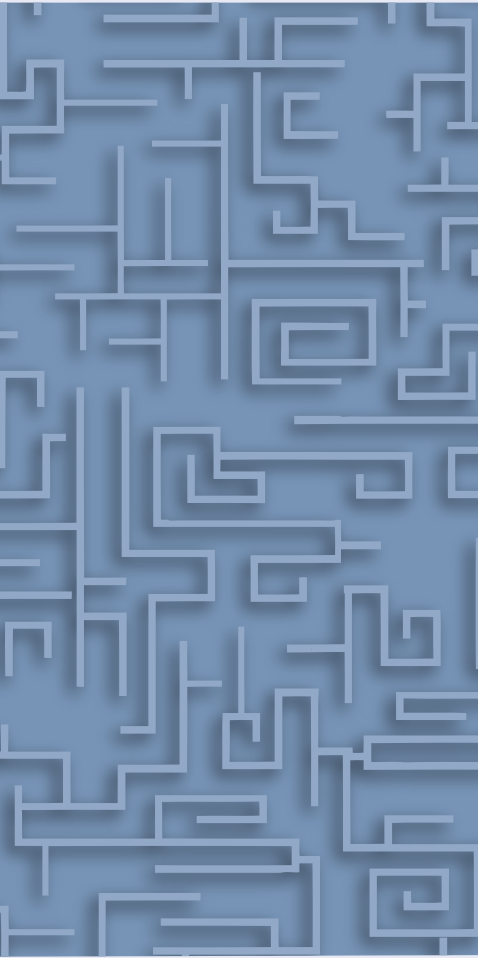




PBS archive add ons for SAP® solutions



Contents

Information Lifecycle Management with PBS	3
Access to archived Data with SAP Standard.....	3
Complete Data Access with PBS archive add ons.....	4
Example Financial Accounting: PBS archive add on CFI	6
Example Sales: PBS archive add on CSD.....	10
Installation of PBS archive add ons	11
Column-based Database Technology as Turbo.....	12
Benefits and Experiences	13
PBS archive add ons: Overview	14
Supported SAP® Systems, PBS Licensing.....	15

Information Lifecycle Management with PBS

Suitable tools need to be used in order to fulfill the diverse requirements of a successful Information Lifecycle Management (ILM) solution in SAP environments. In addition to the display and evaluation of data – including SAP application data that has already been archived – legal regulations regarding the availability of tax-relevant data (Principles of Data Access and Auditing of Digital Documents) as well as compliant storage principles have to be increasingly taken into consideration. Huge volumes of data also necessitate

the use of state-of-the-art data management and analysis technologies so that the various departments are able to access relevant and current enterprise data in a fast and flexible manner. PBS Software provides a wide portfolio of tools that are designed explicitly with the requirements of an efficient Information Lifecycle Management solution in SAP systems in mind.

More than 1000 customers worldwide are using the ILM solutions developed by PBS.

Access to archived Data with SAP® Standard

Not all SAP modules support archive access from within the normal transactions or reports. A list of the transactions/reports that support archiving can be found in the SAP Service Marketplace. SAP provides the Archive Information System (SAP AS) for accessing archived data. On the one hand, the generic tool enables archived data to be accessed via enhanced SAP standard transactions and, on the other, the possibility for customers to develop these access options themselves. After archiving has been performed, SAP

users are generally only able to access the data that has been removed from the database in a restricted manner or even not at all, via the transactions that they are used to. Breaks occur in the document chains, even when the majority of documents are still available. This more often than not results in serious conflicts in interest between the departments and IT due to their absolutely essential archiving often being put off for too long. This results in considerable costs that are necessary to keep operations up and running.

Complete Data Access

with PBS archive add ons

To enable comprehensive and easy-to-use access to data from the archive and the database, PBS Software provides ready-to-run enhancement solutions with its PBS archive add ons for SAP data archiving. They correspond to the respective SAP modules and extend the standard SAP transactions and SAP reports to include optimized archive data access.

