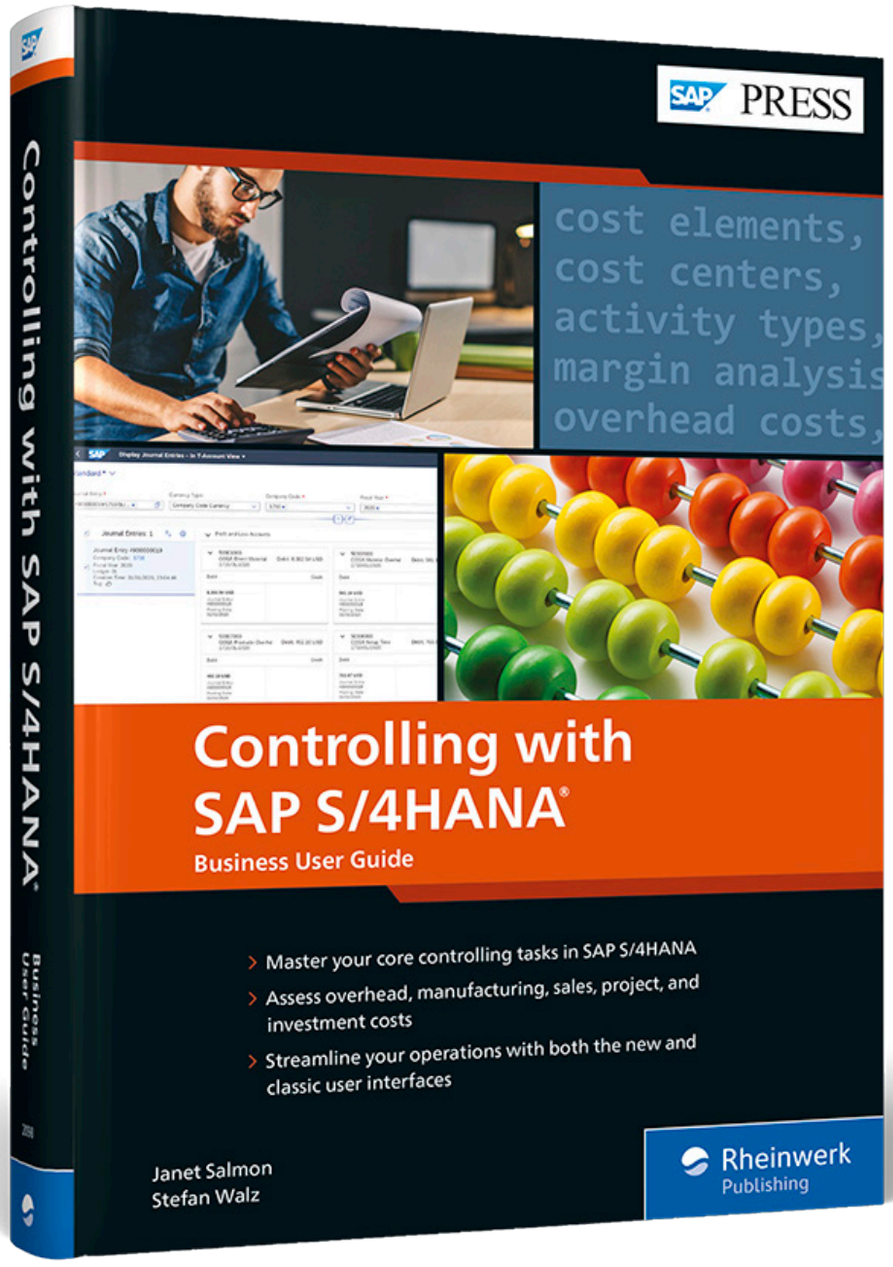

Browse the Book

In this chapter, you'll learn how to complete tasks related to overhead cost controlling. You'll see how planning works with SAP S/4HANA and SAP Analytics Cloud and then walk through your main business transactions, including cost assignment, universal allocation, settlement, and more.

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Chapter 5
Overhead Controlling

In the previous chapter, we discussed the master data used in controlling. We'll now explain the general tasks associated with overhead cost controlling and look at how the role of overhead controlling is evolving in terms of how controllers collaborate with other stakeholders and as a result of changes in SAP S/4HANA. We'll explain the business transactions that make up the daily work of the overhead controller.

Overhead controlling applies to all industries as all organizations need to monitor and control their *operational expenses* and assign costs to the products and services with which they earn their revenue, irrespective of whether these are physical or financial products and irrespective of the nature of the service provided. We introduced the master data used for overhead controlling and explained the role of the cost centers and how to use statistical key figures and activity types to allocate costs from the cost centers to products, services, and ultimately to margin analysis in the previous chapter. In this chapter, we'll focus on how the primary costs are captured and then on the business transactions used to allocate them, explaining the prerequisites for the various types of allocation and settlement.

The idea behind overhead controlling is the need to explain *why* certain costs were incurred. As we discussed in the previous chapter, travel expenses are only part of the story. It's important to understand *why* employees are traveling. The account alone will only tell you the *type* of costs (wages, salaries, operating supplies, etc.), but not why they were necessary. Taking wages and salaries as an example, the workers assigned to a manufacturing cost center are paid in exchange for performing work on the production line to manufacture certain goods, the technicians assigned to a service cost center are paid in exchange for performing maintenance work, and consultants are paid for performing work that will be billed to the customer. We are thus not looking at payroll costs in isolation but in the context of the work performed by these employees. Their activities also necessitate the use of fixed assets, whether in the form of laptops and phones or complete production lines with the associated operating supplies, as we discussed when we looked at the link between the cost center and asset in the previous chapter. Overhead costs thus cover not just payroll costs, but also the costs of the assets employed on the production line, the tools used by the maintenance technicians, and the laptops and phone used by the consultants in their daily work as all these costs impact the cost of delivering a product or providing a service. If you work with SAP Best

Practices, the settings for this approach are delivered with scope item J54 (Overhead Cost Accounting).

In this chapter, we'll focus on the idea of *responsibility accounting* and on the dialogue between the controller and the cost center manager responsible for the costs incurred for his or her cost center or the project manager responsible for the costs associated with his or her project. For small projects, you may not even need a project in SAP S/4HANA but may find that you can manage with an internal order instead. You'll sometimes find this idea referred to as *cost stewardship*, but the idea is the same: somebody must ensure that all these costs are in line with the goals of the organization. This responsibility goes beyond simply authorizing costs and covers the proper utilization of these resources to deliver the relevant activities. Thus, the manager of a consulting cost center is responsible not just for the costs associated with the employees assigned to the cost center but also for their delivery of consulting services.

We talked about primary and secondary cost elements in Chapter 4, and here we'll look at how the postings in cost accounting differ from those in financial accounting. We are not simply capturing costs and revenues, but rather making business decisions about how costs should be allocated and what represents fair usage of shared service costs. While all this might be familiar to anyone working in the controlling space, SAP S/4HANA sees the introduction of the Universal Journal, which also has an impact on how costs are recorded, in the sense that a shift from sender to receiver also potentially triggers a shift in profit centers, functional areas, and even trading partners.

We introduced the idea of planning in Chapter 2, but we'll now explain how it relates to overhead controlling and cost management. The simplest way to make a manager take responsibility for spending on a cost center or project is to give them a *budget* as a ceiling for that spending. That budget should not be an arbitrary number but rather one derived from a robust planning process in which all stakeholders agree to common goals.

We'll then walk through the various business transactions used in overhead controlling and finally look at the reports available to ensure that these tasks have been performed correctly.

5.1 Cost Stewardship and the Role of the Cost Center/Project Manager

In Chapter 2, we discussed the relationship between (a) the financial statements and the need to satisfy external stakeholders and (b) management accounting and the need to understand how revenues and costs are impacted in order to steer the business. The word *accounting* is related to *accountability*, and it's the job of the controller to put a system in place that ensures the accountability of the various managers. It's rare for organizations to have managers for specific general ledger accounts, but almost all organizations have cost center and project managers who are responsible for

monitoring all transactions that will have a cost impact; authorizing travel requests, external purchases, and so on; and ensuring that resources are used appropriately.

We can extend the idea behind the simple expense posting described in Chapter 2, Section 2.1.1, where a cost center manager authorizes the purchase of office supplies, to the idea of overhead controlling in general and specifically to the cost stewardship performed by the cost center manager. In Chapter 4, we introduced the master data for the cost centers, orders, and projects. If the cost center structure of an organization is set up properly, then all expense postings should be assigned to a cost center, order, or project, and there should be no expense postings that are not authorized by a responsible manager. One of the guiding principles of good cost center design is that a single cost center should be the responsibility of one manager. If the number of cost centers starts to approach the number of employees in the organization, the question of who "owns" each cost center can be a good way of pruning the list of potential cost centers and ensuring that each cost center has an owner.

There was a time when managers would receive briefing books showing their spending at period close, but there is now a move toward the use of self-services in this domain. One way to provide cost center managers with an easy-to-use view of their spending is to implement the My Spend app (SAP Fiori ID F0366) along with the My Unusual Items app (SAP Fiori ID F0368) (see Figure 5.1) to identify unusual items for those cost centers based on various rules. The My Spend app also allows the cost center manager to start a dialog with his or her controller if there are costs that need further explanation.

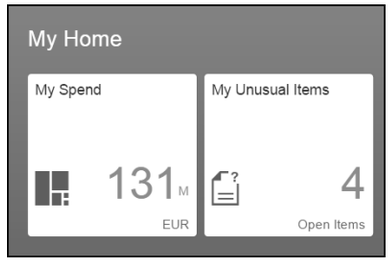

Figure 5.1 SAP Fiori Apps for Managers: My Spend and My Unusual Items

Figure 5.2 shows the spending by department. In this example, the manager is responsible for three cost center groups: **Eastern Sales**, **Western Development**, and **Repairs Department**. These in turn comprise various cost centers. The relative size of the boxes is determined either by the budget or the spending by cost center. You can toggle between the two by using the dropdown to switch from **Budget** to **Spend**. The relative size makes it easy to see where potential problems lie. A similar view is available to explain spending assigned to internal orders.

By clicking on one of the boxes, the manager can access details of the spending, as shown in Figure 5.3, along with a visualization of where he or she is already over budget and where he or she is nearing this threshold.

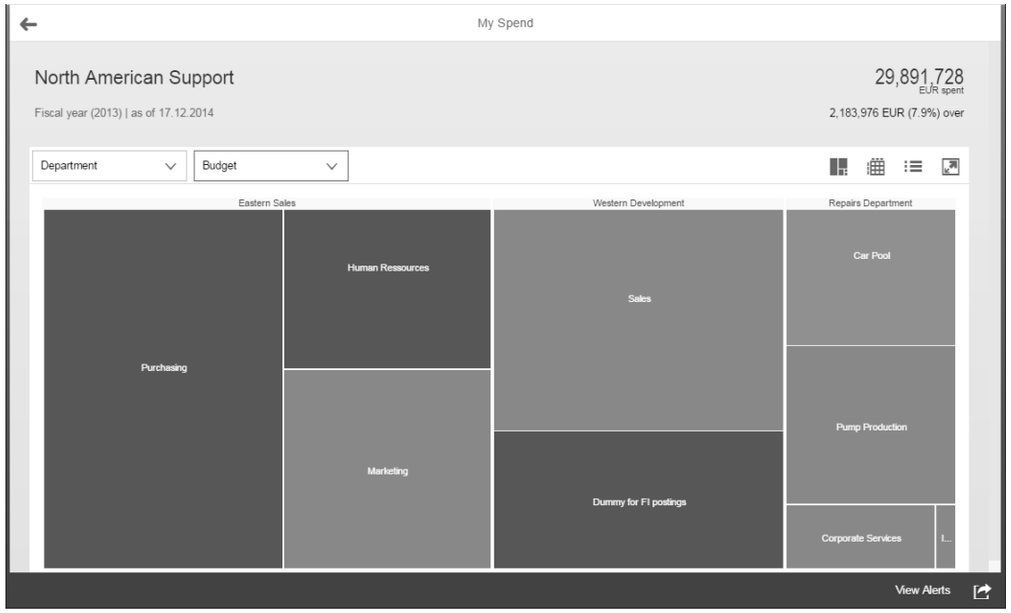

Figure 5.2 My Spend App, Showing Spend by Department and Cost Centers That Have Exceeded Their Budgets

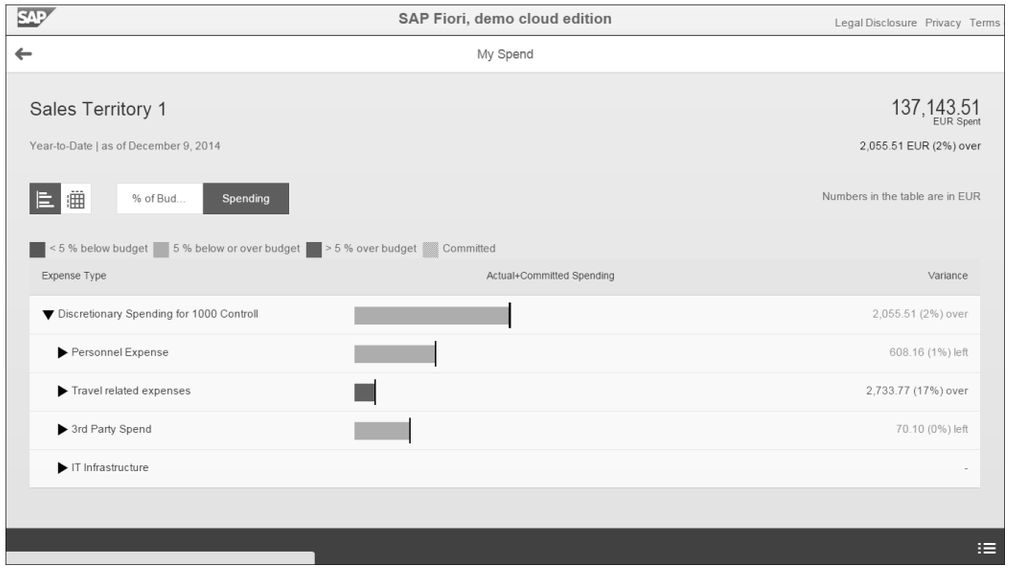

Figure 5.3 My Spend App, Showing Spend per Account Group

Of course, the My Spend app isn't the only way to monitor the costs on a cost center or order. We'll look at some of the other options in Section 5.5, but first we'll look at how the costs we saw in My Spend are captured.

Planned Data in My Spend

The My Spend app predates SAP S/4HANA and therefore accesses plan data from the legacy tables COSP and COSS, rather than the newer table ACDOCP. SAP S/4HANA 2020 includes a copy function to transfer planned costs between tables ACDOCP and COSP/COSS. It also accesses commitment information from the legacy table COOI rather than from an extension ledger in table ACDOCA.

5.2 Postings for Cost Accounting in the Universal Journal

In Chapter 2, we explained how the Universal Journal captures both primary costs, those costs that originate outside of controlling, and secondary costs, those costs that move as a result of business transactions within controlling. In Chapter 4, we looked at the master data for the general ledger account and explained the difference between primary and secondary cost elements and the impact of various settings within the accounts. We'll now focus on the differences in the two types of posting, particularly with regard to operating expenses.

5.2.1 Primary Cost Postings

It's not generally the job of the controller to post primary costs as these costs are incurred as a result of material movements, invoices, and the like resulting from the integrated nature of SAP S/4HANA. Occasionally a correction will be needed to move costs between account assignments, such as wrongly assigned travel costs from one account assignment to another; we'll explain how to do this in Section 5.4.

As we explained in Chapter 4, Section 4.1.2, all primary costs will include an assignment to a profit and loss (P&L) account and to an account assignment, but it's also possible for primary costs to carry more information. You can always identify the type of account assignment from the object type in the Universal Journal: **KS** for cost center, **OR** for order, **PR** for project, **BP** for business process, **EO** for the market segment, and so on. You can use this type to filter in reports such as the Trial Balance app. In the case of the office supplies purchased in Chapter 2, you can display the material numbers of the goods purchased alongside the cost center responsible for the purchase. It's important to understand that the general ledger account, the account assignment, and the material are all stored in the same posting line of the Universal Journal. In SAP ERP, it was common to *summarize* the postings in financial accounting to remove the material numbers from an invoice but to keep this information in management accounting. In SAP S/4HANA, there is one posting line containing all the relevant information, which simplifies the task of reporting on these transactions because all the reporting dimensions are in the same posting line.

You can see the same situation if you purchase assets that are assigned to a cost center and a general ledger account, with all the relevant information in the same posting line. The same happens when the cost of this initial purchase is *depreciated* over several accounting periods as a result of the depreciation posting run. Figure 5.4 shows the Trial Balance app with the combination of the **Fixed Asset** (the assets whose acquisition cost is being depreciated), the **G/L Account** for the depreciation, and the **Cost Center** to which the asset belongs. For reasons of space, we can't show the whole story here, but the cost center is also used to derive the functional area and the profit center as additional reporting dimensions, as we discussed in Chapter 3.

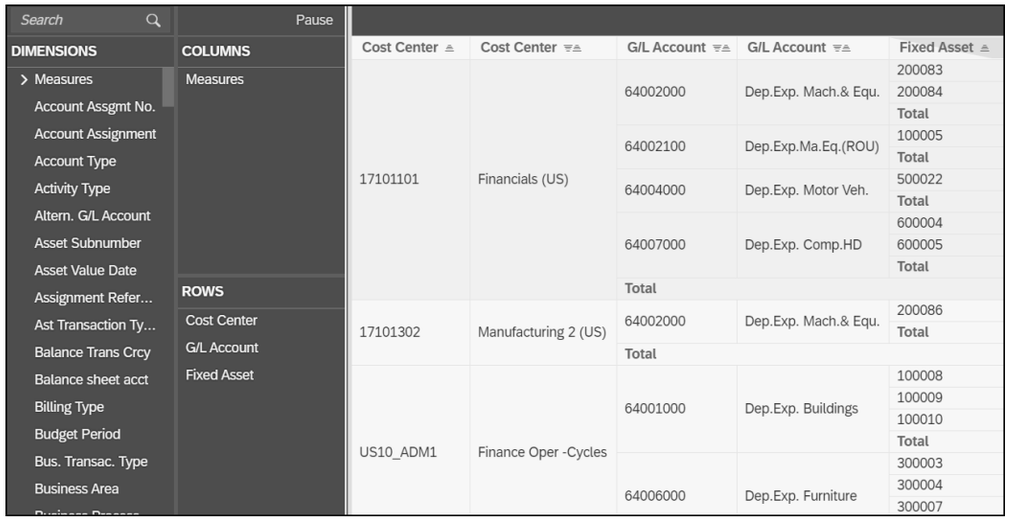

Figure 5.4 Trial Balance App Showing Cost Centers, General Ledger Accounts, and Fixed Assets

If you don't work with the SAP Fiori applications, then you'll see the same data broken down according to the SAP ERP components—so you'll see the costs grouped by general ledger account and company code in Transaction S_ALR_87012284 (Balance Sheet/P&L), by asset and cost center in Transaction S_ALR_87011966 (Asset Balances by Cost Center), and by cost center and cost element in Transaction S_ALR_87013611 (Cost Center Plan/Actual Report).

To give a sense of what's changed, Figure 5.5 shows a sample document created as a result of a depreciation run with posting lines for each asset together with the associated general ledger accounts. For each P&L line, you see the associated cost centers (**Cost Ctr** column). The functional areas (**Func. Area** column; see Chapter 3, Section 3.1.6) have been derived based on the link defined in Chapter 4, Section 4.2. You also see that the cost center assignment has been used to derive the profit center (**Profit Ctr** column; see Chapter 3, Section 3.1.5) and that this link has been used to derive the **Segment** for both the balance sheet and the P&L lines, again, using the link defined in Chapter 4, Section 4.2. What you're seeing is the combination of the information from the former

subledgers (asset accounting, in this example) with the assignment to a general ledger account in the general ledger and the extension of this information to provide the basis for cost of goods sold accounting and profit center accounting in a single posting line, rather than spread across several ledgers as was often the case in SAP ERP.

