External Services Management (MM-SRV)

Release 4.6C

SAP
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External Services Management (MM-SRV)

This section provides a general introduction to MM External Services Management.

It provides an overview of the functionality, shows how MM External Services Management is integrated into the Purchasing application within the Materials Management module, and indicates the interfaces to other applications.

Purpose

MM External Services Management (MM SRV) is an application component within the Materials Management (MM) module. It supports the complete cycle of bid invitation, award/order placement phase, and acceptance of services, as well as the invoice verification process.

Features

MM External Services Management provides a basic process for the procurement of externally performed services. This basic process comprises the following functionality:

- **Service master records**, in which descriptions of all services that may need to be procured can be stored. In addition, a standard service catalog and model service specifications are available.

- A separate set of **service specifications** can be created for each concrete procurement project in the desired document (e.g. PM maintenance plan or maintenance order; PS network; MM purchase requisition, RFQ, contract, purchase order, or service entry sheet).
  - Service specifications can include items representing materials in addition to those representing services or activities.
  - When creating voluminous sets of service specifications, you need not laboriously enter each individual service manually. Instead, you can make use of the referencing technique and the selection function to copy quickly and simply from existing master data and documents.

- **MM External Services Management** offers two basic ways of specifying services:
  - As **planned services** with description, quantity, and price.
    By „planned services“ we mean services whose nature and scope is known to you at the start of a procurement project or transaction.
    At the time the services are requested, the individual specifications are entered either with the aid of a service master record or directly as short and long texts. Price and quantity are specified in both cases.
  - As **unplanned services** with the setting of a value limit only.
    By unplanned services, we mean services that cannot be specified in detail because their precise nature and scope are not initially known, or services which - for various reasons - you do not wish to plan. Unplanned services therefore have no descriptions.
    They are entered in the form of monetary limits. Services may be performed up to a value not exceeding these **value limits**. This allows you to exercise a degree of cost control in such situations.
• You can analyze data already available in the system in order to find suitable sources of supply for certain services.

• You can also carry out a bid invitation process and evaluate the bids submitted in response using the price comparison list function. You can then award a contract to (or place an order with) the desired vendor.

• During the phase of service performance (execution of work), various lists and totals displays enable you to retain an up-to-date overview of your service specifications, the progress of the work, and the costs being incurred.

• You can record the performance of services or work in service entry sheets.

• You can indicate your acceptance of the work set out in the entry sheets in various ways.

• Following acceptance, the vendor’s invoice can be verified and released for payment.

As an alternative to this basic process, various accelerated and simplified processes are made available to you for use if desired in connection with specific procurement transactions.

Integration

MM External Services Management is completely integrated into the Materials Management system. The master data for the procurement of services can be stored in service master records, for example, which subsequently provide default data for the purchasing documents. Service specifications for a concrete procurement project are not created and processed separately each time (e.g. as bid invitation or contract specifications), but entered directly in the purchasing documents (e.g. in a request for quotation, quotation, purchase order or contract).

The following graphic demonstrates the degree of integration of MM External Services Management:

The External Services Management component is linked to the SAP modules PM Plant Maintenance and PS Project System. As a result, it is possible to create purchase requisitions for external services within the framework of maintenance measures or a project and then transmit them to Purchasing without incurring additional data maintenance work.
The interaction of the R/3 modules MM, PS and PM, CO and FI saves time and effort and reduces the frequency of errors. This is because data need be entered once only, after which it is available for all follow-on activities within a business process.

An example of the integration of MM and CO is purchase order commitments. The expected value of unplanned services is forwarded to CO from within MM so that a commitment figure can be established and monitored. This enables the relevant budget for procurement measures to be prepared in good time.
Master Records from the ESM View

Definition
Master records are data records that are stored centrally in the database for longer periods of time and which are used and processed by multiple applications.

Use
Master records are suitable for certain combinations of services that are likely to be referenced again and again in various business transactions.

Structure
The component MM-SRV External Services Management (ESM) provides the following types of master record:

- Service Master Record [Page 10]
- Master Conditions for Services [Page 16]
- Standard Service Catalog (SSC) [Page 22]
- Model Service Specifications [Page 27]

Integration
These master records can be used in the following components:

- Purchasing (MM -PUR)
  For more information, refer to MM Purchasing [Ext.].

- Project System (PS)
  For more information, refer to PS Project System [Ext.].

- Plant Maintenance (PM)
  For more information, refer to Orders (PM-WOC-MO/CS-SE) [Ext.] and Maintenance Planning [Ext.].

- Customer Service (CS)
  For more information, refer to Customer Service [Ext.].
Service Master Record

Definition
Contains the description of a service.

Use
The service master record counts as part of the master data within External Services Management and serves as a source of data for you to draw upon when creating service specifications. This enables you to save time and reduces the frequency of errors, since you need only enter the complete service descriptions in the service master record once.

Structure
A service master record contains the following principal information for the unique description of a service:
- Service number
- Service category
- Descriptive texts (short and long text)
- Base unit of measure
- Material group
- Valuation class
Service Master Record Maintenance

Use
You use this function if you wish to store frequently procured services centrally as master records and use them on a cross-application basis.

Integration
When creating Service Specifications [Page 40], you can reference service master records by entering just the number of the service.

For more information, refer to Adopting a Service Master Record in Service Specifications [Page 48].

Prerequisites
You make the relevant settings for the maintenance of service master records in Customizing for External Services under Service Master Record.

Features

Single Screen Function
The following service master record functions are available on a single screen:

- Display
  When you first invoke the entry sheet functionality, the screen is in display mode.

- Create [Page 14]
- Change [Page 15]
- Copy
  When creating a service master record, you can copy an already existing one by clicking .

- Find
  Via Other service, you can search for a service master record on the basis of the service number.

- Delete
  Service master records can only be deleted if no conditions have been maintained for them.

Service Overview
Click on the left side of the screen to show or hide an overview of service master records that have already been created. Double-click on a service to display the relevant master record data on the right-hand side of the screen.

Within the overview, you can do the following:

- Maintain display variants
Service Master Record Maintenance

Click to specify which data from the service master records is to be displayed in the service overview.

- Find services
  If you click, you can enter a search term for a service master record. The service found will be indicated in the overview.

- Define the sorting of the list
  Click to specify the column data by which the list is to be sorted in ascending or descending order.

- Define selection variants
  You can choose the following selection variants via the input help under:
  - Last services
    Here you see the last-maintained service master records.
  - Other selection
    You can define the selection of service master records displayed via:
    - Service number
    - Service category
    - Material group
    - Service short text

Individual Screen Settings
You can expand and collapse the data areas on the right of the screen.

You can either:

- Expand and collapse all data areas via and , or
- Expand and collapse individual data areas via or , for example.

When you first invoke the function, the data areas for the basic data and the long text are expanded.

Each time you reinvoke the function, the screen settings and the data you had selected or maintained when you last exited the function appear.

Multi-Lingual Text Maintenance
You can maintain both the long and short texts in several languages. In the Long text data area, click to choose the languages in which you wish to maintain texts.

Administrative Information
The administrative information shows you when and by whom the service master record was created or last changed (Goto → Administrative info).

Display Change Documents
The change document display function gives you a list of all changes made to the service master record since its creation (Goto → Change documents).
Quantity Calculation Using Formulas
To facilitate the calculation of the quantity of a certain service, you can assign a formula to a service master record.

You specify the formulas you need in Customizing for External Services Management under Formulas for Quantity Determination → Define Formulas.

Inserting Graphics
If you want to illustrate a certain service, you can insert a graphic in the data area Basic data. To do so, you must import your locally stored graphics file into the R/3 System via the SAP Web Repository (Web Development → Web-Repository). You can then choose the graphics files via the input help for the Graphic field.

Classification
With the aid of the classification system, you can assign service master records to freely defined classes and then choose them by means of the Service Selection [Page 52] facility. If you wish to classify service master records, you must assign the classes to class type 038 (service).

For more information on the classification system, refer to CA Classification System [Ext.].

Service Master Conditions
You can store pricing data agreed with your vendors for each service master record in the form of conditions.

For more information, refer to Master Conditions for Services [Page 16].

Linkage with Service from Standard Service Catalog (SSC)
By specifying the service type, the edition, and the SSC item in the service master record (data area Standard service catalog), you can save a service from the Standard Service Catalog [Page 22] as a service master record (and thus also define prices for this service, for example).

Sending via E-Mail
In display and change modes, you can click to send service master records for checking via workflow, for example.
Creating a Service Master Record

1. Choose *Logistics* → *Materials management* → *Service master* → *Service* → *Service master*.
2. Choose.
3. If external number assignment has been defined in your firm, enter the number of your master record.
   
   You define the number assignment in Customizing for *External Services Management* under *Service Master* → *Define Number Ranges*.
4. Enter a short text describing the service.
5. Choose a service category.
6. Enter the base unit of measure in which the service or work is to be measured and valued.
7. If desired, maintain the fields in the individual data areas.
8. If you wish to create further service master records, go through steps 2 to 7 again.
   
   If you want to change service master records, proceed as described under *Changing a Service Master Record* [Page 15].
9. When you have finished processing the service master records, save your data.
   
   Exit the function.

Creating a Service Master Record Using the Referencing Technique

1. Choose *Logistics* → *Materials management* → *Service master* → *Service* → *Service master*.
2. Select a service master record in the service overview ( ).
   
   If you cannot find the desired master record in the service overview, you can search for it in the following ways:
   
   - Click ( ) in the service overview and enter a search term. The relevant service master record will be displayed preselected in the service overview.
   - Click ( ) *Other service* and enter the number of the service master record. You can use the input help for ( ) *Other service* to search for service master records according to a variety of criteria. The relevant service master record is included in the service overview.
3. Choose ( )
4. Make any desired changes.
5. To create further service master records with or without use of the referencing technique, repeat steps 2 to 4 or 2 to 7 respectively.
   
   If you want to change service master records, proceed as described under *Changing a Service Master Record* [Page 15].
6. When you have finished processing the service master records, save your data.
   
   Exit the function.
Changing a Service Master Record

1. Choose Logistics → Materials management → Service master → Service → Service master.

2. In the service overview, select the service master record you wish to change.
   
   If you cannot find the desired master record in the service overview, you can search for it in the following ways:
   
   – Click in the service overview and enter a search term. The relevant service master record will be displayed preselected in the service overview.
   
   – Click Other service and enter the number of the service master record. You can use the input help for Other service to search for service master records according to a variety of criteria. The relevant service master record is included in the service overview.

