

Current Topic:

PBS Solutions in S/4HANA

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Expert for SAP ILM and Data Management



Agenda

PBS archive add ons: current Topics and Outlook

Transition to S/4: system-technically and datatechnically

Innovations on Data Archiving in S/4HANA

Integrated Data Access in ERP and S/4HANA

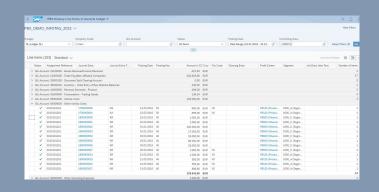
Update Data Extraction and GDPR

Summary







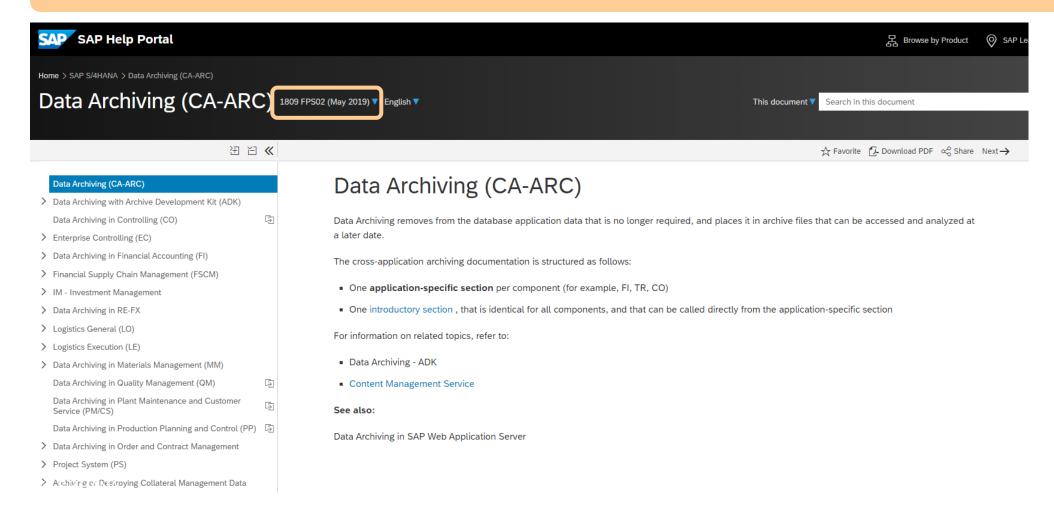


Applications come and go

- Archives remain!



Data Archiving lives on!





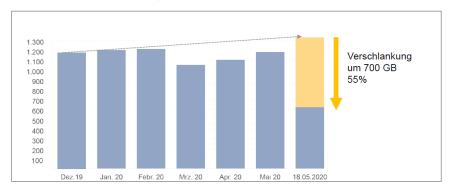
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PBS Solutions in S/4HANA, June 21, 2022

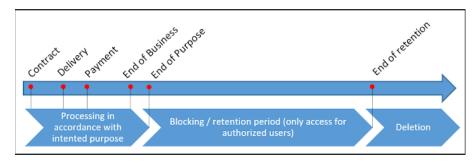


Data Archiving – an essential Solution Module

Technically (Mass Data)



Organizationally (GDPR)



Fiscally (GoBD - German legal accounting standards)

New version of German legal accounting standards with letter from German Federal Ministry of Finance dated Nov. 28, 2019

→ Indirect/direct data access (Z1, Z2) + data extraction (Z3) further sharpened

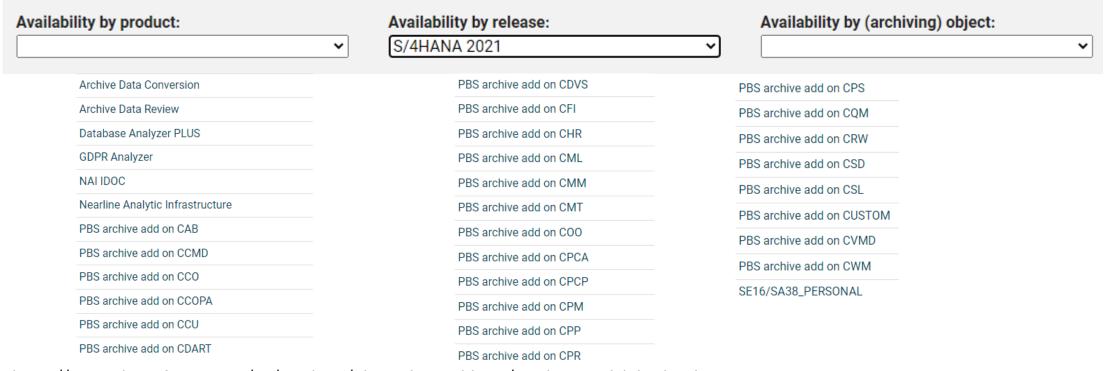




S/4HANA – Availability PBS archive add ons



PBS product availability



https://www.pbs-software.com/en/products/pbs-archive-add-ons/product-availability.html



S/4HANA – PBS archive add ons checked and certified by SAP SE



SAP SE hereby confirms that the interface software for the product **PBS** archive add ons 7.5 of the company **PBS** Software GmbH has been certified for deployment on SAP S/4HANA 2021 via the SAP integration scenario ABAP Add-On Deployment for SAP S/4HANA.

This certificate confirms the technical compliance of **PBS archive add ons 7.5** with SAP certification procedures.

The certification test is documented in report no. 19588 and expires on November 23, 2024.

SAP Test System: SAP S/4HANA 2021

The certification is listed on the SAP Certified Solutions Directory: sap.com/csd.

Certified Functions:

Assign Software Component and Namespace Package Add-On using SAP Add-On Assembly Kit Deploy using SAP Add-On Installation Tool (SAINT) Integration with SAP S/4HANA Technical Uninstallation Test SAP Solution Manager Ready functionality Compatible with SAP S/4HANA Cloud, private edition Works with RISE with SAP

Christoph Claus

Walldorf, November 23, 2021





SAP certification focuses on technical integration with SAP solutions. Vendor is responsible for the product itself, its error-free operation, and adherence to applicable laws.



THE BEST RUN SAP

SAP certification focuses on technical integration with SAP solutions. Vendor is responsible for the product itself, its error-free operation, and adherence to applicable laws.