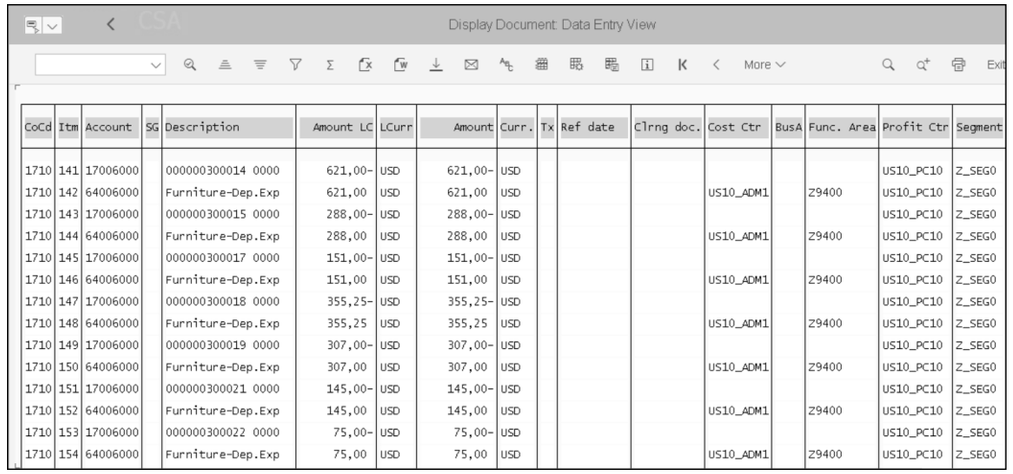

Figure 5.5 Document Showing Depreciation Posting

Where primary cost postings are derived from an integrated business process, it's important to know that you can see them in context for controlling purposes as the journal entry simply documents that there has been a business transaction, not why it occurred. Figure 5.6 shows the Manage Journal Entries app (SAP Fiori ID F0707) for a simple asset acquisition with two posting lines, but to understand more about the acquisition of the assets, you can access six further documents by choosing the **Related Documents** tab.

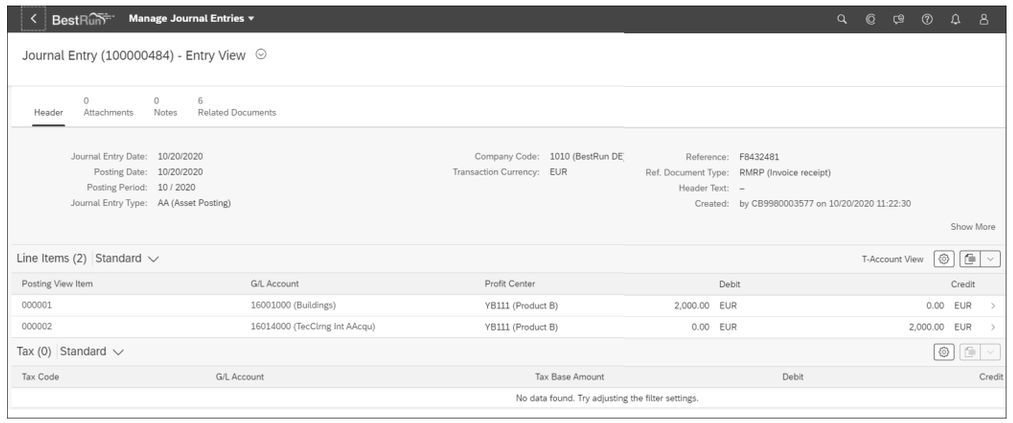

Figure 5.6 Manage Journal Entries App, Showing Asset Acquisition

Figure 5.7 shows the documents relating to the asset acquisition in Figure 5.6. Here you can see that the process began with a purchase order to acquire the asset and that this triggered two accounting documents for the asset receipt (**Asset Transaction**) and the invoice receipt (**Incoming Invoice**). To analyze this chain of documents further, choose the **Display Document Flow** button.

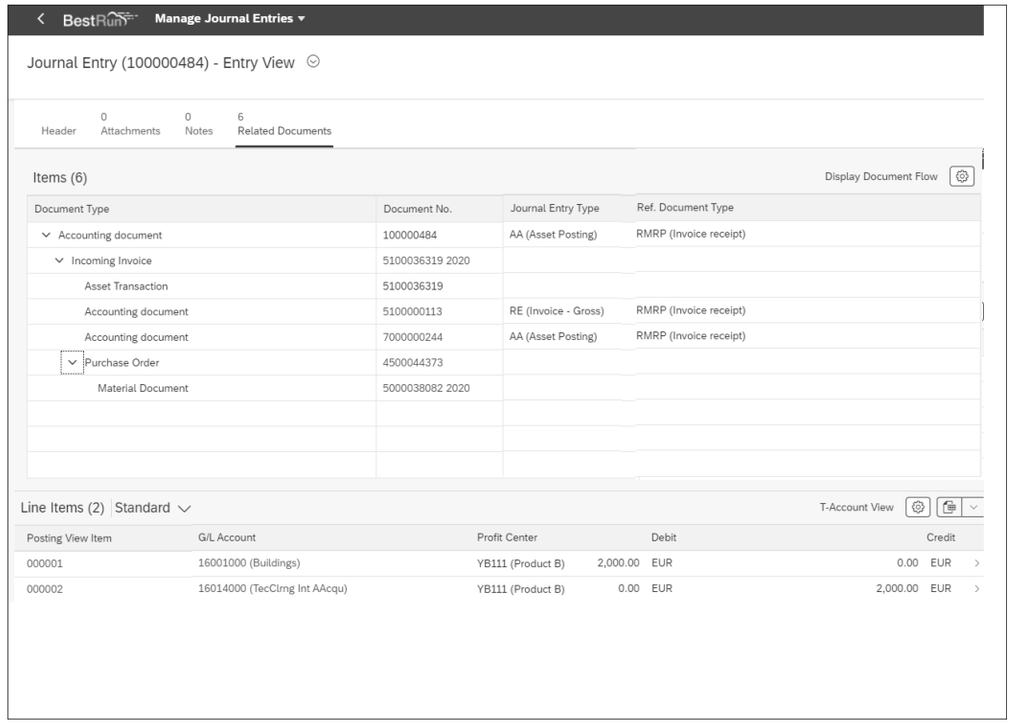

Figure 5.7 Manage Journal Entries App, Showing Related Documents

Figure 5.8 shows the document flow for the asset acquisition, with the **Operational Document Flow** comprising the purchase order, the goods receipt, and the invoice receipt and the **G/L Document Flow** showing the associated journal entries. You can see how easy it is for the controller to explore the source of the costs and understand why they were incurred.

Primary costs don't have to be captured as part of an integrated business process. It's also possible to create a manual journal entry that assigns costs to a cost center, project, or order using either the Manage Journal Entries app or Transaction FB50. If you need to upload manual journal entries from a spreadsheet, there is also an Upload General Journal Entries app (SAP Fiori ID F2548). Figure 5.9 again shows the Manage Journal Entries app, with the balance sheet line for the payables and the P&L line for the travel expenses, but notice that this time there is only the journal entry itself without related documents.

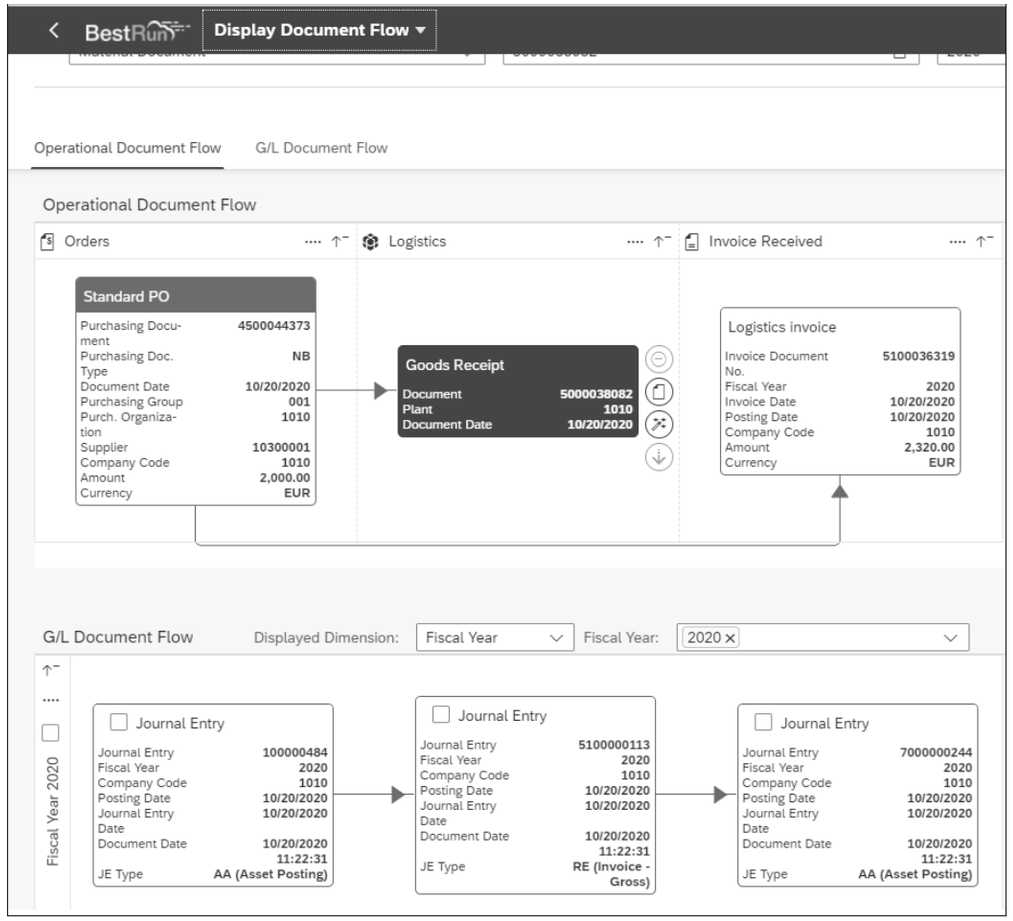

Figure 5.8 Manage Journal Entries App, Showing Document Flow

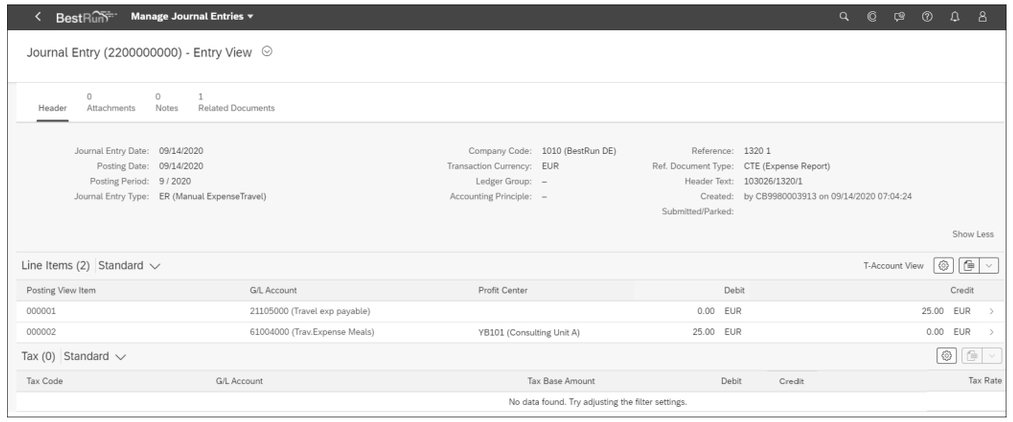

Figure 5.9 Manage Journal Entries App, Showing Travel Expenses

Normally there's a one-to-one relationship between the P&L account and the associated costs, but *accrual costs* are an exception and use a different cost element category so that they can easily be identified, as we discussed in Chapter 4. Accrual costs are used to record costs in controlling at a different time from financial accounting. This can be the case when employees receive an annual bonus paid out at year end, but the organization chooses to spread these costs across the whole year to avoid extreme fluctuations in the monthly costs. The rules for this spread can be established by setting up an *overhead structure*. Figure 5.10 shows the accrual conditions for the allocation of yearly bonuses on the basis of the combined wage and salary costs on the cost centers. You can access the overhead structures by choosing **Controlling • Cost Element Accounting • Accrual Calculation • Percentage Method • Maintain OH Structure**.

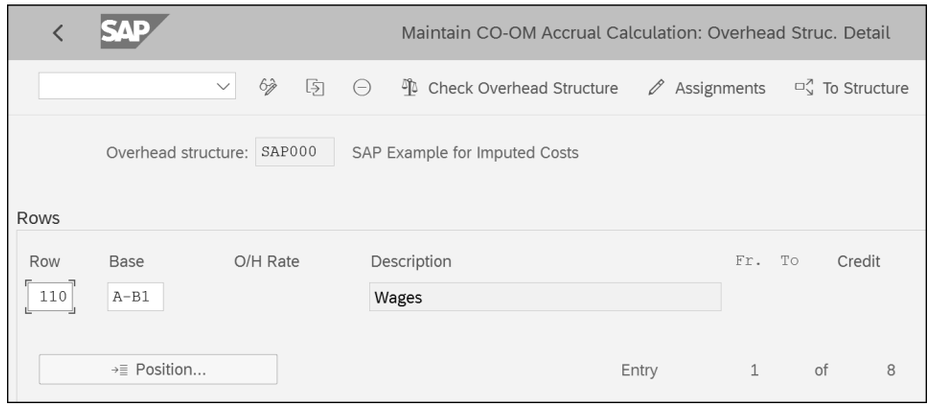

Figure 5.10 Overhead Structure for Accrual Calculation

5.2.2 Secondary Cost Postings

If the focus of primary cost postings is on capturing the journal entries relating to single business transactions (the purchase of an asset, the fulfilment of an order, etc.), the focus of secondary cost postings is on the *flow* of costs through the organization. In contrast with the primary cost postings that generally arise outside of controlling, creating secondary cost postings is very much the job of the controller. It's also his or her job to trigger the various cost flows that take place at period close. We'll walk through the many business transactions that result in secondary costs in Section 5.4.

It's often thought that secondary cost postings have no impact on the financial accounts; as we discussed in Chapter 2, these postings result in journal entries that net to zero. However, a secondary cost posting will often result in switches to profit centers, functional areas, and so on, and in the case of an intercompany allocation, they can also result in journal entries on intercompany clearing accounts, as we'll show in Chapter 9.

The easiest way to think of secondary cost postings is as a set of *sender-receiver relationships*. There are many examples of such relationships in management accounting:

- Support cost centers (the sender) that provide utilities to a production cost center (the receiver)
- Sales and marketing cost centers (the sender) that provide support to a product line (the receiver)
- Research projects (the sender) that provide activity to a product line (the receiver)
- Production cost centers (the sender) that provide machine hours to a production order (the receiver)
- Consulting cost centers (the sender) that provide consulting hours to a project (the receiver)
- Technical cost centers (the sender) that provide labor hours to a project (the receiver)
- Design projects (the sender) that provide activity to a product line (the receiver)

Secondary cost postings serve to move costs within the P&L statement, but in some cases, there will be a *value added* in the sense that the costs can be capitalized within the balance sheet. We'll explore these scenarios when we look at manufacturing organizations in Chapter 6, service organizations in Chapter 7, and investment controlling in Chapter 8, but we'll first look at what these secondary cost postings have in common.

Our list of sender-receiver relationships can be considered as a list of *partners*. Every posting line for a secondary cost posting will include the object type and the key of the *sender* object (cost center, order, project, etc.), the partner object type and key of the *receiver* object (cost center, order, project, market segment, etc.) for the credit posting, and the mirror image of this sender-receiver relationship for the debit posting. This relationship can be visualized using the Allocation Flow app shown in Figure 5.11, in which we have selected cost center **10101101** and can see the flow of costs to and from this cost center as a result of allocation cycles (see Section 5.4.2) and direct activity allocations (see Section 5.4.3). The flows illustrated might be a simple flow from a production cost center to an order (one sender and one receiver) or from multiple senders to multiple receivers. The posting lines for secondary cost postings contain either the sender and its partner receiver or the receiver and its partner sender.

We showed previously in Figure 5.4 that the asset depreciation expenses were assigned not just to a cost center but also to a functional area, a profit center, and a segment. The allocation of these costs from the sender account assignment to the receiver account assignment can also result in a shift in functional areas, profit center, and segment, and reports such as the Trial Balance app shown in Figure 5.12 offer a drilldown to these partner objects. If you're working in the public sector, you might also find a shift between funds or grants as a result of an allocation.

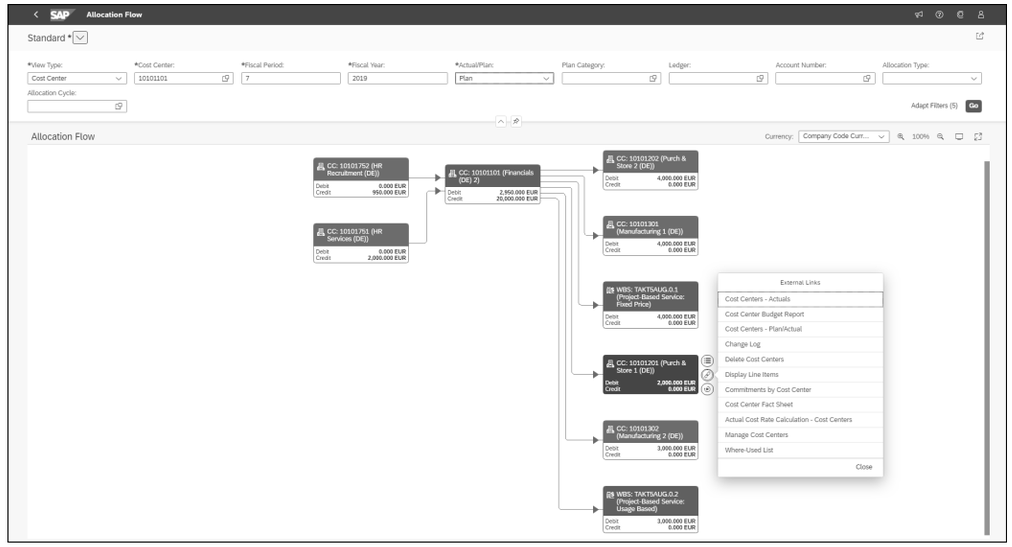

Figure 5.11 Allocation Flow

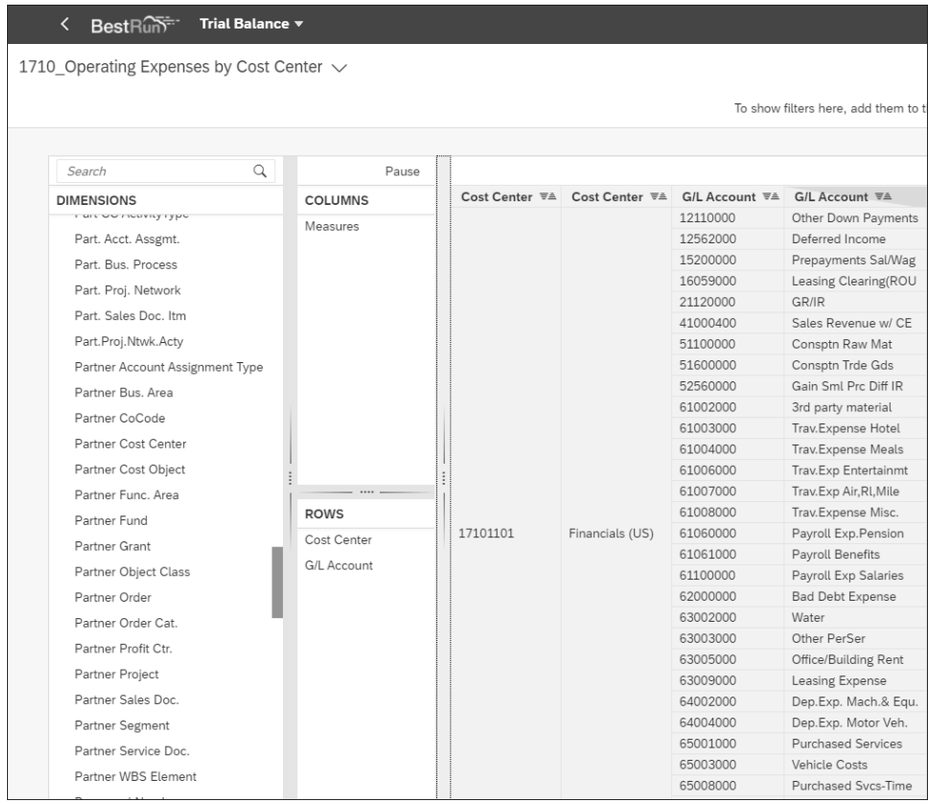

Figure 5.12 Trial Balance Showing Partner Objects (Under Dimensions)

In SAP S/4HANA, the default document type for secondary cost postings is CO, but you can change the configuration to create separate document types for each type of posting to give you more transparency. To define new document types, choose the following path in the IMG: **Financial Accounting • Financial Accounting Global Settings • Document • Document Types • Define Document Types**.