Furthermore, they enable simple data extractions as required, for example, when data needs to be provided on storage media for the purpose of company audits.

The PBS archive add ons are standard software solutions and realized completely using tools from the SAP development environment. They rely on SAP data archiving having been performed successfully. PBS archive add ons make sure that you are also able to access all of your data quickly and seamlessly after archiving has taken place. In fact, your archive and database data can be accessed simultaneously. Figure 1 illustrates how you can run an SAP system with PBS archive add ons to enable you to evaluate such data from SAP archives in addition to data from SAP databases.

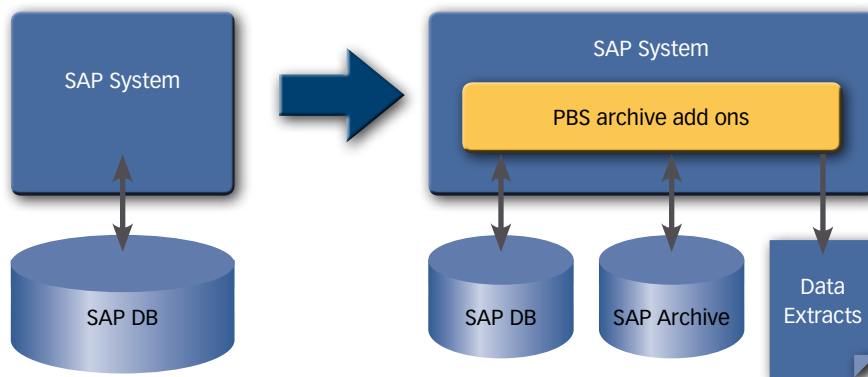


Figure 1
With PBS archive add ons you can evaluate simultaneously data from the SAP database and the archive and create data extracts.

As far as possible, PBS transactions are structured in exactly the same way as original SAP transactions so that SAP users are immediately able to execute the PBS transactions. In this way high acceptance is ensured among the users working in the various departments. The enhancement of the PBS transactions consists of an additional selection parameter with which the user can select the access to the data source, see figure 2 (1 = Database + Archive, 2 = only Database, 3 = Archive).

Line Item Selection

Status

1=DB+archive, 2=DB, 3=archive

1

Figure 2
Determination of the data source when selecting line items (excerpt)

The display of the archived data is integrated in a joint list of data from the database and the archive. The so-called "PBS archive star" * indicates the archived line items.

Vendor 1075
Company Code 1000

Name Tiefland Glass AG
City Leipzig

St	Assignment	DocumentNo	Type	Doc. Date	Amount in local cur.	LCurr	Clrng doc.	A
<input type="checkbox"/>	<input checked="" type="checkbox"/>	20000002711997	ZP	20.07.1997	1.308.110,52	EUR	2000000271	
<input type="checkbox"/>	<input checked="" type="checkbox"/>	51000044361997	RE	10.07.1997	1.048.220,86-	EUR	2000000271	*
<input type="checkbox"/>	<input checked="" type="checkbox"/>	51000044381997	RE	10.07.1997	259.889,66-	EUR	2000000271	*
<input type="checkbox"/>	<input checked="" type="checkbox"/>	20000002721997	ZP	20.07.1997	666,78	EUR	2000000272	
<input type="checkbox"/>	<input checked="" type="checkbox"/>	51000044281997	RE	08.07.1997	339,86-	EUR	2000000272	*
<input type="checkbox"/>	<input checked="" type="checkbox"/>	51000044311997	RE	08.07.1997	326,92-	EUR	2000000272	*
<input type="checkbox"/>	<input checked="" type="checkbox"/>	20000002921997	ZP	22.08.1997	1.759.708,21	EUR	2000000292	
<input type="checkbox"/>	<input checked="" type="checkbox"/>	51000044651997	RE	07.08.1997	897.995,22-	EUR	2000000292	*
<input type="checkbox"/>	<input checked="" type="checkbox"/>	51000044681997	RE	07.08.1997	861.712,98-	EUR	2000000292	*

Figure 3
Line items that originate from an archive are indicated with a star.