SAP SE hereby confirms that the product **PBS ContentLink 4.2** of the company **PBS Software GmbH** has been certified for integration with / deployment on SAP S/4HANA 2020 via the SAP integration scenario **S/4-BC-ILM 1.0**.

This certificate confirms the technical compliance of PBS ContentLink 4.2 with

SAP certification procedures.

The certification test is documented in report no. 16499 and expires on February 18, 2024

SAP Test System: SAP S/4HANA 2020

Certified Functions:

WebDAV Storage Interface, Server functionality WebDAV Storage Interface LOAD Test performed

Holger Kunitz Walldorf, February 18, 2021





S/4HANA – PBS Core Competencies in 2022



PBS Migration S/4HANA

Migration preparation management legacy data



PBS Compliance S/4HANA

GoBD - German legal accounting standards, GDPR, data extraction



PBS Analytics S/4HANA

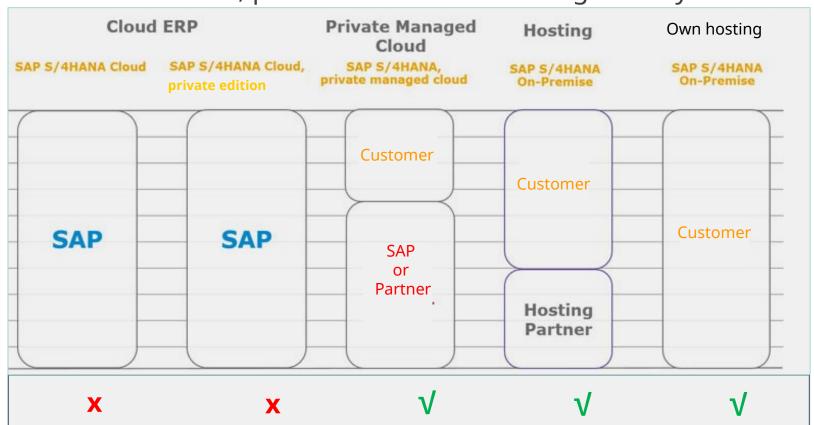
Integration of archive data and complementary database solutions





Deployment Options for S/4HANA

PBS archive add ons: can be run on-premise or in cloud. Exception: direct cloud offers of SAP SE - for this, partner solutions are not generally allowed



PBS archive add ons

Source: https://innovabee.de/on-premise-aus-der-cloud-oder-doch-hybrid-die-bereitstellungsoptionen-von-sap-s-4hana-im-ueberblick/





Deployment Options: Technical Details

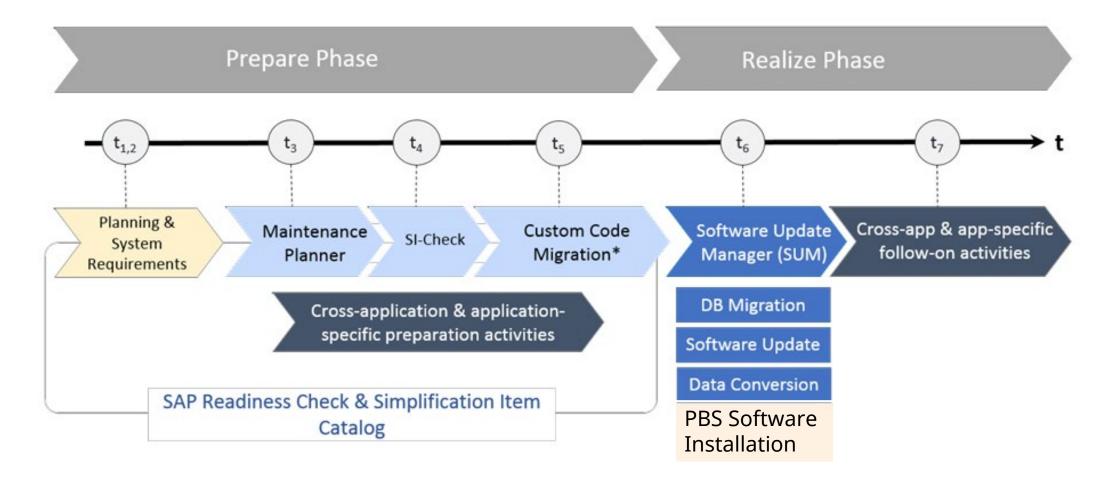
	Aspect	S/4HANA Cloud	S/4HANA Cloud private edition	On- Prem/HEC/PMC
Infrastructure	License	Subscription	Subscription	BYOL (build your own license)
	Updates	Automatic. SAP.	<- Either ->	Complex, Manual
	Release Cycle	Quarterly	Semi Annual	Annual
	Cloud Service Provider	No Choice	Customer Choice	Customer Choice
	Performance	Influenced by overall system usage	Private, Tuning co-shared by SAP	Private, Tuning Owned by Customer
Implementation	Timeline	8-16 weeks (Phase 1)	~ 16 weeks (Phase 1)	TBD
	Implementation Strategy	Greenfield	Greenfield	Conversion or Greenfield
	Methodology	TDM for Multi Tenant Cloud	TDM for Single Tenant Cloud	TDM



Source: https://blogs.sap.com/2020/07/09/difference-between-sap-s-4 han a-any-premise-sap-s-4 han a-cloud-essential s-and-sap-s-4 han a-cloud-extended / leaves a superior of the same o



