Contracts solidify pricing and volumes with suppliers, as well as terms and conditions, making contracts a must-have for orderly procurement operations. ERP systems have traditionally focused upon the operational aspects of contracts, integrating the negotiated terms into transactions. SAP S/4HANA continues this tradition while adding some nuances on the integration side with SAP Ariba and embracing a robust contract creation with enterprise contract management. This chapter outlines contract functionality and usage in SAP S/4HANA Sourcing and Procurement, configuration, and integration with SAP Ariba Contracts.

Contracts Management

Contents

Index

The Author

Justin Ashlock

Sourcing and Procurement with SAP S/4HANA

716 Pages, 2020, $79.95
ISBN 978-1-4932-1911-7

www.sap-press.com/5003
Chapter 8
Contracts Management

Purchasing contracts are agreements made by a buying organization with a supplier for supply of materials and services. Contract management in purchasing is the process of managing such contracts, which includes creation, execution, monitoring, analysis, and renewal of contracts in SAP S/4HANA.

This chapter explains the contract management process and the SAP Fiori apps relevant to contract management and related analytics. We’ve also provided the detailed configuration steps required in SAP S/4HANA to run contract management.

Businesses are becoming increasingly competitive and success-driven in today’s digital economy. To be a successful organization, it’s essential that the procurement process, which is one of the core lines of business for any industry, is run with high efficiency and low costs. Most companies use the concept of longer-term purchasing agreements with suppliers to achieve procurement process optimization and improved financial performance. Such agreements are defined as outline purchase agreements, which may be referred to as blanket or umbrella agreements outside SAP systems. Outline purchase agreements within SAP S/4HANA comprise contracts, centrally agreed upon contracts, distributed contracts, scheduling agreements, and scheduling agreements referencing a centrally agreed upon contract.

The solution addressing these agreements is referred to as purchase contract management under the sourcing and contract management stream in SAP S/4HANA, as shown in Figure 8.1.
8.1 What Is Contract Management?

Contract management within SAP S/4HANA Sourcing and Procurement refers to the management of long-term purchasing arrangements with suppliers for supply of materials or performance of services. Purchases made with reference to these purchasing agreements help streamline the procurement process. Well-designed contract management can help reduce prices and guarantee on-time supply, which helps plan and optimize the business processes of both the purchasing organization and the supplying organization. The analytics capabilities and innovations offered by SAP S/4HANA enables contract management processes that are in real time and efficient.

8.1.1 Contract Creation

A contract is a document created and maintained in the SAP S/4HANA system. This document holds all the information relevant to the purchasing agreement between the organization and the supplier. Once the quantities, prices, terms, and conditions are finalized, the contract is created in the system. The different types of contracts and how they’re created in the system are explained in this section.

8.1.2 Types of Contracts

A contract is a type of outline agreement with suppliers in SAP S/4HANA that allows for the issue of release orders (a.k.a., call-off orders) for the agreed-upon materials or services of the contract. These purchase contracts in SAP S/4HANA consist of items, which are materials, material groups, or services. It’s possible to create the following contracts, depending on the business requirements:

- **Quantity contract**
  This type of contract stipulates the quantity, negotiated price, and conditions for purchase of materials or services from the supplier with whom the contract is established. This allows the purchaser to issue multiple release orders to the supplier with reference to the contract until the total quantity reaches the value defined in the contract.

- **Value contract**
  These contracts are generally used for purchasing materials or services that belong to certain material groups defined in materials management. These contracts stipulate the total value of the contract—which is also known as the target value—and of the material groups and the supplier. Specific materials or services are not listed as line items in the contract, but the contract allows purchase of materials or services that belong to the material groups that are listed as line items in the contract. Purchasers can create release orders for materials or services that belong to the material groups identified in the contract.

- **Contract release order**
  It’s possible to create a release order, which is simply a PO referencing a contract, using SAP GUI Transaction ME21N. In this transaction, if you enter the contract number in the Outline Agreement field under the Items pane, the system will populate all the information from the contract and expect you to input the quantity and delivery date. After creating the release order, it’s possible to edit and display the document using Transactions ME22N and ME23N, respectively. With the introduction of SAP Fiori apps in SAP S/4HANA, the UI has moved away from the old SAP GUI-based transactions to the new SAP Fiori UX, which is explained in the next section.

8.1.3 Manage Purchase Contracts

Contracts can be created either directly by entering all the data manually or by referencing purchase requisitions, RFQs/quotations, or existing contracts. The SAP GUI Transaction ME31K is used for creating a contract, and this transaction is also available from the SAP Fiori launchpad. With the introduction of SAP Fiori apps for
SAP S/4HANA, the Manage Purchase Contracts SAP Fiori app is used for creating or editing contracts, as follows:

1. Logon to the SAP Fiori launchpad and click the Manage Purchase Contracts tile to open the app.

2. Click the Create button to create a contract. The header screen, shown in Figure 8.2, is presented for entering header information.

3. After entering the Contract Type, Purchasing Organization, Purchasing Group, Supplier, and Valid From and To dates in the General Information tab, navigate to the Delivery and Payment Terms tab and enter Payment Terms, Incoterms, and Target Value if applicable.

4. In the Reference tab, you can enter Reference, Quotation, AND SALESPERSON if available. In this tab, you can also enter the Invoicing Party and Goods Supplier if different from the Supplier entered in the General Information tab (as in Figure 8.3).

5. Then you can enter notes for the supplier if any in the Notes tab. It’s also possible to add attachments.

6. Once you’ve entered all the header information, choose the Item tab and click the Create button to add item details for the contract. Input the Material number, Plant, Item Category, and Storage Location in the General Information tab, as shown in Figure 8.4.

Figure 8.2 Create Contract: Header

Figure 8.3 Create Contract — Reference

Figure 8.4 Create Contract Item: General Information
7. On the Item Detail screen, enter Target Quantity and Release Order Quantity and Price. Then you can maintain handling information such as Confirmation Control, Order Acknowledgement, Tracking Number, and more, as shown in Figure 8.5.

8. Go to the GR/IR Control tab and enter tolerance limits and stock type as applicable. Flags to indicate the requirement of GR, IR, GR-based invoice verification, and more can be added, as shown in Figure 8.6.

9. Go to the Conditions tab and add (+) conditions, as shown in Figure 8.7.

10. Check all the entries and click the Apply button to apply the conditions; then save the contract. This completes the process of creating a contract.

This app also provides the capability to search for contracts based on a wide range of criteria, including supplier, purchasing organization, purchasing group, rating, creation date, validity status, and so on. As shown in Figure 8.8, it’s also possible to navigate to the contract in display mode and edit it from there.
Selecting a contract from the list and clicking the Renew button allows the user to extend the validity period, target quantity, or target value of the contract.

8.1.4 Mass Changes to Purchase Contract

This app enables the purchaser to change the fields of multiple purchase contracts at the same time (see Figure 8.9). It's possible to export the list of contracts from this app externally to a spreadsheet.

1. The initial screen displays all the contracts based on the filters selected on the screen. To make changes to multiple contacts at the same time, select all the contracts you want to change and press the Mass Edit button. On the pop-up screen, you'll see three options for each header value:
   - Keep Existing Value
   - Replace Field Value
   - Clear Field Value
2. When you choose the Replace Field Value option, you'll be presented with a blank field to enter the new value. Once you've completed the selections and entered the new values as needed, you can press the Apply Mass Changes button, as shown in Figure 8.10. The fields available for changes include Terms of Payment, Purchasing Group, Exchange Rate, Fixed Exchange Rate, Target Value, and Purchasing Document Name. Similar actions can be performed for contract items as well by selecting the purchase contract items in the app.

8.2 Contract Consumption

Purchasing managers and buyers want to monitor existing contracts in the system and analyze consumption patterns. They also want to obtain advance information about both planned and predicted expiry dates of contracts. This information helps...
the purchasing organization regulate consumption and initiate contract renewal or
the renegotiation process. This section describes the SAP Fiori apps available in SAP
S/4HANA to both analyze and predict contract data.

8.2.1 Value Contract Consumption

Login to the SAP Fiori launchpad and navigate to the Value Contract Consumption
SAP Fiori app; then click the tile to execute the app. This SAP Fiori app analyses the
value contracts in the system and displays target and released amounts and the con-
sumption percentage over the last 365 days. It’s possible to display the KPIs by sup-
plier, purchasing group, purchasing organization, document, and trend, as shown in
Figure 8.11. The output can be filtered by Purchase Contract, Document Type, Supplier,
Calendar Week/Month/Quarter/Year, Purchasing Group/Organization, Supplier, Curren-
cy, Company Code, and Created By, as shown in Figure 8.11.

