# EMC<sup>®</sup> ViewPoint for SAP Modules Utilities

Version 2.1

### **User Manual**

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### **EMC** Corporation

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### Preface

As part of an effort to improve and enhance the performance and capabilities of its product lines, EMC periodically releases revisions of its hardware and software. Therefore, some functions described in this document may not be supported by all versions of the software or hardware currently in use. For the most up-to-date information on product features, refer to your product release notes.

*If a product does not function properly or does not function as described in this document, please contact your EMC representative.* 

Audience This document is part of the ViewPoint for SAP documentation set, and is intended for use by the ViewPoint for SAP modules utilities administrator.

Readers of this document are expected to be familiar with the following topics:

- ViewPoint for SAP modules installation and usage
- SAP generic installation tools and programs

# Related Documentation

Related documents include:

#### Introductory

• EMC ViewPoint for SAP Release Notes

#### Installation

• EMC ViewPoint for SAP Software Suite Installation Manual

#### Administrative

EMC ViewPoint for SAP Modules Administration Manual

#### User

• EMC ViewPoint for SAP Modules Utilities User Manual

Conventions Used in This Guide EMC uses the following conventions for special notices.

Note: A note presents information that is important, but not hazard-related.



#### CAUTION

A caution contains information essential to avoid data loss or damage to the system or equipment. The caution may apply to hardware or software.



#### IMPORTANT

An important notice contains information essential to operation of the software. The important notice applies only to software.

#### **Typographical Conventions**

EMC uses the following type style conventions in this guide:

	ving type style conventions in this guide:
Normal	<ul> <li>Used in running (nonprocedural) text for:</li> <li>Names of interface elements (such as names of windows, dialog boxes, buttons, fields, and menus)</li> <li>Names of resources, attributes, pools, Boolean expressions buttons, DQL statements, keywords, clauses, environment variables, filenames, functions, utilities</li> <li>URLs, pathnames, filenames, directory names, computer names, links, groups, service keys, file systems, notifications</li> </ul>
Bold:	<ul> <li>Used in running (nonprocedural) text for:</li> <li>Names of commands, daemons, options, programs, processes, services, applications, utilities, kernels, notifications, system call, man pages</li> </ul>
	<ul> <li>Used in procedures for:</li> <li>Names of interface elements (such as names of windows, dialog boxes, buttons, fields, and menus)</li> <li>What user specifically selects, clicks, presses, or types</li> </ul>
Italic:	<ul> <li>Used in all text (including procedures) for:</li> <li>Full titles of publications referenced in text</li> <li>Emphasis (for example a new term)</li> <li>Variables</li> </ul>
Courier:	<ul> <li>Used for:</li> <li>System output, such as an error message or script</li> <li>URLs, complete paths, filenames, prompts, and syntax whe shown outside of running text.</li> </ul>
Courier bold:	Used for: <ul> <li>Specific user input (such as commands)</li> </ul>
<i>Courier italic:</i>	Used in procedures for: • Variables on command line • User input variables
<>	Angle brackets enclose parameter or variable values supplied to the user
[]	Square brackets enclose optional values
I	Vertical bar indicates alternate selections - the bar means "or"
{ }	Braces indicate content that you must specify (that is, x or y or
	Ellipses indicate nonessential information omitted from the

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Your Comments	Your suggestions will help us continue to improve the accuracy, organization, and overall quality of the user publications. Please send your opinion of this guide to:
	techpub_comments@EMC.com

EMC ViewPoint for SAP Modules Utilities User Manual

## ViewPoint for SAP Utilities

This chapter introduces the ViewPoint for SAP utilities and includes	
this topic:	

Overview	1	2	2
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Overview	
	The ViewPoint for SAP utilities can be grouped into three categories:
	<ul> <li>"Installation utilities"</li> </ul>
	<ul> <li>"Compliance and auditing utilities" on page 13</li> </ul>
	<ul> <li>"Database growth monitoring utility" on page 13</li> </ul>
	The latest ViewPoint for SAP transport version information is in the <i>EMC ViewPoint for SAP Release Notes</i> .
	Complete ViewPoint for SAP transport installation information is in the EMC ViewPoint for SAP Software Suite Installation Manual.
	The latest ViewPoint for SAP documentation is on EMC Powerlink.
Installation utilities	This section describes the ViewPoint for SAP utilities used during installation.
Initial installation	The following utilities are supplied as a single transport installed during the initial installation of ViewPoint for SAP.
	<b>Archive Browser</b> Archive Browser is a utility that displays table entries, and the corresponding table and text field values.
	<b>Conversion Tool</b> <b>Conversion Tool</b> is a utility used to adjust simple ABAP/4 programs to archiving purposes.
	<b>Translation Tool</b> Translation Tool is a utility that translates standard SAP objects' text elements and dynpros into the user's native language for use by ViewPoint for SAP to display corresponding objects' text elements and dynpros.
	<b>Check ADK</b> Check ADK is a utility that is an error analysis tool used in case of access problems to ViewPoint for SAP index files or SAP archive files.
Class Order	Class Order is supplied as a separate transport and is a utility that helps manage the installation of technically-related archive modules.

Compliance and auditing utilities	This section describes the ViewPoint for SAP utilities useful for compliance and auditing purposes.
Fiscal Year Reporter	Fiscal Year Reporter is supplied as a separate transport and is a utility that helps manage the numerous fiscal year tasks that have to be carried out in the area of financial accounting at years' end.
Data Retention Tool	Data Retention Tool (CDART) is supplied as a separate transport and is a utility that helps create datasets from active and archived data, in SAP certified format, for external auditing purposes.
Database growth monitoring utility	This section describes the ViewPoint for SAP utility used to monitor database size and health.
Analyzer Plus	Analyzer Plus is supplied as a separate transport and is a utility that analyses archiving tables capacity, analyzes the distribution of documents, and executes an archiving check.

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### **Archive Browser**

This chapter covers the ViewPoint for SAP Archive Browser and includes these topics:

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### **Overview**

The ViewPoint for SAP Archive Browser is the EMC counterpart of the SAP Data Browser which uses transaction SE16. The ViewPoint for SAP Archive Browser displays table entries, table field values, and text field values using the database, archive, or both as a data source.

The Archive Browser displays tables from these ViewPoint for SAP modules:

- Financial Accounting and Material Documents (CFI)
- Sales and Distribution (CSD)
- Purchasing (CMM)
- Material Master Data, Batches/Special Stocks and BOMs (CMT)
- Controlling Line Items (CCO)
- Profit Center Line Items (CPCA)
- Plant Maintenance (CPM)
- Production Orders (CPP)
- Process Orders (CPR)
- Project Systems (CPS)
- Warehouse Management (CWM)
- Special Ledger (CSL)
- Custom [(IDK) CUSTOM]

### Objects

16

Table 1 lists the SAP R/3 objects included in the Archive Browser utility with a description of each object.

#### Table 1

Archive Browser object descriptions

Object	Rel. 3.x	Rel. 4.x Description		
PROG	ZZCSBROW	/PBS/UTIL_ARCHIVEBROWS	Archive Browser	
FUGR	Z007 /PBS/C007 Function group for Conve		Function group for Conversion objects	
FUGR	ZZSB	/PBS/SETB	Function group Archive Browser (AB)	

Object	Rel. 3.x	Rel. 4.x	Description
FUGR	N/A	/PBS/TAB_ARCHDEF	Function group for DB table where all available ViewPoint for SAP modules (transaction /PBS/SE16), their tables and indexes have been stored.
PROG	ZZABHELP	/PBS/AB_HELPRQ	Help Request for AB
PROG	ZZABCODE	N/A	Code generation for AB
PROG	N/A	/PBS/TAB_ARCHDEF	Delete table entries of /PBS/TAB_ARCHDEF with TAB_TYPE EQ SPACE
TABL	N/A	/PBS/TAB_ARCHDEF	DB table where all available ViewPoint for SAP modules (transaction /PBS/SE16), their tables and indexes have been stored
TABU	N/A	/PBS/TAB_ARCHDEF	Entries for ViewPoint for modules, their tables and indexes
TRAN	ZZ16	/PBS/SE16	Start transaction

#### Table 1 Archive Browser object descriptions (continued)

### **Starting Archive Browser**

Follow this procedure to start ViewPoint Archive Browser.

1. Execute transaction:

/PBS/SE16 (release 4.0 and later),

or ZZ16 (release 3.x and prior),

or navigate through the ViewPoint menu via /PBS/EMC (release 4.0 and later),

or YPBS (release 3.x and prior)

In the ViewPoint for SAP menu, select Utilities > General tools > Archive Browser.

The utilities menu screen appears, as shown in Figure 1 or Figure 2 on page 19.

」 List Edit <u>G</u> oto System <u>H</u> elp	
🖉 📑 🗸 🔚 I 😋 🚱 🕻	2   🗕 () () () () () () () () () () () () ()
Menu of utilities of the PBS archive	add ons
Menu of utilities of the PBS archive add ons	
🕒 Copy transfer order	(Report /PBS/UTILTP01)
🕒 Convert select statement	(Report /PBS/UTIL_CONVERT)
🕒 Call archive browser	(Report /PBS/UTIL_ARCHIVEBROWS)
🕒 Determine transport requests	(Transaction /PBS/UTIL_Z9CP)
🕒 Call translation tool	(Report /PBS/UTIL_TRANSLATE)

Figure 1 ViewPoint for SAP utilities releases 4.0 and 4.5



Figure 2 ViewPoint for SAP utilities release 4.6

### **Displaying Archiver Browser accessible tables**

To display the list of Archive Browser accessible tables for use with transaction /PBS/SE16, place the cursor in the table name field of the initial screen of the Archive Browser and press F4 or click Enter @.

The list of available tables appears, as shown in Figure 3.

Table	Description			
A016	Contract Item	Х		
A019	Contract Header	Х		
A068	Outline Agreement Item: Plant-Dependent	Х		
A081	Contract Conditions at Plant Level	Х		
A082	Contract Conditions without Plant	Х		
ADRC	Addresses (central address admin.)			
AFFL	Work order sequence			
AFFLD	Order: Dialog table for order sequences (AFFL)			
AFEW	Goods movements with errors from confirmations			
AFKO	Order header data PP orders			
AFPO	Order item	Х		
AFPOD	Order item dialog structure	Х		
AFRU	Order completion confirmations			
AFRUD	Dialog table for completion confirmations			
AFVC	Operation within an order			
AFVGD	Order: Dialog table for Table AFVG (order operation)			
AFVU	DB structure of the user fields of the operation			
AFVV	DB structure of the quantities/dates/values in the operation			
AUFK	Order master data			
BKPF	Accounting Document Header	Х		
BSAD	Accounting: Secondary Index for Customers (Cleared Items)			
BSAK	Accounting: Secondary Index for Vendors (Cleared Items)			
BSAS	Accounting: Secondary Index for G/L Accounts (Cleared Items)			
BSEG	Accounting Document Segment	Х		
BSIS	Accounting: Secondary Index for G/L Accounts			
CAUEV	Generated Table for View CAUFV	Х		
CAUFVD	Dialog structure for order headers and items	Х		
CDHDR	Change document header	Х		
CDPOS	Change document items	Х		
COBK	CO Object: Document header	Х		
COBRA	Settlement Rule for Order Settlement			
COBRB	Distribution Rules Settlement Rule Order Settlement			
COEP	CO Object: Line Items (by Period)	Х		
COVP	Table Generated for View COVP	Х		
DOST	Document to BOM Link			
EIKP	Foreign Trade: Export/Import Header Data	Х		
EIPO	Foreign Trade: Export/Import: Item Data	Х		
EKAB	Release Documentation	Х		
EKAN	Vendor Address: Purchasing Document			
EKBE	History per Purchasing Document			
EKBZ	History per Purchasing Document: Delivery Costs			
EKES	Vendor Confirmations			
EKET	Scheduling Agreement Schedule Lines			
EKKN	Account Assignment in Purchasing Document			
EKKO	Purchasing Document Header	Х		
ЕКРА	Partner Roles in Purchasing			

#### Figure 3

Archive Browser accessible tables

### Selecting tables

Follow this procedure to select ViewPoint for SAP module tables using Archive Browser.

- 1. Make entries in the Archive Browser initial screen fields, as shown in Figure 4 and defined in Table 2.
- 2. Click Enter 🥝.

	<u>S</u> ettings	<u>U</u> tilities	System	<u>H</u> elp			
<b>©</b>	Ē	4 🔒	0	😣			
PBS Archive B	rowser	: Initia	l Scree	n			
Table name	<mark>ВКРЕ</mark>		ð				
Archive	CFI	11					
Option							
1=Arch.+Db 2=Db 3=Archive							

Figure 4 Archive Browser initial screen

#### Table 2 Archive Browser screen field definitions

Field	Definition
Table name	Enter the table name. <b>Note:</b> This procedure uses table BKPF from the Financial Accounting and Material Documents (CFI) module as an example.

Field	Definition		
Archive	Enter the name of the ViewPoint for SAP module if the table exists in several ViewPoint for SAP modules.		
Option	This field is used to query CSD module tables for orders, delivery notes, invoices, etc.		
1=Arch.+Db 2=Db 3=Archive	<ul> <li>Enter whether the tables should be displayed from the:</li> <li>Database and archives (1)</li> <li>Database only (2) (calls SAP Data Browser transaction SE16)</li> <li>Archives only (3) (of the previously selected table)</li> </ul> Note: If a table is available in the different module archives, you have to delimit exactly. For example the table CDHDR is available in the CFI, CMM, and CSD modules.		

#### Table 2

2 Archive Browser screen field definitions (continued)

#### The table (BKPF) index screen appears, as shown in Figure 5.

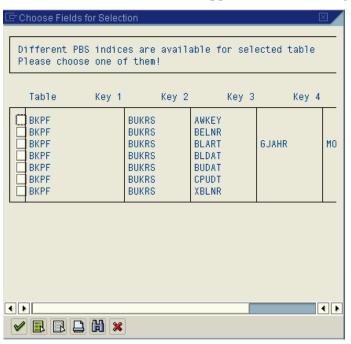




Table BKPF index screen

3. Select an index combination.

Include as many fields as possible for later selection and index sequential data reading, thereby shortening query run time.

**Note:** When there is only one index for a table within the selection of a ViewPoint for SAP module, the field selection list displays.

For example, selecting the indexes BUKRS and BELNR generates a display in which both index fields are marked and can't be deselected. However, you can select additional search fields, as shown in Figure 6.

Choose Fields for Selection	
Too many table fields for select Choose the table fields for the selection conditions	.ion (max. 40)
BUKRS	Company code
BELNR	Document number
GJAHR	Fiscal year
BLART	Document type
BLDAT	Document date
BUDAT	Posting date
MONAT	Posting period
CPUDT	Entry date
CPUTM	Time of entry
AEDAT	Changed on
UPDDT	Last update
WWERT	Translation date
USNAM	User name
TCODE	Transaction code
BVORG	Cross-co. code no.

#### Figure 6 Example of selected and potential index field combinations

4. Click **Enter** to confirm the entries.

The selection screen with the selected indexes appears, as shown in Figure 7. The index fields and possible additional fields for this table are displayed in this selection screen.

<i>모</i> <u>P</u> rogram <u>E</u> dit <u>G</u> oto <u>S</u> ettings S <u>y</u> s	tem <u>H</u> elp								
🖉 🚺 🕯 🖡	]   😋 😧   🗕 🛗 🎼   釣 竹 八 約   🛒 🖉   🚱 🖬								
PBS Archive Browser: Table BKPF: Selection Screen									
🕒 🚸 📃 🚺 Number of entries	🚱 🍪 🔜 🚺 Number of entries								
BUKRS	a to a								
BELNR	to								
Width of output list	80								
Maximum no. of hits	10								

#### Figure 7 Selection screen for table BKPF

5. Enter the field delimiters.

Enter delimiters for the index fields, and for the primary index in particular. Without entries the query runs through all data records resulting in long run time (depending on data volume). If the primary index is not delimited and error message appears, as shown in Figure 8.

🔀 Please go on delimiting selection!

#### Figure 8 Error message for primary key with no delimitation

The index fields with delimiters appears, as shown in Figure 9.

년 <u>P</u> rogramm <u>B</u> earbeiten <u>S</u> pringen <u>I</u>	<u>E</u> instellungen S <u>y</u> stem <u>H</u> ilfe						
	📙 🚱 🔍 📃 🖁 🎼 登 白 ム 公: 🕱 👰 📑						
PBS Archive Browser: Tabelle BKPF: Selektionsbild							
🚱 🚳 📑 🚺 Anzahl Einträge							
BUKRS	1000 🕝 bis 🔷						
BELNR	100001000 bis 100001010 🔿						
Breite der Ausgabeliste	80						
Maximale Trefferzahl	10						

- Figure 9 Table BKPF delimiters
  - 6. Click Enter.

The query results for the example delimiters displays, as shown in Figure 10.

F	PBS Archive Browser: Tabelle BKPF 4 Treffer									
6										
	Tabelle: BKPF Angezeigte Felder: 10 von 69 Feststehende Führungsspalten: 🍋 Listbreite 0080									
	A MANDT BUKRS BELNR GJAHR BLART BLDAT BUDAT MONAT CPUDT							CPUDT		
	* *	100 100 100 100	1000 1000 1000 1000	0100001001 0100001002 0100001003 0100001003	1996 1995	SA RV RV RV	04.01.1996 10.05.1995	31.01.1996 04.01.1996 10.05.1995 09.01.1996	01 05	02.01.1996 04.01.1996 05.01.1996 09.01.1996

#### Figure 10 Query results with delimiters

Column A is marked with an asterisk (\*) for archived documents and is empty for documents still available in the database.

**Note:** To view the data in the ALV display, first display the data using SE16 and then switch to the ALV display.

### Database table /PBS/TAB\_ARCHDEF

The Archive Browser displays tables and their contents accessible with the function module /PBS/SELECT\_INTO\_TABLE when created in the database table /PBS/TAB\_ARCHDEF.

This table (structure) and contents are delivered as objects of the Archive Browser transport, as shown in Figure 11.

									-				
86	2	<b>S</b> I		88	8 0 2	- 4			a:				
31	TAR	TYPE	PBS ARC	TAB_NAME	SCH1	SCH2	SCH3	SCH4	OPT	TAB SCH1	TAB SCH2	TAB SCH3	TAB SC
P	1		000	COBK	KOKRS	BELNR	00113	00114		1700_00111	170-00112	170-00113	170_00
-	1		CCO	COBK	REFBT	REFBN			<u> </u>				
-	1		000	COEP	KOKRS	BELNR	BUZEI						
-	' 1		000	COEP	KOKRS	GJAHR	KSTAR	PERIO					
-	1		cco	COEP	LEDNR	OBJNR		WRTTP					
-	1		000	COVP	KOKRS	BELNR	BUZEI	vvi (111		COEP	COEP	COEP	
-	1		000	COVP	LEDNR	OBJNR		WRTTP		COEP	COEP	COEP	COEP
-	1		CFI	AGKO	BUKRS	BELNR	GJAHR	WINTER		COEF	COEF	COEF	COEF
4	1		CFI	BKPF	AWKEY	BUKRS	OJAHK						
-	1		CFI	BKPF	BUKRS		GJAHR						
	1		CFI	BKPF	BUKRS	BLART		MONAT					
-	1		CFI	BKPF	BUKRS	BLART	OJAHR	WONAT	-				
-	1		CFI	BKPF	BUKRS	BUDAT							
4				BKPF									
4	1		CFI		BUKRS	CPUDT							
4	1		CFI	BKPF	BUKRS	XBLNR							
4	1		CFI	BSAD	BUKRS	KUNNR							
4	1		CFI	BSAK	BUKRS	LIFNR							
_	1		CFI	BSAS	BUKRS	HKONT							
_	1		CFI	BSEC	BUKRS		GJAHR						
ļ	1		CFI	BSED	BUKRS	BELNR	GJAHR						
ļ	1		CFI	BSEG	AWKEY	BUKRS				BKPF			
ļ	1		CFI	BSEG	BUKRS	BELNR							
	1		CFI	BSEG	BUKRS	BLART	GJAHR	MONAT			BKPF		BKPF
	1		CFI	BSEG	BUKRS	BLDAT					BKPF		
	1		CFI	BSEG	BUKRS	BUDAT					BKPF		
	1		CFI	BSEG	BUKRS	CPUDT					BKPF		
	1		CFI	BSEG	BUKRS	XBLNR					BKPF		
	1		CFI	BSEGC	BUKRS	BELNR	GJAHR						
	1		CFI	BSET	BUKRS	BELNR	GJAHR						
	1		CFI	BSID	BUKRS	KUNNR							
1	1		CFI	BSIK	BUKRS	LIFNR							
1	1		CFI	BSIS	BUKRS	HKONT							
1	1		CFI	BVOR	BVORG								
1	1		CFI	MKPF	BUDAT	VGART							
1	1		CFI	MKPF	BWART	WERKS	SOBKZ			MSEG	MSEG	MSEG	
1	1		CFI	MKPF	CHARG					MSEG			
1	1		CFI	MKPF	MATNR	WERKS	LGORT			MSEG	MSEG	MSEG	
1	1		CFI	MKPF	MBLNR	MJAHR							

#### Figure 11 Extract of table /PBS/TAB\_ARCHDEF contents

The field TAB\_TYPE defines if the table is:

- delivered from SAP (TAB\_TYPE = 1)
- customer-specific (TAB\_TYPE = 2)

### **Preselected tables**

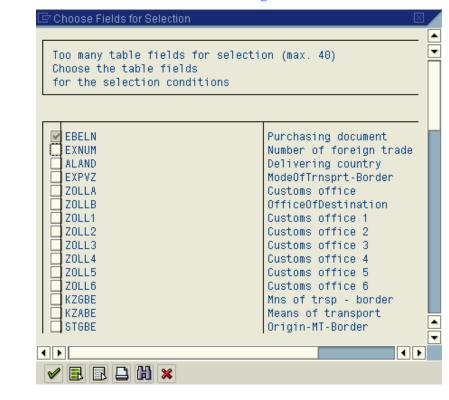
Some tables, for example table EIKP in the ViewPoint for SAP MM module, can be accessed with index fields that are not in the table structure, as shown in Figure 12.

