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SAP® Query Reporting—Practical Guide
Contents at a Glance

PART I  Introduction to SAP Query  ................................... 23
1  Introduction to SAP ERP Reporting  ................................... 25
2  Overview of SAP Tables and Table Links  ............................ 53
3  QuickViewer ................................................................. 77
4  Overview of SAP Query ..................................................... 93
5  Query Utilities ................................................................. 115

PART II  SAP Query Functions ........................................... 137
6  InfoSet in Detail ............................................................... 139
7  SAP Query in Detail .......................................................... 165
8  Selection and Layout Variants ............................................ 191
9  Traffic Light Icons, Drilldown, Graphics, and ABC Analyses ... 205

PART III  Designing User-Friendly Reports ....................... 223
10  Summarized Data Output with Statistics and Ranked Lists ... 225
11  ABAP Fundamentals in the InfoSet .................................... 249
12  Integration with Microsoft Excel ........................................ 279

PART IV  Query Management ........................................... 291
13  Transport System ........................................................... 293
14  Data Retrieval and Function Modules  ............................. 303
15  Authorizations and Transaction Creation  ......................... 331

PART V  Real-Life Examples .............................................. 345
16  Real-Life Examples ......................................................... 347

Appendices
A  Important SAP Tables .................................................... 377
B  The Author ................................................................. 391
## Contents

Preface .......................................................................................................................... 13  
Introduction ............................................................................................................... 17  

**PART I  Introduction to SAP Query**

| 1 | Introduction to SAP ERP Reporting | ................. | 25 |
| 1.1 | ABAP Report Generators | ........................................ | 26 |
| 1.2 | Query Reporting Tools | ................................................ | 28 |
| 1.3 | Comparing Analysis Tools: SAP Query and SAP NetWeaver BW | .......................................................... | 33 |
| 1.4 | Cumulated Analyses with Multilevel Hierarchies | ................ | 34 |
| 1.4.1 | Summarization Hierarchies | .................................. | 35 |
| 1.4.2 | Report Painter | ........................................ | 36 |
| 1.4.3 | Drilldown Reporting | ........................................ | 40 |
| 1.5 | Using Standard Reports | ........................................ | 44 |
| 1.5.1 | SAP Area Menus | ........................................ | 44 |
| 1.5.2 | Finding a Report in the SAP Menu | ................... | 47 |
| 1.5.3 | Searching the Menu for Standard Reports | .......... | 49 |
| 1.5.4 | Important Standard Transactions | ................ | 50 |
| 1.6 | Summary | ................................................ | 52 |

| 2 | Overview of SAP Tables and Table Links | ................. | 53 |
| 2.1 | Data Browser | ................................................ | 53 |
| 2.2 | Table Determination Options | ........................................ | 58 |
| 2.2.1 | F1 Help | ........................................................ | 58 |
| 2.2.2 | Table Trace | ................................................ | 64 |
| 2.2.3 | Archiving Object | ........................................ | 66 |
| 2.2.4 | Where-Used List | ................................................ | 68 |
| 2.3 | Table Links | ................................................ | 72 |
| 2.3.1 | Customer Master | ........................................ | 72 |
| 2.3.2 | Sales Document | ................................................ | 73 |
| 2.4 | Summary | ................................................ | 76 |
## Contents

### 3 QuickViewer ................................................................. 77
- 3.1 QuickViewer Overview ................................................. 77
- 3.2 Sample Data for Table TSTCT ........................................ 78
- 3.3 QuickViewer Initial Screen ............................................ 80
- 3.4 Steps for Creating a QuickViewer Report ...................... 82
  - 3.4.1 Defining a QuickView Name and Description ... 82
  - 3.4.2 Selecting a Data Source .................................... 84
  - 3.4.3 Selecting Selection Fields and Layout Fields ..... 85
- 3.5 Layout Mode ............................................................. 89
- 3.6 Summary ................................................................ 91

### 4 Overview of SAP Query ............................................... 93
- 4.1 Fundamentals ............................................................... 94
- 4.2 Query Areas .................................................................. 96
- 4.3 User Group ................................................................. 99
- 4.4 InfoSet .......................................................................... 103
- 4.5 SAP Query ................................................................. 109
- 4.6 Summary ................................................................ 114

### 5 Query Utilities ............................................................. 115
- 5.1 Overview of Query Utilities ........................................... 116
- 5.2 Overview of Query Objects ........................................... 119
- 5.3 Query Objects .............................................................. 121
  - 5.3.1 Overview of User Groups .................................. 121
  - 5.3.2 Query Overview ............................................... 123
  - 5.3.3 Directory Lists .................................................. 123
- 5.4 Calling Query Object Descriptions ................................ 124
  - 5.4.1 User Group Description .................................... 124
  - 5.4.2 InfoSet Description .......................................... 125
  - 5.4.3 Query Description ............................................ 128
- 5.5 Editing Functions for Query Objects ......................... 130
  - 5.5.1 Copy Function .................................................. 131
  - 5.5.2 Trash Folder ..................................................... 133
  - 5.5.3 Query Transport ............................................... 134
- 5.6 Summary ................................................................ 135
PART II  SAP Query Functions

6  InfoSet in Detail ................................................................. 139
   6.1 Data Sources ............................................................... 141
   6.2 Automatic Text Recognition ....................................... 143
   6.3 Table Join ................................................................. 145
   6.4 Field Groups .............................................................. 149
   6.5 Individual Additional Fields ....................................... 153
   6.6 Selection ................................................................. 160
   6.7 Summary ................................................................. 163

7  SAP Query in Detail ..................................................... 165
   7.1 Fundamentals .............................................................. 165
   7.2 Initial Screen .............................................................. 168
      7.2.1 Changing User Group ....................................... 168
      7.2.2 Converting QuickView into a Query .................. 169
      7.2.3 Additional Functions on the Initial Screen ....... 171
      7.2.4 Additional Editing Options ............................... 174
   7.3 Query Creation Screen .............................................. 176
      7.3.1 Query Title and Formatting ............................... 177
      7.3.2 Output Format ............................................... 179
   7.4 Field Name ............................................................... 179
      7.4.1 Changing the Column Header of Query Fields ... 181
      7.4.2 Local Fields ................................................... 182
      7.4.3 Selection Fields ............................................... 186
   7.5 Basic List ............................................................... 187
   7.6 Additional Functions ................................................ 188
   7.7 Summary ............................................................... 189

8  Selection and Layout Variants ...................................... 191
   8.1 Selection Screen ...................................................... 192
   8.2 Selection Variants .................................................. 198
   8.3 Layout Variant ....................................................... 202
   8.4 Summary ............................................................... 204
## Contents

### Part III Designing User-Friendly Reports

#### 10 Summarized Data Output with Statistics and Ranked Lists

- 10.1 Example: Open Item List .................................................. 226
- 10.2 Basic List Without a Graphical Query Painter .............. 230
- 10.3 Statistics ....................................................................... 239
- 10.4 Ranked List ................................................................... 246
- 10.5 Summary ...................................................................... 248

#### 11 ABAP Fundamentals in the InfoSet

- 11.1 ABAP Dictionary ........................................................... 249
- 11.2 Individual Data Objects in the InfoSet ....................... 254
  - 11.2.1 Data Fields ....................................................... 255
  - 11.2.2 System Fields ................................................... 260
- 11.3 Helpful ABAP Code ....................................................... 262
  - 11.3.1 Sample Code on the Editor Screen .................... 262
  - 11.3.2 IF Statement .................................................... 265
  - 11.3.3 SELECT Loop .................................................... 268
  - 11.3.4 SELECT SINGLE Statement ............................... 272
  - 11.3.5 Other Helpful ABAP Commands ....................... 275
- 11.4 Using Your Own Code in the InfoSet ......................... 276
- 11.5 Summary ...................................................................... 277
# Table of Contents

