

CPO Statement of AVL List GmbH

Following the prerequisites of ProSTEP iViP's Code of PLM Openness (CPO) IT vendors shall determine and provide a list of their relevant products and the degree of fulfillment as a "CPO Statement" (cf. CPO Chapter 2.8).

This CPO Statement refers to:

Product Name	TFMS, SANTORIN, CRETA
Product Version	TFMS 1.5; SANTORIN, CRETA 4.2
Contact	Gerhard Steininger gerhard.steininger@avl.com

This CPO Statement was created and published by AVL List GmbH in form of a self-assessment with regard to the CPO.

AVL List GmbH is committed to openness. One of the core strategies of AVL List GmbH is to provide open products, with complete and documented APIs, to support Industry relevant standards and which are able to be integrated into customer tool chains and processes.

Publication Date of this CPO Statement: 10. October 2015

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1 Executive Summary, AVL TFMS™

The following chapters summarize the results of the CPO-related self-assessment of AVL List GmbH with regards to AVL TFMS™. The TFMS (Test Factory Management Suite) system comprises efficient management of test field data and activities related to test jobs, test equipment and units under test (UUT).

TFMS belongs to the AVL Suite Solutions, is an open product with complete and documented APIs, support relevant standards and provides integration into processes and tools chains

Company Name:	AVL List GmbH	Contact Person:	Dr. Gerald Sammer
Product Name:	AVL TFMS™, Test Factory Management Suite, Version 1.5		
CPO Term	Fulfilled (100%)	Comments because of deviations	
2.1 Interoperability	<input checked="" type="checkbox"/>	Comments: By different standardized interfaces based on Web Services and ASAM ODS (www.asam.net)	
2.2 Infrastructure	<input checked="" type="checkbox"/>	Comments: n/a	
2.3 Extensibility	<input checked="" type="checkbox"/>	Comments: TFMS uses an application layer for customizing and extending the standard functionality	
2.4 Interfaces	<input checked="" type="checkbox"/>	Comments: n/a	
2.5 Standards	<input checked="" type="checkbox"/>	Comments: n/a	
2.6 Architecture	<input checked="" type="checkbox"/>	Comments: 3-tier application using Web Services with clear separation of user interface, business logic and data backbone	
2.7 Partnership	<input type="checkbox"/>	Comments: Partnership model is currently under development	
List of inherent supported neutral standards	API: <input type="checkbox"/> C/C++ / <input type="checkbox"/> Java / <input checked="" type="checkbox"/> .NET / <input checked="" type="checkbox"/> Web Services / Others: ASAM ODS, XML 3D: <input type="checkbox"/> IGES / <input type="checkbox"/> JT / <input type="checkbox"/> STL / <input type="checkbox"/> STEP / <input type="checkbox"/> VRML / Others: Please provide, if desired DX: <input type="checkbox"/> eCI@ss / <input type="checkbox"/> FMI / <input type="checkbox"/> IDX / <input type="checkbox"/> PDF / <input type="checkbox"/> ReqIF / <input type="checkbox"/> STEP / <input type="checkbox"/> VEC Others: Service Oriented Architecture, HTTP(S), SOAP, SQL,		

2 Details of Self-Assessment

The following chapters summarize the results of the CPO-related self-assessment of AVL List GmbH with regard to TFMS.

2.1 CPO Chapter 2.1: Interoperability

TFMS is an open platform and the API is based on standards like C++ and Web Services.

For product and technology overview please see the URL link:

<https://www.avl.com/test-lifecycle-management>

2.2 CPO Chapter 2.2: Infrastructure

Supported platforms (hardware and OS) are:

Server: MS Windows 2008R2

Client: Standard Office PC, Windows 7

2.3 CPO Chapter 2.5: Standards

Supported data exchange formats:

- ASAM-ODS
- WebServices (W3C)
- SAOP/XML
- MS .NET CLR

2.4 CPO Chapter 2.6: Architecture

The IT system's architecture is conforming CPO 2.6

Yes / No

The system architecture and other belonging documentation is part of the regular product documentation. It covers all interfaces and system requirements of clients, application server and database backend.