S/4HANA – Conversion Process





Source: https://help.sap.com → conversion guide/



Best Practice PBS Software Installation

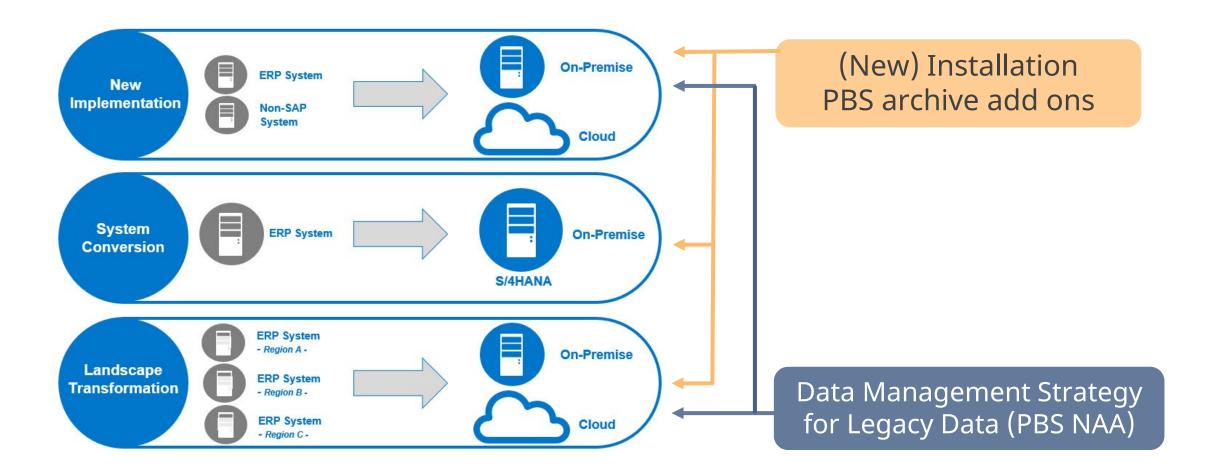
 Request the Attribute Change Package (ACP package) via PBS Helpdesk and import it into the ERP system (existing customers)
 Time: before SUM

- 2. Carry out and complete SUM phase for SAP standard upgrade
- 3. Installation of PBS packages via SAINT Time: **after** SUM





Migration Options

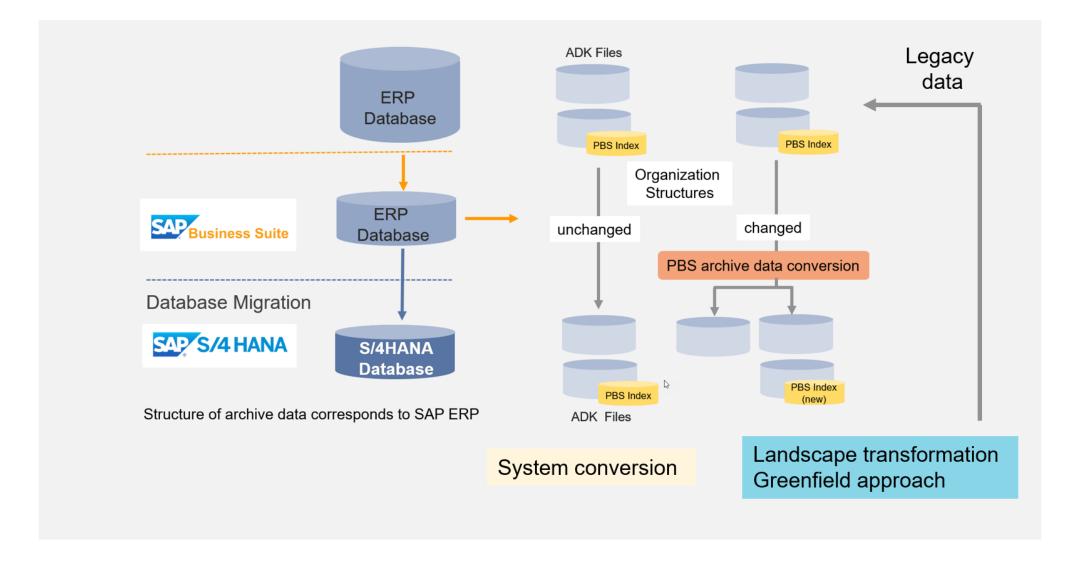




Source: https://blogs.sap.com/wp-content/uploads/2016/06/3scenarios_979390.jpg



Copy ERP Archive Data to S/4HANA







Data Archiving lives in S/4HANA ...

 Many common applications continue to stick to the traditional data model and their archiving process.

https://help.sap.com/viewer/0cc7ab3f01db4133a5d830dfd566abb6/1809.002/en-EN/9d4d97535deced23e10000000a174cb4.html)

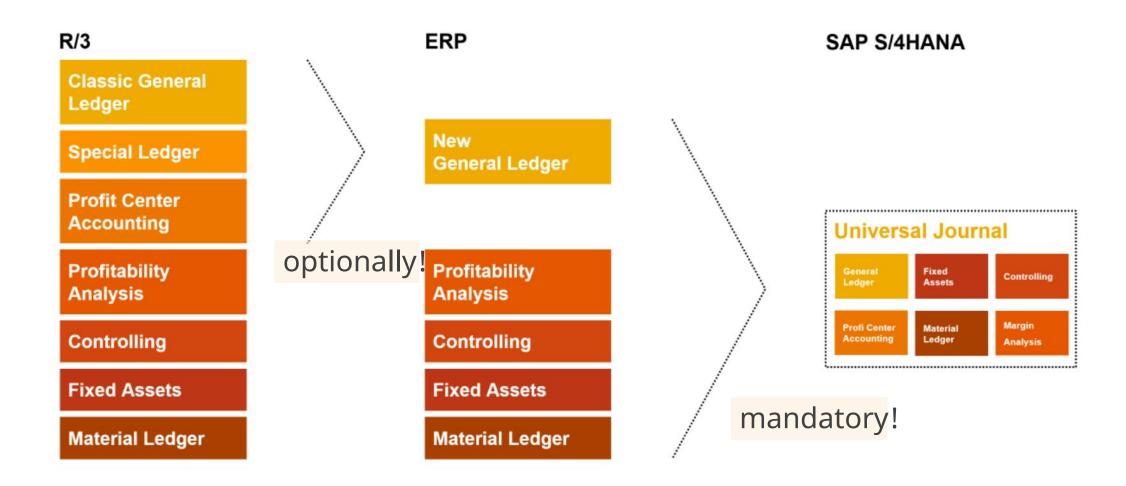
 Archived documents from previous releases can be displayed and evaluated in S/4HANA:

https://help.sap.com/docs/SAP_NETWEAVER_731_BW_ABAP/f0944a4717b5464f8d2343f9a44ff65b/4d8c781f910b154ee10000000a42189e.ht ml?version=7.31.23





... entails changes,



PBS and software

Source: https://blogs.sap.com/2020/09/24/analytics-on-universal-journal-the-heart-of-sap-s-4hana



reveals minor weaknesses in the ERP archive data display in S/4,

General Ledger View for ERP data with PBS archive add on CFI

Details for transaction FAGLL03

Transaction FAGLL03 reacts differently by accessing archived documents, depending on:

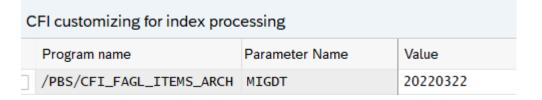
- chosen option 'entry view' or ,General Ledger (G/L)-view' &
- documents archived before or after SAP S/4HANA migration

