

CPM

the PBS archive add on for Plant Maintenance

Manual Part B

- Administration -

Compatible with

- SAP R/3 4.0
- SAP R/3 4.6C
- SAP R/3 Enterprise
- SAP ERP 5.0
- SAP ERP 6.0
- SAP ERP 6.17

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Introduction to the PBS ILM Concept

Information Lifecycle Management

Information Lifecycle Management (ILM) means the administration of information related to the time when it is used, taking into account its total costs and compliance. A conclusive, efficient ILM concept must, as a result, control data growth, manage retention rules, and also ensure compliant data storage. Furthermore, an easy access to archived data is decisive and, for example, its transfer during internal and external audits.

PBS ILM Concept

PBS software provides existing SAP customers extensive solutions to put into practice the requirements that were described above for a stringent and successful ILM concept. PBS is considered as an expert for complex, integrated data accesses to archived and database data and meanwhile, also to data that is located on decommissioned SAP systems. In addition to classical SAP data archiving, SAP BI-specific nearline storage is also supported.

PBS archive add ons®

PBS archive add ons always rely on SAP archiving having been carried out successfully. This is the basis for a permanently high-performing SAP system. In principle, you can indeed retain posted documents in the SAP database for a very long time due to a large database capacity. Depending on the document volume, this may result, however, in massive performance losses and, sooner or later, heavily increasing operation costs. The daily backup becomes difficult for large data stocks, for example.

A convenient display and evaluation of archived transaction data – as the SAP user is used to for database data – can often only be carried out in a very restricted manner using SAP standard means depending on the application module. This is particularly the case for large archive data stocks. The PBS archive add ons can be used here. They can be provided for nearly all SAP modules and release levels, and start with a "C" (for Complete) in their description. For example, PBS archive add on CCOPA for the SAP module COPA.

Using the PBS archive add ons you can quickly and easily access your archived data even after data archiving during your day-to-day business. The unrestricted data access is realized by an intelligent indexing concept. It extends the SAP archive infrastructure components and integrates itself optimally with SAP archiving. Archive data that has been indexed can still be provided after a release upgrade immediately, without restrictions, and without migration effort. The PBS archive index is stored in sequential files of the SAP file system in the same way as the SAP archive data. Afterwards, you can access the archive data online via the familiar transactions. The SAP user can display the data from the SAP database and the



archive data simultaneously via the PBS archive add on index. For the user, it seems as though the archived data is still in the SAP database.

The deep integration of the PBS transactions also enables direct navigation to subsequent and previous documents both within the indexed SAP module as well as to linked documents from other SAP modules. This applies not only for resident but also without restrictions for archived data. The benefit for the user increases the more PBS archive add ons are used.

The potential benefits of the ILM concept raises substantially if you take into account the savings that result from the SAP mirror systems. There are usually at least two of them meaning that the saved disk storage can be tripled by performing data archiving. Thus, time is saved for the data backup.



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1. Introduction

The **PBS** archive add ons are constructed in modular form and cover the application modules FI, SD, MM, CO etc. with a special program package for exactly this application. You can easily see from the name which *PBS* archive add on belongs to which SAP module: CFI, CSD, CMM, CCO etc. All *PBS* archive add ons have in common that they can be easily installed in the SAP R/3 system via the SAP transport utilities "tp" and "SAINT". For installation details of the *PBS* archive add ons please see the specific installation manual (manual part A).

This administration manual was written to make construction and administration of the *PBS archive add on CPM* as easy as possible. At first, data archiving with transaction SARA is discussed; the second topic is the PBS index construction from the SAP archive files.

The modular user manual of each *PBS archive add on* is composed of partial manuals:

nstallation

- Part B: Administration, Archive Construction and Maintenance
- Part C: Application Programs / Transactions
- Part D: Migration Support R/2 => R/3 (if available)

There are additional manuals for the PBS utilities: Conversion Tool, Archive Browser, Translation Tool.

Should you have questions regarding the installation of the *PBS archive add ons* or if you have problems when installing the software please call directly the **Service Hotline of PBS Software GmbH**:

Phone:	+49 - 6251 - 174 110
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Release Compatibility

The **PBS** archive add on **CPM** discussed in this manual runs with the basis programs of SAP SE, D-69190 Walldorf/Baden, R/3 system, releases 4.0, 4.6C, **Enterprise, ERP 5.0, 6.0**.



2. Overview on the PBS archive add on CPM

2.1. Object Names for SAP Releases up to 3.1

As already explained in the installation manual (part A), from release 4.0 PBS Software GmbH has an own naming area. The names of the transactions described in this manual are originated exclusively from this naming area. For customers using a SAP release up to 3.1, we list now the transactions of the PBS naming area used in this manual along with those for the releases up to 3.1. For a complete list of all objects please refer to the text file log.txt which you receive with the transport (see installation manual).