🖙 Choose Fields 1	or Selection			×
Different PBS Please choose			e for select	ed table
Table	Key 1	Key 2	Key 3	Key 4
EIKP EIKP EIKP	EBE LIF MAT	NR		

#### Figure 12 Table EIKP index fields

None of the indicated index fields - in this example EBELN, LIFNR, and MATNR of table EIKP - is a field in this table structure.

Selecting the document number as an index field for a selection adds it to the table structure, as shown in Figure 13.



#### Figure 13 Table EIKP selection fields list

The checkbox for the selected index field EBELN is marked automatically because the selection has to be made for at least one or more index fields.

**Note:** Option 1 (access to archive and database data) cannot be used for tables that include index fields that were added automatically. You can access only the database or the archive data for these tables, or the Option 1 (parameter) error message appears, as shown in Figure 14.

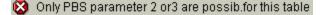
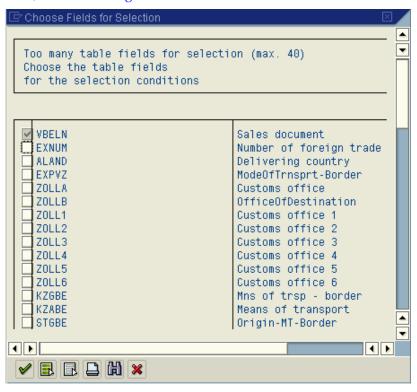


Figure 14 Option 1 error message

Selecting a table shared by ViewPoint for SAP modules reveals other index possibilities. For example, only one index for table EIKP can be selected with the ViewPoint for SAP CSD module displaying table EIKP, as shown in Figure 15.





**List of tables** Place the cursor in the **table name** field and press **F4**, or click **selection**, to view the tables that archived data is accessible. The selection of available tables appears, as shown in Figure 16.

3		
preques	t for PBS Archive Browser	
Table-se	lection PBS Archive Browser	
Table	Description	multiple
A016	Contract Item	X
A019	Contract Header	X
A068	Outline Agreement Item: Plant-Dependent	X
A081	Contract Conditions at Plant Level	X
A082	Contract Conditions without Plant	X
ADRC	Addresses (central address admin.)	
AFFLD	Work order sequence Order: Dialog table for order sequences (AFFL)	
AFFU	Goods movements with errors from confirmations	
AFKO	Order header data PP orders	
AFPO	Order item	х
AFPOD	Order item dialog structure	X
AFRU	Order completion confirmations	^
AFRUD	Dialog table for completion confirmations	
AFVC	Operation within an order	
AFVGD	Order: Dialog table for Table AFVG (order operation)	
AFVU	DB structure of the user fields of the operation	
AFVV	DB structure of the quantities/dates/values in the operation	
AUFK	Order master data	
BKPF	Accounting Document Header	Х
BSAD	Accounting: Secondary Index for Customers (Cleared Items)	
BSAK	Accounting: Secondary Index for Vendors (Cleared Items)	
BSAS	Accounting: Secondary Index for G/L Accounts (Cleared Items)	
BSEG	Accounting Document Seament	Х
BSIS	Accounting: Secondary Index for G/L Accounts	
CAUEV	Generated Table for View CAUFV	Х
CAUFVD	Dialog structure for order headers and items	Х
CDHDR	Change document header	Х
CDPOS	Change document items	Х
COBK	CO Object: Document header	Х
COBRA	Settlement Rule for Order Settlement	
COBRB	Distribution Rules Settlement Rule Order Settlement	
COEP	CO Object: Line Items (by Period)	Х
COVP	Table Generated for View COVP	Х
DOST	Document to BOM Link	
EIKP	Foreign Trade: Export/Import Header Data	Х
EIPO	Foreign Trade: Export/Import: Item Data	Х
EKAB	Release Documentation	Х
EKAN	Vendor Address: Purchasing Document	
EKBE	History per Purchasing Document	
EKBZ	History per Purchasing Document: Delivery Costs	
EKES	Vendor Confirmations	

Figure 16

List of available database tables

2

This chapter addresses the administrative adjustment of ViewPoint for SAP modules using the ViewPoint for SAP Conversion Tool. The Conversion Tool is supplied as part of the ViewPoint for SAP modules utilities.

This chapter includes these topics:

٠	Overview	32
٠	Running the Conversion Tool	33
	Special features	
	Sample programs	
	Archive access tutorial (SAP version 4.6c)	

Overview	—
	The ViewPoint for SAP Conversion Tool adjusts ABAP/4 programs by searching for Select commands using a ViewPoint for SAP module.
	The ViewPoint for SAP Conversion Tool converts Select command structures into a Loop structure.
	<b>Note:</b> Check converted Select and Loop commands during and after the conversion. You cannot adjust each Select command for each archive module.
	The ViewPoint for SAP Conversion Tool works with the following ViewPoint for SAP modules:
	Controlling Line Items (CCO)
	• Financial Accounting and Material Documents (CFI)
	Purchasing (CMM)
	<ul> <li>Sales and Distribution (CSD)</li> </ul>
	Table 3 lists the Conversion Tool objects.

#### Table 3 ViewPoint for SAP Conversion Tool object descriptions

Object	ViewPoint for SAP 4.x	ViewPoint for SAP 3.x	Description
PROG	/PBS/UTIL_CONVERT	SAPMYCON	Conversion Tool
PROG	/PBS/UTIL_CONV_DUMMY	ZZZDUMMY	Dummy program
FUGR	/PBS/UTIL_CONVERT	ZARC	Function group for archive access
TRAN	/PBS/UTIL_CONVERT	YCON	Start transaction

### **Running the Conversion Tool**

Starting the

conversion

Follow the procedures in this section to convert an ABAP/4 program for use with a ViewPoint for SAP module.

**Note:** The procedures in this section use YYCONV02 as an example program to help explain the conversion done by the Conversion Tool.

Follow this procedure to start the conversion.

1. Start the ViewPoint for SAP Conversion Tool with transaction:

/PBS/UTIL\_CONVERT (version 4.x)

or YCON (version 3.x)

or from the ViewPoint for SAP main menu using **Utilities** > **General tools** > **Conversion Select Command** 

The Conversion Tool window appears, as shown in Figure 17.

☐ <u>C</u> onversion <u>S</u> ource prog <u>T</u> arget program	System Help								
Conversion Tool									
(D) Customizing									
Source program	Target program								
YYCONVO2 🖉 🎯 🗈 🚱	ZZZDUMMY 🖉 🚱 🕒								
	testprogram for select-conversion								
version 8	version 7								
created 30.11.1999 DOERRSCHUCK	created 17.01.2000 DOERRSCHUCK								
modified 30.11.1999 DOERRSCHUCK	modified 26.01.2000 DOERRSCHUCK								
	Start converting								

#### Figure 17 Conversion Tool window

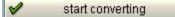
2. Indicate Source and Target program.

Note: The default Target program is ZZZDUMMY.

You can **Change**, **Display**, **Copy**, and **Execute** the Source and Target programs.

Use **Copy** to convert a Source program into a Target program other than ZZZDUMMY. During the copy process change the default Target program name ZZZDUMMY to the desired program name.

3. Start the conversion by clicking **start converting**, as shown in Figure 18.



#### Figure 18 Start converting

The coding lines of the program (YYCONV02 in this example) are converted for the ViewPoint for SAP modules and can be stored in the program ZZZDUMMY, by default.

4. Cut and paste, or use PC Download, to enter the coding into the desired program.

34

# Viewing conversion results

An example of conversion results appears in table form with a table line entered for each Select command found during the conversion, as shown in Figure 19.

1			Ē	4			日 伯 協 1 谷	നം പ്രംഗ്രം	Surger State	
									a stand	and the second
Overview of the conversion in table form										
]	2									
a e									_	_
our	ce:	YYCO	NV02							
est	ination:	ZZZD	UMMY t	estpr	ogram for	select	-conversion			
t.	CurNo.	row	modul	Opt	table	Perf	field 1	field 2	fie	
×	1	21			DD02L	000				
3	2	24	CSD	F	EIPO	000	VBELN		П	▼
3	3	28	CSD	A	STXH	000	VBELN			
	4	30	CSD	F	EIPO	000	VBELN			
3		21	CSD	A	VBFA	000	VBELV			
分 分	5	31								
	5		CSD	F	VBRK	000	VBELN			
Э	-	32	CSD CSD	F A	VBRK VBUK		VBELN VBELN		$\square$	
3 3	6	32				000				
3 3 √ √	6	32 34 35	CSD	A	VBUK	000	VBELN			
3 3 √	6 7 8	32 34 35 37	CSD CSD	A A	VBUK VBUK	000	VBELN VBELN			
30 30 √ √	6 7 8 9	32 34 35 37 39	CSD CSD CSD CSD CSD	A A A	VBUK VBUK VBFA	000 000 000	VBELN VBELN VBELV	BELNR	BL	
39 39 ✓ ✓ ✓ 39	6 7 8 9	32 34 35 37 39 41	CSD CSD CSD CSD CSD CCO	A A A A	VBUK VBUK VBFA VBFA	000 000 000 000	VBELN VBELN VBELV VBELV	BELNR OBJNR	BL	

#### Figure 19 Conversion results

The columns contain information on the conversion of the Select command.

#### Status of the conversion (St.)

Table 4 lists definitions for the status symbols shown in the first column.

#### Table 4Status table column definition

Symbol	Definition
<b>V</b>	The Select was converted automatically and the Conversion Tool found all the necessary information for the conversion.
×	The Select could not be converted because the table is not supported by ViewPoint for SAP. The table is either a system table or a master records table.
1	The conversion has later modifications.
Ħ	An external program call was found in the source program (Include, Perform, or Call).
$\otimes$	Single Select lines excluded from the conversion display this symbol.
1	Manual editing is necessary because, during the conversion, no key field was found for access to the ViewPoint for SAP module, or the database table can exist in several ViewPoint for SAP archives.

#### Sequential number (CurNo.)

The sequential number assigned to each **Select** command.

#### Line (Row)

The line number of the **Select** command in the Source program.

#### Module

The name of the ViewPoint for SAP module addressed by the **Select** command.

#### Option

The option required for access to some ViewPoint for SAP modules. For example, in the ViewPoint for SAP CSD module, this option is used to determine if the access is to be made to orders (A), delivery notes (L) or invoices (F). The ViewPoint for SAP CFI and CMM modules have no options.

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### Table

The dictionary table addressed by the **Select** command (FROM statement).

### Performance

The performance of access to the ViewPoint for SAP module. Table 5 lists performance symbol definitions.

### Table 5 Performance symbol definitions

Symbol	Definition
900	Red displays when there is no access to the ViewPoint for SAP module.
000	Yellow displays when trying to access the ViewPoint for SAP archive with an unsupported key field.
000	Green display when there is optimal access to the ViewPoint for SAP module.

### Field 1, Field 2, Field 3, Field 4

Displays the name of the key field used to access the ViewPoint for SAP archive.

### Definition of the function keys

**F2** — compares the source and the target program.

**F6** — allows the manual editing of the conversion.

**F11** — saves the result of the conversion under the name of the target program.

### **Editing conversion**

Each conversion can be edited manually to change the ViewPoint for SAP module option.

For the key fields 1 to 4 type the field name, the from/to values, and select option, as shown in Figure 20.

, S <u>y</u> stem	<u>H</u> elp								
⊘ 🗌		🗈 🛛 📙 I 🚱	😧 😪 I 🖴 🖨 (	ት 182 ው ው	Concession of the second secon				
Process conversion									
$\otimes$									
show deta	il /								
select	No.: 7	SELECT SINGLE *	FROM VBUK WHER	E VBELN EQ VBAK-VB					
status:	<ul> <li>✓</li> </ul>	Automatic conver	rsion						
DB tabl	e: VBUK	Sales Document:	Header Status a	nd Administrative D					
PBS mor	dul: CSD	Sales							
option:		Sales Order							
	_								
					_				
key fields									
f	field 1	field 2	field 3	field 4					
name: V	/BELN								
	/BAK-VBELN		_						
	/BAK-VBELN		_	_					
in:									

### Figure 20 Process conversion

Press **F11** to save the changes. In the table overview, the Select line is now marked with the status *Modified conversion*. The performance display is not changed.

Press **Shift+F7** to prevent the select line from being converted. The status symbol *No conversion* appears.

## Display Source and Target program

The Source and the Target programs both have current line numbers of the **Select** command, as shown in Figure 21.

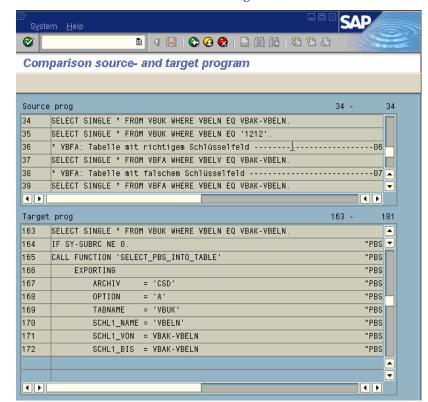
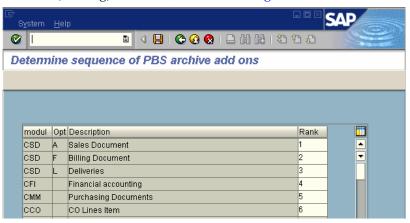


Figure 21 Comparing Source and Target programs

# Customizing definitions

Use the Customizing sequence to access the ViewPoint for SAP modules (ranking) definition, as shown in Figure 22.



### Figure 22 Determine module sequence

This definition is always valid when a database table used in a **Select** command is contained in several ViewPoint for SAP modules.

If the Source program contains, for example, the **Select** command ...

SELECT \* FROM EIPO

... the Source program is converted for access to the invoices of the ViewPoint for SAP SD Module. However, the table EIPO can (in addition to the invoices) also exist in delivery notes and purchasing (MM) documents.

When converting a program for purchasing documents, modify this sequence in a way so that the module MM receives ranking #1 with the rest having a lower ranking. Tables STXH, CDHDR require checking and defining sequential order.

Tables contained in multiple ViewPoint for SAP modules always have a status of *Manual editing necessary*.

# Special features

	This section explains why Select statements have not been converted or whose conversion was partly wrong.
Client specified	- Access to ViewPoint for SAP modules always depends on the client. Remove this clause.
Package Size n	- The Conversion Tool is immediately cancelled with the error message:
	Source program not checkfree or unknown SQL statement in line 40
	Remove the clause "Package size n" and the corresponding ENDSELECT command from the source program.
Up to n rows	- Not supported — target program is not checkfree.
Group by	Not supported — target program is not checkfree.
Aggregate functions	- Aggregate functions like MAX, MIN, SUM, COUNT, AVG are not supported.
Like	The program is not checkfree because loop does not support the statement Like.
Distinct	The Select clause Distinct is supported by the Conversion Tool by deleting from the created internal table all multiple entries with the instruction.
Delete Adjacent Duplicated from iTAB	Ensure that the table is sorted and that duplicate deletion always relates to the internal table primary key.
Bypassing Buffer	- Not considered.

### **Conversion Tool**

Sy-Subrc	The correction of the system variables SY-SUBRC is only integrated into the target program in case of a SELECT-INTO-TABLE.
Transfer of key	If in the WHERE statement of the SELECT command a direct value
values or select	entry and a select option are found, the SELECT option is transferred.
options	The direct value entry is then checked with the loop.

# Sample programs

The sample programs, as shown in Figure 23, are meant for Conversion Tool testing purposes only.

Report name	Description
YYCONV01	Test program for INTO Statement
	***************************************
	01 into WA
	02 into corresponding fields of wa
	03 (f1, fn) into (g1, gn)
	04 (f1, fn) into wa
	05 in dbwa
	06 into table itab
	07 into corresponding table itab
	08 (f1, fn) into table itab
	09 (f1, fn) appending table itab
	10 (f1, fn) into corresponding table itab
	11 appending table itab
	12 appending corresponding fields of table itab
	13 in dbwa 14 in zvbak
	15 (f1, fn) into itab
	16 (f1, fn) into (g1, gn)
YYCONV02	Tables in different modules or options
11008902	01 no PBS table
	02 EIPO: different modules and key fields
	03 STXH: different modules and key fields
	04 without WHERE, archiving allocation via ranking
	05 VBUK: different options, one clear module
	06 VBFA: table with correct key field
	07 VBFA: table with wrong key field
	08 COEP: access via different key fields
	09 MSEG: access via different key fields
YYCONV03	Cannot by converted:
	01 CLIENT SPECIFIED
	02 GROUP-BY
	03 INCLUDE
	04 PACKAGE SIZE n
	05 EXTERNER PERFORM
	06 SUM, COUNT, AVG
	07 CALL FUNCTION x
	08 UP TO n ROWS
YYCONV04	09 LIKE XXX
YYCONV04	Distinct, Order clause 01 VAKPA WHERE KUNNR IN DD SEL AND VBELN IN DD BEL.
	02 SINGLE from KNA1
	03 from VBAP
YYCONV05	Performance test
	01 GRON: IN
	02 GRON: BETWEEN
	03 GRON: EQ
	04 GELB: no key field
	05 GELB: no Where clause 06 ROT: no table
YYCONV10	Read order items via orders to the customer VAKPA
	01 VAKPA WHERE KUNNR IN DD SEL AND VBELN IN DD BEL.
	02 SINGLE from KNA1
	03 from VBAP
YYCONV11	Example program of customer
	Include, Perform and Call Function
YYCONV12	Example program of customer
	SELECT FOR ALL ENTRIES
	ORDER BY
	Coding partly in small letters
YYCONV13	Test program for SY-SUBRC
YYCONV14	Example from customer:
RECENEUA	LIS: new constr. infostr. From material movements
RECENERP	LIS: new constr. infostr. From invoice check/revaluation

### Figure 23 Conversion Tool testing programs

# Archive access tutorial (SAP version 4.6c)

Manual ABAP/4 programs with ViewPoint for SAP archive access are provided if an automatic adjustment cannot be made with the ViewPoint for SAP Conversion Tool.

From SAP version 4.6c, ViewPoint for SAP has archive access tutorials which enable application developers to provide customer-specific programs with ViewPoint for SAP archive access. Executable example programs are provided for each installed ViewPoint for SAP module. Their coding can be processed and executed with the ABAP workbench.

Call the function under General tools, as shown in Figure 24.

🖙 🔄 PBS archive add ons
👂 🚞 Accounting
👂 🧰 Logistics
👂 🚞 Human resources
Master record changes
🗸 🔄 Utilities
🗢 🖾 General tools
Archive browser
🛇 Conversion select command
🛇 Research transport
🛇 Archive access tutorial
🔗 Translation tool
😥 Tool "Check PBS-ADK"
🔗 Default value PBS data source

### Figure 24 General tools functions

Or use transaction: /PBS/UTIL\_ACCESS\_ARC.

**ABAP Editor** Click **ABAP Editor** to start the editor and display sample programs. Breakpoints can be set to execute the programs or the relevant coding can be marked to transfer it into the customer program.

**Execute** The sample program is started and the selected archive data is displayed in a list.

# **Translation Tool**

The ViewPoint for SAP Translation Tool is supplied as part of the ViewPoint for SAP modules utilities.

This chapter includes these topics:

•	Over	view	·						 	 	 	. 4	:6
	D	· .	a -	- <b>1</b>	1	1.1	and the	1					-

# Overview The ViewPoint for SAP Translation Tool translates text elements and dynpros of SAP standard objects to the text elements and dynpros of the corresponding ViewPoint for SAP object in any language, maintaining the texts of reports, function groups, logical databases and transactions program elements. Note: The Translation Tool translates SAP texts in the chosen language only. Texts in other languages will not be affected. Be sure of the program elements selected for translation because existing text in the chosen language is overwritten. Contact EMC Support for more information. Delivery Table 6 lists the Translation Tool objects.

### Table 6ViewPoint for SAP Translation Tool object descriptions

Object	ViewPoint for SASP 3.x	ViewPoint for SAP 4.x	Description
PROG	ZZTRANSL	/PBS/UTIL_TRANSLATE	Translation Tool
TRAN	ZTRA	/PBS/UTIL_TRANSL	Start transaction
TABL	ZZUTILTRAN	/PBS/UTIL_TRANSL	Table

# **Running the Translation Tool**

Follow this procedure to translate text elements for use with a ViewPoint for SAP module.

1. Start the ViewPoint for SAP Conversion Tool with transaction:

/PBS/UTIL\_TRANSL (version 4.0 and after)

or ZTRA (version 3.1 and prior)

The Translation Tool window appears, as shown in Figure 25.

🕑 🛛 🖸	A 📙 🕒 🙆 🚷	□□□□□□	2   🐺 🗖   🔞 🗖
- Translationtool			
🕒 🚸 🖥			
research familier familier			
Lang.			
Target-Language (not DE)	<mark>⊫n</mark> @	<b>_</b>	
Transport			
Transportrequest	/PBS/POS	4	
Display			
The second se			
Show also edited elemen	nts		
	nts		
	nts		
	nts		
Show also edited element	nts		
Show also edited elemen	nts	•	
Show also edited element Direct choise Copy text from to	nts		
Show also edited elemen Direct choise	nts	4	
Show also edited element Direct choise Copy text from to	nts	4	
Show also edited element Direct choise Copy text from to Objecttype	o	4	
Show also edited element Direct choise Copy text from to Objecttype Mode		4	

### Figure 25 Translation Tool window

Table 7 lists the initial screen fields definitions.

