

Customer Service Processing (SD-SLS-OA)



HELP.SDLSLSOASCO

Release 4.6C



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Customer Service Processing (SD-SLS-OA)

Purpose

Customer Service enables you to plan and manage a wide range of service scenarios. It includes functions for processing:

- Service notifications
- Warranties
- Service orders
- Service contracts
- Service quotations
- Repair orders

Customer Service (CS) draws on functionality from different SAP application components, in particular Plant Maintenance (PM) and Sales and Distribution (SD). For example, CS involves the planning and processing of external services, such as contracts for the maintenance and repair of equipment that a customer has either bought or rented. Maintenance planning and servicing is managed in PM; in SD you can create and maintain the relevant service contracts. Contract-related charges that are incurred in PM are passed on in the form of requests for billing in SD.

In [Returns and Repairs Processing \[Page 43\]](#), you will find a diagram showing the typical events in the day-to-day world of customer service. It also illustrates the interplay within Customer Service of SD and PM functions.

In the following sections, you will find information on the Customer Service functions in Sales and Distribution.

For information on the Customer Service functions in Plant Maintenance see [Customer Service \(CS\) \[Ext.\]](#) under *Logistics* → *CS Customer Service*.

Service Contracts

Purpose

You use service contracts to record the details of the service package that you have agreed to provide a service recipient with over a specified period of time. For example, you specify:

- The routine service tasks which are to be performed on a piece of machinery you have sold or rented to a customer
- The prices which are to apply for these routine tasks
For more information, see [Standard Pricing in Service Contracts \[Page 25\]](#).
- The prices which are to apply for additional service tasks and for any spare parts required
For more information, see [Price Agreements in Service Contracts \[Page 26\]](#).
- The terms under which the contract can be cancelled
For more information, see [Cancellation Data in Service Contracts \[Page 35\]](#).

During the validity period of the service contract, you use the service contract as follows:

- To initiate automatic billing of the routine service tasks at regular intervals
- To determine whether a service request from the customer is covered by the service contract
- To determine which price agreements apply for service tasks not covered by the service contract
- To determine whether a cancellation request from the customer is valid
- To initiate follow-up actions before the service contract becomes invalid

Service Contract

Service Contract

Definition

Sales document which is the central document in Customer Service (CS) to which other Customer Service documents can refer.

Structure

The service contract is made up of a header and one or more items.

At header level you specify:

- Partner data such as the partner who is to be provided with the services and the partner who is to be billed for the services
- Contract-specific data:
 - Start and end dates
 - Cancellation terms
 - Follow-up actions
- Texts
- Status information
- Price agreements

At item level you specify:

- The services to be provided
- Partner data
- Contract-specific data
 - Start and end dates
 - Cancellation terms
- Technical objects
- Texts
- Status information
- Price agreements
- Billing plan data



The data at header level of the service contract applies to the service contract item until you define alternative data at item level.

Integration

After you have created a service contract, Customer Service (CS) arranges for technicians to make the routine service calls which have been agreed on in the service contract. The routine

Service Contract

tasks that the technician carries out are billed according to the terms of the billing plan for the corresponding service contract item. The technician may need to perform tasks not covered by the terms of the service contract. If this is the case, CS refers to the underlying service contract to determine whether the customer is charged for these services and parts, and if so, how much. Billing for any additional services or products is initiated by a billing request.

Service Contract Type

Service Contract Type

Definition

Sales document type used to control service contract processing. There are two service contract types in the standard SAP System:

- Rental contract (MV)
- Maintenance contract (WV)

These service contract types are defined in Customizing for *Sales and Distribution* under *Sales* → *Sales Documents* → *Sales Document Header* → *Define Sales Document Types*. You can create service contract types that meet the requirements of your organization by copying the existing service contract types and adapting them as required.

In addition to defining the usual control data for sales document types, you also specify contract-specific data in the service contract type such as:

- Pricing procedure for determining prices for service tasks and service products
- Service contract profile containing default data for service contract processing
- Billing request type for resource-related billing

Service Contract Profile

Definition

Control element for service contract processing which contains default contract data.

Integration

Each service contract profile is defined in Customizing for *Sales and Distribution* under *Sales* → *Sales Documents* → *Contracts* → *Contract Data* → *Define Contract Profiles*. You assign a service contract profile to a service contract type in Customizing under *Sales* → *Sales Documents* → *Contracts* → *Value Contract* → *Maintain Value Contract Type And Contract Release Type* in the *Contract* section in the *Contract profile* field.

Use

When you create a service contract, the system determines whether a contract profile has been assigned to the service contract type you have chosen. If so, it copies the data defined in the contract profile into the service contract.

Structure

A service contract profile contains the following data:

- Date determination rules
- Cancellation procedure
- Follow-up action
- Follow-up action rule

Service Contract Items

Service Contract Items

Definition

Element of the service contract in which you define the services or products you are providing the customer with under the terms of the service contract. A service contract item can be any of the following:

- Service (for example, a particular task)
- Material (for example, a spare part)
- Time (for example, an hourly rate for a technician's time on the job)
- Response time (how soon you are obligated to respond to a problem call)
- Warranty (the agreed duration and coverage)

The items in a service contract are controlled by item category. It is possible for a service contract to include items with different item categories. For example, some items may be rented, others sold.

Structure

A service contract item can consist of multiple objects (for example, a number of different pieces of equipment with different serial numbers). However, a prerequisite for multiple objects is that they share the same contract data. If any data varies - for example, if the installation date is different - then separate items must be created.

Creation of Master Data for Service Contract Items

Use

You store data on services and products which is essential for Sales and Distribution processing in material master records.

Activities

You can create material master records for service items in the usual way. For basic services, use the material type DIEN. To define more complex services, you can use configurable or pre-configured standard service products that have the material type KMAT.



You can create a standard service product for which you define a variety of characteristics, such as:

- Response time for problem calls
- Level of hotline service
- Replacement parts coverage

Each characteristic is assigned a range of possible values, which can be defined in one of the following ways:

- Entered manually during configuration in the service contract (as a *configurable* product)
- Defined as a predefined version of the standard product (as a *configured* product)

Using a Standard Product - Configurable

The following table illustrates some of the possible values for each characteristic:

Standard Product: Copier_Service

Response time for problem calls	Level of telephone hotline service	Replacement parts coverage
2 hours	5 days/week, 8 hours a day	Type 1 - yes/no
8 hours	7 days/week, 8 hours a day	Type 2 - yes/no
24 hours	7 days/week, 24 hours a day	Type 3 - yes/no

When you enter the standard configurable service product as an item in a service contract, the system automatically displays the configuration editor. You then enter values for the various characteristics in your standard service product.

Creation of Master Data for Service Contract Items**Using a Standard Product - Configured**

If you use a standard product and frequently assign the same values to the characteristics, you can create a standard product with predefined values. The following example shows three different predefined configurations for the standard service product Copier_Service:

Configured Material (Standard Product Copier_Service Plus Predefined Values)

Name of configured material	Response time for problem calls	Level of telephone hotline service	Replacement parts coverage
Enhanced service	2 hours	7 days/week, 24 hours a day	Types 1-3 - yes
Full service	8 hours	7 days/week, 12 hours a day	Types 1, 2 - yes
Economy service	8 hours	5 days/week, 8 hours a day	Type 1 - yes

When you enter the standard configured service product as an item in a service contract, the system automatically copies the predefined values into the contract. To display the values, you can select the configuration editor manually.

For more information on configurable products, see the following documentation in the SAP Library:

- [Variant Configuration \[Ext.\]](#) under *Logistics → LO Logistics General*
- [Classification \(CA-CL\) \[Ext.\]](#) under *Cross-Application Components*

Service Contract Creation

Use

After you have negotiated the terms of a service package with the service recipient, you create a service contract in the system to record this information.

Activities

You can create a service contract in the following ways:

- From scratch, without reference to another document
- With reference to a preceding inquiry or quotation
- With reference to an existing contract

When you create a service contract with reference to another document such as another service contract or a quotation, the system copies the relevant data (for example, validity period and cancellation data) into the new contract.

To ensure consistency of data in all service contracts for a particular customer, you can link each service contract to a master contract that contains the general terms and conditions, which you have agreed with the customer. For more information, see [Master Contracts \[Ext.\]](#).

Creating a Service Contract

Creating a Service Contract

Procedure

1. In the [Sales menu \[Ext.\]](#) choose *Contract* → *Create*.



Alternatively, you can choose *Logistics* → *Customer Service* → *Service Agreements* → *Contracts* → *Contract* → *Create*.

2. Enter the contract type (*WV* for a maintenance contract, *MV* for a rental contract) and, if necessary, the organizational data.

The values for sales organization, distribution channel, and division (sales area) may be proposed from the user parameters. Entries for the sales office and the sales group are optional.



You can choose to wait until you have entered the sold-to party on the subsequent screen to enter the organizational data. In this case, the system offers you all the sales areas defined for the sold-to party for selection.

3. Choose *Enter*.
4. Enter the following data as required:
 - Customer number of the sold-to party in the *Sold-to party* field
 - Purchase order number of the customer for this document
 - Start and end dates (this data may also be determined indirectly; for more information, see [Indirect Date Determination for Service Contracts \[Page 21\]](#)).
 - Master contract number (for more information, see [Master Contracts \[Ext.\]](#)).
 - Material number (for example: a standard product or configured product)
 - Target quantity for the material

5. Choose *Enter*.

If you entered a standard product, the system automatically branches to the configuration editor. Enter the values for the characteristics defined in the standard product.

If you entered a configured product with pre-defined values, the system automatically copies the values into the contract.