Release 4.x	Release 3.x	Description
/PBS/IW33	ZW33	Display maintenance work orders form database and archive
/PBS/IW39	ZW39	Selection maintenance work orders from database and archive
/PBS/CPMO	ZCPM	Menu CPM
/PBS/MAIN	ZPBS	Menu PBS



2.2. Supplied Menus

Together with the *PBS archive add on CQM* a global menu is supplied for all products and utilities of PBS Software GmbH and a menu especially for the *PBS archive add on CPM*. This menu can be called up to release 4.5 via the transaction /PBS/PBS (or ZPBS in 3.1). All programs described in this manual and the user transactions are contained in the menu.

From release 4.6 the navigation has completely changed due to the implementation of the SAP Easy Access technique. This has also its effects on the transactions in the environment of the *PBS archive add ons*.

The delivery of the PBS archive add on CPM contains range menus /PBS/PBS (main menu of the PBS modules), /PBS/CPMO (maintenance orders and notifications), /PBS/CPME (equipment master data) and /PBS/CPMN (serial number history). From these menus, you have to generate now activity groups (4.6 B) respectively roles (from 4.6C) which then can be integrated into the user master. You can also create an activity group/role directly from the Easy Access menu.



You are free to choose the name of the activity group/role; the name can also be within the PBS naming area. A PBS range menu is then transferred by pressing the function key **'Transfer menus from range menus'** by indicating the corresponding PBS menu name. During the transfer, the system query for the resolution of the range menu is to be answered with 'yes'.

The role/activity group created this way can now be integrated in the corresponding user master. We recommend to allocate global activity group/role /PBS/PBS to the administrators and the special function menus /PBS/CPMO, /PBS/CPME and /PBS/CPMN to the final users.

User	STEFFEN					
Last changed by	STEFFEN	12.09.2000	13:08:33	Status	Saved	
Address Logon data Defaults Parameters Roles Profiles Groups CP						
Role Typ Valid from Valid to Text						
/PBS/PBS		9	01.01.0001	31.12.9999		
						•



2.3. Basic Information on the PBS archive add on CPM

The *PBS archive add on CPM* is a package of ABAP/4 programs which enables the comfortable and performant display and evaluation of archived Service and Maintenance Orders, Service and Maintenance Notifications, Equipment Master Data and Serial Number History data in the R/3 online system. All transactions displaying archived data are based on the SAP transactions. This guarantees that the users can work immediately with the archive transactions without special training.

The administrative task of the *PBS archive add ons* is to construct and activate the PBS archive and, in case of problems, to analyze the archive with the tools you receive together with the software.

The basis for constructing and using the *PBS archive add on CPM* always is a successful data archiving with SAP means and the access to the archive file created this way. From 4.0B, this access can also be realized with "Archive Link" via an optical archive system. In any case, the status of the archive file must be qualified with "Accessible".

The PBS archive add on CPM uses the archiving runs of the archiving objects:

PM_ORDER	PM/SM order
PM_QMEL	PM notification
SM_QMEL	Service notification
PM_EQUI	Equipment
PM_OBJLIST	Serial Number History

Note:

The archiving objects PM_QMEL and SM_QMEL are supported only in the SAP releases 4.0, 4.6C, Enterprise, ERP 5.0 and 6.0.

The archiving objects PM_EQUI and PM_OBJLIST are supported only in the SAP releases 4.6C, Enterprise, ERP 5.0 and 6.0.



The SAP archiving program is carried out with transaction SARA. In this manual, we do not describe the standard archiving.

🗁 Archive management: Archiving file detail 🛛 🛛 🖂				
Archive file	002280-001PP_ORDER			
Date	07.02.2000			
Time	08:51:40			
No. of objects	1			
Size in MB	0,624			
Status	ODO Deletion completed			
Index	OCO no index			
Changeable setting	15			
Note				
File name	RPP02070			
Logical path	ARCHIVE_GLOBAL_PATH			
phys. file name	/usr/sap/HE4/SYS/global/RPP02070.ARCHIVE			
	ODO Archive file is accessible			
 ✓ ✓ ✓ 				

Diagram 1: Status of archiving file

You can determine the status of the archive files for the different archiving runs via transaction SARA (see Diagram 1). To achieve correct display of documents and to realize the reporting via the *PBS archive add on*, the deletion run of the SAP archiving must have been successful.

