PBS software

PBS archive add on

CPP

Production Orders

Manual Part C
- Display and Evaluation -

Compatible with

SAP R/3 4.x

SAP ERP 5.0 and 6.0

SAP® Certified
Powered by SAP NetWeaver®

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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 such as FI, SD, MM, CO with a special program package specifically for the application in question. You can easily see from the name which PBS archive add on belongs to which SAP module, for example, CFI, CSD, CMM, CCO. Something that all PBS archive add ons have in common, is that they can be easily installed in the SAP R/3 system via SAP transport utilities "tp" and SAINT. For further details on the installation of the PBS archive add ons please see the installation manual (manual part A).

This manual on the display transaction and application programs was written to support you when using the PBS archive add on CPP. Please see the administration manual (part B) regarding the construction and administration of the PBS archive add on CPP.

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

- Part A: Installation
- Part B: Administration, Archive Construction and Maintenance
- Part C: Application Programs / Transactions

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

Should you have questions or problems regarding the PBS archive add ons please call the PBS Software GmbH Service Hotline:

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Release Compatibility

The **PBS archive add on CPP** discussed in this manual runs with the basis programs of SAP AG, 69190 Walldorf/Baden, for **SAP system releases 4.0, 4.5, 4.6, R/3 Enterprise, ECC 5.0 and ECC 6.0**.

2. Application Functions

2.1. Navigation in PBS archive add on CPP up to 4.5x

PBS has integrated a start menu in its software that corresponds to the SAP standard menu S000 after logging on to the SAP system. The only difference is the additional function key "PBS archive add ons".

In order to use this menu, you only have to enter start menu YPBS for users up to 3.1 or /PBS/PBS for users in all 4.0 releases and /PBS/PBS_45 from release 4.5.

Once you click on the button, you reach the main menu transaction for the PBS archive add ons, which allows you to branch easily to the individual modules.

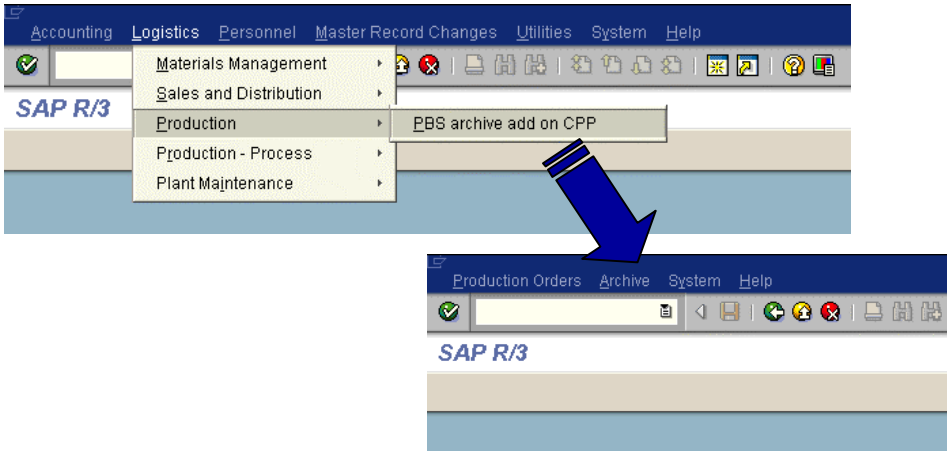


Diagram 1: PBS main menu with branching to PBS archive add on CPP

2.2. Navigation in PBS archive add on CPP from 4.6

From the Easy Access menu you can easily navigate through the functions of the PBS archive add on CPP via the button 'User menu'. This is only possible if your system administrator has added the PBS menu as activity group/role to your user master.