6. To enter data in the contract header, choose *Goto* → *Header* → *Contract data*.
Enter the relevant run-time and cancellation data and return to the overview screen.
7. If you wish to enter price agreement data in the contract, see [Pricing in Service Contracts \[Page 24\]](#).
8. The system checks the item category of the items to determine for which items it needs to create a billing plan. To display the billing plan for an item, select the item and choose *Goto* → *Item* → *Billing plan*.

9. Return to the overview screen and save your document.

Maintenance of Contract Data

Maintenance of Contract Data

Prerequisites

In Customizing for Sales, you control whether contract data can be maintained for a particular sales document type by entering either **x** or **⌘** in the *Contract data allwd* field in the activity 'Define sales document types'.

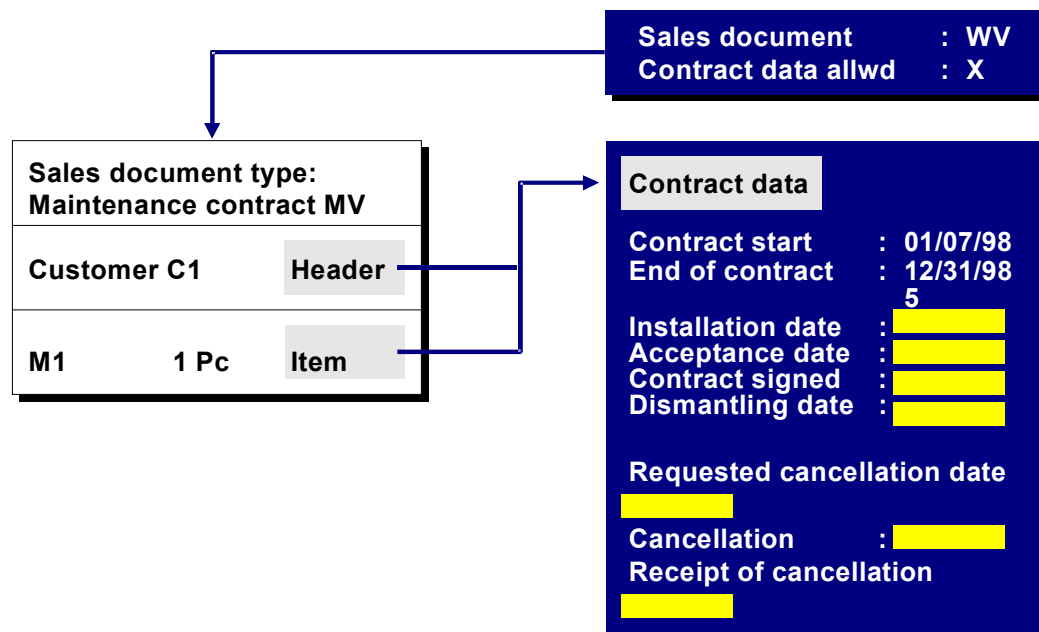
Use

You can maintain the following contract data:

- Validity period data
- Cancellation data

Similar to business data, contract data is stored in both the header and in the contract items. Header data applies to all items in a contract until you change data in the individual items.

The following graphic illustrates the data in a service contract:



Features

If contract item data differs from contract header data, you can control how changes to the contract header data should affect the contract item data. You do this by entering an indicator in the *Contract data allwd.* field in Customizing for Sales and Distribution under Sales → Sales Documents → Sales Document Header → Define Sales Document Types in the Contract section.

The following indicators are possible:

Indicators in *Contract data allwd.* field:

Maintenance of Contract Data

Indicator	Any changes you make to the contract header...
x	... will not be copied into the items. This applies even if the contract item data was identical to the contract header data before you made the changes to the header data.
y	... are automatically copied into the items if the contract item data was identical to the contract header data before you made the changes.

For more information, see the online help for the *Contract data allwd.* field.

Contract Validity Period

Contract Validity Period

Definition

Time interval over which the terms of a contract apply. Each contract includes a basic validity period. The actual validity period may be shorter (for example, due to an early cancellation) or longer (for example, because the customer extends the contract). The validity period consists of a start date and an end date. With regard to the validity period of a contract, there are two kinds of contract:

- Contracts of limited duration where the end date is automatically determined by the system or entered manually during processing
- Open-ended contracts for which there is only a start date. After a specified period, the contract may be cancelled or, if it is not cancelled, automatically extended. Open-ended contracts can only be ended if you or the service recipient cancel them under the terms specified in the contract.

The dates that define the validity period of a contract can be entered manually or determined indirectly by the system.

Use

The contract start date can be used to determine the dates for the following contract-related activities:

- Billing plan
- Possible cancellation dates

Indirect Date Determination for Service Contracts

Use

You do not always know the timing of contract-related events (installation, acceptance by customer, and so on) in advance when you create a service contract. For this reason, it is possible for the system to indirectly determine dates based on rules you specify in Customizing for Sales.

The following graphic shows examples of date determination rules:

Rule	Baseline date	Time period	Time unit	Last of month	Calendar ID
01	02 (Contract start date)				
02	02 (Contract start date)	1	4 (Year)		
03	05 (Installation date)				Q1 (End of quarter)
04	04 (Acceptance date)	3	3 (Month)		
50	08 (Contract start date + contract duration)				

In the examples above, the rules determine the following dates:

Rule	Description
01	Contract start date
02	Contract start date + 1 year
03	Last day of quarter from installation date
04	Acceptance date + 3 months
50	Contract end date (contract start date + contract duration)

Indirect Date Determination for Service Contracts

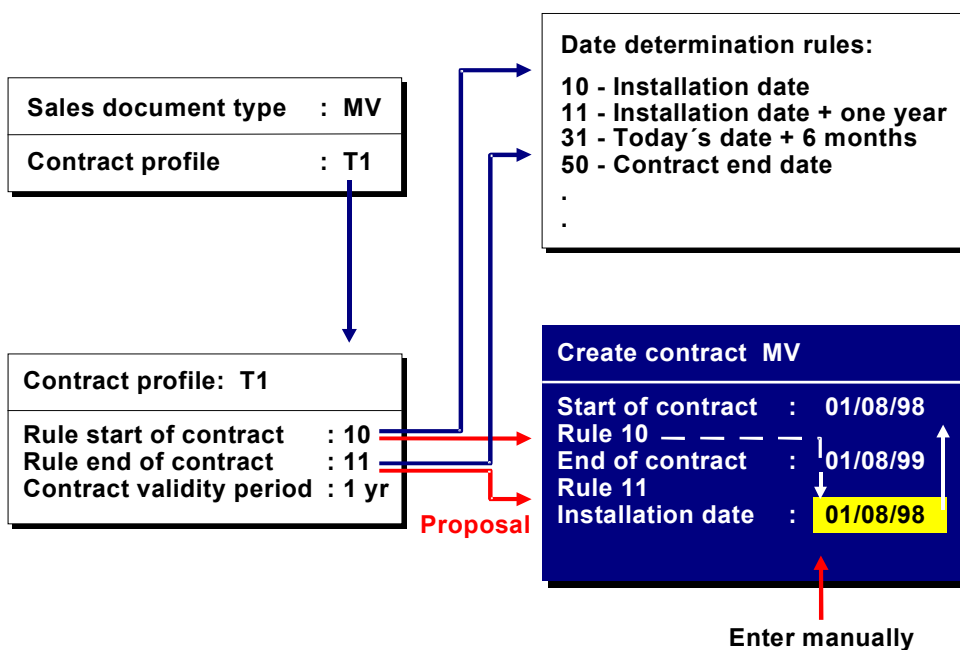


The date rule specifies the following:

- The start date of a contract is the date on which the product is installed at the customer site.
- The end date is the installation date plus one year.

When you create the contract, you leave the start and end dates blank. Later, when you enter the installation date in the contract, the system is able to automatically determine the validity period using the *baseline date* (the installation date) and the *date determination rules*.

The following figure illustrates the example:



The following dates can be used as baseline dates:

- Current date
- Start date
- End date
- Billing date
- Start date plus contract duration
- Installation date
- Assembly date
- Acceptance date (date the customer officially accepts the installation)
- Date on which contract is signed

Pricing in Service Contracts

Pricing in Service Contracts

Use

In service contract processing, you can use the following types of pricing:

- [Standard Pricing \[Page 25\]](#) for the monthly service fee such as the fee for the maintenance of a photocopier
- Contract-specific price agreements for the monthly service fee
 - In this case, you can define a condition record for the monthly fee directly in the service contract.
- [Price Agreements \[Page 26\]](#) for services and materials not covered by the monthly service fee such as prices for spare parts
- Pricing for standard service products

If you are using standard service products that are configurable or configured, then you can use the special pricing functions for these products. For example, you can create condition records for specific characteristic values. In addition, you can make pricing conditional on certain configurations. For more information, see [Variant Conditions in Sales \[Ext.\]](#).

Price Changes

You can change the prices in a contract if the time periods have not yet been billed. To change prices retroactively for a period that has already been billed, you must manually cancel the corresponding invoice. The price changes then take effect when you create the new invoice.

Passing the Contract Value to Other Applications

After pricing for a service contract has been carried out in Sales and Distribution (SD), the final value of the contract can be used for the following kinds of processing in other applications in the SAP System:

- Statistical analysis in the Sales Information System (SIS)
- Cash management and forecasting in Financial Accounting (FI)
- Credit Management in FI

For more information on pricing in general, see [Pricing and Conditions \[Ext.\]](#).

Standard Pricing in Service Contracts

Use

Standard pricing is used to determine the monthly fee for a service package. You can define prices for:

- The material that represents the service package
- A material group that encompasses a range of service packages

You define the fee in a condition record.

You can define a condition record for the monthly service fee directly in the service contract. For more information, see [Price Agreements in Service Contracts \[Page 26\]](#).