### Table 7

### Translation Tool initial screen fields

Field	Definition				
Target language	Select the language(s) into which you want to translate.				
Enter transport request (optional when using Direct choose of objects)	Enter the desired transport request to translate all existing programs (PROG), function groups (FUGR), logical databases (LDBA) and transactions (TRAN) of the transport. The Translation Tool attempts to find the original name of the program element with the given ViewPoint for SAP program name. Selecting multiple transport requests could impede performance of the Translation Tool.				
Already translated objects also	Select to overwrite existing text elements of the selected objects already in the target language.				
Direct choose of objects (optional when entering a transport request)	Enter the original program name matching a ViewPoint for SAP program when there are few elements to edit or no original program name can be found, as shown in Figure 26. Be sure of the order of the select options when selecting several objects.				
Mode (select one)	<ul> <li>Text elements <ul> <li>Text elements of the selected objects will be processed.</li> </ul> </li> <li>Screen painter-Dynpros <ul> <li>Screen painter-Dynpros of the selected objects <ul> <li>will be processed.</li> </ul> </li> <li>All <ul> <li>Both text elements and screen painter-Dynpros <ul> <li>of the selected objects will be processed.</li> </ul> </li> </ul></li></ul></li></ul>				

	tiple Selection for Copy t	ext from 📴 Mult	iple Selection for to	🔄 Mul	tiple Selection for Objecttype
Selec	xt /	Selec	t/	Selec	t/
	SETB		/PBS/SETB		FUGR
+	SAPMS38L	+	/PBS/SAPMS38L	+	PROG
+		+		+	

Figure 26 Direct choice of objects

2. Press Execute in the initial screen.

A list displays three types of objects:

- objects the tool has found an original name
- objects where no original name was found
- objects where no clear original name was found
- 3. Double-click the objects for which an original name has been found, as shown in Figure 27, or select them using the checkbox.

You can also select and deselect all found objects using **Shift+F1** and **Shift+F2**.

S S	로 System Help							
Ø			BICC CO 😧 L 🗎 H H H 20 10 L :	81 🕱 🛛 🕲 📑				
Tr	Translationtool							
٢								
	PBS-NAME		SAP-NAME	OBJECT - TYPE				
	/PBS/SAPMV130 /PBS/SAPMV13A /PBS/RV13A016 /PBS/SAPLV130 /PBS/SAPLV14A	ß	SAPMV130 SAPMV13A RV13A016 SAPLV130 SAPLV14A	PROG PROG PROG FUGR FUGR				
Not	: found /PBS/SAPMV13A_J1 /PBS/SAPMV13A_L1 /PBS/SAPMV13A_M1 /PBS/SAPMV13A_M1							

### Figure 27 Selection of objects

### 4. Press Execute.

All selected text elements are copied from the original program to the ViewPoint for SAP program and a report of changes displays.

# Check ADK

Δ

The ViewPoint for SAP Check ADK utility is supplied as part of the ViewPoint for SAP modules utilities and does not need any other ViewPoint for SAP transports to be previously imported.

The Check ADK runs with the basis programs of SAP AG, D-69190 Walldorf/Baden, system R/3, releases 4.0, 4.5, 4.6, R/3 Enterprise correction levels a to c.

This chapter includes these topics:

•	Overview	52
•	Running Check ADK	53

# **Overview**

The ViewPoint for SAP Check ADK utility serves as an error analysis tool in case of access problems to ViewPoint for SAP index files or SAP archive files. The Check ADK transport does not require another ViewPoint for SAP transport and can be run independently of any type and number of installed ViewPoint for SAP modules.

The Check ADK Utility checks the following ViewPoint for SAP modules:

- Production Orders (CPP)
- Controlling Line Items (CCO)
- Plant Maintenance (CPM)
- Material Master Data, Batches/Special Stocks and BOMs (CMT)
- Process Orders (CPR)
- Costing-Based Profitability Analysis (CCOPA)
- Master Data Changes (CCU)
- Purchasing (CMM)
- CO Orders (COO)
- CO Line Items (CPCA)
- Project Systems (CPS)
- Line Items in FI-SL (CSL)
- Warehouse Management (CWM)
- HR Archiving Objects (CHR)
- Financial Accounting and Material Documents (CFI)
- Sales and Distribution (CSD)

Table 8 lists the Check ADK objects.

### Table 8 Check ADK objects

Object	ViewPoint for SAP 4.x	Description
PROG	/PBS/UTIL_CHECK_PBS_ADK	Report ViewPoint Check ADK utility
DEVC	/PBS/UTIL	Development Class /PBS/UTIL
TRAN	/PBS/CHECK_PBS_ADK	Transaction ViewPoint Check ADK utility

# **Running Check ADK**

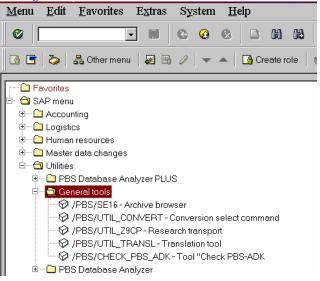
Follow this procedure to use the Check ADK utility.

1. Start the Check ADK utility with transaction /PBS/CHECK\_PBS\_ADK, as shown in Figure 28.

		0
List	<u>E</u> dit <u>G</u> oto System <u>H</u> elp	
۲		8 2 4 4 2 8
Menu	of utilities of the PBS archive add ons	
•	Copy transfer order	(Report /PBS/UTILTP01)
œ,	Convert select statement	(Report /PBS/UTIL_CONVERT)
ľ		(
•	Call archive browser	(Report /PBS/UTIL_ARCHIVEBROWS)
l 🕒	Determine transport requests	(Transaction /PBS/UTIL_Z9CP)
		,
<b>₽</b>	Call translation tool	(Report /PBS/UTIL_TRANSLATE)
•	Call tool Check PBS-ADK	(Report /PBS/UTIL_CHECK_PBS_ADK)
1		

### Figure 28 ViewPoint for SAP utilities releases 4.0 and 4.5

Or from the ViewPoint for SAP main menu using **Utilities** > **General tools** > **Tool Check ViewPoint ADK**, as shown in Figure 29.



### Figure 29 ViewPoint for SAP utilities menu release 4.6

The Check ADK initial screen appears.

2. Select one or more ViewPoint for SAP modules, as shown in Figure 30.

Also choose between:

- only errors for a quick ADK check
- **all messages** for a complete ADK check

**Note:** For information on selecting **SAP - Object to Test**, proceed to "Using SAP - Object to Test" on page 56.

0		<u>0</u>		66 66	<b>a</b> •	 * 2	1 💿
		 <u> </u>	•   •				
Ð		 					
SAP	- Object to Test:						
	PP_ORDER ±						
	- Obejct to Test:						
	PBS archive add on CCO						
	PBS archive add on CCOPA						
	PBS archive add on CCU						
	PBS archive add on CFI						
	PBS archive add on CHR						
	PBS archive add on CMM						
	PBS archive add on CMT						
	PBS archive add on COO						
	PBS archive add on CPCA						
	PBS archive add on CPM						
	PBS archive add on CPP						
	PBS archive add on CPR						
	PBS archive add on CPS						
	PBS archive add on CSD						
	PBS archive add on CSL						
	PBS archive add on CWM						
Proto	ocol:						
0	only errors						
	all messages						

### Figure 30 Check ADK initial screen

3. Select Execute to confirm your selections.

A sample results screen appears, as shown in Figure 31.

List Edit <u>G</u> oto System <u>H</u> elp		
	<b>0</b> 0	8 🗵 🖉
PBS: Tool for checking PBS index files and SAP ADK f	iles	
Check of /PBS/CPR files via table ADMI_RUN: 05.12.2002 15:28:12 KRUEGER 013248-001/PBS/CPR	OK :	/usr/sap/E46/SYS/global/RPP12052.ARCHIU
28.11.2002 11:23:14 KRUEGER 013231-001/PBS/CPR	OK:	/usr/sap/E46/SYS/global/RPP11283.ARCHIV
28.11.2002 11:22:28 KRUEGER 013230-001/PBS/CPR	OK :	/usr/sap/E46/SYS/global/RPP11282.ARCHIU
28.11.2002 11:22:06 KRUEGER 013229-001/PBS/CPR	OK :	/usr/sap/E46/SYS/global/RPP11281.ARCHIU
28.11.2002 11:21:37 KRUEGER 013228-001/PBS/CPR	OK :	/usr/sap/E46/SYS/global/RPP11280.ARCHIU
2.11.2002 11:28:02 KRUEGER 013190-001/PBS/CPR	OK :	/usr/sap/E46/SYS/global/RPP11123.ARCHIU
7.07.2002 15:33:21 KRUEGER 012827-001/PBS/CPR	0K :	/usr/sap/E46/SYS/global/RPP07171.ARCHIV
Check of /PBS/CPR files via PBS admin. table:		
013248-001/PBS/CPR 05.12.2002 15:28:12 KRUEGER	0K :	/usr/sap/E46/SYS/global/RPP12052.ARCHIV
Check of /PBS/CPR files via activated indices (LA	JFTAB)	:
012826-001PR ORDER 17.07.2002 15:30:21 KRUEGER	OK :	/usr/sap/E46/SYS/global/RPP07170.ARCHIU
013189-001PR_ORDER 12.11.2002 11:26:55 KRUEGER	OK :	/usr/sap/E46/SYS/global/RPP11122.ARCHIV
013247-001PR_ORDER 05.12.2002 15:27:11 KRUEGER	0K :	/usr/sap/E46/SYS/global/RPP12051.ARCHIV
Check for not loaded PR ORDER files		
011985-001PR_ORDER Run has been deleted		
012826-001PR_ORDER 17.07.2002 15:30:21 KRUEGER	OK :	/usr/sap/E46/SYS/global/RPP07170.ARCHIV
013189-001PR_ORDER 12.11.2002 11:26:55 KRUEGER	OK :	/usr/sap/E46/SYS/global/RPP11122.ARCHIU
013247-001PR_ORDER 05.12.2002 15:27:11 KRUEGER	OK :	/usr/sap/E46/SYS/global/RPP12051.ARCHIU

### Figure 31 Results screen for the ViewPoint for SAP CPR module

Table 9 lists the results definitions, which are divided into several parts, depending on the ViewPoint for SAP module.

**Note: FAIL** displays if an ADK file cannot be accessed.

### Table 9 Results screen definitions

Screen area	Definition
Check of the ViewPoint ADK files with table ADMI_RUN	All available ViewPoint for SAP index files for one module are checked.
Check of the ViewPoint ADK files with PBS-ADMIN table	All activated ViewPoint for SAP index files for one module are checked (Load. Admin.table)
Check of the ViewPoint ADK files with the COMMENTS entry (CPP and CHR Modules)	Comments entered in the SAP original ADK files are checked if a ViewPoint for SAP index exists.
Check of the SAP-ADK files for activated indices (LAUFTAB) (remaining modules)	SAP-ADK files processed in individual load runs are checked.
Check for not loaded ADK files	All remaining ADK files are checked.

Using SAP - Object to Test

Use this procedure to check SAP-ADK files exclusively using Check ADK.

- 1. Select **SAP Object to Test** in the Check ADK initial screen, as shown in Figure 30 on page 54.
- 2. Enter one archiving object.

A sample results screen appears, as shown in Figure 32.

			king PBS	inde	x files	and SA	AP ADK	files			
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PBS:	Tool f	<sup>:</sup> or checki	ing PBS in	dex	Files a	and SAF	P ADK fi	les			
Check	of	FI_DOCUMN	NT files	via	table A	DMI_RU	JN:				
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30.01	. 2003	13:58:35	STEFFEN	1	013360-	001FI	DOCUMNT	0K :	/usr/	sap/l	E46/SYS/
07.01	. 2003	13:31:56	STEFFEN	1	913272-	001FI	DOCUMNT	FAIL	/usr/	sap/l	E46/SYS/
07.01	. 2003	13:31:00	STEFFEN	1	913271-	001FI	DOCUMNT	0K :	/usr/	sap/l	E46/SYS/
07.01	. 2003	13:29:12	STEFFEN	1	913270-	001FI	DOCUMNT	OK :	/usr/	sap/l	E46/SYS/
07.01	.2003	13:10:58	STEFFEN	1	013269-	001FI	DOCUMNT	OK:			E46/SYS/
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04.12 02.12	. 2002	10:00:47		IS	013238-	001FI	_DOCUMNT _DOCUMNT DOCUMNT	0K :	/usr/	sap/l	=46/343/ =46/\$4\$/ =46/\$4\$/

```
Figure 32
```

Results screen for SAP object FI\_DOCUMNT

# **Class Order**

ViewPoint for SAP Class Order is an administrative tool for use with Development Class /PBS/ORDER.

This chapter includes these topics:

•	Ove	rview		 58
	-		~ 1	

# **Overview**

ViewPoint for SAP Class Order applies to the following ViewPoint for SAP modules:

- Project Systems (CPS)
- Production Orders (CPP)
- Plant Maintenance (CPM)
- Process Orders (CPR)

As these modules' functionalities are closely related, there is also a close relationship between program sources. The ViewPoint for SAP Class Order module was created to handle any version management issues.

# **Development Class /PBS/ORDER**

Class Order addresses rare situations where installing different modules with partly overlapping objects may cause an older transport to overwrite newer objects in a related transport by combining those objects into one module transport. These objects are integrated in the Development Class /PBS/ORDER.

The development class /PBS/ORDER is not a full ViewPoint for SAP module. It is a part of the ViewPoint for SAP modules CPP, CPM, CPR, and CPS. Import of the development class /PBS/ORDER when using one these modules.

When using more than one of these modules, import the development class /PBS/ORDER only once.

Since the Development Class /PBS/ORDER corrects any potential overlapping and overwriting object issues, import the ViewPoint for SAP module transports and the Development Class /PBS/ORDER transport in any order.

# Fiscal Year Reporter

This chapter includes these topics:

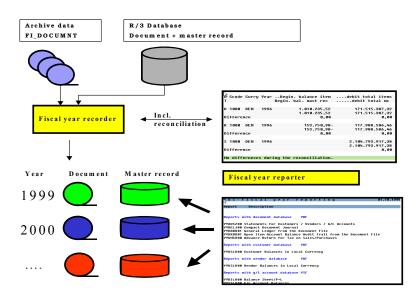
٠	Overview	62
٠	Using Fiscal Year Reporter	64
	Extracting fiscal year closing transaction data	
	Extract master data at fiscal year closing	
	Fiscal Year Reporting	
	Fiscal Year Reporter audit access	
	Administration	

# Overview

At the end of a fiscal year numerous financial accounting tasks must be completed, such as reconciliation and documenting posting material.

With Fiscal Year Reporter such tasks are carried out independently of the everyday business of the SAP system. As soon as the fiscal year is completed, all documents and transaction figures for the fiscal period, including the corresponding master data information, are saved outside the SAP tables. Document information is saved in ADK format under a user defined archiving object while the master record information is stored in compressed form in a SAP cluster table. During the generation process of the fiscal year stock, the transaction figures are reconciled with the transactions of the period on company code level.

The predefined, year end closing programs of the Fiscal Year Reporter has a process flow, as shown in Figure 33.



### Figure 33 Fiscal Year Reporter process flow

The Fiscal Year Reporter provides the following advantages for the SAP financial accounting business processes:

- Freezing actual status of movement and master data at the end of the fiscal year
- Evaluation of fiscal year data after conversion of local currency values
- Complete independence from the development of the operative SAP tables
- Balances audit trail programs and quantity problems with sort volumes
- Easily integrates customer/SAP programs with the Fiscal Year Reporter

# **Using Fiscal Year Reporter**

There are two Fiscal Year Reporter menus:

- User transaction YEAR (/PBS/YEAR/)
- Administrative transaction YEAM (/PBS/YEAM)

**Note:** Transaction YEAM contains administrative functions that should be made available to administrative personnel only.

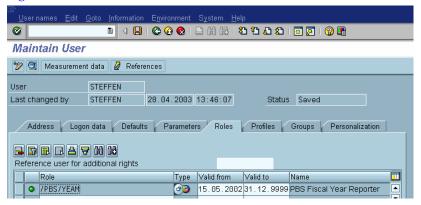
The fiscal year reporter menu displays using transaction YEAR or YEAM, as shown in Figure 34.



### Figure 34 Start menu YEAR/YEAM

For SAP versions 4.6 and later, create a user and administrator activity group integrating the range menus /PBS/YEAM and /PBS/YEAR. SAP standard documentation contains more details on creating activity groups.

Enter the activity group in the user master record, as shown in Figure 35.





# Extracting fiscal year closing transaction data

ViewPoint for SAP FYR uses archiving object YY\_YR\_yyyy (where yyyy is fiscal year) to copy all transactions belonging to a fiscal year, regardless of status (e.g., open or cleared), to an SAP ADK file. The archiving object is generated during run time if it does not yet exist. This allows the complete display of all the posting material for any time, such as a balance audit trail.

**Note:** The creation of an ADK archive stock with object YY\_YR\_yyyy is separate from the archiving process for the archiving object FI\_DOCUMNT. YY\_YR\_yyyy does not archive or delete database documents.

Use **YEAM** > **Transaction data** > **Save** to create the transaction data stock at the end of the fiscal year, as shown in Figure 36.

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Technical settings           Use database           Use archive			
Selections			
Fiscal year	1998	Validation	
Only reconc. Doc/Master rec			
Reconciliation and backup	۲		
Description of Backup	Fiscal year 1998 / 24	4.11.1999 - STEFFEN	

### Figure 36 Selection screen to save transaction data

**Note:** A fiscal year stock can only be created if the posting periods of the fiscal year are marked closed.

Multiple stocks can be created for a fiscal year if each extract stock is given a unique name for reporting purposes.

Run the Fiscal Year Recorder in the background unless the run is for testing purposes.

At the end of each extract run, the delimitations and the reconciliation results are printed in detail, as shown in Figure 37.

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	>			•

### Figure 37 Reconciliation results for saved transaction data

Use **YEAM** > **Transaction data** > **Delete** to delete erroneous extract stock.

**Note:** If transaction data is deleted after conversion from local currency to Euro, data is lost.

# Extract master data at fiscal year closing

Master data, such as customers, vendors, and GA/L account information, can also be extracted with transaction data using **YEAM** > **Master data** > **Save**, as shown in Figure 38.

Program Edit Goto Syst	em H <u>e</u> lp			
©	B 4 📙 I 😋 😧 I	📮 🗄 🎼   🏝 🍄 🕰 🏖   🧱	1 🛛 🖓 🖪	
Backup masterdata				
🕹 🍪 🖬 👘	;			
Backup master data per year e	nd closing/Crcy switch			
Company code	• •	to	<b>P</b>	
Fiscal year	1995	Validation		

### Figure 38 Selection screen to save master data

Master data is stored in compressed form in the cluster file YVKZ (or /PBS/YVKZ for version 4.x and later). Make the first data backup covering several fiscal years. Subsequent data backups should be done after the closing of each fiscal year.

Yearly backups result in a long term archive. Use **Validation** to check if selected company codes and fiscal years are valid.

Fiscal years can only be saved once unless the existing fiscal year is deleted from the backup file YVKZ (or /PBS/YVKZ for version 4.x and later).

**Note:** If transaction data is deleted after conversion from local currency to Euro data is lost.

Run the Fiscal Year Recorder in the background unless the run is for testing purposes.

Table 10, Table 11 on page 68, Table 12 on page 68, and Table 13 on page 69 list the backup tables created.

### Table 10 Customers

Table name	Description
KNA1	Customer master general
KNAS	EC taxes
KNKA	Credit limit

### Table 10 Customers (continued)

Table name	Description
KNBK	Customer master bank data
KNB1	Customer master company code
KNB4	Behavior in payment
KNB5	Dunning data
KNKK	Credit control area
KNC1	Customers monthly debits and credits
KNC3	Customers special general ledger monthly debits and credits

### Table 11 Vendors

Table name	Description
LFA1	Vendor master general
LFAS	EC taxes
LFB1	Vendor master company code
LFBK	Vendor master bank data
LFB5	Dunning data
LFC1	Vendor monthly debits and credits
LFC3	Vendor special general ledger monthly debits and credits

### Table 12 G/L accounts

Table name	Description
SKA1	G/L account master general
SKB1	G/L account master company code
SKAT	G/L account master name
GLT0	G/L accounts monthly debits and credits

### Table 13 Miscellaneous

Table name	Description
T001	Company code table

At the end of the backup process a detailed selection statistic is displayed, as shown in Figure 39.

List Edit ⊙oto System Help		SAP
🛛 🛛 🖉 🖉 🖓 🖓	3   🗅 H) H2   10 A) A) A)   🗷 🗷   🖓 🗷	
Backup masterdata		
Backup		1
Selection statistic from: 24.	11.1999	
Amount vendor records (general)	95	
Amount records vendor (EU tax ref. no.);	0	
Amount records vendor (bank data)	76	
Amount vendor records (Company code)	95	
Amount records vendor (Dunning data) :	4	
Amount vendor records transaction fig :	94	
Amount records spec. gen. led. vendor:	3	
Amount customer records (general) :	113	
Amount records customer (credit limit).	24	
Amount records vendor (EU tax ref. no.):	0	
Amount records customer (bank data) :	33	
Amount customer records (Company Code):	113	
Amount records customer (payment struc)	171 81	
Amount records customer (Dunning data): Amount records customer (credit data) :	81 54	
Amount records customer (credit data) . Amount customer records transact, fig.:	113	
Amout records spec.gen.led. customer :	0	
Amount records g/l acc. (general) :	717	
Amount records g/1 acc. (general)	718	
Amount records g/1 acc. (Company Code):	718	
Aomunt reocords g/l acc. transact. fig:	718	
Selected company codes		
CC from FY to FY		
1000 1995		

Figure 39 Selection result for saved master data

# **Fiscal Year Reporting**

Direct accesses to saved master data in logical databases can be done as follows:

- vendors = YKF
- customers = YDF
- ♦ G/L accounts = YSF

ViewPoint for SAP predefined fiscal year closing programs are called using transaction **YEAR** > **Reporting**, as shown in Figure 40.