Of course, the partner information isn't just available in the Trial Balance app. You can see the same information in the Display Line Items—Cost Accounting app (SAP Fiori ID F4023) and the Display Line Items—Margin Analysis app (SAP Fiori ID F4818), and in the legacy line item reports, such as Transaction KSB1 for the cost center line items, Transaction KOB1 for order line items, Transaction CJI3 for project line items, and Transaction KE24 for the line items in margin analysis. If you use the newer versions of the line item reports that were optimized for SAP HANA, such as Transaction KSB1N for cost center line items, Transaction KOB1N for order line items, and so on, then you can select either the object or the partner object in order to identify the senders and receivers of an allocation.

SAP ERP versus SAP S/4HANA

There are several key differences between allocations in SAP ERP and in SAP S/4HANA:

- In SAP ERP, allocations and settlements were posted under the secondary cost element in Controlling (CO) and under a reconciliation account in Financial Accounting (FI). It was also possible to activate a substitution to switch the account selection when the FI document was created as a result of an allocation. In SAP S/4HANA, there is no longer a switch from a cost element to a general ledger account. In the examples that follow, you'll see that the secondary cost element is visible as a general ledger account in all journal entries.
- In SAP ERP, one of the concerns was that only two currencies were available in CO, meaning that where the result of allocation or settlement had an impact on the financial accounts, values in the third currency were converted on the fly using the results of the allocation rather than allocated properly in that currency. With SAP S/4HANA, three currencies are available in controlling for most business transactions from release 2020. You can follow details of the progress of this functionality in SAP Note 2894297.
- In SAP ERP, all allocations took place within the leading ledger. With the next SAP S/4HANA release 2021, the plan is to offer ledger-specific allocations and settlements.

We'll explore the various business transactions used to make corrections and perform allocations in Section 5.4.

5.3 Planning in SAP S/4HANA

We introduced the topic of financial planning in Chapter 2, and we'll now focus on overhead controlling, where planning is used in the following contexts:

- **Budget setting**
  When you think about cost stewardship (see Section 5.1), the planned costs by cost center or project are also the *ceiling* for spending on that cost center or project. Planning is used to establish a framework within which spending is allowed and to block spending that exceeds that threshold. We'll explore this aspect of planning in Section 5.3.1.
- **Target setting**
  When you consider the goal of optimizing resource usage and of the sender-receiver relationships in Section 5.2.2, you're also setting goals for the level of activity to be provided for production, consulting, and so on. You're setting cost targets within the framework of the activity to be provided by that cost center and will later adjust the plan to reflect the actual activity delivered in that period. If the operating rate of the cost center increases, then so too do the variable costs that it can incur. This in turn will be reflected in the cost rate for the relevant activity, which can distinguish between the fixed costs for rent, insurance, and so on and the variable costs for energy, operating supplies, and so on, as we discussed in Chapter 4.
- **Determining cost rates**
  As we discussed when we looked at activity types in Chapter 4, before you can provide production hours or consulting services, you must calculate a cost rate for the provision of this service. We'll explore this aspect of planning in Section 5.3.2.
- **Providing a basis for revenue recognition**
  If you want to recognize revenue in proportion to progress (percentage of completion [PoC]), then you must use the planned costs and revenue to determine what constitutes completion and then calculate how much you've spent in comparison with the planned costs. We'll explore this aspect of planning in Section 5.3.3.

5.3.1 Planning, Budgeting, and Commitment Handling

We'll begin by looking at planning in the context of setting budgets and managing commitments. If you look at the reports for cost stewardship in Section 5.1, managers are being provided with information not just on the amounts that they have spent, but also on how this relates to what they planned to spend (the budget). Figure 5.3 showed the spend represented not just in terms of costs that have already been paid out but also in terms of committed spend, where there is a contractual obligation to cover the costs of a purchase order: a *commitment*. The idea behind a commitment is that from a budget point of view, these costs should already be considered to have used budget and thus prevent the manager from accidentally overspending.

> **Note**
>
> In Chapter 2, we showed how to plan the costs by cost center as a story in SAP Analytics Cloud for planning and then transfer the data to SAP S/4HANA. It's also possible to perform a Microsoft Excel upload or use an application programming interface (API) to fill the plan data table.

We distinguish between the various types of plans using a *plan category*, as shown in Figure 5.13. The various categories represent the different planning assumptions, but you can flag some categories as being relevant for budgeting purposes. You can check the plan categories by following **Controlling • General Controlling • Planning • Maintain Category for Planning** in the IMG. The budget-relevant categories are identified by the **Category Usage**. This setting determines that plan data in this category will be used as part of the budget check for the cost centers, for the work breakdown structure (WBS) elements or the public sector. Checks made against this plan will result in warnings and even error messages if the budget is exceeded, whereas entries for the other categories simply represent different planning assumptions and have no impact on the budgeting process.

Maintenance View for Category

Plan Category	Medium description	Application Type	Category Usage
ACT01	Actual	Periodic Planning and Consolidation	No specific usage
ACT_CONST	Actual at constant rate	Periodic Planning and Consolidation	No specific usage
BASE	Base Plan	Periodic Planning and Consolidation	No specific usage
BUDGET01	Cost Center Budget	Periodic Planning and Consolidation	Cost Center Budget
CPP1	Cash Pool Planning	Periodic Planning and Consolidation	No specific usage
FINAL	Final Consolidation	Periodic Planning and Consolidation	No specific usage
FORE01	Forecast 01	Periodic Planning and Consolidation	No specific usage
FORE02	Forecast 02	Periodic Planning and Consolidation	No specific usage
FORE03	Forecast 03	Periodic Planning and Consolidation	No specific usage
FORE04	Forecast 04	Periodic Planning and Consolidation	No specific usage
FORE05	Forecast 05	Periodic Planning and Consolidation	No specific usage
FORE06	Forecast 06	Periodic Planning and Consolidation	No specific usage

Figure 5.13 Sample Plan Categories

We'll look first at how to activate budget control for the cost centers. To do this, you'll need to navigate to the Manage Cost Centers app (SAP Fiori ID F1443A) and select a cost center, as shown in Figure 5.14. In this example, the budget for cost center **17101201** is carried by this cost center. But you can also enter a higher-level cost center in the **Budget-Carrying Cost Center** field to avoid having lots of small budgets on many different cost centers, which can become cumbersome if you keep having to move budget between cost centers whenever you need to authorize spending. You must then enter a **Budget Availability Control Profile** (we've entered "ZCCB01") and choose **Budget Availability Control Is Active**. These settings are only available in the Manage Cost Centers app, not in Transactions KSO1–KSO3 (Create/Change/Display Cost Center).

SAP ERP versus SAP S/4HANA

This approach is new with SAP S/4HANA. In SAP ERP, there was no budget availability check for cost centers.

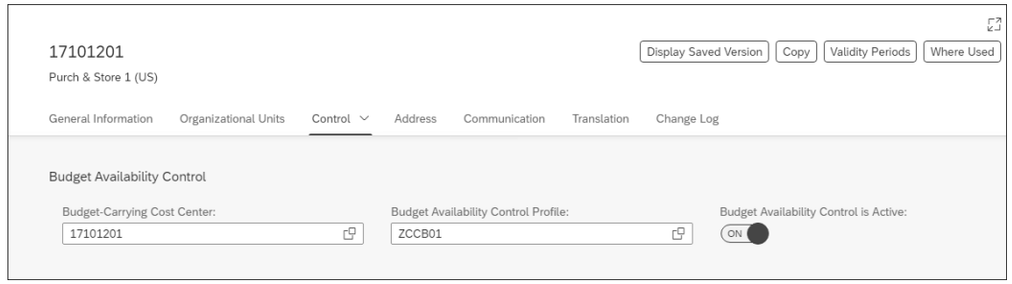

Figure 5.14 Manage Cost Centers App, Showing Settings for Budget Availability Control

The budget availability control profile shown in Figure 5.15 determines which activities will be checked and which tolerances will be used to issue warnings and errors. To define the thresholds for budget availability control in SAP S/4HANA, choose **Controlling • Cost Center Accounting • Budget Management • Maintain Budget Availability Control for Cost Centers** in the IMG, create a budget availability control profile, assign a group of general ledger accounts, and then define the thresholds to be used to check the budget on the cost center. Notice that we're using a node of the general ledger account hierarchy (see Chapter 4) to set the rules, so you might set different rules for travel expenses and external purchases. Within the rules for that account group, you can determine when a warning is issued and when an error is issued to block the posting completely.

Note

In SAP S/4HANA Cloud, the settings are part of scope item J54 (Overhead Cost Accounting—Actual).

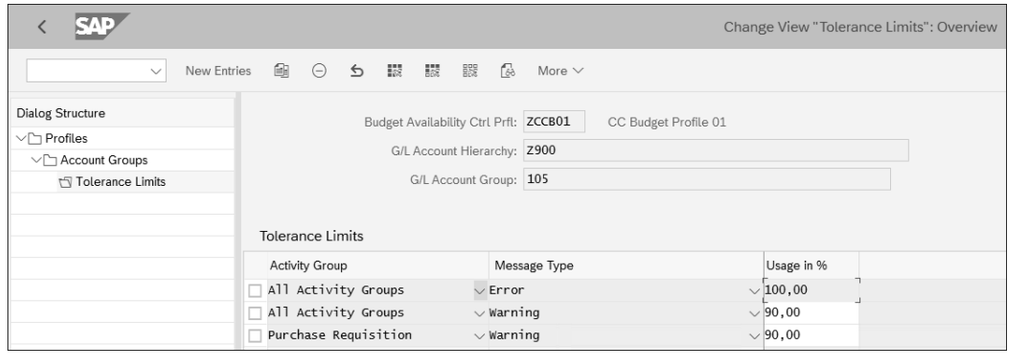

Figure 5.15 Budget Availability Control Profile

As a result of the rules shown, whenever a user creates a purchase requisition or a purchase order with reference to a cost center, the system checks whether more than 90% of the budget has been used and, if so, issues a message that the budget tolerance limit for the cost center has been exceeded, as shown in Figure 5.16. In this example, it's only a warning, but you can see that when 100% of the budget has been used, an error is issued and the purchase blocked. We'll explain how to create a purchase order when we look at how to purchase raw materials in Chapter 6.

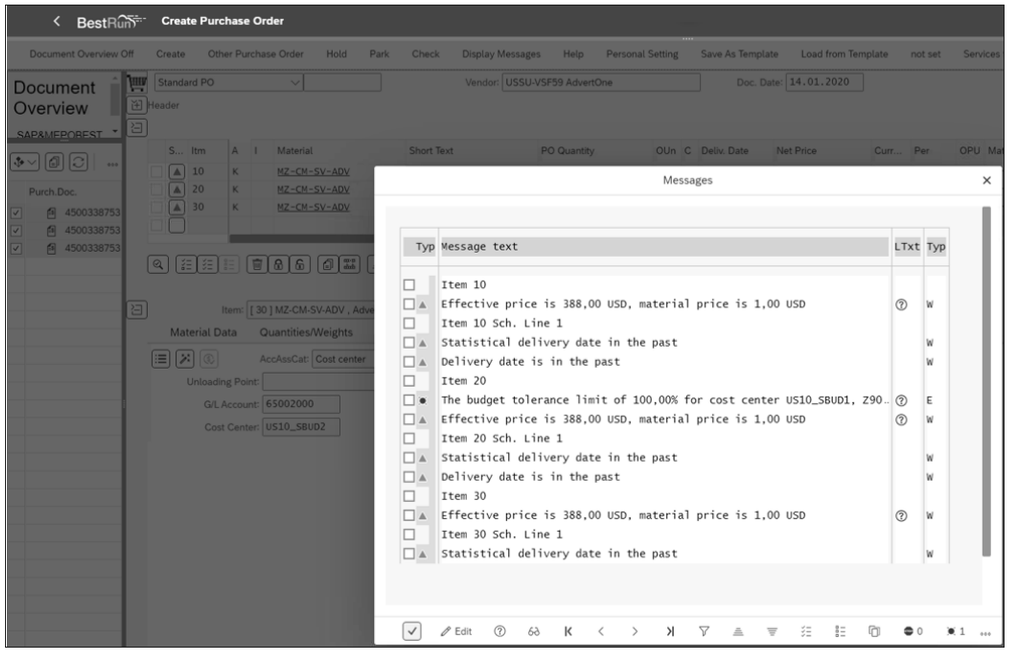

Figure 5.16 Budget Availability Check for Cost Center

You can activate an equivalent check for WBS elements in SAP S/4HANA Cloud by using scope item 1NT (Project Financial Control). Again, you'll need to enter the budget availability control in the WBS element master data and define the relevant tolerances. The same mechanisms are available in SAP S/4HANA, but you should only use the budget availability check if you have WBS elements without assigned orders or networks as the check reads the WBS, but not the assigned orders. This gap is documented in SAP Note 2778793. We'll explain how to work with budget availability control in projects using the legacy transactions in Chapter 8.

In Chapter 2, we discussed the use of *commitment management* to track the costs of purchase orders that have been submitted but not yet delivered. The idea is that these costs reduce the available budget from the moment that the purchase order is placed, rather than when the costs are incurred. You can activate commitment management using scope item 2I3 in SAP S/4HANA Cloud and by setting up the appropriate extension

ledger in SAP S/4HANA. This will ensure that the system creates a commitment for the value of the purchase order or travel request and then cancels it as the goods are received or the travel expenses posted. When the budget check is performed, the system checks against the *assigned value*, which is the sum of the actual costs and the commitments for the cost center in question.

Budget Checks and Commitments in SAP S/4HANA

The new budget check for cost centers uses commitments created as predictive accounting documents in the Universal Journal and is activated by assigning the budget availability control profile, as was shown in Figure 5.14.

You can also create commitments for a cost center that updates the legacy commitment table, table COOI. This is controlled by setting the **Commitment update** flag in the cost center master data (see Chapter 4, Section 4.2.2). There is no budget check for such cost centers. If you want to perform a budget check using the legacy commitment table, then you should create a statistical order that mirrors this cost center and make the budget check against the order.

5.3.2 Integrated Financial Planning with SAP Analytics Cloud

As you saw in Chapter 2, the process of calculating planned costs can take place in SAP Analytics Cloud for planning. Opinions on planning and analysis differ: some organizations prefer to plan in an analytical tool and access the journal entries from their operational system to check that they are on track in comparison with the plan, whereas others move the agreed plan into their operational system in order to perform active budget checks against that plan. With this in mind, SAP offers two styles of business content for financial planning (see *https://www.sapanalytics.cloud/learning/business-content/*):

1. **Financial planning and analysis**
   This business content includes planning applications and dashboards for analysis that access the actual data in the Universal Journal using core data services (CDS) views.
2. **Integrated financial planning**
   This business content includes the planning applications that we looked at in Chapter 2 and is designed with a view to moving the results of planning into SAP S/4HANA for operational use.

We already showed how to assign planned costs to a cost center using the **SAP_FI_BPL_IM_COSTCENTER_EXPENSES** planning story and to a WBS element using the **SAP _FI_BPL_IM_PROJECT_PLANNING_AND_BUDGETING** planning story in Chapter 2. You can do the same for an internal order using the **SAP_FI_BPL_IM_INTERNAL_ORDER_PLANNING** planning story. Here you're capturing the various primary costs (payroll and benefits, office expenses, travel expenses, etc.) that you expect for the different account assignments, with a view to activate a budget check for each of these items or simply

monitor that the costs incurred are within the expected framework. The next step is to perform allocations to transfer costs between cost centers and to plan activity costs and cost rates. These cost rates are a prerequisite for activity allocation, as we'll discuss in Section 5.4.3, and as before you can charge machine time to a production order or consulting hours to a project you need to establish what an hour of activity will cost. This information isn't stored as a planning line item, but rather in table COST in SAP S/4HANA and table ACCOSTRATE in SAP S/4HANA Cloud, and it's accessed whenever you perform an order confirmation or time recording. At period close, you can calculate a new activity rate that reflects the actual costs for the period.

These cost rates are important in the sense that they determine the value of a machine hour or a consulting hour, but they're also part of the target setting process for the cost center. The idea behind the *target costs* is that instead of simply being responsible for the costs incurred by the cost center, the manager is responsible for the resources used to deliver a given level of activity, whether this is the number of hours worked by a production cost center or the number of hours of service provided by a consulting cost center. If the output rises, the assumption is that the variable part of the associated costs can rise too. If more machine hours are provided, it might be assumed that more energy will be consumed. If consultants provide more hours of service, it might be assumed that they will also travel more.

This brings us to the difference between *fixed* costs, such as rent or insurance, which do not change as output rises, and *variable* costs, such as energy or raw material costs, which respond to increased output. The different behavior of the costs is established in the **SAP_FI_BPL_IM_COSTCENTER_ACTIVITYPRICE_CALCULATION** planning story, where fixed costs are planned as **Expenses** and variable costs as **Expenses ActDep** (activity-dependent expenses), as shown in Figure 5.17. These costs will vary with the output planned in Figure 5.18, while the fixed costs will remain stable regardless of the output quantity, so any changes to the output in Figure 5.18 will impact the activity-dependent expenses in Figure 5.17.

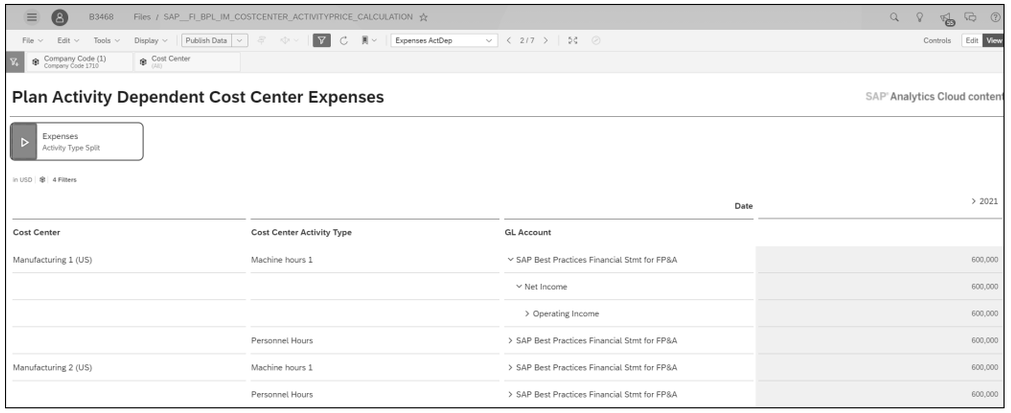

Figure 5.17 Planning Activity-Dependent Expenses

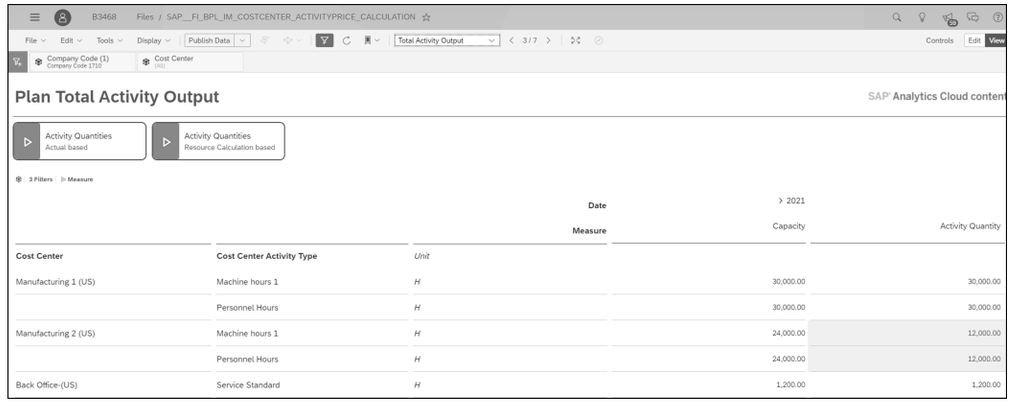

Figure 5.18 Planning Output

In Figure 5.19, we've used the **Activity Cost Rates • Calculate** data action to complete the process and calculated the costs to deliver a machine hour or a personnel hour using the expenses entered in the previous planning stories. This value can then be transferred back to SAP S/4HANA, where it will be used to value order confirmations on the shop floor or time sheets entered by white-collar workers.