Note that the table is coded by Released Amount, Target Amount, and Consumption %.

Figure 8.11 Value Contract Consumption

From the initial display—for example, By Supplier—it’s possible to drill down by click-
ing on any bar (representing one supplier’s data) and selecting one of the options, as
shown in Figure 8.12, to go to the next level. Once you choose, for example, Purchasing
Group from the options, you’ll see the values for the selected supplier per purchasing
group.

8.2.2 Quantity Contract Consumption

Login to the SAP Fiori launchpad and navigate to the Quantity Contract Consump-
tion SAP Fiori app; click its tile to execute the app. This SAP Fiori app determines the
percentage of consumption of quantity type contracts. It also displays the target and
released quantities of contracts. The results can be viewed by supplier, purchasing
group, purchasing organization, purchasing category, material group, cost center,
document, and trend. It’s also possible to filter each view by Purchase Contract, Calendar Week/Month/Quarter/Year, Purchasing Group/Organization, Supplier, Currency, Company Code, Created By, Cost Center, Purchasing Category, Material Group, Material, Plant, Purchase Order Unit and more. The Quantity Contract Consumption app provides an additional measure for predicted contract consumption in the trend view, based on historical data from closed contracts.

Note that the table is coded by Released Amount, Target Amount, and Consumption %. In the document view, the predicted contract consumption and the predicted expiration date based on 100 percent consumption for individual contracts are provided (as in Figure 8.13).

From the initial display—for example, By Supplier—it’s possible to drill down by clicking on any bar (representing one supplier’s data) and selecting one of the options, as shown in Figure 8.14, to go to the next level. Once you choose, for example, Purchasing Group from the options, you’ll see the values for the selected supplier per purchasing group.

8.3 Contract Dashboard Reporting and Expiration Notification Setting

Reporting in contract management has undergone major changes in SAP S/4HANA. The capability that comes with the in-memory technology of SAP S/4HANA and the SAP Fiori UI has made it possible to offer a number of innovations in the areas of
reporting and analytics. This section provides a detailed explanation of all the SAP Fiori apps that come with SAP S/4HANA. It’s also important to note that SAP has embarked on a new journey to introduce more innovative apps as part of every new release.

SAP Fiori provides its role-based, consumer-grade UX across all lines of business. SAP Fiori 3.0 is the latest evolution of the UX for SAP S/4HANA and provides consistency, intelligence, and integration. It provides a harmonized look and feel across products, enables embedded machine learning and automation of mundane tasks, and makes integration of content from different products simpler. SAP Fiori 3.0 enriches the UX with intuitive, easy-to-use apps that run on both mobile devices and computers. SAP Fiori apps help zero in on key functions, tasks, and activities for the user. SAP Fiori overview pages allow users to get live KPIs and action items, including lists of contracts that will expire in the near future. SAP Fiori apps are categorized as transactional, analytical, and object page types. Transactional apps run business transactions, and object page apps display master data and documents. Analytical apps, as the name suggests, are used to analyze live data for instant business insights. These apps also provide capability to act based on insights. Detailed information on all the apps is available at http://s-prs.co/500303.

SAP Fiori 3.0 design provides a harmonized user experience across all SAP applications including cloud solutions. The SAP Fiori visual theme known as Quartz comes in light and dark flavors. SAP Fiori apps are not developed yet for some SAP GUI transactions. However, these classic SAP GUI transactions are made available in the SAP Fiori theme to support a seamless user experience across the SAP Fiori launchpad. These apps run in the backend as SAP GUI applications but are presented via a harmonized user experience. This helps users access the system from a central SAP Fiori launchpad, enjoy the new UX, and avoid the need to log on to SAP GUI. It’s worth mentioning that SAP is replacing additional SAP GUI transactions with SAP Fiori apps in each SAP S/4HANA release. The SAP Fiori apps discussed in the following sections are available within the contract management solution in SAP S/4HANA.

### 8.3.1 Unused Contracts

This app identifies all the contracts that haven’t been used within the last 365 days from the current date and displays the target and released amounts (Figure 8.15). The output can be displayed by supplier, purchasing group, purchasing organization, purchasing document category, or document in tabular format or as a chart. You can drill down to view the related documents by clicking any of the bars in the bar chart view and selecting the **Documents** navigation option.

Log in to SAP Fiori launchpad, navigate to the Unused Contracts SAP Fiori app, and click its tile to execute the app. This app provides insight into unused contracts and enables the buyer to analyze and take necessary action to better utilize the contract.

In Figure 8.15, you can filter by purchase contract, calendar year, purchasing group/organization, supplier, currency, company code, and who it was created by. You may select **By Supplier** to search by supplier, by purchasing group or organization, or document. Note that the table is coded by **Target Amount**, **Released Amount**, and **Unused Contracts**.

![Figure 8.15 Unused Contracts](image)

### 8.3.2 Off-Contract Spend

Often, purchases are made without a negotiated price for materials or services. Procurement managers always want to know how much or what percentage of materials are procured outside of negotiated contracts. Analyzing this information helps buyers determine the types of products and areas in need of further contracts and negotiated prices. The Off-Contract Spend app (Figure 8.16) enables the buyer to analyze and control such purchases, resulting in improved procurement processes and reduced costs.
Log in to the SAP Fiori launchpad, navigate to the Off-Contract Spend SAP Fiori app, and click its tile to execute the app. In this app, the total amount of purchase order items without any contract reference is expressed as a percentage of the total amount of all the purchase order items over a period of one year from the previous year to date. The app shows both the off-contract spend amount and the spend percentage.

In Figure 8.16, you can filter by calendar week/month/quarter/year, company code, supplier, supplier country, material, plant, purchasing group/organization, material group, purchasing category, purchasing order, currency, and who it was created by. You may select By Supplier to search by supplier, by purchasing category or material group, by purchasing group or organization, plant, cost center or WBS element, document, or trend. Note that the table is coded by Off Contr. Spend Amt and Off Contract Spend %.

Figure 8.16  Off-Contract Spend

The values can be displayed by supplier, purchasing group, purchasing organization, purchasing category, or material group, plant, WBS element, cost center, and trend in tabular format or as a chart. The app can display all documents that contribute to the spend. It’s also possible to analyze the trend of the spend by purchasing category or by supplier.

8.3.3 Contract Leakage

The Contract Leakage app (Figure 8.17) is used to identify purchase order spend on items procured without referencing an existing contract that could have been used. Such a buying pattern is likely to increase costs and decrease efficiency. The Contract Leakage app helps monitor such spending that happens outside contracts even though a contract is in place. For each view, the list of documents that contribute to the spend amount can be displayed as well. This app enables the buyer to analyze whether the leakage is increasing or decreasing and which supplier or purchasing category contributes to the leakage. You can drill down by supplier, purchasing group, purchasing organization, purchasing category, material group, and document in this app by clicking any of the bars in the bar chart view and selecting the appropriate navigation option.

Log in to the SAP Fiori Launchpad, navigate to the Contract Leakage SAP Fiori app, and click its tile to execute the app.

In Figure 8.17, you can filter by calendar week/month/quarter/year, material, plant, material group, purchasing category, purchasing order, supplier, supplier country, company code, currency, and accounting objects. You may select By Supplier to search by supplier, by purchasing category or material group, by purchasing group or organization, plant, cost center or WBS element, document, or trend. Note that the table is coded by Leakage Amount, Non-Leakage Amount, and Leakage %.

Figure 8.17  Contract Leakage
8.3.4 Purchase Contract Items by Account Assignment

This app displays purchase contract items grouped by their cost centers, using filter criteria such as Purchase Contract, Cost Center, Order, WBS Element, Asset, and so on. Clicking any cost center of the result output lets you view details such as material, supplier, account assignment category description, net value, and account assignment quantity for each purchase contract item assigned to that cost center. The app allows you to drill down further to view the corresponding purchase orders and general information. It also allows navigation to object pages for material and supplier.

Log in to the SAP Fiori launchpad, navigate to the Purchase Contract Items by Account Assignment SAP Fiori app, and click its tile to execute the app (seen in Figure 8.18).

8.3.5 Monitor Purchase Contract Items

This app (Figure 8.19) initially displays a chart with aggregated values of purchase contract items per material group. The total value and released value of the purchase contract items are shown by two different bars in the chart. The page also displays a list of purchase contract items below the chart. When you click any of the bars in the chart, the list below shows only purchase contract items that are relevant to the selected bar.