5		
System Help	000 B H H 226 B F 0 B	
PBS-Fiscal year rep	orting	
Select		
		▲ ▼
PBS-Fiscal year repo	rting 24.11.1999	•
Report Description		
Reports with document database YBF		
/PBS/YYAUSZ00 /PBS/YYBELJ00	Statements for Customers / Vendors / G/L Accounts Compact Document Journal	
/PBS/YYHABU01	General Ledger from the Document File	
/PBS/YYKKBU01 /PBS/YYUMSV00	Open Item Account Balance Audit Trail from the Documer Advance Return for Tax on Sales/Purchases	IT F118
Reports with customer database YDF		
/PBS/YYDSLD00	Customer Balances in Local Currency	
Reports with vendor database YKF		
/PBS/YYKSLD00	Vendor Balances in Local Currency	L3
Reports with g/l account database YSF		
/PBS/YYBILA00 /PBS/YYSSLD00	Balance Sheet/P+L G/L Account Balances	
	ore Account Datances	
Logical database		
/PBS/SAPDBYBF	Document database - PBS Fiscal Year Reporter	
/PBS/SAPDBYDF /PBS/SAPDBYKF	Customer database - PBS Fiscal Year Reporter vendor database - PBS Fiscal Year Reporter	
/PBS/SAPDBYSF	g/l account database - PBS Fiscal Year Reporter	

### Figure 40 Fiscal Year Reporting selection screen

The balance audit trail programs YYHABU01 and YYKKBU01, available up to release 4.6, have an improved sort technique.

**Note:** Programs YYKKBU01 and YYHABU01 use the same temporary sort path. Do not run them simultaneously as background processes.

# Fiscal Year Reporter audit access

ViewPoint for SAP FYR provides the following audit access types.

Access 1 (Z1) indirect data access — Allows a tax authority read-only access to stored data for the audit period, including the master data and links (data), excluding remote queries (online access). The read-only access covers reading, filtering and sorting data using the evaluation functionality of the data processing system.

Access 2 (Z2) direct data access — Allows the tax authority to request the taxpayer or a third party to execute read-only access (indirect access) and evaluate the data using the evaluation functionality of the data processing system.

Access 3 (Z3) data by transferring data on data carriers — Allows the tax authority to request a data extract of business records which is returned to the taxpayer, or deleted, after the external audit is complete. Access is limited to data for financial accounting, asset accounting, and payroll accounting.

Relevant data in other areas of the data processing system is qualified by the taxpayer for sales, purchase order, material, and invoice verification documents.

# Audit access strategies

R/3 audit requirements are met using Z1 and Z2 access. To support Z3 audit access (data extraction) use DART (Data Retention Tool) explained in Chapter 7, "Data Retention Tool".

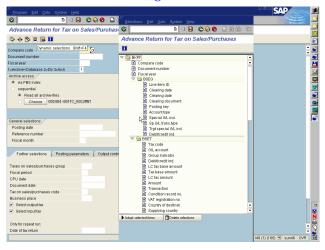
Table 14 lists details for each audit access strategy.

Access type	ViewPoint for SAP module support	Features
Z1	Modules CCO, CCU, CFI, CHR, CMM, CMT, CPCA, CPM, CPP, CPR, CSD, CSL, CWM	Data access to archive and DB Dialog transactions FI standard reporting Customer-specific reporting ViewPoint long term archiving concept
Z2	Fiscal Year Reporter	Data access to archive and DB DB Dialog transactions FI standard reporting Customer-specific reporting ViewPoint long term archiving concept
Z3	ViewPoint for SAP CDART CFI Module and Fiscal Year Reporter	DART extracts from archive and DB ADK files without DB reloading process Data export via variable ABAP extract

### Table 14 ViewPoint for SAP access types

# Access types Z1 and Z2

Delimit the selection for each field from the document header (table BKPF), the document item (table BSEG) and the tax line (table BSET). For a tax check, the documents to be checked can be selected and evaluated, as shown in Figure 41.



### Figure 41

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### Access types Z1 and Z2 delimitations

#### Data format

Table 15 lists the SAP AIS format structure.

Table	15	
-------	----	--

SAP AIS format

Line type	Number	Characteristic value
Header	1	Field name
	2	Description
	3	Field description
	4	Data type (C,N,P,I,D,T,F) C = text, N = numeric text on the left filled with zero, P = packed (number digits = field length * 2 - 1) This is the SAP internal type. The format [-]digits[,I.digits] is used in the data records. Example: Type P length 7 decimal places 2 leads to the output -12345678901.23, I = integer, D = date with format DD.MM.YYYY, T = time with format HH:MM:SS, F = floating point number.
	5	Field length
	6	Number decimal places
	7	Currency code or quantity indicator (F,W,M,E) A currency unit field always comes after a currency field. A unit of measure field always comes after a quantity field. F = currency, W = currency unit, M = quantity, E = unit of measure
	8	Special field types (R,C,P,M) R = rank (statistics), C = counter (statistics), P = percentage (statistics), M = mean value (statistics)
Data line	9	Data records

#### Safety

After the export the data leaves the SAP environment and SAP authorization no longer works:

- In the file system of the target computer (c:\...)
- In the file system of the application server (d:\usr\sap\...)

Protect exported data against unauthorized access.

Export programs

Table 16 lists those programs which support the export of data from the SAP system using ViewPoint for SAP FYR. Asset accounting data is not selected with the ViewPoint for SAP archive but using SAP.

Program name /PBS/FYR_LIS	Description Variable	Logical Database	Table	Fa	Description
ITEM	item list	/PBS/YBF	BKPF	_K	document header
			BSEG	_G	document item
			BSET	_T	tax line
			BSED	_D	bill of exchange line
			BSEC	_C	CPD line
ITEM_ASSET	asset item list	ADA	ANEK	_K	document header
			ANEPV		document item
VENDOR	vendor list	/PBS/YKF	LFA1	_A	vendor master in general
	master data		LFAS	_T	EU taxes
			LFB1	_B	vendor master company code
			LFB5	_M	reminder data
			LFC1	_1	transaction figures
			LFC3	_3	special general ledger transactions
CUSTOMER	customer list	/PBS/YDF	KNA1	_A	customer master in general
	master data		KNAS	_T	EU taxes
			KNKA	_L	credit limit
			KNB1	_B	customer master company code
			KNB4	_Z	payment history
			KNB5	_M	reminder data
			KNC1	_1	transaction figures
			KNC3	_3	special general ledger transactions

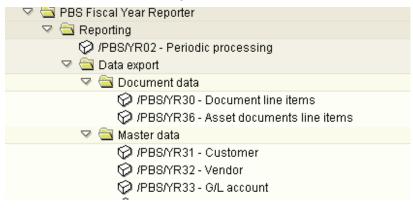
Table 16 Export programs

Program name /PBS/FYR_LIS	Description Variable	Logical Database	Table	F <sup>a</sup>	Description
GLACC	G/L account list	/PBS/YSF	SKA1	_A	G/L account master in general
	master data		SKB1	_B	G/L account master company code
			SKAT	_T	G/L account text
			SKC1A	_1	transaction figures local currency
			SKC1C	_3	transaction figures foreign currency
ASSET	asset list	ADA	ANLAV	_A	asset in general
	master data		ANLV	_V	insurance data
			ANLZ	_Z	value-dated asset assignments
			ANLB	_B	depreciation parameter
			ANLCV	_C	assets value fields
REFERENCE	general table contents				

Table 16 Export programs (continued)	Table 16	Export	programs	(continued)
--------------------------------------	----------	--------	----------	-------------

a. Field extension indicator

The reports can be generated using **Fiscal Year Reporter** > **Reporting** > **Data export**, as shown in Figure 42.



#### Figure 42 Fiscal Year Reporter data export menu

screen

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Note: For SAP releases 4.0 and 4.5, generate the export structures using /PBS/FYR\_LIS\_GENERATE each time the database tables change. **Export selection** The export selection screen for export programs consists of three parts: "Delimitations to influence the scope of selection" "Selection of list layouts"

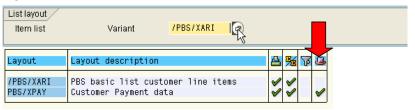
"Output option" on page 77

**Delimitations to** influence the scope of selection

Delimits the logical database selection for each report.

Selection of list layouts

Contains all fields displayed from the selected data volume. Defined with SAP-ALV (ABAP-List-Viewer) within an export program and stored under an own name, several list variants are possible per export program in order to meet different requirements, as shown in Figure 43.



#### Figure 43 List layout selection screen

Follow this procedure to create a list for an export program.

1. Click **Display/Print** to generate the desired report.

Keep the selected data volume small for performance reasons.

- 2. Select **Options** > **Layout** > **change** to define the scope of the list.
- Select **Options** > **Layout** > **store** to store the list variant. 3.

Note: Select Options > Layout > Layout administration > Layout > **Transport** to transfer the list from a test system into the production system.

# **Output option** Use the selection screen to display the dataset as an ALV list or to transfer the list to an export directory, as shown in Figure 44.

Output option		
Display/Print	۲	
Export to file (SAP-Audit)	0	
Export option		
Dataset	ar_items	
Directory	/pbs/cfi_z3	

#### Figure 44 Output option

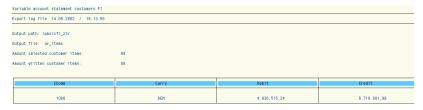
Note: Process large selection volumes in the background.

Before the data export executes the system checks whether:

- The indicated directory exists and can be written to
- The indicated file name already exists.

If the file already exists, choose whether to overwrite the existing file, or select another file name.

At the end of each export transaction an export statistic is exported and displayed, as shown in Figure 45.



#### Figure 45 Export statistic

Export file size	The size of an export file depends on the number of items selected and the number of criteria on the selection list, which displays the list layout changes. Determine disk space as follows:
	(number items x line width of the layout) + 2000 bytes header record SAP-AIS
Authorization concept	<ul><li>Authorization is required:</li><li>To execute reports</li></ul>

	<ul> <li>Use the ViewPoint menu for transactions beginning with /PBS/YR</li> </ul>				
	<ul> <li>View accounts, company code, business areas, etc.</li> </ul>				
	Use transact	ion SE16 (Display table contents)			
Transfer files to PC	When extract stock is creation is complete, files can be transferred from the UNIX or Windows NT server to a PC using ASCII mode (ftp > bin).				
Using PC analysis programs		an be processed by indicating a file format in an n such as IEDA, as shown in Figure 46.			
		Bitte wählen Sie eine Datei aus: C\cfi_z3\document_items			
		Bitte wählen Sie die gewünschte Vorgehensweise: © <u>N</u> eue Dateien und Standard PC-Formate © Bestehende Datensatzbeschreibung auswählen/ändern			
	× 8	Neue Dateien und Standard PC-Formate     Bestehende Datensatzbeschreibung auswählen/ändern     C\Programme\/DEA\Samples\			
		<ul> <li>Neue Dateien und Standard PC-Formate</li> <li>Bestehende Datensatzbeschreibung auswählen/ändern</li> </ul>			

#### Figure 46 File format definition using IDEA

Use a PC analysis program to check the extracted data factual consistency, as shown in Figure 47.

📴 a.	IMD										_ 🗆	×
	CL_	COCD	DOC_NO_	YEAR	ITM	PSTG_DA A G_L_ACC	T ACCOUNT_SHORT	CURR_	AMOUNT	ASSIGNMENT	A	
105	100	1000	1400000152	2000	1	2000/05/31 \$ 000011310	3 DteBk - customer p.	DEM	63.384,79	0000006338479		
106	100	1000	1400000152	2000	2	2000/05/31 D 000014000	) Amadeus	DEM	-63.384,79	14000001522000		
107	100	1000	1400000153	2000	1	2000/05/31 \$ 000011310	3 DteBk - customer p.	DEM	23.515,52	0000002351552		
108	100	1000	1400000153	2000	2	2000/05/31 D 000014000	COMPU Tech. AG	DEM	-23.515,52	14000001532000		
109	100	1000	1400000154	2000	1	2000/05/31 \$ 000011310	3 DteBk - customer p.	DEM	353.682,84	0000035368284		
110	100	1000	1400000154	2000	2	2000/05/31 D 000014000	HTG Komponente	DEM	-353.682,84	14000001542000		
111	100	1000	1400000155	2000	1	2000/05/31 S 000011310	3 DteBk - customer p.	DEM	85.322,64	0000008532264		
112	100	1000	1400000155	2000	2	2000/05/31 D 000014000	3 SudaTech GmbH	DEM	-85.322,64	14000001552000		
113	100	1000	1400000156	2000	1	2000/05/31 S 000011310	3 DteBk - customer p.	DEM	53.116,40	0000005311640		
114	100	1000	1400000156	2000	2	2000/05/31 D 000014000	CBD Computer Ba	DEM	-53.116,40	14000001562000		
115	100	1000	1400000157	2000	1	2000/05/31 S 000011310	3 DteBk - customer p.	DEM	562.120,92	0000056212092		
116	100	1000	1400000157	2000	2	2000/05/31 D 000014000	Christal Clear	DEM	-562.120,92	14000001572000		
117	100	1000	1400000158	2000	1	2000/05/31 S 000011310	3 DteBk - customer p.	DEM	1.026.751,96	0000102675196		
118	100	1000	1400000158	2000	2	2000/05/31 D 000014000	J Lampen-Markt GmbH	DEM	-1.026.751,96	14000001582000		
119	100	1000	1400000137	1995	1	1995/06/25 S 000011310	B DteBk - checks recv	DEM	6,33	19950625	*	_
120	100	1000	1400000137	1995	2	1995/06/25 D 000014000	3 Buy & Fly Superma	DEM	-6,33	14000001371995	*	
121	100	1000	1400000138	1995	1	1995/06/26 S 000011310	B DteBk - checks recv	DEM	57,50	19950626	*	
122	100	1000	1400000138	1995	2	1995/06/26 D 000014000	Buy & Fly Superma	DEM	-57,50	14000001381995	*	
123	100	1000	1400000139	1995	1	1995/07/01 S 000011310	B DteBk - checks recv	DEM	63,25	19950701	*	
124	1100	1000	1400000139	1995	2	1995/07/01 D 000014000	Buy & Fly Superma	DEM	-63.25	14000001391995	*	

Figure 47

Data display in IDEA

Extracting data	The following ViewPoint for SAP reports can help meet legal requirements for extracted data. The default ViewPoint for SAP selection can be extended if required. The overview of the export programs lists the database tables from which the data can be extracted.
Financial accounting	T003—Document type
	T003T—Document type name
	T007A—Tax key

T007S—Tax code name

T001—Company code

TGSBT—Business area name

TBSL—Posting key

TBSLT—Posting key name

Asset accounting TABW—Transaction types of the asset accounting

TABWA—Transaction types / Depreciation areas

TABWG—Transaction types groups

TABWH—Name asset transaction type groups

TABWK—AM transaction types for posting of proportional values and depreciation

TABWR—Name of asset history sheet group

TABWT—Transaction type texts of asset accounting

TABWU—special treatment of retirement

TAPRFT—Text table for investment profile

TAPRF—Investment measure profile for asset under construction and depreciation simulation

Use the ViewPoint for SAP menu **General table data** to access these tables.

Generate the export program using **Export of general table data** by indicating the table name, as shown in Figure 48.

Variable table statement for table TBSLT					
€					
Table select options.	_				
Language	•	to	<b></b>		
Posting key		to	<b>_</b>		
Special G/L ind		to	<b>-</b>		
List layout					
Item list Variant	/PBS/XTAB				
Number of entries	1.000				
Output option					
Display/Print	۲				
Export to file (SAP-Audit)	0				
Export option					
Dataset					
Directory	/pbs/cfi_z3				
· · · · · · · · · · · · · · · · · · ·					

#### Figure 48 Generate table export

Create the layout list for export, as shown in Figure 49.

<u>P</u> ro	ogram <u>E</u> dit <u>G</u> oto Sj	em <u>H</u> elp	
0		a 🛛 🔛 I 😋 🚱 I	🗅 🖁 😫 ( ኛ) ሮን ሮን 🗶 🛃 🗾
Var	iable table state	nent	
۵	<b>%</b>		
Varia	ble table statement for t	• /	
۲	Single table	_/	
	TBSLT		
	Tablepool FI		
	T003	<b>_</b>	
	Tablepool AA		
	TABW	<b>-</b>	
0	Tablepool MM		
	T030	<b>-</b>	
Outou	ut option /		
	play/Print	0	
	ort to file (SAP-Audit)		
	port option /		
	Directory		



Generate table extract

ALV layout definitions	Right-click technical field names to switch between the field name and technical field name if selection fields display several times when defining a list layout.
Single line lists	When using one list variant for the data export, only a single line is listed.
File path default	Define a default value in the user master for the file path with the parameter <b>ID</b> > <b>/PBS/FYR_LIS_PATH</b> .
Data export terminates	The data export terminates with the message <b>Variant was not found</b> if the layout in which the fields to be extracted were not defined, do not exist, or were not stored when the layout was created.
PC analysis program terminates	PC analysis programs terminate with the message <b>SAP/AIS file is</b> <b>invalid</b> during the transfer of export files from UNIX/Windows NT to PC if the transfer was executed in BINARY instead of ASCII mode.
List output contains wildcard characters	For SAP version 4.0/4.5, regenerate the export structures with the program /PBS/FYR_LIS_GENERATE to eliminate wildcard characters if the export structures do not fit to the data table structures.

## Administration

Use the menu transaction YEAM or YEAR for administrative tasks.

Note: These tasks should be available to administrative personnel only.

Table 17 lists the transactions to add to the user profile for the user department and the administrator.

Table 17 YEAR

Release	Administra	tor	User department	
3.x	Y*		YEAR, YR02, YR06, YR07, YR11	
4.x	/PBS/Y*		/PBS/YEAR, /PBS/YR02, /PBS/YR06, /PBS/YR07, /PBS/YR11	
	only to mo To delete m		ction YEAM should be made available to administrators dify data material. haster data use transaction <b>S_ARCHIVE-authorization</b> for <b>OCUMNT</b> with <b>01= create</b> .	
Delete transaction data		Use <b>Delete transaction data</b> to delete fiscal year ADK files and all corresponding administration entries. Single stocks can be deleted if several stocks exist for a fiscal year because of splitting by company code.		
		compressed	<b>master data</b> to delete fiscal year and company code d master data from the table YVKZ (for SAP version 4.x ZZ).	
Activate repo	rting	Use <b>Activate reporting</b> to copy SAP programs using logical database BRF to the Fiscal Year Reporter database YBF.		
Balance audil cancelled dui processing		in the temp YYHABU0	<b>te audit trail</b> > <b>Delete sortfile</b> to delete the sortfiles created borary sort directory if the balance audit trail tools 1 or YYKKBU01 are cancelled during processing. This es the path for the temporary sortfiles.	

Master data	For each fiscal year a Master data list appears, showing those company codes for which a data backup has been carried out using Fiscal Year Reporter.			
Transaction data	For each fiscal year a Transaction data list appears, showing which backup runs have completed. A fiscal year is listed several times if a backup was run for each company code. Click <b>Protocol</b> to display all delimitations used for the backup run.			
Logical database	Choose one of these logical databases to access the data stock of the Fiscal Year Reporter.			
SAPDBYBF document database	SAPDBYBF reads sequential versions of saved Fiscal Year Reporter documents and master data. To use an own program to select the transactions of a fiscal year according to the posting period and all items cleared in this fiscal year, change the logical database from BRF to YBF. Add to the own program the following statement after START-OF-SELECTION to deactivate the check on the posting period in the logical database:			
	GJ_ONLY = space			
	ViewPoint for SAP reads sequential versions of master data similar to SAP.			
SAPDBYDF customer database	Use this database to process only master data with no documents selected as there is no secondary index link between the customer and the ADK file YY_YR_yyyy. This database does not correspond to the SAP standard database DDF because customer master data of Fiscal Year Reporter only is processed.			
ViewPoint for SAP Fiscal Year Reporter database	Use this database to process only master data with no documents selected as there is no secondary index link between the vendor and the ADK file YY_YR_yyyy. This database does not correspond to the SAP standard database KDF as only the vendor master data of the Fiscal Year Reporter are processed.			
SAPDBYSF G/L accounts database	Use this database to process only master data with no documents selected as there is no secondary index link between G/L and the ADK file YY_YR_yyyy. This database does not correspond to the SAP standard database SDF, as only the G/L account master data of the Fiscal Year Reporter is processed.			