3. Choose to switch to change mode.

4. Make the desired changes.

   You can no longer change the unit of measure if condition records already exist for the master record.

5. If you wish to change further service master records, go through steps 2 to 4 again.

   If you want to create new service master records, proceed as described under Creating a Service Master Record [Page 14].

6. When you have finished processing the service master records, save your data.

   Exit the function.
Master Conditions for Services

Definition
Terms of payment (prices, discounts, surcharges etc.) for external services, valid over a longer timeframe.

Use
The system applies these conditions for price determination purposes in purchasing documents. You can enter further conditions in the purchasing document itself.

For more information on the maintenance of conditions for services, refer to Condition Maintenance for Services [Page 18].

You make the settings for price determination in Customizing for External Services Management under Maintain Conditions for Services.

The process of source determination in purchase orders and requisitions for external services takes place on the basis of contracts and service master conditions.

You make the settings for source determination in Customizing for External Services Management under Source Determination and Default Values.

Structure
You can store master conditions for services in the system as follows:

- In the form of service master conditions (Logistics → Materials management → Service → Service conditions):
  - For a service ("market price"/"own estimate")
  - For a service and a vendor without a plant
  - For a service and a vendor with a plant
  - For other objects
    If you need your own key combinations for conditions, you must create your own condition tables and define the access sequence.
    You make the settings in Customizing for External Services Management under Maintain Conditions for Services.

- In the form of contract conditions
  
  We recommend maintaining the conditions for a Contract [Ext.] directly within the document.

In the case of master conditions for services, you can additionally enter the following:

- Validity periods
- Scales
- Supplementary conditions
Condition Maintenance for Services

Features

You can maintain conditions for services for the following objects:

- For service master records or contracts
  
  For more information, refer to Master Conditions for Services [Page 16].

- For purchasing documents (Global Percentage Bid [Ext.], quotation, requisition, purchase order, service entry sheet)

Condition Maintenance for Services at Different Levels

Conditions for services can be maintained in contracts and in the above-mentioned documents at the following points:

- Service line
  
  Enter the gross price in the service line. If you wish to maintain conditions, click to access the condition screen.

- Outline level (header conditions)

  Header conditions cannot be maintained in RFQs or service entry sheets.

  Header conditions stored at particular outline levels can automatically be copied down to hierarchically subordinate outline levels.

  In contracts, you are only allowed to maintain header conditions for the first outline level. These are copied to all other outline levels, but cannot be changed there.

Updating of Service Master Conditions Through Conditions in Purchasing Documents

You can update existing conditions for a service master record through the conditions you are maintaining in a current purchasing document (requisition, quotation, purchase order). That is to say, the already existing conditions in the service master record are overwritten.

In the case of a purchase requisition, the service master conditions are updated for a service. In the case of a quotation or purchase order, the service master conditions are updated for a vendor with or without plant.

You can set the following indicators for the client and purchasing organization levels in Customizing for External Services Management under Source Determination and Default Values:

- **Client:**
  
  - Set condition update indicator as default value in requisitions
  
  - Set condition update indicator as default value in quotations
Set condition update indicator as default value in purchase orders

**Purchasing organization:**
- Set condition update indicator as default value in quotations
- Set condition update indicator as default value in purchase orders

The system adopts this indicator from Customizing and inserts it in all the service lines of the document. However, you may decide that the conditions for certain services are to remain unchanged. In this case, cancel the indicator in the relevant service line of the purchasing document.
Maintaining Conditions for Services

The conditions stored in the service master record are used in the process of source determination for purchasing documents.

To store conditions for a service master record, proceed as follows:

1. From the Purchasing menu, choose Master data → Service conditions → For service → Create.
2. Enter the service for which you wish to maintain conditions. Maintain the validity period and the amount.
   You can also maintain scales and supplementary conditions. Supplementary conditions are suggested from the master conditions. You can overwrite the default value.
   You can also maintain conditions at other organizational levels, e.g. for a vendor with or without a plant.
3. Save the conditions.

Maintaining Conditions in the Purchasing Document

In purchasing documents, you can access the price calculation schema for a certain service by choosing Goto → Conditions.

You can see how the price of the service is arrived at and can change the condition types within the schema if necessary for the relevant purchasing document.

Updating the Conditions in the Service Master Record Through Conditions in the Purchasing Document

You can update the conditions in the service master record through the conditions of the current purchasing document (requisition, RFQ, PO).

A prerequisite is that the Condition update as default value in purchasing document indicator must have been set in Customizing.

This causes the conditions maintained by the user in the current purchasing document to overwrite the conditions in the service master record.

The system adopts this indicator from Customizing and inserts it in all the service lines of the document. However, the user can decide that the conditions for certain services are to remain unchanged. In this case, he or she cancels the indicator in the relevant service line of the purchasing document.

The Condition update as default value in purchasing document indicator has been set in Customizing.

Conditions in the service master record:

Service A:  100.00
Service B:   80.00

Conditions in the purchase order:
Service A:  95.00  
Service B:  75.00  

In the case of service A, the buyer accepts the default value (updating of condition in service master record), i.e. the system changes the condition from $100 to $95.

In the case of service B, the discount applies only to this purchase order. The buyer therefore cancels the default indicator set by the system. This means that service B costs $75 in this purchase order, but the condition stipulating $80 in the service master record remains unchanged.
Standard Service Catalog (SSC)

Definition
General standardized catalog of text modules for the description of services.

Use
Standard service catalogs (SSCs) are stored centrally as master records. They are a source of standardized service descriptions that help to eliminate data redundancy. In contrast to the Service Master Record [Page 10], an SSC contains standard texts that only yield complete and unique service descriptions when put together in various combinations. The use of SSCs can be advantageous in facilitating problem-free communication between contractual parties (e.g. between ordering entity and supplier).

Structure
A standard service catalog contains the following information:
- Service type number
- Edition number
- Text module numbers
- Text modules

A service description is compiled from several text modules. The individual text modules are put together like building blocks to form a standard text. Each module has a number. The standard service catalog number (SSC no.) of a service, uniquely identifying that service, comprises the numbers of the text modules, the number of the service type, and the edition of the relevant standard service catalog.

SSCs can be subdivided into different service types, to classify work by trade or activity for example. Possible service types include “masonry work”, “maintenance services”, “vehicle servicing”, “cleaning work”, etc. There can be several versions of each service type. The individual versions are characterized by the edition number.

The following graphic shows how a precise description of a certain service (task or item of work) is arrived at using the text modules belonging to a standard service catalog:
Standard Service Catalog

Service type 1
- Construction work
- Edition '95

Service type 2
- Electrical work
- Edition '97

Service type 3
- Plumbing work
- Edition '94

Service type 4
- Tiling work
- Edition '96

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</tr>
<tr>
<td>001 01 01 01 m²</td>
<td>Bricks</td>
</tr>
<tr>
<td>02 02 02 02 m²</td>
<td>Class A brick</td>
</tr>
<tr>
<td>01 01 01 01 m²</td>
<td>240 x 115 x 52</td>
</tr>
<tr>
<td>02 02 02 02 m²</td>
<td>240 x 175 x 52</td>
</tr>
<tr>
<td>01 01 01 01 m²</td>
<td>Wall thickness 12 cm</td>
</tr>
<tr>
<td>02 02 02 02 m²</td>
<td>Wall thickness 24 cm</td>
</tr>
</tbody>
</table>
Working with Standard Service Catalogs

Features

Maintaining Standard Service Catalogs
You can perform the following functions using the SSC editor:

- Create standard service catalog
- Change standard service catalog

Transferring External SSCs to the R/3 System
Via Service master → Stand. serv. catalog → Import file, you can import SSCs into the R/3 System from external data carriers. After the data transfer, the system branches directly to the editor. There you can check the imported SSC, make any necessary changes, and save it.

For a problem-free data transfer, you must ensure that the units of measure used in the external SSC have been maintained in your system in Customizing (General Settings under Check Units of Measurement).

If errors should occur during while an external SSC is being imported (e.g. missing units of measure), an error log appears.

Standard Service Catalogs: List Display
You can call up the following information on individual SSCs via Stand. serv. catalog → List display:

- Header data
- Text module number
- Short and long texts

Linking Service Master Records with Services from the SSC
You can create a service master record referencing a service from an SSC by specifying the service type, the edition, and the SSC item of the service in the service master record. This enables you to maintain Master Conditions [Page 16] for this service.

For more information, refer to Service Master Record Maintenance [Page 11].

Adopting SSC Services in Service Specifications
When creating service specifications with reference to an SSC, you branch to the SSC editor, where you choose the relevant services.

For more information, refer to Adopting an SSC Service in Service Specifications [Page 49].
Creating a Standard Service Catalog (SSC)

Procedure

2. Enter the necessary data.

   If you wish to use a certain service type as a reference, enter the relevant data in the Reference area.

3. Maintain a short text describing the service type.
4. Define a validity period.
5. Specify a structure for the service type:
   - You can freely define the structure of the service type. However, take care that the sum of the text module numbers specified does not exceed 18 characters.
   - If you do not wish to maintain new structures, you can copy some instead.
     - Click Default to copy a predefined structure.
     - Click Service type to copy the structure of an existing service type.
6. Click Editor to maintain the text modules for this service type.

   To compile a unique service description, you assemble several text modules and arrange them hierarchically. A maximum of six hierarchy levels is possible. The degree of detail increases as you move down through the hierarchy levels. At the lowest level you must specify a unit of measure.

   You can use the Outline heading indicator to maintain outline headings grouping the underlying text modules. The purpose of this text is purely to achieve greater clarity – it does not form part of the service description.

   You can supplement the short and long texts of your text modules with variable symbols (e.g., '&'). In this way, you provide a degree of flexibility to accommodate further technical developments or changes. When processing the document, you (or the service provider) replace(s) the symbols by the relevant text.

5. Choose .

   All input is checked by the system. If any errors have occurred, you can view them by clicking and then attend to them.

   Before the service type is finally saved, the system checks the structure for errors. Any errors discovered are displayed in the error list (List).
6. Correct the errors where necessary.
7. Save the standard service catalog.
Creating a Standard Service Catalog (SSC)

Result

When the catalog has been successfully saved, the *Usage possible* indicator is set automatically on the header screen of the SSC editor.

If you wish to use the SSC for referencing purposes when creating sets of service specifications, you must set the *Usage allowed* indicator.
Model Service Specifications

Definition

Collection of services, the associated descriptions, plus pricing and quantity data. A set of model service specifications serves as a template for creating further specifications.