Log in to the SAP Fiori launchpad, navigate to the Monitor Purchase Contract Items SAP Fiori app, and click its tile to execute the app.

Purchase contract items can be displayed based on filter criteria such as Display Currency, Purchase Contract, Material Group, Material, Supplier, Cost Center, and so on. It’s possible to drill down further to view detailed information for any dimension. In the chart, the Y-axis represents the measure and the X-axis represents the dimension.

8.3.6 Contract Expiry

This app identifies contracts that are expiring within a certain time period and can display the number of expiring contracts, target amount, and released amount. The output can be displayed by supplier, purchasing group, purchasing organization, purchasing category, or material group, in tabular format or as a chart. As shown in Figure 8.20, it’s also possible to filter the data by purchase contract, validity start/end, created by, currency, purchasing group/organization, supplier, and company code. You may select By Supplier to search by supplier, by purchasing group or organization, or by document. Note that the table is coded by Expiring Contracts, Released Amount, and Target Amount.

Log in to the SAP Fiori launchpad, navigate to the Contract Expiry SAP Fiori app, and click its tile to execute the app.
8.4 Configuration

To realize the features and functionalities of contract management, the system needs to be configured based on business requirements. This section provides the details of standard SAP-recommended configuration steps for contract management. These settings are made in the SAP S/4HANA system by following the customizing paths provided in the following sections for each step.

8.4.1 Configuring Contracts

With SAP S/4HANA, it's possible to take advantage of the SAP Best Practices activation approach for customizing, as explained in Chapter 2. However, if you use the traditional customizing approach, this section can help. This information also helps validate the SAP standard configuration.

Define Document Types

Contracts are managed in the system as documents. Document types, which act as a key to group contracts, are defined in configuration. To define document types, navigate to IMG (SPRO) > Materials Management > Purchasing > Contract > Define Document Types. Table 8.1 provides the SAP-standard settings; it's possible to define additional contract document types depending on business requirements. Number ranges are assigned to each document type defined in the system. New number ranges may also be defined and used as required. The menu path to set number ranges is IMG (SPRO) > Materials Management > Purchasing > Contract > Define Number Ranges (see Figure 8.21).

<table>
<thead>
<tr>
<th>Field Name</th>
<th>Value (First Entry)</th>
<th>Value (Second Entry)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Type</td>
<td>MK</td>
<td>WK</td>
</tr>
<tr>
<td>Doc. Type Description</td>
<td>Quantity Contract</td>
<td>Value Contract</td>
</tr>
<tr>
<td>Item Number Interval</td>
<td>10</td>
<td>10</td>
</tr>
<tr>
<td>Number Range—Internal</td>
<td>46</td>
<td>46</td>
</tr>
<tr>
<td>Number Range—External</td>
<td>44</td>
<td>44</td>
</tr>
<tr>
<td>Update Group Statistics</td>
<td>SAP</td>
<td>SAP</td>
</tr>
<tr>
<td>Field Selection Key</td>
<td>MKK</td>
<td>WKK</td>
</tr>
</tbody>
</table>

Table 8.1 Define Document Types

Figure 8.20 Contract Expiry

Figure 8.21 Define Number Ranges: Contract
Allowed Item Categories
After defining the document types, select the line for the Doc Type defined in the previous step and double-click Allowed Item Categories. On the admissible item categories for the document type, the item categories listed in Table 8.2 can be configured depending on business requirements.

<table>
<thead>
<tr>
<th>Item Category</th>
<th>Description</th>
<th>Use Case</th>
</tr>
</thead>
<tbody>
<tr>
<td>Blank</td>
<td>Standard</td>
<td>N/A</td>
</tr>
<tr>
<td>M</td>
<td>Material unknown</td>
<td>Used when similar materials are negotiated for same price but with different material number</td>
</tr>
<tr>
<td>W</td>
<td>Material group</td>
<td>Only for value contract with material groups but without item price or quantity</td>
</tr>
<tr>
<td>D</td>
<td>Service</td>
<td>When contract is created for performance of services</td>
</tr>
<tr>
<td>K</td>
<td>Consignment</td>
<td>When contract is created for consignment materials</td>
</tr>
<tr>
<td>L</td>
<td>Subcontracting</td>
<td>When contract is created for subcontracting activities</td>
</tr>
</tbody>
</table>

Table 8.2 Item Categories in Contracts

Then, select the line for each Item Category and double-click Link Purchase Requisition Document Type. On the Change View “Link Purchase Requisition-Document Type”: Overview screen, define the allowed follow-on documents.

Release Procedure for Contracts
A release procedure is used for the contract approval process. If the value of a contract exceeds $10,000, for example, it may have to be approved by a manager before the contract can be processed further. The approver in this process uses a predetermined release code to approve (release) the document. Release in this context refers to approving contracts in the system. The procedure is set up in a series of configuration steps:

1. Navigate to IMG (SPRO) • Materials Management • Purchasing • Contract • Release Procedure for Contracts, as shown in Figure 8.22.

2. Create characteristics.
3. Create classes.
4. Set up the release procedure for contracts.
5. Create release group.
6. Create release code.
7. Create release indicator.
8. Create release strategy.

Texts for Contracts
Text types are used while creating contracts, and text maintained under each text type is generally used to provide additional information either at the header level or item level within the contract. For this functionality to work, text types must be defined. In this customizing step, it’s possible to check the SAP defined standard text types and create new text types if needed. In addition, you can define copying rules for adopting texts from other objects, such as RFQ, quotation, contract, and so on:

1. To begin the configuration, navigate to IMG (SPRO) • Materials Management • Purchasing • Contract • Texts for Contracts, as shown in Figure 8.23.

   Then, you can check the available text types and define your own text types for header texts if needed.

2. After the text types are defined, open the Define Copying Rules for Header Texts node, select the text type for which copying rules need to be defined, and choose Text Linkages.
3. On the **Maintain Text Linkages: Header Text Contract** screen, enter the source object and source text type from which the text can be copied to the contract text type (target text). For example, you can configure an RFQ as the source object and the header text of the RFQ as source text and configure the target as the header text of the contract. If this setting is done in the system, the system will copy the header text of the RFQ into the header text of the contract while creating a contract. It’s possible to set the copying rule to any one of the following options:

- Text automatically adopted in target object
- User can have text adopted in target object
- Text can’t be adopted in target object

This customizing activity is repeated for item text types.

**Set Up Authorization Check for General Ledger Accounts**

In this step, you set the general ledger account authorization check to **Active** in contracts. Navigate to **IMG (S/4HANA) • Materials Management • Purchasing • Contract • Set Up Authorization Check for G/L Accounts** (as in Figure 8.24). This indicator is set at the company code level. Whenever a contract is created with an item requiring account assignment, the system checks whether the creator of the contract has the necessary authorization for the general ledger account entered. This setting is used as a control mechanism based on the business requirements per company code.

![Figure 8.24 Authorization Check for General Ledger Accounts](image)

**8.4.2 Manage Workflows for Purchase Contracts**

This SAP Fiori app is based on the flexible workflow, which is a general function available for purchasing documents. The Manage Workflow for Purchase Contracts app allows users to define one-step or multistep approval processes for purchase contracts according to the business requirements of the organization. Setting up a workflow using this app for purchase contract is simple and doesn’t require any development skills.

1. Login to the SAP Fiori launchpad, navigate to the Manage Workflows for Purchase Contracts app, and click its tile to execute the app.
2. Click the **Add** button to create a new workflow. Enter a name and description if desired and the validity period for the workflow, as shown in Figure 8.25.

![Figure 8.25 Value-Based Workflow Header](image)

3. Scroll down and add a start condition, as shown in Figure 8.26. The standard start conditions center on account assignment, company code, material group, purchasing group, target value, and others.
4. Scroll down to the **Step Sequence** tab and click the **Add** button to add steps as shown in Figure 8.27. One or more steps can be defined here; for each step, enter recipients (approvers) and step conditions, if any.
5. Save the workflow and activate for the workflow to take effect.
8.5 Scheduling Agreement

Scheduling agreements are another form of outline purchase agreement in SAP S/4HANA. These agreements are used to procure materials over a specified period of time following a set schedule of delivery. The predetermined delivery schedules in the agreement indicate quantities of items and dates of delivery. Conditions can be maintained at the header level, which applies to all the items, or at the item level, which applies only to a specific item. These agreements have the account assignment function, which allows the buyer to allocate costs by maintaining details of controlling objects at the item level within the document at the time of creation.