Prerequisites

The standard SAP System includes the following condition types for routine pricing in service contract processing:

Condition type	Description
PPSV	Service item - monthly fee (based on material)
PPSG	Service item - monthly fee (based on material group)

The condition types are assigned to the *PSER01* pricing procedure, which is a special version of the standard pricing procedure, pared down for service contract processing. In *Customizing for Sales*, this pricing procedure is assigned to the contract types used for Customer Service Processing (*WV* and *MV*). When you create a service contract, the system finds the appropriate condition records using this pricing procedure.

For more information on pricing procedures, see [Pricing Procedures \[Ext.\]](#).

Price Agreements in Service Contracts

Price Agreements in Service Contracts

Use

You can use price agreements to define contract- and item-specific prices. You can create and maintain the following price agreements in service contracts:

- Condition records for the monthly service fee
- Condition records that offer the contract sold-to party special prices for particular materials or material groups

For example, you want to offer the contract sold-to party a special price for any replacement parts they require.

Contract-specific Monthly Service Fee

You can enter a condition record for the monthly service fee for a service contract item directly in the price agreement screen for the contract item. In the standard system, this is the condition type *PPSV*. When you enter the condition record, the system reprices the document. In the standard system, the access sequence *PPPV* for condition type *PPSV* ensures that the system immediately finds the condition record that you entered.

Contract-specific Material Prices

The standard version of the system includes the following condition types for use in creating contract-specific material prices:

Condition type	Description
PKAR	Header price settlement - Service contract
PPAG	Item price settlement - Service contract (Price for material group)
PPAR	Item price settlement - Service contract (Price for material)

The condition types are assigned to two pricing procedures (*PABR01* and *PABR02*) in Customizing for Pricing. To activate the automatic proposal of condition records, you must assign these pricing procedures to the relevant service contract type in Customizing for Sales.

You can maintain the condition record for the price agreement directly in the contract.

Alternatively, you can assign existing condition records to the service contract. When you create a service contract, the system proposes all condition records for price agreements that are valid for the contract. When you save the contract, the condition records are automatically assigned to the contract.

When a service order is created with reference to the service contract, the system calculates the prices for the subsequent billing request on the basis of the price agreements in the underlying service contract.

Creating Price Agreements in a Service Contract

Prerequisites

You are on the *Overview* screen while creating or changing a service contract.

For information on how to create a service contract, see [Creating a Service Contract \[Page 16\]](#).

Procedure

1. To create a price agreement at
 - contract header level, choose *Extras* → *Price agreements* → *Header*
 - contract item level, select the item and choose *Extras* → *Price agreements* → *Item*

The system proposes any existing condition records for price agreements which are valid for the contract. You can change the proposed condition records in the contract.

If you want to create contract-specific price agreements, choose *Other condition type*.
2. Enter a condition type.
 - The standard system includes the following condition types:
 - At header level:
 - **PKAR** - Material price for resource-related billing
 - At item level:
 - **PPSV** - Price for monthly service fee
 - **PPAG** - Price for a material group for resource-related billing
 - **PPAR** - Material price for resource-related billing
3. Choose *Continue*.
4. Create the condition record in the usual way.
 - For more information, see [Creating Condition Records \[Ext.\]](#)
5. Save the condition record.
 - You return to the *Overview* screen of the contract.

Billing Service Contract Items

Billing Service Contract Items

Use

You can bill the monthly fee for a service package in a service contract in one of the following ways:

- Single invoice billing

You create the service contract and bill the customer for the full amount during your normal invoicing run. For more information, see [Creating a Billing Document \[Ext.\] in Billing](#).
- Periodic billing plan

Maintenance and rental contracts often require that billing be carried out on a periodic basis (for example, monthly). By using a billing plan, you can create a schedule of billing dates for each item in a service contract. For example, a maintenance contract has a monthly fee to be paid on the last day of each month. The billing plan is made up of items that specify the billing date and the billing amount. As each billing plan item becomes due for billing, it is included automatically in your billing due list. The following graphic illustrates periodic billing using a billing plan:

Order 007

Item 10 Rental 100.00

Billing Plan 100

Start : 10.31.97
 End :
 Period : monthly
 Horizon : 4 periods
 Billing date : Last day
 of the month

Date determined
 from contract
 start date

Dates

Billing date	Descr.	Value	Billing status
10.31.97	Rental	100.00	x
11.30.97		100.00	
12.31.97		100.00	
01.31.98		100.00	

Periodic addition of dates up to horizon

02.28.98 100.00

For more information on billing plans, see [Billing Plan \[Ext.\]](#) in *Billing*.

Resource-Related Billing of Service Contracts

Resource-Related Billing of Service Contracts

You use resource-related billing to bill service activities and costs that are not covered by the service fee for the contract.

For more information on the resource-related billing function, see [Resource-Related Billing \[Ext.\]](#) under *CS - Customer Service*.

Using the Accounting Indicator in SD

Use

Customer Service requires detailed information on the costs incurred by a particular service transaction. You can use an accounting indicator to identify costs on a service order, not just by cost element but also by how the cost was incurred (guarantee, free of charge delivery and so on). You assign the accounting indicator to the service order on the *HeaderData* tab page in the *Service* section in the *AcctIndic* field. For more information on the service order, see [Service Order \[Ext.\]](#) in *CS Customer Service*.

When you perform resource-related billing, the accounting indicator is copied from the service order into the resulting debit or credit memo request item and subsequently into the debit or credit memo item.



You cannot change the accounting indicator in the SD documents.

When the debit or credit memo is forwarded to Controlling, the accounting indicator is forwarded with it.

The accounting indicator can be included in pricing to determine prices for guarantee or goodwill transactions. The condition type *KBM1* has been defined in the standard system for calculating and recording discounts for these transactions. You can use it as a template for creating your own condition types.

Condition records of this type are forwarded to Controlling with the classification "Accounting indicator". By linking the condition record to the underlying billing document item, the system finds the relevant accounting indicator and the appropriate sales deduction account to which the information from the condition record and the billing document is posted.

Prerequisites

If you want to use the accounting indicator in pricing, you can create your own condition tables, access sequences and condition types that contain the field "Accounting indicator". The following templates have been defined in the standard system:

- Condition table *140*
- Access sequence *KBMO*
- Condition type *KBM1*

You control that the accounting indicator is taken into account in account assignment by entering **B** in the *Rel.Acc.Assig* field in Customizing for *Sales and Distribution* under *Basic Functions* → *Pricing* → *Pricing Control* → *Define Condition Types* in the *Control Data 2* section.

Follow-up Action Processing for Service Contracts

Follow-up Action Processing for Service Contracts

Use

Follow-up action processing ensures that a service contract cannot be cancelled or become invalid before negotiations for a new service package have been initiated.

In the service contract, you specify

- A follow-up action which is to be performed when a service contract is cancelled or about to expire
- A date or a date rule which determines when this action should be carried out

In the standard SAP System, you can choose from the following follow-up actions:

- Creating a service contract
- Creating a sales activity
- Creating a quotation
- Sending an electronic mail message to another employee

Activities

At regular intervals, you create a worklist of contracts for which follow-up actions are due to be performed. You can create the follow-up actions directly from the worklist.

Processing Follow-Up Actions for Service Contracts

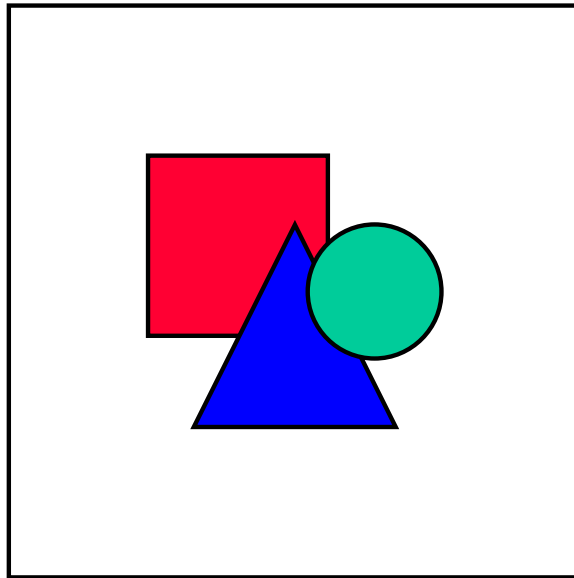
1. In the [Sales menu \[Ext.\]](#) choose *Contract* → *Subsequent functions* → *Follow-up actions*.
2. Enter the following data in the selection screen:
 - Contract type
 - Sold-to party
 - Purchase order number
 - Subsequent processing until (to select follow-up actions to be performed up to this date)
 - Valid-to date (to select contracts valid until this date)

3. Choose *Enter*.

The system displays a list of service contracts that require follow-up processing and that meet the selection criteria.

4. Process follow-up actions by selecting one or more contracts and choosing *Follow-up actions*.

The system automatically displays a dialog box in which the necessary sales document type for the follow-up action is proposed (if you have specified a document type in the contract type in Customizing). Otherwise, you enter the document type in the relevant field.