Via the PBS load programs the created SAP archiving runs are read and written in the file system of the *PBS archive add on CPM* (s. installation manual). During this process, secondary indices are created in the file system to guarantee efficient access. If a PBS archive already exists, the load program adds the new data from the SAP archive to this already existing archive.





Diagram 2: Construction of the PBS archive add on CPM

Having constructed the PBS archive, this must still be activated in the R/3 system. For this purpose, please run transaction /PBS/CPMA (Orders), /PBS/CPMMA (Notifications), /PBS/CPMEA (Equipment) or /PBS/CPMNA (Serial Number History). Now, the documents can be displayed from the *PBS archive add on*.

Chapter 2 of this manual describes the programs for the construction and the activation of the *PBS archive add on CPM.*



2.4. Archiving of PM_EQUI and PM_OBJLIST

The transaction SARA is used to access archive equipment master records (archiving object PM_EQUI) as well as serial number history data (PM_OBJLIST). The requested archiving object is entered in the input field "Object name". The action buttons required to archive this object are then displayed:



Diagram 3: Archive Administration Object PM_EQUI

	, (A)			
Archive Administration: Initial Screen				
🙀 😡 Customizing Database tables Information system	em			
Object name PM_OBJLIST @Serial Number History				
Actions				
Archive				
Delete				
Management				

Diagram 4: Archive Administration Object PM_OBJLIST



Special features and dependencies between both these archiving objects are displayed as follows.

2.4.1 Special Features for PM_EQUI

Specific requirements must be met in order to archive equipment master records (archiving object PM_EQUI). In this case, a run that should be executed in advance indicates details on the archivability of equipment. The following errors could occur:

 Before executing the run, a deletion flag was not set for the equipment master records to be selected. The previous run's spool list may then be as follows:



Diagram 5: Display List of Previous Run "Missing Deletion Flag"



Eguipment Edit Goto Extras Structure Environment System Help C Other equipment 🗸 📙 | 😋 🚱 | 📮 備 協 | 谷 谷 島 名 | 🛒 🔁 | 😨 📑 Cr<u>e</u>ate R ent : General data <u>C</u>hange E Measuring points/counters <u>D</u>isplay Display -> Change М Machines Eq Category L<u>i</u>st editing De 📝 Intern.note \square 00 Ctrl+S <u>S</u>ave Sta 0002 E Active <-> Inactive <u>F</u>unctions ÷. Þ. Val late 31,12.9999 Deletion flag ×. <u>S</u>et E⊻it Shift+F3 <u>R</u>eset General data Class Object type AuthorizGroup

In this case set the deletion flag via transaction IE02:

Diagram 6: Set Deletion Flag in Equipment

 If the equipment master record contains serial number data or a serial number history, the following error message could be displayed during the run:



Diagram 7: Display List of Previous Run "Usage found"



This message refers to the fact that links for this equipment exist with serial number data. These links can refer to different documents, such as material documents (goods receipt and goods issue, inspection lots, deliveries, handling units, inventory documents, etc.). The requirement for archiving this equipment is that all documents that exist in the document flow's history are archived and that subsequently the serial numbers are also archived (see Chapter 2.4.2 for further details). In this case, it is essential to ensure that the order for archiving is observed (data from PM_OBJLIST before data from PM_EQUI).

2.4.2 Special Features for PM_OBJLIST

Two basic requirements for archiving serial number data are explained below. If the spool request of the archiving run contains an archiving run number but data objects are not written in an archive file (file does not exist at all, because it is empty), this can be attributed to two reasons:

≧ S <u>p</u> ool request <u>E</u> dit <u>G</u> oto <u>U</u> tilities <u>S</u> ettings System <u>H</u> elp
8 C C C C C C C C C C C C C C C C C C C
Graphical display of spool request 10505 in system K46
🛐 📮 🛱 🖉 🍕 🚇 🧟 🔍 🕨 Settings 🐼 Graphical 🐼 Ra
itatistics of archived objects
Archiving session: 060511

Diagram 8: Spool Order of an "empty" archive file for PM_OBJLIST

Archiving cannot take place as the retention period (residence time) for different document types of serial number data are too long. From Release 4.7 you can find this setting in transaction SARA in the section

Customizing -> Application-specific Customizing -> Archive serial number history



You can call up the setting of residence times in 4.6 via transaction SPRO (SAP Customizing Implementation Guide, see diagram below):

