Stefan Eifler & Christoph Theis

Value Flows into SAP® ERP FI, CO, and CO-PA

- Value flows based on the sales and production processes
- Overhead costs and closing tasks
- Reconciliation between FI and CO-PA
- Overview of SAP S/4 HANA Finance
## Table of Contents

**Foreword, or: Value flows into the supreme module**  
7

1 **Our prerequisites for describing the logistical sales and production process**  
1.1 Organizational prerequisites  
14  
1.2 The standard material costing  
20

2 **The sales order**  
2.1 Creating a sales order  
36  
2.2 SD pricing  
38  
2.3 Revenue and cost collectors?  
39  
2.4 Interface to CO-PA  
42  
2.5 Reconciliation options with accounting  
53

3 **The production order**  
3.1 The standard cost estimate for a production order  
59  
3.2 Production process  
64  
3.3 (Month-end) Closing for the production order  
81  
3.4 Reconciliation options with accounting  
107

4 **Goods issue**  
111

5 **The invoice**  
5.1 Creating an invoice  
119  
5.2 Condition type VPRS  
121  
5.3 Interface to accounting  
122  
5.4 Reconciliation options with accounting  
130  
5.5 Excursus: Orders on hand reporting via CO-PA  
140

6 **Assessment to CO-PA**  
6.1 The assessment process to Profitability Analysis  
141
<table>
<thead>
<tr>
<th>Section</th>
<th>Title</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>6.2</td>
<td>Reconciliation options for the assessment cycle to CO-PA</td>
<td>151</td>
</tr>
<tr>
<td>7</td>
<td>A further period-end closing activity: Work in process (WIP)</td>
<td>155</td>
</tr>
<tr>
<td>7.1</td>
<td>The WIP calculation process</td>
<td>155</td>
</tr>
<tr>
<td>7.2</td>
<td>Reconciliation options for WIP</td>
<td>161</td>
</tr>
<tr>
<td>8</td>
<td>The future of CO-PA under SAP S/4HANA</td>
<td>163</td>
</tr>
<tr>
<td>8.1</td>
<td>Who or what is HANA?</td>
<td>163</td>
</tr>
<tr>
<td>8.2</td>
<td>Changes with SAP S/4HANA Finance</td>
<td>164</td>
</tr>
<tr>
<td>9</td>
<td>Closing words</td>
<td>167</td>
</tr>
<tr>
<td>A</td>
<td>The Authors</td>
<td>172</td>
</tr>
<tr>
<td>B</td>
<td>Index</td>
<td>175</td>
</tr>
<tr>
<td>C</td>
<td>Disclaimer</td>
<td>180</td>
</tr>
</tbody>
</table>
2 The sales order

Let’s assume that our competitive product is known on the market and is enjoying a certain level of demand. Where does the business sequence begin in a logistical sales and production process? Correct: based on an inquiry, an offer, and potentially sales negotiations, the customer places a sales order which we want to enter and process in our SAP ERP system.

What happens in this process in an integrated system? The sales order is initially processed in the SAP module Sales and Distribution (SD). The main objective here is to create a sales order in the SAP system, to print it out where applicable, and to send an order confirmation to the customer. Other interesting things also take place which are relevant for accounting: on the one hand there is a price calculation for the product to be sold, and when we save the sales order, line items are written to Profitability Analysis (CO-PA) and we can use these line items for sales order controlling. However, the sales order does not yet trigger any postings in the balance sheet or profit and loss statement! Nevertheless, it does set the course for the subsequent posting of the invoice in Finance (FI) and Controlling (CO).

Therefore, in this chapter, we want to address the following important points:

► How does the SAP system find the prices and conditions relevant for the sales order and how does it use these to calculate the price?

► In terms of time, how far apart are the sales order and the subsequent invoicing? The answer to this question influences whether we transfer sales order data to CO-PA now or when we issue the invoice.

► Do we want to collect revenues and costs on our sales orders to then settle them to CO-PA later, for example, or do we transfer the revenues, discounts, and rebates as well as the costing-based material and production costs to CO-PA directly?

The interface of the SD module is the most important for transferring data to CO-PA. This is not surprising because CO-PA was designed as a sales con-
trolling tool for transferring sales order data and then later the corresponding invoice data to CO-PA.

However, not every company transfers sales order data to CO-PA; many transfer only invoice data from SD to CO-PA. For companies where there is a long period of time between receipt of the sales order and invoicing, the recommendation is to also transfer the sales order data. There are two arguments in favor of this: on the one hand, the incoming order already shows how the business situation of your company will develop. On the other hand, you can use the sales order data to build up orders on hand reporting in CO-PA. When you have subsequently also transferred the invoice data, by subtracting the sales order data and invoice data, you can report the orders on hand in reporting for CO-PA—and for all characteristics that you also transfer to CO-PA with the sales order or the invoice.