Model service specifications count as master records within External Services Management.

Use

You may wish to use the specifications for a certain group of services as a template if you are likely to have to procure all or some of these services repeatedly in the future.

Structure

In a set of model service specifications, you can maintain service lines and – if desired – an outline.

For more information on the outline function for service specifications, refer to Service Specifications Outline [Page 45] and Maintaining a Service Specifications Outline [Page 46].
Working with Model Service Specifications

Use
You use this function if you wish to repeatedly use a certain selection of services as a basis, or template, for creating new specifications in the future.

Features

Maintenance of Model Specifications
The following functions are available for model service specifications:

- Create [Page 30]
- Change standard service catalog
- Display

Configurable Model Specifications
Using the configuration function, you can store object dependencies for individual lines of a set of model service specifications. The system can then support you in the process of planning and entering services. It can help you to choose the right services, detailed specifications, exact quantities, and prices as quickly as possible.

For more information, refer to Creation of Service Specifications Through Configuration [Page 31].

Adopting Services from Model Specifications in Documents
When creating service specifications, you can adopt services listed in model specifications either completely or partially using the service selection function (Service selection.)

For more information, refer to Adopting a Service from Model Specifications or Document [Page 50].

Creating a Requisition with Reference to Model Specifications
The following default values can be maintained in model specifications for the creation of purchase requisitions referencing model service specifications:

- Purchasing organization
- Fixed vendor
- Contract

Setting Value Limits on a Set of Model Service Specifications
When creating requisitions and purchase orders, you can set value limits on model service specifications. This ensures that at the time the services actually performed by the provider are recorded, only those services that are listed in the model specifications may be entered up to a value not exceeding the one specified (the limit).
Creating Model Specifications

Procedure

2. Enter the necessary data.
3. Choose.
   
   The model specifications header screen appears.
4. Enter a name for the model specifications.
5. Enter further data (if desired).
7. Enter the necessary data for the service lines.

   If you are creating voluminous specifications, we recommend you use the service outline function.
   For more information, refer to Maintaining a Service Specifications Outline [Page 46].
8. Save your data.
Creation of Service Specifications Through Configuration

Use

This function facilitates the structuring of complex service specifications during the processes of planning and recording external services. The system supports you in selecting precisely the subset of services that is relevant to your needs from a more comprehensive set of model specifications.

Prerequisites

You must have created a configurable set of model service specifications with object dependencies. To do this, you use the components CA Classification System and LO Variant Configuration.

For more information, refer to CA Classification System [Ext.], CA Characteristics [Ext.] and LO Variant Configuration [Ext.].

The Configuration at time of service selection indicator must be set on the header screen of the model specifications.

Activities

Linking Specialized Knowledge to Model Specifications

1. Create a set of model service specifications with the maximum range of services to be performed.

2. Set the Configuration at time of service selection indicator on the header screen of the model specifications.

   For more information, refer to Creating Model Service Specifications [Page 30].

3. In the classification system (Logistics → Central functions → Classification system → Characteristic → Create), create characteristics and store characteristic values uniquely defining the services created in the model specifications.

4. Assign the characteristics and their values to a class of type 301 (model specifications).

   The instances of the service characteristics determine which service lines are selected with which quantities when service specifications are created.

5. In variant configuration (Logistics → Central functions → Variant configuration → Configuration profile → Create), create a configuration profile for the object Model specifications and assign the class created to this profile.

6. Create object dependencies for each service line in the model specifications by clicking 🎨. Click 📄 to assign already existing object dependencies to a service. In doing this, you create rules that lead – depending on the characteristic values – to the selection of the individual service lines.

Configuring Service Specifications via Service Selection

Creation of Service Specifications Through Configuration

2. Choose a configurable set of model service specifications.

   The Configuration at time of service selection indicator must be set in the model specifications.

3. An editor guides you with suggestions through the characteristic value process to precisely that subset of services that you need to compile complete specifications for your concrete project. The system automatically determines which services are involved from the underlying object dependencies.

   If you wish to change field values during configuration, you must create an object characteristic that points to the fields of table ESLL.

   For more information on the creation of object characteristics, see Creating Reference Characteristic [Ext.].

4. The system creates a concrete set of service specifications.

Example

A set of model service specifications comprises the entire range of services that may be required in pipe-laying projects.

Within this complete range, there are services that are mutually dependent or mutually exclusive.

- The work involved in laying pipes in a new housing estate will differ from that involved in laying pipes in existing residential areas, for example.

- If cast-iron pipes are to be laid, the work involved in connecting up and pressure-testing the pipes differs from that which would be necessary if the pipes were made of steel.

- At the same time, various jobs may not be necessary. If the pipes were laid in remote, wooded areas, for example, some of the work involved in fencing off the jobsite for safety reasons (necessary in residential areas) would be superfluous.
Procurement of Services: Processes

In addition to their own workforce, many firms now employ external service providers to do work of various kinds. This may be due to a number of reasons: for example, their own staff may lack either the capacity or the qualifications to perform certain tasks.

This section describes the business processes available within the application component MM External Services Management for the efficient procurement of externally performed services:

- The basic process with all worksteps
- Accelerated and simplified processes

You can specify yourself the cases in which the basic process with all steps is to be used and the cases in which it makes sense to omit certain steps in order to save time.

Procurement via Invoicing Plans (Rental, Leasing, Part-Payments) [Page 72]
Procurement Using Blanket Orders (for Low-Value Items) [Page 73]
Procurement of Services: Basic Process

This section describes the basic process for the procurement of externally performed services. The following graphic outlines all the possible steps in this process:

The procurement of services may involve the following steps:

- Determination and recording of requirements
- Determination of possible sources
- Bid invitation procedure
- Entry of data from quotations submitted by bidders
- Comparison of quotations
- Award phase (order placement)
- Monitoring of purchase orders
- Entry of services actually performed
- Acceptance of services performed
- Verification of invoices for services
The following sections describe these steps in more detail.

**Determination and Recording of Requirements**

**Determining Requirements**

A need for certain services can arise in a user department of your enterprise, within the framework of a project (such as the translation of software) or with regard to regular maintenance work (such as the outsourcing of routine electrical jobs) for instance.

The user department can either prepare a purchase requisition itself, or request Purchasing to do so. In each case, the requisition is the trigger for procurement activities in MM Purchasing.

In the case of large-scale projects involving the use of the SAP application component PS Project System, purchase requisitions with precise performance dates are created from networks. These requisitions are transmitted to the MM Purchasing component automatically. Service specifications from existing standard networks can be utilized to simplify the creation of such networks.

If you use PM Plant Management in your enterprise, specifications for regular maintenance work or servicing will similarly be created outside the MM component and automatically forwarded to MM Purchasing for further processing. The purchase requisition is created without the need for any further entry of data by simply passing on the service specifications from an existing general maintenance task list, or from the maintenance task list for a functional location or piece of equipment, for example.

**Recording Requirements**

At the time a need is established, a document is created in the system as the basis for the procurement process. This can be a purchase requisition or an external purchasing document such as a request for quotation (RFQ) or a purchase order.

The document can contain a set of service specifications with details of the necessary service or group of services.

In this early phase of the procurement process, however, you also have the option of dispensing with service specifications altogether and only making rough provision for unplanned services by setting value limits.

This method is especially suitable when outside firms are employed, since in this case the precise nature and extent of the relevant services are often unclear until the time they are actually performed.

If you wish to ensure that the dual control principle applies to requisitions (and also purchase orders), you can subject these documents to a release (approval) procedure.

This guarantees, for example, that the goods or services covered by a purchase requisition that exceeds a specified value may not be ordered without the approval, say, of an appropriate technical expert and the responsible head of department. The conditions for the release of a requisition for ordering purposes, and the points in your enterprise (individuals or departments) that must effect release (signify approval) are freely definable.

To ensure that the release process runs smoothly, you can make use of SAP Business Workflow. This ensures that even users who are unfamiliar with the SAP System can release (approve) purchase requisitions without any trouble by processing a mail in their integrated inbox.
Determination of Possible Sources

As a rule, a live system contains a large volume of purchasing data. In the source determination facility, MM External Services Management offers you an instrument for analyzing this data, enabling you to establish whether suitable potential bidders exist for the requested services and whether longer-term business relationships have already been set up with certain service providers in the form of contracts.

The price simulation function can help you to choose the desired source of supply from the sources suggested by the system. In this case, the requisition can then be converted directly into a standard purchase order or a release order to be issued against a contract that already exists with the service provider.

The system accelerates the award phase by automatically converting requisitions into standard POs or contract release orders. The routine work involved in assigning sources can thus be eliminated.

In the event that services are requested for which there has previously been no requirement, i.e. for which no source currently exists in the system, a bid invitation process must be carried out.

MM Vendor Evaluation can simplify the task of searching for a suitable service provider. If you have assigned scores for quality and the timeliness of service performance to the service entry sheets of your existing providers, the analysis and comparison functions of MM Vendor Evaluation provide you with an additional decision criterion.

For more information on this subject, please refer to the MM - Vendor Evaluation documentation.

The Process of Source Determination in the System

Information in various forms is available to the system in the process of determining potential sources for a requested service. The information it uses is as follows (in order of use):

1. Vendor service conditions
   The system first checks whether master conditions whose validity period covers the delivery date shown in the purchase requisition exist for the service.
   If master conditions exist for one or more vendors, the system suggests these vendors as sources of supply.
   The prices and conditions of the relevant master condition are then suggested when you create a PO with reference to the assigned requisition.

2. Contracts
   If contracts that either contain the material group or the service shown in the purchase requisition exist in the system, the system suggests these contracts as sources of supply.
   If a purchase requisition has been assigned to a contract, the system can generate release orders (call-offs) against it.
In Customizing for Purchasing, you can define the requirements under which the sources for services are to be determined. For example, you can specify that a contract is to be suggested as a source if it contains at least one service from the requisition. Alternatively, you can specify that a contract is only to be suggested if it covers all the requested services.

This means that you decide yourself, on the basis of the data situation in your system, whether the system is to suggest as many sources as possible (which may be more or less suitable), from which you then make your choice, or whether the system is to suggest the ideal source only.

If your system only contains a small volume of data, the former approach is recommended. If you have a very well maintained system, you will wish to keep the number of suggested sources down and see only the best possible one.

You can also enter the source for a purchase requisition manually. This function enables you to assign the requisition to a provider from whom you have not previously procured services, for example.

