#)
7. [Changing the Report Currency \[Page 184\]](#)
8. [Displaying and Creating Exceptions \[Page 185\]](#)

Additional Process Information

Additional Process Information

Profitability analysis allows you to evaluate user-definable profitability segments (such as products, customers, product lines, regions, business areas etc). The aim of the profitability analysis system is to provide your sales, management board, and corporate planning departments with information to support internal accounting and decision making. Based on the profitability segments that you choose for your organization, profitability analysis allows you to create your own tailor-made reports to analyze gross contribution or other operating figures (per profitability segment or a combination of profitability segments).

Data Used During This Process

Field	Data
Operating concern	IDEA
Type of Prof. analysis	Costing-based
Report	IDES-020
Report	IDES-030
Sales organization	3000
Fiscal year	1996
Period from	001
Period to	08
Plan version	100
Line item layout	IDES-04

Setting Up Parameters in Your User Profile

Setting Up Parameters in Your User Profile

1. Call up the transaction as follows:

Menu Path	<i>System → User profile → Own data</i>
Transaction Code	SU3

2. Choose the *Parameters* tab page.

3. Enter the following data:

Field	Data	Description
Parameters	BEV	Parameter ID for report line structure
Value	D1	Default report line structure
Parameters	ERB	Parameter ID for operating concern
Value	IDEA	Default operating concern

4. Save your entries.

Once you have defined these parameters, the system will display them automatically as default entries when an entry for the corresponding field is required.

Selecting a Report in CO-PA

1. Call up the transaction as follows:


Menu Path	<i>Accounting → Controlling → Profitability Analysis → Information System → Execute Report</i>
Transaction Code	KE30




If you are performing a profitability analysis transaction for the first time since logging on, the system displays the *Set Operating Concern* dialog box.

2. Enter the following data:

Field	Data
Operating concern	IDEA
Costing-based	select

3. Choose .

This dialog box will appear only once during your session. After you make the selection, the system will automatically select the respective operating concern and type of profitability analysis.

4. Select report *IDES-020*.
5. Choose .
6. Enter the following data:

Field	Data
Sales org.	1000
From Fiscal Year	2000
From Period	1
To Period	12

7. Choose .

The system displays the report list - an analysis of divisions according to cumulative actual, cumulative plan, and % variance.

8. Remain on the *Execute Profitability Report Plan/act./var. cum* screen.

Drilling Down to the Lowest Level (Including Line Item Detail)

Drilling Down to the Lowest Level (Including Line Item Detail)

Use

A profitability analysis report can contain multiple levels of detail (profitability segments). The CO-PA reporting tool provides you with easy-to-use functions for navigating through the data. For example, you can move from one profitability segment to the next, deactivate a level, switch between an overview and a detail report, or display the origins of the data.



At the top of the screen, you see the company logo (IDES), which every organization can define and include in reports.

In the Navigation area (first area in the middle of the screen), you see the characteristics that were selected in the report definition. The second area in the middle of the screen displays the values for these characteristics.

At the bottom left of the screen, you see the detailed list, which displays the detailed key figures for a characteristic combination.

At the bottom right of the screen, you see the graphical display of the characteristic values. All of this display is set in report definition, see *Output type*.

You can set the size of individual the screen areas by using the left mouse button to move the vertical and horizontal screen bars.

Procedure

1. In the second area in the middle of the screen, double-click the *01 Pumps* division.
2. Double-click the distribution channel *10, Final customer sales*.

You see the material groups.



To see the characteristic values, you can select the characteristic in the *Navigation* area and move it to the second area on the right side using drag and drop.

3. Move the characteristic *ProdHier01-1* to the second area using drag and drop.
Material Group and *ProdHier* change places.
4. In the *Navigation* area, position your cursor on the division *01* and press the right mouse button.
5. In the menu, choose *Choose Characteristic Value*.
6. Double-click *04 Lighting*.

The characteristic values have been adjusted to suit the characteristics displayed. Hence you see distribution channel 12 (and no longer 10) because 12 is relevant for sales in division *Lighting*; the product hierarchy has also been changed.

7. In the second area, double-click *Lighting*.

Drilling Down to the Lowest Level (Including Line Item Detail)

The system displays the product hierarchy 2.

8. Double-click *bulbs* .
9. Position your cursor on the graphic, then press the right mouse button.




You can change the formatting individually.

10. In the division *Cumulated Actual data;1-Sales quantity*, select the row containing the value for the product *L-40C*.

The cell is highlighted.

11. Choose *Goto* → *Line Items*.

The system displays a warning indicating that your selection is not very specific and that it could take a while to read the line items. This is because you selected a column that spans multiple periods.