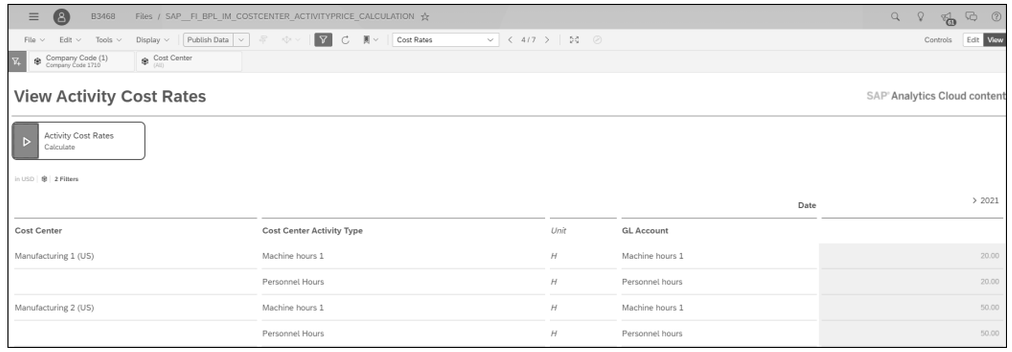

Figure 5.19 Planning Activity Cost Rates

> **Planning Using the Classical Transactions**
>
> If your organization isn't yet ready to implement SAP Analytics Cloud for planning, you can plan the activity relationships between the cost centers using Transaction KP06 and the activity rates either manually using Transaction KP26 or by running an activity price calculation using Transaction KSPI.

5.3.3 Using Planned Data in Operational Processes

Although many people think of planning as being an analytical process that takes place outside of their accounting system, there are many cases in which planned data is used

in the operational processes in SAP S/4HANA. When we look at the business processes in Section 5.4, we'll explain that they often require planned data. For example:

- In Section 5.4.2, we'll look at how to use distribution and assessment to allocate costs between cost centers. To establish the relative weighting of the various receivers of these costs, you can use actual values, but many organizations choose to use planned values to smooth the impact of their allocations if there is a lot of volatility in the flows of actual costs.
- In Section 5.4.3, we'll show how to perform direct and indirect activity allocation. Both forms require you to calculate an activity price for the initial valuation. The activity price may be adjusted later, when the actual costs are known, but is taken as the initial basis for applying a value to the allocation.

In Chapter 7, we'll explore the topic of revenue recognition. The idea behind revenue recognition is that you realize revenue in proportion to the costs incurred for a project. To understand the progress of the project, the system compares the actual costs to the planned costs to complete the project and might determine that the project is 25% complete. If this is the case, it realizes 25% of the planned revenue as an accrual. This process continues until the project is complete, the realized revenues are the actual revenues, and any work in process (WIP) or reserves can be cancelled. Clearly this plan is not simply an assumption about future business performance but also something that is being used to determine how the project is valued in accounting.

5.4 Business Transactions

The business transactions in overhead controlling result in the creation of a journal entry containing a general ledger account and the relevant account assignments and derived reporting dimensions. In the case of a simple reposting of travel expenses between cost centers (see Section 5.4.1), you credit the sending cost center and debit the receiving cost center and update the impact of the switch on the functional areas, profit centers, and so on.

In Section 5.4.2, we go further and describe how to set up allocation cycles to credit multiple cost centers and debit multiple receivers. The resulting journal entries follow the same basic premises, but there are more prerequisites. Instead of simply posting the wrongly assigned travel costs from cost center A to cost center B, we need to establish the relationship between cost center A and cost center B. This involves determining the *driver* information to be used as the basis for the allocation.

In Section 5.4.3, we describe the different forms of activity allocation. Here you use the output of the cost center, whether this is kilowatt hours of energy, machine hours, or consulting hours, to describe the cost flow. This means that you've set up activity types and defined the cost rate for a unit of activity. These can then be used in a direct activity

allocation, triggered by time recording for white-collar work or order confirmations for blue-collar work, or used in indirect activity allocation when the activity quantity is derived either on the sender side (splitting the total number of sales hours worked) or on the receiver side (allocating energy costs in proportion to the machine hours supplied by each production cost center).

Overhead calculation (see Section 5.4.4) can be an alternative to activity allocation in which it's possible to set up overhead rates in proportion to the underlying costs (typically raw material overhead, in proportion to the amount of raw materials used and production overhead, in proportion to the amount of production costs used). In Section 5.4.5, we'll explain how to use templates for more sophisticated activity allocation based on conditions.

Finally, in Section 5.4.6 we'll look at how to use settlement to move costs from orders and projects to the appropriate receivers. In all cases, we'll reference the cost element category (see Chapter 4, Section 4.1.3) and the business transaction that will allow you to identify the business transaction when you look at the relevant journal entries.

As you work through the allocations that follow, remember that they will only be allowed if the period is open for the relevant business transaction. With SAP S/4HANA release 2020, the approach has been extended to enable you to lock the combination of business transaction and company code using the Manage Posting Periods – Cost Accounting app (SAP Fiori ID F4684) shown in in Figure 5.20. You can check whether a period is open for postings in earlier editions by using **Accounting • Controlling • Cost Center Accounting • Environment • Period Locks • Display** or Transaction OKP2; entering the controlling area, the year, and the version; and choosing the **Actual** button.

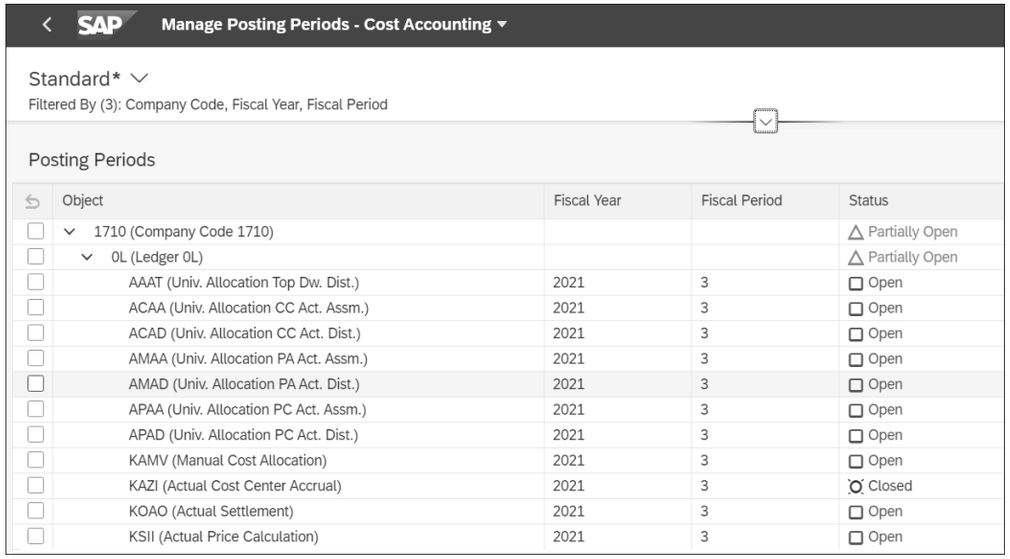

Figure 5.20 Displaying Period Locks for Business Transactions

5.4.1 Reposting and Cost Assignment

In Section 5.2.1, we explained how primary cost postings are made in an integrated system. Just occasionally, corrections will be required when costs have been assigned to the wrong account assignment. This might happen if an employee has posted travel expenses to the wrong cost center or order or a consultant has confirmed time to the wrong WBS element. The reposting acts as a documented "undo" of the original posting, crediting the wrong account assignment to correct the error and debiting the correct account assignment. A reposting does not result in a change to the general ledger account/cost element, so you don't need to create secondary cost elements to make a correction.

There are several different types of reposting:

- **Document number**
  You know the document number and are moving the costs posted under that document number to a different account assignment. In this case, use Transaction KB61 to select the document to be changed. The reposting will be recorded under business transaction category RKU3.
- **Cost**
  You are moving costs between cost objects without reference to a document number. In this case, use Transaction KB11N to enter the sender and receiver objects manually. The reposting will be recorded under business transaction RKU1.
- **Revenue**
  You are moving revenues between cost objects without reference to a document number. In this case, use Transaction KB41N to enter the sender and receiver objects manually. The reposting will be recorded under business transaction RKU2.

In addition, the markups for intercompany service activities that we'll look at in Chapter 9 are captured as repostings, this time under business transaction KAMV.

Figure 5.21 shows the Display Line Items—Cost Accounting app and a list of travel expenses that have been reposted using business transaction type **RKU1**. Notice the document type in the **Jour...** column is **CO** for a costing document.

Let's assume that one of the employees on a cost center has just moved to another cost center. To move these costs to the correct cost center, we need to repost the line item that recorded the original expense posting using Transaction KB61 or following menu path **Accounting • Controlling • Cost Center Accounting • Actual Postings • Repost Line Item • Enter**.

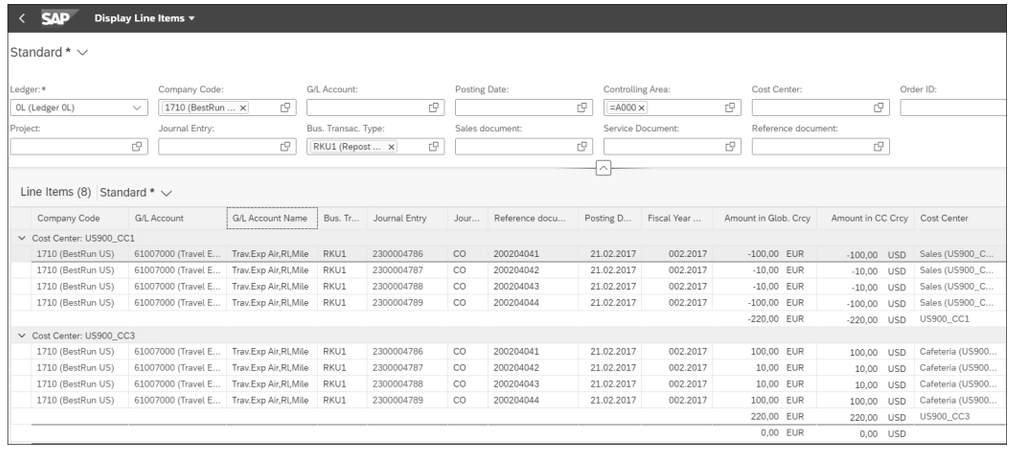

Figure 5.21 Display Line Items – Cost Accounting App

In an ideal world, you know the document number under which the travel expenses were posted and can enter it in the selection screen shown in Figure 5.22. Usually, however, finding the document that you want to repost is part of the challenge. If you don't enter a document in the selection screen, the system will select all documents that meet your selection criteria (initially, all postings to company code **1710** in **2020** in this example). To refine your selection parameters, choose **More • Change Selection Parameters**.

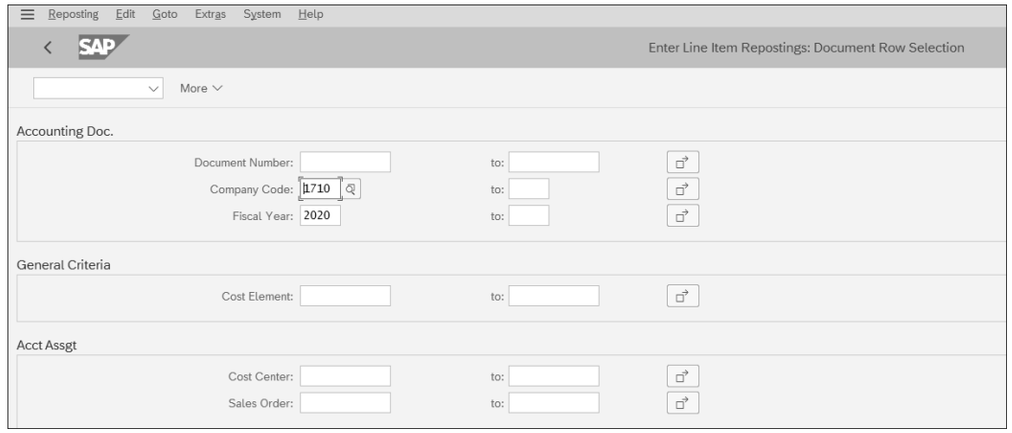

Figure 5.22 Selection Screen for Reposting

You'll arrive at the screen shown in Figure 5.23, which shows all the fields that can be used to select line items for reposting. To find the relevant travel expenses, you might add **Personnel Number** to the selection parameters by selecting it from the list on the left.

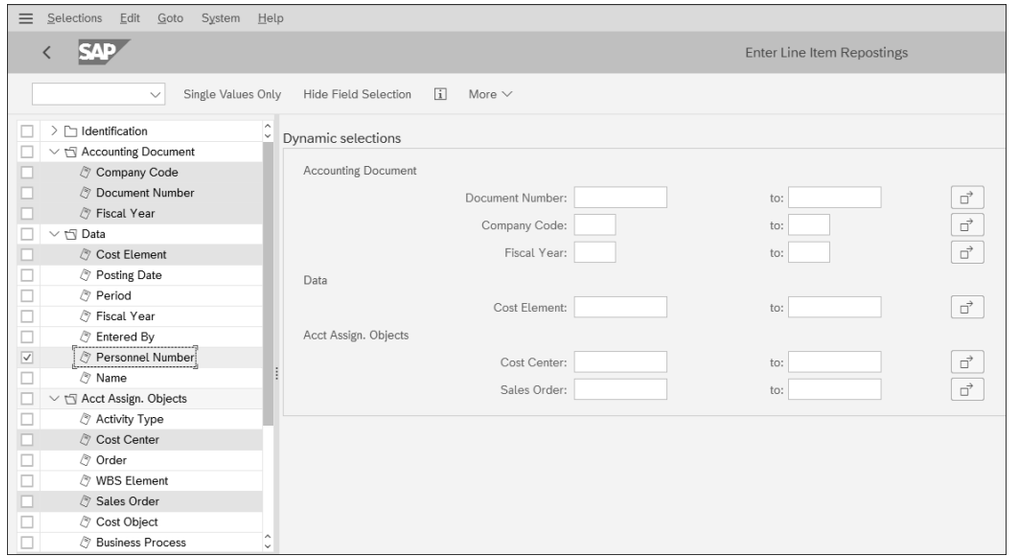

Figure 5.23 Selection Parameters for Line Item Posting

Once you've made your selection, you have two options:

1. **List view**
   Figure 5.24 shows the list view, which is designed for mass entry of many items when mass corrections are needed (e.g., when organizations are being restructured and all postings for the period need to be moved to the new cost center). The list view requires you to choose the object type (**OTy** column) for the account assignment and then enter the new account assignment.
2. **Row view**
   Figure 5.25 shows the row view, which is designed for entering details for a single item. The row view offers a separate field for each object type.

You can switch between the two views by using the **Row** button in the list view and the **List** button in the row view.

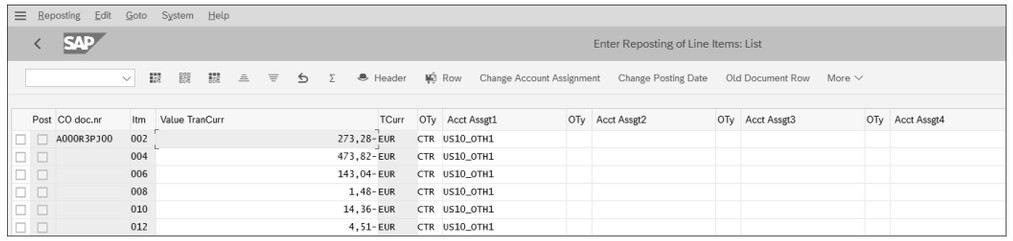

Figure 5.24 Reposting: List View

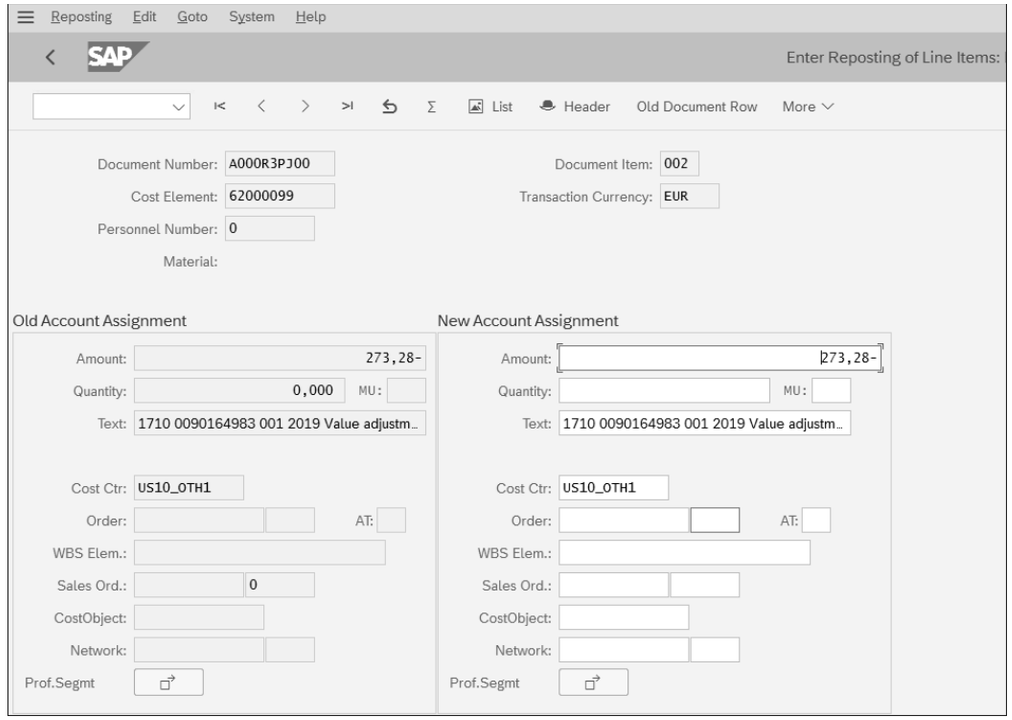

Figure 5.25 Reposting: Row View

In the previous example, we began by selecting the original document as the basis for the reposting, but it's also possible to move costs freely from one cost assignment to another. To repost from one cost center to another, use Transaction KB11N or follow menu path **Accounting • Controlling • Cost Center Accounting • Actual Postings • Manual Reposting of Costs • Enter**. To access the relevant account assignments in this transaction, select the appropriate screen variant (**Scrn var.**), as shown in Figure 5.26, then enter the appropriate document date, the cost element, and the amount, together with the old cost center and the new cost center (or whichever account assignments you are moving costs from and to).

You can identify this reposting for auditing purposes using business transaction RKU1. If you need to repost revenues rather than costs, use Transaction KB41N or **Actual Postings • Manual Reposting of Revenues • Enter**. This time, the transactions can be identified for auditing purposes using business transaction RKU2.

Alternatively, if you have SAP S/4HANA release 2020, you can use the Reassign Costs and Revenues app (SAP Fiori ID F2009), shown in Figure 5.27, to perform the same steps. This allows you to copy and reverse existing allocations and to create new assignments. The classic transactions comprise a header and the assigned document lines, whereas the SAP Fiori app has a header, one or more assignment items, and a list of associated

journal entries. The journal entries are written separately to each associated ledger, as we discussed in Chapter 3, Section 3.3.1. We'll return to this topic when we discuss the outlook for controlling in Chapter 11.