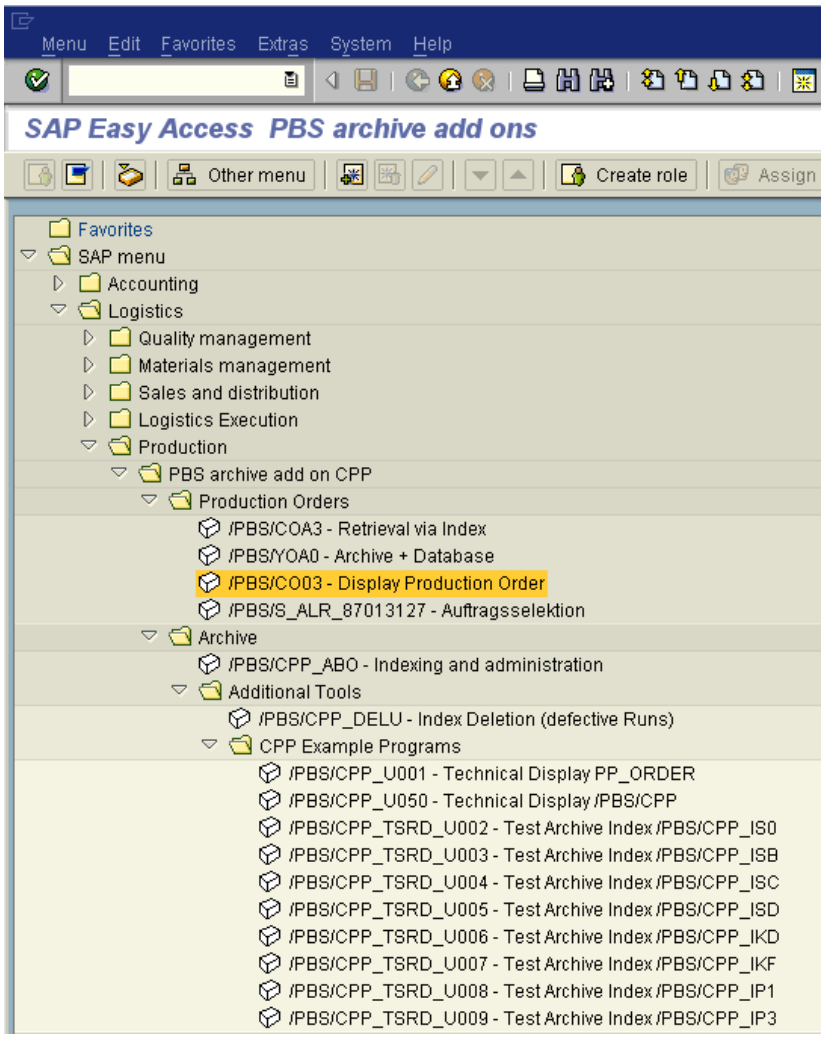


Diagram 2: PBS main menu with branching to PBS archive add on CPP

2.3. Transaction Overview

The latest version of the PBS archive add on CPP provides the display transactions /PBS/COA3, /PBS/YOA0 and /PBS/CO03, allowing the display of the archived production orders via the secondary indices of the PBS archive add on CPP as well as the display of production orders from the SAP database.

PBS	SAP	Transaction Description
/PBS/CPP	-/-	Menu of the PBS archive add on CPP
/PBS/YOA0	-/-	Display production orders from database and archive
/PBS/COA3	COA3	Display archive data via PBS index
/PBS/CO03	CO03	Display production orders from database and archive
/PBS/CPP_ABO	-/-	Administration Board of the PBS archive add on CPP

Table 1: Comparison of transaction names

2.4. Transaction /PBS/COA3

The transaction /PBS/COA3 displays archived production orders via the secondary indices of the PBS archive add on CPP. The selection screen is identical to the SAP transaction COA3 and allows all delimitations via the available secondary indices. This allows an efficient and performant search for the requested production orders.