2.5 CPO Chapter 2.7: Partnership

2.5.1 Data Generated by Users

Data generated by IT users with an IT system is and remains the intellectual property of these IT users, according CPO 2.7.4

Yes / No

2.5.2 Partnership Models

Partnership models are offered according CPO 2.7.7

Yes / No

AVL List GmbH is currently developing a partnership model for TFMS and this will be launched beginning of 2016.

2.5.3 Support of User and Innovation Groups

Today we do not have specific user groups, but are planned for 2016 within the partnership model.

2.6 Additional Information

Detailed information regarding compliance with all individual requirements is available from AVL List GmbH upon request.

3 Executive Summary, AVL SANTORIN™

The following chapters summarize the results of the CPO-related self-assessment of AVL List GmbH with regards to AVL SANTORIN™. The SANTORIN is a Central data management for test beds: ASAM-ODS-standardized data storage

SANTORIN belongs to the AVL Suite Solutions, is an open product with complete and documented APIs, support relevant standards and provides integration into processes and tools chains

Company Name:	AVL List GmbH	Contact Person:	Dr. Gerald Sammer
Product Name:	AVL SANTORIN™		
CPO Term	Fulfilled (100%)	Comments because of deviations	
2.1 Interoperability	<input checked="" type="checkbox"/>	Comments: By different standardized interfaces based on Web Services and ASAM ODS (www.asam.net)	
2.2 Infrastructure	<input checked="" type="checkbox"/>	Comments: n/a	
2.3 Extensibility	<input checked="" type="checkbox"/>	Comments: n/a	
2.4 Interfaces	<input checked="" type="checkbox"/>	Comments: n/a	
2.5 Standards	<input checked="" type="checkbox"/>	Comments: n/a	
2.6 Architecture	<input checked="" type="checkbox"/>	Comments: 3-tier application using Web Services with clear separation of user interface, business logic and data backbone	
2.7 Partnership	<input type="checkbox"/>	Comments: Not applicable, as Partnership models are not offered today	
List of inherent supported neutral standards	API: <input type="checkbox"/> C/C++ / <input type="checkbox"/> Java / <input type="checkbox"/> .NET / <input checked="" type="checkbox"/> Web Services / Others: ASAM ODS, XML 3D: <input type="checkbox"/> IGES / <input type="checkbox"/> JT / <input type="checkbox"/> STL / <input type="checkbox"/> STEP / <input type="checkbox"/> VRML / Others: Please provide, if desired DX: <input type="checkbox"/> eCI@ss / <input type="checkbox"/> FMI / <input type="checkbox"/> IDX / <input type="checkbox"/> PDF / <input type="checkbox"/> ReqIF / <input type="checkbox"/> STEP / <input type="checkbox"/> VEC Others: Service Oriented Architecture, HTTP(S), SOAP, SQL,		

4 Details of Self-Assessment

The following chapters summarize the results of the CPO-related self-assessment of AVL List GmbH with regard to AVL SANTORIN™.

4.1 CPO Chapter 2.1: Interoperability

Santorin is a data management platform based on standards like .NET and WebServices.

APIs have the following standard language bindings:

ASAM-ODS conform data storage, ATF (x) for data import / export is applied

4.2 CPO Chapter 2.2: Infrastructure

Supported platforms (hardware and OS) are:

Server: MS Windows 2008R2

Client: Standard Office PC, Windows 7 and 8 (32 or 64 bit)

4.3 CPO Chapter 2.5: Standards

Supported data exchange formats:

- ASAM –ODS data model
- ATF (x) for data import / export
- TCP/IPv4 network protocol
- .net 4.0

4.4 CPO Chapter 2.6: Architecture

The IT system's architecture is conforming CPO 2.6 Yes / No

The system architecture is described in the product documentation. See our Product Sheet under:

<https://www.avl.com/enterprise-data-management>

4.5 CPO Chapter 2.7: Partnership

4.5.1 Data Generated by Users

Data generated by IT users with an IT system is and remains the intellectual property of these IT users, according CPO 2.7.4 Yes / No

4.5.2 Partnership Models

Partnership models are offered according CPO 2.7.7 Yes / No

4.5.3 Support of User and Innovation Groups

Supported groups are:

Santorin is represented in the PUMA User Group meetings on a regular basis.