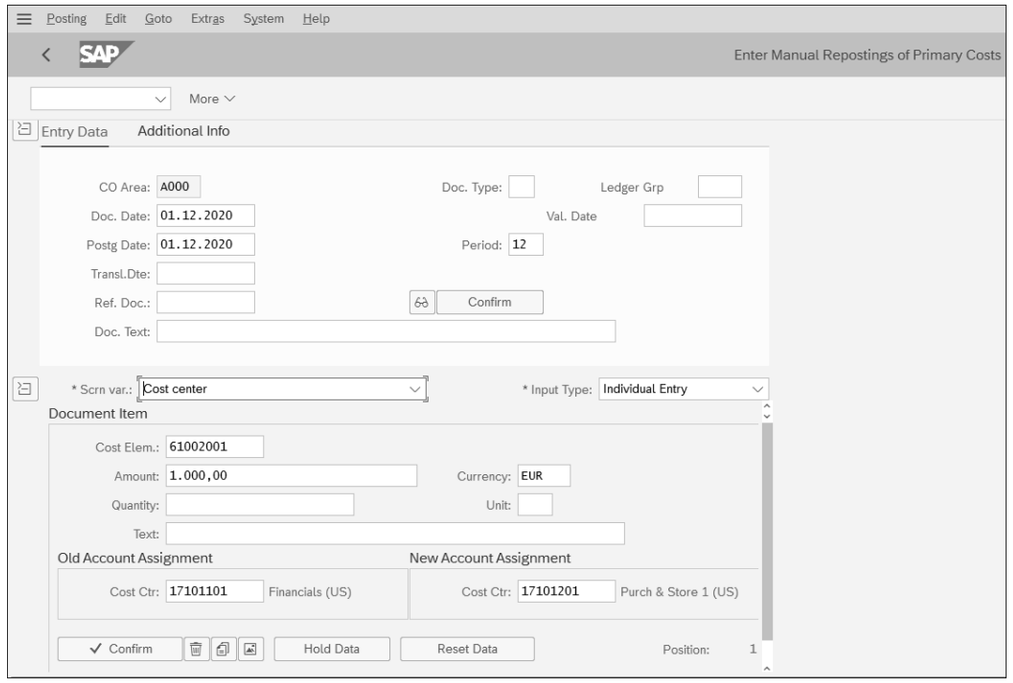

Figure 5.26 Manual Cost Reposting

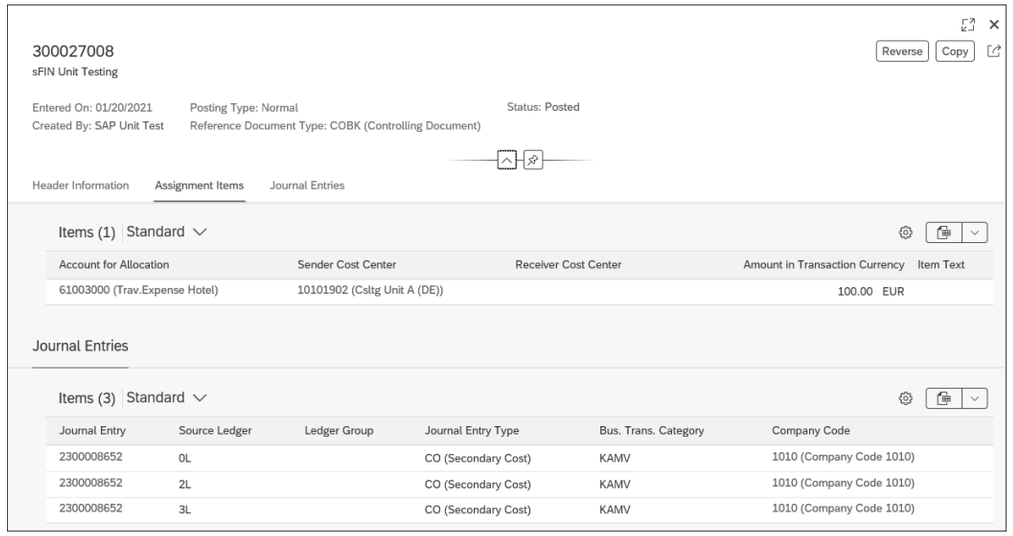

Figure 5.27 Reassign Costs and Revenues App

5.4.2 Universal Allocation

In this section, we'll begin by describing how to allocate costs using the various SAP Fiori apps that are offered under the umbrella term *universal allocation*. This currently covers profit center allocation, cost center allocation, and top-down distribution in margin analysis, with allocation to margin analysis planned for on-premise SAP S/4HANA release 2021.

Before you start, it's important to think through the drivers that you will use as a basis for the allocation:

- This might be as simple as entering a percentage to split the costs to two cost centers in a 50:50 ratio. In this case, you choose the **Fixed Percentages** rule and enter the percentages manually. You can use the same approach in settlement to assign costs to several different receivers.
- You might choose to assign heating costs in proportion to the square footage of the different production lines or administrative overhead in proportion to the headcount on the various cost centers. In this case, you need to ensure that the correct statistical key figures have been created for square footage and headcount and the relevant information updated for each period. As you work through the sections that follow, make sure you understand not just what to do as part of the allocation itself, but what reference data needs to be in place in order to perform the allocation.
- You might choose to spread the costs in proportion to the relative revenues in the different market segments. If so, you need to ensure that the revenue information is being collected reliably under the proper accounts.
- Perhaps you don't want to use the same drivers for all costs but might choose to group the costs to distinguish between people-related and asset-related costs within the allocation. In this case, you need to set up general ledger account groups to separate the two types of costs, as described in Chapter 4. As you work through the allocations, remember to ask yourself whether the same rules apply to all costs to be allocated or if it's necessary to group the costs to apply different rules depending on the type of costs.

SAP ERP versus SAP S/4HANA

In SAP ERP, the various assessment and distribution transactions accessed the totals records to determine what costs on the sender were to be allocated and, often, which costs on the receiver would serve as drivers for the allocation, which meant that only a fairly small number of fields were available for selection. With universal allocation, you're working directly with the line items in the Universal Journal and building on the new architecture, including multiple ledgers and multiple currencies.

We described the cost center master data in Chapter 4, Section 4.2. The simplest way to move costs from one cost center to another is by means of an allocation. This is typically the case when you want to move costs from support cost centers to production cost centers. Choosing the senders and receivers is a key part of this design exercise, but it's also important to decide whether you want to perform a distribution or an assessment:

- *Distribution cycles* are generally used if a small number of general ledger accounts (such as rent costs or utility costs) are initially posted to a single cost center and then charged to many cost centers. The costs will be spread using the original general ledger account, so a distribution makes sense when you want to keep the information that you have shared rent or utility costs on the receiver. But be careful if you create a distribution cycle for a cost center with many different assigned accounts: you'll generate a high volume of posting lines, which may not give you the transparency you need.
- *Overhead allocation cycles* were known as *assessment cycles* in SAP ERP. They can be used to move costs captured under many different accounts from the sender to the receiver cost centers. The details of the accounts on the sending cost center are rolled up under a secondary cost element for assessment (see Chapter 4, Section 4.1.3).

In this section, we'll explain distribution and overhead allocation using the new collection of apps known collectively under the umbrella term *universal allocation*. This includes the following apps:

- **Manage Allocations (SAP Fiori ID F3338)**
  Use this app to define the cycle that acts as the framework for the allocation and the segments within this cycle that determine the senders and receivers of the allocation. Then define the drivers to be used to capture the relative weighting between the different receivers.
- **Run Allocations (SAP Fiori ID F3548)**
  Use this app to create a run and then trigger the allocation cycles either immediately or at a scheduled time.
- **Allocation Results (SAP Fiori ID F4363)**
  Use this app to display the result of the allocation in list form and to access the Allocation Flow app.
- **Allocation Flow (SAP Fiori ID F4022)**
  Use this app to display the flow of costs from the sender to the receivers. This differs from the Allocation Results app in that you select an individual cost center and can then see all allocations to and from that cost center, whereas the Allocation Results app shows the flow between the senders and receivers in a single allocation run.
- **Manage Allocation Tags (SAP Fiori ID F4523)**
  Use this app to tag your allocation cycles for selection later.

Classic Allocation Transactions

The classic transactions for distribution and assessment continue to be available in SAP S/4HANA, and you can access them using the following transaction codes:

- Create/change/display assessment cycles: Transactions KSU1–KSU3
- Run assessment cycles: Transaction KSU5
- Create/change/display distribution cycles: Transactions KSV1–KSV3
- Run distribution cycles: Transaction KSV5

At the time of writing, there are still functional gaps in universal allocation, so it isn't yet possible to run cumulative cycles that combine data from several periods or iterative cycles that take costs that build cyclical relationships in which one cost center is both the sender and the receiver in the same cycle. It's also not possible to use a source structure to distinguish the costs to be allocated by type. The allocations take place within a single company code, whereas the classic transactions can allocate between senders and receivers in several company codes, provided they all belong to the same controlling area. Going forward, SAP plans to close the gaps compared to the classic allocation transactions and use them to support new approaches, including the use of parallel ledgers and multiple currencies.

Manage Allocations

We'll start by looking at the Manage Allocations app, shown in Figure 5.28. This app can be used to create profit center allocations, cost center allocations, and top-down distributions for margin analysis (see Chapter 7). The different approaches are represented by the **Allocation Context**. Within overhead management, we'll work with the **Cost Centers** context. We distinguish between distribution and overhead allocation using the **Allocation Type**. In SAP GUI, the two allocation types were distinguished by the transaction code, with Transactions KSV1–KSV3 being used for distributions and Transactions KSU1–KSU3 for assessment. Notice also that you can use the same mechanism to allocate planned costs and actual costs. In SAP GUI, again, cycles for planned costs had their own transaction codes, with Transactions KSV7–KSV9 being used for planned distributions and Transactions KSU7–KSU9 for planned assessments. There is a **Spreadsheet** icon above the list of cycles (not shown). You can use this button to download a template to maintain your cycles in a spreadsheet and then upload the results prior to allocation. This feature was added with SAP Fiori.

To view the segments within the cycle, select allocation cycle **ZDCRP**. Because this is a demo system, the cycle only includes one segment for the assignment of corporate overhead costs, but you can assign many different segments to a single cycle. We'll now look at the details of this segment. The same structure with one cycle comprising many segments is also used in the legacy transactions.

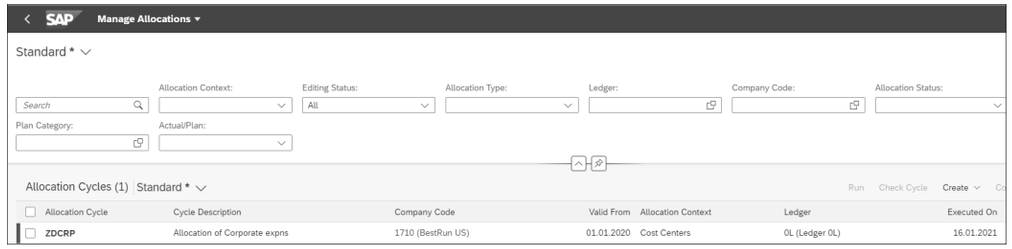

Figure 5.28 Manage Allocations App, Showing Allocation Cycles

In Figure 5.29, we've accessed segment **1**, which determines how the corporate overhead costs will be allocated. The key entries for the segment are as follows:

- **Overhead Alloc. Acct**
  If you're performing an overhead allocation, the overhead allocation account is the secondary cost element under which the allocation will be recorded. We explained the details of the account settings required in Chapter 4, Section 4.1.3. You need to make sure that you enter a general ledger account of cost element category 42 (assessment). At the time of writing, all overhead allocations will be made under a single secondary cost element; you can't yet use a source structure to separate out the various cost blocks being allocated. If you use the legacy transactions, you can enter a source structure instead of the single cost element and then assign a different secondary cost element for each group of costs to be allocated.
- **Sender Rule**
  The **Sender Rule** determines whether you're simply going to distribute or allocate all the costs collected on the cost center for the period (**Posted amounts**, as shown here) or use a fixed amount or fixed rate. Posted amounts is by far the most common approach and requires no work in preparation for the period close because the costs on the sender cost center(s) are read during the allocation. Fixed amounts or fixed rates requires you to update the segment prior to allocation but can be useful if you want to calculate the amounts for the allocation in an external system or spreadsheet and then load them to the allocation cycle.
- **Receiver Rule**
  The **Receiver Rule** determines the basis for the allocation. Selecting **Fixed amounts** or **Fixed percentages** as shown here may seem like the easiest way to get started because it provides easy rules for everyone to understand. However, this type of rule forces you to revisit your segments once a month to make sure that the percentages for each receiver are correct, check whether new cost centers have been added to the group, and adjust the percentages accordingly. In the long term, you may be better off choosing variable portions instead and then having the system read the relative costs on each receiver cost center or the statistical key figures, such as headcount or square footage, during the allocation.

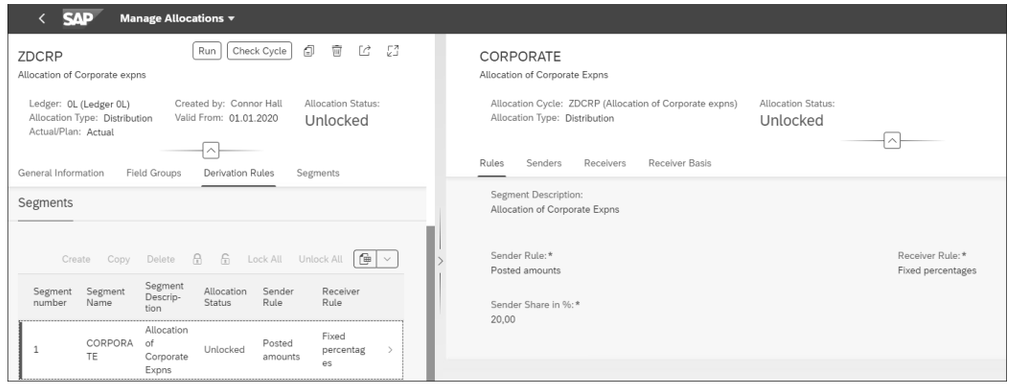

Figure 5.29 Segment Rules for Allocation

In Figure 5.30, we've navigated to the **Senders** tab to show that the costs captured under a group of cost centers and a collection of accounts are to be allocated. We explained in Chapter 4 how to set up these groups and it's important to make sure that all costs that you want to allocate are part of the grouping entered here. Of course, you don't have to allocate all the costs in one go. You can define multiple segments to allocate the people-related costs on a cost center separately from the asset-related costs. If you're using Transactions KSU1–KSU3 or KSV1–KSV3, the main difference is that instead of working with account groups, you'll be entering a cost element group for your senders. Notice also the **Spreadsheet** icon that allows you to download a template and then manually upload a list of senders. Again, this is unique to the SAP Fiori application.

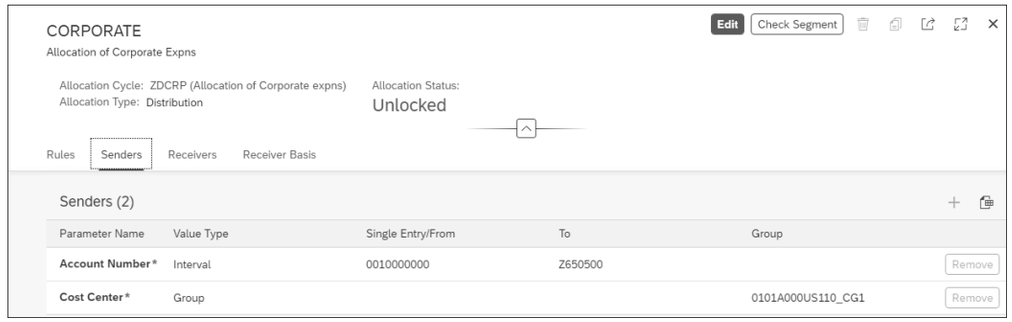

Figure 5.30 Allocation Senders

Figure 5.31 shows the group of cost centers that will receive a share of the corporate overhead costs as a result of the allocation. Again, refer back to Chapter 4, Section 4.2.3 for details on how to create such groupings. Here too you can use a spreadsheet to upload a list of receivers. To see which cost centers are assigned to the group shown in Figure 5.31, go to the **Receiver Basis** tab. Here you'll see the cost centers assigned and can assign the percentages to be used as a basis for allocation.

Figure 5.31 Allocation Receivers

Figure 5.32 shows the receiver rules and the many cost centers contained in the cost center group in the previous screen. These will receive corporate overhead costs in accordance with the percentages entered here.

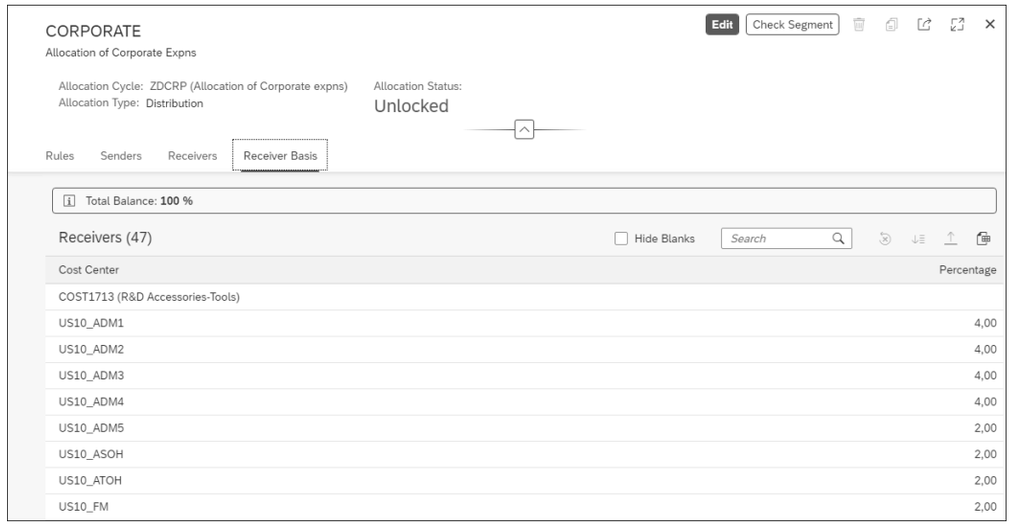

Figure 5.32 Percentage Basis per Receiver

We've so far looked at a very simple example, in which the costs were allocated using percentages within the segment. However, the drivers for the allocations can be costs, statistical key figures (see Chapter 4, Section 4.4), or plan costs (see Section 5.3.3) instead of actuals. For this, you must change the **Var. Portion Type** from percentages (see Figure 5.29) to statistical key figures. This results in the **Receiver Basis** (see Figure 5.32) no longer containing the manual percentages but rather the link to a statistical key figure, as shown in Figure 5.33. This means that the statistical key figure entered is used to establish the ratios dynamically when the allocation is run (here, statistical key figure **1002**, square meters of floorspace) instead of relying on the figures manually entered in the cycle.

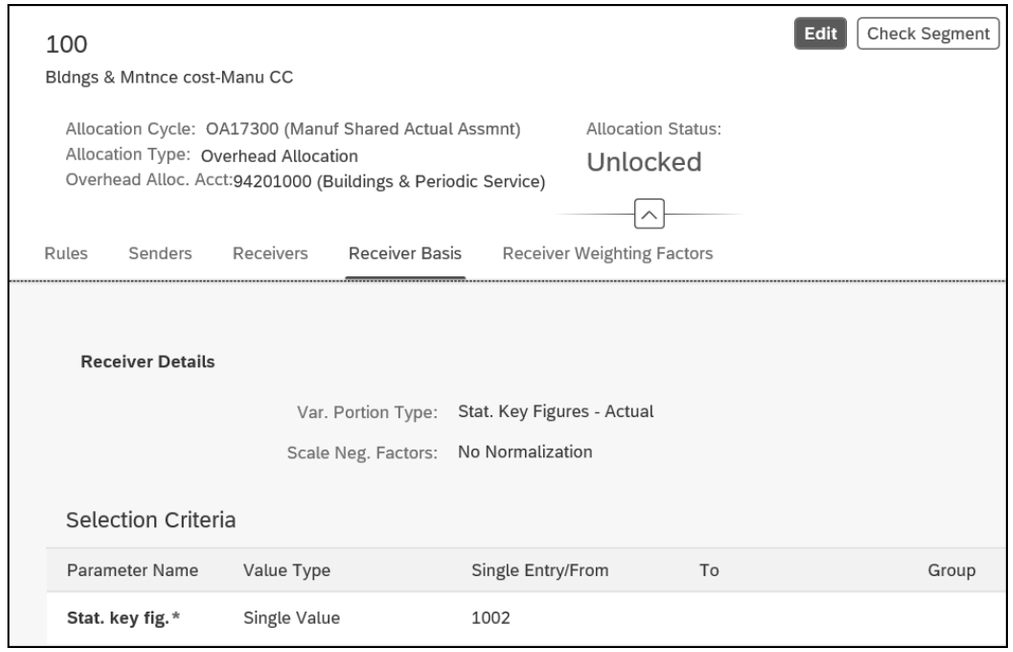

Figure 5.33 Allocation Cycle Using Statistical Key Figures to Determine Receiver Ratios

When you allocate using percentages, the rule for the split is effectively within the allocation rule. But when you allocate based on statistical key figures, you must ensure that a figure has been entered for each cost center, either using Transaction KB31N or using the Manage Statistical Key Figure Values app (SAP Fiori ID F3915), shown in Figure 5.34. Here we've entered the number of square meters covered by each cost center as a basis for a future allocation.