If you configure the Customizing for your sales orders such that the orders are not collectors for revenues and costs, you can even subsequently transfer your invoice data to CO-PA in real time. If this were not the case, the invoice would first return the data to the sales order and you would then have to settle this order to CO-PA. Depending on how often you undertake such settlement, this can potentially delay important findings in sales controlling because the required information is provided too late.

2.1 Creating a sales order

We will now create a sales order in the SD module of the SAP system using transaction VA01. To do this, enter a *sales document type* and a *sales area* and confirm your entries. In SD, a sales area always consists of three organizational characteristics: the sales organization, distribution channel, and division. In our example system, we use sales document type (ORDER TYPE field) **TA** and sales organization **ET15**, distribution channel **01**, and division **00** (see Figure 2.1).

For our customer **K1**, we enter an order in which the customer has ordered one piece of our sales product **FERT1**. Figure 2.2 shows an overview with the relevant details.
Figure 2.1: Initial screen for creating a sales order

Figure 2.2: Overview of the creation of a sales order
In the top right-hand corner you can see the net value of **EUR 6000**. Where did the system get this value from? On the **CONDITIONS** tab for the order item (see Figure 2.3) we can find further information about how this net value is calculated.

### Create Standard Order: Item Data

![Create Standard Order: Item Data](image)

2.2 **SD pricing**

As part of the pricing, a gross list price (condition type **PR00**) in the amount of **EUR 7500** (see Figure 2.4) and a **customer discount (K007)** in the amount of **20.00%** (corresponding to **EUR 1500**) (see Figure 2.5) were determined, resulting in an invoice sale in the amount of **EUR 6000**.

This pricing is defined in the Customizing for SD; the prices and other conditions can be found in the SD master data. These other prices and conditions are created using transaction VK11:
2.3 Revenue and cost collectors?

Do we collect revenues and costs on our sales order? You can recognize this—once you have returned to the overview of your sales order—by switching to COST REPORT in the ENVIRONMENT menu item. If the message ITEM IS NOT RELEVANT FOR COSTS appears, the sales order is neither relevant for costs nor do we collect revenues on it (see Figure 2.6).
B Index

A
Account assignment category 41
Account assignment object 101
Account determination 26, 98
   MM 69, 78, 98, 114
Account grouping code 115
Account key 123
Account modification 99
Accounting 1 view 113
Accounts 17
Activity price 28, 30, 71
Activity price planning 28, 30, 31
Activity type 29, 30, 71
Actual cost of goods manufactured 87, 96
Actual costs 75, 84, 86
Actual overhead costing 81, 82
Actual overheads 81
Adjusted standard cost estimate 13, 49, 52, 53, 62, 90, 96, 113, 128
Administration data 45
Allocation structure 93
   receiver objects 93
   settlement cost elements 93
   source cost elements 93
Application 123
Assessment cycles 142, 147, 149, 152
   allocation bases 143
   assessment cost element 144
   receiver 143
   receiver tracing factor 144
   receiver value field 144
   segment 143, 149
   segment header 144
   segment name 144
   sender 143
   sender and receiver rules 143
   sender values 144

B
Bill of material 23, 62, 67
Billing due list 131
Business warehouse 54
BW system 54

C
Characteristic derivations 46
Characteristics 17, 45, 46
Chart of accounts 114, 123
Closing process 81
CO account assignment determination 101
CO object 41, 69, 74, 99, 101, 102, 148
Company code 15
Components 62
Condition list 121
Condition type 38, 51, 115, 121
Conditions 38, 121
Confirmation 62, 64, 67, 71, 73
Controlling area 15
Controlling-relevant account assignment 19
CO-PA 15, 17, 42, 92
   account-based 164
   actual line item report 109
INDEX

- costing-based 165
- line items 136
- report 52
- reporting 53
- CO-PC 53
- Correction documents 138
- Cost analysis 61, 70, 75, 79, 84, 86, 104
- Cost center 28
- Cost center activity price planning 73
- Cost center assessment 141
- Cost center report 152
- Cost component split 165
- Cost components 23, 25, 28, 31, 33, 49
- Cost element 17, 19, 29, 69, 165
- Cost element type 28
- Cost of goods manufactured 71
- Cost of sales 131
- Cost of sales accounting 74, 131
- Cost of sales accounting ledger 74
- Costing 22
  - holding 33
- Costing sheet 25, 31, 81, 83
  - base 25, 26, 31
  - credit 25, 27, 32
  - overhead rate 25, 26, 32
- Costing type 123
- Costing view 87
- Cost-relevant 39
- Costs of goods issue 50, 51
- Creating an invoice 119
- Credit 73
- Credit cost center 82
- Credit limit release 56
- Customer discount 38

D
- Debit 73
- Default value 87
- Delivery 111, 112, 117
- Detail lists 96
- Direct account assignment 101, 102
- Direct manufacturing costs 31
- Direct material costs 25
- Discounts 47, 122, 132
- Distribution channel 14, 36
- Division 14, 36
- Document flow 112