Master data direct access	Use transaction <b>YEAR/YEAM</b> > <b>Tools</b> > <b>Tutorial</b> > <b>Read master data</b> to start the tool YYCFVKZ4 (version 4.x /PBS/YYCFVKZ4) to directly access Fiscal Year Reporter master data.				
	Alternately, use an external call to program YYCFVKZ3 (version 4.x /PBS/YYCFVKZ3) to directly access Fiscal Year Reporter master data.				
Change extract stock description	Use transaction SARA to display the created backup stock after entering the archiving object YY_YR_yyyy (yyyy = fiscal year). Double-click the management line to change the description of the extract stock with function key F5.				
Display reconciliation differences	Use transaction <b>YEAR/YEAM</b> > <b>Transaction data</b> > <b>Manage</b> to display the run protocol stored in a management table for each extract run of the Fiscal Year Reporter. Select a management line and press <b>F5</b> . The last line in an entry shows if there were differences in the reconciliation.				
Clear archive file name	If logical file names are not clear, existing archive stocks of the Fiscal Year Reporter are overtyped. Create clear names by entering the variable <time> into the file name. For example, use the definition of the logical file name ARCHIVE_DATA_FILE1.</time>				
	A logical file name exists for each fiscal year archiving object yy_yr_xxxx (where xxxx = fiscal year). View this logical file name with transaction SARA or AOBJ. Use transaction <b>File</b> > <b>Definition</b> <b>logical file name independent of client</b> to view how the logical file name is composed.				
	<b>Note:</b> Be sure to update previously created stocks while changing logical/physical file names.				
Manually create an archiving object	Use program YYCFOBJC (version 4.0 /PBS/YYCFOBJC) to manually create an archiving object without having to wait until the archiving object is automatically created after transaction data is stored for one fiscal year.				

## **Data Retention Tool**

This chapter includes these topics:

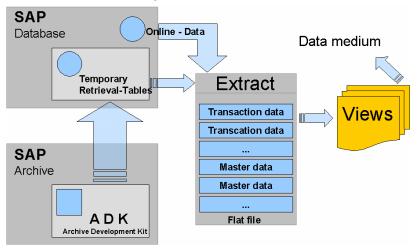
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### Overview

The SAP Data Retention Tool (DART), or SAP Z3 scenario, facilitates compliance with tax authority requests for data extraction of business records.

#### SAP DART data flow

The SAP DART is an alternative solution to SAP BW, SAP queries, and ABAP reports in the SAP environment following the SAP DART data flow, as shown in Figure 50.



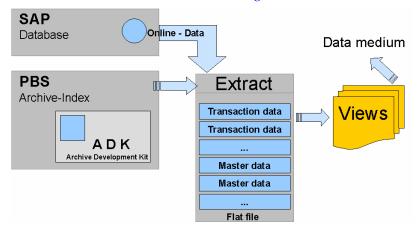
#### Figure 50 SAP DART data flow

SAP DART is included in the SAP standard installation and enables data extraction from a predefined volume. That data is then stored in external data media or on a file server for compliance purposes. Data views can be made available to the tax authority in the event of an audit.

ViewPoint for SAP CDART data flow The ViewPoint for SAP CDART module extends the SAP DART functionality so that the SAP ADK files DART extract runs are integrated, avoiding temporary reloading of archive data into the database. The data access is executed through indices generated with the CDART Tool.

> Database performance improves since permanent storage capacity is not provided for extract stocks until they are used.

The stocks are created *on demand*, following the ViewPoint for SAP CDART module data flow, as shown in Figure 51.



#### Figure 51 ViewPoint for SAP CDART module data flow

# CDART transaction data

Table 18 gives an overview of transaction data affected by archiving and extracted from the archive using CDART. All other segments have master data, transaction figures, or are not affected by archiving.

Table 18	CDART	transaction	data
	ODANI	nansachon	aala

Original	Segment structure DART	Description
ANEK	TXW_AD_HD	Asset document header
ANEP	TXW_AD_POS	Asset document item
AFRU	TXW_AFRU	Order confirmation
AFVC	TXW_AFVC	Order operation
ANLE	TXW_ANLE	Asset origin from line items
ANLK	TXW_ANLK	Asset origin from cost element
ANLP	TXW_ANLP	Asset periodic sizes
ANEA	TXW_ANEA	Shared values of attachment document
		Items
VBRK	TXW_BI_HD	Billing document header

Original	Segment structure DART	Description
VBRP	TXW_BI_POS	Billing document item
BSET	TXW_BSET	Document segment tax data
KONV	TXW_CONDPR	Pricing conditions (billing documents)
COSP	TXW_CO_COST_TOTALS	Controlling object: total cost
COSS	TXW_CO_COST_TOTOLS	Controlling object: total cost
СОВК	TXW_CO_HD	CO document header
COEP	TXW_CO_POS	CO document item
СОВК	TXW_CO_SHD	CO document header
		Secondary posting
COEP	TXW_CO_SPOS	CO document item
		Secondary posting
LIKP	TXW_DL_HD	Delivery document header
LIPS	TXW_DL_POS	Delivery document item
EIKP	TXW_EIKP	Export/Import header data
EIPO	TXW_EIPO	Export/Import item data
BKPF	TXW_FI_HD	FI document header
BSIK	TXW_FI_OP	Open item FI
BSIS	TXW_FI_OP	Open item FI
BSID	TXW_FI_OP	Open item FI
BSEG	TXW_FI_POS	FI document item
MKPF	TXW_MM_HD	MM document header
ЕККО	TXW_MM_POH	MM order header
ЕКРО	TXW_MM_POP	MM purchase order item
MSEG	TXW_MM_POS	MM document item
COFIS	TXW_RC_POS	FI/CO settlement item

#### Table 18 CDART transaction data (continued)

Original	Segment structure DART	Description
VBAK	TXW_SD_HD	Sales document header
VBAP	TXW_SD_POS	Sales document item
VBPA	TXW_SD_PRT	SD Partner
VBKD	TXW_VBKD	Sales document: sales data

#### Table 18 CDART transaction data (continued)

Using CDART	
0	ViewPoint for SAP CDART module provides the necessary definitions to archive data.
Creating the CDART Easy Access menu	Follow this procedure to create an SAP Easy Access menu for CDART.
	<ol> <li>From the ViewPoint for SAP CDART module area menu /PBS/DART generate:</li> </ol>
	• an activity group (4.6B)
	• a role (4.6C)
	as shown in Figure 52.
	SAP Easy Access
	🚯 📑 🛛 🗞 Other menu 🛛 😹 🔀 🖉 🛛 🗨 🔺 🕼 Create role
Figure 52	Create a role
	2. Choose the name of the activity group or role from within the ViewPoint namespace. For example:
	/PBS/DART
	3. Click <b>Transfer menus from area menus</b> to transfer the ViewPoint for SAP CDART module range menu.
	4. Indicate the corresponding ViewPoint for SAP menu name. For example:
	/PBS/DART
	5. Click <b>Yes</b> to the system query for the resolution of the range
	menu.

The Easy Access menu displays within the user menu, as shown in Figure 53.

	Address Logon data Defaults Pa	rameter	s Roles	Profiles	Groups Personalization	
l						
I	Reference user for additional rights					
I	Role	Туре	Valid from	Valid to	Name	
	VPBS/DART	θ	20.11.2002	31.12.9999	PBS CDART	

#### Figure 53 Role /PBS/DART

The CDART menu is essentially the same as the SAP DART menu, as shown in Figure 54. The ViewPoint for SAP specific transactions are **Extract data**, **Generate index archive data**, and **Check FI control totals**. All other menu options call the original SAP DART programs.

V	$\bigcirc$	Ro	le /PBS/DART	
	$\bigtriangledown$		PBS CDART	
		$\bigtriangledown$	🔄 Utilities	
			💬 Extract data	
			🛇 Delete data extracts	
			🛇 Combine data extracts	
			💬 Rebuild data extracts	
			🔗 Generate index archive data	
		$\bigtriangledown$	Information system	
			💬 Data extract browser	
			🔗 Data extract views	
		$\bigtriangledown$	🔄 Extras	
			🗭 Display extract log	
			🗭 Dislay View log	
			🔗 Check FI control totals	
			🔗 Check all FI control totals	
			🔗 Check data check sums	
			🖗 List segment intormation	
			🔗 Generate background job	
		$\bigtriangledown$	Configuration	
			💬 Data extracts	
			🗭 Data segments	
			💬 File size worksheet	
			🗭 Define data extract views	
			-	

#### Figure 54 CDART menu

#### Customer-specific The list of extraction fields is user-definable and is updated in the fields data dictionary. SAP original type extraction fields automatically transfer to the ViewPoint for SAP CDART module. Other fields, such as amounts, are transferred using /PBS/DART EXIT SAPLTXW2 001 and /PBS/DART EXIT SAPLTXW2 002. All customer modifications in SAP DART can be transferred to ViewPoint for SAP. Update customer modifications when updating ViewPoint for SAP, if necessary. Data source Use the menu option generate index archive data > customizing **data source** to set the archive data imported using the existing ViewPoint for SAP modules or using the CDART archive indices, as shown in Figure 55. Customizing CDART Modul PBS DART CFI 4 CMM ~ CSD 4 Figure 55 **CDART** data source selection Table 19 lists the module indices that can be used with CDART to extract document types. Table 19 **CDART** extracted document types Module Module name Туре CFI FI\_DOCUMNT Financial accounting documents CFI Material documents MM MATBEL

Sales documents

Billing documents

Deliveries

Orders

SD\_VBAK

RV\_LIKP

SD VBRK

MM\_EKKO

CSD

CSD

CSD

CMM

Indices must be built directly in the CDART to extract other document types.

**Note:** Indices for all archiving objects must be built in CDART to extract other document types, such as CO cost totals.

# Archiving objectIndices are stored through the archiving object /PBS/DART./PBS/DARTTransaction SARA assigns a logical file name with Customizing ><br/>archiving object specific customizing. ARCHIVE\_DATA\_FILE is set<br/>during the ViewPoint installation, the value for which must be<br/>changed so that the path is created in the file system and read/write<br/>authorization exists at the operating system level.

## Archiving ViewPoint for SAP modules data

An index must be created for each ViewPoint for SAP module used before executing the CDART extraction. This index points to the location of the archive data.

Follow this procedure to generate the module index for CDART.

1. Start the index generation using:

menu option Utilities > Generate index archive data, or

transaction /PBS/DART\_SETUP.

The index generation menu displays, as shown in Figure 56.



#### Figure 56 Index generation menu

The indices are stored in the archiving object /PBS/DART.

**Note:** The path assigned to the archiving object must be stored in the file system and there must be enough disk space to write the indices to disk, as described in "Archiving object /PBS/DART" on page 93.

Each indexed SAP ADK file requires an additional 5 percent of disk space more than needed by the physical ADK file.

2. Select menu option Index > Index Generation.

The Index Construction screen appears, as shown in Figure 57. Index Construction 3 FΙ Financial Accounting 🕒 👀 FI\_DOCUMNT Financial Accounting Documents i SD Sales and Distribution 🕒 👀 RV\_LIKP Deliveries i 🕒 👀 SD\_VBAK Sales Documents i 🕒 👀 SD\_VBRK H Billing Documents MM. Materials Management ФОО ММ\_ЕККО Purchasing Documents i 🕒 👀 MM\_MATBEL Materials management: Material documents i AM. Asset Accounting i 🕒 📀 AM\_ASSET Asset - master data, values and movements

#### Figure 57 Index Construction screen

Table 20 lists the traffic light definitions that help determine whether it is necessary to generate indices for each corresponding archiving object.

#### Table 20 Traffic light status definitions

Color	Definition
Red	The archiving object is not archived.
Yellow	Index generation is incomplete and must be generated for objects.
Green	All existing archive data is indexed.

3. Click on a line with a yellow status.

The index generation screen displays so the missing index generation can be completed resulting in the color definition changing to green.

**Note:** CDART data extraction should only be carried out when all traffic lights are green or red.

4. Click the **i** function key for additional index information.

A popup displays the table fields for that archiving object.

5. Use transaction SE16 and enter the table /PBS/DART\_INDEX to display all available indices.

#### Manual entry

Use the menu item **Utilities** > **generate index directly** to manually enter the archiving object.

The manual index construction screen displays, as shown in Figure 58, without the traffic lights to show indices status.

<u>P</u> rogram <u>E</u> dit <u>G</u> oto System <u>H</u> elp
◎ 🔛 🖄 🛱 😓 🚱 🚱 😓 🗒 🖉 🖉 🖉
Generation program CDART
⊕ <b>ⓑ</b>
Archiving object SD_VBAK
Select Archive Archive 01.11.2004
Load automatically from     01.11.2004 max. number phys. files
O Delete old run Run
Document select: /
Process all documents
O Process sequential number range from 1 to 9,999,999
Merge /
Merge with archi     28008 Run     O new archive
Postprocess.prog. The following procs.are started automatically
Create management indices
✓ Delete previous run

#### Figure 58 Manual index construction screen

**Select archive** — Allows manual selection of archiving runs created with transaction SARA for SAP archive objects. Click SAP to archive the corresponding SAP archiving runs displayed, which were created from the entered date.

Selecting the requested SAP archiving runs allows the system to check if the run was loaded into the ViewPoint for SAP archive, as shown in Figure 59.

 FI\_DOCUMNT
 Financial accounting documents

 Image: State Sta

#### Figure 59 System messages

**Load automatically from** — Processes all documents from the selected date without individually selecting each SAP archive. SAP archives already completed are not indexed to the ViewPoint for SAP archive a second time. This function automates the load runs and can be scheduled as a background job by using a selection variant.

**Delete old run** — Select **Run** to display a list of previous load runs for selection and deletion, or delete all SAP archiving runs for the selected ViewPoint for SAP module.

**Process all documents** — Selecting ensures that all documents in the SAP archiving run are indexed.

**Process sequential number range** — Specify the range of documents to be processed. Executing several runs with a limited number of documents allows for best processing time and job handling.

Archives already processed are neither automatically recognized nor is a check carried out if intervals overlap.

**Note:** For SAP release 4.6 and prior, extend the paging area in the system profile for the sorting of indexes if the process run terminates with the error message SYSTEM\_NO\_MORE\_PAGING.

For SAP releases after 4.6, a directory is assigned for sorting with the system parameter DIR\_SORTTMP that can be extended in a 32-bit operating system to avoid any sorting problems.

**Merge** — In CDART the index is kept in ADK files, which requires a new ADK number for each run of the index generation program. **New archive** is active for each new index compilation and **Merge** with archive is active, with the previous ADK run number, for the subsequent merge, as shown in Figure 60.

Merge O Merge with archi	0 Run	new archive
Merge Merge with archi	28008 Run	) new archive

#### Figure 60 Above: Before the 1st run; Below: Proposal for merge run

To reduce runtimes use **new archive** to create a second index stock that is not merged with the first. The CDART reading routines read several index stocks in parallel. For example, start a new index stock once a year.

Postprocessing	The index generation program starts two post-processing programs,
programs	both of which can be started manually from the <b>Utilities</b> menu.

**Create management indices** — Writes control records into the database needed for generated indices access.

**Delete previous run** — Deletes ADK files not containing current index sets.

#### Archive tool

Use **Utilities** > **Archive Tool** to view the index after the index generation run with its post-processing programs completes.

The data is now available for CDART extraction, as shown in Figure 61.

	0	
	Display contents PBS archive add on CDART	
	•	
	IndexNumber	1 Arch.
	Indexlist	•
	job protocolls	0
	Run overview	$\odot$
	Number cluster	200
	Start at key	
Figure 61	Archive tool selection screen.	
	<b>Index Number</b> — Choose the in number description.	dex. Press F4 to get the index
	<b>Index list</b> — Choose the desired index from a list.	
	Job protocols — Displays the job logs.	
	<b>Start at key</b> — Enter the index k numbers.	ey to start from higher index
Deletion tool	Use <b>Utilities</b> > <b>Delete index</b> to d Figure 62.	lelete index records, as shown in
	Deletion of /PBS/DART arc	hiving runs (for experts only !!!,
	D	
	Delete PBS load runs for CDART!	SD_VBAK 28008 Run
	<ul> <li>Keep only the most current run</li> <li>Delete archive via selection list</li> </ul>	SD_VBAK 28008 Run
Figure 62	Deletion tool selection screen	
	<b>Keep only the most current run</b> with <b>Run</b> . This is automatic if du post-processing <b>Delete initial ru</b>	

**Delete archive via selection list** — Select to display an overview of all generated index runs and delete load runs from this list. This is useful when recreating indices.

**Note:** Index records are physically deleted. Once deleted, generation runs for the archiving object must be repeated.

#### Extract

Disk space requirement	The extraction program executes only one archive access for each document for performance reasons, temporarily storing additional tables for later processing and deletion. The DART path, used in the extraction program, has to have enough disk space.
	Disk space size can be determined using the ViewPoint for SAP <b>Configuration</b> > <b>File size</b> worksheet. Since disk space for temporary files has to be added during the extraction from the archive, take twice the value defined using the worksheet to provide for the generation of the extract stock. The full capacity is not required, but represents an upper limit.
DART version	The ViewPoint for SAP CDART module version must match the SAP DART version or there might be dictionary objects missing.
	Use transaction SE11 to verify the SAP DART version.
Settings	Use <b>settings for data extracts</b> to set extract setting such as file name, file size, and document types taken into account during the extract. Document types are displayed for selection in the extract program after settings are selected.
	For CDART use transaction data > additional transaction data > data reloaded from archives to set extract archive data via ViewPoint.
Create an extract	After all DART definitions are complete, the extracts can be created using <b>Utilities</b> > <b>Extract data</b> . Select <b>Extract archive data via</b> <b>ViewPoint</b> to automatically select the archive data in the index of ViewPoint for SAP module, and transfer it to the extract stock.

# Further processing of the extract

Use **Information system** to start the DART extract browser to view and check extracted data, as shown in Figure 63.

PBS CDART: Extract data 🕒 🔁 Selection criteria General 1000 \$ Company Code to Fiscal Year 2004 Posting Period 11 to Maximum number of documents 99999.999 Asset documents (AM) Depreciation area to CFM documents (TR) ۵ Valuation Area to Transaction data Finance documents (FI) Sales documents (SD) ✔ Open Items list (FI) ✓ Delivery documents (SD) Controlling documents (CO) Billing documents (SD) Reconciliation FI/CO CFM documents (TR) Asset documents (AM) Material documents (MM) 🖌 Tax data ✓ Purchase orders (MM) ✓ Include archived data via PBS indexes Master data Select transaction dependent Company code dependent G/L account master Select all Standard cost center hierarchies Standard profit center hierarchies ✓ Joint Venture Accounting master data Select individual master data segments \$ Data file Data file name PBS\_DART\_12\_2004 PBS\_DART Directory set PBS\_DART\_12\_2004 Description ✓ Compress data Calculate data checksums

#### Figure 63 Data extract browser

Export view data from the extracts for auditing using Z3 access.

To evaluate CDART extracts outside the SAP system on a PC, refer to the ViewPoint for SAP IDA module (Independent DART Access), a separate module.

# Analyzer Plus

This chapter includes these topics:

Overview	104
Capacity analysis	106
Archivability check	
Document distribution analysis examples	
	Capacity analysis Document distribution analysis Archivability check Capacity analysis examples

Overview	
	Use ViewPoint for SAP Database Analyzer Plus to examine an SAP $R/3$ system to determine:
	• How much disk space is occupied by each module
	Which module requires the most disk space
	• How much the SAP R/3 database increases monthly and yearly
	• Size of the financial accounting monthly document volume
	• Those archiving objects for which archiving is useful
	Average size of a purchasing document
	What table is archived with what archiving object
	What ViewPoint for SAP archiving modules are needed
	Database Analyzer Plus consists of three essential functions:
	<ul> <li>Analyze the capacity occupied by database tables</li> </ul>
	• Analyze the distribution of documents for selected SAP modules
	• Execute an archiving check for selected SAP modules
Capacity analysis	The capacity analysis executes an analysis of the tables used by the archiving objects and stores the results for evaluation in the database. Optionally, a detailed analysis of CO tables, such as COEP, COSS, and COSP can be done, depending on if archiving was done with or without the archiving object CO_ITEM. If CO_ITEM was used for archiving, a detailed evaluation is not necessary since the corresponding tables are included in this object.
	The ViewPoint for SAP module for each archiving object checked can be displayed in the evaluation, revealing which ViewPoint for SAP modules are relevant.
	Single tables can be added for analysis during the next capacity run. The results are displayed separately in the analysis and the archiving objects belonging to that table can be displayed.
Document distribution analysis	Document distribution analysis provides information on the temporal distribution of the entered documents defined by any selection and grouping criteria. The client and period are available as grouping criteria with other module-dependent features available,

	such as company code and document type in the ViewPoint for SAP FI module.
	A distribution analysis assigns documents, according to the time they were entered, by determining the number of existing documents by period. Combined with the archiving check, the distribution analysis also ensures successful archiving for selected SAP modules.
Archiving check	- The archiving check determines if documents can be archived. After the document distribution analysis check documents of a certain period, the archiving check examines existing documents for archivability or displays the reason the document is not ready for archive. This analysis is also available for selected SAP modules.

## Capacity analysis

Table 21 lists the two ABAP/4 programs used to perform the capacity analysis of archiving objects.

#### Table 21

Capacity analysis ABAP/4 programs

	ABAP/4 program	Description	
	/PBS/ANA_AUFBAU	Starts the analysis and stores the results in the database table /PBS/ANA_AR_LFN. Within the capacity run the disk space occupancy of the tables allocated to the archiving objects is determined.	
	/PBS/ANA_KAPAZITAET	Evaluates and displays the results by archiving object.	
Initialization	Database Analyzer Plus SAP R/3 system by start by copying the entries of into the table /PBS/AN	Before starting the first capacity analysis the ViewPoint for SAP Database Analyzer Plus database tables must be reconstructed in the SAP R/3 system by starting the ABAP /PBS/ANA_ERSTAUFBAU by copying the entries of the database table /PBS/ANA_AR_DEF into the table /PBS/ANA_AR_OBJ, and supplementing it with the table names of the SQL database.	