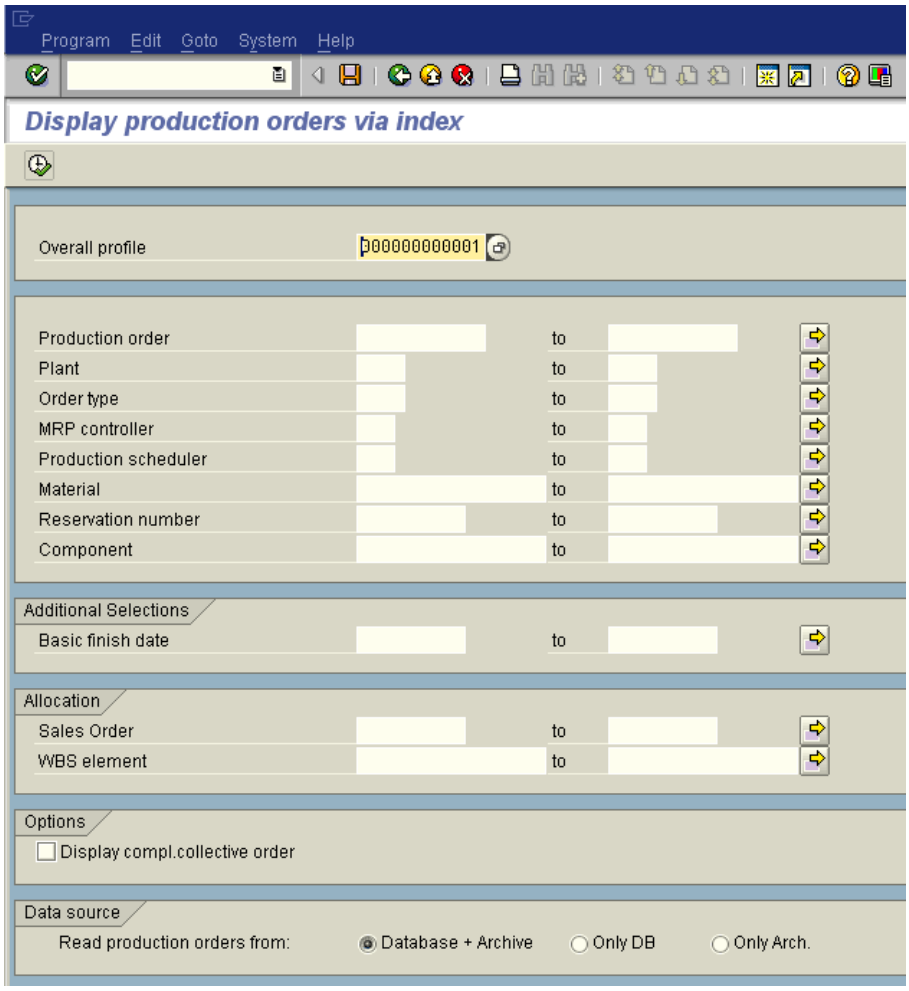


Diagram 3: Selection screen of the transaction /PBS/COA3

Compared to the SAP transaction COA3, a restriction of the production orders to be imported is not necessary, as not all SAP archive files are read sequentially but instead the production orders to be displayed are imported directly via the PBS secondary indices in accordance with the selection delimitations you have chosen.

Identical to the transaction COA3, the selected data is then displayed in a list. Within this result list you can now use the possibilities for detailed displays (displaying the details of the list) known from COA3.

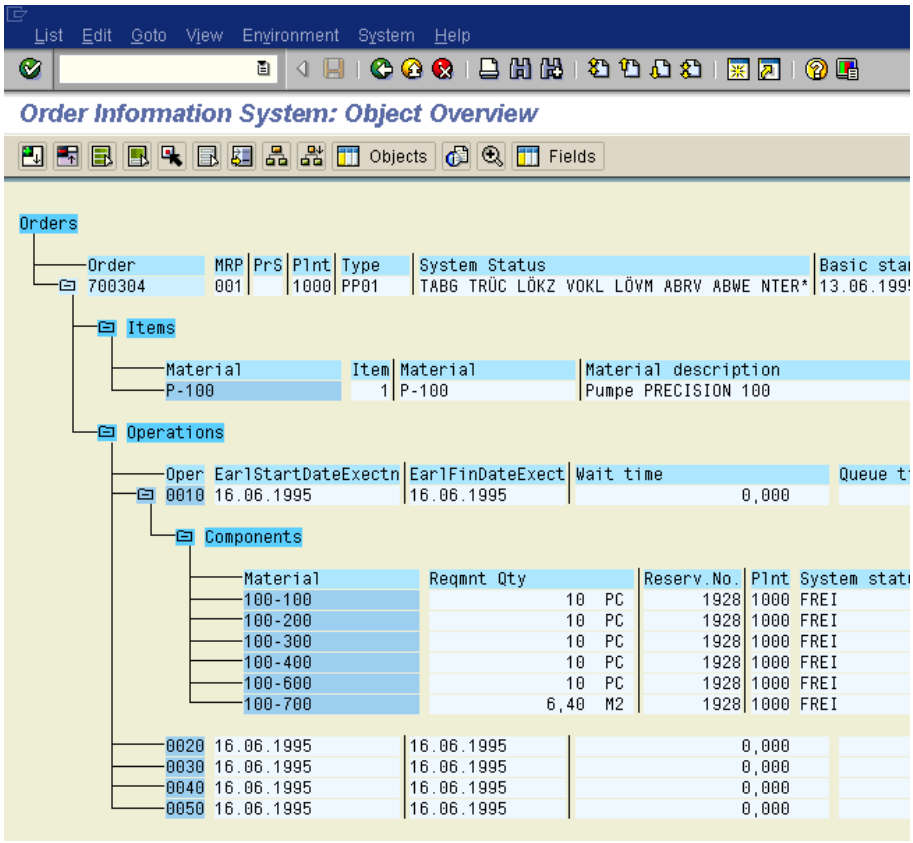


Diagram 4: List display of transaction /PBS/COA3

The diagram above shows as an example the list display of the production order no. 700304. Within this list, the production order was displayed in detail to view the corresponding order items and operations.