When totals are calculated, the complete set of data consisting of archive and database data is taken into consideration.

Example Financial Accounting: PBS archive add on CFI

The PBS archive add on CFI for Financial Accounting enables the simultaneous display and evaluation of data from the SAP database and archives. The user is able to navigate seamlessly into archived and non-archived documents. The name of the transaction differs only by its prefix. In this way, the SAP transaction `FB03` for displaying documents in Financial Accounting becomes the PBS transaction `/PBS/FB03`. Execution does not differ from the original SAP transaction, see figure 4.

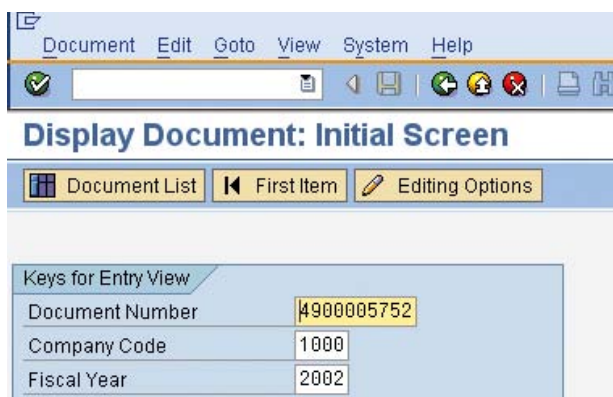


Figure 4
Document display via the transaction `/PBS/FB03`: Initial Screen

Simply the 'PBS archive star' signalizes that the document has already been archived, see figure 5.

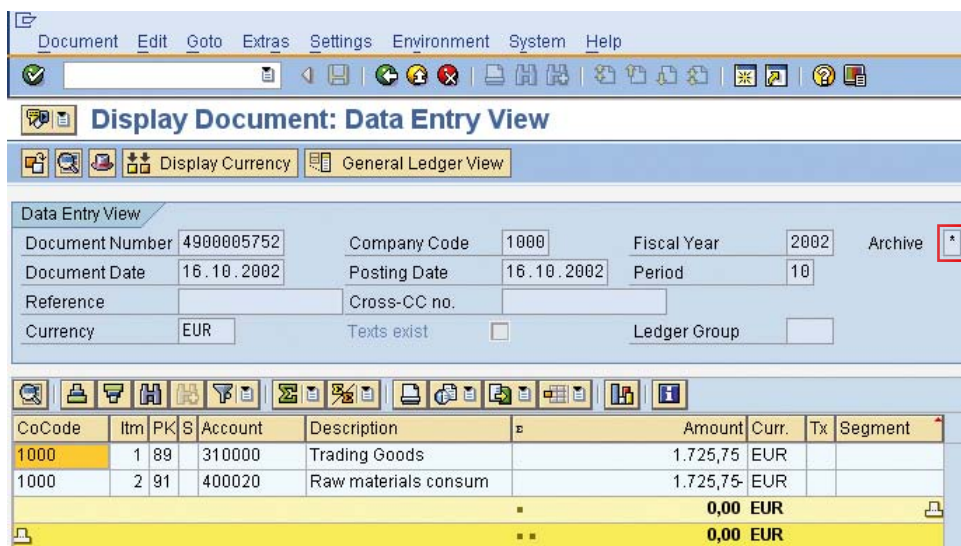


Figure 5
Document display via the transaction `/PBS/FB03`: Result

In the same way that you can display a document without any knowledge of its physical origin, you are also able to execute a report that creates a list of line items for a fixed G/L account. You can use the selection parameter 1 to display both line items from the database as well as from the archive, see figure 6.