ABAP /PBS/ANA\_ERSTAUFBAU is also used to delete all existing analyses.

Before starting an analysis for an AS/400 database, refer to "AS/400 database" on page 108.

**Capacity analysis** Use this procedure to run the capacity analysis.

1. Start the ABAP /PBS/ANA\_AUFBAU.

**Note:** Run the ABAP /PBS/ANA\_ AUFBAU as a background process checking the progress of the run with the protocol entries of the own jobs.

Depending on the database system, ABAP /PBS/ANA\_AUFBAU starts a corresponding ABAP for the construction of the capacity analysis.

For example, in an ORACLE database system, the ABAP /PBS/ANA\_ORACLE starts, as shown in Figure 64.

G	
<u>P</u> rogram <u>E</u> dit <u>G</u> oto System <u>H</u> elp	
	II 😋 🚱 I 🚨 Hi Ha 🖄 🏝 🕰 🛣 🗮 🗾 I 🕲 📑
PBS DB Analyzer: Constr. o	capacity run for oracle
$\odot$	
Description capacity run	Capacity Run
Use analysis from SAPDBA	Oreate new analysis
Detailed analysis CO records	
Secured run	
Single table analysis	

#### Figure 64 Selection mask for Oracle capacity construction

2. Enter information for the following fields.

**Description capacity run** — Descriptive title for the analysis run.

**Use analysis from SAPDBA** — Option for Oracle database system. Details can be found in "Oracle database" on page 108.

**Create new analysis** — Option for Oracle database system. Details can be found in "Oracle database" on page 108.

**Detailed analysis of CO records** — Carries out an exact analysis of the CO records when allocating CO tables, such as COEP and COSS, to the corresponding archiving objects. Requires a long run time. Not needed with archiving object CO\_ITEM. If unselected, the corresponding CO tables are distributed to the archiving objects CO\_COSTCTR and CO\_ORDER.

**Secured run** — In a production system, prevents an ABAP from getting into an endless loop when a SELECT-COUNT command to a cluster table (CDCLS) is carried out. The database tables for the document changes (CDHDR and CDPOS) are not split and appear in the evaluation with the size 0. If unselected, after several hours the ABAP will eventually cancel with the error message *SQL error* 1555 at access ...

**Single table analysis** — Activates the analysis of single tables as described in "Single table analysis" on page 108. The data is stored in the database tables /PBS/ANA\_AR\_LFN and /PBS/ANA\_AR\_TXT under a sequential number (run no.) and can be evaluated with the program /PBS/ANA\_KAPAZITAET described in "Single table analysis" on page 108).

Oracle database	From SAP release 4.0, choose one of the following:
	<b>Use analysis from SAPDBA</b> — The size of the database table is taken from the last analysis run with SAPDBA.
	<b>Create analysis again</b> — The size of the database tables is determined again. Tables marked in the system table DBSTATC (trans. DB21) in field Active with "R" or "N" cannot be analyzed. These tables are displayed in the job protocol during the analysis construction. To integrate these tables in the analysis, the value entered in field KAP_MAX is used in table /PBS/ANA_AR_OBJ.
Informix database	In an Informix database, it is not possible to determine the exact tables size as the fill level of the different pages is not known. Two different types of analysis are offered:
	<b>Number of lines * line size</b> — Provides nearly exact table size without compression.
	<b>Used pages</b> — Indicates the size of pages used of each table on the database server.
AS/400 database	Before starting the analysis in an AS/400 environment with the ABAP /PBS/ANA_AS400 the database table DBSTATTDB4 must be updated with transaction DB02 and the initialization started with "Refresh data" (update data statistic).
	Note: An SAP correction order must be imported if the program cancels.
Correction of capacity commitment (SAP 4.0)	Program /PBS/ANA_RARCCOA1 corrects the distribution of CO records, when an analysis is constructed by SAP program RARCCOA1, and stores the result under the next higher run number allowing determination of the description of the run.
Single table analysis	The single table analysis enables you to analyze tables independent from an archiving object when updating table /PBS/ANA_TAB_DEF with transaction SE11.

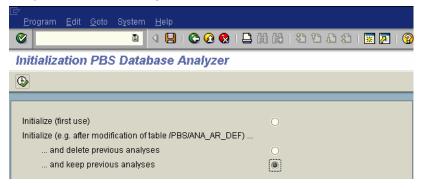
Enter the name of the table in field TABLENAME, leaving field SQLTAB empty, as shown in Figure 65.

⊡ 	<u>E</u> dit <u>G</u> oto	<u>S</u> ettings	E <u>n</u> vironme	ent S <u>y</u> :
<b>Ø</b>		1	8   😋	🙆 😡
Table /PB	S/ANA_	TAB_DI	EF Inse	nt
Reset				
TABLENAME	BKPF			
SQLTAB				

#### Figure 65 Update of table with transaction SE11

Execute a new initialization with ABAP /PBS/ANA\_ERSTAUFBAU. Selecting **...and keep previous analyses** keeps the previous analysis.

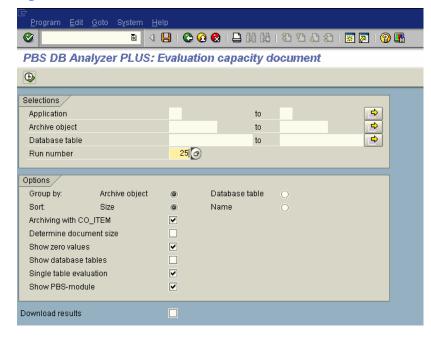
During the next capacity run, the implemented tables are also analyzed, as shown in Figure 66.



#### Figure 66 Implementation table analysis

## Database analysis evaluation

Evaluate an analysis run with the ABAP /PBS/ANA\_KAPAZITAET. The database analysis for archiving object FI\_DOCUMNT is shown in Figure 67.



#### Figure 67 Evaluation screen

**Selections** Enter data selection criteria and output layout in the Selections area of the Evaluation screen.

**Application** — Enter the application name(s), such as SD, FI, MM, PP.

**Archiving object** — Enter the archiving object name(s), such as MM\_EKKO, FI\_DOCUMNT, RV\_LIKP.

**Database table** — Enter the database table name(s), such as EKKO, BKPF, VBRK, LIKP.

**Run number** — Enter the run number.

**Options** Enter selections in the Options section of the Evaluation screen.

**Group by** — Select to create a list grouped by **Archiving object** or **Database table**.

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**Sort** — Select to sort the grouping by **Size** or **Name**.

Archiving with CO\_ITEM — Determines if archiving object CO\_ITEM is included in the analysis if the capacity analysis was started with the option **Detailed analysis of the CO records** explained on page 107. Left unselected, the CO tables of archiving object CO\_ITEM are distributed to the corresponding archiving objects, especially when using the ViewPoint for SAP CCO module.

**Determine document size** — Determines the average size for certain documents.

**Show zero values** — Select to display zero values.

Show database tables — Select to display details of database tables.

**Single table evaluation** — Displays the capacity of single tables.

**Show VPT module** — Select to display the ViewPoint for SAP module.

**Download results** — Download the results locally.

The result after the selection of program /PBS/ANA\_KAPAZITAET appear, as shown in Figure 68.

Image: Constraint of the state of the	
9	_
PBS DB Analyzer+: Disk space occupancy of arch. objects Time 16:12:39 HEMMING	
Run number 0025 from 22.11.2002 : 1.704.524 KB Date 21.01.2003 YYCSANAK	
Aufbau nach Archivierung mit Einzeltabellenanalyse Page	1
Size of selected data : 121.686 KB	
Portion of total size : 7 %	
Object Name of object Total (KB) Sel (%) Tot	(%)
Table Name of database table Size (KB) Sel (%) Tot	
CFI	
	1
	3
	8
	1
BSAD Accounting: Secondary Index for Customers (Clear 9.341 7,7 0	5
BSET Tax Data Document Segment 8.630 7,1 0	5
	2
	2
	1
	1
	1
	0
	0
	0

Figure 68 Result of the capacity analysis

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Analysis details appear at the top of the screen, as shown in Figure 69.

PBS DB Analyzerr: Disk space occupancy of arch. objects Run number 0002 from 29.03.2000 : 3.097.306 KB Kapazitaetslauf oh. CO-Details

#### Figure 69 Capacity run details

The disk occupancies values originated from capacity run 0002 from 29.03.2000 created with program /PBS/ANA\_AUFBAU with a total capacity of 3,097,306 KB and stored under the description Capacity analysis ID4 with CO details.

The evaluation of the analysis started on 07.04.2000 at 14:57:15 by user DOERRSCHUCK, as shown in Figure 70.

Time	14:57:15	DOERRSCHUCK
Date	07.04.2000	YYCSANAK
		Page 1

#### Figure 70 Analysis evaluation

A total of 452,126 KB was selected, which is 15% of the total capacity of 3,097,306 KB of run 0001, as shown in Figure 71.

Size of selected da	ata	:	452.126	КΒ
Portion of total si	ize	:	15	*

#### Figure 71 Evaluation

Archiving object FI\_DOCUMNT has a total of 71,476 documents (entries in table BKPF) with a total size of 148,095 KB in the system. The size of a document is 2,122 bytes. The archiving object has a 100% portion in the selection and a 9% portion in the total capacity.

The size of table BSEG is 61,631 KB, which is 41.6% of the selected data and 3.7% of the total capacity, as shown in Figure 72.

<mark>Object</mark> Table	<mark>Name of object</mark> Name of database table	Total (KB) Size (KB)	<mark>Sel (%)</mark> Tot (%) Sel (%) Tot (%)
CFI			
FI_DOCUMNT	Financial accounting documents	148.095	100,0 9,0
	BKPF No.: 71.476 Byte: 2.122		
BSEG	Accounting Document Segment	61.631	41,6 3,7
BSIS	Accounting: Secondary Index for G/L Accounts	30.882	20,9 1,9
BKPF	Accounting Document Header	18.886	12,8 1,1
BSET	Tax Data Document Segment	13.303	9,0 0,8

#### Figure 72 Object archiving

**Note:** If the size of a table is displayed in brackets the table could not be assigned to an archiving object. The size of the table for the first archiving object displays. The remaining archiving object values appear in brackets for which the table is available and whose value is not added to the total size of the object.

An overview of analyzed tables displays if Single table evaluation was selected, as shown in Figure 73.

<u>L</u>ist <u>E</u>dit <u>G</u>oto S<u>y</u>stem <u>H</u>elp

Ø	i 🕢 📙 i 🗞 🚱 i 🖨 🕅 🖧 i 🏖	🏵 🕰 😫 🔀	]   🕜 🖪	
PBS DB	Analyzer PLUS: Evaluation capacity docu	nent		
PBS DB Ana Run number Test	llyzer+: Disk space occupancy of arch, objects 0026 from 10.01.2003 : 1.647.478 KB	Time 16:15:: Date 21.01.20		
	lected data : 148.095 KB 'total size : 9 %			
<mark>Object</mark> Table	Name of object Name of database table	Total (KB) Size (KB)		<mark>Tot (%)</mark> Tot (%)
BSAK BFOD_A BSID BFOK_A BFIT_A0 BSIF BSEC RF048 BSEC RF048 BSEC STXL CDPOS STXL CDPOS STXH BVOR	Accounting: Secondary Index for Vendors (Cleared FI Subsequent BA/PC Adjustment: Customer Items Accounting: Secondary Index for Customers FI subsequent BA/PC adjustment: Vendor items FI Subseq. BA/PC Adjustmnt: Zero Bal.Postings for Accounting: Secondary Index for Vendors Index for Vendor Validation of Double Documents One-Time Account Data Document Segment Subseq. BA/PC Adjustmnt: Index/Distributn Vector Bill of Exchange Fields Document Segment STXD SAPscript text file lines Change document items STXD SAPscript text file header Intercompany posting procedures	2.553 1.398 937 635 465 452 234 150 143 75 21 12 21 4 22 4 2	1,7 0,9 0,6 0,4 0,3 0,3 0,2 0,1 0,1 0,1 0,1 0,0 0,0 0,0	0,2 0,1 0,0 0,0 0,0 0,0 0,0 0,0 0,0 0,0 0,0
BFOD_AB BFOK_AB BFO_A_RA BSEGC BSIW BSIX COHDR STXB TTXI TTXY WITH_ITEM	FI Subseq.BA/PC Adjustmnt: Valuatn Diffrnce in C FI Subseq.BA/PC adjustmnt: Valuatn Diffrence in Versions for Resetting Cleared Items Document: Data on Payment Card Payments Index table for customer bills of exchange used Index table for customer bills of exchange used Change document header SAPscript: Texts in non-SAPscript format External tax interface: tax information Witholding tax info per W/tax type and FI line i	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	0,0 0,0 0,0 0,0 0,0 0,0 0,0 0,0 0,0 0,0	0,0 0,0 0,0 0,0 0,0 0,0 0,0 0,0 0,0 0,0

Analysis of single table	B	
Table	Size (KB)	Class
/PBS/ANA_AR_TMP	108	TRANSP
AFKO	1.128	TRANSP
AP_ORD_PRE	1.128	VIEW ( -> AFKO )
ATAB	145.960	POOL
DOKCLU	993.296	CLUSTER
DOKTL	993.296	CLUSTER ( -> DOKCLU )
RFBLG	75.160	CLUSTER
T047	145.960	POOL ( -> ATAB )
VBAK	663	TRANSP

#### Figure 73 Table analysis overview

This alphabetical list displays table class. For example, the table AP\_ORD\_PRE is a view which is assigned to table AFKO. The sizes of both tables are the same.

Double-click on a table to show the corresponding archiving objects. For example, the entry VBAK shows that the table is assigned to the archiving object SD\_VBAK, as shown in Figure 74.

Archiving objects for	VBAK	
SD_VBAK		

#### Figure 74 Table archiving assignation

The result of a capacity analysis without details is appears, as shown in Figure 75.

⊑∕ List <u>E</u> dit	<u>G</u> oto System <u>H</u> elp		
Ø	a 🛛 🗐 🚱 🚱 🕒 🛗 🖧 🎕	🎦 🕰 🛛 🕱 🖉	]   🕜 🖪
PBS DB /	Analyzer PLUS: Evaluation capacity docu	nent	
Run number	lyzer+: Disk space occupancy of arch. objects 0025 from 22.11.2002 : 1.704.524 KB h Archivierung mit Einzeltabellenanalyse	Time 16:10: Date 21.01.20	
	lected data : 1.704.524 KB total size : 100 %		
Object	Name of object	Total (KB)	Sel (%) Tot (%)
CSL			
FI_SL_DATA	Totals and line items in FI-SL	398.439	23,4 23,4
CCO CO ITEM	CO line items	240,219	14,1 14,1
FI_MONTHLY	Sales figures A/P, A/R, G/L	132.421	7,8 7,8
CFI	Financial accounting documents	121.686	7,1 7,1
CHR	Financial accounting documents	121.000	
PA_CALC	HR: Payroll accounting results	91.484	5,4 5,4
MM_ACCTIT	MM- Accounting interface posting data	72.181	4,2 4,2
IDOC CV DVS	IDoc - Intermediate Document Document Management System	68.469 67.905	4,0 4,0 4,0
CMM	bocument nanagement system	07.905	4,0 4,0
MM_EKKO	Purchasing documents	67.621	4,0 4,0
CO_COSTCTR	Cost center - all data (incl.center master)	57.695	3,4 3,4
CSD			
SD_VBRK	Billing documents	50.493	3,0 3,0
CMT MM MATNR	MM: Material master records	45,219	2,7 2,7
AM ASSET	Asset - master data, values and movements	35.582	2,1 2,1
CF I		00.002	
	Materials management: Material documents	29.148	1,7 1,7
PA_PIDX	HR: Index files for posting to FI	23.369	1,4 1,4

#### Figure 75 Capacity analysis without details

ViewPoint for SAP modules are marked in red with the names of the archiving object for which they can be used displayed in the line below. ViewPoint for SAP modules used with multiple archiving objects display multiple times.

**Note:** ViewPoint for SAP module names are associated with the object on the line directly below. Objects without a ViewPoint for SAP module displayed directly above are not assigned to any ViewPoint for SAP module.

## Comparison analysis

Use the ABAP /PBS/ANA\_KAPAZITAET\_VGL to compare two analysis runs, such as comparing data increase within a period of time or data decrease after archiving.

"Database analysis evaluation" on page 110 has information about **Selections** fields and **Options** for creating a second analysis for comparison purposes.

The result of a comparison analysis appears, as shown in Figure 76. An increase in capacity means a loss of disk space and is displayed as a negative value highlighted in blue.

≷ List <u>E</u> dit	<u>G</u> oto System <u>H</u> elp					
☑	🗈 🕔 📙 I 🕸 🚱 🚱 I 🗎 🛗 🖧 I 🏝	ጭ 🕰 🕄 🔀 🖉	]   🕜 🖪			
PBS DB	Analyzer: Evaluation capacity document c	omparison tv	vo runs			
		· ·				
	lyzer: Disk space occupancy				14:54:06 HEMM	
vergieich	zweier Analyseläufe			Date	14.01.2003 7PB5	/ANA_KAPAZITAET_V
0026 10.01	.2003 Test	1.647.478	КВ	14	8.095 KB	9 %
0025 22.11	.2002 Aufbau nach Archivierung mit Einzeltabell	1.704.524			1.686 KB	7 %
	Differenz der Läufe:	57.046	- КВ	2	6.409 KB	
					1	
Object	Name of object	Total (KB)	Sel (%)	Ges (%)	Total (KB)	Differenz (KE
Table	Name of database table	Size (KB)	Sel (%)	Ges (%)	2. Lau1 (KB)	Differenz (Ki
ET DOCUMNT	Financial accounting documents	148.095	100.0	9,8	121,686	26.40
BSE6	Accounting Document Segment	61.631	41,6	3,7	39,979	21.65
BSIS	Accounting: Secondary Index for G/L Accounts	30.882	20,9	1,9	30.882	
BKPF	Accounting Document Header	18,886	12,8	1,1	18,886	
BSET	Tax Data Document Segment	13.303	9,0	0,8	8.630	4.67
BSAD	Accounting: Secondary Index for Customers (Clear	9.341	6,3	0,6	9.341	
BSAS	Accounting: Secondary Index for G/L Accounts (C1	3.618	2,4	0.2	3.618	
BSIM	Secondary Index, Documents for Material	3.353	2,3	0,2	3.353	
BSAK	Accounting: Secondary Index for Vendors (Cleared	2.553	1,7	0,2	2.553	
BFOD_A	FI Subsequent BA/PC Adjustment: Customer Items	1.398	0,9	0,1	1.398	
BSID	Accounting: Secondary Index for Customers	937	0,6	0,1	937	
BFOK_A	FI subsequent BA/PC adjustment: Vendor items	635	0,4	0,0	635	
BFIT_A0	FI Subseq.BA/PC Adjustmnt: Zero Bal.Postings for	465	0,3	0,0	465	
BSIK	Accounting: Secondary Index for Vendors	452	0,3	0,0	452	
BSIP	Index for Vendor Validation of Double Documents	234	0,2	0,0	234	
BSEC	One-Time Account Data Document Segment	150	0,1	0,0	98	5
RF048	Subseq.BA/PC Adjustmnt: Index/Distributn Vector	143	0,1	0,0	143	
BSED	Bill of Exchange Fields Document Segment	75	0,1	0,0	49	2
STXL CDPOS	STXD SAPscript text file lines	21	0,0	0,0	18	
	Change document items	12	0,0	0,0	12	
STXH	STXD SAPscript text file header	4	0,0	0,0	3	
BVOR BFOD AB	Intercompany posting procedures FI Subseq.BA/PC Adjustmnt: Valuatn Diffrnce in C	2	0,0	0,0	2	
BFOD_AB BFOK AB	FI Subseq.BA/PC Adjustmint: Valuath Diffrice in C FI subseq.BA/PC adjustmint: Valuath difference in	0	0,0	0,0	0	
BFOK_AB BFO A RA	Versions for Resetting Cleared Items	0 A	0,0	0,0	0	
BFU_A_KA BSEGC	Document: Data on Payment Card Payments	0	0,0	0.0	0	
BSIW	Index table for customer bills of exchange used	8	0,0	0,0	0	
BSIX	Index table for customer bills of exchange used	0	0,0	0,0	0	
CDUDD	Change decurrent beeden	0	0,0	0,0	0	

Figure 76 (

Comparison analysis results

# Capacity analysis display

The displayed total capacity is the sum of all archivable tables. An index created on the database level is not analyzed, unless it is a Microsoft SQL database index table. Otherwise, index table size is about 50% of the total capacity.

Movement data and master data not allocated to an archiving object is not included in the capacity analysis.

Document dis	stribution analysis
	This section describes how to analyze document distribution using the ABAP/4 program /PBS/ANA_VERTEILUNG.
Initialization	Before starting the first document distribution analysis the ViewPoint for SAP Database Analyzer Plus database tables must be reconstructed in the SAP R/3 system by starting the ABAP

for SAP Database Analyzer Plus database tables must be reconstructed in the SAP R/3 system by starting the ABAP /PBS/ANA\_ERSTAUFBAU by copying the entries of the database table /PBS/ANA\_AR\_DEF into the table /PBS/ANA\_AR\_OBJ, and supplementing it with the table names of the SQL database.

ABAP /PBS/ANA\_ERSTAUFBAU is also used to delete all existing analyses.

#### **Database analysis** Use this procedure to run the document distribution analysis.

1. Start the ABAP /PBS/ANA\_VERTEILUNG.

**Note:** Run the ABAP /PBS/ANA\_VERTEILUNG as a background process checking the progress of the run with the protocol entries of the own jobs.