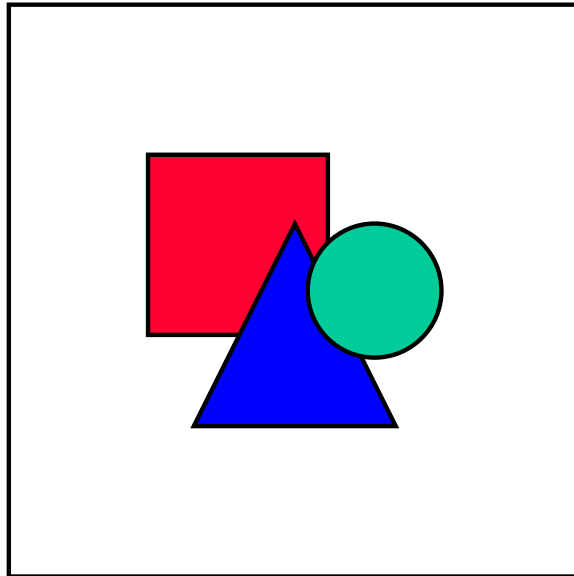


If several different follow-up actions need to be created, the system processes each type of follow-up action in turn. For example, it proposes the quotation type for creating quotations first. Then, once you have saved the quotations, it proposes the document type for the next follow-up action.

5. Choose *Save*.

Processing Follow-Up Actions for Service Contracts

The system attempts to create the follow-up action. If any problems occur, the system issues a log. Otherwise the follow-up action(s) is/are created and you return to the list to continue follow-up processing



You can also select any contract in the list for further processing.

Cancellation Data in Service Contracts

Use

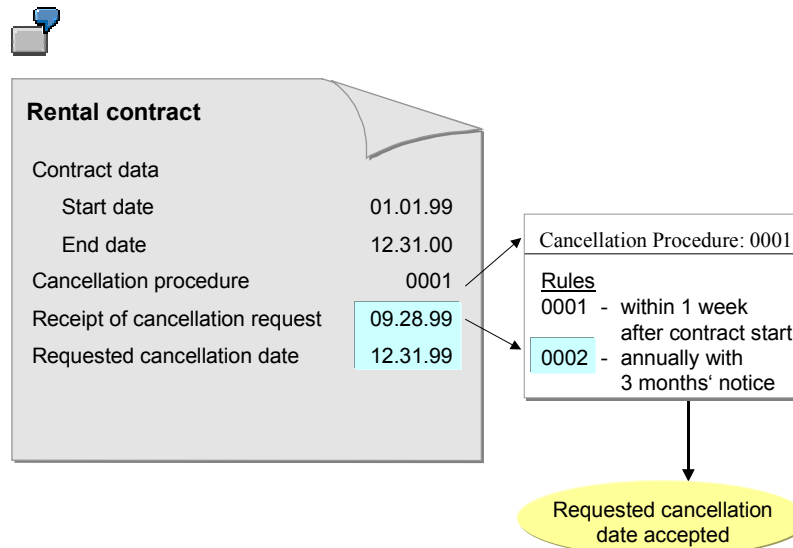
The system uses the cancellation data in the service contract to determine whether a cancellation request sent in by the service recipient is valid.

The system checks the requested cancellation date against cancellation rules specified in the contract. If the request fulfills the contract requirements, the cancellation becomes effective.

If you receive a cancellation request, the following cancellation scenarios are possible:

If the requested cancellation date	then the system
agrees with date determined by cancellation rules,	copies requested date as contract end date.
does not meet requirements of cancellation rule, but at least one future date is possible,	proposes next possible future date as contract end date for you to confirm.
does not meet the requirements of the cancellation rule and no future dates are possible,	displays an error message.

You define cancellation rules and assign them to cancellation procedures in Customizing for *Sales and Distribution* under *Sales* → *Sales Documents* → *Contracts* → *Contract Data* → *Control Cancellation*. You then assign the cancellation procedure to a contract profile and the contract profile to a contract type.



Cancelling a Service Contract

Cancelling a Service Contract

Use

You can cancel a service contract (on header level) or a service contract item.

Procedure

1. In the [Sales menu \[Ext.\]](#) choose *Contract* → *Change*.
2. Enter the contract number and choose *Enter*.
3. To reach the screen for cancelling service contracts, choose *Goto* → *Header* or *Item* → *Contract Data*.

The lower half of the *Contract data* tab page contains the cancellation data.

4. Enter the date on which you received the cancellation request from the customer in the *Receipt of canc.* field.
5. Enter the date on which the customer wants to cancel the service contract in the *Req.cancellat. date* field.
6. The system then determines on the basis of the cancellation procedure whether the requested cancellation date is valid.

If it is valid, the system adopts the date as the cancellation date for the contract. If it is not valid, the system proposes the next possible cancellation date for selection.

Service Quotation

Definition

A presales document containing the terms under which you offer a particular service to a customer.

To create a service quotation, choose one of the following processes:

- Create the service quotation directly in Sales and Distribution
 - Use this option for straightforward service transactions which do not require detailed planning.
- Create a service order in Customer Service and then create a service quotation with reference to the service order
 - This option enables you to plan service activities more accurately and influence the costs that are forwarded to billing.

Use

In the service quotation, you:

- Record details of the service to be performed
- Record the costs of the service
- Control how billing is performed
 - You specify in the service quotation how the customer is to be billed for the services rendered via the billing form and the dynamic item processor profile.

Service Quotation in Sales and Distribution

Purpose

You use a service quotation to record the terms and conditions under which you offer a particular service to a customer.

Process Flow

1. You create a service quotation directly.
 - In the [Sales menu \[Ext.\]](#) choose *Quotation* → *Create*. In the standard system, quotation type *AS* has been defined for service quotations in SD.
2. Enter the service material in the service quotation item.
 - This item can only be assigned the quantity 1.
3. When you enter an item in the service quotation, the system automatically creates a service order in the background.
 - The requirements class and the strategy group for the material control this. You can display the service order from the *Procurement* screen for the schedule line.
4. The system proposes the billing form and the dynamic item processor profile for the item from the item category.
5. Costing calculates the costs for the service on the basis of the task list in the service order. It enters the costs in the service quotation as an *EK01* condition.
6. You can calculate the final price in one of the following ways:
 - Manually add a surcharge to the costs
 - Find completely new prices using the pricing procedure
7. When the customer has accepted the service quotation, you create a sales order with reference to it.
 - The link to the service order is copied into the sales order.
8. Once the service order has been completed, you perform resource-related billing.

Service Quotation in Customer Service

Purpose

To plan service activities more accurately and to be able to influence the costs that are forwarded to billing, you first create a service order in Customer Service and then a service quotation with reference to it.

Process Flow

1. You create a service order and enter the following information:
 - Billing form on the overview screen in the section *Service*
 - Dynamic item processor profile on the *Administrative data* screen in the section *Controlling resource-related billing*
 - Service product that represents the customer's service request
 - Components required
 - Operations to be performed
2. Then you create a resource-related service quotation with reference to the service order.

The main item in the quotation is the service product from the service order. The components and operations are entered as sub-items.

The billing form and the dynamic item processor (DIP) profile in the service order are copied into the service quotation.

You cannot release the service order until the customer has accepted the service quotation.
3. When the customer accepts the service quotation, you create a sales order with reference to it.

The link to the service order is also copied.
4. Once the service order has been completed, you perform resource-related billing.

Creating a Quotation (CS)

Creating a Quotation (CS)

Use

You can use quotation creation in Customer Service for different [scenarios \[Ext.\]](#).

Prerequisites

You have created a revenue-bearing service order under *Logistics → Customer service → Service processing → Order → Service order → Create (general)*. In doing so, you have taken the prerequisites that you described in [quotation creation \(CS\) \[Ext.\]](#) into account.

Procedure

Quotation for Customer Service, without service product, billing form *Resource-related*

1. You create a quotation for the service order.

To do this, choose *Logistics → Customer service → Service processing → Order → Service order → Create (quotation)*.

The quotation creation initial screen is displayed.

2. Enter the required data, and choose  *Create quotation*.

The system performs the sales pricing and generates a quotation.

Depending on the settings that you have made for the sales pricing, you reach the change mode of the quotation, or receive the message that the quotation has been successfully generated in the status line. For more information on the settings, see [Sales Pricing: Purpose \[Ext.\]](#).

3. Edit the quotation. You can choose between two views for editing:

- [Sales Price Basis \[Ext.\]](#)
- [Sales Price View \[Ext.\]](#)

You can process the costing data in both views and change the views at any time.

4. Choose *Edit → Save quotation*.

The system creates a quotation that you can, for example, send to a customer. The service order obtains the status *QUCR (Quotation created)* and cannot be released so long as it has this status.

5. Further processing by the system depends on the settings that you have made. For more information, see [Settings in the Sales Pricing \[Ext.\]](#).

See also

[Editing Quotations \(CS\) \[Ext.\]](#)

[Document Flow \[Ext.\]](#)

Billing Control in Service Quotations

Billing Control in Service Quotations

Use

The billing form in the service quotation item controls whether the customer is billed for a fixed amount or according to planned costs.

The dynamic item processor profile determines where the system obtains the information for creating the items for resource-related billing (for example, what cost elements, activity types and statistical key figures are relevant for billing, or what sales material is entered in the billing document item).