它 Implementation guide Edit <u>G</u> oto <u>A</u> dditional information <u>U</u> tilities System <u>H</u> elp
🖉 💦 (1) (1) (1) (2) (2) (2) (2) (2) (2) (2) (2) (2) (2
Project/View :
😵 🛃 🛛 Existing BC Sets 🦗 BC Sets for activity 🥳 Activated BC Sets for Activity
Implementation Guide for R/3 Customizing (IMG)
D B General Settings D B Enterprise Structure
Enterprise structure Cross-Application Components
Financial Accounting
D 🗟 Treasury
D 🗟 Controlling
Investment Management
D 📾 Real Estate
D By Logistics - General
🔉 🗟 Environment, Health & Safety
Sales and Distribution
D B Materials Management
Logistics Execution
Plant Maintenance and Customer Service
🖙 📑 🖉 Master Data in Plant Maintenance and Customer Service
👂 🛃 🗛 Basic Settings
Technical Objects
General Data Eurotional Locations
 Equipment
Settings for Fleet Management
👂 📑 Object Links
📑 🤩 😂 Define Transaction-Based Default Values for Object Types
Material Data Settings for Plant Maintenance Image: Setial Number Management
B Define Serial Number Profiles
🛃 🤹 Define Serialization Attributes for Movement Types
📑 😳 Define Default Equipment Categories for Serial Numbers
🔒 🤀 Deactivate Lock for Internal Assignment of Serial Numbers
I ransfer of Stock Check Indicator to Serial Numbers
Field Selection for Multi-Level List Display of Serial Numbers
📑 🤀 Archive Serial Number History

Diagram 9: Setting "Archive Serial Number History" from 4.6



In both cases, the table for these settings appears as follows:

Change View "Manage Archiving of History of Serial Numbers": Overview			
🞾 🐼 BC Set: Change field values			
Manage Archiving of History of Serial Numbers			
Serial number history	Days		
For deliveries	99999		
For sales documents	99999		
For goods movements	99999		
For inspection lots	99999		
For production and refurbishment order	99999		
For handling unit	99999		
For inventory	99999		

Diagram 10: Residence times for the Serial Number History document types

Another reason for the non-archivability of serial number data might be the archiving sequence. As already explained at the end of chapter 2.4.1, you must ensure that the documents that are in the serial number history's document flow of an equipment have already been archived. This is a requirement for archiving the respective serial number data. For example, a material document that can also be found in the serial number data (tables OBJK or SER03) needs to be archived using archiving object MM_MATBEL and then the data can be archived per PM_OBJLIST (entries in OBJK and SER03 tables are archived in this case).



3. Construction of the PBS archive add on CPM

3.1. Procedure

The archiving objects PM_ORDER, PM_QMEL, SM_QMEL, PM_EQUI and PM_OBJLIST in the transaction *SARA* (SAP archiving tool) are used to archive maintenance orders, maintenance notifications, service notifications, equipment master records and data of the serial number history from the SAP database. The SAP archiving program archives the orders and notifications in sequential files which can be accessed within the SAP file system. Then the archived orders and notifications are deleted from the database.

Using the PBS load programs, created SAP archive files can now be written in the *PBS archive add on CPM* (archiving objects /PBS/CPMO, /PBS/CPMM, /PBS/CPME and /PBS/CPMS). These load programs read the SAP archive files, create secondary indices and store this data in compressed form on magnetic disks outside the database.

In this way, the archived orders and notifications are available for online processing and can be evaluated easily using the PBS transactions. The PBS transactions correspond to the functionality of the SAP transactions. However, they can read and display the resident data in the R/3 database as well as the archived data from the PBS archive add on CPM.

A daily back-up of the *PBS archive add on CPM* is – in contrast to the SAP database – not necessary as the archive data is no more (cannot be) changed. The SAP archive files created during the next reorganization of the database can be added to the existing *PBS archive add on* using the load programs.



3.2. The PBS load programs

The *PBS archive add on CPM* enables archived orders and notifications from R/3 to remain available for online processing. To do this, construct the *PBS archive add on CPM* for the SAP archive files using the PBS load programs (transaction /PBS/CPML, /PBS/CPMML, /PBS/CPMEL and /PBS/CPMNL). The load programs can process archives of the archiving objects PM_ORDER, PM_QMEL, SM_QMEL, PM_EQUI and PM_OBJLIST.

In the following sections the construction of the *PBS archive add on CPM* is described on the basis of the SAP archiving object PM_ORDER only. Archives from the archiving objects PM_QMEL, SM_QMEL, PM_EQUI as well as PM_OBJLIST can be processed in the same way. Please also see the summary of the transactions at the end of the manual.