## 12 Integration with Microsoft Excel ........................................ 279
12.1 Data Browser ..................................................................... 279
12.2 Excel Inplace in SAP List Viewer ................................. 282
12.3 Microsoft Excel Integration for Other Query Output Formats .................................................. 287
12.4 Summary ....................................................................... 289

## PART IV Query Management

## 13 Transport System ......................................................... 293
13.1 Transport Dataset .......................................................... 294
13.2 Transport Tool ............................................................... 295
13.2.1 Transport Tool in the Standard Area .......................... 295
13.2.2 Transport Tool in the Global Query Area ............... 296
13.3 Transport Options ......................................................... 297
13.4 Additional SAP Notes ................................................... 299
13.5 Summary ...................................................................... 300

## 14 Data Retrieval and Function Modules ......................... 303
14.1 Secondary Index ........................................................... 304
14.2 Table View .................................................................... 307
14.3 Function Module .......................................................... 314
14.3.1 Function Module for Converting the Time Dimension in the InfoSet .................................. 314
14.3.2 Function Module for Displaying Texts ....................... 320
14.4 Summary ...................................................................... 329

## 15 Authorizations and Transaction Creation .................... 331
15.1 Transactions in the Query Environment ......................... 331
15.2 User Groups .................................................................. 333
15.3 Authorization Objects ................................................... 333
15.3.1 Authorization Groups .................................................. 335
15.3.2 Authorization Object S_QUERY .............................. 336
Contents

15.4 Integrating Query Transactions into a User Role .......... 337
15.5 Notes on Authorization Assignment ............................. 341
  15.5.1 SAP Notes .......................................................... 342
  15.5.2 Authorization Objects for Administrators and
         Developers ............................................................. 342
15.6 Summary .................................................................. 343

PART V Real-Life Examples

16 Real-Life Examples ..................................................... 347
  16.1 Procedure When Creating Reports ............................. 347
    16.1.1 Brainstorming Workshop .................................. 347
    16.1.2 Specifying Reports ............................................ 349
  16.2 Sales Evaluation ....................................................... 351
  16.3 Financial Accounting Analysis — Open Items .......... 359
  16.4 Production Planning — Measuring Productivity .......... 366
  16.5 Summary .................................................................. 376

Appendices ................................................................. 377

A Important SAP Tables .................................................. 377
  A.1 General .................................................................... 377
  A.2 Sales and Distribution .............................................. 378
  A.3 Production ............................................................. 380
  A.4 Materials Management ............................................. 381
  A.5 Financial Accounting and Controlling ..................... 384
B The Author .................................................................... 391

Index ............................................................................... 393
SAP Query is used to create analyses in real time without any great effort. Such analyses are used to optimize processes and master data, and to support corporate management. In your SAP ERP system, you can use the SAP Query functions without the need for any additional installations or license fees.

1 Introduction to SAP ERP Reporting

For enterprises, quickly and accurately accessing business information is vital. To this end, SAP provides an extensive portfolio of tools for report creation. The most important tools are as follows:

- Query reporting tools
- Report Painter/Report Writer
- Drilldown Reporting
- SAP NetWeaver Business Warehouse (SAP NetWeaver BW)/SAP BusinessObjects

The term query reporting tools comprises the following tools:

- SAP Query
- QuickViewer
- InfoSet Query

This chapter introduces you to SAP Query, Report Painter, and Drilldown Reporting, and distinguishes among these three tools and SAP NetWeaver BW. In addition, you will learn about frequently used standard SAP reports. After obtaining an overview of the basic requirements for report creation in Section 1.1, ABAP Report Generators, we will compare the three aforementioned query tools in Section 1.2, Query Reporting Tools. Here, you will learn when it is advisable to use the query reporting tools to query information directly in the SAP ERP system. In Section 1.3,
Comparing Analysis Tools: SAP Query and SAP NetWeaver BW, we will highlight the advantages of SAP Query over SAP NetWeaver BW.

If you need reports with summarized figures (totals), which is often the case in Financial Accounting (FI), we recommend that you use the following tools: Report Painter/Report Writer and Drilldown Reporting. In Section 1.4, Cumulated Analyses with Multilevel Hierarchies, you will see how SAP ERP is used in different enterprises with different business requirements. For the most important reporting requirements, which are often the same for many customers, a standard report is frequently available in SAP ERP. Before you create a new report, you should always check whether an existing report already covers your requirements (see Section 1.5, Using Standard Reports).

### 1.1 ABAP Report Generators

At the start of every report, there is a specific requirements specification. After the data basis has been clarified, the user decides how to format the data and answers the following questions:

- What does the selection screen look like?
- Which field contents do you want to output?
- Which report jumps (drilldown) are useful?
- How do you want the data to be formatted?
  - Output length, decimal places, unit
  - Color display
- How do you want to summarize or display the data?
  - Summation levels
  - Excel display

For example, a developer can use an ABAP report to format the data. However, a good ABAP developer requires time to output structured data. He needs not only technical expertise but also business knowledge, in particular.

Because the business requirements of an enterprise are often challenging, both detailed technical knowledge and industry knowledge are
essential. In addition to technical knowledge, a good consultant, key user, user, or developer must have some business knowledge to create the best analyses.

If you have a good level of technical knowledge, you must acquire the relevant business expertise. Because the analysis requirement is based on many years of real-life experiences, the question of simplified technical analysis options arises. Is it always necessary to create an analysis program from scratch? Are there easy ways to create ABAP code? The goal is to generate a good report and to access a simple report generator, either to accelerate the implementation speed or simply due to a lack of programming knowledge. Table 1.1 provides an overview of the most important report generators for you.

<table>
<thead>
<tr>
<th>Report Generator</th>
<th>Transaction</th>
<th>Focus in Real Life</th>
</tr>
</thead>
<tbody>
<tr>
<td>SAP Query</td>
<td>SQ01</td>
<td>All SAP components</td>
</tr>
<tr>
<td>SAP NetWeaver BW</td>
<td></td>
<td>All SAP components</td>
</tr>
</tbody>
</table>
| Report Painter   | FGRP        | ▶ FI: General ledger, special ledger  
|                  |             | ▶ CO: Overhead costs, product costs, Profit Center Accounting |
| Drilldown Reporting |            | ▶ FI: General ledger, customers, vendors, special ledger  
|                  |             | ▶ CO: Product costs, Profitability Analysis, Profit Center Accounting |
|                  |             | ▶ TR: Cash Management, Treasury  
|                  |             | ▶ IM: Investment Management  
|                  |             | ▶ PS: Project System |
| LIS              |             | ▶ SD: Sales and Distribution, shipping, billing  
|                  |             | ▶ MM: Purchasing, inventory management, invoice verification  
|                  |             | ▶ QM: Quality Management  
|                  |             | ▶ PM: Plant Maintenance  
|                  |             | ▶ PP: Production Planning and Control |

Table 1.1 Overview of the Most Important Report Generators for You
SAP provides different utilities for creating ABAP code for an analysis. We already mentioned the most important reporting tools in the introduction, namely Report Painter/Report Writer, Drilldown Reporting, and SAP NetWeaver BW. The Logistics Information System (LIS) is another tool. The term *query reporting tools* is often used in different contexts, both in literature and in real life. Frequently, the term SAP query reporting is also used to describe the SAP NetWeaver BW reporting tools. However, this book concerns only those query reporting tools within the SAP ERP system.

In the next section, we will explain which query reporting tools are available to you.

### 1.2 Query Reporting Tools

This section provides a first impression of the functional scope of query reporting tools. We will compare the various options and application areas of SAP Query, InfoSet Query, and QuickViewer against each other and explain them in detail.

When we speak of query reporting tools, we mean the following three tools:

- SAP Query
- InfoSet Query
- QuickViewer

The order in which these tools are listed reflects their decreasing functional scope. QuickViewer is the easiest tool to use, but it provides the lowest functionality of all three query tools. An overview of the most important functions is provided in Table 1.2.