2.5. Transaction /PBS/YOA0

Using the transaction /PBS/YOA0 you can display production orders both from the database as well as already archived production orders via the index of the PBS archive add on CPP. The selection of the data to be displayed is again identical to the SAP transaction COA3 or to the transaction /PBS/COA3 respectively, allowing all delimitations via existing secondary indices.

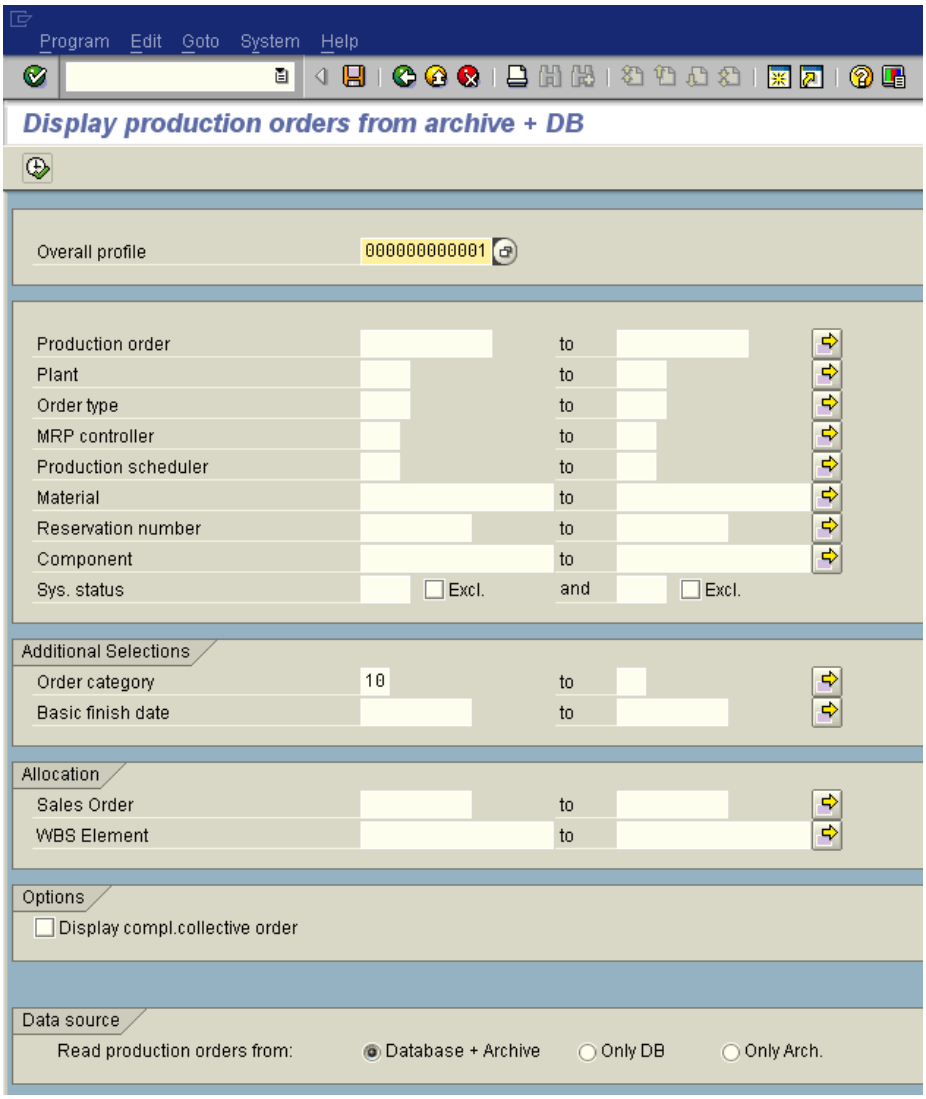
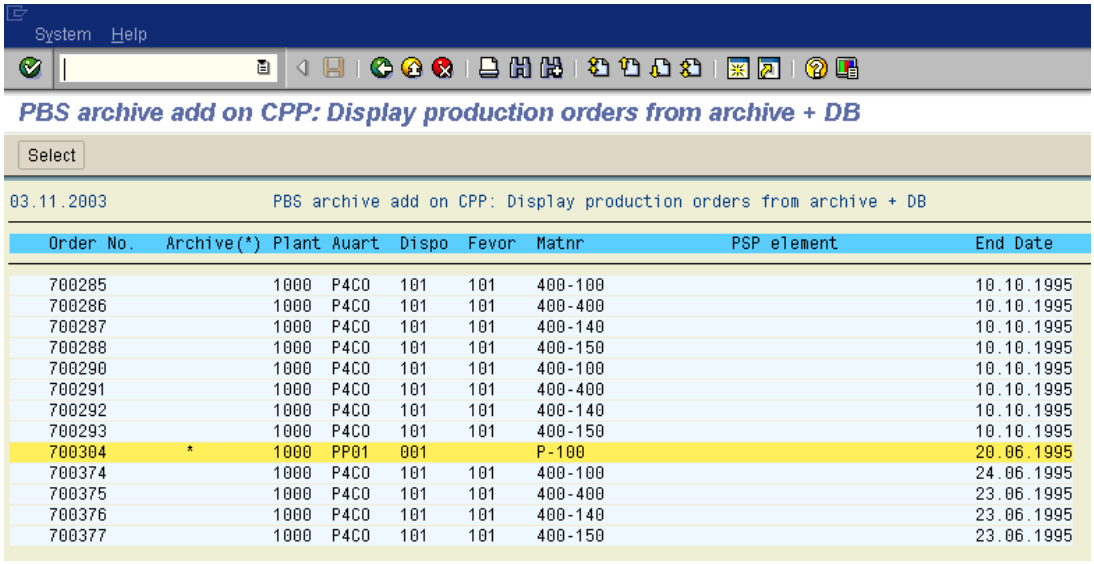