The screenshot shows the 'Line Item Selection' screen in SAP. It is divided into three main sections:

- G/L account selection:** Contains input fields for 'G/L account' (400020) and 'Company code' (1000), each with a 'to' field for range selection.
- Selection using search help:** Includes 'Search help ID' and 'Search string' fields, and a 'Search help' button.
- Line Item Selection:** Contains a 'Status' section with a legend '1=DB+archive, 2=DB, 3=archive'. The value '1' is selected and highlighted with a red box. Below this are three radio button options:
 - Open Items: Includes an 'Open at Key Date' field with the value '23.05.2011'.
 - Cleared Items: Includes 'Clearing Date' and 'Open at Key Date' fields.
 - All Items: Includes 'Posting Date' fields with the value '16.10.2002'.

Figure 6
Line item report G/L accounts: Initial screen for account 400020 and posting date October 16, 2002

Figure 7 shows the list of all documents from the database and archive for the selected account with the account number 400020 (material consumption).

St	Assignment	DocumentNo	BusA	Typ	Doc. Date	PK	Amount in local cur.	LCurr	A
		4900005473	3000	WA	16.10.2002	91	2.250,00-	EUR	*
		4900005474	3000	WA	16.10.2002	91	1.034,00-	EUR	*
		4900005475	3000	WA	16.10.2002	91	368.130,00-	EUR	*
		4900005476	3000	WA	16.10.2002	91	373.243,00-	EUR	*
		4900005477	3000	WA	16.10.2002	91	1.725,75-	EUR	*
		4900005478	3000	WA	16.10.2002	91	89,50-	EUR	*
		4900005479	3000	WA	16.10.2002	91	820,00-	EUR	*
		4900005480	9900	WA	16.10.2002	91	122,50-	EUR	*
		4900005481	3000	WA	16.10.2002	91	3.323,00-	EUR	*
		4900005482	3000	WA	16.10.2002	91	2.250,00-	EUR	*
		4900005483	3000	WA	16.10.2002	91	562,00-	EUR	*
		4900005484	3000	WA	16.10.2002	91	2.250,00-	EUR	*
		4900005485	3000	WA	16.10.2002	91	1.034,00-	EUR	*
		4900005486	3000	WA	16.10.2002	91	368.130,00-	EUR	*
		4900005487	3000	WA	16.10.2002	91	373.243,00-	EUR	*
		4900005488	3000	WA	16.10.2002	91	1.725,75-	EUR	*

Figure 7
Line item report G/L accounts: List of line items (excerpt)

Below is also the archived document with the document number 4900005473 from figure 4.

The PBS archive add on CFI also includes the PBS Data Export Interface that can be used to extract data both from an SAP database as well as from SAP archive files, see figure 8.

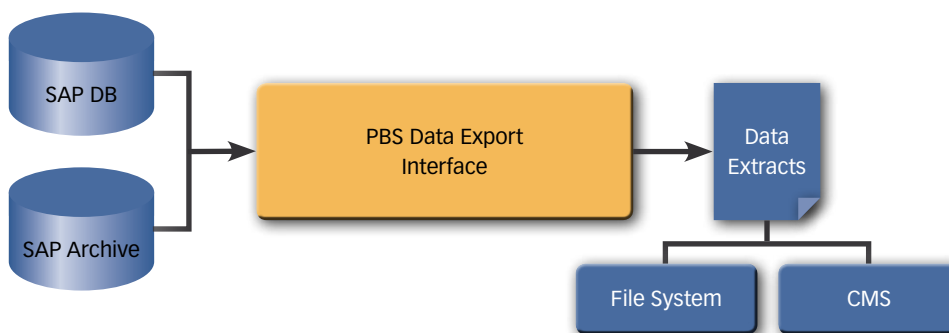


Figure 8
Data export using the PBS Data Export Interface

You can use the Data Export Interface to extract transaction data, master data, customizing data, or any other data. The data extracts can be stored in a file system or a content management system. In order to export transaction data you need to define the company code, the name, and the file directory of the extract, see figure 9. Once you have selected whether the data export should be performed for individual periods, for a fiscal year, for a transaction, or for a key date, you define the documents that you want to extract and start the program in the background.