	Before SAP S/4HANA migration	After SAP S/4HANA migration			
	Archived documents (without any ledger info at all)	Archived documents (ONLY extension ledger, without leading ledger info)	Online documents (ONLY extension ledger, without leading ledger info)	Online documents (with leading ledger info)	docum online archive
FAGLL03 entry view (Erfassungssicht)	Yes, documents will be listed	No	No	Yes	
FAGLL03 G/L-view (Hauptbuchsicht)	No (as there are no ledger info)	Yes	Yes	Yes	
		point of time for a	rchiving / posting		J

PBS CFI: Alternative generation of the line items at runtime in the general ledger view

transaction / PBS / FAGLL 03

Maintaining table /PBS/CFI_CUSTOM →







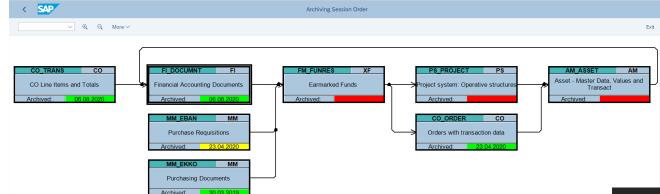
involves new dependencies and restrictions ...

subledger CO – CO_TRANS additional information



- Availability of CO TRANS:
- SAP S/4HANA Finance 1503 up to SP07 (SAP FIN 720): see SAP notes 2230377, 2512758
- The functionality is available without correction instructions as of:
- SAP S/4HANA Finance 1503 SP08
- SAP S/4HANA OP 1511 SP06
- SAP S/4HANA Finance 1605 SP04
- SAP S/4HANA OP 1610 SP00 and later releases
- Usage of reconciliation objects within CO_TRANS: see SAP note 2426075
- Usage of additional ledgers in FI (not only leading ledger): please implement SAP note 2535263
- Selection criteria of CO TRANS:
- not possible for single periods (like CO_ITEM)
- as CO_TRANS is also archiving the totals (on a yearly basis as it always includes periods 1-12 and up to 4 special periods), complete year needs to be included in archiving
- CO_TRANS & CO_ALLO_ST: no dependency between them

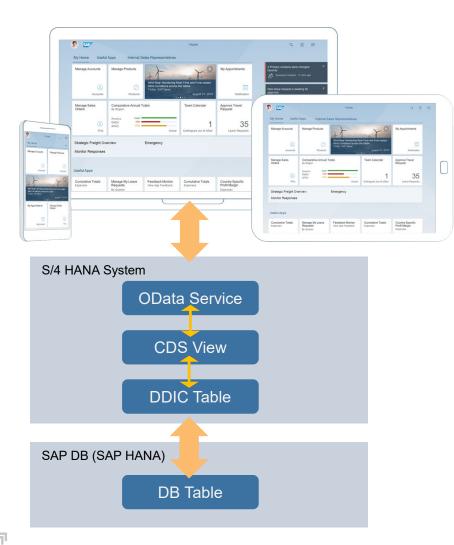








... and takes on new challenges!



Fiori Apps as alternative for classical SAP GUI

General principle

Archive access

The audit-relevant programs that can read from the archive and have been transferred to SAP S/4HANA are retained. They continue to read in the (SAP ERP) format from the archive and display the data in the usual format. As a result, reading from the archive continues to be supported.

Newer programs that are based on the OData protocol or INA protocol do not offer archive access.

(see SAP note 2346296)

Please see also SAP help for further information

ODATA protocol = Open Data Protocol (used in SAP Fiori App solutions)

INA protocol = Information Access Protocol (used in SAP Analytic solutions)

SAP standard apps do not provide access to archive data





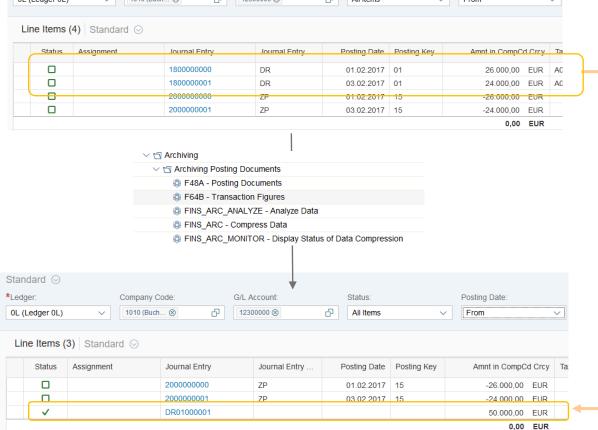
Universal Journal → ACDOCA II

Consequences for data archiving

- New dependencies in archiving
 - AM_ASSET → FI_DOCUMNT
 - CO_TRANS → FI_DOCUMNT
- Table ACDOCA is archived and compressed, if necessary, but not deleted
- Persistence of table FAGLFLEXA, COSP for GoBD messages in the ADK file

Interesting SAP notes: 2190848, 2270404, 2346296, 2408083, 2579583, 2348153→ VIEW FINSV_ARCH_SEL Interesting link: https://dafrk-blog.com/de/acdoca-universal-journal-central-finance/

Example data compression: FI Accounting Standard *Ledger: Company Code: G/L Account: Status: Posting Date: OL (Ledger OL) Line Items (4) Standard Line Items (4) Standard

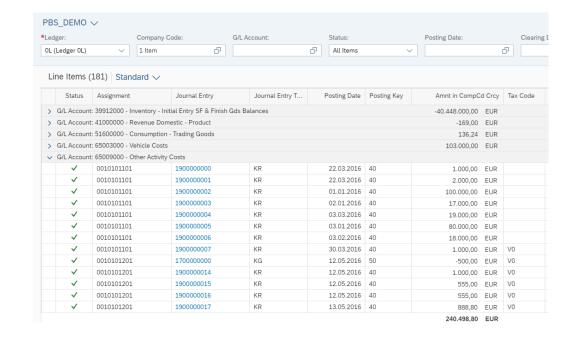




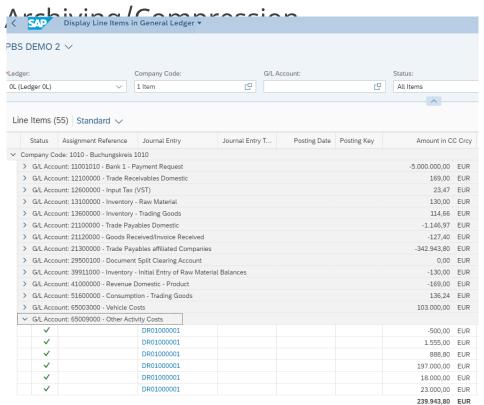


SAP Version - Line Items in the General Ledger (Fiori App)