The item categories for the dynamic items are determined on the basis of the billing form, the dynamic item processor profile and the item category usage. The following item category usages are defined for resource-related billing in the standard system:

- SEIN (relevant for billing)
- SENI (not relevant for billing)

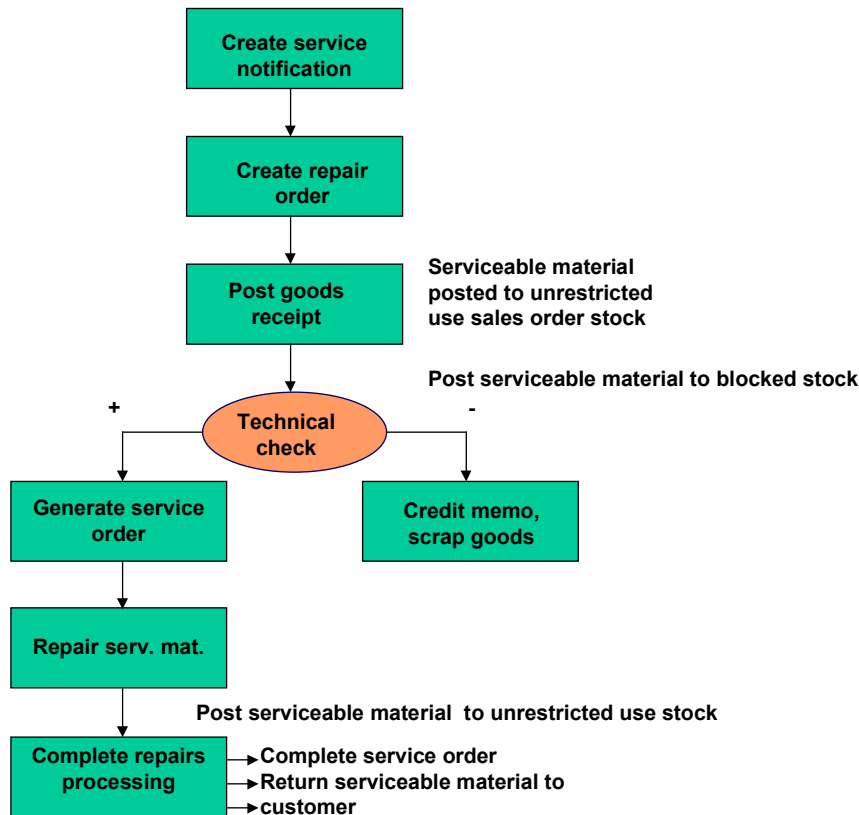
For more information, see [Resource-Related Billing \[Ext.\]](#) under *CS - Customer Service*.

Returns and Repairs Processing (CS)

Purpose

Returns and repairs processing provides you with a wide range of functions for managing all the necessary activities which repairing goods for a customer entails, from registering the repair request from the customer through to billing the customer for the services performed.

Process Flow



Repair Registration

1. Create the [Repair Order \[Page 47\]](#):

The customer informs you that he has goods that he would like you to repair. You record the details of the customer's repair request as the main item in a repair order. You enter the [Serviceable material \[Page 49\]](#) and, depending on the repair order type, a suitable [Service Product \[Page 50\]](#) as well.

Repairs processing can also be initiated by a service or quality notification. You use the [Action Box \[Ext.\]](#) in the notification to create a repair order automatically. For more information on repairs processing using quality notifications, see [Repairs Processing Using Quality Notifications \[Ext.\]](#).

You can start repairs processing by sending the customer a service estimate for the costs of the repairs. For more information, see the [Service Estimate \[Page 37\]](#).

Returns and Repairs Processing (CS)

2. Create a return order item for the serviceable materials:

The return order item is created automatically on the basis of the [Repair Procedure \[Page 53\]](#) assigned to the repair request item in the repair order.

3. [Posting Goods Receipt for Serviceable materials \[Page 70\]](#)

The customer either sends you the serviceable materials or you arrange to pick them up. When you receive the serviceable materials, you post goods receipt for the appropriate quantity.

If inspection lot processing has been activated for the serviceable material, an inspection lot is created automatically for the repair order. For more information, see [Repairs Processing Using Inspection Lots in QM \[Ext.\]](#)

4. Post goods movement

The serviceable materials are posted as sales order stock.

If you are not using inspection lot processing, the serviceable materials are assigned to unrestricted use stock. We recommend that you post the serviceable materials to blocked stock for the duration of the repairs. Use movement type 344/E to make this posting.

If you are using inspection lot processing, the serviceable materials are assigned to inspection stock for the duration of the repairs.

5. Perform the technical check

Once you have posted goods receipt, you perform a technical check on the serviceable materials and decide what actions need to be taken to fulfill the customer's repair request.

You can perform the technical check in one of the following ways:

- If you are working with inspection lots, use the inspection lot that is created automatically when you post goods receipt.
- If you used a notification to initiate repairs processing, use the action box in the notification.
- If you are simply working with the repair order, perform the check manually.

6. Create [Actions for Managing Repairs Processing \[Page 51\]](#)

The results of the technical check are reported back to the repair order. The actions, which need to be taken as a result of the technical check, are recorded as sub-items of the repair request item. Possible actions include:

- Perform repairs
- Scrap the goods
- Send temporary replacement

Depending on how you perform repairs processing, the switch from the repair registration stage to the repair start stage occurs:

- During inspection lot processing

The actions are generated automatically when the results of the inspection lot are reported back to the repair order unless manual intervention is required.

Returns and Repairs Processing (CS)

- During returns delivery processing
 - The system proposes the possible actions when you call the change order function.
 - You select the appropriate actions for the subsequent stage of repairs processing.

Repair Start

1. The service technician repairs the serviceable materials for which a repair item has been created. He refers to the service order that was created automatically for the repair item to obtain the following essential information:
 - The materials required to perform the repairs
 - The tasks to be performed
 - The costs (for example, labor hours) involved
2. Loaner items (for example, for temporary replacements) become relevant for delivery and are included in the delivery due list.
3. The serviceable materials for which a scrap item has been created can be scrapped.

Repair Completion Confirmation

1. The service technician reports that he has completed the necessary repairs for the repair items in the repair order by:
 - Posting the repaired serviceable materials to unrestricted use stock using movement type 343/E
 - Updating the status of the service order to "technically completed"
 - The repair order status is updated accordingly.



If you perform the repairs without using a service order, you must update the repair order status manually.

2. The system creates a delivery item for returning the serviceable materials to the customer.
3. The system may also create a pick-up item to arrange the return of any temporary replacements the customer may have had.
4. When you perform resource-related billing, a debit memo request item is entered automatically in the repair order.

Results

1. Delivery items are included in the delivery due list and the repaired serviceable materials are returned to the customer. When you post goods issue, stock is adjusted accordingly.
2. Loaner items can be returned to you with a returns delivery.
 - For information on creating a returns delivery, see [Posting Goods Receipt for Serviceable Materials \[Page 70\]](#).
3. The debit memo request item is included in the billing due list. The system creates a debit memo on the basis of the debit memo request item.
4. Costs collected in the service order and the repair order sub-items are settled to the repair request item. The data is forwarded to profitability analysis.

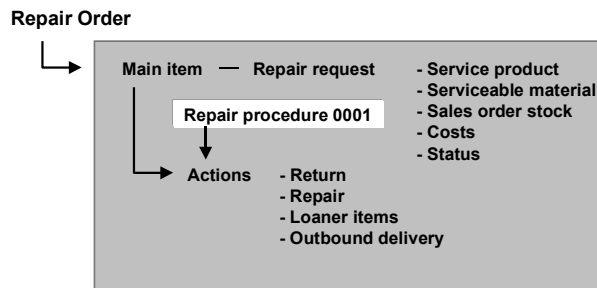
Returns and Repairs Processing (CS)

Repair Order

Definition

Sales document for recording all the business processes that are involved in processing faulty goods that a customer sends in for repair.

Structure



The repair order has the following structure:

- Header in which you record data that applies to the entire document
- Repair request item in which you document the customer repair request

The following information is recorded in the repair request item:

- Material number of the [Service Product \[Page 50\]](#)
- Material number of the [Serviceable material \[Page 49\]](#)
- Costs
- Stock information
- Configuration data
- The repair procedure which the system uses to determine which actions it needs to generate for the repair request item
- Actions that have to be performed in order to fulfill the customer repair request.
 - The [Repair Procedure \[Page 53\]](#) that is assigned to the repair request item determines which actions are required.

Use

You require a repair order to manage repairs processing.

Depending on how repairs processing is performed in your organization, you can choose between one of the following repair order types in the standard system:

Repair Order

- *RAS* - Repair order with service product

You use this type of repair order if you want to specify the repairs to be performed at the time of order entry. A repair order of the type *RAS* is incomplete until a service product is entered. You can:

- Enter the service product directly in the *Material* field in the repair order
- Use the [material determination \[Page 55\]](#) function to find suitable service products via the material number of the serviceable material.

When you enter the service product and serviceable material in the repair request item, the system creates a return order item automatically for the serviceable material. The repair procedure controls this.

- *RA* - Repair order

You use this type of repair order if you perform repairs according to the results of the technical check. You do not have to enter a service product at the order entry stage. After the technical check has determined what repairs need to be performed on the serviceable material, you can:

- Enter the appropriate service product on the repair screen of the repair order
- Use the [material determination \[Page 55\]](#) function to find suitable service products via the material number of the serviceable material.



You must enter a service product in the *RA* repair order before the service technician can begin the repairs.

Serviceable Material

Definition

Represents the goods to be repaired in repairs processing.

Use

The serviceable material is recorded in the repair request item of the repair order. It is also added to the technical objects list for the repair request item.

The system adopts the base unit of measure as the unit of measure for the serviceable material in the repair order.

You use material determination condition records to link serviceable materials to suitable service products.

Service Product

Service Product

Definition

Material that represents the customer's repair request. The service product is represented in the system by a material master record. Service products are measured in the unit of measure "piece". If required, you can define the service product as a configured or configurable material.

Use

You enter the service product in the repair request item in the repair order. You can set up material determination so that when you enter the serviceable material in the repair request item, the system proposes the appropriate service products for selection.

The service product is used to determine:

- What services the customer should pay for
- How much these services cost
- Which tasks are required to perform the services

Actions for Managing Repairs Processing

Use

The system uses the [Repair Procedure \[Page 53\]](#) that is assigned to the repair request item to determine what actions need to be taken to fulfill the customer's repair request.

The actions are represented in the system as sub-items of the repair request item. The system determines the appropriate item categories for the sub-items using the item category usage and the item category of the higher level item (repair request item). The item category usage and the item category of the higher level item are assigned to the repair order type in the Customizing activity *Assign Item Categories*.