In Release 4.6, SAP renamed one of its query reporting tools to SAP Query. Prior to Release 4.6C, it was known as the *ABAP Query Tool*. In the SAP solution portfolio, this tool is still listed under the ABAP development tools because it was originally intended for developers who wanted an easier way to generate ABAP code.
To enable end users to create their own individual reports, InfoSet Query (initially intended for the Human Resources area) and QuickViewer (a particularly easy-to-use tool for occasional users) were developed in Release 4.6C. At the same time, the query tools were completely revised in terms of their performance and the way in which they create ABAP code. The user interface was also simplified.

In the course of this further development, SAP changed many terms. Table 1.3 provides an overview of these terminology changes.

However, all three query reporting tools have the same purpose, namely to create ABAP code easily and thus generate individual analyses.

You can use the following data sources as a data basis for these analyses (see Figure 1.1):

- Individual database table
- Table join
Introduction to SAP ERP Reporting

- Logical database
- InfoSet

Data source: database table
In some cases, it is sufficient to query an individual database table (1). If you have the necessary authorization, you can also use the Data Browser to query the database directly. However, if you want to easily limit access and have a user-friendly query, it may make sense to create a query. It may also be productive to query only one database table (if this table already contains most of the information you require) and to read additional information in separate additional fields.

Data source: table join
Due to its simplicity and high implementation speed, QuickViewer has proven successful for one-time ad hoc analyses. In comparison to querying the table directly in the database, you can use QuickViewer to query several tables that are linked via fields. If two or more tables are linked with each other, this is known as a table join (2).

Logical database
Logical databases (3) contain information that has already been compiled for the creator of the report. Logical databases are the basis for linking SAP tables with each other. Even though a query is easily possible, the
predefined data basis carries the risk of unnecessary data content being queried. Consequently, the simplified query is synonymous with lower performance.

An InfoSet is, for the most part, comparable with a table join. In QuickViewer, a transaction is the basis for defining the table join (data basis) and selecting the selection and layout fields. For SAP Query and InfoSet Query, a separate transaction is used to create the data basis as an InfoSet. An InfoSet can have a table, table join, or logical database as its data basis.

QuickViewer is frequently used in real life. A report can be created in just a few minutes, simply by using one transaction (SQVI) and knowing the database table(s). The newly created QuickViewer report is available locally but only to the creator of the report. If another user requires this report, it cannot be simply forwarded to the user. With SAP Query, however, it is possible to convert the new QuickViewer report into an SAP query. For detailed information about QuickViewer, see Chapter 3, QuickViewer.

Creating an SAP query is not much more difficult than generating a QuickViewer report. Even though three transactions are used to create a report, report creation is also easy here if you are familiar with the logic. The use of SAP Query is usually preferred over the use of QuickViewer or InfoSet Query because it not only provides more options but also demands a more structured working method.

SAP Query enables you to specifically format data for individual information objects. In real life, master data is frequently queried using SAP Query. Consequently, numerous analyses exist for the following master data objects, in particular:

- Customers
- Vendors
- Materials
- Conditions
- Credit limit
- Work centers
These analyses enable the user to analyze his data individually. In real life, data displayed in an ALV layout or in Microsoft Excel is often received very positively. Because reports are individual, you can easily recognize duplicates or incorrect field content. You can then double-click the report to correct or adjust the data content directly.

With SAP Query, you can also select transaction data according to specific criteria. The status or document flow for orders is queried in this way, and you can specifically optimize the business process on this basis. For example, you can analyze the associated delivery or billing status for a sales order. If the actual status differs from the target status, the relevant departments, customers, or vendors can be informed in good time and specific measures can be taken. In particular, icons (e.g., a red traffic light) are used to highlight critical statuses. The following data objects, in particular, are analyzed in real life:

- Sales orders
- Deliveries
- Billing documents
- Purchase orders
- Production orders
- Open items

Many enterprises also use SAP Query for corporate management. Many customers require analyses for incoming orders or sales, for example. In addition, many enterprises create stock analyses or target production quantity analyses to display fact-based enterprise results.

If you have large datasets and complex cross-module analyses, you soon reach the limitations of SAP Query. However, the use of SAP NetWeaver BW is undisputed in such cases. Be that as it may, not all (small and medium-sized) enterprises use a SAP NetWeaver BW system, or they only use some aspects of SAP NetWeaver BW. In the next section, we will discuss the criteria for and against SAP Query (when compared with SAP NetWeaver BW).
1.3 Comparing Analysis Tools: SAP Query and SAP NetWeaver BW

If your enterprise has sufficient resources (time, money, and technical expertise), we recommend using SAP NetWeaver BW or SAP BusinessObjects alongside SAP Query. Examples of SAP BusinessObjects products include Crystal Reports (formatted reporting), Xcelsius Enterprise (dashboarding), and Web Intelligence (ad hoc analysis).

Table 1.4 compares and contrasts the most important distinguishing characteristics between SAP Query and SAP NetWeaver BW, especially in terms of the resources used.

<table>
<thead>
<tr>
<th>Criterion</th>
<th>SAP Query</th>
<th>SAP NetWeaver BW</th>
</tr>
</thead>
<tbody>
<tr>
<td>License fees, interfaces, maintenance, and hardware</td>
<td>Part of the SAP ERP license</td>
<td>Additional license fees frequently necessary (especially if you also want to use SAP BusinessObjects)</td>
</tr>
<tr>
<td>Installation</td>
<td>Can be used immediately</td>
<td>Additional installation and hardware frequently necessary</td>
</tr>
<tr>
<td>System configuration</td>
<td>Query transactions immediately available</td>
<td>Must be configured independently</td>
</tr>
<tr>
<td>Individual real-time analysis</td>
<td>Access to live data with drilldown in real time</td>
<td>Data usually updated in an overnight job</td>
</tr>
</tbody>
</table>

Table 1.4 Comparing Analysis Tools: SAP Query and SAP NetWeaver BW

In terms of resource usage, there are many advantages to using the SAP Query reporting tools:

- In contrast to SAP NetWeaver BW/SAP BusinessObjects, you can use SAP Query without needing to procure additional licenses.

- Because report creation via SAP Query occurs directly in the SAP ERP system, no additional maintenance is necessary.
Introduction to SAP ERP Reporting

- The need for a separate system installation or configuration is eliminated as a result of using the query tools directly in the SAP ERP system.

- You do not have to configure any interfaces or restore them after you perform a system copy.

- You can already create reports even if you have very little system knowledge. In particular, you require little or no knowledge of ABAP. Even after just a short time, you can create your own queries or analyze existing analyses.

- The time needed to create reports is comparably low because reports can be created from a single source (business knowledge can be applied directly).

- Individual information can be queried promptly, and the data already stored in the database is available immediately (in real time). In transactions, you can use a drilldown to navigate directly to the display screen or change screen for data.

Query reporting tools enable SAP users to analyze specific master data objects and process information without the need for a lengthy training phase. As the report recipient/key user, you can create a new report from scratch (on the basis of the data analysis) and only include absolutely necessary information in your reporting environment. You decide which fields you want to output in a list, which selection criteria you will provide, or how you want the data to be formatted.

We recommend using SAP NetWeaver BW to query mass data. If you want to query extensive datasets at a highly aggregated level, it is more productive to use SAP NetWeaver BW because of its runtime. For financial analyses, you can use Report Painter to create aggregated analyses.

1.4 Cumulated Analyses with Multilevel Hierarchies

The purpose of corporate management reports is to analyze data at a summarized level. If you want to obtain an overview of your enterprise's key performance indicators (KPIs), a top-down analysis will accomplish this goal for you. For example, a top hierarchy node is displayed in Cost Center Accounting. This hierarchy node is then gradually expanded in
accordance with the hierarchy levels. If variances arise, the values are initially called for each account and then for each line item. This means that the report user initially obtains the data information at a highly summarized level and can display this data in greater detail, if necessary. In the system, you can maintain hierarchies for many objects. In Financial Accounting (FI), in particular, a good hierarchy structure (summarization of characteristics) can cover many reporting requirements.