Before Archiving/Compression



After



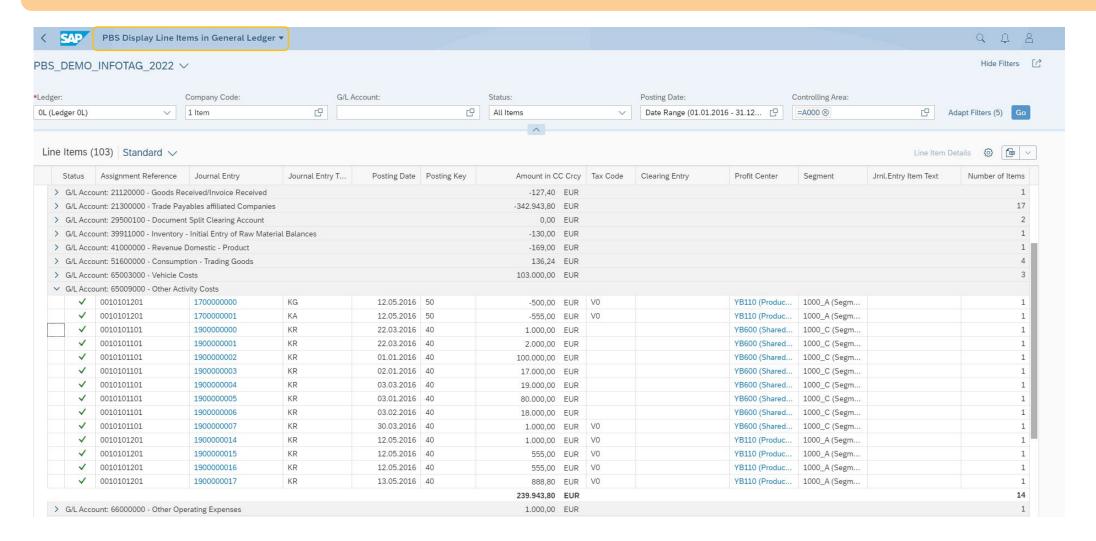
SAP Standard

SAP Standard





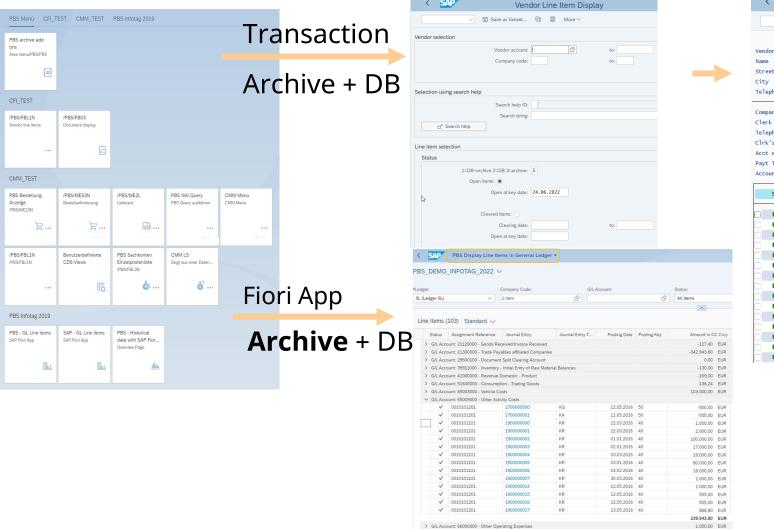
PBS Version – Line Items in the General Ledger

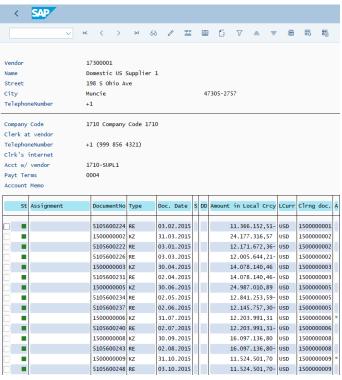






PBS provides under S/4: SAP GUI and SAP Fiori









S/4HANA – Data Accesses

Traditionally

- Database access via SELECT, archive via ADK interface
- PBS archive add ons: → File-based archive data access for ERP and S/4HANA
- S/4 applications: transactions, reports

Currently

- Data is accessed via OData services
 - → database-based archive data access for <u>S/4HANA archive data</u> via PBS sidecar DB
- S/4 applications: Fiori, analytical applications

Generally

Technology enhancement necessary

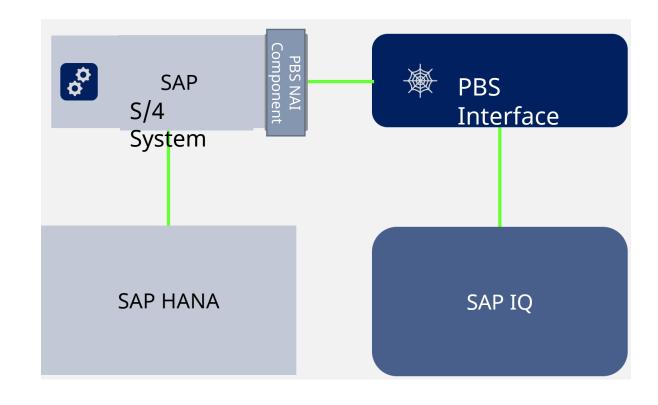




PBS Nearline Analytic Infrastructure (PBS NAI)

Business functions:

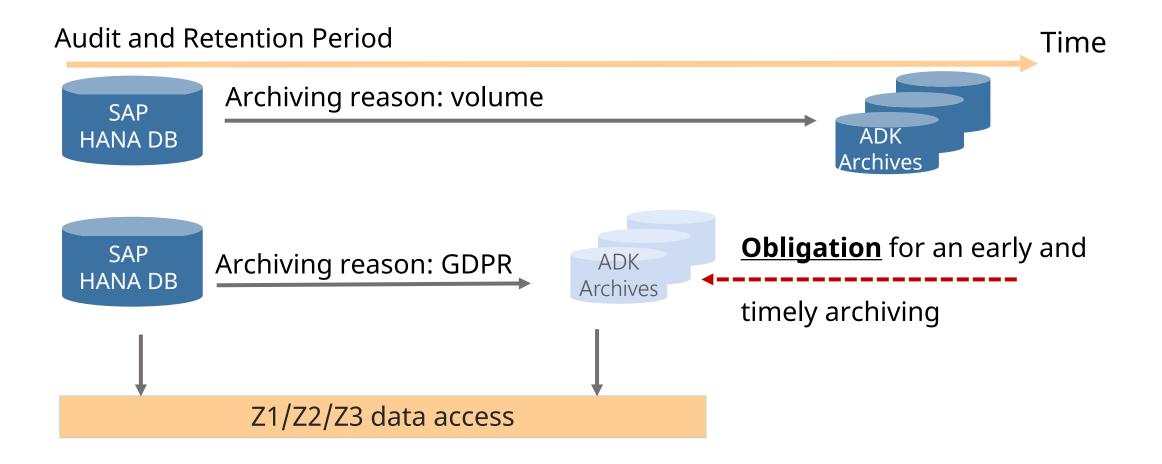
- PBS archive data access on HANA level for transactions, reports, ad hoc queries and Fiori apps
- Optimizing SAP archive information system
- Archive solution 3rd party data (PBS EDS)
- Archive solution SAP legacy data (PBS NAA)
- Data provider for analytical applications (SAP/non-SAP)







SAP Data Sources in the GoBD Environment







National Data Access via BEA Model Version 1.2 from 12/2020

Federal and State Working
Groups "audit Software"
(working group PSW)
and
"SAP experts group"
(working group SAP
experts)

Nationally coordinated data request for data extraction from an SAP system when using the Data Retention Tool (DART) ("BEA Model")

Version 1.2

Status 12/2020

For each audit year, the submission of the DART segments of the following selected assets is requested for all posting periods:

- Financial accounting
- Asset accounting
- Cost accounting
- Materials management
- Sales and distribution
- Master data change



TXW_INCOT

TXW SD HD

TXW SD POS

TXW_SD_PRT

TXW MOVTYP

TINC, TINCT

VBAK

VBPA

Kunden: Incoterms: Texte

SD Verkaufsbelegposition

SD Verkaufsbelegkopf

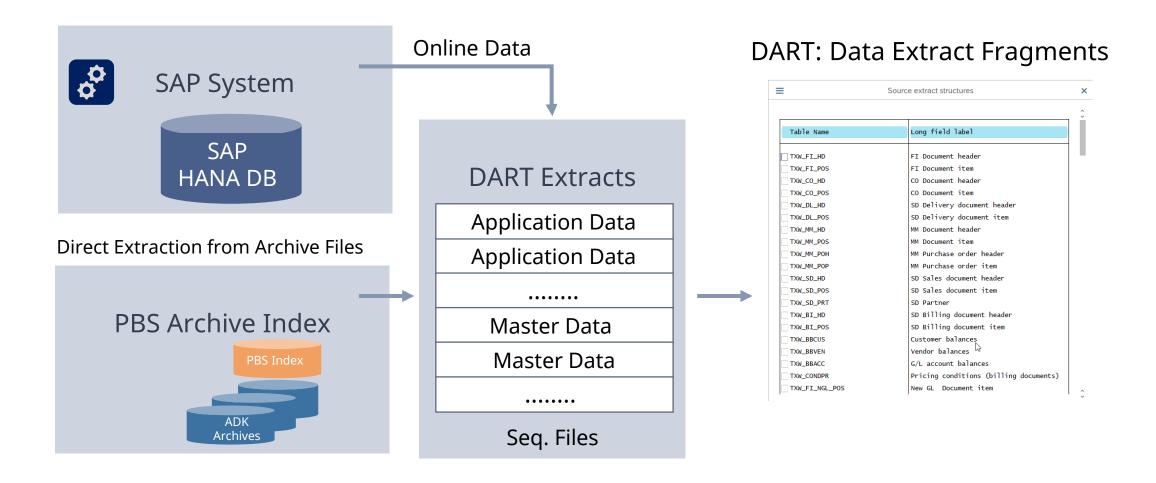
Applicable for PBS CDART/PBS Data Export Interface



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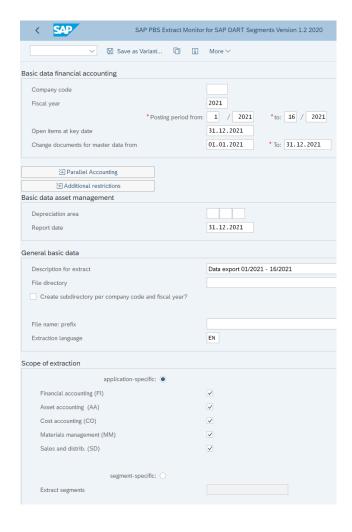
PBS CDART for S/4HANA from 1609 – Version 2.9 e