The selection screen of the load program for orders (transaction /PBS/CPML) with its delimitations is displayed below

😴 PBS archive add on CPMO: Archive setup program for PBS archive index			
<u>P</u> rogram E <u>d</u> it <u>G</u> oto System <u>H</u> elp			
	2 🞗 📮 🕅 15 🍋 🐃 🚔 🗮 🖉 🖉		
🛛 🕒 🖪 🔂 Selection options			
Program to generate a	archive indices for PBS archive add on CPMO		
for plant maintenanc	ce orders of SAP archive object PM_ORDER		
Select manually: SAP ar	rchive from 01.01.1990		
 Select automatically: SAP arc 	thive from 01.01.1990		
Select plant maintenance orders			
Process all plant maintenance orders from input			
O Process plant maintenance orders: from	1 to 9.999.999		

Diagram 11: Selection screen of the load program for orders



Parameters

• Select manually:

With this option the SAP archive files that are currently available can be selected by pressing the button "SAP archive".

Select automatically:

If this option is selected, all available SAP archive files that were created after the date indicated are processed automatically.

Process all documents

If this option is selected, the SAP archive files that are selected automatically or manually are completely processed.

Process sequential number range: 1 to 9999999

This option enables you to process **exactly one manually selected SAP archive file** in several runs. All orders of the selected SAP archive file are "counted".



Pecularities concerning the load program for equipment and serial number data:

Delete old run:

Via this option, after pressing the button "Run" a list of the SAP archive files which are presently stored in the *PBS archive add on* is displayed. In this list you can select the runs to be deleted.

✓ Delete old data subsequently

Here, you enter whether the old data should be deleted after new data has been loaded into the *PBS archive add on*. For test purposes, you can switch between the different versions (data stocks) in which the *PBS archive add on CPM* is set up, using the program /PBS/CPMEFILE or /PBS/CPMSFILE.

Activate index

By selecting the parameter 'Activate index', administration entries are automatically written at the same time to the table /PBS/CPMEFILE respectively /PBS/CPMSFILE. This function should always be active, because it enables the archive data to be accessed immediately after the index generation program has completed, thanks to the automatic update of the administration table.

If the parameter is not selected, the administration table has to be updated manually (menu option 'Activate main archive') by executing the report /PBS/CPMEFILE respectively /PBS/CPMSFILE (corresponding transaction names) after the indexing run has completed. This indexing variant can be advantageous for the runtime if many load runs are to be performed and the user does not need to access the archive during this time.



3.3. Initial Load Process

If all necessary entries were made in the selection screen of the load program, the selection screen can be stored as a selection variant for the initial construction of the *PBS archive add on CPM* and the report can be started as a background process.

Important:

The PBS archive add on CPM has to be constructed for each client.

During run time, the program generates the *PBS archive add on CPM* from the archive files. When doing this, secondary indices are created from the orders from the SAP archive.

Important:

It is recommended to perform a data backup of the created files after each construction of the *PBS archive add on CPM*, but basically this is not mandatory since the load program can be restarted.

Job log:

After each run of the load program a statistical report is generated, which could be as follows. This statistic is also stored in the *PBS archive add on CPM* and can be displayed later using the transaction /PBS/CPMS.



11.05.1999 PBS archive add on CP	M: Program const	. archive index PM_ORDE	R
User name: Date: Start-of-selection Begin processing archive: 0004 End-of-Selection Start Sort End Sort	13-001PM_ORDER	ZIMMER 11.05.1999 11:36:54 11:36:54 11:37:01 11:37:01 11:37:01	
Objects of the selection screen	1000		
<pre> Select SAP file manually from date (manually) Select SAP file automatically from date (automatically) Archives selected manually: SELECTION R3OBJECT ABDAT Read all production orders Process interval from to</pre>	X 19900101 PP_ORDER 00041 MANU PM_ORDER 19900101 X 1 99999999	.3000413-001PM_ORDER	
PROTOCOL LOAD PR SAP archive runs read (PM_ORD Imported data records (Records) - not selected	ER)	СРМОLОАD 1 20 0	
Production order indices	imported	exported	
<pre>- re order numberAUFNR: - re O Typ/Plnt AUTYP/WERKS: - re O typeAUART/KOKRS: - re PSP elementPSPEL: - re MRP controllerDISPO: - re prod. statisticFEVOR: - re material noMATNR: - re customer orderKDAUF:</pre>	20 20 20 0 20 7 20 5	20 20 20 0 20 7 20 7 20 5	
Archive Data - CLUSTER		exported	
<pre>- re order numberAUFNR: - re O Typ/Plnt AUTYP/WERKS: - re O typeAUART/KOKRS: - re PSP elementPSPEL: - re MRP controllerDISPO: - re prod. statisticFEVOR: - re material noMATNR: - re customer orderKDAUF:</pre>		7 8 8 0 8 2 9 3	
Load run of PBS ar	chive add on CPM	10 scuccessfully complet	.ed !