**Bid Invitation Procedure**

The bid invitation phase is divided into two parts. First you create RFQs and then you record the incoming quotation data.

**Creating an RFQ**

If a bid invitation process is to be initiated for services, an RFQ must be created. In doing so, you can simplify and speed up the data entry process by referencing the preceding document, the purchase requisition.

You can assign the RFQ to any number of different potential bidders. The system creates a separate RFQ for each bidder, each with a unique number. The RFQs are then transmitted to the bidders.

**Entry of Data From Quotations Submitted by Bidders**

When quotations (bids) are received from bidders, the latter’s prices and conditions are entered in the RFQs that already exist in the system. The status of the RFQs is then changed: the RFQs in fact become quotations.

**Comparison of Quotations**

When all quotations have been received and entered, the most favorable one is quickly determined using the price comparison list.

The price comparison list evaluates the quotations for you at different levels. You can make your decision on the basis of list of all quotations ranked by total value or compare the quotations at individual outline levels. The system provides you with comparative data right down to the individual service (task or activity) level if required.

When you have identified the most favorable quotation, you award the work (issue a PO) to the bidder of your choice. Rejection letters can be sent to unsuccessful bidders automatically.
Procurement of Services: Basic Process

Award Phase (Order Placement)

The successful bidder receives either a standard purchase order or a release order issued against an existing contract, either of which is created by conversion of the relevant quotation (i.e. you are making use of already existing data in this case too).

Monitoring of Purchase Orders

During the phase of service performance, the cumulative “actual” values (for the services actually performed) are continually updated in the underlying purchase order (standard PO or contract release order). This enables you to monitor the progress of a procurement project on an ongoing basis.

You can obtain follow-on information on a PO via the monitoring functions **PO history** and **release (order) documentation**, and the **comparison of planned/actual values** within the service specifications. If necessary, you can monitor the completion confirmation for each individual service line.

In addition, the comprehensive analyses provided by the SAP Logistics Information System (LIS) are available to you. These enable you to examine data such as the cost of maintenance measures in the first quarter of the current year and compare the cost situation in that quarter with the situation in the corresponding quarter of the preceding year, for example.

Entry of Services Actually Performed

You enter services that have actually been performed by means of service entry sheets. In doing so, you can reference the PO. This procedure accelerates the entry of planned services in particular. Each individual service is recorded together with quantities and values.

If a value limit for unplanned services has been set in the purchase order, you can maintain specifications for such services at the time you record their actual performance. The services are recorded with their precise value, and the system checks that the limit has not been exceeded.

Acceptance of Services Performed

After services that have been performed for your firm have been recorded in the service entry sheet, one or more responsible persons can check that the work is satisfactory and formally accept the services.

You can separate the process of service acceptance from that of service entry in order to maintain the dual control principle. However, it is also possible to have entry and acceptance carried out by the same individual or department in your enterprise.

You have a choice between different procedures for service acceptance:

- The fastest option is acceptance at the touch of a key in the service entry sheet by the person responsible.
- However, you also can make service entry sheets subject to a **release (approval)** procedure.

Depending on the setting in Customizing, there may be different release procedures involving different “release points” (individuals or departments) within your enterprise, each of which must successively signify their approval. The document is not regarded as accepted until the last release point has released it. This procedure enables you to ensure both technical and commercial correctness.
Verification of Invoices for Services

At the conclusion of the procurement process, the service provider’s invoices are checked for correctness. This involves comparing the value from the accepted entry sheet with that shown in the invoice and checking that the tax amounts are correct. If the value in the entry sheet is exceeded, the system issues a warning message. Invoices that have been verified and released to Financial Accounting are then paid automatically.

Instead of the conventional method of invoice verification, you can use the Evaluated Receipt Settlement (ERS) procedure. In this case, you do not wait for the service provider to submit an invoice, but create one in the SAP System on the basis of the data in the PO. The service provider receives a credit memo and a log enabling him to check the correctness of the former.

With this, the procurement process for services is concluded.
Service Specifications

Definition
A set of service specifications is a list of external services including detailed information thereon.

Use
Sets of service specifications can be created in the following documents:

- Purchasing documents (purchase order, requisition, RFQ, global percentage bid, quotation, contract)
  For more information, refer to Maintaining Service Specifications in Purchasing Documents [Page 42] and “Global Percentage” Bidding [Page 67].
- Service entry sheet
  For more information, refer to Entry of Services Performed [Page 57].
- Model service specifications
  For more information, refer to Working with Model Service Specifications [Page 28].
- Maintenance order and maintenance (servicing) plan
  For more information on working with service specifications for maintenance purposes and for planning maintenance and servicing measures, refer to the component Plant Maintenance (PM) under Orders (PM-WOC-MO/CS-SE) [Ext.] and Creating a Maintenance Plan for the Procurement of Services [Ext.].
- WSB element, project plan
  For more information on working with service specifications in project planning, refer to the component Project System (PS) under Projects with the Project System [Ext.].
- Sales order
  For more information on working with service specifications in Service Processing, refer to the component Customer Service (CS) under Service Processing via Sales Order with Service Item [Ext.].

Structure
A set of service specifications can be structured in the following ways:

- As a list of individual service lines
  Service lines are entered ‘below’ the document item - without a service outline (hierarchical arrangement). This option is particularly suitable for the maintenance of less voluminous service specifications.
- With service specifications outline
  You can create a Service Specifications Outline [Page 45] with a maximum of four hierarchy levels. The outline function allows you to arrange voluminous service specifications in hierarchical levels (grouped by project phase, for example). You can enter individual service lines below each outline level.
Maintaining Service Specifications in Purchasing Documents

Use

In the procurement of external services, you use specifications to list the services with descriptions, quantities, prices and other detailed information below the document item level.

Prerequisites

To maintain a set of specifications in a purchasing document, you must:

- Enter ‘D’ for services as the item category
- Maintain a short text at document item level

For more information, refer to the Purchasing component (MM-PUR) under Purchasing Document [Ext.].

Features

Everything on One Screen

You can maintain service lines, a service outline, and value limits all on a single screen.

- Service lines

  In a service line, you enter the qualitative and quantitative description of a certain service. By double clicking on the short text of a service, you access the service detail screen, on which you can maintain further data on the relevant service.

  If you have entered a Service Master Record [Page 10] in a service line, you can branch to the screen with the service master record by double clicking on the service number.

- Service specifications outline

  For greater clarity, you can structure voluminous service specifications on a hierarchical basis using the outline function.

  To be able to use this function, you must currently be working on the full service screen. You can access the full service screen from within a purchase order or a service entry sheet by clicking on .

  From within the other purchasing documents (requisition, RFQ, global percentage bid, quotation, contract), you access the full service screen by clicking on .

  For more information, refer to Service Specifications Outline [Page 45].

- Value limits

  In order to make provision for unplanned services in the planning phase, you can set value limits in purchasing documents. Instead of containing service descriptions or quantities, the documents need only contain maximum values up to which any services may be performed. When services actually performed are entered, the system checks
these value limits and allows the services to be recorded only if the limits are not exceeded.

You cannot maintain limits in RFQs, quotations, or contracts.

**Individual Screen Settings**

In addition to the service outline (Limits), you can also show (Limits) and hide (Limits) the data areas for the value limits and service lines by clicking on the relevant symbols.

When you reinvoke the transaction, you find the screen settings you had chosen at the time you last exited it.

**Service Selection**

When creating voluminous sets of service specifications, you need not keep on manually entering the service descriptions. Instead, just click **Service selection** to copy from existing model specifications, purchasing documents, and classified services.

Using the service selection function, you can also copy an individual outline level from a reference document into a new document. In the process, all the individual services and outline levels below this level are copied as well.

This is only possible if you have not yet created a service outline in the new document.

**Straightforward Changing of Data in Large Number of Service Lines**

Within a set of service specifications, you can change certain data that occurs in several service lines in a single step.

This function is available on the full service screen for the following data:

- Material group
- External service number
- Personnel number
- Valid from
- Overdelivery tolerance
- Condition update
- Price
- User fields

For example, you can replace the material group 003 by material group 004 in 30 out of a total of 100 service lines belonging to a set of service specifications.

To do so, select the desired service lines and choose **Edit → Set values**. You enter the desired changes in a window. When you confirm your input, the system replaces the previous information with the new data in all selected lines.
Maintaining Service Specifications in Purchasing Documents

**Entry Variants**
You can use this function to change the display of the specifications. We recommend using the entry variant *Standard service catalog* when adopting services from an SSC, for example, (Entry variant → Standard service catalog).

**Account Assignment**
Specification of account assignments for services at the time of their initial procurement is optional. If you wish to specify account assignments, enter an account assignment category at document item level. You maintain the account assignment data at service line or value limit level.

For more information, refer to Account Assignment in the Case of Services [Page 53].

**Condition Maintenance for Services**
You can maintain conditions for services on the condition detail screen by clicking .

For more information, refer to Condition Maintenance for Services [Page 18].
Service Specifications Outline

Use
A set of service specifications can consist of any number of service lines. To make voluminous specifications easier to handle, you can structure them hierarchically using the outline function. The outline is comparable to the table of contents of a book.

Prerequisites
The service specifications outline can only be created on the full service screen.

You can access the full service screen from within a purchase order or a service entry sheet by clicking on .

From within the other purchasing documents (requisition, quotation, global percentage bid, RFQ, contract), you access the full service screen by clicking on .

Features
The uppermost level of the specifications always shows the short text for the document item. You can create the outline below this. A maximum of four hierarchy levels is possible.

Outline levels are used to develop the hierarchy. You can change the number, the short text, and the long text of the outline levels at any time. You can assign any number of service lines to each outline level.

Displaying the Service Specifications Outline
On the full service screen, you can show and hide the outline by clicking on . You can set the width of the overview to suit your purposes. When you next invoke the transaction, you will find the same settings that were effective when you last exited the transaction.

When you select an outline level, the associated service lines are displayed in the data area. Click on an outline level to find out whether service lines exist for that level.

Click in the service overview to display the total value of ordered services, the "actual" value and the "actual" percentage of the services performed for each outline level.

For more information, refer to Maintaining a Service Specifications Outline [Page 46].
Maintaining the Service Specifications Outline

Prerequisites

You are currently processing either a set of service specifications belonging to a certain document or a set of model service specifications.

For more information, refer to Service Specifications [Page 40], Maintaining Service Specifications in Purchasing Documents [Page 42] and Creating Model Service Specifications [Page 30].

