Brief Guideline

Preparation and Extraction of SAP ERP Data

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1 Introduction

The evaluation of SAP ERP data is interesting for a large number of auditing areas. Internal audit, financial audit, and external audit are all interested in company data, as are bankruptcy trustees and the criminal investigation departments of the police in case of suspected embezzlement. This raises the question of how data can be extracted from a data processing environment in as uncomplicated a manner as possible and evaluated using spreadsheet software, databases or audit programs. SAP makes various ways available.



Figure 1: Alternatives for information preparation in an SAP[™] system

A comprehensive illustration of the ways to prepare SAP ERP data, each with related specific advantages and disadvantages, can be found in the guideline by the authors on SAP ERP basic auditing, which can be ordered on CD-ROM, or downloaded from the internet at:

www.roger-odenthal.de

The remarks below contain a *brief summary* of the alternatives outlined there.

2 Fine-tuning the data selection for tables and reports

Regardless of whether an SAP ERP system obtains information using tables, reports, or quick views, the selection screens that are available generally do not meet the requirements of an audit.

Special questions, such as:

- Which administrator input credits for the customer Meier in an amount of more than EUR 10,000.00 on December 25?
- In a random sample of individual documents on payment transactions, only credits, payments in intervals of EUR 10,000.—through EUR 20,000.—and all items above EUR 100,000.—should be included.

cannot be answered at first glance.

Every selection screen in this has additional control options:

- Dynamic selections

- Multiple selections

(only for reports and quick views)

for every selection field

- Selection options

for every selection field

Dynamic selections permit the inclusion of all interesting data fields from the area of master and transactional data, which affect the subject of the report, on the selection screen for reports and quick views.

The *multiple selection* enables different individual values or value intervals to be used for each selection field.

Selection options also allow the user to determine the criteria "equal, greater, less" and any combination of those for each selection field.

All tools together enable fine-tuning the selection process and contribute toward satisfying the particular information needs of the auditors.

3 The preparation and transfer of tabular data

3.1 Notes on tabular data

Data storage in the SAP ERP system is done in relational database systems. Data is stored there in tables. In this, *technical considerations* (avoiding data redundancies) determine the *distribution of information into individual tables* as well as their communication using key relations.

The direct access to SAP tables is therefore only suitable to a limited degree for satisfying the information wishes of the user. The following advantages and disadvantages must be taken into account.

Advantages:

Flat data structure

Tables have a "flat" structure. Information that belongs together can be found in the fields of a single row of data.

• Fixed field and record lengths

Depending on the method of transfer, the data items in the tables have uniform field and record lengths or are equipped with field delimiters. This simplifies transfer into other programs (such as audit software).

Integrated evaluation functionality

Tabular data can be accessed with graphic reporting tools in the SAP ERP system, which enable *sorting, filtering, grouping and totaling* these data within SAP ERP.

Direct connection to calculation software

For tabular data there is an interface which for a manageable volume of data enables this to be directly saved on a personal computer in spreadsheet formats (such as Excel).

Disadvantages:

Distribution of data

In order to avoid data redundancies, data needed for a uniform test field are frequently saved in *different tables*. This means that for one audit, data from several tables will be needed, and that after its separate extraction from the SAP ERP system it will have to be rejoined on the personal computer.

Concentration on "net data"

Tables only contain "naked" data. Compiling it into logical information relationships, which accompanies its condensation by calculation processes as well as merging information from different tables, is not done.

Considering the advantages and disadvantages presented, one must carefully consider whether the necessary information for the audit can be determined from tables. As a rule of thumb, *master data* is *easy* to access and evaluate, while complex questions using transactional data are very seldom answered satisfactorily using tabular data.

There are various transactions available for visualizing tabular data within an SAP ERP system:

- SE16 / SE17 Data browser
- SM30 / SM31 Table maintenance

Of these, the auditor should use *Transaction SE16* to access tabular data. This includes *all tables*. Transactions SM30/SM31, on the other hand, limit the access options to certain tables.

In selecting information from tables, the structure of the data storage within an SAP ERP system must be taken into consideration. Without going into their complexities, be aware that the following hierarchical ranking of the data structures in tables must be taken into account for master files:

 A tables (Client level, such as LFA1 general vendor master data) General cross-company-code information such as supplier names, city, postal code, telephone number, etc.,
 B tables (Company code level, such as LFB1 company-specific vendor master data) Company-specific information such as bank information, assigned G/L accounts, payment history, reminder dates, conditions etc.,
 C tables (Transaction figure level, such as LFC1 vendor booking volumes per business period) Information on sales in the individual posting periods.