Diagram 5: Selection screen of transaction /PBS/YOA0

A restriction of the production orders to be imported is not necessary (see the description earlier on of the transaction /PBS/COA3), however, you can decide if you want to import production orders only from the archive, only from the database, or **from both sources**.

At first, the selected data is displayed corresponding to the selection screen in a basic list with the most important fields. Due to the highlighting you can easily differentiate the archived production orders read via the PBS index of CPP from those of the database. By positioning the cursor on the order number of the production order in question and clicking the "Choose" button (or by double-clicking on the order number), you can now display the corresponding production order in detail. If the production order is stored in the SAP database you branch to the display transaction CO03. If the requested production order, however, is read from the archive in the PBS archive add on index, it is displayed with the PBS transaction /PBS/CO03.



Order No.	Archive(*)	Plant	Auart	Dispo	Fevor	Matnr	PSP element	End Date
700285		1000	P4CO	101	101	400-100		10.10.1995
700286		1000	P4CO	101	101	400-400		10.10.1995
700287		1000	P4CO	101	101	400-140		10.10.1995
700288		1000	P4CO	101	101	400-150		10.10.1995
700290		1000	P4CO	101	101	400-100		10.10.1995
700291		1000	P4CO	101	101	400-400		10.10.1995
700292		1000	P4CO	101	101	400-140		10.10.1995
700293		1000	P4CO	101	101	400-150		10.10.1995
700304	*	1000	PP01	001		P-100		20.06.1995
700374		1000	P4CO	101	101	400-100		24.06.1995
700375		1000	P4CO	101	101	400-400		23.06.1995
700376		1000	P4CO	101	101	400-140		23.06.1995
700377		1000	P4CO	101	101	400-150		23.06.1995

Diagram 6: Hit list of the transaction /PBS/YOA0; the individual production orders can be selected via double-click.

2.6. Transaction /PBS/CO03

Using the transaction /PBS/CO03 you can display production orders both from the database as well as already archived production orders. The selection of the data to be displayed is again identical to the SAP transaction CO03.

