



DCS Library Services

Sales Slides



Modernize your DCS library to Advanced Process Library for a future-proof control system



DCS Library Services

DCS Library Services

„DCS Library Services“ offers you the ideal solution for library exchange on Advanced Process Library (APL):

- Standardized library exchange at a fixed price and project-specific implementation of AS and OS components
- AS/OS analysis creates transparency
- Reduction of maintenance and servicing costs as well as constantly growing component functionalities
- Fast and secure implementation with short test phase

DCS system modernization requires not only upgrading the system software but also modernizing and standardizing the individual applications.



Modernize your DCS library to Advanced Process Library for a future-proof control system



DCS Library Services

DCS Library Services

Standard packages (MLFB based)

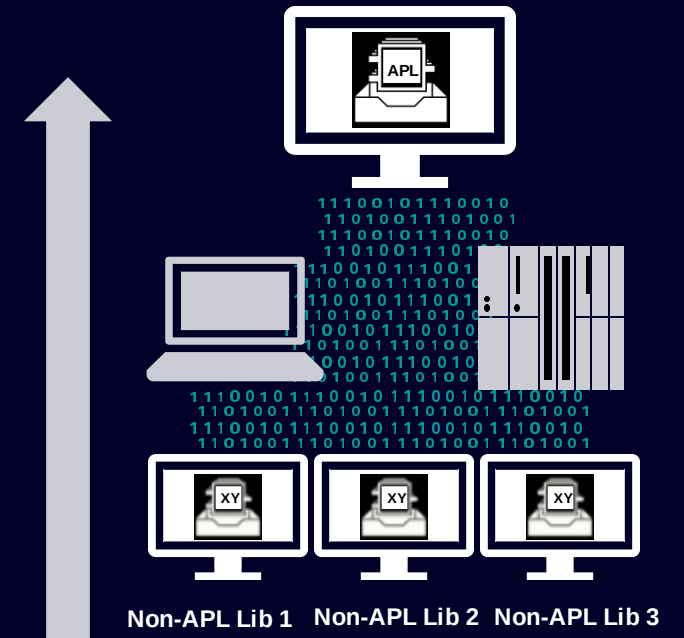
- AS/OS Analysis
- Structure Analysis
- AS Standard Package
- OS Standard Package

Customized additional services

- Additional libraries (SC, PTE400, MFL)
- Standardization

SIMATIC PCS 7 project-specific options

- SIMATIC PCS 7 Updates/Upgrades
- HQ FAT, SAT
- Commissioning



DCS Library Services

SIMATIC PCS 7
w/o APL



SIMATIC PCS 7 with
APL, standardized



This transparency
creates a basis for
further technical
clarification and
project
management



What work is necessary to complete a successful library exchange?

- Which libraries are included and which blocks can/should be implemented according to APL/IL*?
- Which preparations are necessary?
- Which special features are included in the project?
- Are problematic scripts included (optional)?
- Is the adaptation/development of additional exchange rules incl. test implementation necessary?

Detailed information (Excel)

X

OS

OS_A_Summary	OS_A_Picture_Overview	OS_A_Full_Size	PDL_24_CheckPictureTree	Definition_Full_Size
OS_A_Type_Assignment	OS_A_Prop_DynamicDialog	OS_A_Prop_DynamicDialog_Paramet	OS_A_Prop_TagConnection	
OS_A_Prop_TagConnection_Paramet	OS_A_XREF_CustObj_Type_X	OS_A_XREF_CustObj_NoType	OS_A_XREF_CustObj_MultiTagNames	
OS_A_ClassicTrendControl	OS_A_TrendControl	OS_A_DeadDynamics	OS_A_PictureJumps_DirectCon	

X

AS

Summary	Controller	Blocktype_Matrix	BT-WithConversionRules	BT-WithRulesToBeAdapted	BT-NoConversion
BT-WithOutConversionRules	BT-APL	ChartInChart	SFC-Chart	SFC-Chart-StepAktionen	SFC-Chart-Transitions
OperandWithoutDriver	NotAllowedSymbols	IdenticalBlockNames	ToBeDeleted	STD_Deviation	
STD_Deviation_Summary					