The structure for *Document data* is two-part, with a document head and document segment.

3.2 Information from tables using a generic search

Tables are saved with *meaningful names*. These can be searched. After inputting Transaction SE16, one can add part of the table name followed by "*" and expand the input field with the downward-pointing arrow.

Below are a few examples for table names:

LF*	Vendor-creditor data
KN*	Customer/debtor data
SK*	G/L data
AN*	Asset data
US*	User and authorization data
T0*	Control data for financial accounting
PA*	Personnel data

Data Browser: Initial Screen						
🛅 🗋 🛅 🖬						
		🔄 Repository Info System: Tables F	ind (38 Hits)			
			▲			
Table Name	KN*	Table Name	Short text			
		KNA1	General Data in Customer Master			
		KNALVV	Customer Master View KNAl KNVV			
		KNAS	Customer master (VAT registration numbers			
		KNAT	Customer Master Record (Tax Groupings)			
		KNB1	Customer Master (Company Code)			
		KNB4	Customer Payment History			
		KNB4_AEDAT	BW FI: KNB4 Extraction using AEDAT			
		KNB5	Customer master (dunning data)			
		KNBK	Customer Master (Bank Details)			
		KNBW	Customer master record (withholding tax ty			
		KNC1	Customer master (transaction figures)			
		KNC1_AEDAT	BW FI: KNCl Extraction using AEDAT			
		KNC3	Customer master (special G/L transaction f			
		KNC3_AEDAT	BW FI: KNC3 Extraction usign AEDAT			
		KNEA	Assign Bank Details and Payment Methods to 📃			
		KNEX	Customer Master: Legal Control - Sanctione			
		KNKA	Customer master credit management: Central			
		KNKA_AEDAT	BW FI: KNKA Extraction using AEDAT			
		KNKK	Customer master credit management: Control			
		KNKK_AEDAT	BW FI: KNKK Extraction usign AEDAT			
		KNKKF1	Credit Management: FI Status Data			
		KNKKF2	Credit Management: Open Items by Days in A			

Figure 2: Searching tables by table names

As soon as a table has been found, the desired data can be selected using the appropriate selection screen. Using the command sequence

Settings

User-specific settings

ALV-Grid display

a graphic display of the table data can be obtained. *Filtering, sorting and grouping the data* is also possible here, as is download in an Excel format.

3.3 Information from tables using logical databases

Thematically related tables are linked by SAP[™] within logical databases. By analyzing logical databases, suitable tables for audit-relevant questions can be determined.

 $\text{Tools} \rightarrow$

ABAP Workbench \rightarrow

Development \rightarrow

Programming environment (SE36)

Logical Database Builder							
6 毎 8 0 0 0 1							
	E LDB name (1) 250	Entries found					
Logical database	Restrictions						
		v					
Create Create							
	LDB name	Logical database short text					
Subobjects	JSF	Logical Database for new Nota Fiscal Database					
 Maintenance information 	KIV	Generating Conditions					
Structure	KDE	Vendor Database					
O Search helps	KIV	Customer Material Information					
Ocurrency and quantity fields	KKF	Balance Audit Trail of Open Items					
Selections	KLF	Historical Balance Audit Trail					
Selections	KMV	SD Documents for Credit Limit					
O Database program	KOV	Selection of Condition Records					
O Selection texts	Luc	Evaluation Whse Documents					
ODocumentation	L1M	Stock movements for material					
	LMM	Stock Movements for Material					
Sc Display Change	LNM	Stock movements					
	LO_CHANGE_MNMT	Logical database for engineering change manageme					
	MAF	Dataset for Dunning Notices					
	MDF	Logical Database for Master Data Selection					
	MEPOLDB	Logical Database/Selection of Purch. Order Tables					
	MTV	RC+ Dianned flights flights and bookings					

Figure 3: Selecting logical databases

Below are a few important databases with their names and abbreviations:

Database name	Description
ADA	Asset database
BRF	Document database
BRM	Accounting documents
СКМ	Materials master
KDF	Database vendor
LNM	Warehouse movements
DDF	Customer database
PNP	Personnel master data
SKF	G/L database