### 1.4.1 Summarization Hierarchies

In the SAP system, separate transactions are used to maintain summarization levels. Depending on the purpose of the report, the information characteristics (e.g., cost centers) must be summarized in accordance with different criteria. For example, an enterprise summarizes its cost center information in accordance with its responsibilities on one hand and in accordance with functional viewpoints on the other. Different time-based groupings are also required. For the current fiscal year, actual values must be queried in accordance with the first grouping while, for the subsequent year, planned values must be queried in accordance with the second grouping.

To fulfill your analysis requirements, the SAP software enables you to group master data objects at multiple levels and in accordance with different criteria. In the SAP system, a hierarchy (also technically known as a set) is used to group master data. Table 1.5 lists the most important transactions for summarizing master data.

<table>
<thead>
<tr>
<th>Master Record</th>
<th>Create</th>
<th>Change</th>
<th>Display</th>
</tr>
</thead>
<tbody>
<tr>
<td>Financial statement version</td>
<td>OB58</td>
<td>FSE2</td>
<td>FSE3</td>
</tr>
<tr>
<td>Cost elements</td>
<td>KA01</td>
<td>KA02</td>
<td>KA03</td>
</tr>
<tr>
<td>Standard cost centers</td>
<td>–</td>
<td>OKEON</td>
<td>OKENN</td>
</tr>
<tr>
<td>Alternative cost centers</td>
<td>KS02</td>
<td>KS02</td>
<td>KS03</td>
</tr>
<tr>
<td>Statistical key figures</td>
<td>KK01</td>
<td>KK02</td>
<td>KK03</td>
</tr>
<tr>
<td>Activity types</td>
<td>KL01</td>
<td>KL02</td>
<td>KL03</td>
</tr>
<tr>
<td>Internal orders</td>
<td>KO01</td>
<td>KO02</td>
<td>KO03</td>
</tr>
</tbody>
</table>

*Table 1.5 Transactions for Master Data Hierarchies*
### Introduction to SAP ERP Reporting

#### Master Record

<table>
<thead>
<tr>
<th>Master Record</th>
<th>Create</th>
<th>Change</th>
<th>Display</th>
</tr>
</thead>
<tbody>
<tr>
<td>Standard profit center</td>
<td>KCH1</td>
<td>KCH5N</td>
<td>KCH6N</td>
</tr>
<tr>
<td>Alternative profit center</td>
<td>KCH1</td>
<td>KCH2</td>
<td>KCH5</td>
</tr>
<tr>
<td>CO-PA characteristics</td>
<td>KES1</td>
<td>KES2</td>
<td>KES3</td>
</tr>
<tr>
<td>Sets, general</td>
<td>GS01</td>
<td>GS02</td>
<td>GS03</td>
</tr>
</tbody>
</table>

**Table 1.5** Transactions for Master Data Hierarchies (Cont.)

**Querying hierarchy nodes in the query**

In the context of queries, you can also query the information in master data hierarchies. For example, when analyzing work centers, you can display the assigned cost center. In the query, you can then determine the associated cost center node on the basis of the cost center. You can query a summarization level in SAP Query. If you want to display the information characteristics at multiple levels, Report Painter and Drilldown Reporting report tools will usually accomplish this goal for you.

#### 1.4.2 Report Painter

**Database tables**

Report Painter accesses database tables in the same way SAP Query does. Because Report Painter is usually used in real life, we will not discuss Report Writer. Report Writer — considered by most users to be too technical — can be regarded as a precursor to Report Painter. Almost all of the Report Writer functions have been incorporated into Report Painter. Because there are still some minor functional differences between the two tools, and some of the Report Writer reports delivered by SAP still exist, both tools continue to coexist in the system.

**Reporting tables**

The most important related database tables are grouped together to form reporting tables. Reporting tables are predefined and comprise a certain number of characteristics and key figures. The relationships between the database tables, the reporting tables, and the characteristics and key figures are shown in Figure 1.2.
SAP has defined database tables and reporting tables. Approximately 60 reporting tables are delivered in the standard SAP ERP system. You can structure the contents of the reporting tables in libraries. A library represents a selection of characteristics and key figures associated with a particular reporting table. Therefore, please check whether the reporting tables delivered by SAP contain the analysis characteristics and key figures you require.

Report Painter is particularly suitable for the following areas:

- Cost Center Accounting
- Internal orders
- Analyses in accordance with cost of sales accounting
- Profit Center Accounting
- Reconciliation ledgers (if the new general ledger is not used)
- Special ledgers
Introduction to SAP ERP Reporting

- General ledger
- Project System (PS)
- Product Cost Planning

You should examine the use of Report Painter in these areas. The following two examples demonstrate the advantages associated with using Report Painter in this context.

Example 1: Controlling report

Figure 1.3 shows the first example, namely a controlling report. The controlling report analyzes account groups in individual rows. In a master data hierarchy, individual accounts are grouped together. Planned, actual, and variance costs are displayed in the columns. In addition, key figures are calculated in the lower section of the report. As in Excel, specific column and row positions are used as a basis. Report Painter is an excellent reporting instrument in Overhead Cost Controlling and Profit Center Accounting, in particular.

<table>
<thead>
<tr>
<th>ZL Lex1610: Tool cost</th>
<th>18.07.2019</th>
</tr>
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<td>Profit Center/Group</td>
<td>9 2009</td>
</tr>
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<td>Cost according Finance in USD</td>
<td>Plan 9</td>
</tr>
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<td>Tool cost</td>
<td>35</td>
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<tr>
<td>Tool making</td>
<td>4</td>
</tr>
<tr>
<td>Repair / Maintenance</td>
<td>5</td>
</tr>
<tr>
<td><strong>Sum Tool cost</strong></td>
<td>40</td>
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<tr>
<td>Result Production depart before IC</td>
<td>1.640</td>
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<td>Intercompany movements</td>
<td>1</td>
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<tr>
<td><strong>Result Production depart after IC</strong></td>
<td>1.640</td>
</tr>
</tbody>
</table>

**Figure 1.3** Example of a Controlling Report in Report Painter
You can also create very good analyses in FI. In real life, Report Painter is very often used to create a provisions report. Figure 1.4 shows you the creation screen for a Report Painter report.

The different applications are displayed on the left-hand side of the screen as libraries. You now obtain a report generator as an Excel display. By double-clicking the rows and columns, you can use the contents you require. The two axes are displayed in the original report display accordingly. This display is also known as WYSIWYG (What You See Is What You Get).

The Report Painter interface is comparable with an Excel spreadsheet. Consequently, planned or actual values for each period or fiscal year are usually displayed in the columns. In the rows, the data is displayed in accordance with an expandable summarization group (e.g., a cost element); in other words, the report structure is fixed in terms of the columns and rows displayed. If you now want to analyze other char-
acteristics or key figures in the rows or columns, you must adjust the report accordingly.

The Drilldown Reporting tool affords you the flexibility to change the characteristics in the report display. This tool has many interactive functions, which we will describe in the next section.

1.4.3 Drilldown Reporting

Drilldown Reporting provides you with an interactive analysis of your cumulated data. The Drilldown Reporting function is used in FI, in particular. Table 1.6 shows the most important transactions for report creation.