E
- ERP system 20

F
- Financial statement schema 13, 15
- Functional area 74, 148

G
- G/L account 164
- G/L account determination 123
- General modification 98, 115
- Goods issue 62, 63, 64, 67, 68, 112, 116, 117, 135
- Goods receipt 62, 63, 65, 67, 76
- Goods receipt posting 77
- Gross list price 38, 47, 121
- Gross profit structure 13, 16, 17, 52

I
- Incoming sales order 36
- Incorrect order receipt 57
- Indirect costs 83
In-memory database 163
Internal activity allocation 73
Invoice 121, 124, 125, 135
Invoice condition type 127
Invoice data 36
Invoice line item 125, 138
Invoice sale 38, 131
Invoice transfer 138

L
Layout 107
Line identification 158
Line item layout 136
Line items 42, 45
List selection 148

M
Main memory 163
Manufacturing overhead 31, 33, 50, 81
overhead 82
rate 31
Material costing 22, 33, 48
Material input 50
Material overhead 25, 28, 50, 81
overhead rate 25, 26, 63, 81, 83
Material type 49
Materials 13
Month-end closing 80, 81
Month-end closing activity 87
Month-end closing process 95, 162

N
Net value 38
New General Ledger 74

O
Operating concern 15
Order header 60
Order number 61
Order receipt 53, 54, 55, 56, 140
Order settlement 98, 100
Order type 59, 91
Orders on hand 36, 140
Orders on hand reporting 36
Organizational structure 13, 14
Origin data 45
Over/under absorption 141, 145
Over/under absorption amount 150
Overhead costing 81, 85
Overhead Rate (O/H Rate) 62

P
P&L 15, 17, 19
PA transfer structure 92, 94, 102
source 92, 102
source cost element 102
Period-end closing 152
Periodization 131
Planned costs 62
costed 61
Plant 14, 22
Price calculation 35
Price difference posting 101
Primary cost elements 18
Procedure 98, 114
Procedures 62
Processing options 96
Product Cost Controlling 106
Product master data 20
base unit of measure 21
material number 21, 22
material short text 21
moving price 21, 24
price control 21
procurement type 21
standard cost estimate 21
standard price (S) 21
valuation class 21

Production 64
Production labor variable 50
Production order 59, 62, 64, 67, 73, 81, 87
Production order costing 62
Production overhead overhead 83
Production process 59
Production variance 106, 166
Profitability Analysis 35, 42, 99, 100
Profitability segment 99, 124, 164

R
Raw materials 23
Real time 122
Real-time integration 73, 74, 84, 148
Real-time integration account 74
Record type 43, 44, 101, 104, 106, 109, 125, 136, 149, 154
Report Painter 134
Reporting 54
Requirements class 40, 41, 122, 132
Requirements type 40
Results analysis key 157
Results analysis version 158
Revenue element 124
Revenue-collecting 132
Revenues 121, 122, 132
Routing 28, 30, 31, 62, 71

S
Sales 130, 132
Sales area 36
Sales deductions 123
Sales document type 36
Sales order 14, 35, 36, 47, 48, 53, 67, 117
cost collector 39
process 53
revenue collector 39
Sales order controlling 35
Sales order data 36
Sales organization 14, 36, 123
SAP HANA 163
SAP module Production Planning (PP) 59
SAP module Sales and Distribution (SD) 35
SAP S/4HANA 164
Scrap 87
SD account determination 122
SD condition types 42
SD pricing 38
Secondary cost elements 18, 73, 74, 83
Secondary posting 83
Settlement 87, 90, 95, 97, 100, 102, 106
Settlement parameters 94
Settlement profile 90, 91, 92, 94
Settlement rule 93
SIS tool 54
Special ledger 74
Standard cost estimate 61, 63 ongoing 90
Standard layout 136
Standard material costing 20
Standard price 76, 114
Status 155
Stock change account 113
Stock change postings 33
Storage location 14

T
Table ACDOCA 164
Target cost version 90
Target costs 90, 96
Total stock value 114
Total variance 96, 101, 102, 104

U
Universal journal 164
Update 158

V
Valuation class 114
Valuation method 158
Valuation strategy 48, 49
Value fields 13, 17, 42, 45, 47, 48, 49, 92, 102, 128, 165
Value flow 13, 59, 64, 65, 66, 85, 96, 105, 116, 128, 150
FI/CO/CO-PA 70, 75, 79

Variance 86, 87, 92, 95, 96, 97, 100, 161
Variance calculation 87, 95, 96, 110
Variance categories 88, 89, 92, 94, 96, 97, 100, 104
input price variance 88
input quantity variance 88, 96
lot size variance 89
mixed price variance 89
output price variance 89
remaining input variance 89, 96
remaining variance 89
resource-usage variance 88
Variance key 87
Variance variant 88, 89
Views 20
VPRS 50, 52, 115, 117, 121, 136

W
WIP amount 162
WIP calculation 155, 159, 161
WIP posting 160
Work center 28, 31, 71
Work in process (WIP) 155