Discussion of the results

*Industry Library

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AS Standard Packages

Library exchange SIMATIC PCS 7 Library to Advanced Process Library

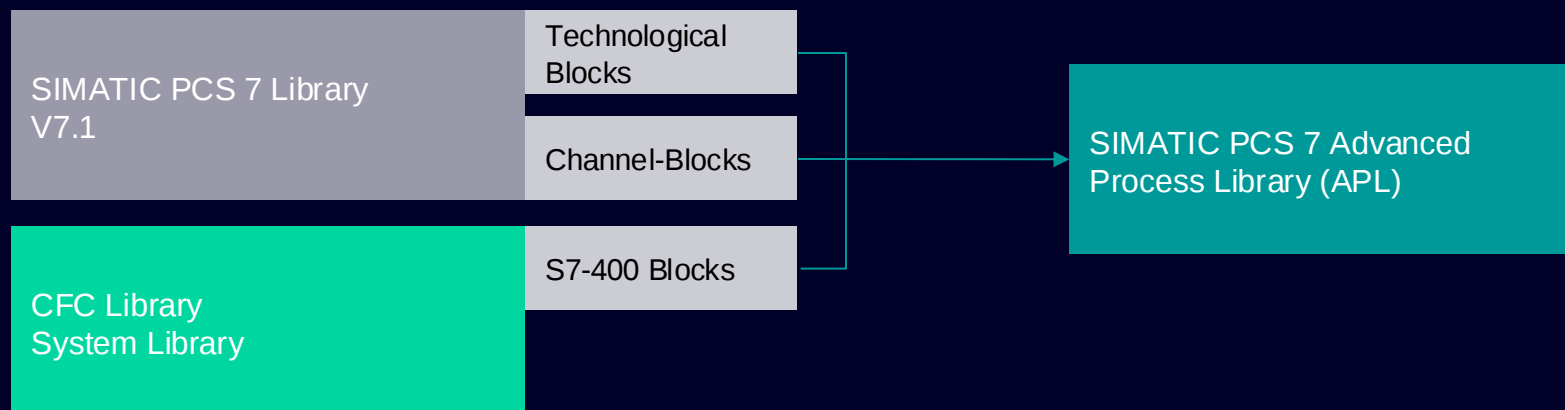


Automatic conversion of the blocks according to predefined conversion rules per AS/ multi-project:

- SIMATIC PCS 7 Library
- Driver Blocks
- Logic Blocks (BOP, ...)