Display Logical Database KDE								
Display Logical Database KL								
🎾 🖆 🕂 🖹 Source code 🛛 Selection	ntation							
Management Structure Search help Currency/quantity fields								
Node name	Table / Type	Node ty	Short text					
▼ 🚺 LFA1	LFA1	Table	Vendor Master (General Section)					
ADDR1_VAL	ADDR1_VAL	Table	Address Data					
• 🚮 LFAS	LFAS	Table	Vendor Master (General Part EU Tax Number)					
• 🛗 LFBK	LFBK	Table	Vendor Master (Bank Details)					
🝷 🛗 LFB1	LFB1	Table	Vendor Master (Company Code)					
• 🛗 LFB5	LFB5	Table	Vendor Master (Dunning Data)					
• 🚹 LFC1	LFC1	Table	Vendor Master (Transaction Figures)					
• 🚹 LFC3	LFC3	Table	Vendor Master (Transaction Figures) Special Ledger					
🝷 🛅 BSIK	BSIK	Table	Accounting: Secondary Index for Vendors					
 ADMI_FILES 	ADMI_FILES	Table	Archive Files					
 BSIKEXT 	BSIKEXT	Table	Secondary Index & Additions Section (BSEGA)					
▼ III BKPF	BKPF	Table	Accounting Document Header					
▼ 🖬 BSEG	BSEG	Table	Accounting Document Segment					
• 🖬 WITH_ITEM	WITH_ITEM	Table	Witholding Tax Info.per W/Tax Type and FI Line Itm					
• 🔚 GSEG	GSEG	Table	Offsetting Items for B-Segment in Reporting					

After selecting a table, the following image is received:

Figure 4: Structure of the logical database "Vendor data"

The structure for document data is two-part, with a document head and document segment.

After marking a suitable table, the associated *fields and field descriptions* can be displayed by right-clicking. Furthermore, the report "**RDD00DOC**" provides a detailed documentation, including description of the contents, of the individual data fields in a table.

Dictionary: Display Table							
🗢 🔿 🌮 🕄 🖷	6	∦ I	4 # Z 🗆 🖪	E E E	Tech	nical Sett	tings Indexes Append Structure
Transp. Table LFA1 Active							
Short Description	Short Description Vendor Master (General Section)						
Attributes Deli	very and	d Ma	intenance Fields	Entry	help/che	ck C	Currency/Quantity Fields
xoree	5	₹ 1	- 2	Srch He	p Pr	edefined	Туре
Field	Key 1	[ni	Data element	Data T	Length	Deci	Short Description
MANDT	<	\checkmark	MANDT	CLNT	3	0	Client
LIFNR	\checkmark	\checkmark	LIFNR	CHAR	10	0	Account Number of Vendor or Creditor
LAND1			LAND1_GP	CHAR	3	0	Country Key
NAME 1			NAME1_GP	CHAR	35	0	Name 1
NAME 2			NAME2_GP	CHAR	35	0	Name 2
NAME 3			NAME3_GP	CHAR	35	0	Name 3
NAME 4			NAME4_GP	CHAR	35	0	Name 4
ORT01			ORT01_GP	CHAR	35	0	City
ORT02			ORT02_GP	CHAR	35	0	District
PFACH			PFACH	CHAR	10	0	PO Box
PSTL2			PSTL2	CHAR	10	0	P.O. Box Postal Code
PSTLZ			PSTLZ	CHAR	10	0	Postal Code
REGIO			REGIO	CHAR	3	0	Region (State, Province, County)
SORTL			SORTL	CHAR	10	0	Sort field
STRAS		-	STRAS_GP	CHAR	35	0	House number and street

Figure 5: Fields from the customer database "LFA1"

3.4 Information from tables using the Repository Information System

The Repository Information System is called up with transaction **SE84**. The menu is then opened with

ABAP-Dictionary \rightarrow

Database tables

The outline of the field "Application components" (in the right window) displays the available application components, which can be selected to limit the appropriate tables:

Repository Into System: Find Tables						
🕀 🚸 🔁 🖬 🚺 🛅		🖙 Select Application Component	×			
 	Standard selections Table Name Short description Package Application Component Settings Maximum no. of hits 500	C: Select Application Component C: EP Enterprise Portal C: MDM SAP NetWeaver Master Data Management AC Accounting - General FI Financial Accounting C: FI-CL Consolidation C: FI-AP-AP Basic Functions FI-AP-AP-FER Invoices and Credit Memos FI-AP-AP-FER Invoices and Credit Memos FI-AP-AP-FER Master Data FI-AP-AP-FER Invoices and Credit Memos FI-AP-AP-FER Bills of Exchange FI-AP-AP-DD Down Payments FI-AP-AP-DD Down Payments FI-AP-AP-OI Open Item Management FI-AP-AP-CL Correspondence FI-AP-AP-CL Closing Operations FI-AP-AP-EDI EDI FI-AP-AP-EDI EDI				
		Choose E	×			

Figure 6: Repository Information System

When a component is selected, all the tables selected to that component are then displayed.