To be able to maintain a service specifications outline, you must currently be working on the full service screen. You can access the full service screen from within a purchase order or a service entry sheet by clicking on .

You can access the full service screen from within the other purchasing documents by clicking .

Procedure

Creating a Service Specifications Outline

1. Click 🖼 to invoke the service specifications outline.
   The outline appears in the left half of the screen.
2. Create outline levels below the top node (which is identical with the document item).
   You can use a maximum of four hierarchy levels to structure your service specifications.

Creating an Outline Level

1. Position the cursor on the outline level below which the new outline level is to be created.
2. Choose .
   The Maintain outline level dialog box appears.
3. Fill the Outline level and Short text fields.
   In the area Hierarchy level, you can see which level the chosen entry has. Click Long text to branch to a screen on which you can enter additional text.
4. Choose ✓.

Changing an Outline Level

1. Position the cursor on the outline level you wish to change.
2. Choose Outline → Change.
   The Maintain outline level dialog box appears.
3. Make the desired changes.
4. Choose ✓.

**Maintaining Service Lines Below Outline Levels**

1. Position the cursor on the outline level whose service lines are to be maintained.
2. Maintain the service lines in the data area Services.

   If you have created service lines below an outline level, this is denoted by ✅ against the outline level in the service specifications outline display.

   When you process an outline level, ✅ also appears in the service specifications outline display.

**Deleting an Outline Level**

You can delete outline levels only if no service lines and no subordinate outline levels are assigned to them.

1. Position the cursor on the outline level you wish to delete.
2. Choose Outline → Delete.
Adopting a Master Record in Service Specifications

Prerequisites
You are currently processing either a set of Service Specifications [Page 40] belonging to a certain document or a set of model service specifications.

For more information, refer to Maintaining Service Specifications in Purchasing Documents [Page 42] and Creating Model Service Specifications [Page 30].

Procedure
1. Enter the service number of the service master record in the Service no. field.
2. Save your input.
3. Enter the necessary data.
4. To adopt the service long text from the master record, choose Edit -> Adopt service text.

⚠️ Only if you copy the long text for the service from the master record into the service line in this way are you subsequently able to edit it. Otherwise, the service long text only appears in display mode.

   To access the service long text, choose Goto -> Service long text.
5. To maintain the long text for a line, choose Goto -> Long text for line.

   You can use this to store internal memos or additional text intended for the service provider, for example.
6. Save your data.
Adopting an SSC Service in Service Specifications

Prerequisites

You are currently processing either a set of Service Specifications [Page 40] belonging to a certain document or a set of model service specifications.

For more information, refer to Maintaining Service Specifications in Purchasing Documents [Page 42] and Creating Model Service Specifications [Page 30].

The Usage allowed indicator must have been set on the header screen of the standard service catalog (SSC).

For more information, refer to Creating a Standard Service Catalog [Page 25].

Procedure

1. Choose Entry variant → Standard service catalog.
2. Enter a service number in the Service no. field of the service line.
3. Choose Edit → Adopt service text.
4. You access the SSC editor, which guides you through the catalog.
5. Choose the desired text modules by successively double-clicking on each one. When you have run through all possible text modules for a certain service, the system branches back to the newly created service line and adopts the desired module.
6. Choose Goto → Service long text to check the finished service description on the full service screen.
   There are different ways of maintaining a long text for a service line:
   - Service long text: The service long text is taken from the SSC.
   - Line long text: The line long text relates exclusively to the service line in the document and is also to be maintained there.
7. If you have chosen text modules in which variables occur, the system will issue a message informing you that you must replace them by concrete values.

In the service description “Sandstone masonry, type &$$, wall thickness 200 mm”, you must specify a certain type.
Adopting a Service from Model Specifications or Document

Prerequisites
You are currently processing either a set of Service Specifications [Page 40] belonging to a certain document or a set of model service specifications.
For more information, refer to Maintaining Service Specifications in Purchasing Documents [Page 42] and Creating Model Service Specifications [Page 30].

Procedure
1. Choose Service sel.
   The Service selection dialog box appears.
2. Enter the number of the model service specifications or the document from which you wish to adopt services.
   If you don't know the number, click to search for a set of model service specifications or a document.
3. To adopt a complete set of specifications, choose Complete.
4. To branch to the selected specifications, choose .
5. Select the desired service line(s) in the chosen specifications.
6. To adopt the service lines, choose Services.
   You return to the current specifications.

Adopting Outline Levels with Service Lines
To adopt outline levels completely or partially, display the Service Specifications Outline [Page 45] by clicking .

! You can only do this if you are creating a new set of specifications that does not yet contain an outline.

1. Choose Service selection.
   The Service selection dialog box appears.
2. Enter the number of the model service specifications or the document from which you wish to adopt services. If you don't know the number, click to search for a set of model service specifications or a document.
3. Choose .
4. Choose Outline path in the selected document.
   The entire sub-hierarchy, including the service lines below, is copied into the current specifications.
You return to the current specifications.
Adopting a Service Through Class Selection

Prerequisites
To be able to adopt a Service Master Record [Page 10] by class selection, you must previously have maintained classes with service master records of the class type "Services" ('038').

For more information on working with classes, refer to CA Classification System [Ext.].

You are currently processing either a set of Service Specifications [Page 40] belonging to a certain document or a set of model service specifications.

For more information, refer to Maintaining Service Specifications in Purchasing Documents [Page 42] and Creating Model Service Specifications [Page 30].

Procedure
1. Choose Service selection.
   The Service selection dialog box appears.
2. Choose Class selection.
3. Choose .
   The Find objects in classes screen appears.
4. Enter the desired class.
5. Choose .
6. Choose Find in initial class.
   The service master records assigned to the class are displayed.
7. Select the desired service.
8. Choose to adopt the service in the current specifications.
   You return to the current specifications.
Account Assignment in the Case of Services

Use
When procuring external services, you specify via the account assignment category the account assignment objects (for example, cost center, sales order, project etc.) to which postings are to be made. These objects are then debited at the time of service acceptance. Account assignments are specified for services at the service line and value limit levels.

Prerequisites
In purchasing documents, you maintain the account assignment category at item level. In the service entry sheet you maintain it at header level. The account assignment categories correspond to those used in the procurement of materials.

For more information, refer to the Purchasing component (MM-PUR) under Account Assignment [Ext.].

Features
Account Assignment Category 'U' (Unknown)
If, when the services are procured, you do not yet know which accounts are to be debited, you can use the account assignment category 'U' up until the time of Entry of Services Performed [Page 57] in the service entry sheet.

Single and Multiple Account Assignment
To maintain account assignments, branch to the account assignment screen by clicking .

You can specify whether the screen for single or multiple account assignment appears for each account assignment category.

You can access the multiple account assignment screen from the screen for single account assignment by clicking .

You make the settings for the account assignment screen in Customizing for Purchasing under Account Assignment → Maintain Account Assignment Category (Acct. assgt.scr. indicator).

You can specify single or multiple account assignments for both the service line and the value limit.

In the case of multiple account assignment, you can apportion the costs among several account assignment objects on either a quantity basis (for service lines only) or as percentages.

For more information on single versus multiple account assignment, see Specifying Account Assignments for Services [Page 55].

Account Assignment Distribution
In a set of service specifications, you can display the complete account assignment distribution for the specifications by choosing Goto → Acct. assgt. (total). The account assignments of the individual service lines or value limits are aggregated, that is to say, summarized to form account
Account Assignment in the Case of Services

Assignment items with identical auxiliary and principal assignments for the document. The value of the account assignment items is shown as a percentage and as an absolute amount.

You can display the account assignment distribution at item detail level in the purchase order (tab index Account assignment).

"Repeat Account Assignment" Function

If you wish to enter several service lines with the same account assignment data, choose Repeat acc. ass. on. The system will then suggest the account assignment for each successive service line.

Click Auto repeat acc. ass., to have the system insert the chosen account assignment automatically against the relevant service lines. You can also overwrite already-maintained account assignment data with this function.

For more information, see Specifying Account Assignments for Services [Page 55].

Maintenance of Auxiliary Account Assignments in Service Specifications

The most frequently used account assignment fields are directly available to you in the service specifications. Depending on the account assignment category, you can maintain the following account assignment fields in the service line:

- Cost center
- Network
- Order
- WSB element

If the G/L account determination facility is active, it is thus sufficient to maintain the account assignment field in a set of service specifications. You no longer need to branch to the account assignment detail screen to maintain the relevant data.

You make the settings for G/L account determination in Customizing for Valuation and Account Assignment in Materials Management (MM) under Account Determination.
Specifying Account Assignments for Services

Prerequisites
You have entered an account assignment category other than 'U' at item level (in a purchasing
document) or at header level (in a service entry sheet).
You have chosen the single account assignment screen for the account assignment category.

On the multiple account assignment screen you can maintain data for both single
and multiple account assignment.

For more information, refer to Account Assignment in the Case of Services [Page 53].

Procedure

Single Account Assignment for Services
1. Enter a service line or a value limit.
2. Choose ✓.
   The account assignment screen appears.
3. Enter the necessary data.
4. Choose ✓.
   You return to the service specifications.

Multiple Account Assignment for Services
1. Enter a service line or a value limit.
2. Choose ✓.
   The account assignment screen appears.
3. Enter the necessary data.
4. Choose ✓.
   The multiple account assignment screen appears.
5. Enter the necessary data.
6. Choose ✓.
   You return to the service specifications.

Changing Account Assignments
1. Position the cursor on the service line or the value limit.
2. Choose ✓ to access the account assignment screen.
3. Make the desired changes.
4. Choose ✓.
Specifying Account Assignments for Services

You return to the service specifications.

Getting the System to Suggest Account Assignment Data

1. Enter the necessary data on the account assignment screen.
2. Choose \( \text{Rpt. AA on} \).
   - The system saves your data and you are returned to the service specifications.
3. Enter a further service line.
4. Choose \( \checkmark \).
   - The account assignment screen appears. The account assignment data you entered appears as default data in the account assignment fields (that is to say, you can overwrite or change it as necessary).
5. Choose \( \checkmark \).
   - You return to the service specifications.

Setting Account Assignment Data Automatically

1. Enter the necessary data on the account assignment screen.
2. Choose \( \text{Auto repeat AA} \).
   - The system saves your data and you are returned to the service specifications.
3. Enter a further service line.
4. Choose \( \checkmark \).
   - You remain in the service specifications and the system sets the account assignment data in the background.