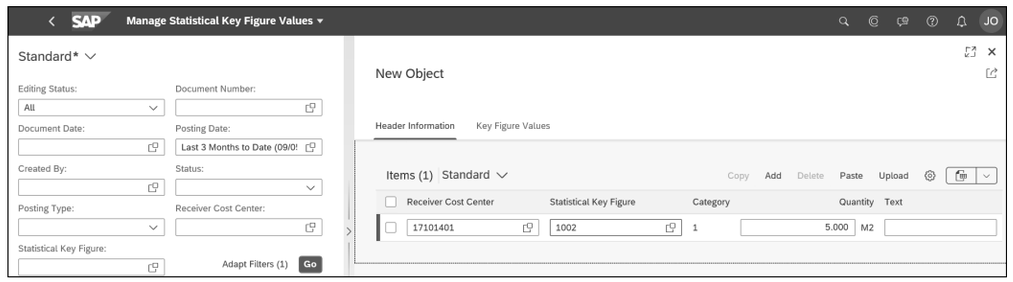

Figure 5.34 Manage Statistical Key Figures App

If you choose to allocate using a different driver, you'll have to change the **Receiver Rule** (refer back to Figure 5.29) and then enter the appropriate **Receiver Basis** (see Figure 5.33), such as the relative costs or quantities posted to the receivers in the period. You can

then add additional segments and save the whole cycle. If the allocation drivers are available, then you're ready to run your allocation.

> **SAP ERP versus SAP S/4HANA**
>
> One change in the logic between SAP ERP and SAP S/4HANA is that an allocation always takes place within one company code and one ledger. In SAP ERP, the classic transactions do not check whether the senders and receivers are in different company codes and can spread costs between any receivers in a controlling area. Where an intercompany relationship occurs, an offsetting account is updated in the affected company codes.

Run Allocations

Now that you've established the framework for the allocation by creating a cycle, creating a segment, and entering the senders and receivers and relevant drivers within that segment, you're ready to run the allocation cycle using the Run Allocations app shown in Figure 5.35. If you're working with the legacy transactions, you can run your allocation by choosing Transaction KSU5 for an actual assessment, Transaction KSV5 for an actual distribution, Transaction KSUB for a planned assessment, or Transaction KSVB for a planned distribution.

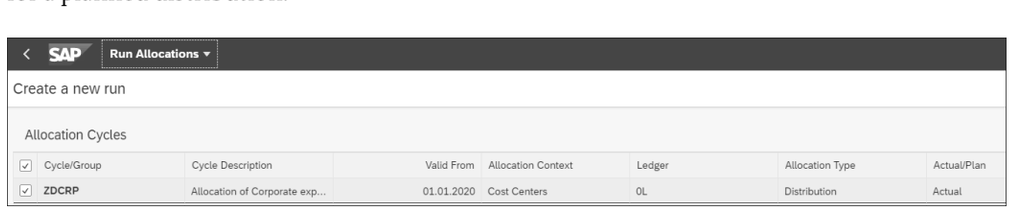

Figure 5.35 Run Allocations App

Before you can run an allocation, you must select the allocation cycle from the list and choose **Create a new run**. Figure 5.36 shows the screen to create the run name. Here we've entered a **Run Name**, a **Journal Entry Type**, and the **Fiscal Period From** and **Fiscal Period To**. You're now ready to execute the allocation for December 2020 with reference to the run by choosing the **OK** button (not shown).

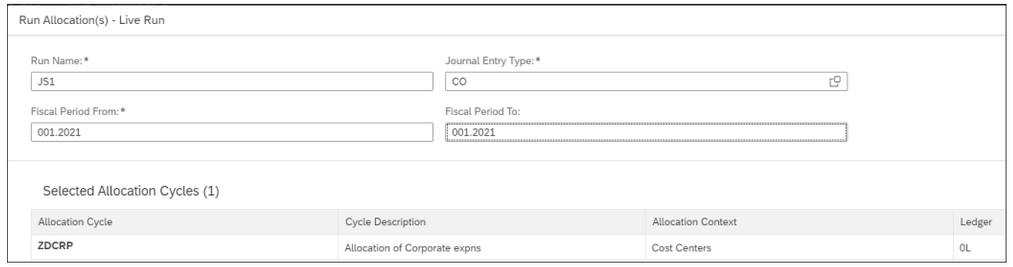

Figure 5.36 Creating Run Name for Allocation Cycle

Allocation Results and Flow

To check the results of the allocation, select the Allocation Result app shown in Figure 5.37. Notice that you can see allocations with multiple contexts in this screen. You can either choose **View Type Cycle** and select the cycle from Figure 5.35 or choose **Run** and select the run created in Figure 5.36 from the list.

Figure 5.37 Allocation Result App

One of the main reasons to use the new apps is the Allocation Flow app, which visualizes the flow of costs from senders to receivers, as shown in Figure 5.38. There are two ways to use this app:

1. In Figure 5.38, we've called up the Allocation Flow app directly and entered **Cost Center** "US10_M1" in the selection screen. This shows us all costs that have been allocated from or to cost center US10_M1.
2. Alternatively, you can use this app within the Allocation Result app (shown ahead in Figure 5.39), where you can switch from the traditional view that shows details of the one sender and 126 receivers in list form to a graphical list, but this is a much easier way to visualize how costs have flowed.

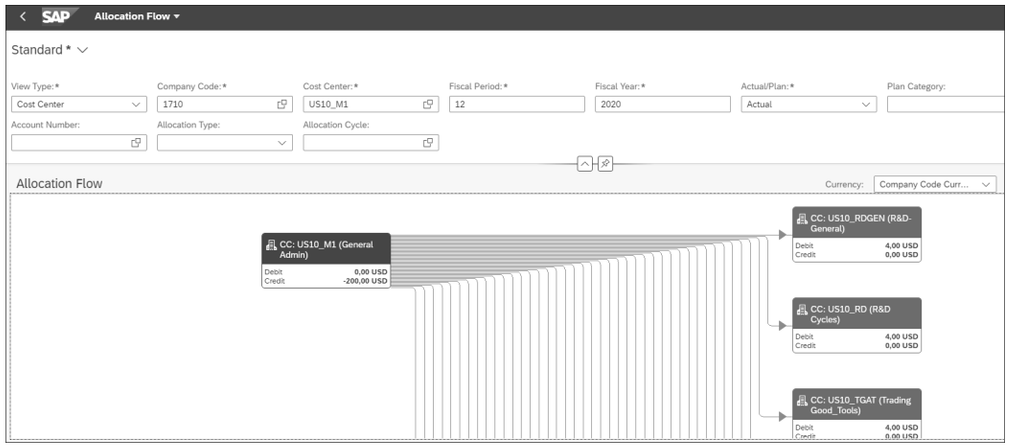

Figure 5.38 Allocation Results: Flow

Notice also that you're only seeing the results of the simple allocation. It's common to use further allocations to move costs from these receivers to a further group of receivers in a waterfall approach, where each cost center might receive costs and send them on. The network shown here could thus extend if you executed further allocation cycles.

Finally, Figure 5.39 shows the Allocation Result app and the journal entries created as a result of the posting. Notice that this document is richer than the document created in SAP ERP in that it records not only the amounts on the senders and receivers but also details of the **Allocation Cycle**. Because the journal entries created are part of the Universal Journal, you also see the assigned profit centers, segments, and functional areas in this list. If your list looks different, click the **Settings** icon and add fields as necessary.

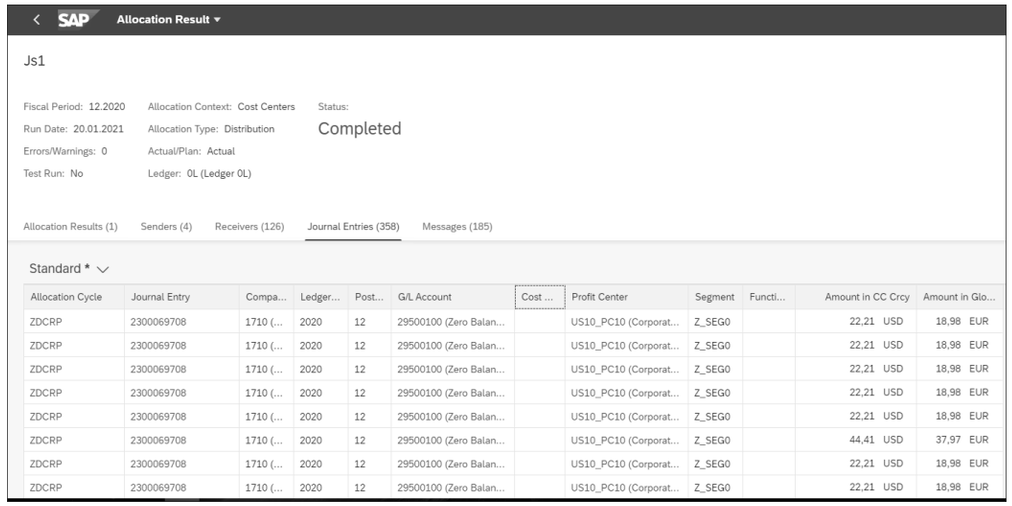

Figure 5.39 Allocation Result: Journal Entries

Manage Allocation Tags

As you create more and more allocation cycles, it can be difficult to find the one you need quickly. SAP S/4HANA Cloud 2011 includes a new option to create *allocation tags* to aid selection. Figure 5.40 shows the Manage Allocation Tags app, where you can create a new tag and view the existing tags. In this example, we've created the **ESI_DEMO** tag and then assigned it to the **FIN_COST**, **IT_COSTS**, **LEGAL_OH**, and **QM_COSTS** cycles.

You can then use this tag to select the associated allocation cycles as shown in Figure 5.41, where we've used the **ESI_DEMO** (Demo Webinar) tag to select the **FIN_COST** cycle for further processing.

We'll return to the topic of allocations in Chapter 7, where we'll show you how to assign overhead costs to market segments and how to perform a top-down distribution of costs to the market segments for products and customers within the framework of the universal allocation applications.

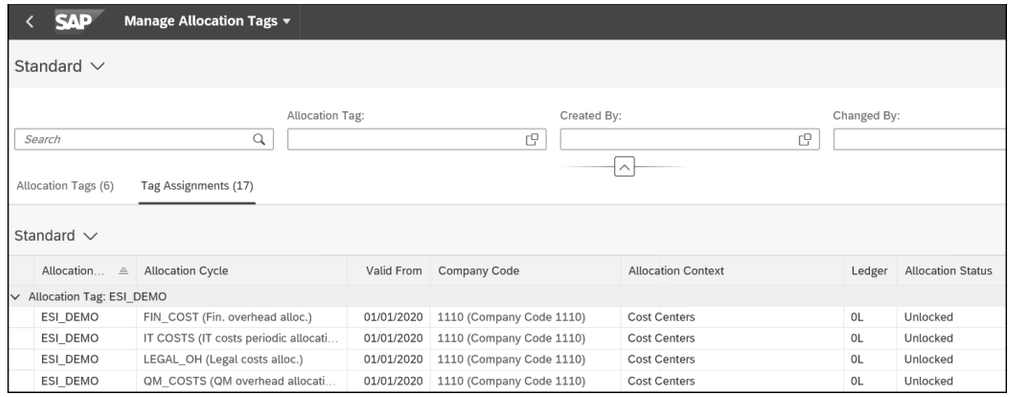

Figure 5.40 Manage Allocation Tags App

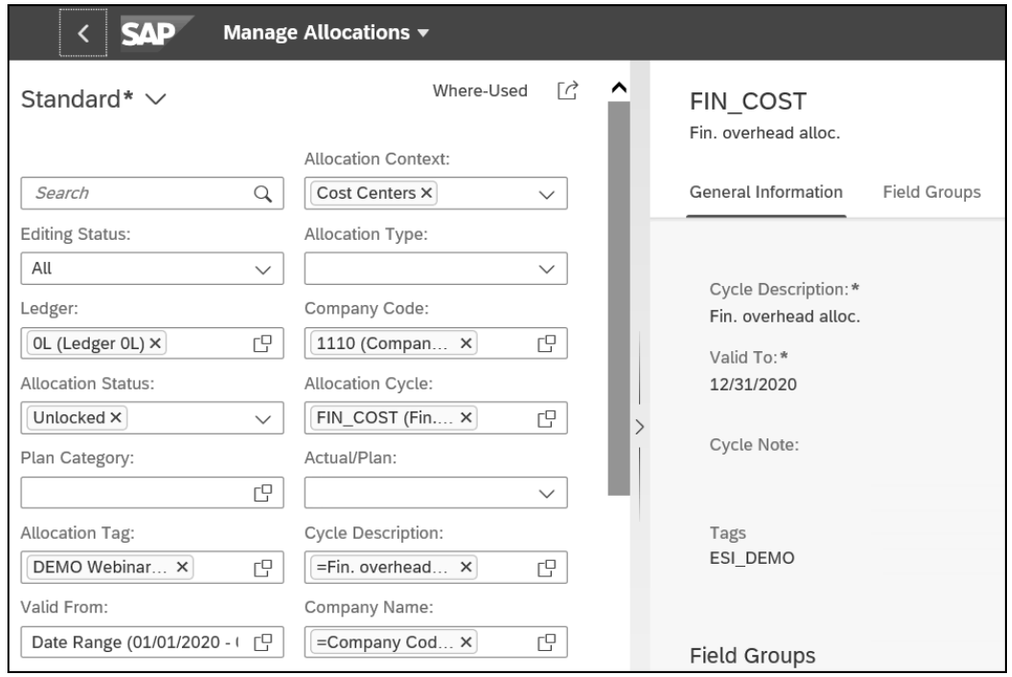

Figure 5.41 Using Allocation Tag to Select Cycles

5.4.3 Activity Allocation and Cost Rates

We described the activity type master data and the relevant general ledger accounts in Chapter 4, Section 4.3, and explained the differences between direct and indirect activity allocation along with the need to calculate cost rates to charge the costs of machine time to the production line or consulting hours to a project. In terms of the involvement of the controller, the two types of activity allocation are very different:

1. **Direct activity allocations**
   Direct activity allocations are triggered in time recording, production, maintenance, and so on, with no involvement on the part of the controller beyond ensuring that the appropriate cost rates are available for each activity type. You'll see further examples of direct activity allocations when we look at manufacturing activities in Chapter 6 and service-related activities in Chapter 7. While direct activity allocation in manufacturing is usually triggered by order confirmations or backflush processing, direct activity allocations using time recordings require employees to fill out time sheets documenting the work that they have performed. You can also create direct activity allocations manually using Transaction KB21N or the Manage Direct Activity Allocation app.
2. **Indirect activity allocations**
   Indirect activity allocations, by contrast, are very much in the hands of the controller as the quantities involved are inferred rather than entered manually. These cycles make a charge based on a quantity, such as the total number of labor hours worked by a call center or the total number of kilowatt hours supplied to the production cost centers. In the first example, the total labor hours worked by the call center are entered and then spread to the various receivers, whereas in the second example the quantity of energy hours delivered to production are inferred based on the activity quantities performed by the receiver cost centers.

As we saw in planning, the cost rate can distinguish between fixed and variable costs, giving you greater transparency into the nature of the costs allocated. Both direct and indirect activity allocation will allow you to calculate the target costs and variances for your cost center, as you saw in Chapter 2 when we looked at the impact of adjusting the variable costs to reflect the actual output of the cost center. This is something that you can't do with the allocations that we looked at in the previous section, where the entire value posted to the cost centers is always transferred during the allocation, leaving a balance of zero on the cost center after the allocation. You can identify activity allocations in the Trial Balance app and similar reports by the object type **KL**, as we showed in Chapter 2, Figure 2.6.

Figure 5.42 shows the Manage Direct Activity Allocation app (SAP Fiori ID F3697), where an activity of three units has been posted from a sender cost center/activity type to a WBS element. This has resulted in journal entries in two ledgers under the **Journal Entry Type CO (Secondary Cost)** and the **Business Transaction Type RKL (Actual Activity Allocation)**. This app can be used to display direct activity allocations created manually or by using the integration with order confirmation in logistics or time sheet entry.

If your organization isn't yet using SAP Fiori, you can create a direct activity allocation by using Transaction KB21N or **Accounting • Controlling • Cost Center Accounting • Actual Postings • Activity Allocation • Enter** and choosing a screen variant containing the fields for the relevant receiver of the activity charges. You can then manually enter

the cost center, activity type, quantity, and receiver of the allocation and save the allocation.

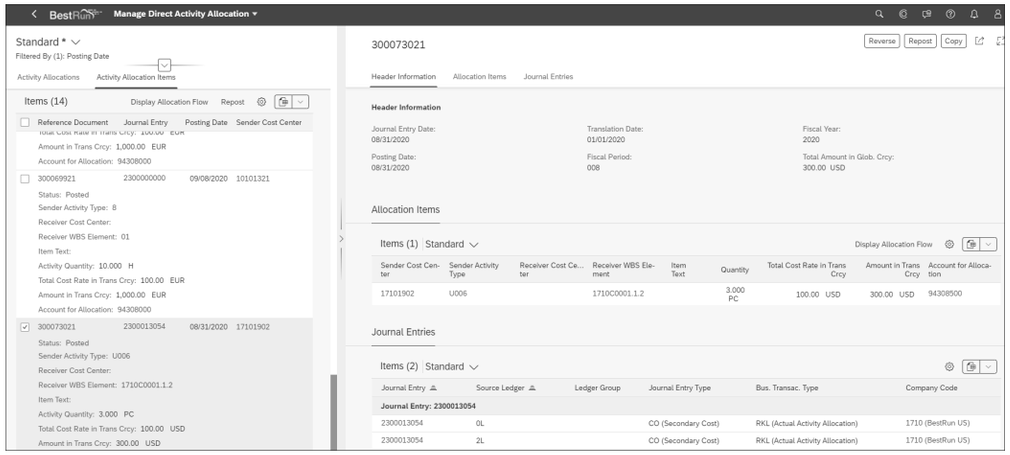

Figure 5.42 Manage Direct Activity Allocation App

To create an indirect activity allocation cycle, use Transaction KSC1 or follow menu path **Accounting • Controlling • Cost Center Accounting • Period-End Closing • Current Settings • Define Indirect Activity Allocation**. Figure 5.43 shows the **Change Actual Indirect Activity Allocation Cycle: Segment** screen for an indirect activity allocation cycle. The main difference compared to the cycles we looked at in the previous section is that the sender rules are based on activity quantities. In the sender **Rule**, you have the following options because you are sending activity quantities rather than amounts:

- **Quantities calculated inversely**
  The **Quantities calculated inversely** option is used in combination with category 2 activity types (indirect determination, indirect allocation). The inverse calculation infers the quantity delivered by reading the quantity entered under **Receiver Tracing Factor** (in the example, this is the **Actual Activity** option) to determine how much energy has been supplied. The underlying assumption is that the more production activity the production cost centers have provided, the greater the number of kilowatt hours of energy they will have used. If the relationship between machine time and kilowatt hours of energy is not 1:1, then you need to tab to the far right and change the receiver weighting factor from 100 (the default) to a factor that better reflects your business needs.
- **Posted quantities**
  The **Posted quantities** option is used in combination with category 3 activity types (manual entry, indirect allocation). To use this option, every month you need to enter a quantity for the cost center and activity type entered in the **Senders/Receivers** tab. To enter the number of hours for the quality cost center, use Transaction KB51N

or choose **Accounting • Controlling • Cost Center Accounting • Actual Postings • Sender Activities • Enter**. Then enter the sender cost center (call center cost center), the sender activity type (call hours), and the number of hours performed in the period. The allocation then spreads the total quantity entered to the selected receivers based on whatever receiver tracing factor has been entered.

- **Fixed quantities**
  Fixed quantities are entered manually in the allocation cycle (like fixed amounts in an assessment cycle).

For each segment, you'll have to define the sender **Rule** (**Quantities calculated inversely** in this example), the **Rule** for the **Receiver Tracing Factor** (**Variable portions** in this example), and then the senders, receivers, and receiver basis just as when you created allocation cycles in the Manage Allocations app. You can then save the cycle and run the allocation once you're sure that the appropriate quantities are available for the allocation.