Selection criteria

Company code: 1000 to []

Name: Data export 01/2001 - 16/2001

File directory: /pbs/leon/

Data export

Period-related

Fiscal year-related

Fiscal year-related

Fiscal year: 2001

Activity-related

Key date-related

Extended selection for asset documents

Depreciation Area: 01

Report date: 31.12.2011

Generate data extract for

	Field variant	Maintain	Execute	File name
<input checked="" type="checkbox"/> Accounting documents	/PBS/6DPDU	[]	[]	BKPF_DOC
<input checked="" type="checkbox"/> Asset docs	/PBS/6DPDU	[]	[]	ANLA_DOC

Figure 9
Data export for transaction data (excerpt)

The extracts are stored in SAP AIS format (SAP Audit Information System) so that you are able to directly evaluate the extracted data in an analysis program. It is also possible to perform an evaluation of the data extracts using the Data Export Viewer, see figure 10. The Data Export Viewer generates a list of the extracted documents in the SAP system based on the path and the name of the extract.

Display AIS files in an SAP ALV list

CoCd	DocumentNo	Year	Typ	Itm	Pstng Date	Doc. Date	AccTy	G/L	Account short text	PK	Tx	Crcy	Amount	LCurr
1000	0100005795	1997	RV	1	07.01.1997	07.01.1997	D	0000140000	Elektromarkt Bamby G	01	A1	DEM	37.763,70	EUR
1000	0100005795	1997	RV	2	07.01.1997	07.01.1997	S	0000800000	Sales revenues - dom	50	A1	DEM	8.150,00	EUR
1000	0100005795	1997	RV	4	07.01.1997	07.01.1997	S	0000800000	Sales revenues - dom	50	A1	DEM	9.440,00	EUR
1000	0100005795	1997	RV	8	07.01.1997	07.01.1997	S	0000800000	Sales revenues - dom	50	A1	DEM	5.848,00	EUR
1000	0100005795	1997	RV	6	07.01.1997	07.01.1997	S	0000800000	Sales revenues - dom	50	A1	DEM	9.400,00	EUR
1000	0100005795	1997	RV	5	07.01.1997	07.01.1997	S	0000175000	Output tax	50	A1	DEM	1.416,00	EUR
1000	0100005795	1997	RV	3	07.01.1997	07.01.1997	S	0000175000	Output tax	50	A1	DEM	1.222,50	EUR
1000	0100005795	1997	RV	7	07.01.1997	07.01.1997	S	0000175000	Output tax	50	A1	DEM	1.410,00	EUR
1000	0100005795	1997	RV	9	07.01.1997	07.01.1997	S	0000175000	Output tax	50	A1	DEM	877,20	EUR
1000	0100005795	1997	RV	1	07.01.1997	07.01.1997	D	0000140000	Elektromarkt Bamby G	01	A1	DEM	37.763,70	EUR

Figure 10
Data Export Viewer: Document list for a data extract (excerpt)

You can select the required view of the data via the free field selection in the SAP ListViewer.

Example Sales:

PBS archive add on CSD

With the PBS transactions you are not only able to display resident and archived documents, but also navigate from an archived document to the preceding and follow-on documents.