Figure 7: Repository Information System

By double-clicking on the table names one obtains an overview of all fields in the table.

3.5 Information from tables using the SAP table handbook

If the name of a table is already known and one would like to know which tables is has additional relationships with, the SAP table handbook should be used. It is called up with transaction SA38 and report name **RSSDOCTB**.

At the end of the list (disregarding the information on the structure of the table) there is an overview of the relationships for the table. From this it can be determined, for example, in which table the posting keys are saved.

LFA1			Vend	ør Master	(General S	Section)
Table	class	-	TR	ANSP :	Delivery o	class:A
Last c	:hange	by	SA	P	Last chang	ge on01.06.2013
Techni	ical se	tting	3			
Data c	lass:		AP	PLO	Size cateç	jory:3
Buffer	ing ty	pe:				
Table	struct	ure				
Table	DOLGO	and the second se				
Table	DOLACI					
Field	name F	. Туре	Length	Data el.	Domain	Text
Field	name F	Type	Length	Data el.	Domain	Text
MANDT	name F	CLNT	Length 3 10	Data el. MANDT LIFNR	Domain MANDT LIFNR	Text Client Account Number of Vendor
Field MANDT LIFNR	name F	CLNT CLNT CHAR	Length 3 10	Data el. MANDT LIFNR	Domain MANDT LIFNR	Text Client Account Number of Vendor or Creditor
Field MANDT LIFNR	name F	CLNT CLNT CHAR CHAR	Length 3 10 3	Data el. MANDT LIFNR LAND1 GP	Domain MANDT LIFNR LAND1	Text Client Account Number of Vendor or Creditor Country Key
Field MANDT LIFNR LAND1 NAME1	name F	CLNT CLNT CHAR CHAR CHAR	Length 3 10 3 35	Data el. MANDT LIFNR LAND1_GP NAME1 GP	Domain MANDT LIFNR LAND1 NAME	Text Client Account Number of Vendor or Creditor Country Key Name 1
Field MANDT LIFNR LAND1 NAME1 NAME2	name F	CLNT CLNT CHAR CHAR CHAR CHAR	Length 3 10 3 35 35	MANDT LIFNR LAND1_GP NAME1_GP NAME2_GP	Domain MANDT LIFNR LAND1 NAME NAME	Text Client Account Number of Vendor or Creditor Country Key Name 1 Name 2
Field MANDT LIFNR LAND1 NAME1 NAME2 NAME3	name F	CLNT CLNT CHAR CHAR CHAR CHAR CHAR	Length 3 10 35 35 35 35	MANDT LIFNR LAND1_GP NAME1_GP NAME2_GP NAME3_GP	Domain MANDT LIFNR LAND1 NAME NAME NAME	Text Client Account Number of Vendor or Creditor Country Key Name 1 Name 2 Name 3
Field MANDT LIFNR LAND1 NAME1 NAME2 NAME3 NAME4	name F	CLNT CLNT CHAR CHAR CHAR CHAR CHAR CHAR	Length 3 10 35 35 35 35 35	MANDT LIFNR LAND1_GP NAME1_GP NAME2_GP NAME3_GP NAME4_GP	Domain MANDT LIFNR LAND 1 NAME NAME NAME NAME	Text Client Account Number of Vendor or Creditor Country Key Name 1 Name 2 Name 3 Name 4
Field MANDT LIFNR LAND1 NAME1 NAME2 NAME3 NAME4 ORT01	name F	CLNT CLNT CHAR CHAR CHAR CHAR CHAR CHAR CHAR	Length 3 10 35 35 35 35 35 35	MANDT LIFNR LAND1_GP NAME1_GP NAME2_GP NAME3_GP NAME4_GP ORT01_GP	Domain MANDT LIFNR LAND1 NAME NAME NAME TEXT35	Text Client Account Number of Vendor or Creditor Country Key Name 1 Name 2 Name 3 Name 4 City
Field MANDT LIFNR LAND1 NAME1 NAME2 NAME2 ORT01 ORT02	name F	CLNT CLNT CHAR CHAR CHAR CHAR CHAR CHAR CHAR CHAR	Length 3 10 35 35 35 35 35 35 35 35 35	Data el. MANDT LIFNR LAND1_GP NAME1_GP NAME2_GP NAME3_GP NAME4_GP ORT01_GP ORT01_GP	Domain MANDT LIFNR LAND1 NAME NAME NAME TEXT35 TEXT35	Text Client Account Number of Vendor or Creditor Country Key Name 1 Name 2 Name 3 Name 4 City District