Options

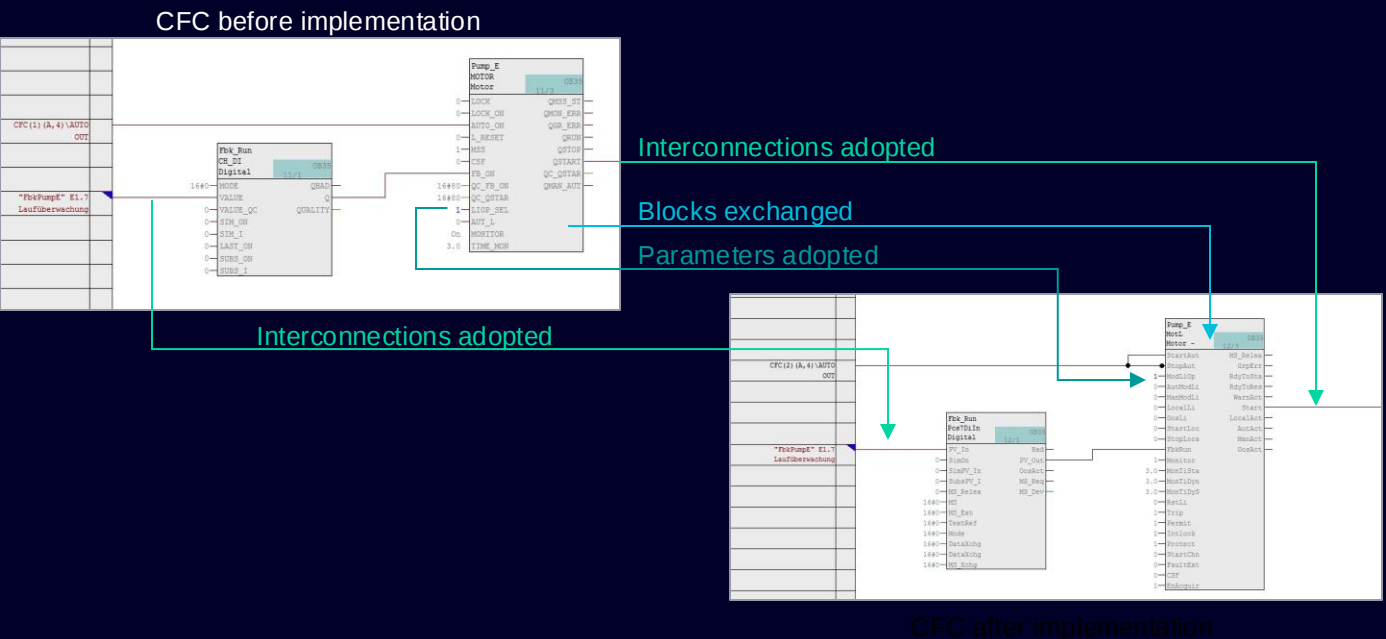
- SFC chart
- Dissolve chart-in-chart



AS Standard Packages

AS Standard Package and the library exchange

- In general, all libraries can be exchanged for which it is possible to create conversion rules for a functionally identical mapping.
- For the exchange of blocks of two different libraries, conversion rules are required in which the assignment of the source and target block is defined.
- They contain information, conditions and calculations that are important for the transfer of the connections, parameter values, block comment, block name, block position, etc.