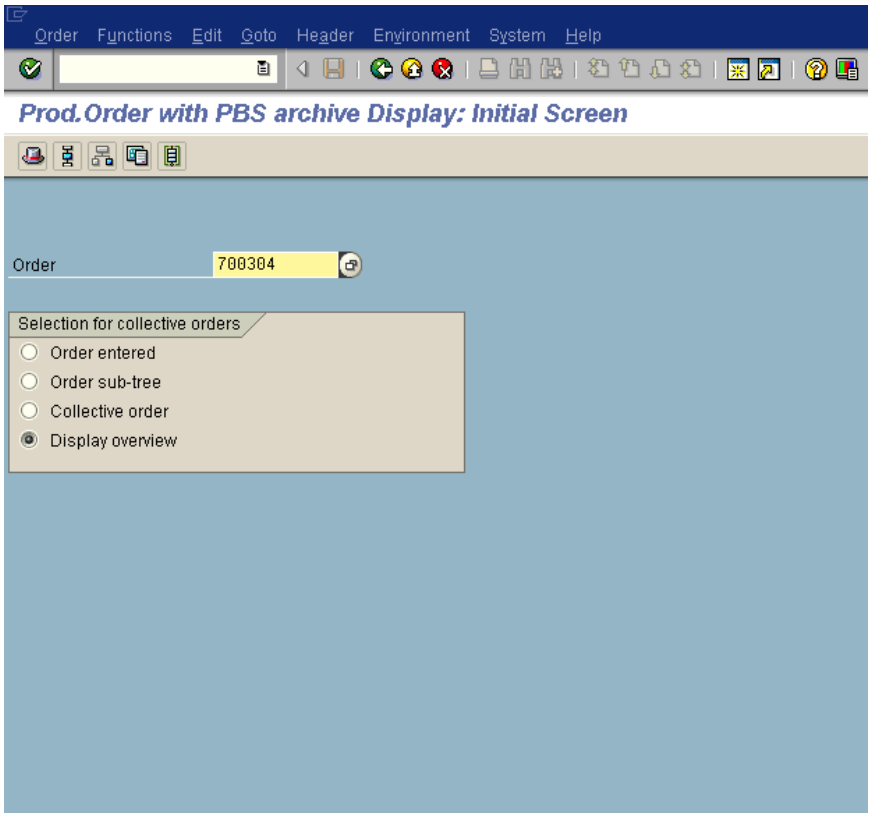


Diagram 7: Initial screen of the PBS transaction /PBS/CO03

The difference between PBS and SAP transaction can be recognized by the archive indicator "*" during transaction processing.