### Table 1.6 Transactions for Creating Reports in Drilldown Reporting

<table>
<thead>
<tr>
<th>Master Record</th>
<th>Report Overview</th>
<th>Create Form</th>
<th>Change Form</th>
<th>Display Form</th>
<th>Create Report</th>
<th>Change Report</th>
<th>Display Report</th>
</tr>
</thead>
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<tr>
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<td>FG10 FG14</td>
<td>FG15</td>
<td>FG16</td>
<td>FG11</td>
<td>FG12</td>
<td>FG13</td>
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<td>GL accounts Classic GL</td>
<td>FSI0 FSI4</td>
<td>FSI5</td>
<td>FSI6</td>
<td>FSI1</td>
<td>FSI2</td>
<td>FSI3</td>
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<td>FDI5</td>
<td>FDI6</td>
<td>FDI1</td>
<td>FDI2</td>
<td>FDI3</td>
<td></td>
</tr>
<tr>
<td>Vendors</td>
<td>FKI0 FKI4</td>
<td>FKI5</td>
<td>FKI6</td>
<td>FKI1</td>
<td>FKI2</td>
<td>FKI3</td>
<td></td>
</tr>
<tr>
<td>Profit centers</td>
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<td>KE82</td>
<td>KE83</td>
<td>KE84</td>
<td>KE85</td>
<td>KE86</td>
<td></td>
</tr>
<tr>
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<td>CJE3</td>
<td>CJE4</td>
<td>CJE5</td>
<td>CJE6</td>
<td></td>
</tr>
<tr>
<td>CO-PA totals records</td>
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<td>KE35</td>
<td>KE36</td>
<td>KE31</td>
<td>KE32</td>
<td>KE33</td>
<td></td>
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<tr>
<td>CO-PA line items</td>
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<td>KE96</td>
<td>KE91</td>
<td>KE32</td>
<td>KE33</td>
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</tbody>
</table>

Example: Key figure reports

You can use the Drilldown Reporting tool to create key figure reports, in particular. For example, you can create valuable key figure reports in Profitability Analysis (CO-PA) and Financial Accounting (FI). An example of a key figure report is shown in Figure 1.5.
When creating a Drilldown Reporting report, you must first define a form that will contain field contents at field level. As in Excel, a field can represent row 3, column 4, for example. In real life, key figures such as EBIT (Earnings Before Interest and Tax) are determined (1).

The most important part of a Drilldown Reporting report is the creation of the report form. You can also use Report Painter technology to create the form. You therefore require very little additional knowledge to create your own Drilldown Reporting report.

SAP delivers numerous reports in the standard system. For each application area, there is one central transaction with which you can execute Drilldown Reporting reports:

- FGIO — New General Ledger (New GL)
- FSIO — Classic General Ledger
- FDIO — Accounts Receivable Accounting
Introduction to SAP ERP Reporting

- FKIO — Accounts Payable Accounting
- KE80 — Profit Center
- KE30 — CO-PA (Totals Item and Line Item Reports)
- CJEO — Project Reports

Using Report Templates

Before you create a new report, take a look at the previously mentioned transactions to see if the report you require already exists. Frequently, it is useful to use an existing report as a template for a new report.

Figure 1.6 shows various balance sheet reports with different time periods for the classic general ledger.

Figure 1.6 | Extract of a Standard SAP Report in the Classic General Ledger

Cash flow reports

Predefined key figure reports are delivered in addition to the various reports for financial statement analysis. Four sample reports for displaying the cash flow are available, for example. One advantage of the Drilldown Reporting tool is the flexible selection of analysis characteristics. Open customer items were analyzed in Figure 1.7.

Here, you will see the four areas of the Drilldown Reporting tool:
The navigation bar (1) contains various characteristics for a specific data selection. In our example, open items were selected for Austria. The Period/year characteristic was then selected.

In the lower-left screen area (2), you can define predefined key figures. In our example, the debit/credit amount is shown.

The selected data is also displayed in the breakdown (3). In our example, you see when the open items for Austria fall due. You could now use drag and drop to further analyze these values (e.g., in accordance with the Customer criterion).

Area (4) is a graphical representation of the data that you have selected.

Figure 1.7 Example of a Drilldown Reporting Report for the Analysis of Open Customer Items
In summary, Report Painter and Drilldown Reporting are excellent tools for creating reports in FI. These tools are also considerably faster than using SAP Query or standard SAP transactions for a summarized display of single records, especially when you want to display cumulated data and use multilevel hierarchies.

In addition to the summary reports shown in this section, SAP ERP has numerous excellent standard reports. In the next section, we will introduce you to a selection of these reports.

1.5 Using Standard Reports

Not every analysis is customer-specific, and it is not always necessary to create a new (query) report. In the standard system, there are many good predefined analyses that provide the information you require. This section shows how you can find standard analyses in the system. Before you create a new report, you should check whether the report you need already exists in the standard system. The most important reports for real-life scenarios are also listed.

1.5.1 SAP Area Menus

One way to identify standard reports is to use area menus. Area menus are menu trees that are predefined by SAP and contain the most important transactions for certain areas of application. There are approximately 1,500 area menus. You can call the area menus by entering a transaction code in the command field.

In the command field, enter Transaction SD01 for the Sales and Distribution area menu (see Figure 1.8).

Instead of the entire SAP menu, your initial screen displays the most important transactions in the Sales and Distribution menu. Under the Sales • Quotations menu path, you find six different transactions for analyzing quotations.
Using Standard Reports

1. Calling the Sales and Distribution Area Menu

You can use Transaction SE43 (Area Menu) to find the SAP area menu. Enter Transaction SE43 in the command field to display the Area Menu Maintenance screen (Figure 1.9).

![Area Menu Maintenance](image)

**Figure 1.9** Displaying Area Menus in Transaction SE43
Here, you can use the matchcode \( \text{F4} \) to select the relevant menu for you. You either search through all 1,500 area menus (approximately), or you use the explanatory text to restrict the number of menus. For example, you could use the text "Sales" to find an area menu. Because many important area menus have the ending MN or 00, you could perform a *MN or *00 search in the area menu. By entering an asterisk before the two zeros, you get all area menus that end with MN or 00. Call the matchcode \( \text{F4} \) in Transaction SE41, and enter your restriction (see Figure 1.10).

You obtain approximately 125 different area menus in your search result. The actual transactions are listed on the left-hand side of the result. For example, your search result contains Transaction VA00 for the Sales area menu (see Figure 1.11).

If you now enter Transaction VA00 in the command field, a menu branch containing the relevant transactions from the Sales area is displayed. Expand the INFORMATION SYSTEM • QUOTATIONS path in the menu branch, and the system displays six transactions for analyzing quotations.
1.5.2 Finding a Report in the SAP Menu

You can also find standard reports by searching the entire SAP menu for a term. To do this, enter Transaction SEARCH_SAP_MENU in the command field (as shown in Figure 1.12).

After you have entered the command “search_sap_menu” or pressed the key combination [Ctrl] + [F], the system displays the SEARCH IN MENU transactions.
TREE dialog box. You can enter any term here. You can also use an * as a wildcard. For example, if you search for “Customer master*”, the transaction for calling the customer master record is displayed. Alternatively, enter the term “Quotations” in the FIND field (see Figure 1.13).

Figure 1.13 Entering the Search Term “Quotations” in Transaction “search_sap_menu”

After you have chosen the button with the green checkmark to confirm the search term “Quotations”, the system displays the relevant menu paths on the next screen. You now have an accurate overview of the menu item that contains the transactions for analyzing quotations (see Figure 1.14).

<table>
<thead>
<tr>
<th>Node</th>
<th>Transaction code</th>
<th>Text</th>
</tr>
</thead>
<tbody>
<tr>
<td>Nodes</td>
<td>V 34</td>
<td>Display Incomplete Quotations</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Inquiry and Quotation</td>
</tr>
<tr>
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<td>Report Selection</td>
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<td>Equipment and Tools Management</td>
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<td>SDQ1</td>
<td>Expired Quotations</td>
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<tr>
<td></td>
<td></td>
<td>Inquiry and Quotation</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Service Agreements</td>
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<td>Equipment and Tools Management</td>
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<tr>
<td></td>
<td></td>
<td>Logistics</td>
</tr>
</tbody>
</table>

Figure 1.14 Search Result for the Term “Quotations” in the SAP Menu
In this way, you find the same transactions as the ones you found when searching the area menu. However, because menu branches are displayed when you search the SAP menu, we generally recommend that you search the SAP menu directly.