Figure 8: Table handbook

3.6 Information from tables using the help text in a transaction

If one would like to know which table is called up in a transaction, one can call up the transaction and go into one of the fields to be managed. By right-clicking in the field and selecting "Help," the documentation for the field is displayed. Using the button the see what table is involved. However, frequently only the structure names are given here; these cannot be called up with SE16, since the data are only loaded into the tables when they are run.

3.7 Calling up data from the tables

Once a table has been identified for export, it is called up (assuming the proper authorizations are in place) using transactions SM30, SM31 or SE16. The following notes are to be taken into account here:

- Be aware of the maximum number of hits; determine the number of data sets in advance.
- Note that the width is set to 1,023. If there are many more fields, they will not be displayed.
- The required fields can be searched using the field selection function (Settings \rightarrow List preparation \rightarrow Field selection)

_

Selection criteria for the selection can be expanded using Settings \rightarrow Fields.

- The displayed data can be sorted by different fields. To do this, mark the appropriate column and then select the symbol $\boxed{\Box}$

Using the command sequence Settings \rightarrow List preparation \rightarrow Sorting, multiple sorting criteria can be specified.

Once one has obtained the selected data, it can be transferred to the PC. This is done using the command sequence Edit \rightarrow Download.

1	Data Browser: Table LFA1 Select Entries 85								
6	≪ 🕄 🖌 ◀ 🕨 🗎 🗟 🗟 🖪 🖪 Check Table								
Tal	Table: LFA1								
Di	Displayed Fields: 56 of 118 Fixed Columns: 2 List Width 1023								
	Client	Vendor	Country	Name		Name 2			
	800 800 800 800	00000000001 0000100000 0000100001 0000100002	US US US US	Chelton Fashion, LLC Starbucks Bristol Farms D & A Associates		Tünnes			
	800 800 800	0000100003 0000100004 0000100005	US US	GAMEHUT TARGET	🔄 Save list in file.				
	800 800	0000100006	US ES	test SDFF	be saved ?	nould the list			
	800 800 800	0000200000 0000200001 0000200002	US US US	Toyota Automotive TID BITS TERMINEX	e unconverte				
	800 800 800	0000200003 0000200004 0000300000	US US US	TOYS R US TURTLE Ford Motors Inc	ORich text fo	ormat			
	800 800 800	0000300001 0000300002 0000300003	US US US	General Motors AT & T DTE Energy	O In the clipb	oard			
	800 800	0000300004	US US	Alps Electronics Alps Electronics of U					
	800 800	0000400000 0000400001 0000400002	US US	General Mills Procter and Gamble					
	800 800 800	0000400003 0000400004 0000400005	IT IT US	Fornitore Prova Fornitore Cespite Consumers Energy					

Figure 9: Data download

4 Evaluating and preparing information using reports

4.1 Notes on reports

There are standard lists (reports) available within SAP ERP systems for every information area. In contrast to generating information from tabular data, pre-structured *reports* have *the advantage* that all necessary information is integrated into the list called up, and the user does not need to concern himself with the technical details of the data structure or with linking data.

Lists are especially well suited for gathering information in complex audit areas, as well as for transaction data, account statements or balances. One *disadvantage of list data* is that it is only suitable to a limited extent for further processing using special analytical software on the auditor's own computer. Irregular structures, a hierarchical setup (e.g. account number followed by different postings) as well as formatted characteristics such as cover sheets or page breaks are all issues in this regard.

If lists are correctly structured, they can be transferred to the personal computer in file form and then changed back into database format using special programs such as Monarch.