Tab. 1: Load program log (part 1)



Statistic of archive	d objects		
Archive files: Size in MB:	000427-001/PBS/CPP N 0,038	umber of objects: 47	
Tabelle	Anzahl	Beschreibung	
/PBS/CPMO_HEAD /PBS/CPMO_IHO /PBS/CPMO_IHC /PBS/CPMO_IHD /PBS/CPMO_IHE /PBS/CPMO_IHO /PBS/CPMO_TEXT	7 1 1 1 1 1 38	PBS archive add on CPM: Inde PBS archive add on CPM: Prot	
Archiving run: Size in MB:	000427 number of object 0,038	s: 47	
Tabelle	Anzahl	Beschreibung	
/PBS/CPMO_HEAD /PBS/CPMO_IHO /PBS/CPMO_IHC /PBS/CPMO_IHD /PBS/CPMO_IHE /PBS/CPMO_IHO /PBS/CPMO_TEXT	7 1 1 1 1 1 1 38	PBS archive add on CPM: Inde PBS archive add on CPM: Prot	
Table ADMI_FILES for End-of-programm	entry 005035-001/PBS/	CPMO updated. 15:17:25	

Tab. 2: Load program log (part 2)



3.4. Loading the Administration Table

After the *PBS archive add on CPM* has been constructed using the load program, the administration table has to be loaded into the SAP R/3 system. By doing this, the *PBS archive add on CPM* is activated. The transaction /PBS/CPMA can be used to update the corresponding administration table. The request screen of the report is displayed as follows.



Diagram 12: Selection screen of transaction /PBS/CPMA

The parameter "Select automatically last PBS run" results in the stock that was created by the last load run will be activated. If old stocks exist, they can be activated by selecting them manually via the button "PBS archive". With the option "Select automatically all PBS runs" all available PBS archives will be activated.



3.5. Further Load Processes

Due to the new ADK technique of the load program no merge runs are necessary. A PBS archive index file corresponding to each SAP archive file is generated.

Note:

The load programs for the data of equipment master records (archiving object PM_EQUI) and serial numbers (archiving object PM_OBJLIST) use merge runs, which means that the data to be loaded will be merged with the data from the stock with regard to the indices to be generated.



3.6. Delete PBS Archive Index

Of course, the archive indices created with the transaction /PBS/CPML of the *PBS* archive add on *CPM* can, if necessary, be deleted. In this process the transaction /PBS/CPMD is used to delete again the entries of the PBS archive indices from various database tables. Furthermore, the created file in which the PBS archive indices are stored is physically deleted from the magnetic disk.

The PBS archiving run to be deleted is selected from a list of archiving runs (multiple choice possible). The result of the delete operation is then displayed in form of a log. Besides the deleted components of the PBS archiving run a reference of the administration of the corresponding SAP archiving run is corrected, so that this run can be used again for the construction of a PBS archive index.



3.7. PBS Archive Tool

For the management/test of the *PBS archive add on CPM* the following utilities are available:

Transaction	Short description
/PBS/CPMS	PBS archive add on CPM (orders): Display of the archive contents
/PBS/CPMMS	PBS archive add on CPM (notifications): Display of the archive contents
/PBS/CPMES	PBS archive add on CPM (equipment): Display of the archive contents
/PBS/CPMNS	PBS archive add on CPM (serial number): Display of the archive contents

They allow a (technical) view into the data archived with the *PBS archive add on CPM.* You can display the contents of the secondary indices in question, the references to the orders and notifications themselves, as well as administration information of the *PBS archive add on CPM.* In a basic list, the header entries of the objects used for the storing process and – via selection of certain header entries – the corresponding detailed information is displayed. Via the select option "Document statistics" you can display the construction logs of all load program runs which have been carried out up to now.

The selection screen of the transaction /PBS/CPMS as well as the basic list and the detailed list of the selections are illustrated in Diagram 13, Diagram 14 and Diagram 15.

😴 PBS archive add on CPMO: Display archive contents				
<u>Program Edit G</u> oto System <u>H</u> elp				
	😋 🙆 😒 🖴 👘 🖄 🌤 🐃 🛎 🛒			
© 🖪 🔁				
Client	003			
No. data records	1000			
Start with key				
Archive index 'Order number'	• or			
SecIndex Maintenance schedule	O or			
SecIndex Maintenance item	O or			
SecIndex Equipment	O or			
SecIndex Mainten, planner group	O or			
SecIndex ILOA number	O or			
SecIndex object list	O or			
Doc. statistics	O or			
Run protocols	0			