The benefits of using scheduling agreements include the following:

- Shorten processing times and reduce the amount of paperwork required otherwise
- Delivery schedule can replace a large number of discrete purchase orders or contract release orders
- Reduced inventory
- Possible to run manufacturing operations on the just-in-time principle
- Suppliers require shorter lead times with smaller deliveries spread over a long period, resulting in better planning and efficient resource allocation for suppliers
- Scheduling agreement can work in conjunction with MRP, especially in repetitive manufacturing involving large quantities

8.5.1 Scheduling Agreement Types

Scheduling agreements types are determined by document types defined in customizing. The three document types that are predefined in the standard system are explained in the following sections. In addition to these three, it’s possible to define your own custom document types depending on your business requirements. More details are provided in Section 8.6.
Scheduling Agreement with Release Document
This type of agreement is created by choosing scheduling agreement document type LPA. In this case, the schedule lines entered within the agreement aren’t transmitted to the supplier at the time of creation of the agreement and are internal to the system. The schedule lines maintained in this agreement can be changed at any time during the life of the agreement, which allows some level of flexibility in scheduling procurement. Whenever a scheduling agreement release is created, the information stored in the schedule lines is used to create and transmit the releases to the supplier. Two types of releases available with this type of scheduling agreement (LPA) are the forecast delivery schedule (FRC) and the just-in-time delivery schedule. The release documentation generated in this process provides information about the releases transmitted to the supplier over a set period.

Scheduling Agreement without Release Document
This type of agreement is created by choosing scheduling agreement document type LP. The scheduling lines created in this type of agreement are external and official. This means that the scheduling lines are transmitted to the supplier as soon as they’re created. Also, there is no release documentation associated with this agreement.

Stock Transport Scheduling Agreement
If a company is procuring materials internally from another plant on a regular basis, it’s possible to set up a stock transport scheduling agreement by choosing document type LU at the time of creation. SAP standard uses item category U (Stock Transfer) for this type of agreement.

8.5.2 Creating Scheduling Agreements
Scheduling agreements can be created manually or by referencing purchasing documents such as purchase requisitions, RFQs/quotations, other scheduling agreements, or centrally agreed-upon contracts. It’s possible to create a scheduling agreement by copying any one of the purchasing documents and then making changes before saving the agreement.

8.5.3 Manage Scheduling Agreement
The Manage Scheduling Agreement SAP Fiori app provides the capability to search and filter scheduling agreements by purchasing organization, agreement type, supplier, material, status, validity period, and more. It allows the user to display, copy, edit, create, and delete scheduling agreements. It’s possible to maintain schedule lines within scheduling agreements. The app also highlights those scheduling agreements that are expiring soon and allows the user to renew them by clicking the Renew Agreement button, as shown in Figure 8.28.

Figure 8.28 Manage Scheduling Agreement

To create a new scheduling agreement, proceed as follows:
1. Log on to the SAP Fiori launchpad and click the tile for the Manage Scheduling Agreement app.
2. Click the Create button to bring up the input screen for creating a new scheduling agreement.
3. Enter an agreement type, validity dates, a purchasing organization, and a supplier under the General Information tab, as shown in Figure 8.29.
4. Scroll down and enter payment terms, a target value, and incoterms under the Delivery and Payment tab, as shown in Figure 8.30.

7. Scroll down and enter the tolerance and GR/IR requirements under the GR/IR Control tab, as shown in Figure 8.32.
8 Contracts Management

Figure 8.32  GR/IR Control

Incoterms, Conditions, and Notes are additional tabs that can be used as necessary.  

8. Go to the Schedule Lines tab and click the Create button to bring up the Schedule Lines page, as shown in Figure 8.33.

9. On this page, enter a delivery date and quantity and click the Apply button. This will apply the data entered and take you back to the Items page. Here, click the Apply button again to go back to the Header page. Check all the entries and click the Save button to create the scheduling agreement.

Note
The following is a list of GUI transactions for which apps are available in SAP Fiori:

- Display Scheduling Agreement (Transaction ME33L)
- Create Scheduling Agreement (Transaction ME31L)
- Display Scheduling Agreement Schedule (Transaction ME39)
- Change Scheduling Agreement (Transaction ME32L)
8.6 Customizing Scheduling Agreements

With SAP S/4HANA, it’s possible to take advantage of the SAP Best Practices activation approach for customizing, as explained in Chapter 2. However, if you use the traditional customizing approach, this section can help. This information also helps validate the SAP standard configuration.

8.6.1 Define Document Types

Scheduling agreements are defined and managed as documents in the system. It’s possible to group these documents under different document types based on business requirements. First, you need to define document types and their attributes in customizing.

Table 8.3 provides the SAP-standard settings; it’s possible to define additional scheduling agreement document types depending on business requirements, via IMG (SPRO) • Materials Management • Purchasing • Scheduling Agreement • Define Document Types.

<table>
<thead>
<tr>
<th>Field Name</th>
<th>Value (First Entry)</th>
<th>Value (Second Entry)</th>
<th>Value (Third Entry)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Type</td>
<td>LPA</td>
<td>LP</td>
<td>LU</td>
</tr>
<tr>
<td>Doc. Type Description</td>
<td>SA With Release Doc.</td>
<td>Scheduling Agreement</td>
<td>Stock Trans. Sch. Agreement</td>
</tr>
<tr>
<td>Item Number Interval</td>
<td>10</td>
<td>10</td>
<td>10</td>
</tr>
<tr>
<td>Number Range—Internal</td>
<td>55</td>
<td>55</td>
<td>55</td>
</tr>
</tbody>
</table>

Table 8.3 Define Document Types

New number ranges may also be defined and used as required. This step generally is required if new document types are defined in the previous step. The menu path for creating number ranges is IMG (SPRO) • Materials Management • Purchasing • Scheduling Agreement • Define Number Ranges.

8.6.2 Allowed Item Categories

After defining the document types for scheduling agreements, select the line for the Doc Type and double-click Allowed Item Categories. On the Admissible Item Categories for Document Type screen, maintain the item categories as needed from the list in Table 8.4. These item categories can be configured depending on business requirements. This configuration determines what item categories can be selected for a given document type by the business user while creating the scheduling agreement.

<table>
<thead>
<tr>
<th>Item Category</th>
<th>Description</th>
<th>Use Case</th>
</tr>
</thead>
<tbody>
<tr>
<td>Blank</td>
<td>Standard</td>
<td>Default</td>
</tr>
<tr>
<td>K</td>
<td>Consignment</td>
<td>When scheduling agreement is created for consignment materials</td>
</tr>
<tr>
<td>L</td>
<td>Subcontracting</td>
<td>When scheduling agreement is created for subcontracting activities</td>
</tr>
</tbody>
</table>

Table 8.4 Item Categories in Scheduling Agreements
Now, select the line for each Item Category and double-click Link Purchase Requisition-Document Type. On the Change View "Link Purchase Requisition-Document Type": Overview screen, define the allowed follow on documents.

### 8.6.3 Maintain Release Creation Profile

A release creation profile is used to determine the period in which releases (types of delivery schedule) are generated against a scheduling agreement and transmitted to the vendor. This also controls the creation periodicity of the releases; the aggregation of scheduled quantities, starting from the day after release creation; and the implementation of a tolerance check. In this step, a release creation profile is maintained for scheduling agreements with a release document. This profile determines the release creation strategy and how backlog and immediate requirements are considered in the release creation. To maintain the release creation profile, navigate to IMG (SPRO) > Materials Management > Purchasing > Scheduling Agreement > Maintain Release Creation Profile for SA with Release Document.