4.2 Selection and preparation of list data

SAP ERP lists have "meaningful names," which can be searched. The menu sequence to do this begins with the "System" command located in the upper screen bar and is as follows:

System \rightarrow

Services \rightarrow

Reporting

Transaction (SA38).

The user is requested to add a report name. The auditor should then insert a search screen with the commands

Tools \rightarrow

Search program.

ABAP Program Dil	rectory		
⊕ №			
Program	📕 rfk*	to	<u></u>
Authorization Group		to	
Application		to	=
Status		to	
			_

Figure 10: Searching programs using program names

The reports can then be reserved under the following program names, etc. although this system is not always followed:

First letter

If it is an SAP ERP standard report, it begins with an "R." Company lists begin with the letters "Y" and "Z."

- Second letter

For standard reports, the second letter in the report name is the application:

- F Financial accounting
- P Personnel
- M Material
- V Sales A Asset
 - Asset evaluations
- S Basic system applications

For reports developed in-house, one should check whether these also follow a system. Otherwise, the search must be limited to the initial letter (Y/Z).

Third letter

Using the third letter of the report name generally allows a closer *identification of the information area*. Here are a few examples:

Document evaluations
Creditor evaluations
Debitor evaluations
G/L evaluations

The generic search function is fairly reliable up to the second or third letter. The remaining part of a list name must then be replaced with the "*" as a wildcard symbol.

After inputting the letter combination and the wildcard symbol, click the *"Execute" button*. The user receives an overview of all reports that follow this naming convention. An appropriate evaluation must be selected using the report descriptions. When this is marked, then the *"Documentation" button* provides more extensive explanations of the indicated program.¹

4.3 Interactive lists

When selecting the reports, one can frequently select between the reports in the old format and the reports as **interactive lists**.

For example, the customer line item list (**RFDEPL00**) is offered in two variations: **RFDEPL00** and **RFDEPL00_NACC**. Of these,

- RFDEPL00 is the new interactive list, while
- RFDEPL00_NACC is the old, non-interactive list.

This standard has not yet been implemented for all reports, but has already been used in a number of reports.

Data from the interactive lists can be transferred directly into Excel 💹. To do this, the layout

may have to be changed after preparing the report.

4.4 Dynamic selections expand the selection opportunities

The selection screen generally does not meet the special requirements for internal and external auditing using special queries (e.g. all documents over 1000 Euro). Such additional queries can be handled using **dynamic selections**.

By clicking the |II| symbol or using the command sequence **Edit** \rightarrow **Dynamic selections**, all interesting data fields from the subject of the report can be included in the selection.

4.5 Other techniques

Fine-tuning reports with regard to the special evaluation requirements of an audit is sometimes time-consuming and associated with the wish to save the results on a long-term basis within the SAP[™] system. This is especially sensible if control awareness is developed by the technical departments due to an ongoing disclosure of noticeable facts. The R/3[™] system offers interesting options for this, which will be explained below.

After completion of all selection criteria within the selection screen, the results can be saved

using the diskette symbol 📕 or the menu sequence

Branch \rightarrow

Variants \rightarrow

Save as variant.

¹ More detailed explanations on a number of SAP standard lists that are interesting for auditing can be found in another guideline by the author, "SAP reports for audits," available separately.

Next, the user-specific variant name and an explanation of the purpose and content of the variant should be added in the field "Significance." After this, the auditor has a number of options available which affect calling the variant.

• General protection "Protect variant"

If a *continuous equal result based on the preset values* within the variants is desired, then the auditor should check this field. In this way, he/she is the only one who can change the variant, and the input fields on the selection screen are *no longer overwritable at the start of the variant*.

• Field-related settings

Beyond the general protection of a variant, the user has configuration options for every input field on the selection screen, as well as dynamic selections.

- Protect a field

If a selection field is protected, the *value set* by the auditor when setting up the variant remains *visible*, but it can *no longer be overwritten* when the variant starts.

- Hide a field

Selection fields for which there should never be an entry made when starting a variant can be completely hidden on the selection screen. This is sensible for audit purposes if the selection criteria is not intended to be seen by other parties or if it is completely insignificant for the evaluation.

Example of use:

If documents for a predetermined amount are to be consecutively issued for a certain company code, it is advisable to enter the corresponding values in the selection screen, generally protect the variant, hide the unnecessary fields and also protect the fields for which inputs are to be made from unintentional entries.

The **advantage** of static variants is that the corresponding evaluation is "wired" in the system, available for continuous applications.