Diagram 13: Delimitations of the transaction /PBS/CPMS

🖑 Anzeig	je Inhalt F	'BS archive add on CP	/Order - Instandhaltungsaufträge			
System <u>H</u>	<u>H</u> ilfe					
0			C 🚱 🔇 🗎 🖨 🖓 🏵	<u>የ</u> በ የ	1 🗷 🖉 🔞	
Anzeig	e Inhal	t PBS archive ad	on CPM/Order - Instand	altungs	aufträge	
MANDT	SIART	SRTFD	RUN	NUMBR	ARCHIVEKEY	OFFSET
100	IHØ	000000900005	005029	000001	005029-001/PBS/CPM0	13.194
100	IHØ	000009900006	005035	000001	005035-001/PBS/CPMO	13.194
Anzahl	Sätze:				2	

Diagram 14: Basic list for the index order number

🖑 Anzeige Inh	Anzeige Inhalt PBS archive add on CPM/Order - Instandhaltungsaufträge			
System <u>H</u> ilfe				
∥ 🥝 🔽	💽 🗐 💽	😣 🖴 🖨 🔂 3	8008	🐹 🗾 🔞
AUFNR	ARCHIVEKEY	OFFSET	DOCUMENT	ARC-DAT
900000	005028-001PM ORDER	689.727	005028	02.08.2000
900001	005028-001PM_ORDER	694.087	005028	02.08.2000
900002	005028-001PM_ORDER	699.263	005028	02.08.2000
900003	005028-001PM ORDER	703.897	005028	02.08.2000
900004	005028-001PM ORDER	710.615	005028	02.08.2000
900005	005028-001PM_ORDER	713.359	005028	02.08.2000

Diagram 15: Detailed list of first object of the basic list from Diagram 14



3.8. Summary of the PBS Archive Construction

Reorganization of the database with the SAP transaction 'SARA' for the archiving object PM_ORDER, PM_QMEL, SM_QMEL, PM_EQUI and PM_OBJLIST.

Loading of the SAP archive files into the *PBS archive add on CPM* using the transaction /PBS/CPML, /PBS/CPMML, /PBS/CPMEL as well as /PBS/CPMNL.

Activate the PBS archives using the transaction /PBS/CPMA , /PBS/CPMMA, /PBS/CPMEA and /PBS/CPMNA.

Access to the archive can be tested with the transaction /PBS/CPMS, /PBS/CPMMS, /PBS/CPMES and /PBS/CPMNS.



3.9. The Administration Board (from SAP Release 5.0)

The Administration Board contained in the *PBS archive add on CPM* from SAP Release 5.0 (SAP ERP Central Component 5.0) bundles the functions to administrate the PBS archive indices in one tool. The programs (index generation, index activation, index deletion, archive tool) can be called up centrally from the Administration Board. Furthermore, it provides a table overview of the existing active and inactive indices.

You can start the CPM Administration Board via the CPM area menu or directly with transaction /PBS/CPMO_ABO (for maintenance orders) or /PBS/CPMM_ABO (for maintenance or service notifications).

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ŀ	١d	minist	tration Bo	oard CPM	(O) - Active i	indices:	3
	1	BB	1	🖻 🕄 🕒			
		Active indi	ces Inactiv	/e indices			
		Index	created on	User	ADK status	PBS status	
		031628	14.03.2006	HOELZEL	👀 Complete	COO Active	
		031627	14.03.2006	HOELZEL	000 Complete	CCC Active	
		031626	14.03.2006	HOELZEL	👀 Complete	👀 Active	i Fə
٩	Þ		1	1	1	1	
					Þ	E50 (1) (100) 🖪	sun05 INS

Diagram 16: CPM Administration Board

The following functions can be called up from the CPM Administration Board:

Activate index

 The inactive indices that are selected in the Administration Board table are activated (see chapter 3.4).

 Deactivate index

 The selected active indices are deactivated.

 Delete index

 The selected inactive indices are deleted (see chapter 3.6).



Log

2

 \odot

The log for an index generation run displays information about the SAP archives processed.

Scan index objects

Call up of archive tool to display the index content (see chapter 3.7).

Generate index

Call up of load program (see chapter 3.2).

3.10. Directory, Requirement of Disk Space and Run Times

The *PBS archive add on CPM* is constructed in database-independent file systems. Therefore, it is the system administrator's task to reserve free storage capacities for the construction of the PBS archive index. If the directory (ARCHIVE_DATA_FILE) suggested in the SAP file system is not to be used you can use the transactions AOBJ and FILE to enter an own directory for the PBS archiving objects /PBS/CPMO, /PBS/CPMM, /PBS/CPME and /PBS/CPMS. If necessary, this directory must be created physically on the magnetic disk.

The disk space capacities to be provided depend on the number of orders and notifications for which the PBS archive index is to be kept.