List of Sales Orders

Sold-to party 0000002200
HTG Komponente GmbH
Hannover

Doc. date 01.01.1997 To 30.06.1997

PO number	Doc. Date	SaTy	SD Doc.	Created by	Sold-to pt	Net value	Curr.	A
DG-19970513-2	13.05.1997	OR	5098	BOLLINGER	2200	139.312,00	DEM	*
DG-19970421-1	21.04.1997	OR	5077	BOLLINGER	2200	96.846,00	DEM	*
DG-19970415-2	15.04.1997	OR	5069	BOLLINGER	2200	83.339,00	DEM	*
DG-19970307-1	07.03.1997	OR	5057	BOLLINGER	2200	118.130,00	DEM	*
DG-19970221-1	21.02.1997	OR	5042	BOLLINGER	2200	101.102,00	DEM	*
DG-19970128-1	28.01.1997	OR	5014	BOLLINGER	2200	24.108,00	DEM	*
DG-27011997-2	27.01.1997	OR	5006	BOLLINGER	2200	35.842,00	DEM	*
DG-24011997-3	24.01.1997	OR	4999	BOLLINGER	2200	32.485,00	DEM	*
DG-23011997-4	23.01.1997	OR	4993	BOLLINGER	2200	40.851,00	DEM	*
DG-21011997-1	21.01.1997	OR	4972	BOLLINGER	2200	28.604,00	DEM	*

Figure 11
Display of an order list that contains archived and non-archived orders

This means that you can, for example, display a list of orders for a sold-to party that includes resident and archived orders, see figure 11.

From the list you navigate to the detail view of an order independent of the physical origin of the document. As the star in figure 12 shows, the selected document is an archived order.

Display Standard Order 4972: Overview

Standard Order Arch. Net value DEM

Sold-to party HTG Komponente GmbH / Wernerstrasse 42 / D-30519 Hannover

Ship-to party HTG Komponente GmbH / Wernerstrasse 42 / D-30519 Hannover

PQ Number PQ date

Figure 12
Detail view of an archived order (excerpt document header)

From the detail display you can display an overview of the document flow, see figure 13.

Document	On	Status	A	Quantity	Unit	Ref. value	Currency
Standard Order 0000004972 / 10	21.01.1997	Completed	*	3	PC	2.500,22	EUR
Delivery 0080003375 / 10	24.01.1997	Completed		3	PC		
Picking request 19970124 / 10	24.01.1997	Completed		3	PC		
GD goods issue:delvy 0049005877 / 1	28.01.1997	complete		3	PC	3.581,30	DEM
Invoice (F2) 0090005212 / 10	28.01.1997	Completed	*	3	PC	4.890,00	DEM
Accounting document 0100005840 / 10	28.01.1997	Cleared	*	3	PC	14.624,94	EUR

Figure 13
Document flow for an archived order

Although the order has already been archived, you can display the document flow from the archived document and navigate to the respective documents.

Installation of PBS archive add ons

Simply basic knowledge about the SAP system and the operating system is required in order to install the PBS archive add ons. Generally, the system/archive administrator installs the PBS software him or herself. The standard SAP authorization checks are performed in all transactions and

evaluations supplied by PBS. User training is not necessary due to the PBS transactions being largely identical to the standard SAP transactions. Instead of the original SAP transactions, the users execute transactions with the same name in the PBS namespace.

Column-based Database Technology as Turbo

With PBS software you can benefit from the advantages of column-based database technology by saving considerable disk space through high compression on the one hand, and by vastly improving runtimes and response time through accelerated indexing on the other. This technology is particularly suitable when very large volumes of data in the multi-terabyte range are involved. With its PBS Nearline Analytic Infrastructure (PBS NAI), PBS has a nearline solution that makes it possible to use column-based database technology in operative SAP systems. NAI stands out during the processing of application data due to considera-

bly shorter runtimes with simultaneous data compression. You, as a user of PBS archive add ons, can also benefit from these advantages by implementing the PBS Nearline Analytic Infrastructure (NAI) and using both together. By connecting the PBS archive add ons via an interface, PBS archive add ons can completely access the functions of NAI; the PBS archive add ons are then compatible with NAI. In this way, all advantages of NAI can be used when processing archives, whereby indexing and accessing the archives is performed via the NAI database, see figure 14. NAI can also be used during the creation of data extracts.