On the other hand, there is the **disadvantage** that several variants must be set up for comparable evaluations which, for example, affect different company codes and – if values that change over time (business year) are included in the variants – each individual one may have to be changed.

Calling up self-produced variants is done using the commands

Jump \rightarrow

Variants \rightarrow

Get

4.6 Download report data

All evaluations that appear on the SAP ERP screen can be transferred to a personal computer using the command sequence

System \rightarrow

List \rightarrow

Secure \rightarrow

Local file.

The result is a print-ready file with all elements of a list such as headers, page breaks, subtotals and grand totals.

5 The SAP ERP "Quick View" list generator

5.1 Notes of using Quick View

SAP makes a "list generator" available to the users, which makes it possible to create evaluations without a detailed knowledge of the internal SAP programming language (ABAP/4). As a rule, the corresponding data are taken from tables, so that the necessary individual tables and their structure und must be known (see chapter 2.2).

The creation of quick views has the advantage that a link can be made between different tables within the SAP system. Furthermore, the lists created have a high degree of interactivity. It is therefore possible, just as in tables, to sort, to filter, to change fields and to make groupings with subtotals. Quick view data has a flat structure and can be transferred like that from the SAP ERP system, so that it can be loaded into any PC software with no problems.

Despite all the advantages shown, it should be noted that complex evaluations, such as the inclusion of calculation procedures, cannot be done using the list generator.

5.2 Creating Quick views

Calling up the list generator is done using the menu sequence

System \rightarrow

Services \rightarrow

Quick viewer

Creating the list is done in *two steps*. First, a *data source,* in the form of a table, an interface of several tables, or a logical database, is selected. The fields necessary for creating the lists are selected from these, supported by a menu.

QuickViewer: Initial S	Screen			
🗈 😥 🛱 🗗 🕀 With vari	iant 🛛 🕀 In backgi	ound 🖓 Saved Lists		
Welcome to the QuickViewer 1. Enter a name and choose Create 2. Choose a title and remarks. 3. Enter the name of a	QuickView	ery 🕒 Execute	Change	Create Description
Data Source. This can be a table, a logical database, a join, or an InfoSet from SAP Query. 4. Use layout mode to layout your Quick View graphically. Choose basis mode whenever you want to directly export the report fields selected.	Name	Title	Table/view/join	Logical database
Click on the hyperlink to go to the corresponding topic			8	

Figure 11: Setting up evaluations with quick view

Formatting the list with a cover sheet, a header, sorting sequences and similar characteristics is done in a second step. The list can then be called up.

Menu navigation for the end user within the quick view is uncomplicated and is oriented toward setting up evaluations in relevant PC programs such as Access or Excel.

6 Overview of evaluation tools

Purpose	Transaction	Remarks				
Selection control						
Insert additional selection fields in the selection screen	Edit / Dynamic selections	Only for reports and quick views				
Select different individual values and value intervals	Multiple selections	For every selection field				
Determine different selection criteria "equal, smaller, larger"	Edit / Selection options	For every selection field				
Tables						
Calling up tables	SE16 / SE17					
Search for tables using table names	Input parts of the table name into the input field followed by "*" and expand field	A-tables (Client level) B-tables (Company code level) C-tables (Transaction figure level) Naming conventions: LF* Vendor data KN* Customer data KS* G/L data AN* Asset data US* User and authorization data T0* Control data for financial accounting PA* Personnel data				
Data transfer to a personal computer	- Edit / Download - System / List / Secure - Excel symbol (ALV grid)	ASC II – Delimited ASC II – Delimited Limited data volume				
Change the table view	Settings / User-specific - SE16 Standard list - ALV grid	- for large data volumes - interactive lists				
Reports						

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Purpose	Transaction	Remarks			
Calling up reports	Information system or SE38	General reporting			
Search for reports using report names	 Selection screen with tools / search program Input part of the report name followed by a "*" and command "execute" 	 R* = standard report Y/Z* = internal company reports RF* = financial accounting RFK* = creditor data etc. 			
Data transfer to personal computer	System / List Assure / Local file	File ready to print Preparation with Monarch DataImport or ACL			
Quick view					
Call up your own quick views	System / Services / Reporting or SA38 Tools / Search program	Quick view's usually begin with the designation "Aq*"			
Data transfer to personal computer	- Excel symbol - File storage	 for smaller files ASCII delimited format 			