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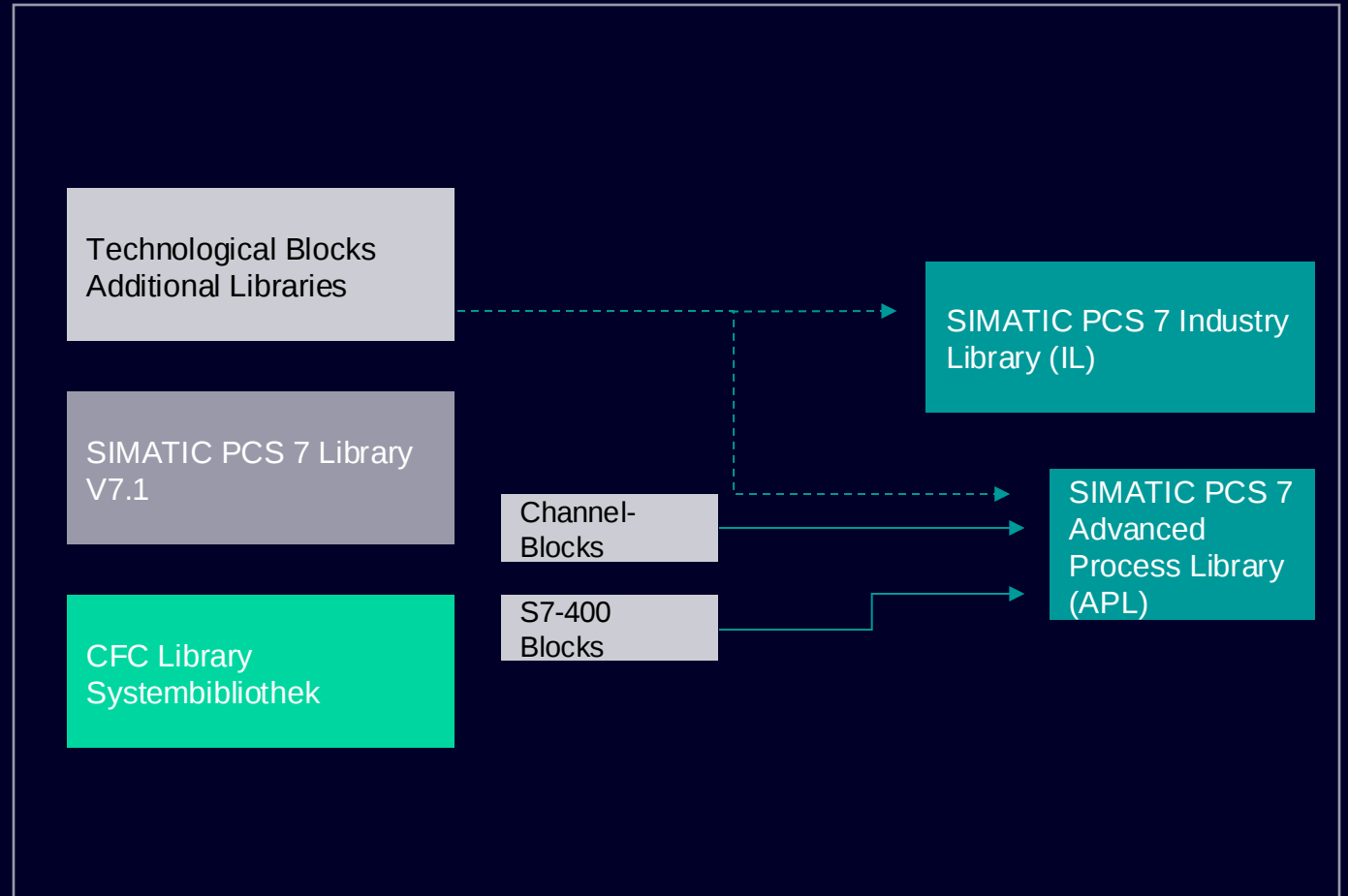
OS Standard Packages

**SC, PTE400, MFL,
Simocode Pro, ...**

- Libraries with existing implementation rules
- Adaptations or new rules necessary
- Specific Expertise
- Implementation possible

PS, CIS-CK,...

- Libraries without implementation rules
- New rules required
- Analysis possible
- Offer possible

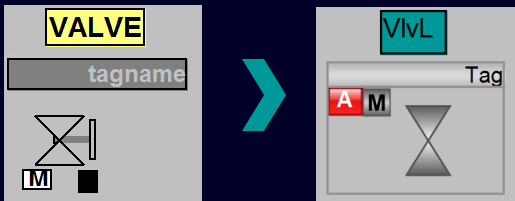


OS Standard
Packages



Library exchange: SIMATIC PCS 7 Library to Advanced Process
Library in projects with SIMATIC PCS 7-compliant engineering

Replacement of the block icons



Adjustment of tag connections



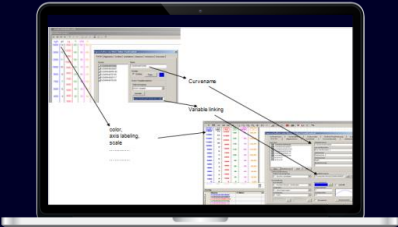
Adjustment of dynamic dialogs



Conversion to system archives (optional)



OnlineTrendControl exchange (optional)



Picture resolution and object size adjustment (optional)



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Specific work packages

Additional, specific work packages are offered depending on the requirements.