The following criteria also can be set up in the profile:

- **Aggregation and release horizon**
  - If and how delivery schedules are to be aggregated with the release creation

- **Release creation periodicity**
  - The frequency with which scheduling agreement releases are generated

- **Tolerance profile**
  - For releases that need to be generated because of changed delivery schedules, a tolerance check is carried out

- **Last goods receipts**
  - If and how last inbound deliveries and goods receipts are determined and outputted during the release creation

<table>
<thead>
<tr>
<th>Item Category</th>
<th>Description</th>
<th>Use Case</th>
</tr>
</thead>
<tbody>
<tr>
<td>U</td>
<td>Stock transfer</td>
<td>Can be used only with document type LU (Stock Transfer Scheduling Agreement)</td>
</tr>
</tbody>
</table>

Table 8.4 Item Categories in Scheduling Agreements (Cont.)
## Contents

**Foreword** ................................................................. 21  
**Preface** ........................................................................ 23

### 1 Introduction to Sourcing and Procurement 31

#### 1.1 Sourcing and Procurement Basics 31
   1.1.1 Sourcing ................................................................. 32  
   1.1.2 Operational Procurement ........................................ 33

#### 1.2 Sourcing and Procurement from End to End 35
   1.2.1 Ideal Procurement ................................................... 36  
   1.2.2 Source-to-Pay and Procure-to-Pay ......................... 37  
   1.2.3 Key Process Areas .................................................. 37

#### 1.3 Procurement with SAP S/4HANA 40
   1.3.1 Cloud versus On-Premise ERP Systems .................. 41  
   1.3.2 Strategic Sourcing ................................................... 44  
   1.3.3 Procurement ........................................................... 45  
   1.3.4 Accounts Payable and Invoicing ............................. 46  
   1.3.5 SAP Fiori Roles and Applications ........................... 47

#### 1.4 Summary ................................................................. 48

### 2 Implementation Options 51

#### 2.1 Implementation Overview 51
   2.1.1 Deployment Options ............................................... 52  
   2.1.2 Cloud ................................................................. 53
   2.1.3 On-Premise .......................................................... 57  
   2.1.4 New Implementation versus System Conversion .......... 58

#### 2.2 On-Premise SAP S/4HANA 62
   2.2.1 Complete Functional Scope ..................................... 63
7.6 Transfer Postings
8.3 Contract Dashboard Reporting and Expiration Notification Setting
8.3.3 Contract Leakage
8.3.4 Purchase Contract Items by Account Assignment
8.3.5 Monitor Purchase Contract Items
8.3.6 Contract Expiry
8.4 Configuration
8.4.1 Configuring Contracts
8.4.2 Manage Workflows for Purchase Contracts
8.5 Scheduling Agreement
8.5.1 Scheduling Agreement Types
8.5.2 Creating Scheduling Agreements
8.5.3 Manage Scheduling Agreement
8.6 Customizing Scheduling Agreements
8.6.1 Define Document Types
8.6.2 Allowed Item Categories
8.6.3 Maintain Release Creation Profile
8.7 Summary
9.1 What Is Enterprise Contract Management and Assembly?
9.2 Enterprise Contract Management Overview App
9.2.1 Manage Contexts
9.2.2 Categories for Legal Content
9.2.3 Request Legal Content
9.2.4 Manage Legal Documents
9.2.5 Manage Legal Tasks
9.2.6 Manage Legal Transactions
9.2.7 SAP S/4HANA Cloud for Enterprise Contract Assembly
9.3 Customizing Enterprise Contract Management
9.3.1 Number Ranges
9.3.2 Reminder Types
9.3.3 Date Types
9.3.4 Internal Contacts
9.4 Customizing Legal and Tax Content
9.5 Customizing Enterprise Contract Management with S/4HANA Cloud
9.6 Customizing Enterprise Contract Management with S/4HANA Cloud
9.7 Summary
999.0x648.0
[-48x-97]Contents
12
7.6 Transfer Postings
7.6.1 Stock Identity
7.6.2 Stock Usability
7.6.3 Stock Ownership
7.7 Physical Inventory
7.7.1 Physical Inventory Execution
7.7.2 Physical Inventory Monitoring and Reporting
7.8 Reporting in Inventory Management
7.8.1 Inventory Overview Pages
7.8.2 Goods Movement Reporting
7.8.3 Stock Balances Reporting Apps
7.8.4 Apps for Monitoring Financial Inventory Values
7.8.5 Inventory Management Object Pages
7.8.6 Inventory Management Analytics
7.9 Configuring Inventory Management
7.9.1 General Configuration Elements
7.9.2 Goods Receipts and Goods Issues
7.9.3 Movement Types
7.9.4 Physical Inventory
7.10 Summary
8 Contracts Management
8.1 What Is Contract Management?
8.1.1 Contract Creation
8.1.2 Types of Contracts
8.1.3 Manage Purchase Contracts
8.1.4 Mass Changes to Purchase Contract
8.2 Contract Consumption
8.2.1 Value Contract Consumption
8.2.2 Quantity Contract Consumption
8.3 Contract Dashboard Reporting and Expiration Notification Setting
8.3.1 Unused Contracts
8.3.2 Off-Contract Spend
8.3.3 Contract Leakage
8.3.4 Purchase Contract Items by Account Assignment
8.3.5 Monitor Purchase Contract Items
8.3.6 Contract Expiry
8.4 Configuration
8.4.1 Configuring Contracts
8.4.2 Manage Workflows for Purchase Contracts
8.5 Scheduling Agreement
8.5.1 Scheduling Agreement Types
8.5.2 Creating Scheduling Agreements
8.5.3 Manage Scheduling Agreement
8.6 Customizing Scheduling Agreements
8.6.1 Define Document Types
8.6.2 Allowed Item Categories
8.6.3 Maintain Release Creation Profile
8.7 Summary
9 Enterprise Contract Management and Assembly
9.1 What Is Enterprise Contract Management and Assembly?
9.2 Enterprise Contract Management Overview App
9.2.1 Manage Contexts
9.2.2 Categories for Legal Content
9.2.3 Request Legal Content
9.2.4 Manage Legal Documents
9.2.5 Manage Legal Tasks
9.2.6 Manage Legal Transactions
9.2.7 SAP S/4HANA Cloud for Enterprise Contract Assembly
9.3 Customizing Enterprise Contract Management
9.3.1 Number Ranges
9.3.2 Reminder Types
9.3.3 Date Types
9.3.4 Internal Contacts
9.4 Customizing Legal and Tax Content
9.5 Customizing Enterprise Contract Management with S/4HANA Cloud
9.6 Customizing Enterprise Contract Management with S/4HANA Cloud
9.7 Summary
11.4.6 Cash Discount Utilization ............................................................... 507
11.4.7 Days Payable Outstanding ............................................................. 509
11.4.8 Days Payable Outstanding—Indirect Method ................................ 510
11.4.9 Invoice Processing Analysis ............................................................ 511
11.4.10 Supplier Payment Analysis (Manual and Automatic Payments) .......... 512
11.4.11 Supplier Payment Analysis (Open Payments) ................................ 513

11.5 Configuring Invoice and Payables Management ................................... 513
11.5.1 Configuration Elements for Managing Incoming Invoices .................. 514
11.5.2 Configuration Elements for Managing Invoice Blocks ....................... 521

11.6 Summary ......................................................................................... 528

12 Supplier Management ........................................................................... 529

12.1 What Is Supplier Management? ......................................................... 529
12.1.1 Supplier Discovery, Qualification, and Onboarding ......................... 530
12.1.2 Classification and Segmentation ..................................................... 534
12.1.3 Evaluation ....................................................................................... 534

12.2 Classification and Segmentation ......................................................... 535
12.2.1 Purchasing Categories .................................................................... 535
12.2.2 Supplier Activities and Tasks ......................................................... 539

12.3 Supplier Evaluation ............................................................................ 542
12.3.1 Supplier Evaluation Scorecard ....................................................... 544
12.3.2 Individual Supplier Evaluation ...................................................... 544
12.3.3 Supplier Evaluation by Time ............................................................ 545
12.3.4 Supplier Evaluation by Price ............................................................ 546
12.3.5 Supplier Evaluation by Questionnaire ............................................ 546
12.3.6 Combined Scorecard ..................................................................... 548
12.3.7 Operational Supplier Evaluation .................................................... 548

12.4 Configuration ..................................................................................... 549
12.4.1 Supplier and Category Management Configuration .......................... 550
12.4.2 Classification and Segmentation ..................................................... 552
12.4.3 Supplier Evaluation Configuration .................................................. 552

12.5 Summary ......................................................................................... 555

13 Centralized Procurement ..................................................................... 557

13.1 What Is Centralized Procurement? ...................................................... 557
13.2 Central Requisitioning ....................................................................... 562
13.3 Central Purchasing ............................................................................. 564
13.4 Central Purchasing Contracts ............................................................... 566
13.5 Central Analytics ............................................................................... 567
13.6 SAP S/4HANA for Central Procurement with SAP Ariba .................... 571

13.7 Configuring SAP S/4HANA for Central Procurement ......................... 574
13.7.1 Establishing Connectivity to ERP Systems ....................................... 576
13.7.2 Validating Data and Identifying Gaps ............................................. 583
13.7.3 Configuring SAP S/4HANA for Central Procurement Scenarios ... 585
13.7.4 Integrating SAP Ariba Guided Buying with Central Procurement ..... 596