Changing Several Account Assignments Simultaneously

1. Activate the \textit{Repeat account assignment} facility by clicking either:
   - \( \text{Rpt. AA on} \), or
   - \( \text{Auto repeat AA} \)
2. Select the service lines you wish to change.
3. Choose \( \checkmark \).
   - A system message appears. Respond to the latter with \textit{Yes} if you wish to overwrite the account assignment data.

Deactivating the Repeat Account Assignment Facility

Click \( \checkmark \) \textit{Rpt. acc. ass.} in the service specifications to deactivate the \textit{Repeat account assignment} facility.
Entry of Services Performed

Use
The services actually performed (work actually done) by a service provider are recorded in a Service Entry Sheet [Ext.] with reference to the purchase order.

- A service provider's invoice relating to a certain invoice can be entered only after the entry sheet has been accepted.
- For more information on the acceptance of services performed, see Service Acceptance [Page 61].

Features
You can enter both planned and unplanned services:
- Planned services
  - Can be adopted directly in the service entry sheet
- Unplanned services
  - Are not precisely described, quantified, or priced until the work actually done is entered. The system checks whether unplanned services are within the limit set in the purchase order.

Everything on One Screen
All data (header and service data) can be maintained on a single screen.

The following functions are available for service entry sheets:
- Create New Entry Sheet [Page 60]
  - When creating a service entry sheet, you have the following options:
    - You can create an empty sheet by clicking □.
    - You can create an entry sheet in which planned services are defaulted from the purchase order. You can determine the quantities suggested from the PO by specifying percentages (Entry sheet → Create → With planned services).
    - You can have the services listed in the entry sheet configured on the basis of model specifications (Entry sheet → Create → With configuration).
      - For more information, refer to Creation of Service Specifications Through Configuration [Page 31].
    - You can create a service entry sheet with reference to a purchase requisition to which a framework order has been assigned as the source (Entry sheet → Create → With requisition selection). This can be particularly useful with regard to maintenance work, which normally involves the creation of a large number of requisitions, not all of which you wish to convert into purchase orders.
    - Display
External Services Management (MM-SRV)

Entry of Services Performed

When you first invoke the entry sheet functionality, the screen is in display mode.

- Change
  Click to switch to change mode.

- Copy ()
- Delete ()
  Accept [Page 62]

- Block
  Click to ensure that an entry sheet to which you wish to make further changes, for example, cannot be released.

- Set Final entry indicator
  If you set the Final entry indicator by clicking , no further services can be entered against the relevant purchase order.

Document Overview

Click to display a list of purchase orders against which performed services have recently been entered, together with the associated entry sheets. The list appears on the left-hand side of the screen. From the list, you can select POs and entry sheets for display, changing or copying by double clicking on the relevant objects.

Within the document overview, click to switch between two views:

- Purchase orders and the associated service entry sheets
- Vendors, associated purchase orders, and service entry sheets

Click to have the system calculate the value of the entry sheets per purchase order.

Searching for Purchase Orders and Entry Sheets

To find POs for which you want to create an entry sheet for the first time, click Other purchase order.

You can search for already processed purchase orders and already created entry sheets by clicking within the document overview. If the document you are searching for is not displayed in the overview, you can include it by clicking Other purchase order.

Purchase Order History (PO History)

Choose Environment → PO history to display both the entry sheets that have been created and those that have been accepted.

Message Output

If you wish to transmit an entry sheet to the service provider (as a hardcopy printout, as a fax, or via electronic data interchange (EDI), for example), you can have the system automatically generate a message (meaning here a document in output form for communication to another party).

You can set up the message output facility for service entry sheets in Customizing for External Services Management under Messages.
Message output (printing/transmission of documents in message form) for entry sheets corresponds to that for purchasing documents. For more information on outputting purchasing documents as messages, refer to Messages [Ext].

**Account Assignment**

When procuring external services, you must ensure that the relevant account assignments are made not later than the time the services actually performed are recorded in the system. You enter the account assignment category at header level in the service entry sheet. You maintain the account assignment data at service level.

For more information, refer to Account Assignment in the Case of Services [Page 53].

**Conditions**

You can also maintain conditions in the service entry sheet.

For more information, refer to Condition Maintenance for Services [Page 18].
Entering Services Performed

Procedure


7. Select a purchase order in the document overview ( ) and adopt the data by double clicking.
   
   If you cannot find the desired purchase order in the service overview, you can search for a PO in the following ways:
   
   – Click in the document overview and enter a search term. The relevant PO is displayed preselected.
   – Click Other purchase order and enter the number of the PO. The relevant PO is displayed preselected.

3. Click to create a new service entry sheet.
   
   A service entry sheet can also be created in a number of other ways.

   For more information, refer to Entry of Services Performed [Page 57].

5. Maintain a short text for the service entry sheet.

6. Enter the necessary data.

7. If you wish to adopt services from existing specifications or classes, click Service selection and enter the number of the document, model specifications, or class.

   The system automatically suggests the PO number for service selection purposes. However, you can make a different selection.

8. Adopt the desired services in the service entry sheet by selecting the service lines and clicking Services.

   You return to the entry sheet.

9. Make any necessary changes.

10. Save your data.
Service Acceptance

Use

After services that have been performed for your firm have been recorded in the service entry sheet, one or more responsible persons (depending on the system settings) must check that the work is satisfactory and formally accept the services.

Integration

The accepted entry sheet constitutes the basis for the process of Invoice Verification for Services [Page 65]. The account assignment objects are charged at the time of acceptance. When the service entry sheet is accepted, a logistics document (material document) is generated.

Prerequisites

You maintain the authorizations for service acceptance under Tools → Administration → User maintenance.

Features

The following procedures are available to you for accepting services performed by service providers:

- One-step acceptance
  The person responsible accepts the service entry sheet at the touch of a key.
  - The same person carries out the processes of service entry and acceptance.
  - Service entry and service acceptance are organizationally separated, in order to preserve the dual control principle.

- Multi-step acceptance
  You can make service acceptance subject to a release procedure, in which various departments or individuals have to indicate their approval. The document is not regarded as accepted until the last release point has released it.
  You set up such a release procedure in Customizing for External Services Management under Define Release Procedure for Service Entry Sheet.

  You can find out which release procedure an entry sheet is subject to in the service entry transaction via Goto → Entry sheet → Release strategy.

For more information, see Accepting a Service Entry Sheet [Page 62].

Collective Release

If you use a release procedure, you can accept several entry sheets all at once using this function (Logistics → Materials management → Service entry sheet → Collective release).

For more information, see Collective Release of Entry Sheets [Page 63].
Accepting a Service Entry Sheet

Procedure


2. Choose the service entry sheet to be accepted via the document overview 🏷️.
   
   You have the following options:
   
   - Select the service entry sheet in the document overview and double-click on it.
   - Conduct a general search for the entry sheet via 🕵️‍♂️. The relevant entry sheet will be displayed preselected in the document overview.
   - Enter the number of the entry sheet via Other purchase order 🗒️. The relevant entry sheet will be displayed preselected in the document overview.

3. Choose 📋 to switch to change mode.

4. Choose 📋.
   
   If you are using a release procedure for service entry sheets, enter a release code.
   
   You can display the release strategy via Goto → Entry sheet → Release strategy.
   
   For more information, refer to Service Acceptance [Page 61].

   The color signal for the status display switches from red to yellow.

5. Save your input.
   
   The color signal for the status display switches from yellow to green.
Collective Release of Entry Sheets

Use
This function enables you to list service entry sheets that are subject to a release procedure in order either to release them or cancel a previously effected release.

Prerequisites
You set up a release procedure in Customizing for External Services Management under Define Release Procedure for Service Entry Sheet.

Features
You can display the service entry sheets:
- That you wish to release (Set release indicator)
- Whose release you wish to cancel (Cancel release indicator)

Structure of List
Enter a release code to obtain a list of the service entry sheets that you can release using this code.
You can narrow down the scope of the list by entering additional criteria (e.g. PO or entry sheet data)
Within the list, you can do the following:
- Release Service Entry Sheets [Page 64] (Page 64)
- Cancel a previously effected release (Page 64)
- Display the release strategy for a service entry sheet (Rel. strategy)
- Block and unblock entry sheets (Block/unblock)
- Set the Final entry indicator for entry sheets (Set fin. entry)
- Cancel the Final entry indicator (Reset f. entry)

Branching to PO or Service Entry Sheet
From the list, you can go directly to the purchase order or service entry sheet via Goto → Purchase order or Goto → Entry sheet.
Releasing Entry Sheets Collectively: Steps

Prerequisites

The service entry sheets you wish to release on a collective basis must be subject to a release procedure.

For more information, see Collective Release of Entry Sheets [Page 63].

Procedure

2. Enter your release code.
3. Select the Set release indicator.
4. Choose .
5. Position the cursor on the line with the entry sheet you wish to release.
6. Choose to release the service entry sheet.
7. Save your input.
Invoice Verification for Services

Integration
For information on the different types of invoice verification in the R/3 System, refer to Logistics Invoice Verification [Ext.].

Prerequisites
Invoice verification for services is based on the accepted service entry sheet or the services set out in the purchase order.

Since you usually enter into a variety of billing arrangements with your vendors, it is advisable to specify the relevant type of invoice verification in the vendor master record. The indicator is suggested per purchase order item and can be changed if necessary on the PO item detail screen.

You must set the following indicators on the purchasing data screen of the vendor master record:

- For Goods-Receipt-Based Invoice Verification: GR-based inv. verif.
- For Evaluated Receipt Settlement (ERS): AutoEvalGRSetmt Del.
- For Service-Based Invoice Verification: Srv.-based inv. ver.

Features
In PO-based invoice verification, items are settled with reference to the purchase order. Settlement can be carried out with respect to all items, irrespective of whether or not deliveries have yet been received.

In GR-based invoice verification (that is, in connection with services, the entry of invoices for services with reference to the service entry sheet) you can effect settlement with regard to each entry sheet relating to a purchase order separately. In the PO history, each invoice item can be assigned to precisely one service entry sheet.

In Evaluated Receipt Settlement (ERS), settlement is effected with regard to the services that have been performed directly, without an invoice, on the basis of information from the purchase order and the accepted service entry sheet. The vendor obtains a log of the settlement run for checking purposes.