Performance and run time during the construction of the archive indices of the *PBS* archive add on *CPM* strongly depend on the efficiency of the system which is used and the data volume to be processed. Definitive expected values regarding the generating of large archives are not available at present.



3.11. Definition of the Path to the PBS archive add on CPM

Archiving objects

The *PBS archive add on CPM* contains a load program that is assigned to an archiving object. Logical data paths, which represent a physical data path, are assigned to the archiving objects in SAP Customizing.

The following archiving object contains the PBS archive add on CPM:

/PBS/CPMO	PBS archive add on CPMO - Orders
/PBS/CPMM	PBS archive add on CPMO - Notifications
/PBS/CPME	PBS archive add on CPM - Equipment
/PBS/CPMS	PBS archive add on CPM – Serial Number

Maintenance via transaction SARA

The Customizing settings of the PBS archive objects can be modified via the transaction SARA.

 \rightarrow SARA

→ Customizing

→ Technical Settings



4. Transactions of the PBS archive add on CPM

The transactions of the *PBS archive add on CPM* are explained in detail in manual part C (user manual). This chapter only gives a general overview on the supplied transactions.

PBS 3x	SAP	Description
ZCPM	-/-	Menu of the PBS archive add on CPM
ZPML	-	Load program of the PBS archive add on CPM for Maintenance and Service Orders
ZPMA	-	Activate the PBS archive
ZPMS	-	Archive tool to inspect the archives constructed up to now
ZPMB	-	Deactivate the PBS archive
ZPMD	-	Delete the PBS archive
ZPMM	-	Manage the PBS archive
ZW33	IW33	Display of Maintenance and Service Orders from database and archive
ZW39	IW39	Select Maintenance and Service Orders from database and archive

Tab. 3: Transactions of the PBS archive add on CPM in SAP release 3.x

PBS 4.x	SAP	Description
/PBS/CPMO	-	Menu of the PBS archive add on CPM
/PBS/CPML	-	Load program of the PBS archive add on CPM for Maintenance and Service Orders
/PBS/CPMA	-	Activate the PBS archives (orders)
/PBS/CPMS	-	Archive tool to inspect the archives constructed up to now (orders)
/PBS/CPMB	-	Deactivate the PBS archives (orders)
/PBS/CPMD	-	Delete the PBS archives (orders)
/PBS/CPMM	-	Manage the PBS archives (orders)
/PBS/CPMML	-	Load program of the PBS archive add on CPM for Maintenance and Service Notifications
/PBS/CPMMA	-	Activate the PBS archives (notifications)
/PBS/CPMMS	-	Archive tool to inspect the archives constructed up to now (notifications)
/PBS/CPMMB	-	Deactivate the PBS archives (notifications)
/PBS/CPMMD	-	Delete the PBS archives (notifications)



/PBS/CPMMM	-	Manage the PBS archives (notifications)
/PBS/CPMEL	-	Load program of the PBS archive add on CPM for Equipment master Data
/PBS/CPMEA	-	Activate the PBS archives (equipment)
/PBS/CPMES	-	Archive tool to inspect the archives constructed up to now (equipment)
/PBS/CPMEB	-	Deactivate the PBS archives (equipment)
/PBS/CPMED	-	Delete the PBS archives (equipment)
/PBS/CPMEM	-	Manage the PBS archives (equipment)
/PBS/CPMNL	-	Load program of the PBS archive add on CPM for Serial Number History
/PBS/CPMNA	-	Activate the PBS archives (serial number)
/PBS/CPMNS	-	Archive tool to inspect the archives constructed up to now (serial number)
/PBS/CPMNB	-	Deactivate the PBS archives (serial number)
/PBS/CPMND	-	Delete the PBS archives (serial number)
/PBS/CPMNM	-	Manage the PBS archives (serial number)
/PBS/IW33	IW33	Display of Maintenance and Service Orders from database and archive
/PBS/IW39	IW39	Select Maintenance and Service Orders from database and archive
/PBS/IW23	IW23	Display of Maintenance Notifications from database and archive
/PBS/IW29	IW29	Select Maintenance Notifications from database and archive
/PBS/IW53	IW53	Display of Service Notifications from database and archive
/PBS/IW59	IW59	Select Service Notifications from database and archive
/PBS/IE03	IE03	Display Equipment: Initial screen
/PBS/IE07	IE07	Multi-Level Equipment List
/PBS/IH08	IH08	Display Equipment: Equipment selection
/PBS/IQ03	IQ03	Display Material Serial Number : Initial
/PBS/IQ09	IQ09	Display Material Serial Number : Serial Number Selection

Tab. 4: Transactions of the PBS archive add on CPM from SAP release 4.x and later