The item category usage is the action from the repair procedure with the prefix "R". For example, 101 (Repair registration) is the underlying action for item category usage *R101*.

Features

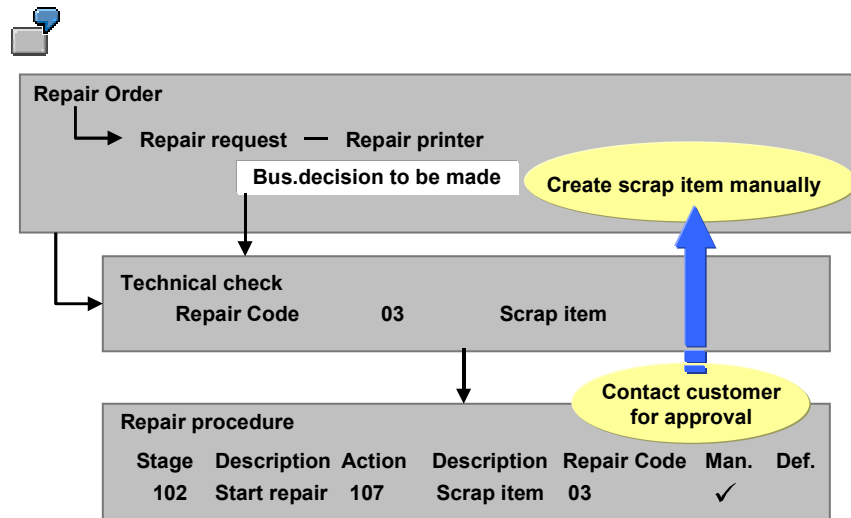
In the standard system, the following sub-item types can be created:

Sub-item	Is used to
Return order item	Manage return of goods to be repaired
Loaner item	Send temporary replacements to the customer
Repair item	Initiate repairs Depending on the requirements type, a service order may be created automatically for a repair item
Scrap item	Simply records that an item is to be scrapped. It does not manage the scrapping process.
Credit memo request item	Initiate the credit memo process for reimbursing customer for irreparable goods
Outbound delivery item	Return repaired goods to customer
Loaner pick-up item	Pick up temporary replacements from customer
Debit memo request item	Record data from resource-related billing

Activities

Where possible, the system generates the required actions automatically. If any of the actions need to be approved before they can be performed, the system does not generate any of the actions automatically. (You control this in the repair procedure with the *Manual* indicator.) You must create these actions manually when you have the necessary approval to proceed. In this case, you select the type of action that you require from proposals made by the system.

Actions for Managing Repairs Processing



The repair procedure prevents the system from generating a scrap item in the repair order automatically. The repair request item status remains "Business decision to be made" until you gain the customer's approval to scrap the serviceable material and create a scrap item manually for it.

Repair Procedure

Definition

Set of rules according to which actions are generated in the repair order.

It is assigned in Customizing to the item categories that are relevant for repairs processing and is adopted in the repair request item in the repair order.

Structure

The repair procedure contains the following control elements:

- Stages
They represent the various phases of repairs processing.
- Actions
They represent the activities that need to be performed to fulfill the customer repair request.

You define repair procedures in the Customizing activity *Define repair procedures*.

By assigning actions to stages, you set up the rules according to which the system determines what actions are required during a particular phase of repairs processing.

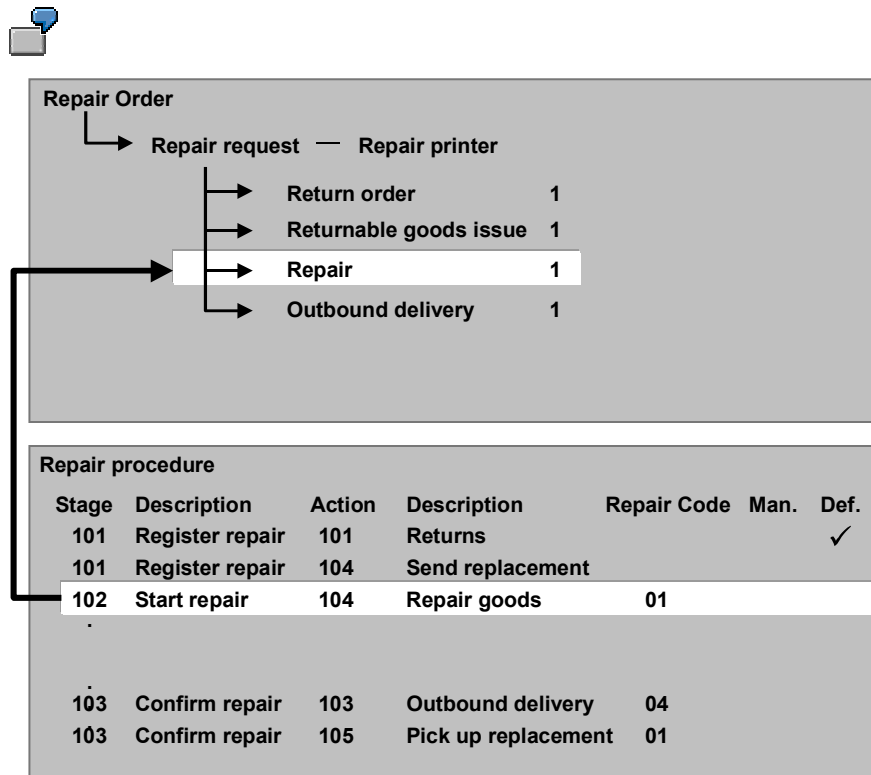
In addition, you specify for each combination of stage and action whether the required actions are

- Actions that the system proposes automatically when a particular stage of repairs processing begins
- Actions that are generated automatically on the basis of repair codes that inspection lots, notifications or service orders report back to the repair order
- Actions that require approval and must be created manually

The following indicators have been defined for these purposes:

- Default
In Customizing for the repair procedure, you set this indicator for combinations of stages and actions that do not involve inspection lots or services orders and, for which you require an action to be generated automatically. For example, at the repair registration stage, you require a return order item to be generated automatically. You activate this indicator for the stage *101* (repair registration) and the action *101* (return goods). In the repair order, a return order item is generated automatically when you create a repair request item.
- Repair code
Repair codes represent the information that the service technician reports back to the repair order after performing the technical check or completing the repairs. In Customizing for the repair procedure, they are assigned to combinations of stages and actions that involve inspection lots or service orders. The code initiates the generation of the appropriate action.

Repair Procedure



- Manual

If you use the manual indicator in the repair procedure, you always activate it in conjunction with the *Repair code* indicator. The *Manual* indicator prevents particular actions from being generated automatically when repair codes are reported back to the repair order from inspection lots, notifications and service orders. If you do not set the *Manual* indicator for a combination of stage and action to which a repair code is assigned, the system automatically generates the appropriate action on the basis of the repair code.



If the technical check determines that goods cannot be repaired and should be scrapped, you need to contact the customer to find out whether you can scrap the goods or whether he wants the goods returned to him. In this case, you do not want the system to automatically create an action for scrapping the goods. Therefore, you need to activate the *Manual* indicator for the stage 101 (repair start) and the action 107 (scrap goods). When the system reads the repair code that the inspection lot reports to the repair order, it determines that the scrap item is required. The system then checks the corresponding stage and action in the repair procedure and determines that the scrap item cannot be generated automatically. It does not generate that or any other required actions automatically. It does not update the status of the repair request item.

To continue repairs processing, you must clarify whether the customer wants you to scrap the goods or return them to him. You must then create the required actions manually on the *Repairs* screen.

Material Determination in the Repair Order

Use

You can use material determination in the following situations in the repair order:

- When you create an order to find suitable service products for the serviceable material you enter in the repair order
- When actions are created automatically or manually
 - To find suitable service products for a serviceable material when a repair item is created
 - To find suitable temporary replacements when a loaner item is created and the material for which a temporary replacement is required is no longer produced

Prerequisites

At the Order Entry Stage

You must make sure that the appropriate material determination procedure is assigned to the sales document type in *Customizing for Sales and Distribution* in the section *Basic Functions -> Material Determination*.

You must create a material determination condition record in which you define:

- The material for which suitable service products are to be proposed
- The service products which are to be proposed in the repair order for this material
- Substitution reason 0007 for the condition record
 - The substitution type A that is defined for substitution reason 0007 controls that the service product replaces the serviceable material as the leading item in the repair order.

When Actions are Created Automatically or Manually

You must make sure that the appropriate material determination procedure is assigned to the relevant action in the Customizing activity *Maintain actions*.

To be able to perform material determination for the repair item, you must define a material determination condition record as described above.

To be able to perform material determination for the returnable item, you must create a material determination record in which you define:

- The material to be substituted
- The material(s) which may substitute the material entered in the repair order

For more information, see [Material Determination \[Ext.\]](#).

Statues in the Repair Order

Statues in the Repair Order

Definition

The status of the repair request item indicates the phase that repairs processing has currently reached. The status in combination with the [Repair Procedure \[Page 53\]](#) controls what activities you can perform during a particular phase of processing.

Use

By monitoring the repair request item status, you can determine whether your intervention is required in the repair process. You can configure the repair procedure so that when particular situations arise, no actions are generated automatically and, as a result, the repair request item status is not updated. For example, you want to contact the customer before you scrap any irreparable items. Therefore, you set up the repair procedure so that no actions are generated automatically for materials that are to be scrapped.


Features

The open quantity and the stage of repairs processing control the repair request item status.

The repair request item can be assigned the following statuses:


- **Business decision to be made**

The repair request item has this status until the required action for a particular stage of repairs processing has been created.