12. Choose .

The system takes you to the *Display Actual Line Items: List* screen. A list of all the billing line items is displayed. Selected information (e.g. posting date, user id) is displayed for each line item.

The fields that are displayed are defined in a layout. In addition to the standard layout which you are currently displaying, you can also define additional custom layouts. These layouts can contain any information available on the CO-PA line item, including all the profitability segments and value fields.

You now change the layout of the line item list.

13. Choose *Extras* → *Change line item layout...* .

14. Select *IDES-04 Cust./Mat.Values*, then choose .



Note that the same line items are displayed, but with different information for each line item, such as the customer and product number and selected value fields.

15. Double-click any document number.

The line item detail is displayed.

16. Remain on this screen.

Line Item Analysis (Including Integration with MM and SD)

Line Item Analysis (Including Integration with MM and SD)

1. On the *Characteristics* tab page, note the detailed information of the position that is displayed.


The characteristics represent all the dimensions that you can use to analyze your CO-PA data. They are derived either from the customer and material master and SD partner roles (such as sales employee) or from other characteristics.

2. Choose the *Value Fields* tab page.

This tab page provides detailed information on order and invoice quantities, revenues, sales deductions, and detailed product cost components.

3. Choose *Environment* → *Integration*.

A dialog box asks you which amount you would like to display.

4. Select *Display Sales Order*, then choose .

5. Select the sales order item 10, then choose *Environment* → *Display document flow*.

The system displays the complete flow of business events that have occurred.



Note that, using reporting, you have just drilled down from a summary analysis from the industry to a single billing document (CO-PA line item), and from there to the original sales order. This shows the quality of information available from an integrated system.

6. Choose  until the *Execute Profitability Report Plan/act/var. cum* screen appears.

The detailed product list appears.

7. Remain on this screen.

Report-Report Interface

Use

On the *Execute Profitability Report Plan/act. var. cum* screen, the first section of the lowest screen area shows you a detailed analysis of the contribution margin for the product, revenue, and discount, as well as detailed product cost data.



You can display every level of the contribution margin schema (for example, data is summarized at division level)



The following procedure is based on the assumption that you are not happy with the product's contribution margin 3 in % (first column, last report row).

Using the report-report interface, you call up a test report to ascertain how you can increase the contribution margin for this product.

Procedure

1. Select the product *LC-40C*.
2. Choose .
3. On the *Selection: Contribution Margin Analysis* screen, leave the default value of 20% as well as the other defaults unchanged and select .

The system displays the simulation report. In the first column, you can see actual data. Note that the margin % is less than 20%. The second column displays plan data. In the third column, the system simulates a margin of 20%. The system calculates by how much the variable and fixed manufacturing costs and the overhead surcharges would have to be reduced to increase the margin. The assumption is that the variable and fixed manufacturing costs and the overhead surcharges would be reduced in proportion to the actual costs.

4. Choose .
5. In the dialog box, choose *Yes*.

The original report appears.

6. Remain on this screen.


Displaying Attributes

Displaying Attributes


Use

A report of display attributes can be displayed in a separate dialog box or in the lead column. You can only display attributes for characteristics that have a single specified value. You can not display attributes for intervals or selection options.

Procedure


1. Position the cursor on the product *L-40C*, then choose  *Attributes*.

The size and the dimensions of the selected product are displayed in the dialog box.

2. To return to the *Execute Profitability Report Plan/act./var. cum.* screen, choose .
3. To display the master data of a material, position the cursor on *L-40C*, then choose *Goto* → *Display Master Data*.



You are now in the Material Ledger application, where you can analyze master data in greater detail.

4. Choose  to return to the report.

Hit Lists

1. On the *Execute Profitability Report Plan/act/var. cum* screen, select the heading of the *Cumulated act.* column (in the sorted list).

The column is selected and highlighted.

2. Choose *Edit* → *Ranking list* → *Top N*.
3. Enter the following data:

Field	Data
First ones only	3

4. Choose .

The system displays the top 3 products individually. The aggregated total of these 3 products and the rest of the products is displayed at the end of the list.



Similar hit lists can be created for *Top %*, *Last n*, and *Last %*.

5. Choose *Settings* → *Percentage/Absolute*.

Instead of absolute values, the system displays the product's percentage of total contribution margin (previously display as absolute amounts).

6. To return to the original display, choose *Settings* → *Percentage/Absolute*..
7. Deselect the *Cumulated Act...* column.
8. Remain on this screen.


Changing the Report Currency

Changing the Report Currency

Use

This procedure shows you how to change the report currency for all report columns.

Procedure

1. Make sure that the cursor is not on a field in a column, otherwise you will change the currency of that column only.
2. Choose .
3. Enter the following data:

Field	Data
Currency	USD
Translation key	Mean rate, cutoff date today



The currency translation type determines the exchange rate to convert to *EUR*.