4.6 Additional Information

Detailed information regarding compliance with all individual requirements is available from AVL List GmbH upon request.

5 Executive Summary, AVL CRETA™

As a central calibration data management system of xCU parameters, AVL CRETA™ allows the central storage, conflict-free merging and traceable documentation of calibration datasets during series calibration projects.

Company Name:	AVL List GmbH	Contact Person:	Nikolas Schuch
Product Name:	AVL CRETA™ 4.2		
CPO Term	Fulfilled (100%)	Comments because of deviations	
2.1 Interoperability	<input checked="" type="checkbox"/>	Comments: n/a	
2.2 Infrastructure	<input checked="" type="checkbox"/>	Comments: Current Scope: 15 years Lifetime of Data	
2.3 Extensibility	<input checked="" type="checkbox"/>	Comments: Fully adjustable GUI not supported on purpose of simplicity, API and extensions to improve the processes can take place outside of the system where the customer can use own build environments	
2.4 Interfaces	<input checked="" type="checkbox"/>	Comments: n/a	
2.5 Standards	<input checked="" type="checkbox"/>	Comments: Mainly standards from Calibration Formats are applicable	
2.6 Architecture	<input checked="" type="checkbox"/>	Comments: The adaption takes place at the IT supplier to ensure performance and simplicity, GUI's cannot be created by the IT customer	
2.7 Partnership	<input checked="" type="checkbox"/>	Comments: Partnership Models are handled in Terms of Data Exchange Models and Data Sharing Environments	
List of inherent supported neutral standards	API: <input type="checkbox"/> C/C++ / <input type="checkbox"/> Java / <input type="checkbox"/> .NET / <input checked="" type="checkbox"/> Web Services / Others: ASAM ODS, ASAM CDF, ASAM MCD-2, XML, COM API, OCI, WCF 3D: <input type="checkbox"/> IGES / <input type="checkbox"/> JT / <input type="checkbox"/> STL / <input type="checkbox"/> STEP / <input type="checkbox"/> VRML / Others: Please provide, if desired DX: <input type="checkbox"/> eCI@ss / <input type="checkbox"/> FMI / <input type="checkbox"/> IDX / <input type="checkbox"/> PDF / <input type="checkbox"/> ReqIF / <input type="checkbox"/> STEP / <input type="checkbox"/> VEC Others: Service Oriented Architecture, HTTP(S), SOAP, SQL, Intel HEX Format, Motorola S-Record		

6 Details of Self-Assessment

The following chapters summarize the results of the CPO-related self-assessment of AVL List GmbH with regard to AVL CRETA™

6.1 CPO Chapter 2.1: Interoperability

APIs have the following standard language bindings:

COM Interfaces on the CRETA Client Side which offers possibility to connect with many environments and programming languages.

6.2 CPO Chapter 2.2: Infrastructure

Supported platforms (hardware and OS) are:

OS Client: Microsoft Windows 7 (32 and 64 Bit); Windows 8; Windows 10; Windows Server 2012

Database: Oracle Server; MS SQL Server; MS JET

6.3 CPO Chapter 2.5: Standards

Supported data exchange formats:

ASAM ASAP2

ASAM PAco

ASAM cdfx

Intel Hex

Motorolla S-Records

DCM Industry Standard Data Exchange

OSLC for connection, linking and sharing of development artefacts

6.4 CPO Chapter 2.6: Architecture

The IT system's architecture is conforming CPO 2.6

Yes / No

See our Product Sheet under: <https://www.avl.com/-/avl-creta-calibration-data-management>

6.5 CPO Chapter 2.7: Partnership

6.5.1 Data Generated by Users

Data generated by IT users with an IT system is and remains the intellectual property of these IT users, according CPO 2.7.4

Yes / No

6.5.2 Partnership Models

Partnership models are offered according CPO 2.7.7

Yes / No

AVL offers Varian Partnership Models depending on the customer Use Cases. See our Standard Models under: <https://www.avl.com/-/avl-creta-calibration-data-management>

6.5.3 Support of User and Innovation Groups

Our current customers have the possibility to contribute and share their experience via our AVL CRETA Blog.

6.6 Additional Information

Detailed information regarding compliance with all individual requirements is available from AVL List GmbH upon request.