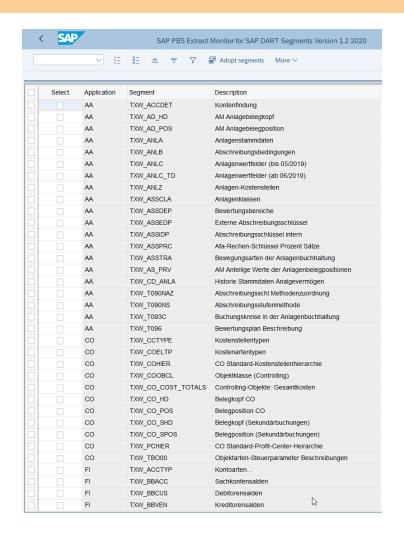






PBS Data Export Interface as a DART Alternative



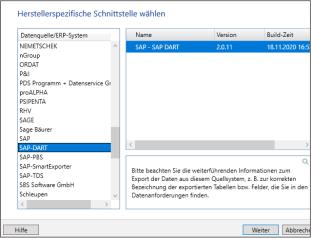


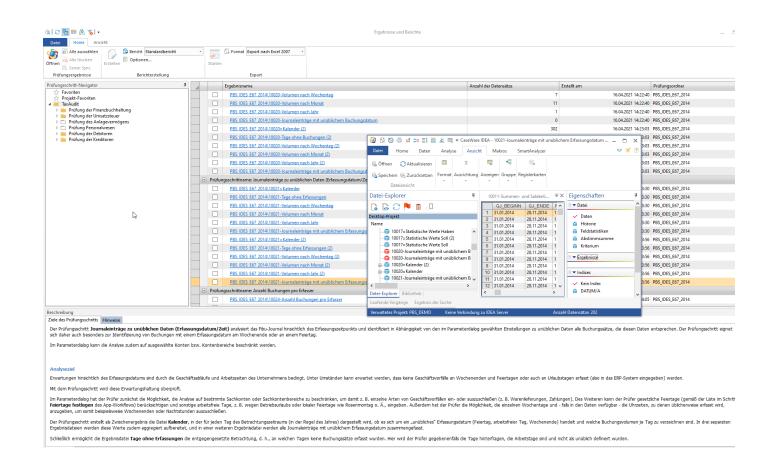




PBS subsequent Process in Audicon Smart Analyzer

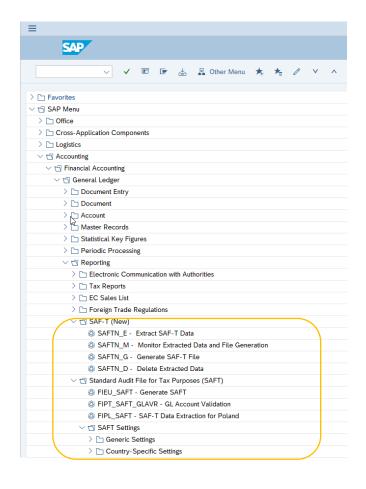


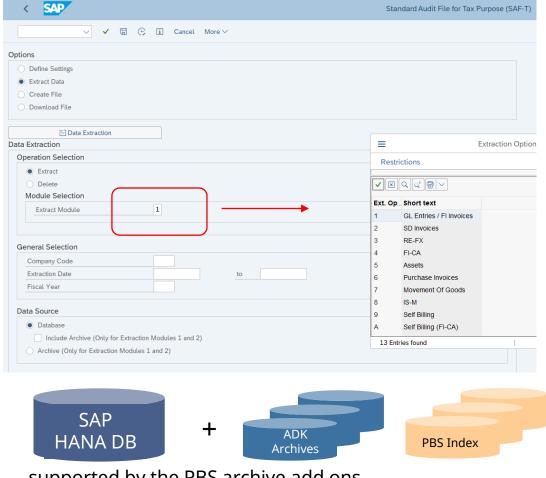






International Standards

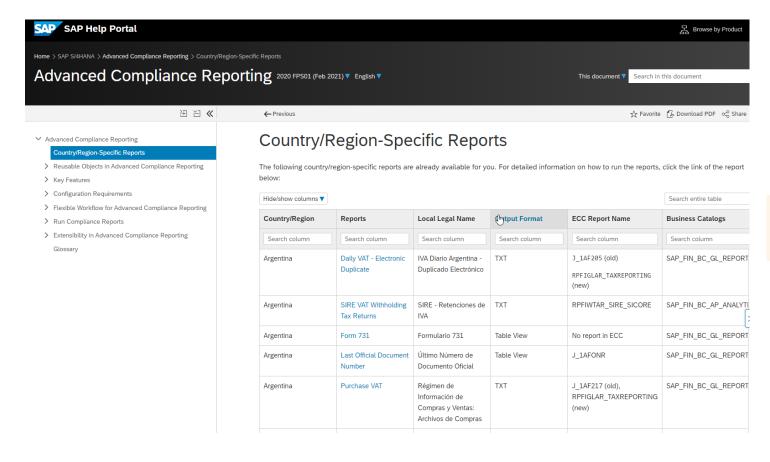








Advanced Compliance Reporting



PBS archive data access in planning/preparation

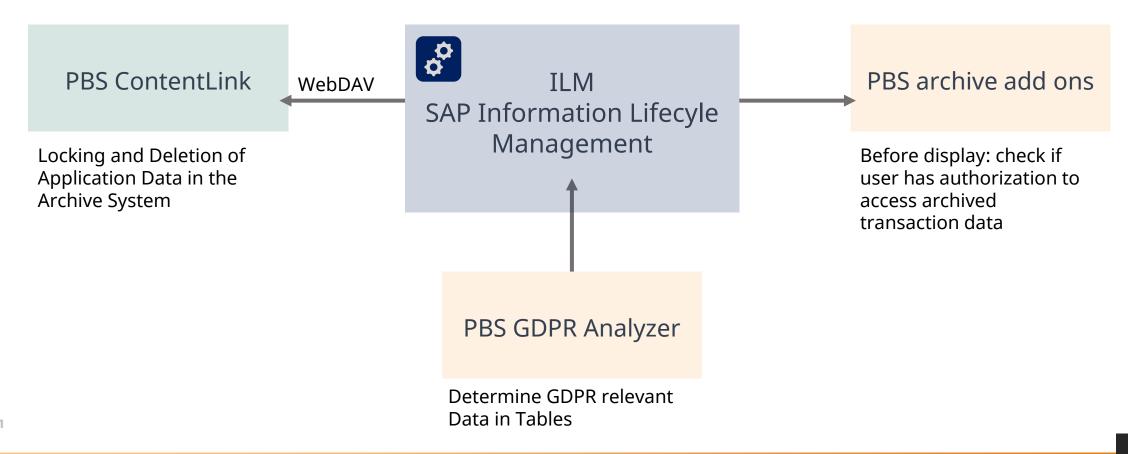


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PBS – ILM Component GDPR

Effectively restrict Processing of personal Data (On-Prem/Cloud)







Definition of Locking and Deletion Requirements

SAP IRM – Rule Characteristics Master Data

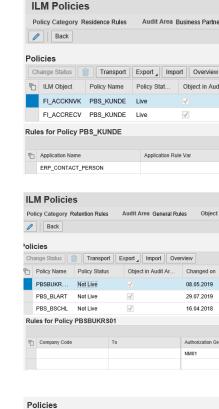


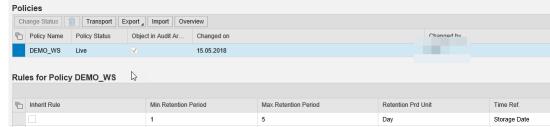
Transaction Data



Documents







Audit Area Business Partner: EoP Lock Object Category

Changed on

11.01.2018

11.01.2018

Residence Period

Residence Prd Unit

Start of Retention Period

Time Ref.