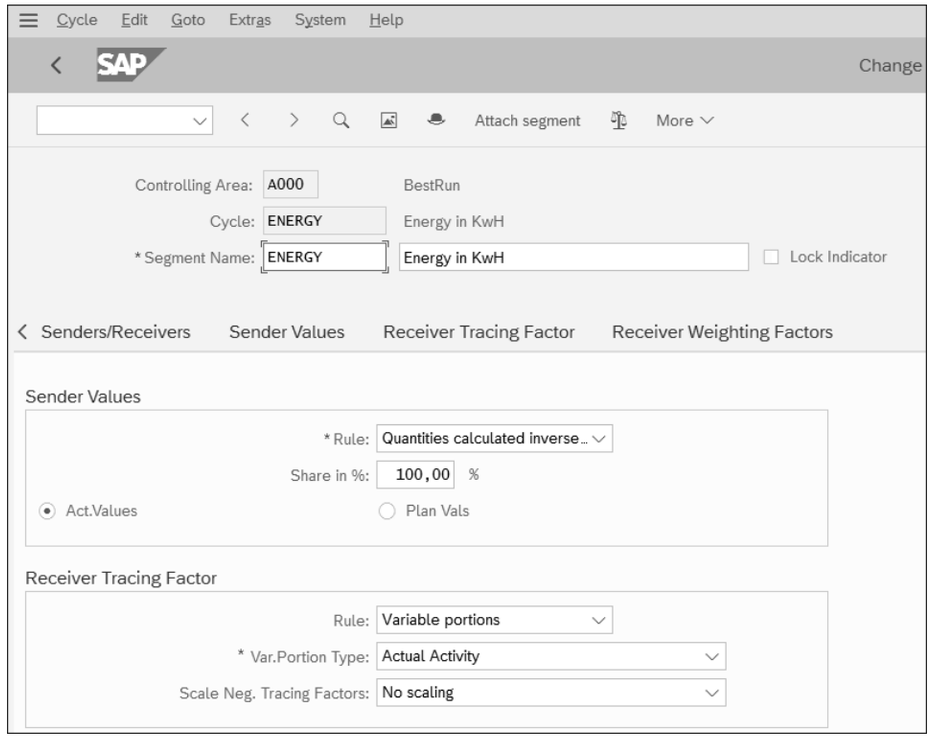

Figure 5.43 Segment Header for Indirect Activity Allocation

To execute an indirect activity allocation cycle, follow menu path **Accounting • Controlling • Cost Center Accounting • Period-End Closing • Single Functions • Indirect Activity Allocation** or use Transaction KSC5. Enter the **Period** and **Fiscal Year** and click the

Execute button. Figure 5.44 shows the line items created during the indirect activity allocation. Notice that the sender is an activity (**OTy ATY**) rather than a cost center and the receivers are the production cost centers that have performed work in the period. The amounts are calculated by multiplying the number of kilowatt hours by the cost rate for one kilowatt hour. The business transaction is RKIL.

List Edit Goto Settings Extras Environment System Help

SAP : Display Actual Line Items

Master Record More

Cycle	ENERGY
Description	Energy in KwH
Valid From	01.01.2020
CO Area	A000
Period	1 To 12
Fiscal Year	2020

Per	Segment Na...	Cost Element	OTy	Object	PTy	Partner Object	Val/COArea Crcy	BTran
1	ENERGY	94306000	CTR	US10_PLC	ATY	US10_CORP4/ENERGY	3.551.634,00	RKIL
	ENERGY	94306000	ATY	US10_CORP4/ENERGY	CTR	US10_PLC	3.551.634,00-	RKIL
	ENERGY	94306000	CTR	US10_PLM	ATY	US10_CORP4/ENERGY	2.413.095,20	RKIL
	ENERGY	94306000	ATY	US10_CORP4/ENERGY	CTR	US10_PLM	2.413.095,20-	RKIL
	ENERGY	94306000	CTR	US10_PLR	ATY	US10_CORP4/ENERGY	806.248,50	RKIL
	ENERGY	94306000	ATY	US10_CORP4/ENERGY	CTR	US10_PLR	806.248,50-	RKIL
1							**0,00**	
2	ENERGY	94306000	CTR	US10_PLC	ATY	US10_CORP4/ENERGY	6.251.416,00	RKIL
	ENERGY	94306000	ATY	US10_CORP4/ENERGY	CTR	US10_PLC	6.251.416,00-	RKIL
	ENERGY	94306000	CTR	US10_PLM	ATY	US10_CORP4/ENERGY	5.066.460,50	RKIL
	ENERGY	94306000	ATY	US10_CORP4/ENERGY	CTR	US10_PLM	5.066.460,50-	RKIL
	ENERGY	94306000	CTR	US10_PLR	ATY	US10_CORP4/ENERGY	997.656,50	RKIL
	ENERGY	94306000	ATY	US10_CORP4/ENERGY	CTR	US10_PLR	997.656,50-	RKIL
2							**0,00**	
3	ENERGY	94306000	CTR	US10_PLC	ATY	US10_CORP4/ENERGY	7.546.014,60	RKIL
	ENERGY	94306000	ATY	US10_CORP4/ENERGY	CTR	US10_PLC	7.546.014,60-	RKIL
	ENERGY	94306000	CTR	US10_PLM	ATY	US10_CORP4/ENERGY	5.001.074,30	RKIL
	ENERGY	94306000	ATY	US10_CORP4/ENERGY	CTR	US10_PLM	5.001.074,30-	RKIL

Figure 5.44 Line Items Resulting from Execution of Indirect Activity Allocation Cycle

Both direct and indirect activity allocations use the planned cost rate initially. In the case of the direct activity allocations that are happening throughout the period, it's clear that you can't know all the cost center costs at the time of the allocation. In the case of the indirect activity allocation, you're using the cycle to determine the quantity flow first.

Once the period is completed, you can calculate a new cost rate that reflects the actual costs and output of the period. To execute activity price calculation, follow menu path **Accounting • Controlling • Cost Center Accounting • Period-End Closing • Single Functions • Price Calculation** or use Transaction KSII. Figure 5.45 shows the result of the activity price calculation with the total quantity, the actual costs, and the fixed part of those costs. These values can be used to revalue inventories and cost of goods sold as part of the actual costing process that we'll explain in Chapter 6.

SAP Price Calculation Results - Actual

Activity Analysis

Controlling Area	A000	BestRun
Version	0	Plan/actual version
Fiscal Year	2020	
Period	012	
Cost center group	US110_CG42	
Actual price calc.	1	Periodic price
Currency	EUR	European Euro
Exchange rate type	M	Standard translation at average rate
Value Date	01.01.2020	
Processing Status	TestRun	

OTy	Object	AUn	Activity Quantity	Total Price	Price (Fixed)	PUnit
ATY	US10_PLC/1	H	4.488,581	50,00	0,00	1
ATY	US10_PLC/11	H	7.934,869	40,00	0,00	1
ATY	US10_PLC/3	H	3.133,526	60,00	60,00	1
ATY	US10_PLM/1	H	2.046,902	150,00	0,00	1
ATY	US10_PLM/11	H	4.662,550	80,00	0,00	1
ATY	US10_PLM/3	H	1.811,926	250,00	250,00	1
ATY	US10_PLR/1	H	1.597,474	240,00	0,00	1
ATY	US10_PLR/11	H	1.812,192	180,00	0,00	1
ATY	US10_PLR/3	H	2.878,743	400,00	400,00	1

Figure 5.45 Result of Activity Price Calculation

You can also assign the new activity prices to your production orders, process orders, projects, and so on using Transaction CON2 or the **Revaluate at Actual Prices** function that you'll find in every menu for the period close in cost object controlling.

> **Note**
>
> Indirect activity allocation and the revaluation at actual prices function are not available in SAP S/4HANA Cloud.

5.4.4 Overhead Calculation

The purpose of overhead calculation is to charge the costs from the cost center to the orders or projects based on a percentage, so you might assign the warehousing costs to a production order based on the underlying material costs. The *costing sheet* determines how the overhead will be applied and covers the following:

- The basis for the calculation (e.g., all relevant raw material costs)
- The conditions under which overhead is applied (e.g., within a particular plant or when manufacturing a particular material)
- The percentage to be applied (e.g., 10% on all raw material costs)
- The cost center that's the sender of the charge (e.g., the warehouse cost center)

To perform an allocation based on overhead calculation, you'll need to enter a costing sheet in the master data for the receiver object, as shown in Figure 5.46, which shows the production order header and the **Costing Sheet 1710PP** (we'll return to this example in Chapter 6). Normally this is defaulted using the settings for the order type (or the project type if you're working with WBS elements). To check the settings for your production order, choose Transaction CO02, enter the **Order** number and the **Plant**, and navigate to the **Control** tab. In this example, **Overhead key** is blank, but the overhead key can be used to calculate material-specific overheads by linking the overhead key with the overhead group in the material master. We'll explain these links in more detail when we look at the master data for production in Chapter 6.

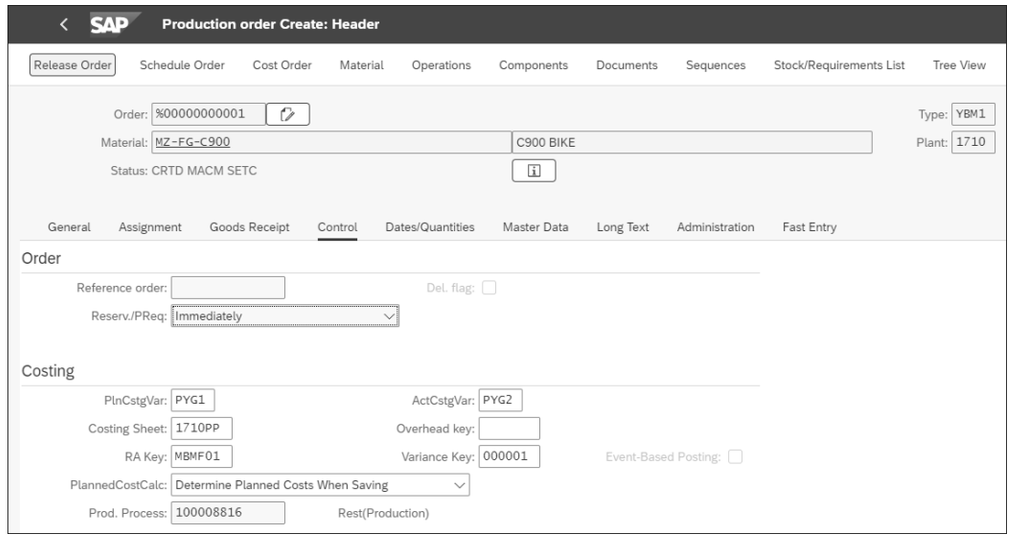

Figure 5.46 Control Parameters for Production Order

There are two options to calculate overhead according to the costing sheet. The traditional approach has always been to calculate overhead at period close, but you can see a new flag, **Event-Based Posting**, in the control settings for the production order. If this flag is set, then the overhead will be calculated along with the related goods issues and order confirmations rather than at period close. This has the advantage that you will see your overhead costs immediately, but it will generally result in more posting documents as you'll potentially be creating a follow-on document for every goods movement and confirmation, depending on the settings in your costing sheet.

In this example, we're calculating overhead the classic way by using Transaction KGI2 or **Accounting • Controlling • Product Cost Controlling • Period-End Closing • Product Cost by Order • Overhead Calculation • Individual Processing** and entering the order number, the period, and the fiscal year. To access the results shown in Figure 5.47, choose **Dialog Display** and press Enter. Here we've applied a 7% material overhead and a 10% production overhead. To see the link between the costing sheet shown in

Figure 5.46 and the conditions used in Figure 5.47, choose the **Analysis** button. Figure 5.48 shows the analysis of the overhead conditions.

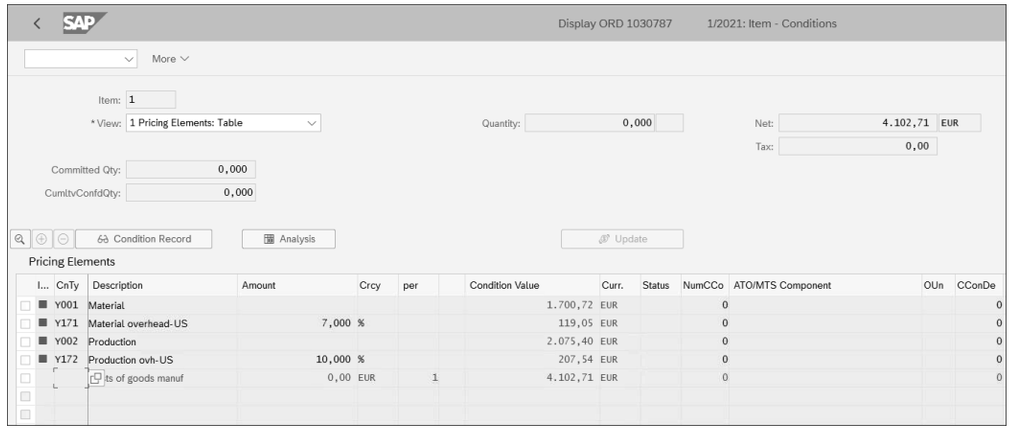

Figure 5.47 Overhead Calculation for Production Order

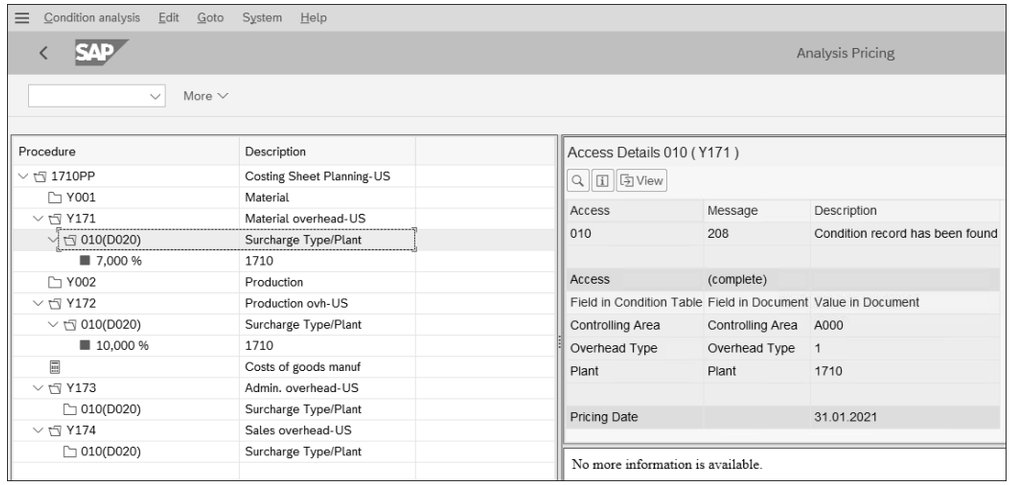

Figure 5.48 Details of Costing Sheet for Production Order

If you now use Transaction KKBC_ORD to look at the costs for the production order in Figure 5.49, you can see postings for the raw material and the associated material overhead and postings for the confirmations (direct activity allocation) and for the production overhead. This has resulted in postings to the cost center **17101201** and the cost center **17101301**, as shown in the **Origin** column for material overhead and production overhead.

This isn't the only way to calculate overhead. It's also possible to assign quantity-based overhead and allocate overhead based on the quantity of raw material consumed or the

quantity of activity confirmed. The costing sheet still controls the process, but instead of entering a percentage you enter a quantity as the condition for the overhead calculation.

Order 1030787 MZ-FG-C900
Order Type YBM1 MTS Production Order
Plant 1710 Plant 1 - US
Material MZ-FG-C900 C900 BIKE

Cost Element	Cost Element (Text)	Origin	Total Target Costs	Total Actual Costs	Target/actual var.	T/I var(%)	Currency
55100000	Plant Activity Production Order		0,00	3.072,50-	3.072,50-		USD
Credits (Co/By-Pr)Cr			**0,00**	**3.072,50-**	**3.072,50-**		**USD**
51100000	Consumption - Raw Material		1.976,80	1.976,80	0,00		USD
Direct Material			**1.976,80**	**1.976,80**	**0,00**		**USD**
94301000	Machine hours 1	US10_PLC/1	322,07	322,06	0,01-		USD
Machine time			**322,07**	**322,06**	**0,01-**		**USD**
94111000	Overhead Material	17101201	138,38	138,38	0,00		USD
Material Overhead			**138,38**	**138,38**	**0,00**		**USD**
94311000	Personnel hours	US10_PLC/11	382,91	382,91	0,00		USD
Personnel time			**382,91**	**382,91**	**0,00**		**USD**
94112000	Overhead production	17101301	235,83	235,83	0,00		USD
Production Overhead			**235,83**	**235,83**	**0,00**		**USD**
94303000	Setup Production	US10_PLC/3	1.653,36	1.653,36	0,00		USD
Set-Up time			**1.653,36**	**1.653,36**	**0,00**		**USD**

Figure 5.49 Costs for Production Order

5.4.5 Template Allocation

If you think the overhead methods described in the previous section are too simplistic for your business needs or you're having trouble calculating a percentage that will result in all costs being charged from the sending cost center to the receivers, consider using template allocation for some of your overhead. This will allow you to calculate overhead using more complex drivers and to clear all costs on the cost center at the end of the period (a legal requirement in some parts of the world).

Probably the most common usage of a template is shown in Figure 5.50, where we've specified that one unit of order processing and one unit of sales order processing should be associated with each production order. This type of template is often used to set up a quality check for every production order rather than having a dedicated operation within the routing. To create a template, use Transaction CPT1 or **Accounting • Controlling • Product Cost Controlling • Period-End Closing • Product Cost by Order • Template Allocation • Individual Processing**, then select **Extras • Template • Create**. Give your template a name and select the relevant environment (**001** in this example). The functions offered in the template depend on the environment. A number of environments are available depending on the affected object, as shown in Table 5.1.

Environment	Object
001	Cost estimate/production order
004	Network
005	WBS element

Table 5.1 Template Environments

Environment	Object
007	Internal order
008	Sales order
009	Process order
010	Product cost collector

Table 5.1 Template Environments (Cont.)

At period close, you can run template allocation for production orders using Transaction CPTA or **Accounting • Controlling • Product Cost Controlling • Period-End Closing • Product Cost by Order • Template Allocation • Individual Processing**. With the template shown in the example, the resulting allocation will assign one unit of order processing and one unit of sales order processing to the production orders.

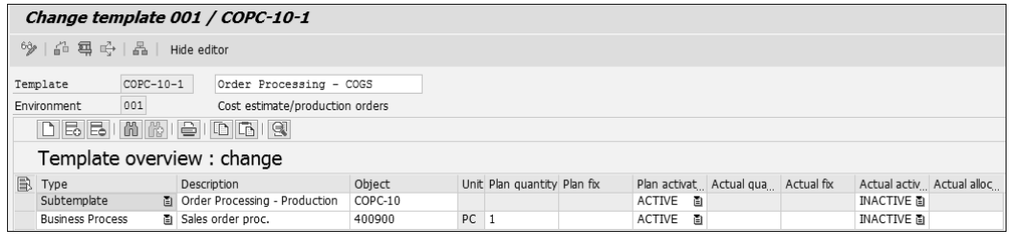

Figure 5.50 Template for Work Scheduling and Order Processing Costs

It's also possible to be more sophisticated and set up Boolean logic to determine whether the cost assignment will take place and to work with functions that read the number of work center changes to determine transport costs or the number of different bill of materials (BOM) items. Figure 5.51 shows some of the quantity functions delivered for use within the template in the production environment. To access this screen, position the cursor on the **Actual qua...** column in Figure 5.50 and double-click.

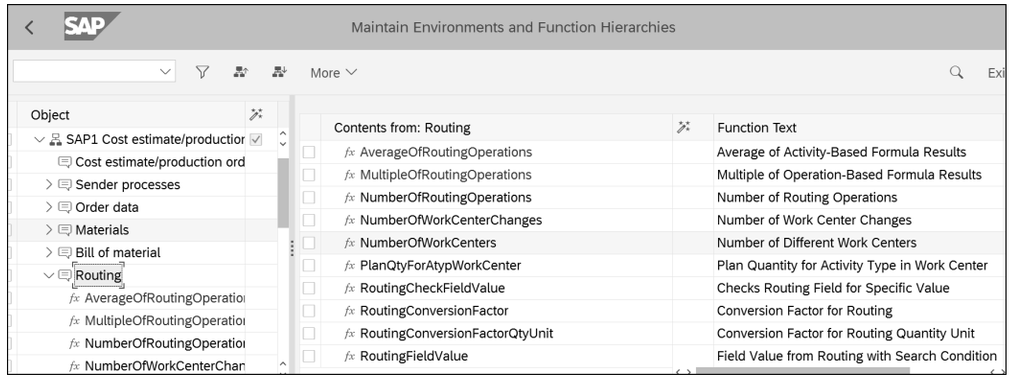

Figure 5.51 Template: Quantity Calculation Functions

This might look complicated, but it's just a more dynamic way of triggering a direct activity allocation that doesn't tie you down to having people fill out time sheets or rely on the operations in the routing. In terms of the cost posting, the result of a template allocation looks exactly like a direct activity allocation, performed either for the combination of cost center and activity type or for a business process.