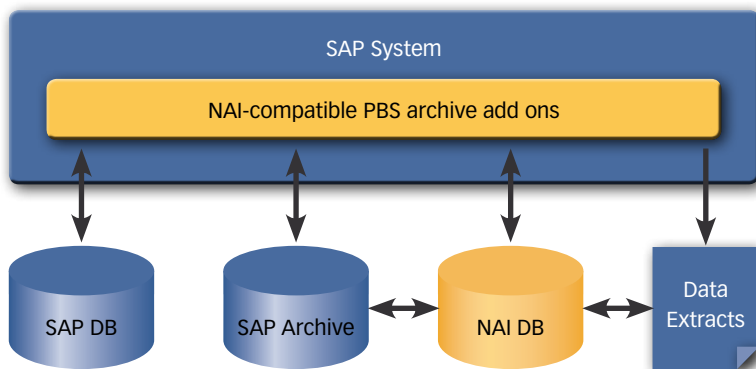


Figure 14
NAI-compatible PBS archive add ons

The newest versions of some PBS archive add ons such as CPCA, CFI, CSD and CCOPA are already NAI-compatible and can therefore be used immediately with the nearline solution PBS NAI. In this way, all advantages of NAI can be used – also in systems where PBS archive add ons are already being

used. PBS is currently in the process of enhancing all PBS archive add ons. You can find more information on the Nearline Analytic Infrastructure in our [White Paper 'PBS Nearline Analytic Infrastructure for operative SAP systems'](#).

Benefits and Experiences

By using the PBS archive add on CFI for Financial Accounting, a company was able to save a data volume of 2 TB in the course of 4½ years in the financial accounting area alone. The 2 TB reduced load on the database was achieved simply by archiving accounting documents (archiving object FI_DOCUMENT) and then deleting the documents from the database.

- Using PBS archive add ons enables the timely archiving of SAP data without information being lost. This procedure is extremely convenient for the user. Considerable savings result in the areas of hardware and operating costs.
- Data backup is accelerated considerably and the system response times improve significantly.
- There is no capacity load on the database when the archive data is being read because it – like the PBS indices – is stored outside the database.
- By using the PBS archive add ons the archive data can be made accessible to several systems without any redundancies. The cost-saving effects (disk space, backup, and batch runtimes) that can be achieved by data archiving are multiplied as a result.
- Particularly when operating multi-terabyte systems, it is recommended to combine the use of PBS archive add ons with the PBS Nearline Analytic Infrastructure to achieve further considerable optimization with regards to a faster data backup as well as faster response times. In this way it is possible to run SAP systems that have a document volume of more than a billion archived documents.
- Due to the transactions being largely identical to the standard SAP transactions, user training is not necessary.
- It is possible to navigate within document chains via mouse click to preceding and follow-on documents. When doing this it is irrelevant whether the document is still in the database or has already been archived.
- No user customizing is necessary due to the integration with the SAP system. All available SAP users can be integrated without effort.
- Data extractions can be performed simultaneously from the database and from the archive.

The NAI-compatible PBS archive add ons CPCA and CCOPA are already being used by European and American customers. Feedback from customers shows optimization of runtimes by a factor of 10 when generating the archive indices. Even more noticeable is the optimization with regards to the archive access: Here, runtime improvements are possible by a factor of more than 100.

PBS archive add ons: Overview

PBS Software provides multiple PBS archive add ons for many SAP modules, for example, for Financial Accounting:

- The PBS archive add on CFI is a standard solution for displaying and evaluating archived financial accounting documents for the SAP FI module and archived material documents for the MM module. The PBS archive add on CFI was certified by a leading auditing company. It is confirmed that when PBS functionality is used appropriately, both the Generally Accepted Accounting Principles and the Principles of Data Access and Auditing of Digital Documents are fulfilled.

For more information, please refer to the brochures **Display and Evaluation of Archived Accounting and Material Documents** and **Data Export Interface**.

- Different PBS archive add ons are available in the area of Controlling, such as:
 - **CO line items and totals records CCO**
 - **Costing-based profitability analyses CCOPA**
 - **Profit Center line items CPCA**

The following PBS archive add ons are available for the SAP Logistics module:

- Purchasing: You can find current information on this in the **CMM Product Specification**.
- Sales: You can find current information on this in the **CSD Product Specification**.
- Agency business: For this, please refer to the **CAB Product Specification**.
- Production orders: You can find current information on this in the **CPP Product Specification**.