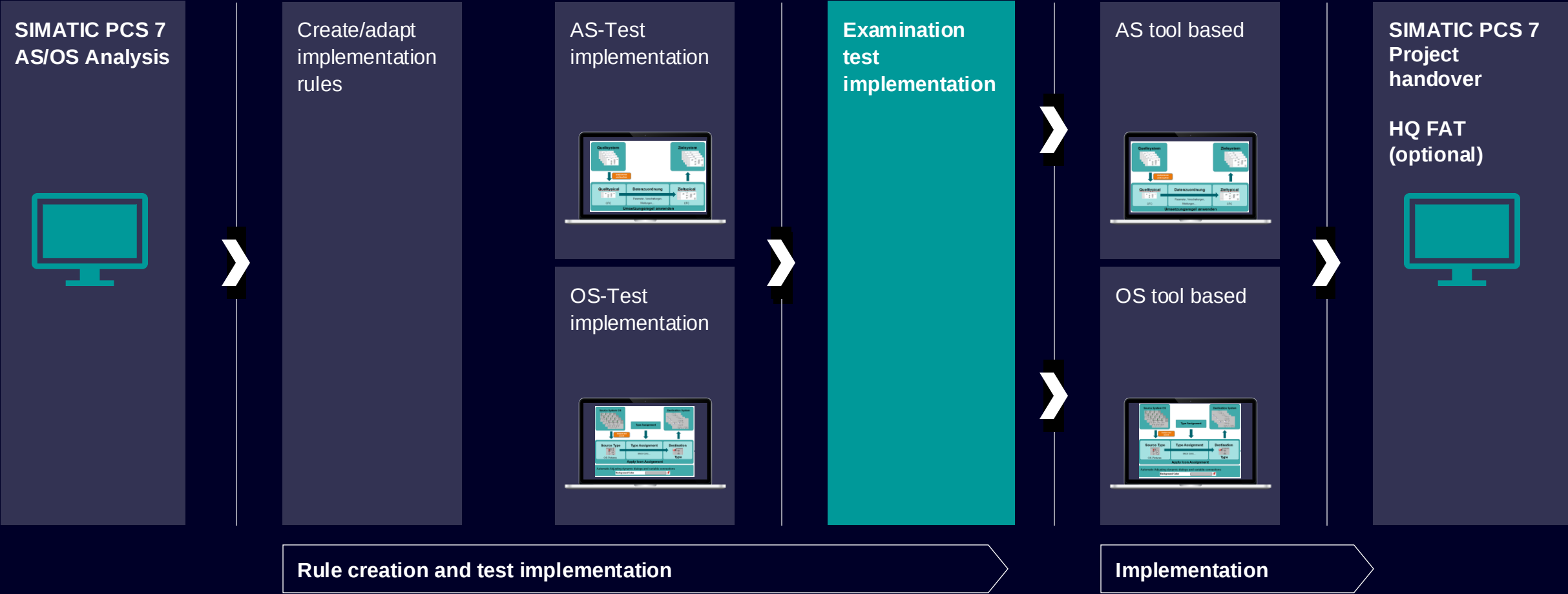


Working packages:

- Detailed clarification
- Creation or adaptation of exchange rules
- AS and OS test implementation
- Project cleanup & standardization
- Project processing (detailed clarification, project management, acceptance)
- Options (SIMATIC PCS 7 upgrade ...)

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Workflow for adaptation or creation of new exchange rules with test implementation



Challenge

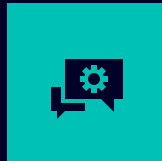
How do I keep my system innovative throughout the lifecycle of the asset?



How can the plant remain productive and economical throughout its life cycle?



How can the plant be safely prepared for future and cost-effective upgrades?