**1.5.3 Searching the Menu for Standard Reports**

You can perform a search directly in the actual application for which you require an analysis. In the standard SAP menu, select the following menu branch, for example: *Logistics • Sales and Distribution • Sales • Information System • Quotations*. After you have expanded the *Quotations* menu item, you find six transactions for analyzing quotations (see Figure 1.15).

![SAP Easy Access](image)

**Figure 1.15** Searching the SAP Menu for Transactions for Analyzing Quotations

In addition to searching the information system for the relevant application, you can also search the *Information Systems* menu item. As well as the application components from the *Logistics, Accounting, and Human Resources* areas, a cross-application menu branch with analyses is also available (see Figure 1.16).
In addition to the reports available under Information Systems, SAP has created additional transactions that are not yet available in the standard menu. We will introduce you to these transactions in the next section.

1.5.4 Important Standard Transactions

On feedback from its customers, SAP has revised many transactions and equipped them with improved functions. However, existing transactions have not been changed. Instead, they coexist with the newly revised transactions, which have the suffix N.

For example, Transaction VA25N is now available in addition to the former Transaction VA25 for querying quotations (List of Quotations).

Transaction VA25 has six selection fields (see Figure 1.17). However, the new transaction (VA25N) is considerably more flexible because its new selection screen contains the new and improved functions for analyzing quotations (see Figure 1.18). Additional display functions are available for the report, which now has a modernized layout. Furthermore, you can display and change quotations directly.
Table 1.7 contains a selection of transactions that are not available in the SAP menu.
The new transactions provide highly flexible options. In the Purchasing transactions, for example, you can navigate directly to the purchasing documents (e.g., purchase order) or the material master. In the purchasing analyses, you can also display the purchase schedule lines and purchase order history.

### 1.6 Summary

In SAP ERP, SAP provides the following three query reporting tools for data queries: SAP Query, InfoSet Query, and QuickViewer. You can use these tools immediately in the SAP ERP system without any extensive training or additional costs for online data queries.

When analyzing mass data and highly summarized financial key figures, we recommend that you use SAP NetWeaver BW or Report Painter. The Report Painter technology is also used in the Drilldown Reporting tool. In addition, the standard system already contains numerous analyses.

In real life, there are numerous application scenarios in which SAP Query has advantages over SAP NetWeaver BW and Report Painter. In query reporting, it is important to find the correct table with the relevant data content. We will therefore explain how to find the relevant tables in the next chapter, Overview of SAP Tables and Table Links.
Index

A

ABAP, 26, 249, 347
ABAP/4 Dictionary information system, 332
ABAP code, 29, 331, 332
ABAP Dictionary, 70, 249, 250, 254
ABAP Dictionary maintenance, 332
ABAP list, 192, 232, 237, 279
ABAP List Viewer (ALV), 29
ABAP program flow check, 334
ABAP Query, 28
ABAP report generator, 26
ABAP Workbench, 334
ABC analysis, 221
Account group, 38
Accounts payable accounting, 42
Accounts receivable accounting, 42
Activity type, 35
Additional field, 139, 143, 153, 154, 166, 258
  Add ABAP code, 156
  Create, 155
  Define, 155
Additional information, 257
Additional object, 257
Additional table, 258
Ad hoc analysis, 30
Ad hoc query, 77
Administrator authorization, 64, 331
ALV layout, 32, 88
ALV -> see SAP List Viewer, 88
Analysis of purchase order values, 52
Archive administration, 332
Archiving, 58
Archiving object, 66, 67
Area
  Global, 294
Area menu, 44
Arithmetic operation, 275, 357
Assign report, 217
Attributes
  Special, 192
Authorization, 30, 331
Authorization assignment, 333
Authorization check, 335
Authorization concept, 334, 341
Authorization group, 335
Authorization object, 333, 334, 335
  _DEVELOP, 335
  S_DEVELOP, 334, 335
  S_GUI, 334
  S_PROGRAM, 334, 335
  S_QUERY, 334, 336
  S_TABU_DIS, 334, 335
  S_TCODE, 334
Automatic text recognition, 140, 143
Average value, 241

B

Basic list, 187, 209, 225
Basis mode, 77, 89
Billing document, 32, 352, 353
Brainstorming workshop, 347
Business Warehouse -> see SAP
NetWeaver BW, 25

C

Calculation
  Complex, 184, 213
Calculation formula, 210, 213
CALL FUNCTION, 263
Cancellation, 370
CAUFV, 381
Change authorization, 333
Change lock, 178
Characteristic value, 195
Check table, 252
Classic general ledger, 42
Clipboard
  Upload, 195
CL_TEXT_IDENTIFIER, 143
Index

<table>
<thead>
<tr>
<th>Term</th>
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</tr>
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<td></td>
</tr>
<tr>
<td>Database utility, 305</td>
<td></td>
</tr>
<tr>
<td>Data basis, 26, 29, 78, 348</td>
<td></td>
</tr>
<tr>
<td>Data Browser, 53, 55, 73, 79, 279</td>
<td></td>
</tr>
<tr>
<td>Data declaration, 255</td>
<td></td>
</tr>
<tr>
<td>Data Dictionary, 54, 249</td>
<td></td>
</tr>
<tr>
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</tr>
<tr>
<td>Data element, 249, 252, 254</td>
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</tr>
<tr>
<td>Data export, 289, 335</td>
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</tr>
<tr>
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</tr>
<tr>
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</tr>
<tr>
<td>Data Modeler, 332</td>
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<td>Data object, 254</td>
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<tr>
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<tr>
<td>Data sensitivity, 332</td>
<td></td>
</tr>
<tr>
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<tr>
<td>Data source, 29, 78, 83, 86, 104, 141</td>
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<tr>
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<td></td>
</tr>
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<tr>
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<td></td>
</tr>
<tr>
<td>DDIC -&gt; see ABAP Dictionary, 249</td>
<td></td>
</tr>
<tr>
<td>Debit/credit indicator, 362</td>
<td></td>
</tr>
<tr>
<td>Decimal place, 252</td>
<td></td>
</tr>
<tr>
<td>Delivery, 32</td>
<td></td>
</tr>
<tr>
<td>Developer authorization, 331</td>
<td></td>
</tr>
<tr>
<td>Development package, 340</td>
<td></td>
</tr>
<tr>
<td>Display fields, 77</td>
<td></td>
</tr>
<tr>
<td>Document status, 226</td>
<td></td>
</tr>
<tr>
<td>Domain, 250, 253</td>
<td></td>
</tr>
<tr>
<td>Drilldown, 34, 215, 351</td>
<td></td>
</tr>
<tr>
<td>Drilldown Reporting, 25, 40</td>
<td></td>
</tr>
<tr>
<td>Due date for net payment, 364</td>
<td></td>
</tr>
<tr>
<td>Duet, 279</td>
<td></td>
</tr>
</tbody>
</table>

D

D010TAB, 104
Data
- Filter, 191
- Global, 294
- Sort, 191
- Total, 191
- Database, 249
Index

E

Editor screen, 262
ELSEIF statement, 267
Employee
   Responsible, 360
End-of-Selection, 277
Enterprise area, 347
Event, 276
Excel -> see Microsoft Excel, 191
Export function, 296
Extras button, 256

F

F1 help, 58, 60
Feasibility of implementation, 348
FI document, 226
Field
   Hide, 199
   Local, 182, 209, 210, 373
   Protect, 199
   Short name in the query, 183
Field assignment, 356
Field documentation, 146
Field formatting, 91
Field group, 29, 106, 139, 149, 180, 209, 213
   Add additional field, 159
   Add field, 152
   Create, 153, 158
   Default, 149
   Function, 151
Field group view, 256
Field help, 58
Field query, 265
Field without values
   save, 199
File
   Local, 289
File storage, 288
Financial Accounting, 41
Financial statement analysis, 42
Financial statement version, 35
Footer, 232
Footers, 89
Form, 41
Format
   Line color, 235
Formatting, 90
Functional area, 29
   Text, 294
Functional area catalog, 294
Functional group, 29
Function module, 263, 303
UNIT_CONVERSION_SIMPLE, 372