PBS provides further enhancement solutions for Human Resources and for various industry solutions. You can find an overview of the PBS archive add on for the Utilities and Customer Care & Service (CISU) industries in the brochure **Effective Display and Evaluation of Archived SAP IS-U / CCS Documents**.

Further PBS archive add ons address, for example, the Data Retention area that you can read about in the CDART White Paper **To enhance the SAP Data Retention Tool**.

In the White Paper **PBS ILM Solutions** you can find information about the PBS archive add ons and nearline solutions for SAP NetWeaver Business Warehouse.

Supported SAP Systems, PBS Licensing

There are PBS archive add ons for many SAP solutions (such as ERP, ISU, BW and others). You can find out more information in the respective White Papers and product specifications. You can find an overview on our website under *Product Portfolio*.

You are welcome to test our PBS archive add ons for two months free-of-charge.

The pricing model for PBS software is based on the number of SAP application system (e.g. ERP) users, the so-called 'named users', or the number of contracts or contract accounts for SAP IS solutions.

We provide hotline support for PBS customers with a maintenance contract.

PBS concentrates on software development. Our many consulting partners provide consultancy and project support.

PBS solutions can be purchased directly from PBS or via one of our accordingly authorized partners.

For more information and a complete list of partners, please refer to our website under the section *Buy*.



PBS Software GmbH

PBS Software is a leading provider of add-on software for SAP solutions in the areas data archiving, extraction and storage as well as system closings and has been considered as an expert for complex, integrated data accesses to archived or nearline data in SAP applications for many years. In addition to the classical SAP data archiving the extensive PBS solutions also support the SAP BW-specific nearline storage concept that enables completely new ILM application scenarios together with the column-based analytics server Sybase IQ.

PBS develops pragmatic ILM tools in close collaboration with SAP and supports the new SAP ILM solution as SAP SOFTWARE SOLUTION PARTNER.

For more information:

www.pbs-software.com

PBS Software GmbH

Schwanheimer Strasse 144 A
64625 Bensheim, Germany

phone: +49 62 51 / 174 - 0

fax: +49 62 51 / 174 - 174

e-mail: info@pbs-software.com

www.pbs-software.com



© Copyright 2011 PBS Software GmbH. All rights reserved.

No part of this brochure may be reproduced or transmitted in any form or for any purpose without the written permission of PBS Software GmbH. The information contained herein may be changed without prior notice. Microsoft, Windows are registered trademarks of Microsoft Corporation. IBM, IBM DR550, IBM TSM and SSAM are trademarks or registered trademarks of IBM Corporation. Linux is a registered trademark of Linus Torvalds in the USA and other countries. UNIX is a registered trademark in the USA and other countries, licensed exclusively through X/Open Company Limited. HP, HP-UX11 Apache are trademarks or registered trademarks of Hewlett-Packard Company. EMC, EMC Centera are trademarks or registered trademarks of EMC Corporation. Hitachi, Hitachi HCAP are trademarks or registered trademarks of Hitachi Ltd. NetApp, NetApp Filer are trademarks or registered trademarks of NetApp Corporation. Sybase IQ is a registered trademark of Sybase, an SAP Company. PBS archive add ons is a registered trademark of PBS Software GmbH. SAP, R/3, SAP NetWeaver, SAP NetWeaver Business Warehouse, SAP Industry Solutions and other SAP products and services mentioned herein as well as their respective logos are trademarks or registered trademarks of SAP AG in Germany and other countries. All other product and service names mentioned are the trademarks of their respective companies. Data contained in this document serves informational purposes only. PBS Software GmbH shall not be liable for errors or omissions with respect to the materials. The only warranties for products and services are those that are set forth in the express warranty statements accompanying such products and services, if any. Nothing herein should be construed as constituting an additional warranty.