Depending on the database system, ABAP /PBS/ANA\_VERTEILUNG starts a corresponding ABAP for the construction of the capacity analysis. The document distribution selection screen appears, as shown in Figure 77.

	<ul> <li>↓ □</li> <li>□</li> <li>□</li></ul>
BS DB Analyzer: Con	str. document distribution
•	
<u></u>	
Name document run	Document Distribution before archiving
from entry period - year	1 2000
to entry period - year	12 2003
to entry period - year	12 2003
to entry period - year	12 2003
to entry period - year Accounting	12 2003
Accounting	
Accounting Sales	✓ ✓
Accounting Sales Purchasing	▼ ▼ ▼
Accounting Sales Purchasing Cost accounting	× × × ×
Accounting Sales Purchasing Cost accounting Cost center LI Material docs.	× × × ×
Accounting Sales Purchasing Cost accounting Cost center LI	× × × × ×
Accounting Sales Purchasing Cost accounting Cost center LI Material docs. Production Orders	× × × × ×

#### Figure 77 Document distribution selection screen

2. Enter information for the following fields.

**Name document run** — Descriptive title for the analysis run.

**From entry period - year** — Enter the beginning month and year for analysis.

**To entry period - year** — Enter the ending month and year for analysis.

**Module list area** — Select the modules to be included in the analysis run.

The analysis data is stored in database tables /PBS/ANA\_BE\_LFN and /PBS/ANA\_BE\_TXT under a sequential run number and can be analyzed as described next in "Analyze document distribution" on page 120.

# Analyze document distribution

Table 22 lists the ABAP/4 programs used for the document distribution analysis.

#### Table 22

#### ABAP/4 area analysis

Program	Area
/PBS/ANA_BKPF	Document distribution financial accounting – BKPF
/PBS/ANA_VBUK	Document distribution sales – VBUK
/PBS/ANA_EKKO	Document distribution purchasing – EKKO
/PBS/ANA_COBK	Document distribution cost accounting – COBK
/PBS/ANA_COEP	Document distribution COEP
/PBS/ANA_AUFK	Document distribution order
/PBS/ANA_MKPF	Document distribution material document
/PBS/ANA_MARA	Document distribution material record

The following example follows the document distribution analysis for financial accounting with the program /PBS/ANA\_BKPF.

Starting /PBS/ANA\_BKPF displays the financial accounting selection screen, as shown in Figure 78.

도 <u>P</u> rogram <u>E</u> dit <u>G</u> oto System <u>H</u> e	lp
S 10	📙 🔞 I 🧟 🔛 I 🖓 I 🖓 I 🖓 I 💭 🕰 I 🕱 🚱 🖳
PBS DB Analyzer: Evaluat	tion document splitting BKPF
$\odot$	
Selections	
Client	to 🌩
Company code	to 🗢
Calendar year	to
Document type	to 🗢
Document analysis run no.	1
Sort by	
Client	1
Company code	2
Calendar year	3
Document type	4
Calendar period	5
Doc. analys.	
Download results	

Figure 78 Financial accounting document distribution selection screen

**Selections** Client — Enter the beginning and ending client number.

**Company code** — Enter the beginning and ending company code.

Calendar year — Enter the beginning and ending year.

**Document type** — Enter the beginning and ending document type number.

**Document analysis run number** — Enter the sequential document analysis run number.

**Sort by** Assign a number from 1 to 5 to each sort criteria. To suppress a sort criterion leave that field blank. Ensure entered numbers are sequential and start with 1.

**Doc. analys.** — Enables later archivability analysis for BKPF, VBUK, EKKO, COBK, and COEP.

**Download results** — Downloads analysis results locally.

A document distribution for financial accounting documents appears, as shown in Figure 79.

⊡ _List_!	<u>E</u> dit <u>G</u> o	to Syst	em <u>H</u> el	p			
<b>(2)</b>	se38		۵	4 🔒 H	C 🙆 🔇 I 🖴 🕯	1 (B)   \$1 10 (C	) 💫   🔀 🕻
PBS I	D <mark>B A</mark> n	alyzei	r: Eval	uation	document s	olitting BKPI	=
Run 6 Belegg	3 Analyz 3001: 01 größe (B /ERTEILU	/1993 - yte) 2.	12/200		documents I	Date 14.	MING 01.2003 05.2002 e 21
MANDT	BUKRS	JAHR	BLART	PERIOD	Number	Size (KB)	Size %
100	1000	2002	SA	* *	1	2	0,00
100	1000	2002	WL	02	1	2	0,00
100	1000	2002	WL	* *	1	2	0,00
100	1000	2002	* *	**	5	10	0,01
100	1000	* * * *	* *	* *	28.175	58.386	36,39
100	2000	1995	AB	05	1	2	0,00
100	2000	1995	AB	* *	1	2	0,00
100 100	2000 2000	1995 1995	DZ DZ	07 11	1	2 2	0,00 0,00
100	2000	1995	DZ	* *	2	4	0,00

#### Figure 79 Document distribution financial accounting

Financial accounting document distribution values appear, as shown in Figure 80.

PBS DB Analyzer+: Distribution acc. documents		HEMMING
Run 0084: 01/1950 - 12/2002	Date	21.01.2003
Doc. Size (Byte) 2.122	Run date:	02.12.2002
TEST		Page 1

#### Figure 80 Financial accounting document distribution values

These document distribution values originate from capacity run number 0084 created with program /PBS/ANA\_VERTEILUNG, and was constructed from period 01, year 1950 to period 12, year 2002. The average size of a document is 2,122 bytes which originated from the last capacity analysis. The run was stored with description TEST. Client 100 and company code 1000 contain a total of 2,8175 financial accounting documents, occupying a capacity of 58,386 KB, as shown in Figure 81.

100	1000	2002	WL	* *	1	2	0,00
100	1000	2002	* *	* *	5	10	0,01
100	1000	* * * *	* *	* *	28.175	58.386	36,39

#### Figure 81 Client/company code details

# Branching to the archivability check

It is possible to check the archivability of documents in a certain period from within the distribution analysis by double-clicking the desired line of data if option **Document analysis** was selected, as shown in Figure 82.

100	S300	1999	AB	07	2	4	0,00
100	S300	1999	Ab	08	2	4	0,00
100	\$300	1999	AB	* *	4	8	

#### Figure 82 Document analysis

Only documents belonging to the current client can be analyzed for archivability. The result of the check displays information, as shown in Figure 83.

Detai	l log			<< <test run="">&gt;&gt;</test>
Posti	FisYr	Posting date	Document no.	Log text
				Document can be archived Document still has open items

#### Figure 83 Archive detail log

For the documents of client 100, company code S300, year 1999, document type AB of period 08, the archivability check shows that one of the associated documents has open items and cannot be archived.

# Comments on the document distribution

The distribution of documents according to period and year uses entry date of the corresponding database table, except for the distribution of COEP records. This table does not contain an entry date and uses the fields year and period instead. Sales documents using /PBS/ANA\_VBUK Table 23 lists the selection criteria for sales document objects.

Table 23

#### 3 Sales document selection criteria

Selection Criteria	Application
A	Orders
L	Delivery notes
F	Invoices

## Cost center line items using /PBS/ANA\_COEP

The the first two digits of field COEP-OBJNR are an important criterion for archiving cost center line items with CO\_ITEM. Depending on the language used these two digits are substituted with a three-digit abbreviation. This allocation is defined in dictionary table TBO01.

Table 24 lists the two digits definitions.

#### Table 24 Cost Center Line Items selection criteria

Selection Criteria	Object type
AO	Reconciliation object
BP	Business process
EO	Result object
HP	Cost object
IA, IB, IC, IG, IM, IV	Real estate management
KL	Cost center/activity type
KS	Cost center
NP	Net plan
NV	Network activity
OP	Order item
OR	Order

Selection Criteria	Object type
OV	Operation
PR	PSP element
VB	Sales document item

#### Table 24 Cost Center Line Items selection criteria (continued)

## Archivability check

The archivability check utility checks the archived status for archiving objects FI\_DOCUMNT (financial accounting documents), SD\_VBAK (orders), RV\_LIKP (delivery notes), SD\_VBRK (invoices), and MM\_EKKO (purchase orders), and provides information about documents not archived.

Checking archivability

The archiving check of archiving objects FI\_DOCUMNT, SD\_VBAK, SD\_VBRK, RV\_LIKP, and MM\_EKKO provides information about the transaction data in the SAP system and if that data fulfills the criteria for an archiving run after all business-related procedures are complete.

Financial accounting documents The ABAP /PBS/ANA\_ARCHIVE\_FI\_DOCUMNT provides an overview of all financial accounting documents for the delimited period and displays the reason if a document cannot be archived. Double-click a document for more details of an accounting document, as shown in Figure 84.

م 00 of	FI Do	cuments for	Archiving	1	
Detai				<pre></pre>	
Posti	FisYr	Posting dat	e Document no.	Log text	
0001 0001 0001 0001 0001 0001	1995 1995 1995 1999 1999 1999	01.01.1995 28.07.1995 31.12.1995 19.01.1999 19.01.1999 19.01.1999	4700000000 4900000000 200000000 100000000 100000001 100000001 1000000	Document can be archived Document still has open items Document can be archived Recurring, sample or parked document Document still has open items Document still has open items	
0001 0001 0001 0001 0001	1999 1999 1999 1999 1999	19.01.1999 19.01.1999 19.01.1999 19.01.1999 19.01.1999 19.01.1999	100000 100000 100000 100000	I KA 18000002 1999	]
og of Statis		cuments for	Archiving Res LnC	ult analysis document item Description	
CoCde	Selec	t Archive		Document has open	
0001		11 2	0		

Figure 84

FI document selection results

#### Sales documents

Sales documents are analyzed and listed according to archiving objects for orders, invoices and delivery notes, displaying results for each document, as shown in Figure 85. Double-click a document for more details for a sales document.

Archiving orders - check relevance for archiving
Archiving orders - check relevance for archiving 1
Messages if customizing tables are not maintained completely.
No residence time for (sales organization, order type) Invalid sales organization or order type. Table TVARA is not maintained.
<ul> <li>3 Archiving control not maintained for this document</li> <li>4 Document created after &amp;</li> <li>5 Subsequent document (order) &amp; incomplete</li> <li>6 Subsequent document (billing document) &amp; incomplete</li> <li>7 Subsequent document (billing document) &amp; incomplete</li> <li>8 Accounting documents for this document are not cleared</li> <li>9 Follow-on doc. &amp;1 entered after &amp;2</li> <li>10 Purchase orders still exist for this doc.</li> <li>11 Purchase requisitions still exist for this document</li> <li>12 Customer-specific check &amp; prevents archiving</li> <li>13 Costs still exist for this document (CO checks)</li> <li>Archiving orders - check relevance for archiving</li> <li>2</li> </ul>
🛠 Doc. Sales organization Order type
𝚱ℓ 1 . 2 . 3 . 4 . 5 . 6 . 7 . 8 . 9 . 10 . 11 . 12 . 13 .
≪2 1 . 2 . 3 . 4 . 5 <b>%</b> 6 . 7 . 8 . 9 . 10 . 11 . 12 . 13 .
ওু Doc. 0000005045 Sales organization 1000 Order type SO

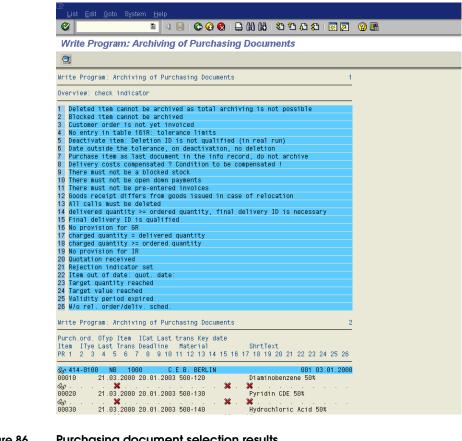
#### Figure 85 Sales orders selection results

The archivability checks carried out match the SAP archiving checks for orders, invoices, delivery notes as follows:

- orders /PBS/ANA\_ARCHIVE\_SD\_VBAK
- invoices /PBS/ANA\_ARCHIVE\_SD\_VBRK
- delivery notes /PBS/ANA\_ARCHIVE\_RV\_LIKP

## Purchasing documents

The archivability check for purchase orders matches checks carried out by SAP displaying results for each document, as shown in Figure 86. Double-click a document for additional document details.



#### Figure 86 Purchasing document selection results

The ABAP for purchase orders is /PBS/ANA\_ARCHIVE\_MM\_EKKO.

#### Forecast

ViewPoint for SAP Analyzer Plus analyzes five archiving objects. For more information contact EMC support.

## Capacity analysis examples

The output of all archiving objects belonging to the sales module appears using the following selection criteria, as shown in Figure 87:

- Selection Application SD
- Formation of Pool Archiving object
- ♦ Sorting Size
- Options Details

Kapazität	HALYZER: PLATTENPLATZBELEGUNG VON ARCHIVOBJEKTEN Zeit Lauf-Nr. 0001 vom 19.02.1998 : 1.086.618 KB sanalyse IDES, vor Archivierung		
Kapazität   Anteil Se	der selektierten Daten : 113.586 KB elektion am Lauf : 10 %		
Objekt	Objektbezeichnung Tabellenname	Summe (KB) Größe (KB)	
SD_VBAK VBAP CKIS KEKO VBEP VBAK VBPA KONV VBFA CDPOS NAST STXH CKIT CMFP VBKD VAFA VBKD VBKD VBUK KEPH VAKPA VBUP CDHDR	<pre>Verkaufsbelege Verkaufsbeleg: Positionsdaten Positionen Einzelkalkulation/Einzelnachweis Erz. Erzeugniskalkulation - Kopf Verkaufsbeleg: Einteilungsdaten Verkaufsbeleg: Kopfdaten Vertriebsbeleg: Partner Konditionen (Vorgangsdaten) Vertriebsbelegfluß Änderungsbelegpositionen Nachrichtenstatus STXD SAPscript Text-Datei Header Texte zu CKIS Speicherstruktur für die gesammelten Fehler Verkaufsbeleg: Kaufmännische Daten Vertriebsidez: Auftragspositionen zu Material Vertriebsidez: Kopfstatus und Verwaltungsdaten Herstellkostenelemente der Erzeugniskalkulation Vertriebsidez: Aufträge zu Partnerrollen Vertriebsleg: Positionsstatus Änderungsbelegkopf</pre>	<b>60.027</b> 7.729 6.922 6.762 4.666 4.017 3.993 3.466 3.211 2.468 2.405 1.853 1.812 1.512 1.512 1.509 1.368 1.364 1.257 1.167 1.022 393	
SD_COND KONM KONW	Konditionssätze der Preisfindung Konditionen (Mengenstaffel 1-dimensional) Konditionen (Wertstaffel 1-dimensional)	<b>7</b> 5 2	<b>0,0 0,0</b> 0,0 0,0 0,0 0,0

Figure 87 Sales module example

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The output of all archiving objects appears using the following sort according to size criteria, as shown in Figure 88:

#### • Formation of Pool — Archiving object

Sorting — Size

Kapazität Lauf-Nr. 0001 vom 19.02.1998 :1.086.618 KBDatum 20.02.1998Kapazitätsanalyse IDES, vor ArchivierungSeite1Kapazität der selektierten Daten :1.086.618 KBSeite1Anteil Selektion am Lauf :100 %00Objekt Objektbezeichnung100 %Summe (KB)Sel (%) Ges (%)FI_DOCUMNT Finanzbuchhaltungsbelege144.64113,313,3CO_ORDER Aufträge mit Bewegungsdaten138.78012,812,8CO_ALLO_ST Vollständig stornierte Belege Umlage, Vert.,118.07510,910,9PCA_OBJECT Summensätze und Einzelposten im EC-PCA94.1018,78,7IDOCIntermediate Document87.7558,18,1SD_VBAK Verkaufsbelege60.0275,55,5CO_COSTCTR Kostenstelle - alle Daten (incl.Stellenstamm)43.4884,04,0
Kapazität der selektierten Daten1.086.618 KBAnteil Selektion am Lauf:100 %Objekt Objektbezeichnung100 %FI_DOCUMNT Finanzbuchhaltungsbelege144.64113,3CO_ADER Aufträge mit Bewegungsdaten138.78012,8CO_ALLO_ST Vollständig stornierte Belege Umlage, Vert.,118.07510,9PCA_OBJECT Summensätze und Einzelposten im EC-PCA94.1018,78,7SD_VBAK Verkaufsbelege60.0275,55,5CO_COSTCTR Kostenstelle - alle Daten (incl.Stellenstamm)43.4884,04,0
Anteil Selektion am Lauf:100 %ObjektObjektbezeichnungSumme (KB)Sel (%) Ges (%)FI_DOCUMNT Finanzbuchhaltungsbelege144.64113,313,3CO_ORDERAufträge mit Bewegungsdaten138.78012,812,8CO_ALLO_ST Vollständig stornierte Belege Umlage, Vert.,118.07510,910,9PCA_OBJECT Summensätze und Einzelposten im EC-PCA94.1018,78,7IDOCIntermediate Document87.7558,18,1SD_VBAKVerkaufsbelege60.0275,55,5CO_COSTCTR Kostenstelle - alle Daten (incl.Stellenstamm)43.4884,04,0
FI_DOCUMNT Finanzbuchhaltungsbelege144.64113,313,3CO_ORDER Aufträge mit Bewegungsdaten138.78012,812,8CO_ALLO_ST Vollständig stornierte Belege Umlage, Vert.,118.07510,910,9PCA_OBJECT Summensätze und Einzelposten im EC-PCA94.1018,78,7IDOCIntermediate Document87.7558,18,1SD_VBAKVerkaufsbelege60.0275,55,5CO_COSTCTR Kostenstelle - alle Daten (incl.Stellenstamm)43.4884,04,0
CO_ORDERAufträge mit Bewegungsdaten138.78012,812,8CO_ALLO_ST Vollständig stornierte Belege Umlage, Vert.,118.07510,910,9PCA_OBJECT Summensätze und Einzelposten im EC-PCA94.1018,78,7IDOCIntermediate Document87.7558,18,1SD_VBAKVerkaufsbelege60.0275,55,5CO_COSTCTR Kostenstelle - alle Daten (incl.Stellenstamm)43.4884,04,0
CO_ALLO_ST Vollständig stornierte Belege Umlage, Vert.,         118.075         10,9         10,9           PCA_OBJECT Summensätze und Einzelposten im EC-PCA         94.101         8,7         8,7           IDOC         Intermediate Document         87.755         8,1         8,1           SD_VBAK         Verkaufsbelege         60.027         5,5         5,5           CO_COSTCTR Kostenstelle - alle Daten (incl.Stellenstamm)         43.488         4,0         4,0
PCA_OBJECT Summensätze und Einzelposten im EC-PCA94.1018,78,7IDOCIntermediate Document87.7558,18,1SD_VBAKVerkaufsbelege60.0275,55,5CO_COSTCTR Kostenstelle - alle Daten (incl.Stellenstamm)43.4884,04,0
IDOC         Intermediate Document         87.755         8,1         8,1           SD_VBAK         Verkaufsbelege         60.027         5,5         5,5           CO_COSTCTR         Kostenstelle - alle Daten (incl.Stellenstamm)         43.488         4,0         4,0
SD_VBAKVerkaufsbelege60.0275,55,5CO_COSTCTR Kostenstelle - alle Daten (incl.Stellenstamm)43.4884,04,0
GLX-OBJEKT Summensätze und Einzelposten im FI-SL 41.440 3,8 3,8
CV_DRAW Summensätze und Einzelposten im FI-SL 39.173 3,6 3,6
FLC_OBJECT Summensätze und Einzelposten im FI-LC         36.007         3,3         3,3           PM_QMEL         PM-Meldungen         31.288         2,9         2,9
SD_VBRK         Fakturen         31.074         2,9         2,9
MM_EKKO Einkaufsbelege 30.484 2,8 2,8
FI_ACCOUNT Sachkontenstammdaten 29.956 2,8 2,8
RV_LIKP         Lieferungen         22.430         2,1         2,1
MM_MATEEL Materialwirtschaft: Materialbelege 20.437 1,9 1,9
MM_MATNR     MM: Materialstamm     17.588     1,6     1,6       AM_ASSET     Anlage - Stammdaten, Werte und Bewegungen     15.960     1,5     1,5
AM_ASSET     Anlage - Stammdaten, Werte und Bewegungen     15.960     1,5     1,5       CATPROARCH     CATT - Protokoll/Vorgang     12.306     1,1     1,1
CO_KSTRG KOStenträger: Stammdaten und Bewegungsdaten 12.201 1,1 1,1
CO_CCTR_EP Kostenstelle - Einzelposten 11.042 1,0 1,0
PM_EQUI Equipmentstammdaten 10.931 1,0 1,0
CO_COPC Archivierung Erzeugniskalkulationsdaten 8.648 0,8 0,8
PP_WKC Arbeitsplätze 5.947 0,5 0,5
MM_EINA         Einkaufsinfosätze         5.585         0,5         0,5           FI_ACCRECV         Debitorenstammdaten         3.102         0,3         0,3
DM CONTROL Bewegungsdaten der O-Prüfung 2.450 0,2 0,3
FI MONTHLY Verkehrszahlen von Debitor/Kreditor/Sachkonten 2.106 0,2 0,2
CO_BASEOBJ COPC: Bauteil 1.814 0,2 0,2
PM_ORDER PM-Auftrag 1.488 0,1 0,1
PS_PROJECT Projektsystem: Operative Strukturen 871 0,1 0,1
FI_ACCPAYB Kreditorstammdaten         828         0,1         0,1           PM IFLOT Technischer Platz Stammdaten         696         0,1         0,1
PP_ORDER Technischer Platz Stammdaten 683 0,1 0,1
FI_SCHECK Vornumerierte Schecks 545 0,1 0,1
MM_REBEL Materialwirtschaft: Rechnungsbelege 494 0,0 0,0
MM_SPSTOCK MM: Sonderbestände 428 0,0 0,0
MM_ASMD Leistungsstamm 405 0,0 0,0
QM_QMEL         Qualitätsmeldung         339         0,0         0,0           RL_TA         MM-WM         Lagerverwaltung:         Transportaufträge         156         0,0         0,0
MC_SELVS LIS: Gespeicherte Selektionsversionen 142 0,0 0,0
M
PR_ORDER ProzeSauftrag 133 0,0 0,0
CO_ML_ML1 Periodensätze des Material Ledger (CKML1) 84 0,0 0,0
BC_ARCHIVE Archivierung der Archivadministrationsdaten         78         0,0         0,0
EXAMPLE         Beispielobjekt         62         0,0         0,0           SD_VBKA         Kontakte         39         0,0         0,0
SJ_VARA KONTARLE SJ 0,0 0,0 FILENAME Beispielobjekt für die Archivierung 32 0,0 0,0
FI_BANKS Bankstammdaten 29 0,0 0,0
RL_TB MM-WM Lagerverwaltung: Transportbedarfe 28 0,0 0,0
PPPI_ARCH         Prozeßauftrag:         DB-Archivieren         18         0,0         0,0
CO_ML_IDX Indexeinträge Belege zum Material: Material Ledg 17 0,0 0,0
CA_KBLXInterne RW-Belege (Mittelreserv./Festpreise/)130,00,0PS_TEXTProjektsystem: PS-Texte100,00,0
PS_IAI         FOJEKTS         10         0,0         0,0           SD_VTK         SD_Transporte         10         0,0         0,0
PI_PLAN Planungsrezept 3 0,0 0,0
PP_PLAN         Arbeitspläne         1         0,0         0,0

#### Figure 88

#### Archiving objects example

The output using the size of the archive table NAST appears with the distribution of the archiving objects, as shown in Figure 89.