G

General ledger, 42
   Classic, 42
   New, 42
General selection, 193
General table display, 55
GL account, 40
Global property, 335
Global query area, 93, 96, 294
Graphic, 232
Graphical join editor, 146
Graphic type, 220
Grouping, 35
Group of users, 347
GUI activity, 334

H

Header, 232
Header data and item data, 60, 74
Hierarchy, 34
Hierarchy node, 36
HTML data format, 288

I

Icon, 185, 211
Filter criterion, 214
ICON_GREEN_LIGHT, 210
ICON_LED_GREEN, 373
Index

**ICON_RED_LIGHT**, 186
**STATUSCODE**, 209
IF statement, 265, 356
Import from a text file, 195
Import from text file, 197
Import option, 299
Industry template, 348
Information
  **Technical**, 59
Information system, 49
InfoSet, 25, 28, 30, 84, 93, 94, 99, 104, 108, 109, 111, 139, 181, 254, 276
  **ABAP code**, 139
  **Documentation (key)**, 294
  **Insert table**, 145
  **Role assignment of call**, 294
  **Transport**, 297
Inquiry, 52
Installation, 33
Internal order, 35
INTTAB -> see Structure, 54
Items -> see Open items, 32

**J**

Join editor
  **Graphical**, 146
Jump, 217

**K**

Key field, 145, 249, 251, 304
Key figure, 239
  **Statistical**, 35

**L**

Language, 78
Layout design, 112
Layout mode, 89, 230
Layout variant, 188, 191, 202, 203
Left inner join -> see Table join, 148
Left outer join -> see Table join, 148
Legacy System Migration Workbench, 222
Library, 37
License, 33
LIKE statement, 266
Line structure, 232
Link suggestion, 106
LIS -> see Logistics Information System, 351
List field, 78, 86, 90, 188, 209
List line color, 234
List of billing documents, 52
List of contracts, 52
Literal, 256
Local field, 182, 209, 210
  Create, 183
  Define, 184
  Select, 209
Local file, 289
Logical Database Builder, 332
Logical database -> see Database, 58
Logistics Information System (LIS), 28, 351
Loop selection, 268
LSMW -> see Legacy System Migration Workbench, 222

**M**

Maintenance, 33
Management, 348
Master data hierarchy, 35
Master data quality, 347
Master data report, 31
Material number, 370
Measuring productivity, 366
Merge, 298
Message area, 264
MESSAGE command, 264
Message output, 264
Microsoft Excel, 32, 279, 287
  **Functions**, 280
  **Graphic**, 284
  **Inplace**, 202, 280
  **Interface**, 202, 279, 280, 289
Template, 286, 290
Microsoft Office, 287
Microsoft Word, 286
Multiple data records, 154
Multiple selection, 193, 194, 196, 197

N

New general ledger -> see General ledger, 42
Null value, 90, 235

O

Object Navigator, 70
Office Integration, 287
Open item list, 226
Open items, 32, 361
Order reason, 355
Output format, 179, 192, 219, 230, 232, 287
Output length, 90
Output option
  Field, 232
  Line, 232
Output position, 90
Output sequence, 244, 246

P

Page footer, 236
Page header, 232, 236
Parameter, 198
Parameter ID, 169
  AQW, 98
Parameters -> see Selection, 160
Percentage, 241, 243
Performance, 195, 303
Performance analysis, 332
PFCG role, 332, 337
Pivot table, 287
POOL -> see Pool table, 54
Pool table, 54
Primary index, 304
Print preview, 203
Process, 348
Production client, 96
Production order, 32
Profitability Analysis, 41
Profit center, 40, 42
  Alternative, 36
Pro forma invoice, 354
Project status, 349
Property
  Global, 335
Provisions report, 39
Purchase order, 32
Quantity field, 254
Query, 25, 28, 31, 93, 94
  ABAP report, 173
  Authorization, 334
  Change lock, 178
  Column header, 181
  Copy, 175
  Delete, 175
  Documentation (key), 294
  Editing option, 174
  Formatting option, 167
  Initial screen, 168
  Long text, 167
  Name, 177
  Navigation, 177
  Output format, 167
  Rename, 175
  Report name, 172
  Screen template, 179
  Standard variant, 178
  Test, 188
  Text, 294
  Transport, 297
  User group, 165
Query area, 93, 94, 96, 99, 293
  Change, 168
  Global, 93, 96
Query catalog, 294, 299
Query report
   Convert, 77
Query reporting tool, 25, 28, 77
QuickViewer, 25, 28, 30, 31, 77, 95, 331
   Editing function, 81
   Layout mode, 89
   Online help, 82
   Operating instructions, 82
   Report overview, 81
QuickViewer initial screen, 77, 80
Quotation, 50

S
Sales, 46
Sales and Distribution characteristic, 360
Sales document, 74
Sales document category, 353
Sales evaluation, 351
Sample code, 262
SAP business graphic, 284
SAP BusinessObjects, 33
SAP GUI, 280, 281
SAP List Viewer, 29, 192, 193, 202, 225, 230, 232, 248, 335
SAP NetWeaver BW, 25, 33
SAP Note 119665, 300
SAP Note 127182, 300
SAP Note 127717, 300
SAP Note 130316, 300
SAP Note 202839, 300
SAP Note 352617, 300
SAP Note 393044, 300
SAP Note 393160, 300
SAP Note 412054, 300
SAP Note 431192, 300
SAP Note 643330, 300
SAP Query report
   Convert, 77
SAP Query -> see Query, 25, 28, 31, 93
SAP table -> see Table, 53
Scaling, 235, 241
S_DEVELOP -> see Authorization object, 334
SEARCH_SAP_MENU, 47
Search screen, 196
Secondary index, 304
Select field, 229
Select field group, 229
Selection, 140, 160, 256
   Define, 160
   General, 193
   Parameter, 140
   Parameters, 160
   Selection criterion, 55, 140, 160, 191, 193, 198
   Single value, 191
   Value interval, 191

R
Ranked list, 225, 246
Reconstruct catalog, 299
Relational operand, 201
Replace, 298
Report, 27
Report creation
   Procedure, 347
Report definition, 348, 350
Report generator, 27
Report house, 349
Reporting table, 36
Report Painter, 25, 34, 36
Report Painter library, 37
Report recipient, 348
Report/report interface, 188, 215, 216
Report RSAQR3TR, 295
Report specification, 349, 350
Report template, 42, 348
Report type, 216
Report Writer, 25, 36
Required field, 199
Returns item, 354
Role administration, 332
Role maintenance, 332
Role -> see User role, 333
RRI -> see Report/report interface, 216
Selection characteristic, 193
Selection criterion -> see Selection, 140, 160
Selection field, 78, 186, 230
Selection option, 194, 195
Selection screen, 26, 77, 85, 187, 191, 192
Selection text, 229
Selection variable, 199
Selection variant, 178, 191, 192, 198
SELECT loop, 268
SELECT SINGLE statement, 257, 272, 355
Set, 35
Set/get parameter, 174
S_GUI -> see Authorization object, 334
SHOWICON, 211
SHOWSYMB, 210
Signature Design, 280
Single value, 193
Sort field, 89
Sorting, 241
Sort order, 204
Special attributes, 192
Spool output, 289
Spreadsheet, 287
S_PROGRAM -> see Authorization object, 334
SQL trace, 66
S_QUERY -> see Authorization object, 334
S_TABU_DIS -> see Authorization object, 334
S_TCODE -> see Authorization object, 334
Standard, 35
Standard area, 169, 293, 296
Client-specific, 98
Standard profit center, 36
Standard query area, 93, 96, 100
Standard report, 44
Start-of-Selection, 276
Statistic, 239
Title, 239
Statistical key figures, 35
Statistics, 225
Structure, 54, 70, 250, 256
Subtotal, 202, 203, 241, 244
Summarization hierarchy, 35
Summation function, 225
Summation level, 238, 283
Switch off GPA, 199
System configuration, 33
System field, 260, 261
SY-DATE, 261
SY-DBCNT, 261
SY-INDEX, 261
SY-LANGU, 261
SY-SUBRC, 260, 261, 323
SY-TABIX, 261
SY-TIME, 261
SY-UNAME, 261
SYST -> see System field, 261