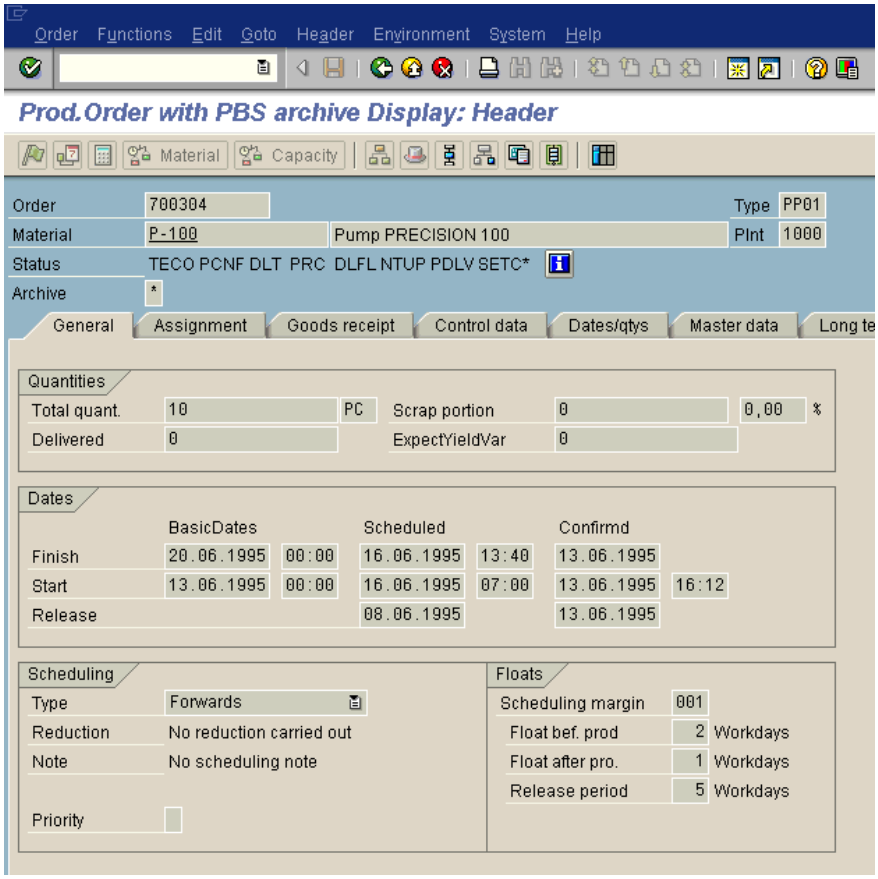


Diagram 8: Display of a production order from the PBS archive add on CPP

2.7. Transaction /PBS/S_ALR_87013127

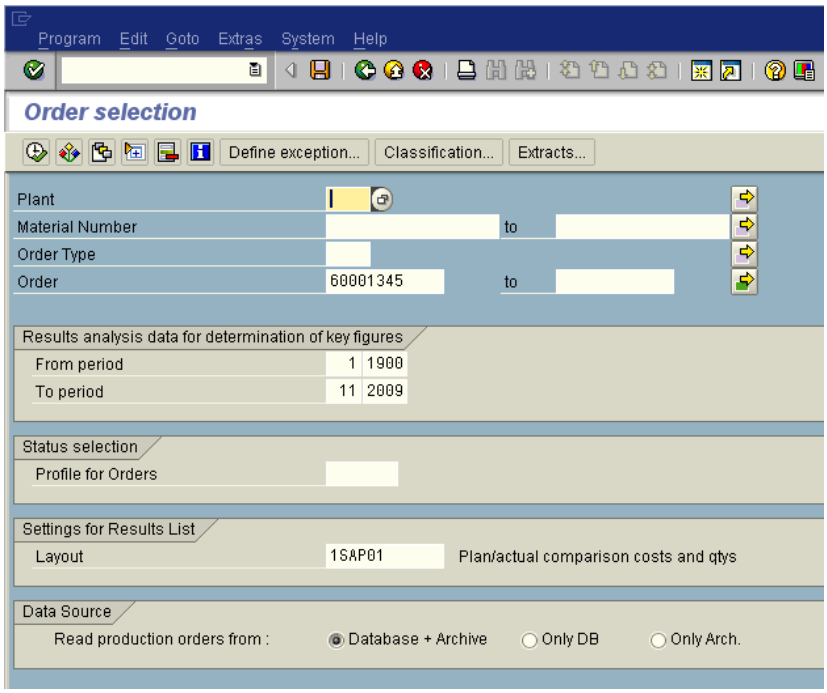
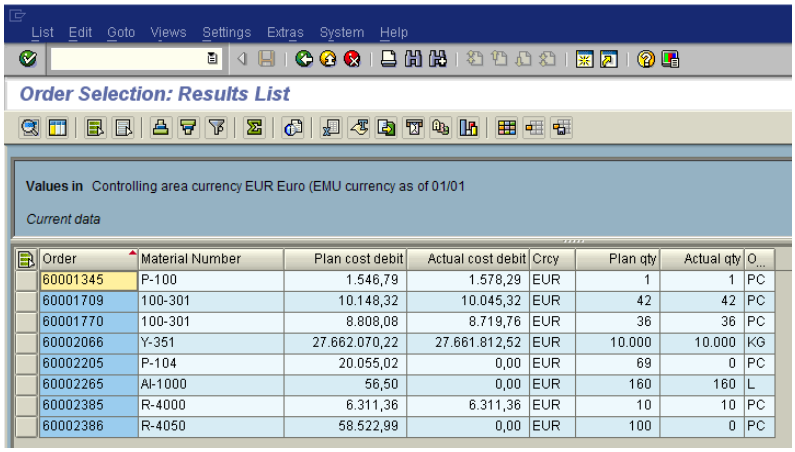


Diagram 9: Order Selection



Order	Material Number	Plan cost debit	Actual cost debit	Crcy	Plan qty	Actual qty	O...
60001345	P-100	1.546,79	1.578,29	EUR	1	1	PC
60001709	100-301	10.148,32	10.045,32	EUR	42	42	PC
60001770	100-301	8.808,08	8.719,76	EUR	36	36	PC
60002066	Y-351	27.662.070,22	27.661.812,52	EUR	10.000	10.000	KG
60002205	P-104	20.055,02	0,00	EUR	69	0	PC
60002265	AI-1000	56,50	0,00	EUR	160	160	L
60002385	R-4000	6.311,36	6.311,36	EUR	10	10	PC
60002386	R-4050	58.522,99	0,00	EUR	100	0	PC

Diagram 10: Results List of Order Selection

3. ABAP/4 Interfaces

The following chapter describes the methods and auxiliary programs for accessing the data archived with the PBS archive add on CPP.