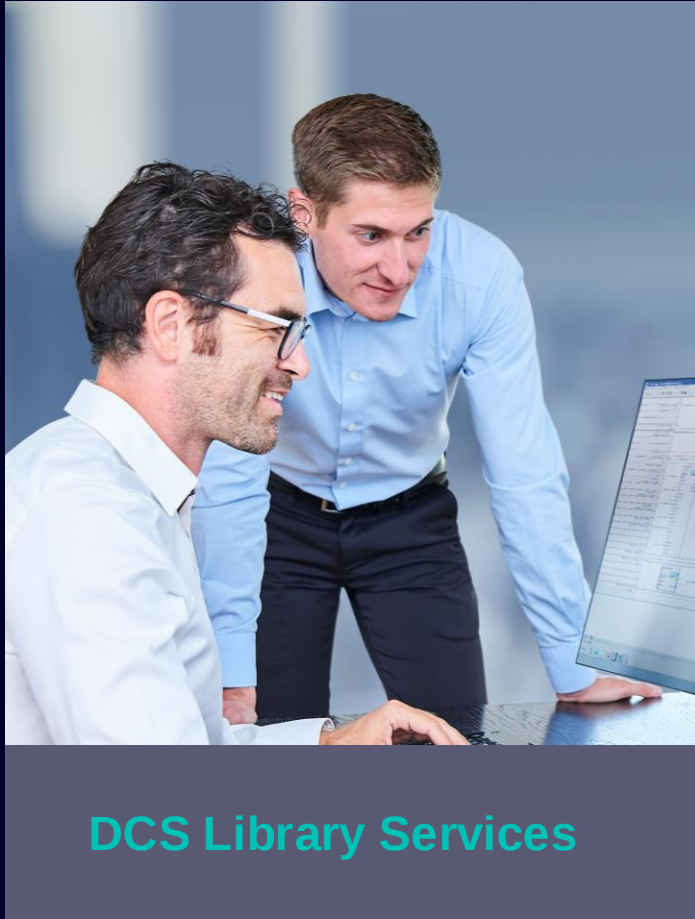


How to use additional current/new functionalities in the DCS system?



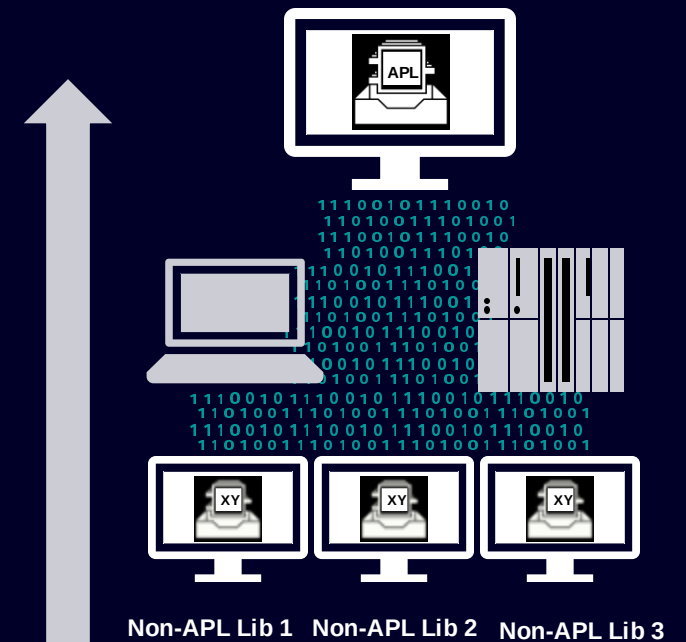
How do I achieve a low-risk library exchange of the outdated library to the current Advanced Process Library (APL)?

Modernize your DCS library to Advanced Process Library for a future-proof control system



Solution

- Standardized library exchange at a fixed price and project-specific implementation of AS and OS components
- AS/OS analysis creates transparency
- More flexible blocks and higher-quality control algorithms
- Reduction of maintenance and servicing costs as well as constantly growing block functionalities
- Fast and secure implementation with short test phase