In service-based invoice verification, you check the invoices on the basis of the individual services in the purchase order (PO-based invoice verification) or the service entry sheet (GR-based invoice verification).
Accelerated and Simplified Processes

Purpose

The processes described here are available as an alternative to the basic process. They provide you with the option of speeding up service procurement by reducing the number of steps to be carried out in the SAP System to a minimum.
“Global Percentage” Bidding

Use

The “global percentage” bidding procedure is used in the procurement of external services. The aim of this approach is to considerably simplify the maintenance of service specifications. Since the service descriptions in the quotations submitted by the various bidders do not usually vary, the buyer states the prices of the services in advance, and the bidders merely indicate a percentage addition to or deduction from these prices in their quotations, Purchasing is faced with a minimal maintenance effort even if a large number of individual RFQs are issued.

Integration

“Global percentage” bidding is only available for the procurement of services. It is not available for the procurement of materials.

Prerequisites

A special document type for RFQs must have been defined in Customizing for Purchasing. In the standard system, document type AB is available for this purpose. The standard system includes the condition schema MS0002 and the condition types KR01 (header discount) and KZ01 (header surcharge). Both are to be found in Customizing for External Services Management.

Process Flow

1. In the case of “global percentage” bidding, Purchasing indicates prices for the individual services in addition to providing descriptions of them. If you wish to conduct a competitive bidding procedure using “global percentage” bids, you must create an RFQ with the document type AB. This allows you to specify a price per service when maintaining the service lines.

2. The “global percentage” bidding document is transmitted to the bidders. Purchasing then expects a quotation from each bidder. In these quotations (or “global percentage” bids), the service providers do not quote a price for each individual service. Instead, they indicate a percentage addition to or deduction from the prices specified by Purchasing, thus intimating whether they are prepared to do the work for more or less than the figure envisaged by Purchasing. These additions or deductions are shown either per outline level or for the uppermost outline level (i.e. for the entire set of service specifications).

3. The additions/deductions handled by means of the condition technique. The type of condition involved is a header condition. The system adopts the specified condition in all service lines belonging to the outline level and in any subordinate outline levels.

The bidders submit their quotations to Purchasing.
Procurement via Maintenance Plans (PM)

Purpose

For services that have to be performed on a periodic basis (e.g. regular gardening and grass-cutting work, daily or weekly cleaning of offices, or the half-yearly servicing of company cars) you can record the service specifications in a maintenance order (application component PM Plant Maintenance) that references a maintenance (servicing) plan.

In the normal course of events, these specifications for external services will be entered in a purchase requisition (MM Purchasing). The source determination process then takes place for the requisition, after which it is converted into a standard PO or a contract release order. The recording of the services actually performed is based upon the PO or release order.

If you wish, you can shorten this basic process as follows:

- You dispense with the maintenance order and enter the specifications directly in the maintenance plan.
- You do without the purchase requisition.
- To accelerate the procurement process, you create a purchase order with an extended validity period for the desired vendor, which you can repeatedly reference when periodically recording the services performed by the vendor.
- You omit the service entry process.

If a secure, long-term supply relationship exists with a certain service provider, you can have the system generate service entry sheets on the basis of the information from the maintenance plan.
This means that you do not incur any manual data maintenance effort up until the time of service acceptance.
Direct Conv. of Maint. Requisns. into Entry Sheets

Purpose
This process enables you to quickly close purchase requisitions for maintenance work (from the PM Plant Maintenance area).

Purchasing staff need not concern themselves with assigning sources and processing such requisitions. Instead, the system can convert them directly into service entry sheets, the step involving conversion into a purchase order being omitted.

This is often makes particular sense in connection with maintenance and repair work. In the case of production stoppages due to mechanical breakdowns, for example, repairs often have to be carried out extremely quickly - with no time to involve Purchasing.

You can create a framework order in the system in advance to cover anticipated requisitions originating from Plant Maintenance. You can use this framework order as the source for the relevant requisition at the time a specific need arises. This means that you can use just one purchase order to cover a large number of procurement transactions.

Prerequisites
- A framework order must exist in the system and this framework order must be entered in the PM Plant Maintenance operation as a source.
  (A framework order is a purchase order with the document type FO in the standard system. It has an extended validity period instead of a specific delivery date.)
- The Entry sheets indicator must be set when the worklist containing purchase requisitions that are to be closed is created.

Process Flow
1. You choose the function Requisition → Follow-on functions → Create purchase order → Via assignment list.
   The Entry sheets indicator is set.
2. You create the desired worklist on the basis of the selection criteria on the initial screen (e.g. all requisitions with the source “framework order 450004”).
3. When you click on Execute, the system generates service entry sheets for all requisitions to which this framework order has been assigned as the source (one entry sheet is created for each requisition).
Getting the Provider to Enter Services Performed

Purpose

You can agree with the vendor (service provider) that you will not record the actual performance of services yourself, but adopt information made available by the provider in this connection. SAP provides an interface for the transfer of external data for this purpose.

For more on this topic, refer to Data Interchange [Page 79]
Invoicing Plans (Rental, Leasing, Part-Payments)

Use

An invoicing plan comprises a list of scheduled dates on which invoices relating to PO items covering materials or services are to be entered in the system and subsequently paid.

The invoicing plan facilitates the largely automated creation and payment of invoices for both recurrent procurement transactions (e.g. rental or leasing) and transactions that are to be invoiced in stages (e.g. following the completion of individual phases of a construction project).

The following two invoicing plan types are available:

- Periodic invoicing plan
- Partial invoicing plan

**Periodic Invoicing Plan**

The total value of the PO item is invoiced on each due date set out in the invoicing plan.

For example, a $600 leasing charge for an automobile is invoiced and paid on the 27th of each month.

**Partial Invoicing Plan**

The total value of the item to be invoiced is broken down and distributed over the individual dates of the invoicing plan.

For example, payment with respect to a certain construction project is to be effected in three stages as follows: 30% of the value of a PO item is to be invoiced and paid following completion of the first construction phase, another 30% after the second phase, and the rest on completion and acceptance of the final phase of the work.

**Prerequisites**

In order to work with an invoicing plan, you must maintain the following settings (among others) in Customizing:

- Desired invoicing plan type
- Date categories
- Date descriptions
- Date proposals

You can also specify whether the invoicing dates are to be entered/maintained manually or whether the system is to suggest them.
**Procurement Using Blanket Orders (Low-Value Items)**

**Purpose**

The use of blanket purchase orders enables you to procure a variety of consumable materials or services from a vendor up to a predefined value limit.

Most companies have recurring requirements for minor items (such as office supplies, screws, small parts, cleaning work or other routine services) during the course of the year. Issuing a series of individual (discrete) orders of low value (perhaps with voluminous specifications) for such items, and then recording in detail the work done or goods delivered against the order, is frequently considered uneconomical.

Blanket purchase orders enable you to procure low-value items quickly, easily, and efficiently.

**Prerequisites**

A blanket purchase order contains a value limit and is valid for a predefined period. It has the document type FO. The extended validity period replaces individual delivery dates which are normally specified in POs.

**Process Flow**

- You create a blanket PO for the desired validity period.
- The PO need not contain any specifications.
- You set a value limit.
- It is not necessary to record and accept services performed against the order. During the validity period of the purchase order, incoming invoices are posted directly with reference to the PO, provided that the value limit is not exceeded.
Procurement Using Blanket Orders (Low-Value Items)

As a rule, the individual items procured have different account assignments. However, the account assignment information does not usually become available until the time the invoice is processed. You therefore have the opportunity to specify the account assignment in the purchase order if you wish (and if you are in a position to do so), but you do not have to do this until the time of invoice entry.
Planned and Unplanned Services: Options

Use

You have a wide range of options when working with purchasing documents. You can decide to go in for very restrictive, detailed planning for a certain project, or give the service provider considerable discretion in performing the required services and concentrate primarily on budgetary control.

Various mixed approaches are also possible. Which one you actually use can be decided from case to case. The following is a list of some of your options:

- You can work only with planned services in the purchase order - and not specify any limits for unplanned services. At the time the performance of the services is recorded, only the precise services, quantities and prices set out in the specifications may be entered.

- You can work with planned services and additionally set a value limit to cover unforeseen circumstances. This allows other services to be performed in addition to those specified in detail.

- You can work exclusively with unplanned services. In this case, you enter no specifications, quantities, or prices in the PO. Instead, you merely set a value limit for unplanned services. This allows any services to be performed up to that limit. The services are not actually specified until late in the procurement process - at the time their actual performance is recorded.

- You can work exclusively with unplanned services but restrict the nature of the latter by referencing contracts. In this case, you do not enter any specifications, quantities, or prices in the PO, but set only value limits relating to certain contract items. This ensures that the provider is not able to enter any services at any prices, but only those agreed in the contract.
Use of Value Limits (for Unplanned Services)

Use

If you wish to make provision in the PO for services that are not precisely definable during the planning phase of a procurement project, set a money limit instead of entering a service description. This limit, which represents a budget for unplanned services, must not be exceeded. The service can be specified later - perhaps at the time of actual performance.

A value limit is set for each procurement project (i.e. the limit applies to the document item). For example, you can set a limit of $5 million for the construction of an office building. In addition, you could set limits on services covered by individual contracts (e.g. $500,000 for masonry work and $200,000 for electrical work). The system checks adherence to these limits at the time the work actually carried out is recorded.

In the window for maintaining value limits, you can set a variety of limits:

- Overall limit only
- Overall limit and limit on services covered by contract item(s)
- Overall limit, limit on services covered by contract item(s), and other limit
- Overall limit and other limit
- Overall limit on services from model specifications or standard service catalog
- Expected value

Overall Limit Only

You set a general overall limit of $10,000 for a procurement project. The complete project may thus comprise any unplanned services with a total value not exceeding this figure. If performed services to the value of $9,000 have already been entered and you try to enter further unplanned services amounting to $1,200, the system will issue a warning or error message, depending on the setting in Customizing. The services can then only be entered after consultation with the responsible buyer (who may first have to increase the value limit).

Overall Limit and Limit on Services Covered by Contract Item(s)

You can set an overall limit and additional limits on services covered by one or more items of a contract with the service provider. This ensures that only such services can be performed - not any or all kinds of service.

Since the service specifications and prices are defined in the contract item, you ensure first that only these services previously agreed with the provider are performed and second that the price stipulated in the contract applies.

You can also maintain the limits in such a way that the sum total of the individual contract limits exceeds the overall limit. (Example: $100,000 overall limit, $50,000 limit on contract item 1, $10,000 limit on contract item 2 and $60,000 limit on contract item 3.)
This allows unplanned services to be entered unhindered in the early phase of the project, whereas services that come later cannot be entered up to their full limit because the overall limit has already been reached.