5.4.6 Settlement

We introduced internal orders and projects in Chapter 4, Section 4.5. When you've collected costs for orders and projects, a *settlement* is used to move these costs from the sender object to the relevant receiver. Before we look at settlements in detail, it makes sense to recall Chapter 4, Section 4.5.1 and Section 4.5.2 and the various order and project types used in your organization as this will affect how they are settled. These are the general rules, but of course there are always exceptions:

- Overhead orders/projects settle to cost centers or market segments.
- Production orders settle to inventory and any variances to market segments (see Chapter 6).
- Maintenance orders/projects settle to cost centers or projects (see Chapter 6).
- Commercial projects settle to market segments (see Chapter 7).
- Investment projects settle to fixed assets or assets under construction (see Chapter 8).

Before you can perform settlement, you need to define a settlement rule to determine the receivers of the costs. The settlement rule can never be created in isolation but is always associated with the order or project for which costs are to be settled.

In Figure 5.52, we've selected the **ALPHA-6** WBS element using Transaction CJ20N and navigated to the settlement rule using **More • Edit • Costs • Settlement Rule**. When working with projects, it's common to settle to multiple receivers—as shown here, where 90% of the costs are to be settled to the responsible cost center **10101501** (the first distribution rule) and the remaining 10% of costs are to be settled to cost center **10101601** (the second distribution rule). You can add additional distribution rules with further receivers as required, but the total percentage must add up to 100%. Notice also that the settlement rule is **PER** (periodic), meaning that settlement will be carried out at the end of every accounting period. Production orders, by contrast, normally use full settlement (**FUL**) to settle all costs on the order to inventory when the order is complete.

Settlement rules can be created automatically, as is the case with production orders, manually (as here), or by configuring a strategy to generate rules in accordance with your configuration settings. While the distribution rules associated with the settlement rule might be different for every object to be settled, the default parameters controlling settlement are defined in a settlement profile for each order type/project type

to ensure consistency. You can display the settlement profile by choosing **More • Goto • Settlement Parameters**. This determines the following:

- **The types of receivers allowed**
  In the preceding example, we're settling to category **CTR** (cost center), but you might also settle project costs to an asset (as we'll show in Chapter 8) or a market segment (as we'll show in Chapter 7).
- **The type of split allowed**
  In the preceding example, we're settling percentages, but you can also define the split in terms of equivalence numbers or even enter quantities manually.
- **The validity period of the distribution rule**
  This is useful if the project lifecycle covers a long time period in which certain receivers may cease to be valid.

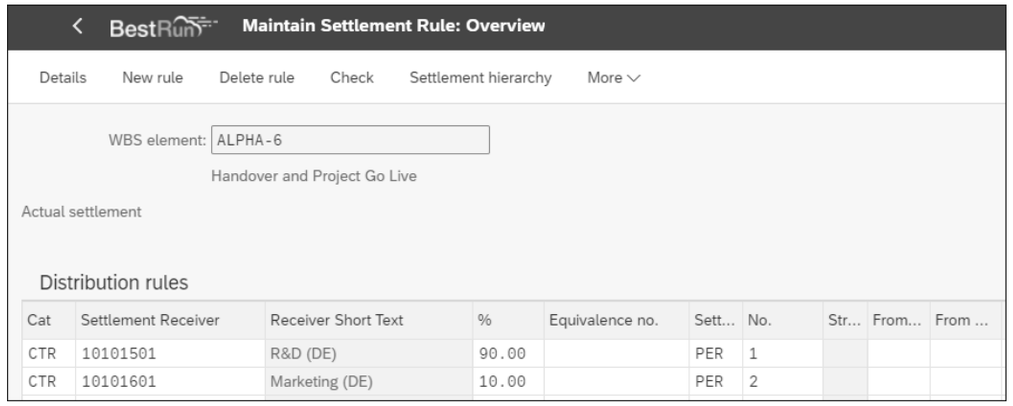

Figure 5.52 Settlement Rule for WBS Element

The settlement profile links in turn with an allocation structure. Before you can settle, you'll also need to make sure that all the general ledger accounts/cost elements posted to the sender are assigned to a source within the allocation structure and to define a settlement cost element (see Chapter 4, Section 4.1.3) for each receiver type. This is typically a configuration activity to ensure consistency. Figure 5.53 shows that the material costs on the project can settle to fixed assets (**FXA**) and other projects (**WBS**). The settlement cost element has a different category depending on whether the receiver is external (assets, general ledger account), where the cost element category is 22 for external settlement, or internal (cost center, order, WBS element, market segment), where the cost element category is 21 for internal settlement. This settlement cost element will be used to credit the sender and debit the receiver under business transaction KOAO if the receiver is a controlling object (internal) and KOAE if the receiver is a fixed asset or a material (external).

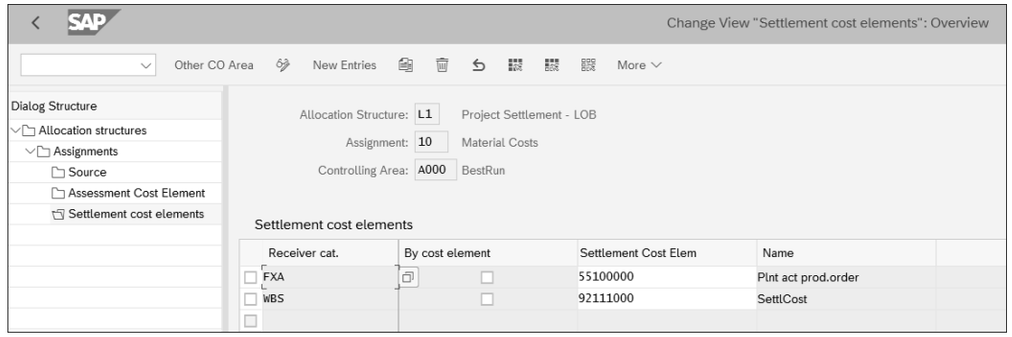

Figure 5.53 Change Settlement Cost Elements

To avoid errors, many organizations set up strategies to generate settlement rules with the appropriate receivers automatically. Where there is a link between a field in the project, such as the requesting cost center or responsible cost center, then you can create strategies to settle to the relevant field, such as the requesting cost center or the responsible cost center, or to derive the settlement rule from the project definition or superior WBS element. Figure 5.54 shows sample strategies for the automatic generation of settlement rules for two types of projects. You can check the strategy in the IMG via **Project Systems • Costs • Automatic and Periodic Allocations • Settlement • Settlement Rule for Work Breakdown Structure Element • Determine Strategy for Settlement Rule**.

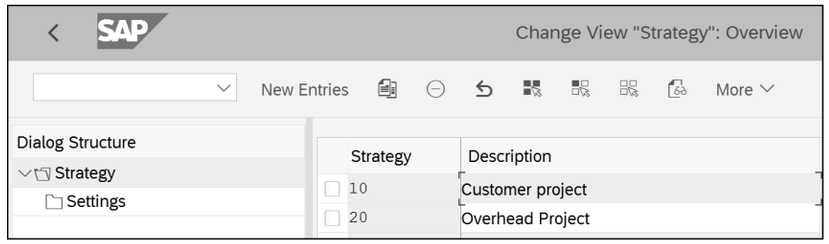

Figure 5.54 Sample Strategies for Generation of Settlement Rules

These are then assigned to the order type or project profile. Figure 5.55 shows the controlling settings for a project profile, including the link to the default settlement profile and the settlement rule strategy **10**. You can check these settings from the IMG by going to **Project Systems • Operative Structures • Work Breakdown Structure (WBS) • Create Project Profile** and choosing the relevant project profile. Notice also the link to the costing sheet used to calculate overheads in Section 5.4.4.

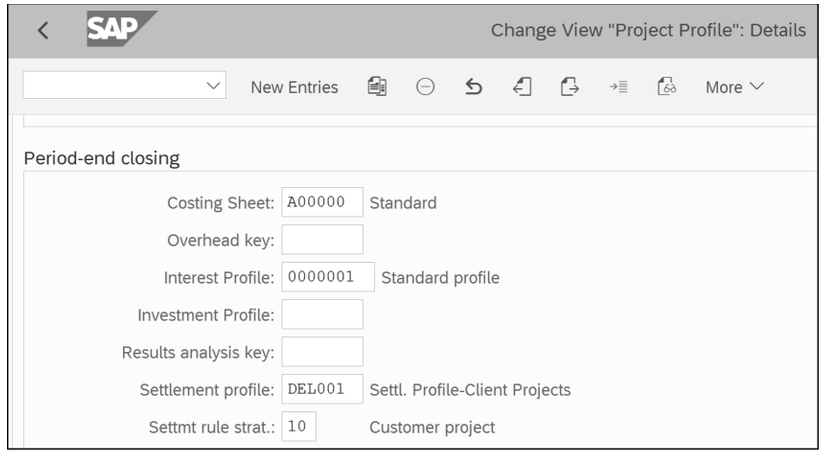

Figure 5.55 Project Profile Showing Link to Settlement Rule Strategy

We'll come back to the topic of settlement to explain additional settlement functions used in the context of capital expenses in Chapter 8.

5.5 Reporting for Overhead Controlling

We already introduced some of the key reports for overhead controlling, but we'll end the chapter by showing you how to use some of the standard reports to check the flow of costs within overhead controlling. The idea is to ensure that the costs of all the supporting cost centers have flowed to the operational cost centers using distribution or assessment. From there, the costs will have flowed as activities or as overhead into production or services. Where costs have been assigned to orders and projects, settlement moves them to the next receiver. To this extent, the focus in reporting is showing that all close tasks have run and all cost centers have a balance of zero at the end of the month.

As a controller, it's important to know which business transactions have been carried out in your area. Figure 5.56 shows the Display Line Items app and the line items created as a result of the universal allocation example that we looked at in Section 5.4.2. By selecting **Bus. Transac. Type** (business transaction type) ACAD, you can view all line items associated with a distribution, and ACAA lets you see all line items associated with an overhead allocation. Alternatively, if you use the classic transactions, you'll be able to recognize the relevant flows using Transaction RKIU for assessment, Transaction RKIV for distribution, Transaction RKIL for indirect activity allocation, and Transaction RKIB for reposting. Notice that the net result is zero as costs have simply been shifted between cost centers as a result of the allocation.

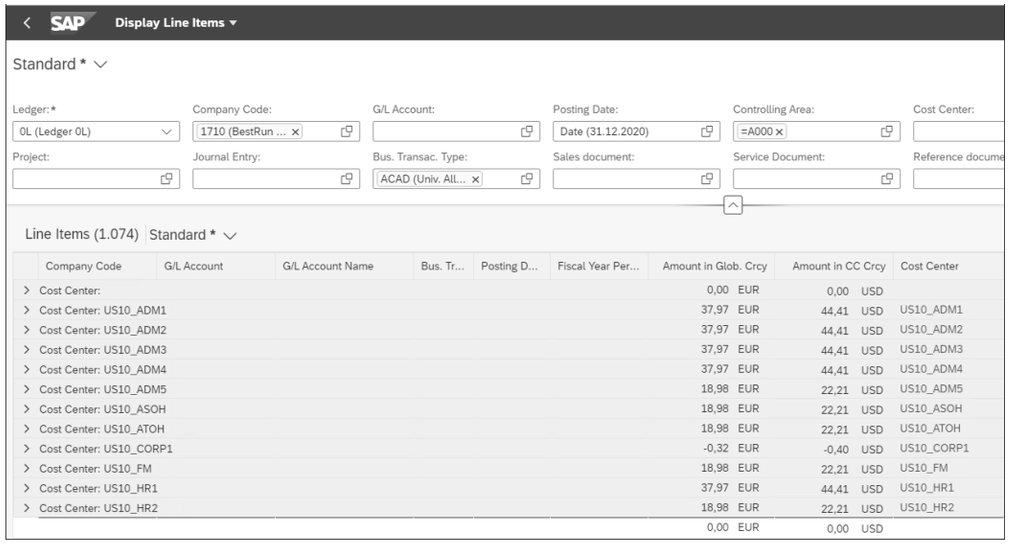

Figure 5.56 Display Line Items, Showing Results of Universal Allocation

Figure 5.57 shows the Cost Centers—Actuals app (SAP Fiori ID F0940A), where we've selected the same business transaction, ACAD. We've run the allocations, resulting in the total value for all cost centers being zero, with credit postings to the corporate cost centers and debit postings to the operational cost centers for finance and administration, marketing, and production operations.

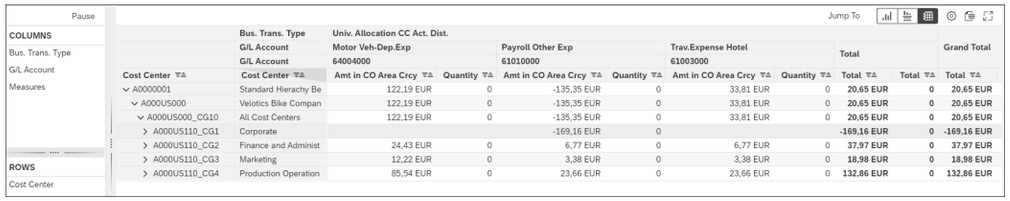

Figure 5.57 Cost Center Report, Showing Result of Allocation

Where an allocation is made based on an activity price, it's important to check the activity price calculated at period close. To do this, use Transaction KSBT or **Accounting • Controlling • Cost Center Accounting • Information System • Reports for Cost Center Accounting • Prices • Cost Centers: Activity Prices**, as shown in Figure 5.58, to check the results of activity price calculation.

In addition to checking the status of the various cost centers at period close, it's also important to check the orders and projects. Again, you can use the line item report, but focus this time on business transaction RKL for direct activity allocations, business transaction category KOAO for settlement to other controlling objects, and

business transaction KOAE for settlement to inventory and assets. Figure 5.59 shows all line items for project TM2102INT01, and you can see the activity allocations (**RKL**) from various cost centers and the settlement documents (**KOAO**) to various cost centers.

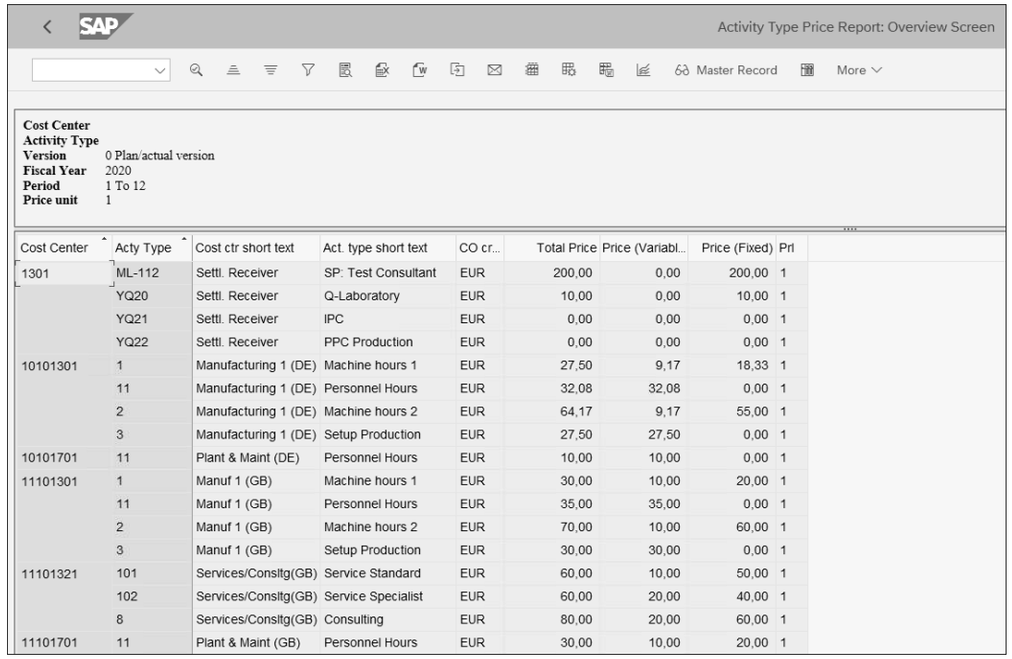

Figure 5.58 Activity Price Reports

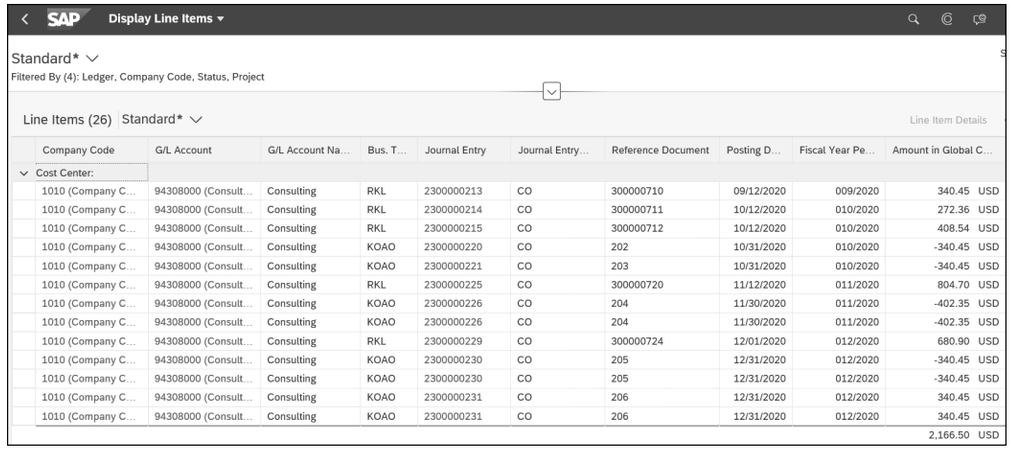

Figure 5.59 Line Items for Activity Allocations and Settlement

5.6 Summary

In this chapter, we've explained the role of the cost center manager in monitoring costs in his or her area of responsibility and explained the differences between journal entries for primary and secondary postings. We then looked at the role of planning in establishing budgets and setting targets for each cost center. We also looked at the various business transactions used to move costs from sender to receiver and the reports that will help you to ensure that the correct cost flows are in place. The topics we covered here will be revisited when we look at capital expenses in depth in Chapter 8, and we'll look at intercompany allocations in detail in Chapter 9. First, however, we'll focus on production controlling and the flow of production costs to the shop floor and inventory in the next chapter.

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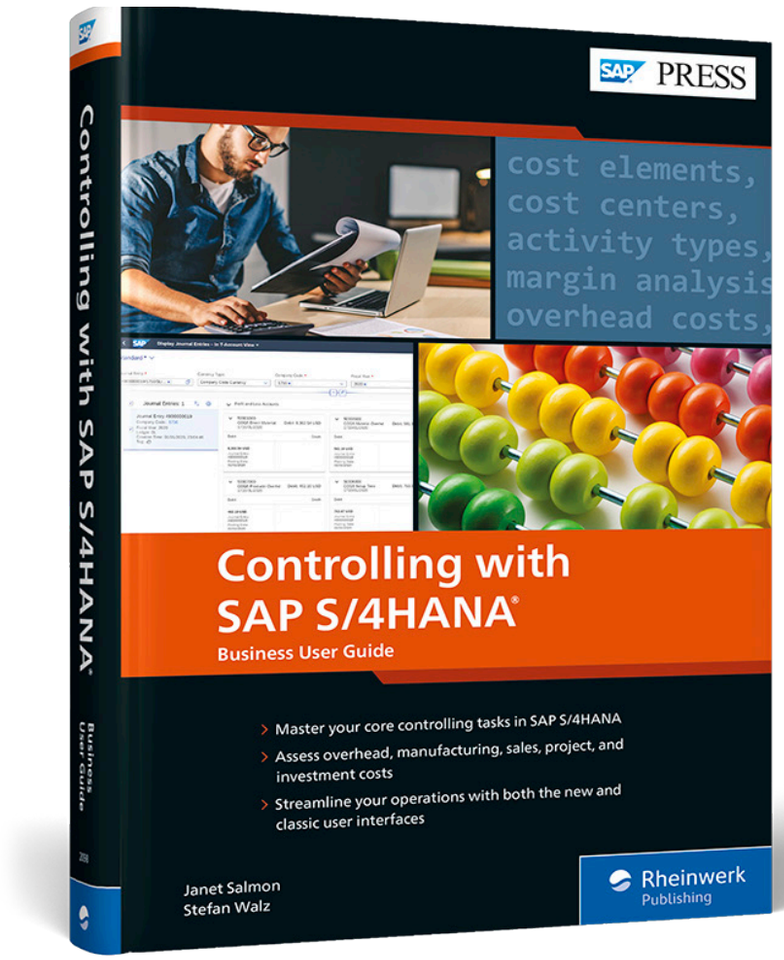

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