T

Table, 29, 53, 56, 84, 106, 141
Controlling, 384
Direct read, 368
Financial Accounting, 384
General, 377
Global, 294
Insert, 105
Materials Management, 381
Overview, 377
Production, 380
Sales and Distribution, 378
Transparent, 54, 57
Table A017, 383
Table A305, 379
Table A306, 379
Table access, 335
Table ADRC, 378
Table AFKO, 381
Table AFPO, 370, 381
Table AFRU, 366
Table AFVC, 381
Table AFVV, 366, 381
Table ANEK, 387
Table ANEP, 387
Table ANLA, 387
<table>
<thead>
<tr>
<th>Table</th>
<th>Page(s)</th>
</tr>
</thead>
<tbody>
<tr>
<td>LFB1, 385</td>
<td>T030, 386</td>
</tr>
<tr>
<td>LFB5, 385</td>
<td>T052, 388</td>
</tr>
<tr>
<td>LFBK, 385</td>
<td>T052U, 388</td>
</tr>
<tr>
<td>LFC1, 388</td>
<td>T100, 378</td>
</tr>
<tr>
<td>LFEI, 382</td>
<td>TADIR, 377</td>
</tr>
<tr>
<td>LFMI1, 382</td>
<td>TFDIR, 377</td>
</tr>
<tr>
<td>LFMI2, 382</td>
<td>TJ02, 377</td>
</tr>
<tr>
<td>LIKP, 379</td>
<td>TPARA, 377</td>
</tr>
<tr>
<td>link, 142, 252, 254, 255</td>
<td>trace, 58, 64</td>
</tr>
<tr>
<td>LIPS, 379</td>
<td>TSTC, 95, 166, 258</td>
</tr>
<tr>
<td>logging, 29</td>
<td>TSTCT, 77, 78, 95, 250</td>
</tr>
<tr>
<td>LDX, 378</td>
<td>TVDIR, 377</td>
</tr>
<tr>
<td>maintenance, 334</td>
<td>VBAK, 59, 62, 75, 379</td>
</tr>
<tr>
<td>MAKT, 270, 382</td>
<td>VBAP, 66, 75, 379</td>
</tr>
<tr>
<td>MARA, 270, 382</td>
<td>VBEP, 75</td>
</tr>
<tr>
<td>MARC, 270, 382</td>
<td>VBFA, 75</td>
</tr>
<tr>
<td>MARD, 270, 384</td>
<td>VBKD, 75, 379</td>
</tr>
<tr>
<td>MARDH, 384</td>
<td>VBPA, 75, 351</td>
</tr>
<tr>
<td>MAST, 380</td>
<td>VBRP, 351</td>
</tr>
<tr>
<td>MBEW, 270, 382</td>
<td>VBUK, 75, 379</td>
</tr>
<tr>
<td>MBEWH, 382</td>
<td>VBU, 76, 379</td>
</tr>
<tr>
<td>MKOL, 384</td>
<td>VBUV, 75</td>
</tr>
<tr>
<td>MKPF, 384</td>
<td>view, 54, 366</td>
</tr>
<tr>
<td>MODACT, 377</td>
<td>VT, 379</td>
</tr>
<tr>
<td>MSEG, 384</td>
<td>VT, 379</td>
</tr>
<tr>
<td>MSKU, 384</td>
<td>Target productivity, 367</td>
</tr>
<tr>
<td>MSLB, 384</td>
<td>Target time</td>
</tr>
<tr>
<td>MVER, 382</td>
<td>Order confirmation, 376</td>
</tr>
<tr>
<td>MVKE, 270, 382</td>
<td>Technical information, 59</td>
</tr>
<tr>
<td>name, 294</td>
<td>Term of payment, 364</td>
</tr>
<tr>
<td>PAYR, 388</td>
<td>Test client, 98</td>
</tr>
<tr>
<td>PLKO, 380</td>
<td>Test mode, 242</td>
</tr>
<tr>
<td>PLPO, 380</td>
<td>Text field, 140, 143</td>
</tr>
<tr>
<td>REGUH, 388</td>
<td>Text identification, 143</td>
</tr>
<tr>
<td>REPOSRC, 173, 377</td>
<td>Text recognition</td>
</tr>
<tr>
<td>TABLES command, 258</td>
<td>Automatic, 140, 143</td>
</tr>
<tr>
<td>SKA1, 386</td>
<td>Time conversion, 372</td>
</tr>
<tr>
<td>SKAT, 386</td>
<td>Time unit, 371</td>
</tr>
<tr>
<td>SKB1, 386</td>
<td>Time unit conversion -&gt; see Time unit, 371</td>
</tr>
<tr>
<td>STAS, 380</td>
<td>Top-down analysis, 34</td>
</tr>
<tr>
<td>STKO, 380</td>
<td>Top key figure value, 225</td>
</tr>
<tr>
<td>STPO, 380</td>
<td>Top-of-Page, 277</td>
</tr>
<tr>
<td>SYST, 378</td>
<td>Traffic light icon, 211, 374</td>
</tr>
<tr>
<td>T001, 273, 384</td>
<td>Traffic light status, 373</td>
</tr>
<tr>
<td>T001L, 381</td>
<td>Transaction</td>
</tr>
<tr>
<td>T001W, 381</td>
<td>Name, 217</td>
</tr>
</tbody>
</table>
Index

Transaction code text, 143
Transaction data report, 32
Transaction FBL5N, 359
Transaction FGRP, 27
Transaction ME80AN, 52
Transaction ME80FN, 52
Transaction ME80RN, 52
Transaction ME81N, 52
Transaction N, 279
Transaction PFCG, 332, 337
Transaction SARA, 58, 67, 332
Transaction SD01, 44
Transaction SD11, 332
Transaction SE11, 332
Transaction SE16, 55
Transaction SE16N, 55, 79, 279, 332
Transaction SE36, 58, 61, 332
Transaction SE38, 174
Transaction SE43, 45
Transaction SE54, 335
Transaction SE80, 58
Transaction SE85, 70, 332
Transaction SQ01, 27, 29, 81, 93, 97, 109, 165, 167, 192, 193, 228, 331
Transaction SQ02, 29, 93, 97, 141, 227, 295, 332, 335
Transaction SQ03, 29, 93, 97, 99, 295, 331, 332, 336
Transaction SQ07, 332
Transaction SQ10, 29, 332
Transaction SQVI, 29, 31, 80, 331
Transaction ST05, 58, 64, 332
Transaction VA00, 46
Transaction VA0*, 79
Transaction VA05N, 52
Transaction VA15N, 52
Transaction VA25, 50
Transaction VA25N, 50, 52
Transaction VA35N, 52
Transaction VA45N, 52
Transaction VF05N, 52
Transparent table -> see Table, 57
Transport dataset, 294
Transport dataset (local), 294
Transport option, 297
Transport request, 296
Transport route, 293
Transport system, 96, 293, 294
Transport tool, 295, 299
TRANSP -> see Table, 54
TYPE statement, 255

U

Unassign, 299
Upload from clipboard, 197
User department, 348
User group, 93, 94, 99, 101, 102, 165, 331, 333
Change, 168
Copy, 99
Delete, 99
Rename, 99
SYSTQV, 173
Transport, 297
User profile, 169
User role, 333

V

Value credit memo, 354
Value debit memo, 354
Variable, 236
Variant, 191
Preassignment, 192
Vendor attribute, 198, 199
Vendor, 40
View field, 368
VIEW -> see Table view, 54
View structure, 54

W

WHERE condition, 258
Where-used list, 58, 68
Windows Explorer, 285
Word processor, 286
Workbench request, 341
WYSIWYG, 39