13.8 Summary ......................................................................................... 597

14 Sourcing and Procurement Analytics .................................................... 599

14.1 Spend Visibility .................................................................................. 600
14.1.1 Multidimensional Spend Reporting in SAP S/4HANA Cloud ........... 601
14.1.2 Navigation and Procurement Overview Page ................................... 601

14.2 Contract Expiration .......................................................................... 602
14.3 Sourcing ............................................................................................. 604

14.4 Supplier Performance ......................................................................... 606
14.4.1 Purchasing Document Reports and Embedded Analytics ................. 607
14.4.2 Predictive Analytics ....................................................................... 609

14.5 Reporting ........................................................................................... 609
14.6 Machine Learning .............................................................................. 611
14.7 Configuration ..................................................................................... 612
14.7.1 Creating a Key Performance Indicator ............................................ 613
14.7.2 Configuring Real-Time Reporting/Queries ..................................... 613
14.7.3 Exploring Virtual Data Model and Core Data Services in SAP S/4HANA ........................................... 614
14.7.4 Integration of SAP S/4HANA with SAP Analytics Tools ................................................................. 615
14.7.5 Integration with Cloud Applications .............................................................................................. 617

14.8 Summary ....................................................................................................................................... 618

15 Integrating SAP S/4HANA with SAP Ariba and SAP Fieldglass ......................................................... 619

15.1 SAP Ariba Integration Projects and Connectivity Options ............................................................... 619

15.2 SAP Ariba ....................................................................................................................................... 623
- 15.2.1 Key Integration Technologies .................................................................................................. 624

15.3 SAP Ariba Cloud Integration Gateway ............................................................................................. 625
- 15.3.1 SAP Cloud Platform Integration and the SAP Ariba Cloud Integration Gateway .......... 625
- 15.3.2 Configuring the SAP Ariba Cloud Integration Gateway ...................................................... 627
- 15.3.3 SAP Ariba Strategic Sourcing Integration .............................................................................. 628
- 15.3.4 SAP Ariba Buying and Invoicing Integration ......................................................................... 639

15.4 SAP Ariba Supply Chain Collaboration .......................................................................................... 650

15.5 SAP Ariba Supply Chain Collaboration Configuration ......................................................................... 658

15.6 SAP Fieldglass ............................................................................................................................... 660
- 15.6.1 Key Technologies .................................................................................................................. 661
- 15.6.2 Integrating SAP Fieldglass Contingent Workforce Management ........................................ 661
- 15.6.3 SAP SuccessFactors ............................................................................................................. 664

15.7 Summary ....................................................................................................................................... 666

16 Customizing the UI ........................................................................................................................... 669

16.1 User Interface Options in SAP S/4HANA .......................................................................................... 669
- 16.1.1 SAP Fiori .................................................................................................................................. 669
- 16.1.2 SAP General User Interface ................................................................................................. 680

16.2 Configuring SAP Fiori ....................................................................................................................... 681
- 16.2.1 Installing SAP Fiori ............................................................................................................... 681
- 16.2.2 Embedded and Central Hub Deployment for SAP Fiori ....................................................... 682
- 16.2.3 SAP Fiori App Library .......................................................................................................... 683

16.3 Customizing SAP Fiori ................................................................................................................... 688
- 16.3.1 SAP Fiori Edit Mode ............................................................................................................. 688
- 16.3.2 SAP Fiori User Settings ......................................................................................................... 689
- 16.3.3 SAP CoPilot .......................................................................................................................... 692

16.4 Summary ....................................................................................................................................... 694

17 Conclusion ....................................................................................................................................... 695

17.1 Future State of Procurement Solutions .......................................................................................... 698

17.2 Future State of the Procurement Supply Chain .............................................................................. 699

The Author ........................................................................................................................................... 701

Index .................................................................................................................................................. 703
Index

A

ABAP ................................................................. 673
ABC Analysis for Cycle Counting app ................. 299
Accounting data .................................................. 129
Accounts payable ............................................... 483
analytics ............................................................ 499
reporting ........................................................... 499, 609
Accounts payable and invoicing .............. 46
Activate flexible workflow ............................. 520
Activated appliance ............................................. 64
Activity types ..................................................... 94
Advanced shipping notifications ................. 149
Agile methodology ................................................ 79
Aging Analysis app ............................................. 500, 503
Ajax ................................................................. 673
Allocation quota arrangements .................. 227
Analytical cards ................................................. 601
Analytics ........................................................... 88, 599
Analyze PIR Quality app ................................. 212
Approve Bank Payments app ....................... 493
Ariba Network .............................................. 40, 45, 67, 170, 193–194, 479, 530, 532, 561, 572, 620, 622, 642
Assign and Process Purchase Requisition app ........ 163
Attribute value mapping .................................. 137
Authorization check ......................................... 378
Automated and direct procurement .............. 199
configure .......................................................... 245
Automated procurement ..................................... 200
Automatic Creation of Purchase Orders from Requisition app ............................................. 163
Automatic PO ..................................................... 587
Automatic settlements ....................................... 459

B

Background job definitions ................................. 422
BAdIs ................................................................. 588
BD_MMPUR_REQ_APPR_PRV ......................... 182
MM_PUR_CTIG_BDI_SRH ................................. 182
MMPUR_CAT_CLI_ENRICH ......................... 182
MMPUR_CAT_PROXY_INFO ......................... 182
MMPUR_CATALOG_ENRICH_DATA ................ 182

Bank information ........................................... 129
Batch Information Cockpit app ....................... 313
Batch management ........................................... 122, 262
Batch number ................................................... 123
Batch Overview app ........................................... 312
Best practices .................................................... 74
Big data ........................................................... 698
Bill of materials ............................................... 149
Blanket agreement .......................................... 355
Blanket purchase orders ................................. 231
Business area ................................................... 93
Business partner ................................................. 126
creation ............................................................ 127
SAP S/4HANA ...................................................... 128
Business Rule Framework ................................. 92

Cash Discount Forecast app ......................... 506
Cash Discount Utilization app ......................... 507
Catalog via web service ..................................... 180
Categories for Legal Content app ................. 401
Central analytics ............................................... 567
configure .......................................................... 595
Central contracts ................................................. 566
Central hub deployment ................................... 682
Central procurement ......................................... 77, 557, 566
architecture ....................................................... 583
configure .......................................................... 574
extraction ........................................................ 584
Central Purchase Contract ............................... 682
Consumption app ............................................. 568–569
Central Purchase Requisition Item Types app .......... 595
Central purchasing ............................................. 564
BAdIs ................................................................. 588
configure .......................................................... 587
Central purchasing contracts configure ................. 592
Central requisitioning ........................................ 562
configure .......................................................... 586
Change Inbound Delivery app ....................... 275