This data can be accessed via the ABAP/4 routines provided by PBS or via a function module.

3.1. Access via ABAP/4 Routines

All important routines required for accessing the archive data are stored in ABAP /PBS/CPP_READ. For examples showing how these routines are used, please see the programs from /PBS/CPP_U002 to /PBS/CPP_U009.

3.2. Access via PBS Function Module

The function module **"/PBS/SELECT_INTO_TABLE"** accesses the PBS archive add on and returns the data records of the requested table to an internal table.

The function uses the following interfaces:

Name	Description	Type	Optionally	Example
ARCHIV	Name of archive	Parameter		'CPP'
TABNAME	Table name	Parameter		'AUFK'
SCHL1_NAME	Name key 1	Parameter	X	'AUFNR'
SCHL1_VON	Low value key 1	Parameter	X	'60002347'
SCHL1_BIS	High value key 1	Parameter	X	''
SCHL2_NAME	Name key 2	Parameter	X	''
SCHL2_VON	Low value key 2	Parameter	X	''
SCHL2_BIS	High value key 2	Parameter	X	''
SCHL3_NAME	Name key 3	Parameter	X	''
SCHL3_VON	Low value key 3	Parameter	X	''
SCHL3_BIS	High value key 3	Parameter	X	''
SCHL4_NAME	Name key 4	Parameter	X	''
SCHL4_VON	Low value key 4	Parameter	X	''
SCHL4_BIS	High value key 4	Parameter	X	''
I_TABELLE	Name of return table	Table		ITAB1
SCHL1_IN	Select option key 1	Table	X	
SCHL2_IN	Select option key 2	Table	X	
SCHL3_IN	Select option key 3	Table	X	
SCHL4_IN	Select option key 4	Table	X	

Table 2: Parameters of Conversion Tool

Adjustment of the SELECT command to the PBS archive add on

As the data of the PBS archive add on is not contained in the database, you cannot access this data via the "SELECT" command. Existing ABAPs must therefore be modified via the function module for the access to the archive data.

Basis

The SELECT command used in ABAP possesses one of the three basic characteristics that have to be adjusted if you want to use the function module in the source code. These are:

1. Select ... Endselect

2. Select into Table

3. Select Single

The archive accesses are optimized by transferring the key parameters to the function. If the SELECT command uses only these key parameters for the selection, the WHERE clause may not be necessary for the archive data.

The adjustment of the three Select types to the function modules is made according to the following pattern.

Select Type 1

Select and Endselect:

```
SELECT * FROM Tabelle INTO Feld WHERE Bedingung
  Coding
ENDSELECT
```

Characteristic

INTO or APPENDING clause is missing or the addition "TABLE" is missing in both restrictions.

Modification

Redirect Select in iTab, call function, process iTab with loop and endloop and allocate field = iTab.

```
SELECT * FROM Tabelle INTO TABLE iTAB WHERE Bedingung
Call Function Funktionsbaustein ...
```

```
Loop at iTab WHERE Bedingung
  Move-Corresponding iTab to Feld
  Coding
Endloop
```

Select Type 2

Select into Table:

```
SELECT * FROM Tabelle into Table iTab WHERE Bedingung
Coding
```

Characteristic

Addition "TABLE" in the INTO or APPENDING clause.

Modification

Call function and transfer table iTab, delete data records that do not correspond to the WHERE clause from iTab.

```
SELECT * FROM Tabelle into Table iTab WHERE Bedingung
Call Function Funktionsbaustein ...
Delete iTab WHERE NOT Bedingung
Coding
```

Select Type 3

Select Single:

```
SELECT SINGLE * FROM Tabelle WHERE Bedingung
Coding
```

Characteristic

Indication by adding "SINGLE". "TABLE" is not allowed.

Modification

Check if Select Single on residence data was not successful, then call function, process once iTab with loop and endloop, allocate field = iTab.

```
SELECT SINGLE * FROM Tabelle WHERE Bedingung
IF SY-SUBRC NE 0
  Call Function Funktionsbaustein ...
  Loop at iTab WHERE Bedingung
    EXIT
  Endloop
  Move Corresponding iTab to Feld
Endif
Coding
```