**Overall limit, Limit on Services Covered by Contract Item(s), and Other Limit**

If you can see that not all necessary services can be procured against existing contracts on which you have set limits, it is sensible to set an additional limit for these services. You can then record the work actually done in straightforward manner.

**Overall Limit and Other Limit**

You can set a value limit for other services. This approach is suitable if you can foresee that you will require services not covered by any existing contracts. You can set the limit for other services in connection with the overall limit.

However, it is also possible to use a limit for other services in addition to contract limits. In this case, you allow the performance of any other services in addition to those in the stated contracts.

**Overall Limit on Services from Model Specifications or Standard Service Catalog**

You have the option of setting limits on services listed in model specifications or standard service catalogs that exist in the system. As a result, the service provider may not perform any services within the overall limit, but only services from the stated specifications or catalogs.

**Expected Value**

The expected value is relevant to the following:

- Compilation of the commitments figure (CO)
- Determination of the total value of the PO item
- Determination of the release strategy
- Purchasing statistics and analyses

**Purchase Order Commitments**

If you wish to work with PO commitments (CO), you can enter an expected value (i.e. a figure you assume to be the final amount payable) in addition to the overall limit, which may not be exceeded. As a rule, the expected value will lie below the overall limit.

However, you also have the option of setting the expected value for purchase order commitments figure at a higher level than the overall limit (e.g. $100,000 expected value and $20,000 overall limit).

This enables you to determine that the total sum payable is made available right at the start of the procurement project, but initially only services worth a value of up to $20,000 may be performed. Further work can only be carried out if the buyer increases the overall limit. This enables you to progressively allocate the budget to different phases of the project.

**Determining the Overall Value of the PO Item**

If you have a PO item comprising unplanned services only, the expected value is the total value of the item.

If you have a PO item comprising both in planned and unplanned services, the total value is made up of the sum for the planned services plus the expected value.

**Determining the Release Strategy**
Use of Value Limits (for Unplanned Services)

If you are working with a release strategy, the expected value is used to determine the relevant release strategy for the PO item.

Monitoring Unplanned Services

The “Actual” value field for each limit allows you to continually monitor the limits that have been set and gives you an overview of the remaining budget at any point in time.

The system determines the actual value from the data on the services performed that has been recorded via the entry sheet. If services worth $1,500 and $2,000 have already been performed and entered with respect to a procurement project worth a total of $10,000, the system shows an actual value of $3,500.

In order to compare the planned values in the PO with the cumulative actual values in the relevant service entry sheet, you can display the totals in the outline view of the purchasing document. Percentage figures are also displayed.
Data Interchange

Use
SAP provides interfaces allowing data to be exchanged between your system and the vendor’s and for importing external standard service catalogs from data carriers into the SAP System.

You can exchange the following data with your service providers:

- RFQs and quotations
- Service master data, contracts, purchase orders, and service entry sheets

The following media are available:

- File transfer protocol (FTP)
- SAP e-mail or Internet mail
- Data carriers (diskettes, CDs)

Standard Service Catalog (SSC)
Standard service catalogs are catalogs listing standardized services that are frequently used in specific areas.

The service descriptions are broken down into individual text modules, each with its own number. The standard service number is assembled from the numbers of all the text modules that are necessary to uniquely define the service in question. The advantage of this is that very many similar service descriptions can be stored in the system without any data redundancy.

Standard service numbers are master records which, like service master records, can be used in the creation of purchasing documents.

In German-speaking countries, a large number of standard service catalogs are offered on data carriers (e.g. masonry work and electrical work in the field of construction services). These catalogs are structured according to standards laid down by the German Gemeinsamer Ausschuss für Elektronik im Bauwesen (GAEB) (which can be roughly translated as the Joint Committee for Electronics in Building Construction).

The advantage of such standard service catalogs is that you do not have to compile and maintain voluminous service specifications in the system yourself. Instead you can simply import already existing ones into the SAP System from data carriers. Working with standardized service specifications has the further advantage of straightforward communication with a wide variety of service providers.

For more on this topic, refer to Standard Service Catalog (SSC) [Page 22]

RFQs and Quotations
Instead of sending RFQs to your service providers in the conventional way, you can send the RFQs created in the SAP System to potential service providers via diskette, for example. The service providers can then import the data into their systems and subsequently enter their prices against the relevant items. They then return the completed quotations and you adopt their data in the SAP System.
Data Interchange

This approach can save you a lot of time and effort in sending voluminous specifications containing possibly thousands of services to a large number of potential bidders and then entering the data you receive in response.

**Entering Services Performed**

Exchanging data with the service provider enables you to considerably simplify and accelerate the process of entering (recording) the services actually performed.

The process is as follows:

- You transmit service specifications to the vendor in the form of purchase orders, contracts, or service master records, via e-mail for example.

- When the service has been performed, the vendor creates the service entry sheet and sends it to you, via FTP for example.

- You import the entry sheet into the SAP System.

- You then carry out the acceptance process. The release (approval) procedure, which you can define according to your own criteria, is especially suitable in this connection.

- You employ the Evaluated Receipt Settlement (ERS) procedure.

  This means: you do not wait for invoices from service providers, but pay directly via credit memos based on the data contained in the service entry sheet.

  The advantages of this approach are as follows:

  - You have no data entry and invoice verification effort.
  - The likelihood of variances between the service entry sheets and the invoice is minimal, since the entry sheets originate from the service providers themselves.
  - The service provider receives payment without delay.

**See also:**

MM Invoice Verification - [Evaluated Receipt Settlement (ERS) [Ext.]]

MM Purchasing - [Release Procedure [Ext.]]

[Description of Interface [Page 81]].
Description of Interface

The interface for data interchange is based on the Business Application Interfaces (BAPIs) of MM Materials Management. It enables you to exchange the following objects:

- Service master records
- Purchase orders
- Contracts
- Service entry sheets

The data is converted from an external format into the SAP format or vice-versa with the aid of the SAP enhancement SRVESI. This allows you to adjust the data format to suit your requirements.

A precondition is that you must activate the SAP enhancement SRVESI in Customizing. Data interchange is still possible if you do not activate this enhancement, but in this case the system automatically uses a predefined data format.

Predefined Data Format

The predefined data format is also oriented on the Business Application Interface (BAPI) for external service documents (e.g. BAPI_REQUISITION_CREATE) and the SAP data model.

Record Types

The user data is exchanged in the form of data records whose structures are defined in the SAP Data Dictionary. Each structure is uniquely assigned to a record type:

<table>
<thead>
<tr>
<th>DDIC structure</th>
<th>Record type</th>
<th>Meaning</th>
</tr>
</thead>
<tbody>
<tr>
<td>BAPI_STAT</td>
<td>0</td>
<td>Status record</td>
</tr>
<tr>
<td>BAPI_MDRV</td>
<td>1</td>
<td>Header/item data, purch. doc. (RFQ, quote, PO, contract)</td>
</tr>
<tr>
<td>BAPI_ESLL</td>
<td>2</td>
<td>Service/outline line</td>
</tr>
<tr>
<td>BAPI_ESUC</td>
<td>3</td>
<td>Limits, purchase order</td>
</tr>
<tr>
<td>BAPI_ASMD</td>
<td>4</td>
<td>Service master</td>
</tr>
<tr>
<td>BAPI_ESSR</td>
<td>5</td>
<td>Entry sheet header</td>
</tr>
<tr>
<td>BAPI_EKKN</td>
<td>6</td>
<td>Acct. assignment, purch. doc.</td>
</tr>
<tr>
<td>BAPI_ESKN</td>
<td>7</td>
<td>Acct. assignment, entry sheet</td>
</tr>
<tr>
<td>BAPI_ESKL</td>
<td>8</td>
<td>Acct. assgt. link, service line</td>
</tr>
</tbody>
</table>

Data Model

The SAP data records are linked in accordance with the SAP data model. You can access detailed information on the SAP data model (graphical display, data records, fields) within the SAP development environment using the SAP transaction SD11.
Description of Interface

The following list contains the most important assignment rules for the data records:

<table>
<thead>
<tr>
<th>Assignment of data records</th>
<th>Realized with fields</th>
</tr>
</thead>
<tbody>
<tr>
<td>Purchasing document - service outline</td>
<td>PACKNO</td>
</tr>
<tr>
<td>Entry sheet - service outline</td>
<td>PACKNO</td>
</tr>
<tr>
<td>Service outline - services</td>
<td>SUB_PACKNO, PACKNO</td>
</tr>
<tr>
<td>Purchasing document - account assignment</td>
<td>EBELN, EBELP</td>
</tr>
<tr>
<td>Entry sheet - account assignment</td>
<td>LBLNI, PACKNO</td>
</tr>
<tr>
<td>Service account assignment link - account assignment</td>
<td>ZEKKN</td>
</tr>
</tbody>
</table>

Data Carrier Format

- The file is organized sequentially.
- The data records are outputted in ASCII format.
- The data carrier record length is 78 bytes.
- Each data carrier data record ends with the character ‘<’.
- SAP data records with a length of more than 78 characters are divided among several data carrier records. The continuation character is ‘>’.

The following data record description results:

<table>
<thead>
<tr>
<th>Character</th>
<th>Contents</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Record type or continuation character</td>
</tr>
<tr>
<td>2-77</td>
<td>User data</td>
</tr>
<tr>
<td>78</td>
<td>End character</td>
</tr>
</tbody>
</table>

It was decided to limit the data carrier record length to 78 characters to facilitate secure transmission of the data via Internet mail.

Interface ID

Each transfer file starts with the data record BAPI_STAT. The specific instances of the fields SATZART and MARK are predefined.

- SATZART  ‘0’
- MARK      ‘SAP R/3’.

All other fields in the structure are for information and are at your disposal.

Further Information

For more detailed information on the predefined data format, refer to R/3 Note no. 77272, Exchange of Data During Entry of Services Performed.
Distribution of Service Master Records

Use
You can use Application Link Enabling (ALE) [Ext.] to distribute service master records from a central system among several local systems (Tools ➔ ALE ➔ Master data distribution ➔ Logistics ➔ Service ➔ Send). The service master records are identical in all systems.

The distribution of service master records is a prerequisite for the distribution of contracts with services.

Features
In the distribution of a service master record via the message category SRVMAS, the following data is transmitted:

- Basic service data
- Short texts (multilingual)
- Long texts (multilingual)

The service master conditions are transmitted separately via the condition distribution facility.

For more information, refer to the Purchasing component (MM-PUR) under Distributable Master Data Objects [Ext.].