703
Manage Scheduling Agreement app ......................................... 228, 383
Manage Scorecards app .......................................................... 228
Manage Source Lists app .......................................................... 211
Manage Sources of Supply app .................................................. 210, 604
Manage Stock app ..................................................................... 210, 268
Manage Supplier Down Payment Requests app .............................. 490–491
Manage Supplier Line Items app .................................................... 496
Manage Supplier Quotation app .................................................... 211
Manage Templates app ................................................................ 406, 542
Manage Workflow for Purchase Requisitions app ...................... 563
Manage Workflows for RFQs app ............................................... 446
Manage Workflows for Scheduling Agreements app ................... 228
MAP1 ...................................................................................... 128
MAP3 ...................................................................................... 128
Mass Change to Purchase Contract app ...................................... 362
Mass Change to Purchasing Info Records app ............................... 224
Mass Changes to Scheduling Agreements app ............................ 228
Master data ............................................................................. 111–112
definition .................................................................................. 245
Material object page ................................................................... 320
Material document ..................................................................... 319
Material Document app ................................................................ 211
Material Documents Overview app ............................................. 269
Material group ............................................................................ 112
creation ...................................................................................... 119
Material Inventory Values—Balance Summary app .................... 211, 316
Material Inventory Values—Line Items app .................................. 211, 317
Material master configuration creation ........................................ 112, 116
creation ...................................................................................... 121
field record ................................................................................ 121
Material master record tabs ....................................................... 117
Material masters Material Shortage Profile app ............................ 203, 212
Materials requirements planning ................................................ 202
MATNR field ............................................................................... 122
Migrating SAP SRM shopping carts .......................................... 159
MK01 ....................................................................................... 128
MK02 ....................................................................................... 128
MK03 ....................................................................................... 128
MK05 ....................................................................................... 128
MK06 ....................................................................................... 128
MK12 ....................................................................................... 128
MK18 ....................................................................................... 128
MK19 ....................................................................................... 128
MMPUR_CATALOG_ENRICH_DATA ...................................... 182
Monitor Batches and Payments app ............................................. 494
Monitor Central Purchase Contract Items app .............................. 568
Monitor External Requirements app .......................................... 209
Monitor Internal Requirements app ........................................... 210
Monitor Material Coverage app ................................................ 209, 213
Monitor Production Orders app ................................................ 207
Monitor Production Orders or Process Orders app ....................... 210
Monitor Purchase Contract Items app ........................................ 372
Monitor Purchase Order Items app ............................................. 611
Monitor Purchase Requisition Centrally app ................................ 595
Monitor Purchasing Info Records Price History .......................... 224
Monitor Request for Quotation Items app .................................... 433
Monitor Responses app ................................................................ 542
Monitor Tasks app ..................................................................... 535, 540, 552
Monitoring financial inventory values ....................................... 316
Movement types ....................................................................... 155, 265, 344
Object key 101 ......................................................................... 265
201 ....................................................................................... 278
261 ....................................................................................... 278
301 ....................................................................................... 281
303 ....................................................................................... 281
305 ....................................................................................... 281
311 ....................................................................................... 281
319 ....................................................................................... 281
333 ....................................................................................... 278
551 ....................................................................................... 278
561 ....................................................................................... 281
563 ....................................................................................... 265
601 ....................................................................................... 278
641 ....................................................................................... 278
643 ....................................................................................... 278
change copy ............................................................................. 346
OAuth client 2.0 ......................................................................... 184
Object link descriptions ............................................................ 421
Object pages ............................................................................. 480
OData connection ...................................................................... 581
OData service catalog data extraction services ............................ 581
hub service for delivery address and general ledger account ......... 581
material value help service ....................................................... 581
odata service for purchase requisition check .............................. 581
purchase requisition history ...................................................... 581
search help .............................................................................. 581
service for return delivery ........................................................ 581
SSP requisition goods receipt hub backend services .................... 581
sync business procentral procurement admin monitor backend status for SSP ................................................. 582
sync business processes completed and deleted PFS from connected system ........................................... 581
Off-Contract Spend app ........................................................... 369
Online invoice entry .................................................................. 461
Index
MRO ........................................................................................ 43
MRP Cockpit Reuse Component app ......................................... 210
MRP Live .................................................................................. 204
Multidimensional spend reporting ............................................. 601
Multipurpose Internet Mail Extensions (MIME) ......................... 551
Multitenant environment ............................................................ 76
Material purchase orders ........................................................... 233
My Inbound Delivery Monitor app .............................................. 276
My inbox .................................................................................... 438, 567
My inbox—Approve POs app ..................................................... 210
My Purchase Orders—Due for Delivery app ................................. 278
My Purchasing Document Items app ........................................ 210
N
Negative stocks ........................................................................ 342
New catalog item ....................................................................... 173
New implementation .................................................................. 52, 58, 60
Number assignments .................................................................. 335
Number ranges .......................................................................... 439
O
OAuth client 2.0 ......................................................................... 184
Object link descriptions ............................................................ 421
Object pages ............................................................................. 480
OData connection ...................................................................... 581
OData service catalog data extraction services ............................ 581
hub service for delivery address and general ledger account ......... 581
material value help service ....................................................... 581
odata service for purchase requisition check .............................. 581
purchase requisition history ...................................................... 581
search help .............................................................................. 581
service for return delivery ........................................................ 581
SSP requisition goods receipt hub backend services .................... 581
sync business procentral procurement admin monitor backend status for SSP ................................................. 582
sync business processes completed and deleted PFS from connected system ........................................... 581
Off-Contract Spend app ........................................................... 369
Online invoice entry .................................................................. 461
Stock transfers .............................................. 256, 280
one-step ......................................................... 257
reporting .......................................................... 284
shipping integration ......................................... 284
Stock transport scheduling agreement .............. 382
Stock type ........................................................... 261
customer returns .......................................... 261
quality inspection .............................................. 261
unrestricted use ................................................ 261
Stock usability .................................................... 286
Stock—Multiple Materials app .......................... 212, 312
Stock—Single Material app ................................. 211, 310
Storage locations ............................................ 99–100, 338
assign to a warehouse ....................................... 102
Strategic procurement ....................................... 32
Strategic sourcing ............................................ 44, 425
Subcontracting .................................................. 234–235
in SAP S/4HANA ................................................ 236
order collaboration ........................................... 237
Subcontracting MRP .......................................... 237
Subcontracting purchase order ......................... 657
Subsequent credit ............................................ 458
Subsequent debit ............................................. 300
Supplier ............................................................. 500
Supplier object page ......................................... 522
Supplier account management ......................... 495
Supplier accounting document object page ........ 204
Supplier and category management configuration .. 550
Supplier app ....................................................... 211
Supplier collaboration ....................................... 33
Supplier discovery ........................................... 530
Supplier evaluation ........................................... 542
configuration .................................................... 552
Supplier Evaluation app .................................... 542
Supplier Evaluation by Price app ....................... 546
Supplier Evaluation by Price Last 365 Days app .... 604
Supplier Evaluation by Quantity app .................. 544
Supplier Evaluation by Quantity Last 365 Days app.. 604
Supplier Evaluation by Questionnaire app ........... 546
Supplier Evaluation by Questionnaire Last 365 Days app. 604
Supplier Evaluation by Time app ......................... 545
Supplier Evaluation by Time Last 365 Days app .... 604
Supplier Evaluation Score History ....................... 608
Supplier evaluation scorecard ............................ 544
Supplier Evaluation/Operational Supplier Evaluation app ........................................ 548
Supplier invoice ............................................... 458
Supplier invoice documents ............................... 457
Supplier invoice object page ............................... 481
Supplier invoice verification ............................... 459
Supplier Invoices List app .................................... 477–478
Supplier management ....................................... 38, 529
configuration .................................................... 549
Supplier master .................................................. 129
Supplier onboarding .......................................... 530
Supplier Payment Analysis (Manual and Automatic Payments) app ........................................ 512
Supplier Payment Analysis (Open Payments) app ........................................ 513
Supplier payment processing ................................ 484
Supplier performance ....................................... 606
Supplier qualification ....................................... 530
Supplier quotation ............................................ 435, 437
Supplier Quotation app ....................................... 446
Supplier quotations ............................................ 434
Supplier self-service .......................................... 425
Supplier self-services ......................................... 169
Synchronization ............................................. 143
System administration ........................................ 204
System conversion ............................................ 52, 58–59, 69
preparation ....................................................... 69
realization ....................................................... 69
T

Table

<table>
<thead>
<tr>
<th>Table</th>
<th>Description</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>MATDOC</td>
<td></td>
<td>258</td>
</tr>
<tr>
<td>MCHB</td>
<td></td>
<td>258</td>
</tr>
<tr>
<td>MKCOL</td>
<td></td>
<td>258</td>
</tr>
<tr>
<td>Tax codes</td>
<td></td>
<td>516</td>
</tr>
<tr>
<td>Technical architect</td>
<td></td>
<td>88</td>
</tr>
<tr>
<td>Test phase</td>
<td></td>
<td>145</td>
</tr>
<tr>
<td>Time-phased planning</td>
<td></td>
<td>201, 219</td>
</tr>
<tr>
<td>Tolerance limit</td>
<td></td>
<td>522</td>
</tr>
<tr>
<td>Tolerances</td>
<td></td>
<td>524</td>
</tr>
<tr>
<td>supplier-specific</td>
<td></td>
<td>524</td>
</tr>
</tbody>
</table>