At the repair start stage, which begins when you post goods receipt for the serviceable items, the repair request item has the status "Business decision to be made" until a repair item is created for managing the repairs.
- **Business decision made**

The repair request item acquires this status once the required action for a particular stage of repairs processing has been created.



At the repair registration stage, the repair request item acquires this status when a return order item is created for managing the return of the goods to your plant.
- **Inspection lot assigned**

The repair request item acquires this status if an inspection lot is created automatically after goods receipt has been posted for the serviceable materials that are assigned to it.
- **Usage decision made**

The repair request item acquires this status after the decision made in the inspection lot is reported back to the repair order.
- **Notification completed**

If a quality notification initiated repairs processing and the technical check has been performed and the notification completed, the repair request item acquires this status.

Statuses in the Repair Order

- Under repair/Repaired

These two statuses are assigned to the repair request item automatically. The former is set when a service order is created for an underlying repair item, the latter when the service order is completed.

Serial Number Handling in Repairs Processing

Serial Number Handling in Repairs Processing

Use

You use serial numbers to keep track of serviceable materials during repairs processing.

Prerequisites

To be able to maintain serial numbers for a serviceable material in a repair order, you must define a serial number profile in the material master record for the serviceable material. You can use dummy material master records for serviceable materials that do not have a material master record in your system (for example, products from another manufacturer).

If you want the system to check that serial numbers have been maintained for the serviceable materials when you save the repair order, you must include the serial number field (VBAP-ANZSN) in the incompleteness procedure for the relevant item category.

Activities

When you receive the serviceable materials from the customer, you record the serial numbers in the returns delivery item. They are later copied into the repair item.

After performing the technical check, the technician reports his findings for each serial number back to the repair order. This means that the correct serial numbers are assigned to the actions that are created as a result of the technical check.

When the technician completes a service order for a repair item, he also reports back the serial numbers of the items he has repaired.

Worklists in Repairs Processing

Use

You can create worklists of all the repair orders that have reached a certain status. For example, you want to process all repair orders for which the system could not generate actions automatically so you create a list of all repair orders with the status "Business decision to be made".

Activities

You have the following options for creating worklists:

- To process all repair orders with a particular status manually, create a document by status list.

To create a worklist of documents by status, choose *Logistics* → *Service Management* → *Service processing* and then *Order* → *Customer repair* → *Docs. by status*.

You specify a status that is relevant for repairs processing, for example, "Business decision to be made" as a selection criterion. The system creates a list of all repair orders with this repair request item status. You can check each document in the list to determine what action needs to be taken before you can continue with repairs processing.



When you run report SDREPA01, you initiate the repair start and the generation of repair items automatically. You should only use this report if you perform the technical check manually, that is, you do not use inspection lots or notifications.

- Run report SDREPA01 in the background to automatically update all repair orders with the status "Business decision to be made" to status "Business decision made" and thus, initiate the repair start and the generation of repair items.

Pricing and Billing the Repair Order

Pricing and Billing the Repair Order

Use

You can use and adapt the wide range of functions in pricing and billing to suit your requirements in returns and repairs processing.

Prerequisites

The following elements control how pricing and billing is performed for the repair order:

- Sales document type
 - The repair order RA performs pricing for the serviceable material according to the same logic as pricing in the standard order.
 - In repair order type RAS, there are two materials in the repair request item. You can control which for which of these materials pricing is performed.
- Item category
 - You control in the item category whether the results of pricing for an item are forwarded to billing to calculate the billing amount or simply used for statistical purposes. In this way, you specify whether pricing is performed at main item or sub-item level.
- Billing form
 - The billing form that is assigned to the repair request item controls whether you bill:
 - A fixed value or
 - According to costs incurred (resource-related billing).
 - The billing form also plays a role (via the item category usages *SENI* and *SEIN*) in determining the item categories for debit memo request items that are entered in the repair order when you perform resource-related billing.

Activities

[Resource-related billing \[Page 61\]](#)

[Fixed rate billing](#)

[\[Page 63\]](#)For more information on pricing procedures, see

[Pricing Procedures \[Ext.\]](#)

[Pricing and Conditions \[Ext.\]](#)

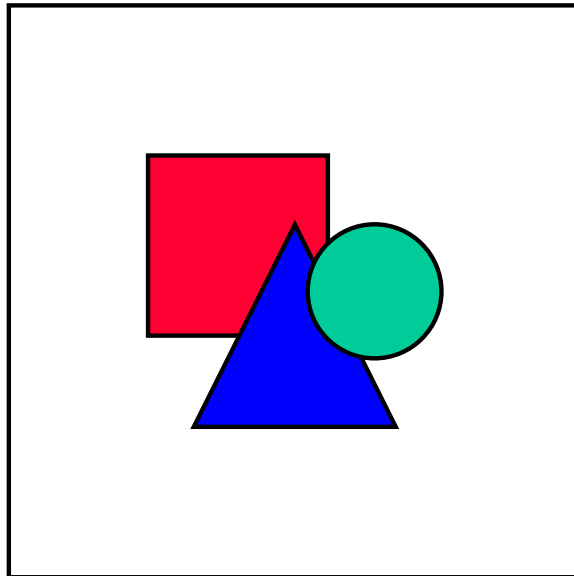
[Billing \[Ext.\]](#)

Resource-Related Billing for the Repair Order

Use

Use resource-related billing to invoice the customer for the actual costs incurred by the repairs.

When the service technician completes the service order for a repair sub-item, he records information on the costs incurred (for example, materials used or labor hours worked). When resource-related billing is initiated, the system creates separate dynamic items for each type of cost incurred. On the basis of these dynamic items, the system creates debit memo request items and enters them as actions in the repair order. This is controlled by the resource-related billing transaction and not the repair procedure.



You cannot perform resource-related billing for repair orders with reference to a service contract.

Prerequisites

Make sure that:

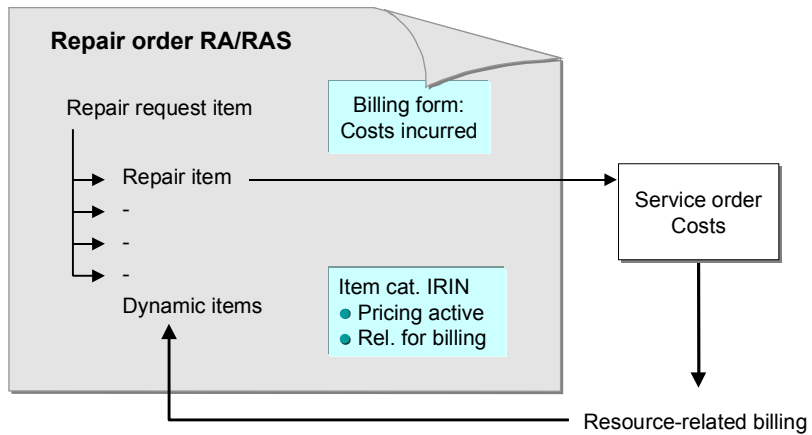
- The billing form for the repair request item is set to 02 (costs incurred).
- A dynamic item processor profile has been assigned to the repair order (*Sales B* screen for the item).

The following item categories are defined in the standard system in Customizing for debit memo request items in the repair order:

- *IRIN* - Relevant for billing
- *IRNI* - Not relevant for billing

In the repair order, the system determines the appropriate item category for the debit memo items on the basis of the item category usage and the item category of the higher level item.

Resource-Related Billing for the Repair Order

**See also:**

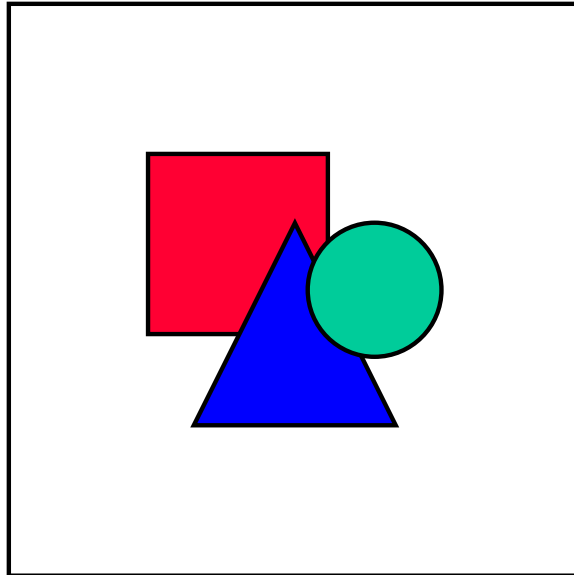
For more information, see [Resource-Related Billing \[Ext.\]](#) under CS - Customer Service.

Fixed Rate Billing for the Repair Order

Use

Pricing is performed at service product or serviceable material level according to the standard pricing procedure *PREP01* that is defined for the repair order.

You can use fixed rate billing in conjunction with the pricing function for configurable materials.



If the quantities in the repair or delivery sub-items of your repair orders often deviates from the quantity in the repair request item, we recommend that you define a user status (for example, manual processing required) that blocks the repair order for billing. Define that this block is set when the completion of the service order is reported back to the repair order. This enables you to check the results of pricing and make any necessary adjustments manually before you release the repair order for billing. You can then create a [worklist \[Page 59\]](#) of all repair orders with this status and adjust the prices and quantities manually before releasing them for billing.

For more information on defining a user status, see [Status Management \[Ext.\]](#).