- Selection Archive table: NAST
- Formation of Pos None
- ♦ Sorting Size
- Options Zero values, details

Kapazität	Lauf-Nr. 0	TTENPLATZBELEGUNG VON 001 vom 19.02.1998 : ES, vor Archivierung			Zeit 16:11:5 Datum 20.02.199		SCHUCK
	der selekt lektion am	ierten Daten : Lauf :	8.841 1	KB %			
Tabelle	Object	Bezeichnung			Größe (KB)	Sel (%)	Ges (%)
NAST NAST NAST NAST NAST NAST	SD_VBRK SD_VBAK MM_EKKO RV_LIKP SD_VBKA SD_VTTK	Nachrichtenstatus Nachrichtenstatus Nachrichtenstatus Nachrichtenstatus Nachrichtenstatus Nachrichtenstatus			2.433 2.405 2.316 1.683 3 2	27,5 27,2 26,2 19,0 0,0 0,0	0,2 0,2 0,2 0,2 0,2 0,0 0,0

#### Figure 89 Archive table example

The determination of the document size for the archiving objects appears from the applications SD, MM, and FI using the following criteria, as shown in Figure 90:

\_\_\_\_\_

Selection — Application: SD, MM, FI

Formation of Pool — Archiving object

Sorting — Size

Options - Determine document size, zero values

		_						
אזאג מת מתת			ET ECTING VON	ADOUTIOD	TERMENT	Zeit 16:13:	40 00000	SCHUCK
								SCHUCK
Kapazıtat	analyse IDES	1 VOII 19	.02.1998 :	1.086.	018 KB	Datum 20.02.19	98 Seite	1
Kapazıtats	analyse iDES	, VOL AL	chivierung				Serle	1
	der selektie	Deb		400	402 20			
Kapazilat	der selektie	rten Dat	en :	402.	483 KB			
Antell Sel	ektion am La	uı	:		5/ 8			
Objekt	Objektbezei					Summe (KB)		Cog (%)
	Objektbezei	ciniung					Set (%)	Ges (a)
	Finanzbuchh					144.641	35,9	13,3
FI_DOCOMMI		Anz.:		Byte:	1.644	144.041	55,5	15,5
SD_VBAK	Verkaufsbel		90.074	Byte.	1.044	60.027	14,9	5,5
SD_VBAR			10.041	Purt o.	6 1 2 2	60.027	14,9	5,5
	Summensätze				0.144	36.007	8,9	3,3
SD_VBRK	Fakturen	unu Ein	zerposten im	FI-DC		36.007	7,7	
PD_ARK		Anz.:	10.155	Byte:	3.133	51.0/4	1,1	2,9
MA DWWO	Einkaufsbel		10.155	byte:	3.133	20.484	7,6	2,8
MM_EKKO			0 660	<b>D</b>	2 222	30.484	1,0	2,8
	EKKO Sachkontens		9.669	Byte:	3.228	20.056	7,4	2,8
FI_ACCOUNT					654	29.956	/,4	2,8
		Anz.:	47.149	Byte:	651	00,400		0.1
RV_LIKP	Lieferungen		<b>F</b> 004		2 0 7 0	22.430	5,6	2,1
		Anz.:		Byte:	3.270	0.0 405	5.4	1 0
	Materialwir		Materialbel	ege		20.437	5,1	
MM_MATNR	MM: Materia		0 01 0		6 400	17.588	4,4	1,6
		Anz.:	2.810	Byte:	6.409	5 505		0 5
MM_EINA	Einkaufsinf					5.585	1,4	0,5
	EINA .	Anz.:	2.217	Byte:	2.579			
SD VBKA	Kontakte					l 39	0,0	0,0
SD_VDRA		Anz .	12	Buto	3 287		0,0	0,0
FI BANKS	Bankstammda		12	Dyce:	5.201	29	0,0	0,0
RL TB			ng: Transpor	thedarfo		29	0,0	
SD VTTK	SD Transpor		ng. iranspor	chengite		10	0,0	0,0
SD_VIIK		Anz.:	8	Putor	1.243	10	0,0	0,0
SD COND			° Preisfindun		1.243	7	0.0	0,0
PP_COND		Anz.:	13.726	g Bvte:	1		0,0	0,0
RL LINV					L .	6	0.0	0,0
	NV MM-WM Lagerverwaltung: Inventurzählsätze Histori VBEL Materialwirtschaft: Inventurbelege			6	0,0	0,0		
				4 0	0,0			
FM_BELEG	<ul> <li>Obligo/Ist Einzelposten - Finanzbudgetmanagement</li> <li>Obligo/Ist Einzelposten - Finanzmittelrechnung</li> </ul>				-		0,0	
			sten – Finan ng: Inventur			0	0,0	0,0 0,0
RL_LINKP			ng: Inventur ng: Umbuchun				0,0	0,0
RL LUBU								

Figure 90

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Document size example

### Document distribution analysis examples

An overview of the number of posted documents for each period appears using company code client 800, as shown in Figure 91.

Selection — Client 800, entry year 1995

Formation of Pool — 1. Client, 2. Company code, 3. Posting period

Lauf	0001: 01	ZER: VERTEILUNG L/1990 - 12/199 Byte) 1.644	G BUCHHALTUNGSBELEGE 98 Datum 23		RRSCHUCK
	VERTEILU			Sei	te 1
MANDT	BUKRS	PERIOD	Anzahl	Größe (KB)	Größe %
800	0001	06	1	2	0,02
800	0001	**	1	2	0,02
800 800 800 800 800 800 800 800 800 800	1000 1000 1000 1000 1000 1000 1000 100	01 02 03 04 05 06 07 08 09 10 11	162 106 47 50 557 776 351 181 206 137 119	260 170 75 80 1.246 564 291 331 220 191	3,84 2,51 1,11 1,18 13,20 18,39 8,32 4,29 4,88 3,25 2,82
800  800	1000 	12 **	246    2.938	395    <b>4.717</b>	5,83 69,62
800	2000	01	3	5	0,07
800	2000	02	2	3	0,05
800 800 800	3000 3000 3000	10 11 12	99 231 61	159 371 98	2,35 5,47 1,45
800	3000	**	841	1.350	19,93
800 800 800	4000 4000 4000	05 10 11	1 68 39	2 109 63	0,02 1,61 0,92
800	4000	**	108	173	2,56
800	4200	05	1	2	0,02
800	4200	**	1	2	0,02
800	US01	11	128	206	3,03
800	<b>US01</b>	**	128	206	3,03
800	****	**	4.220	6.775	100,00
***	****	**	4.220	6.775	100,00

Figure 91 Posted documents example

Document volume periods from 1995 to 1996 appears with corresponding company codes for all clients, as shown in Figure 92.

Selection — Entry year 1995 - 1996

Formation of Pool — 1. Posting year, 2. Posting period, 3. Company code

1995       01       3000       722       1.159         1995       01       ****       1.052       1.689       1         1995       02       1000       212       340       6         1995       02       2000       4       6       6         1995       02       3000       42       67       6         1995       02       3000       94       151       6         1995       03       1000       94       151       6         1995       03       3000       209       1       1         1995       04       1000       100       161       1         1995       04       1000       2       3       3         1995       04       ****       1224       199       1         1995       05       1000       1.114       1.788       462         1995       05       2000       2       3       3         1995       05       4000       2       3       3         1995       05       4000       2       3       3         1996       10       3000       152 <th></th>	
1995       01       ****       1.052       1.689       1         1995       02       1000       212       340       6         1995       02       2000       4       6       6         1995       02       3000       42       67       67         1995       02       ****       1       258       414       1         1995       03       1000       94       151       1         1995       03       1000       209       1         1995       04       1000       161       3         1995       04       1000       2       3       3         1995       04       1000       2       3       3         1995       04       1000       2       3       3         1995       04       ****       124       199       1         1995       05       1000       1.114       1.788       462         1995       05       4000       2       3       3         1995       05       4000       2       3       3         1995       05       ****       1.462	1000
1995       01       ****       1.052       1.689         1995       02       1000       212       340         1995       02       2000       4       6         1995       02       3000       42       67         1995       02       ****       1       258       414         1995       03       1000       94       151       1         1995       03       1000       36       58       1         1995       03       ****       1       130       209       1         1995       04       1000       161       1       1       1         1995       04       1000       2       3       3       1	
1995       01       ****       1.052       1.689         1995       02       1000       212       340         1995       02       2000       4       6         1995       02       3000       42       67         1995       02       ****       258       414         1995       03       1000       94       151         1995       03       3000       36       58         1995       03       3000       209       161         1995       04       1000       100       161         1995       04       2000       2       35         1995       04       2000       2       35         1995       04       2000       2       35         1995       04       3000       22       35         1995       05       1000       1.114       1.788         1995       05       2000       2       3         1995       05       4000       2       3         1995       05       4000       2       3         1995       5       4000       22       3	
1995       01       ****       1.052       1.689         1995       02       1000       212       340         1995       02       2000       4       6         1995       02       3000       42       67         1995       02       3000       42       67         1995       02       ****       258       414         1995       03       1000       94       151         1995       03       3000       36       58         1995       03       ****       130       209         1995       04       1000       161         1995       04       2000       2       3         1995       04       2000       2       35         1995       04       3000       22       35         1995       05       1000       1.114       1.788         1995       05       2000       2       3         1995       05       4000       2       3         1995       05       4000       2       3         1995       05       4000       2       3	1996
1995       01       ****       1.052       1.689         1995       02       1000       212       340         1995       02       2000       4       6         1995       02       3000       42       67         1995       02       3000       42       67         1995       02       ****       258       414         1995       03       1000       94       151         1995       03       1000       209       1         1995       03       ****       130       209         1995       04       1000       161         1995       04       1000       2       3         1995       04       2000       2       35         1995       04       3000       22       35         1995       05       1000       1.114       1.788         1995       05       2000       2       3         1995       05       4000       2       3         1995       05       4000       2       3         1995       05       4000       2       3	
1995       01       ****       1.052       1.689         1995       02       1000       212       340         1995       02       2000       4       6         1995       02       3000       42       67         1995       02       ****       258       414         1995       03       1000       94       151         1995       03       1000       36       58         1995       03       1000       209       161         1995       04       1000       161       3         1995       04       2000       2       3       3         1995       04       1000       2       3       3         1995       04       2000       2       3       3         1995       04       3000       22       3       3         1995       05       1000       1.114       1.788       462         1995       05       4000       2       3       3         1995       05       4000       2       3       3         1995       05       4000       2       3 <td></td>	
1995       01       ****       1.052       1.689         1995       02       1000       212       340         1995       02       2000       4       6         1995       02       3000       42       67         1995       02       ****       258       414         1995       03       1000       94       151         1995       03       3000       36       58         1995       03       ****       130       209         1995       04       1000       161         1995       04       2000       2       3         1995       04       2000       2       35         1995       04       1000       161       1         1995       04       2000       2       3         1995       05       1000       1.114       1.788         1995       05       2000       2       3         1995       05       4000       2       3         1995       05       4000       2       3         1995       05       4200       2       3	1996
1995       01       ****       1.052       1.689         1995       02       1000       212       340         1995       02       2000       4       6         1995       02       3000       42       67         1995       02       3000       94       151         1995       03       1000       94       151         1995       03       1000       36       58         1995       03       ****       130       209         1995       04       1000       21       3         1995       04       1000       2       3         1995       04       3000       22       35         1995       04       ****       124       199         1995       05       1000       1.114       1.788         1995       05       2000       2       3         1995       05       4000       2       3         1995       05       4000       2       3         1995       05       4000       2       3         1995       05       4000       2       3	1996
1995       01       ****       1.052       1.689         1995       02       1000       212       340         1995       02       2000       4       6         1995       02       3000       42       67         1995       02       ****       258       414         1995       03       1000       94       151         1995       03       1000       209       161         1995       04       1000       2       3         1995       04       1000       2       3         1995       04       3000       22       35         1995       04       1000       161         1995       04       2000       2       3         1995       05       1000       1.114       1.788         1995       05       3000       56       90         1995       05       4000       2       3         1995       05       4000       2       3         1995       05       4000       2       3         1995       05       4000       2       3	1 <b>996</b>
1995       01       ****       1.052       1.689         1995       02       1000       212       340         1995       02       2000       4       6         1995       02       3000       42       67         1995       02       ****       258       414         1995       03       1000       94       151         1995       03       3000       36       58         1995       03       4000       209       161         1995       04       1000       161       3         1995       04       3000       22       35       35         1995       04       3000       22       35       35         1995       04       1000       161       199       1         1995       04       3000       22       35       35         1995       04       3000       2       3       35         1995       05       1000       1.114       1.788       462         1995       05       3000       2       3       3         1995       05       4000       2	1996
1995       01       ****       1.052       1.689         1995       02       1000       212       340         1995       02       2000       4       6         1995       02       3000       42       67         1995       02       3000       94       151         1995       03       1000       94       151         1995       03       1000       209       1         1995       03       42000       2       3         1995       04       1000       161       3         1995       04       3000       22       35         1995       04       3000       22       35         1995       04       3000       22       35         1995       05       1000       1.114       1.788         1995       05       3000       56       90         1995       05       3000       2       3	1995
1995       01       ****       1.052       1.689         1995       02       1000       212       340         1995       02       2000       4       6         1995       02       3000       42       67         1995       02       ****       258       414         1995       03       1000       94       151         1995       03       3000       36       58         1995       03       ****       130       209         1995       04       1000       161         1995       04       3000       22       35         1995       04       3000       22       35         1995       04       1000       161       199         1995       04       3000       22       35         1995       04       3000       22       35         1995       04       2000       2       3         1995       05       1000       1.114       1.788         1995       05       2000       288       462         1995       05       3000       56       90 <td></td>	
1995       01 $****$ 1.052       1.689         1995       02       1000       212       340         1995       02       2000       4       6         1995       02       3000       42       67         1995       02       ****       258       414         1995       03       1000       94       151         1995       03       3000       36       58         1995       03       ****       130       209         1995       04       1000       2       3         1995       04       2000       2       35         1995       04       3000       22       35         1995       04       3000       22       35         1995       04       3000       22       35         1995       04       3000       22       35         1995       05       1000       1.114       1.788         1995       05       2000       288       462	
1995       01       ****       1.052       1.689         1995       02       1000       212       340         1995       02       2000       4       6         1995       02       3000       42       67         1995       02       ****       258       414         1995       03       1000       94       151         1995       03       3000       36       58         1995       03       ****       130       209         1995       04       1000       161         1995       04       3000       22       35         1995       04       3000       22       35         1995       04       ****       124       199	
1995       01       ****       1.052       1.689         1995       02       1000       212       340         1995       02       2000       4       6         1995       02       3000       42       67         1995       02       3000       94       151         1995       03       1000       36       58         1995       03       4000       209       1         1995       04       1000       161       3         1995       04       3000       22       35	
1995       01       ****       1.052       1.689         1995       02       1000       212       340         1995       02       2000       4       6         1995       02       3000       42       67         1995       02       ****       258       414         1995       03       1000       94       151         1995       03       3000       36       58         1995       03       ****       130       209         1995       04       1000       161       3	
1995       01       ****       1.052       1.689         1995       02       1000       212       340         1995       02       2000       4       6         1995       02       3000       42       67         1995       02       ****       258       414         1995       03       1000       36       58         1995       03       ****       130       209         1995       04       1000       100       161	
1995       01       ****       1.052       1.689       1         1995       02       1000       212       340       340         1995       02       2000       4       6       6         1995       02       3000       42       67       6         1995       02       ****       258       414       1         1995       03       1000       94       151       58         1995       03       3000       36       58       58	
1995       01       ****       1.052       1.689       1         1995       02       1000       212       340       340         1995       02       2000       4       6       6         1995       02       3000       42       67       67         1995       02       ****       1258       414       1         1995       03       1000       94       151       1	1995
1995       01       ****       1.052       1.689       1         1995       02       1000       212       340       340         1995       02       2000       4       6       6         1995       02       3000       42       67       1         1995       02       ****       258       414       1	
1995     01     ****     1.052     1.689       1995     02     1000     212     340       1995     02     2000     4     6       1995     02     3000     42     67	
1995     01     ****           1.052           1.689       1995     02     1000     212     340       1995     02     2000     4     6	1995
1995     01     ****           1.052           1.689       1995     02     1000           212     340	
1995     01     3000     722     1.159	1995
1995         01         1000         324         520           1995         01         2000         6         10	
JAHR PERIOD BUKRS   Anzahl   Größe (KB)   G	JAHR
BELEGVERTEILUNG IDES Seite	
Beleggröße (Byte) 1.644	

Figure 92

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Document volume example

The number of posted documents by document type and year for client 800 appears, as shown in Figure 93.

Selection — Client 800

Formation of Pool — 1. Document type, 2. Posting year

Lauf (	3 ANALYZER: VERTEILUNG BUC 0001: 01/1990 - 12/1998 größe (Byte) 1.644			RRSCHUCK S/ANA_BKPF
BELEG	VERTEILUNG IDES		Sei	.te 1
BLART	JAHR	Anzahl	Größe (KB)	Größe %
AA	1994	130	209	0,29
AA AA	1995 1996	166	267	0,37
AA	1997	182	292	0,40
AA	****	502	806	1,12
AB	1994	13	21	0,03
AB AB	1995	267	429 173	0,59
AB AB	1996 1997	108 25	40	0,24 0,06
AB	****	413	663	0,92
AF	1994	339	544	0,75
AF	1995	722	1.159	1,60
AF AF	1996 1997	1.363 172	2.188	3,03
AF	****	2.596	4.168	5,77
 AN	1994	1	2	0,00
AN	1995	1	2	0,00
AN	****	2	3	0,00
DA	1995	1	2	0,00
DA	1996	2	3	0,00
DA	****	3	5	0,01
DG	1996	2	3	0,00
DG	****	2	3	0,00
DR	1994	6.093	9.782	13,54
DR	1995	298	478	0,66
KA	1995	51	82	0,11
WL	1997	221	355	0,49
WL	****	3.354	5.385	7,46
ZP	1994	21	34	0,05
ZP	1995	96	154	0,21
ZP ZP	1996 1997	117 74	188 119	0,26
ZP	****	308	494	0,68
	****	44.987	72.225	100,00

Figure 93 Posted documents by type example

The document volume of company codes in different clients appears, as shown in Figure 94.

Selection — Entry year 1995 - 1996

Formation of Pool — 1. Posting year, 2. Posting period, 3. Company code

	***	   90.073	·	100,00
 811	****	71	114	0,08
811	2100	71	114	0,08
810	****	24	39	0,03
810	1000	24	39	0,03
800	****	44.987	72.225	49,95
800	US01	200	321	0,22
800	6000	48	77	0,05
800	4200	1	2	0,25
800 800	3000 4000	9.648	15.490 368	10,71
800	2200	4	6	0,00
800	2100	32	51	0,04
800	2000	2.597	4.169	2,88
800	1000	32.227	51.739	35,78
 800	0001	   1	2	0,00
 100	****	44.991	72.232	49,95
100	US01	200	321	0,22
100	6000	48	77	0,05
100	4200	1	2	0,00
100	4000	229	368	0,25
100	3000	9.648	15.490	0,00
100 100	2100 2200	32	51	0,04
100	2000	2.597	4.169	2,88
100	1000	32.231		35,78
 100	0001	1	2	0,00
MANDT	BUKRS	Anzahl	Größe (KB)	Größe 🤅
BELEGV	ERTEILUNG IDES		Sei	te 1
	001: 01/1990 - 12/ röße (Byte) 1.644	1998 Datum 23	0.02.1998 /PE	S/ANA_BKI
	ANALYZER: VERTEIL			RRSCHUCK

Figure 94

Document volume by type example