Transaction

<table>
<thead>
<tr>
<th>Transaction</th>
<th>Code</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>ANZE</td>
<td>M01</td>
<td>225</td>
</tr>
<tr>
<td>BD50</td>
<td>M02</td>
<td>591</td>
</tr>
<tr>
<td>BD52</td>
<td>M04</td>
<td>591</td>
</tr>
<tr>
<td>BD61</td>
<td>M09</td>
<td>582</td>
</tr>
<tr>
<td>BMBC</td>
<td>M10</td>
<td>314</td>
</tr>
<tr>
<td>BNK_MONI</td>
<td>MII</td>
<td>495</td>
</tr>
<tr>
<td>BP</td>
<td>M12</td>
<td>132</td>
</tr>
<tr>
<td>CVI_FS_CHECK_CUST</td>
<td>M21</td>
<td>142</td>
</tr>
<tr>
<td>CVI_PRECHECK_UPGRADE</td>
<td>M22</td>
<td>142</td>
</tr>
<tr>
<td>ESH_COCKPIT</td>
<td>M31</td>
<td>178</td>
</tr>
<tr>
<td>F18</td>
<td>M40</td>
<td>498</td>
</tr>
<tr>
<td>F27</td>
<td>MD0</td>
<td>498</td>
</tr>
<tr>
<td>F61</td>
<td>MIR</td>
<td>498</td>
</tr>
<tr>
<td>F62</td>
<td>MI0</td>
<td>498</td>
</tr>
<tr>
<td>F63</td>
<td>MI1</td>
<td>498</td>
</tr>
<tr>
<td>F66</td>
<td>MI2</td>
<td>498</td>
</tr>
<tr>
<td>FIHO</td>
<td>MM0</td>
<td>512</td>
</tr>
<tr>
<td>FISO</td>
<td>MMB</td>
<td>498</td>
</tr>
<tr>
<td>F8BP</td>
<td>MMP</td>
<td>498</td>
</tr>
<tr>
<td>FDO1</td>
<td>MP9</td>
<td>128</td>
</tr>
<tr>
<td>FLETS</td>
<td>MRR</td>
<td>122</td>
</tr>
<tr>
<td>MASS</td>
<td>MRS</td>
<td>132</td>
</tr>
<tr>
<td>MBSI</td>
<td>MRS</td>
<td>309</td>
</tr>
<tr>
<td>MB52</td>
<td>MRRR</td>
<td>316</td>
</tr>
<tr>
<td>MBST</td>
<td>MRR</td>
<td>285</td>
</tr>
<tr>
<td>MB80</td>
<td>MRL</td>
<td>216</td>
</tr>
<tr>
<td>MB90</td>
<td>OALC_CONFIG</td>
<td>271</td>
</tr>
<tr>
<td>MD01N</td>
<td>OBS2</td>
<td>205, 214</td>
</tr>
<tr>
<td>MDAB</td>
<td>OMCZ</td>
<td>207</td>
</tr>
<tr>
<td>MDRE</td>
<td>OMS</td>
<td>207</td>
</tr>
<tr>
<td>ME11</td>
<td>OMSF</td>
<td>224–225</td>
</tr>
<tr>
<td>ME12</td>
<td>OX0</td>
<td>225</td>
</tr>
<tr>
<td>ME13</td>
<td>OX0</td>
<td>225</td>
</tr>
<tr>
<td>ME2IN</td>
<td>OX0</td>
<td>96</td>
</tr>
<tr>
<td>ME3K</td>
<td>OX0</td>
<td>693</td>
</tr>
<tr>
<td>ME3L</td>
<td>OX0</td>
<td>357</td>
</tr>
<tr>
<td>ME3KL</td>
<td>OX0</td>
<td>387</td>
</tr>
<tr>
<td>ME3SL</td>
<td>OX0</td>
<td>387</td>
</tr>
<tr>
<td>ME3ST</td>
<td>OX0</td>
<td>388</td>
</tr>
<tr>
<td>ME3T</td>
<td>OX0</td>
<td>388</td>
</tr>
<tr>
<td>ME39</td>
<td>OX0</td>
<td>387</td>
</tr>
<tr>
<td>ME84</td>
<td>OX8</td>
<td>388</td>
</tr>
<tr>
<td>ME9L</td>
<td>OX8</td>
<td>388</td>
</tr>
<tr>
<td>MEQ6</td>
<td>OX9</td>
<td>227</td>
</tr>
</tbody>
</table>

Transaction (Cont.)

<table>
<thead>
<tr>
<th>Transaction</th>
<th>Code</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>ANZB</td>
<td>M01</td>
<td>291</td>
</tr>
<tr>
<td>BD50</td>
<td>M02</td>
<td>292</td>
</tr>
<tr>
<td>BD52</td>
<td>M04</td>
<td>292</td>
</tr>
<tr>
<td>BD61</td>
<td>M09</td>
<td>294</td>
</tr>
<tr>
<td>BMBC</td>
<td>M10</td>
<td>295</td>
</tr>
<tr>
<td>BNM_MONI</td>
<td>MII</td>
<td>295</td>
</tr>
<tr>
<td>BP</td>
<td>M12</td>
<td>297</td>
</tr>
<tr>
<td>CVI_FS_CHECK_CUST</td>
<td>M21</td>
<td>297</td>
</tr>
<tr>
<td>CVI_PRECHECK_UPGRADE</td>
<td>M22</td>
<td>304</td>
</tr>
<tr>
<td>ESH_COCKPIT</td>
<td>M31</td>
<td>298</td>
</tr>
<tr>
<td>F18</td>
<td>MB0</td>
<td>299</td>
</tr>
<tr>
<td>F27</td>
<td>MD0</td>
<td>303</td>
</tr>
<tr>
<td>F61</td>
<td>MIR</td>
<td>479</td>
</tr>
<tr>
<td>F62</td>
<td>MI0</td>
<td>468</td>
</tr>
<tr>
<td>F63</td>
<td>MI1</td>
<td>113, 116</td>
</tr>
<tr>
<td>F66</td>
<td>MI2</td>
<td>113, 116</td>
</tr>
<tr>
<td>FIHO</td>
<td>MM0</td>
<td>113, 116</td>
</tr>
<tr>
<td>FISO</td>
<td>MMB</td>
<td>314</td>
</tr>
<tr>
<td>F8BP</td>
<td>MMP</td>
<td>180</td>
</tr>
<tr>
<td>FDO1</td>
<td>MP9</td>
<td>215</td>
</tr>
<tr>
<td>FLETS</td>
<td>MRR</td>
<td>473</td>
</tr>
<tr>
<td>MASS</td>
<td>MRS</td>
<td>473</td>
</tr>
<tr>
<td>MBSI</td>
<td>MRS</td>
<td>470</td>
</tr>
<tr>
<td>MB52</td>
<td>MRRR</td>
<td>469</td>
</tr>
<tr>
<td>MBST</td>
<td>MRR</td>
<td>475</td>
</tr>
<tr>
<td>MB80</td>
<td>MRL</td>
<td>476</td>
</tr>
<tr>
<td>MB90</td>
<td>OALC_CONFIG</td>
<td>184</td>
</tr>
<tr>
<td>MD01N</td>
<td>OBS2</td>
<td>124–125</td>
</tr>
<tr>
<td>MDAB</td>
<td>OMCZ</td>
<td>123</td>
</tr>
<tr>
<td>MDRE</td>
<td>OMS</td>
<td>113</td>
</tr>
<tr>
<td>ME11</td>
<td>OMSF</td>
<td>119</td>
</tr>
<tr>
<td>ME12</td>
<td>OX0</td>
<td>107</td>
</tr>
<tr>
<td>ME13</td>
<td>OX0</td>
<td>107</td>
</tr>
<tr>
<td>ME2IN</td>
<td>OX0</td>
<td>96</td>
</tr>
<tr>
<td>ME3K</td>
<td>OX0</td>
<td>107</td>
</tr>
<tr>
<td>ME3L</td>
<td>OX0</td>
<td>102</td>
</tr>
<tr>
<td>ME3KL</td>
<td>OX0</td>
<td>99</td>
</tr>
<tr>
<td>ME3SL</td>
<td>OX0</td>
<td>96</td>
</tr>
<tr>
<td>ME3ST</td>
<td>OX0</td>
<td>107</td>
</tr>
<tr>
<td>ME3T</td>
<td>OX0</td>
<td>100</td>
</tr>
<tr>
<td>ME39</td>
<td>OX0</td>
<td>171</td>
</tr>
<tr>
<td>ME84</td>
<td>OX8</td>
<td>171</td>
</tr>
<tr>
<td>ME9L</td>
<td>OX8</td>
<td>585, 594</td>
</tr>
</tbody>
</table>
Justin Ashlock has spent over half of his 20-year-plus career in technology at SAP America, serving as the lead consultant for hundreds of global SAP customer projects and engagements supporting over $100 billion in procurement and logistics activities worldwide. Justin is a vice president of procurement services delivery within SAP’s CX success and services organization. In this role, he provides general management for the North American procurement services practice, while also providing global delivery strategy and consistency to MEE and CIS regions. Justin holds a bachelor's degree from the University of California, Berkeley, and a master's degree in business administration from the University of Notre Dame.