Prerequisites

To perform pricing for the serviceable material, you must change your settings for pricing:

- Use `USEREXIT_PRICING_PREPARE_TKOMP` to define the field `VBAPD-MATNR_G` as the pricing material in the communication structure

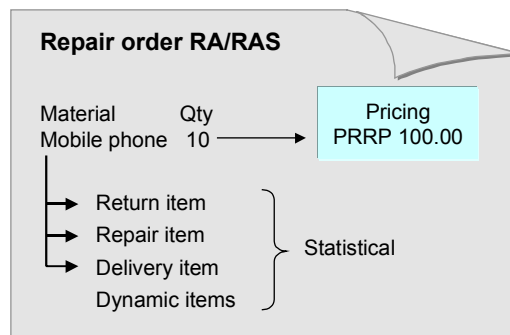
For information on how you do this, see the Customizing activity *User Exits for Pricing* (choose *Sales and Distribution* → *User Exits* → *User Exits for Pricing*).

- Define an alternative formula for calculating the condition base value. You do this in the Customizing activity *Define formulas for pricing* (choose *Sales and Distribution* → *System Modification* → *Routines* → *Define formulas for pricing*). Specify in this formula that the quantity for calculating the price should be taken from the `VBAPD-MENGE_G` field. Assign the formula to the pricing procedure.

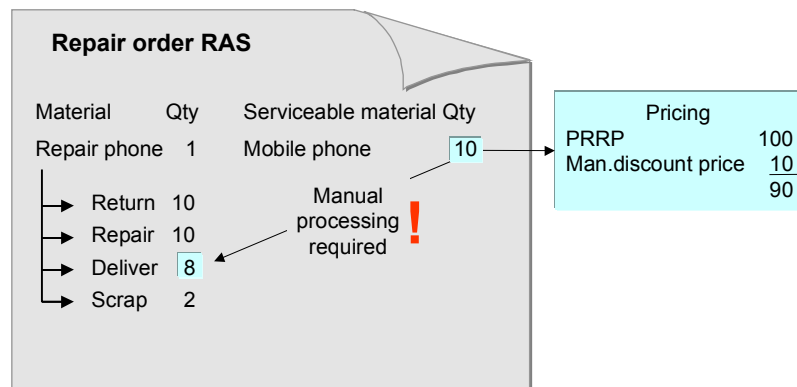
Fixed Rate Billing for the Repair Order

**Outbound delivery quantity matches repair request item quantity**

The customer sends in 10 mobile phones for repair. You enter this information in the repair request item. The system calculates the price for the repair request item using the pricing procedure *PREP01*. It finds a *PRRP* condition record for the serviceable material. When the repairs are complete, you bill the customer on the basis of the pricing information in the repair request item.

**Repair request item contains a manual discount, Outbound delivery quantity deviates from repair request item quantity**

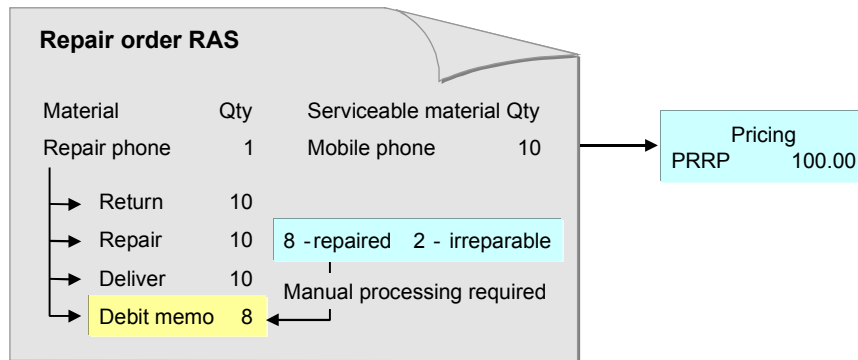
The customer sends in 10 mobile phones for repair. You enter this information in the repair request item. The system calculates the price for the repair request item using the pricing procedure *PREP01*. It finds a *PRRP* condition record for the serviceable material. You enter a manual discount for the repair request item. During repairs, the service technician determines that only 8 mobile phones can be repaired. The other 2 can only be scrapped. You want the customer to be invoiced for the repair of 8 phones only and according to the price calculated for the repair request item. In this case, it makes sense to block the repair request item for billing to enable you to check the results of pricing. You can then make the necessary manual adjustments and release the item for billing.



Fixed Rate Billing for the Repair Order

Actual quantity repaired deviates from the repair request quantity and the delivery quantity

The customer sends in 10 mobile phones for repair. You enter this information in the repair request item. The system calculates the price for the repair request item using the pricing procedure *PREP01*. It finds a *PRRP* condition record for the serviceable material. The service technician can only repair 8 phones. The remaining 2 phones are to be scrapped. The customer requests that you send all 10 phones back to them. You invoice the customer for the repair of 8 phones. In this case, it makes sense to block the repair request item for billing, as you want to adjust the prices calculated for the repair request item manually before billing the repairs.



Creating a Repair Order with a Service Product

Creating a Repair Order with a Service Product

1. Choose *Logistics* → *Customer Service* → *Service processing* → *Order* → *Customer repair* → *Create*.
2. Enter the order type *Repairs/Service* and the organizational data and then choose *Enter*.
3. Enter the customer number in the *Sold-to party* field and enter an external purchase order number in the *PO number* field.

You can use this number as the Return Material Authorization (RMA) number for tracking repairs processing. If you do not make an entry in this field, the system automatically enters the document number in this field when you save the document.

4. Enter the material number of the serviceable material in the *ServiceableMat* field and the quantity of serviceable materials in the *Qty* field and then choose *Enter*.
5. If material determination is active, the system proposes the possible service products for the serviceable material. Choose the appropriate service product. Otherwise, enter the service product manually.
6. On the basis of the repair procedure, the system creates an action (a return order item) for managing the return of the goods.
7. To view the return order item, select the repair request item and choose *Repairs*.

You reach the *Repairs* tab page. As well as information on the actions to be performed in repairs processing, you also find status and quantity information on the screen you reach.

8. If required, create an action (a loaner item) for managing the sending of a temporary replacement to the customer:
 - Enter the quantity of serviceable materials to be replaced
 - Select the relevant action type
 - Enter the material number of the temporary replacement



Later on in repairs processing, you can access other information that is relevant for the repair order from the *Repairs* tab page. For example, you can switch from the repair order to the relevant service order or inspection lot, or you can call up stock information for the serviceable material.

9. Save the repair order.

Result

The customer repair request has been documented in a repair order.

If you have agreed to pick up the serviceable material from the customer, you use the return order item to initiate this. Otherwise, the customer sends the serviceable material back to you.

If you have created a loaner item, it is included in the delivery due list and the temporary replacement is delivered to the customer.

Repairs processing continues when you receive the serviceable materials and post goods receipt for them.

Creating a Repair Order without a Service Product

Creating a Repair Order without a Service Product

Procedure

1. Choose *Logistics* → *Customer Service* → *Service processing* → *Order* → *Customer repair* → *Create*.
2. Enter the order type *Repair Request* and the organizational data and then choose *Enter*.
3. Enter the customer number in the *Sold-to party* field and an external purchase order number in the *PO number* field.

You can use this number as the Return Material Authorization (RMA) number for tracking repairs processing. If you do not make an entry in this field, the system automatically enters the document number in this field when you save the document.

4. Enter the material number of the serviceable material in the *ServiceableMat* field and the quantity of serviceable materials in the *Qty* field and then choose *Enter*.
5. To see details on the repairs, go to the *Repairs* tab page by selecting the repair request item and choosing *Repairs*.
6. Create the following actions as required:
 - A return order item for managing the return of the serviceable material
 - A returnable item for sending the customer a temporary replacement for the serviceable material

To do this, you

- Enter the quantity of serviceable materials to be returned or replaced
- Select the relevant action type.
- Enter the material number of the serviceable materials.

7. Save the repair order.



Later on in repairs processing, you can access other information that is relevant for the repair order from the *Repairs* tab page. For example, you can switch from the repair order to the relevant service order or inspection lot, or you can call up stock information for the serviceable material.

Result

The customer repair request has been documented in a repair order.

If you have agreed to pick up the serviceable material from the customer, you use the return order item to initiate this. Otherwise, the customer sends the serviceable material to you.

If you have created a loaner item, it is included in the delivery due list and the temporary replacement is delivered to the customer.

Repairs processing continues when you receive the serviceable materials and post goods receipt for them.

Posting Goods Receipt for Serviceable Materials

Posting Goods Receipt for Serviceable Materials

Use

You post goods receipt to record that the serviceable materials have arrived at your plant. You can also record receipt of other goods such as loaner items.

Prerequisites

You require a repair order in which you have recorded the customer's repair request.

Procedure

1. Choose *Logistics* → *Customer Service* → *Service Processing* → *Order* → *Customer repair* → *Returns* delivery.
2. On the *Create Returns Delivery* screen, enter the following information:
 - Number of the repair order in the *Repair order* field
You can search for the appropriate repair order using the RMA number.
 - Delivery type in the *Delivery type* field
In the standard system, delivery type *Returns delivery (LR)* has been defined for this purpose.
 - Number of the shipping point in the *Shipping point* field
3. Choose *Enter*.
4. You reach the overview screen where you can post goods receipt by choosing *Edit* → *Post goods issue*.
5. Save the delivery.

Result

Repairs Processing Using Inspection Lots

When you post goods receipt for serviceable materials:

- The items are automatically assigned to inspection stock
- An inspection lot is created automatically and initiates the technical check

Repairs Processing Without Inspection Lots

When you post goods receipt for the serviceable materials:

- The items are automatically assigned to unrestricted use stock
We recommend that you post the serviceable materials to blocked stock (using movement type *344E*) before you start the repair process.
- You must initiate the technical check manually

Posting Goods Receipt for Serviceable Materials

You can also create returns deliveries by choosing *Outbound Delivery* → *Create* in the [Shipping menu \[Ext.\]](#).