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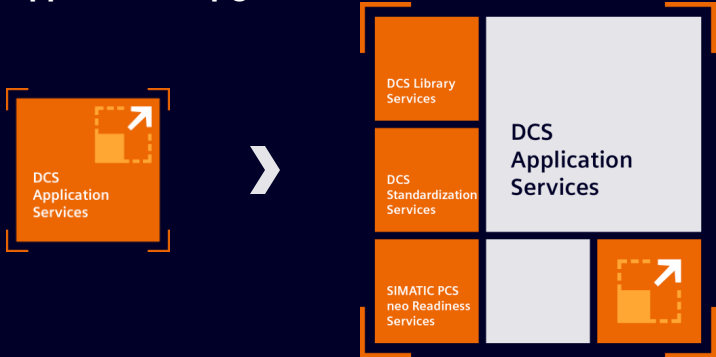
Positioning within the modernization portfolio

Legacy System

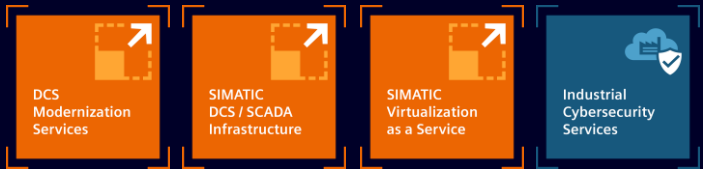


Standardized Modernization Portfolio Elements

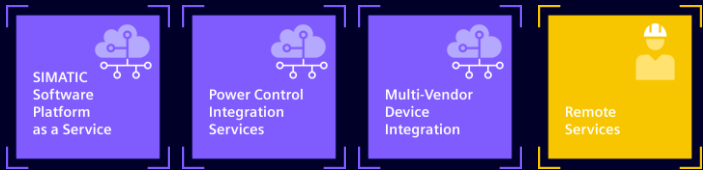
Application Upgrade



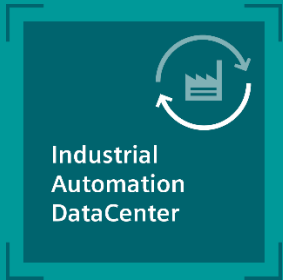
System Upgrade (z.B. SIMATIC PCS 7 Version X → SIMATIC PCS 7 Version Y)



Additional Packages



State-of-the-Art System



Service Contracts



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Overview Portfolio element



The maintenance, support and modernization ...

- ... of existing DCS systems can be very time-consuming and complex. Especially if, in addition to the SIMATIC PCS 7 Library, various function block libraries are also in use for the realization of the individual control level.
- The service module "**DCS Library Services**" offers both analysis and exchange (AS/OS) of existing DCS libraries on Advanced Process Library (APL). With the APL-based control module you create your basis for DCS innovations (SIMATIC PCS neo).
- The module „**DCS Standardization Services**“ includes the conversion of project engineering to CM/CMT and further project cleanups. The structure analysis forms the basis for the implementation and shows further standardization potential.
- The module „**SIMATIC PCS neo Readiness Services**“ is the preparation of the installed SIMATIC PCS 7 base for the SIMATIC PCS neo Evolution.

Why should you choose DCS Library Services?



Siemens experts offer **tried-and-tested modular services** for **library exchange** within DCS project engineering.



Use of **AS/OS analysis** and **structure analysis** create **transparency**.



Use of **automated workflows** ensures high quality.



Increased **serviceability** through use of **current SIMATIC PCS 7 features** and **future DCS innovations**.