End of Year End of Year

Retention Prd Unit

Object in Audit Ar.

08.05.2019

29.07.2019

16.04.2018





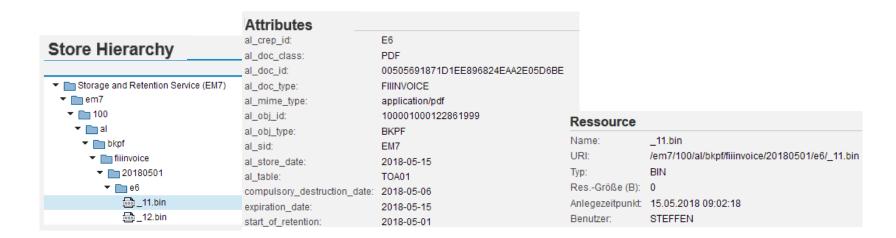
SAP WebDAV Administration

SAP ILM Storage Browser

Archive Files



Documents





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SAP ILM Project Experience

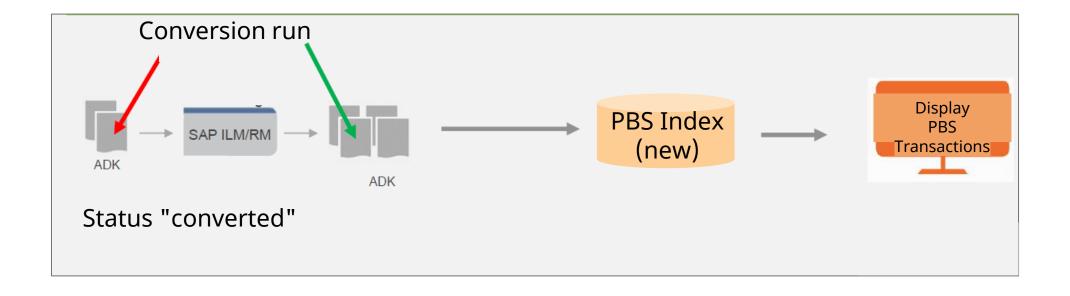
- A complex ILM rules entails an intensive check during data access on single object level and slows down the data access for mass evaluations
- First no archive file has to be migrated to WebDAV to apply the ILM rules. A migration is only necessary if the ILM destruction process should be used (transaction ILM_DESTRUCTION)
- Caution when converting a file! Many condition fields in the rules inevitably result in a granular splitting of the source archive in the WebDAV → physical limit: 999 files.
- Central authorization objects
 - Block display of archived data: S_IRM_BLOC
 - Assign access to expired resource: S_IRM_BL_M





GDPR Challenge – ADK File Conversion 1

Rule Process

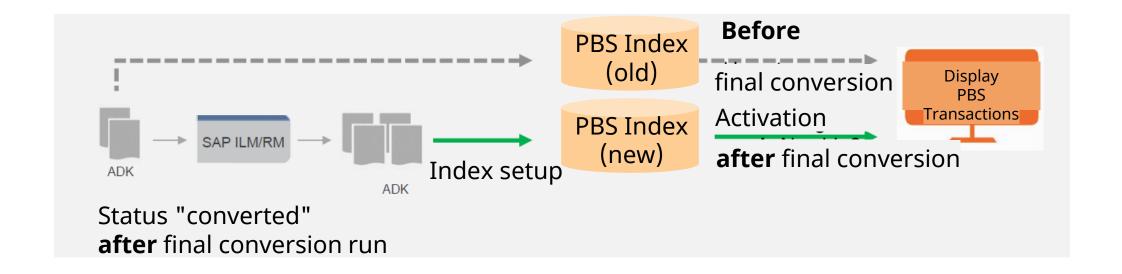






GDPR Challenge – ADK File Conversion 2

PBS Enhancement Process (Project Solution)



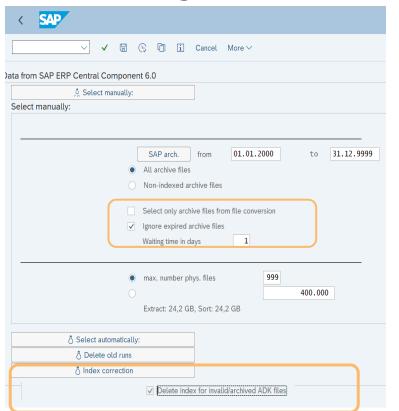




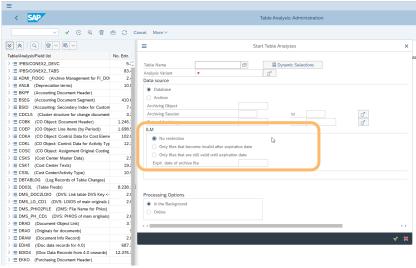
ILM Files – Realization of Access

- Generally: seamless conversion of SAP ILM rules in the PBS archive add ons
- Enhanced functionality when using archived application data

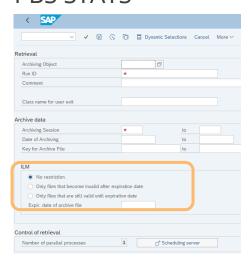
PBS CFI Indexing



PBS TAANA



PBS STATS





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PBS Migration S/4HANA

- Add-on product range in ERP and S/4HANA for the migration period to support for system conversion
- PBS NAA to realize access to historical data via a leading S/4HANA system





PBS Compliance S/4HANA

- Add-on integration for timely implementation of SAP data archiving in S/4HANA systems with high load or active SAP ILM/GDPR.
 Migrationfree access to ERP archive data during system conversion
- Integration of archive server solution PBS ContentLink to support SAP ILM, compliant data storage and replacement of historical Fixed Content storage systems with target environment on-prem or cloud including certified migration process (PBS partners)
- Using PBS extract functionalities (for example CDART, Data Export Interface and CONTRAX) to comply with national and international extraction standards (BEA model, FEC, SAF-T, country-specific reporting) for archive and database data





PBS Analytics S/4HANA

- Integration of database data and archive data in open data log (OData service)
- Support of GUI-based analysis via PBS NAI query for internal and external data (for example POS data)
- Support of SAP Fiori
- Support of SAP KPI Modeler → aggregated data display via KPIs
- Support of SAP Analytics Cloud
- Support of third party applications with OData interface (Excel, Power BI, etc.)





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