4. Choose  *Execute*.

In the column headings, you can see that the amounts are now displayed in the selected currency.

5. Remain on this screen.

Displaying and Creating Exceptions


Use

While analyzing the current report, you may have noticed that some amounts are highlighted in different colors. This is due to exceptions that were defined for the report.





Do not make any changes to the exception rules defined for this report. Exception rules are not user-specific. Therefore, any changes would affect every user.

Procedure

1. Choose *Extras* → *Exceptions*.
2. In the dialog box, choose  *Display exceptions*.
3. Double-click the exception 0000000001.



Note that you can define upper and lower threshold values in the dialog box. In this instance, the exception causes values exceeding the threshold value of 20% to appear in red (as a warning).

4. To return to the report list, choose  twice.
5. Choose *Report* → *Exit*.
6. In the dialog box, choose Yes.
7. Choose  until the overview tree appears.

Workflow in Customer Service

[Workflow - Service Management \[Page 188\]](#)

Workflow - Service Management

Purpose

There is a growing trend for companies to provide certain services for other companies, either in conjunction with a specific product that they manufacture, or simply as a main line of business. Consequently, customer expectations of improved after-sales service have risen.

When a machine installed at a customer site breaks down or requires servicing, the customer contact person can either log a call directly in the R/3 System, or contact the customer service department of the equipment supplier or manufacturer by phone, fax or mail, who in turn logs the call in the system.

In this scenario, a call has been received reporting a malfunctioning hard drive on a PC. The PC manufacturer receives the call and resolves the customer's problem through its hotline service.

You can find more information about this process under [i](#) [Page 189].

Process Flow

You can find the data for this process under [?](#) [Page 190].

1. [Logging the Service Notification \[Page 191\]](#)
2. [Processing and Completing the Service Notification \[Page 192\]](#)

Additional Process Information

Further information about the technical realization of this demo with the SAP Business Workflow tools and the necessary preparations and customizing settings can be found in the SAP Library.

Call up the transaction as follows:

Menu Path	<i>R/3 Basis Library → Business Engineering Workbench → SAP Business Workflow → Application Workflow Scenarios → PM Plant Maintenance and Service Management → Service Management (PM-SMA).</i>
------------------	---

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

Field	Data	Description
Workflow User ID	WF-SM-1	Service technician
Equipment	10003594	Personal computer
Damage	EN	Hard disk out of order
Task code	TEL	Call back customer
Person responsible	1527	Alexander Maroto
Sales document	40000076	Service contract

Logging the Service Notification

Use

Log on to the IDES system. This user reports the service notification.


Procedure

1. Call up the transaction as follows:

Menu Path	<i>Logistics → Customer Service → Service Processing → Notification → Create (Special) → Problem Notification.</i>
Transaction Code	IW54

2. Enter the following data:

Field	Data
Equipment	10003594

3. Choose .

The system calls up the service contract data (40000076) for this equipment.

The system also informs you that the catalog profile has been copied from the equipment. This means that information related to the equipment, such as contact information, has been included in the service notification.

4. Choose the *Items* tab page, then position your cursor on the *Damage* field and choose the F4 input help.

You see a catalog selection.

5. Choose *E (Hard disk out of order)* and  *Select* in the dialog box.

6. Choose .

Note the notification number.

7. Choose .

8. Choose *No* in the *Confirmation Prompt* dialog box.



The *Confirm. Prompt* dialog box refers to the creation of a new service notification.

9. Log off from this IDES system.

Processing and Completing the Service Notification

Processing and Completing the Service Notification

Use


The service technician who processed this call has solved the problem by telephone and now records the results.

Procedure


1. Log on to your IDES system as user **WF-SM-1**, password **WELCOME**.
2. Call up the transaction as follows:

Menu Path	<i>Office → Workplace → Inbox → Workflow</i>
Transaction Code	SBWP



On the *Workflow* screen, you see a list of service notifications.

3. Double-click on  for your notification number.
4. Choose the *Tasks* tab page.
5. Position your cursor on the *Task code* field, then choose the F4 input help.


You see a catalog selection.

6. Choose the "+" character before *PC*, select the task code *TEL* and choose  *Select*.
7. Enter the following data:

Field	Data
Responsible	1527

8. Choose .
9. Select the task you have just created.
10. To complete the task, choose .

In the *Status* field, the status is now *TSCO*.

11. Choose *Service Notification → Functions → Complete*.
12. In the *Complete* dialog box, verify the date and time of the completion of this service notification, then choose .

The system saves the data.

The work item you have processed is no longer displayed, indicating that the work is completed.

13. Choose .