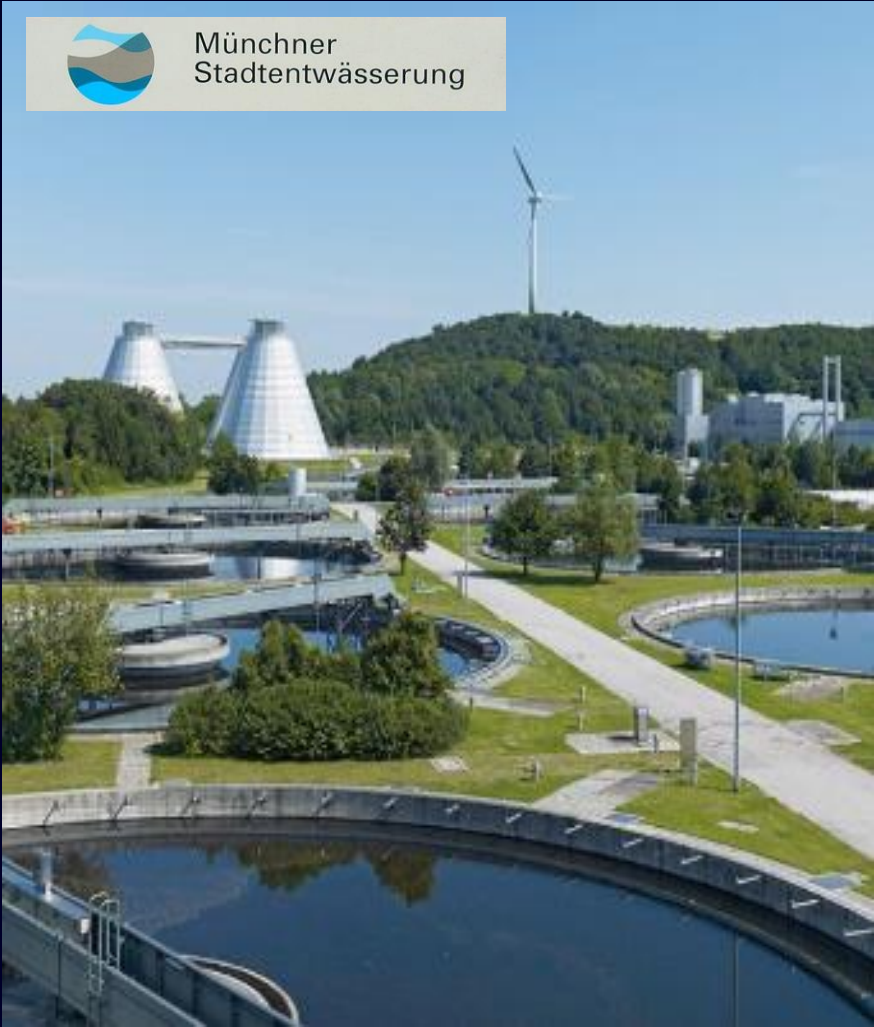


Reduction of maintenance and repair costs.

Münchner Stadtentwässerung, Germany

Ensuring service upgradeability and optimize system availability

Customer profile	Münchner Stadtentwässerung is a public waste water management company. It is operated by the state capital Munich. Employees more than 1,000, around 2,400 km of sewer network, two sewage treatment plants clean 560,000 m3 of waste water every day https://stadt.muenchen.de/infos/portrait-muenchner-stadtentwaesserung.html
Customer objectives	• Klärwerk Gut Großlappen was built in 1926 and has since been expanded by various service providers. This differs in the structure of the software in the service providers • Difficult maintainability of the software • Replacement of the outdated, non-future-proof PTE400 library and various customer-specific blocks in a SIMATIC PCS 7 V6 version that is no longer supported. • Creation of current security standards for critical infrastructure
Siemens solution	DCS Library Services DCS Library Services as an important part of the plant modernization of the central control system • Standardized library exchange of the PTE400 library and various customer-specific blocks according to APL in 54 automation systems • Automated revision of the user interface according to customer specifications for 6 pairs of SIMATIC PCS 7 OS servers • Standardization of the plant parts by creating and using typical Library exchange on APL using MLFB based standard packages
Customer value	Optimization of plant availability / ensuring service and upgradeability • The use of standard libraries, the implemented standardization, reduces maintenance costs, increases serviceability and enables the use of current SIMATIC PCS 7 features and future DCS innovations. • Use of the APL functionalities and future extensions
Why Siemens?	• Siemens is a competent partner for project and service business • Siemens experts offer tried and tested, modular services for library exchange within DCS configuration. • The use of automated workflows ensures high quality



Reference ID: 32095, Link: <https://references.siemens.com/en/reference/moenchner-stadtentwaesserung?id=32095>

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