



21ST CENTURY TECHNOLOGIES

CAMWorks – Code of PLM Openness

Nitin Umap

CPO Statement of CAMWorks for SOLIDWORKS and Solid Edge

Date: 01-February-2018

**CAMWorks for SOLIDWORKS and Solid Edge is referred as CAMWorks in rest of the document*

CPO Statement of CAMWorks

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

This CPO Statement refers to:

Product Name	CAMWorks
Product Version	2018
Contact	Vivek Govekar Vivek.Govekar@hcl.com

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

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1 Executive Summary

CAMWorks is committed to implement the requirements and criteria formulated in the Code of PLM Openness. CPO is an initiative of the ProSTEP iViP association for establishing a common understanding on openness of IT systems in the context of PLM. CAMWorks believes that open standards make life easier for users and developers alike, by promoting interoperability and efficiency.

CAMWorks has, since 1998, offered proven software products in the area of CAD/CAM, PDM and PLM interoperability. The principals of the “Code of PLM Openness” play an important part in our software architecture and in the development of our software products.

Company : HCL Technologies Ltd.	Contact Person : Vivek Govekar	
Product Name:	CAMWorks for SOLIDWORKS and Solid Edge	
CPO Term	Fulfilled (100%)	Comments because of deviations
2.1 Interoperability	<input checked="" type="checkbox"/> Yes	
2.2 Infrastructure	<input checked="" type="checkbox"/> Yes	
2.3 Extensibility	<input checked="" type="checkbox"/> Yes	
2.4 Interfaces	<input checked="" type="checkbox"/> Yes	
2.5 Standards	<input checked="" type="checkbox"/> Yes	
2.6 Architecture	<input checked="" type="checkbox"/> Yes	
2.7 Partnership	<input checked="" type="checkbox"/> Yes	
List of supported standards and software programming languages	API: <input checked="" type="checkbox"/> C/C++ / <input checked="" type="checkbox"/> .NET C# / <input checked="" type="checkbox"/> .NET VB.Net 3D CAD: <input checked="" type="checkbox"/> IGES / <input checked="" type="checkbox"/> Parasolid / <input checked="" type="checkbox"/> STL / <input checked="" type="checkbox"/> STEP <input checked="" type="checkbox"/> VDAFS / Others: All other 3D formats supported by SOLIDWORKS and Solid Edge for which B-Rep and Geometry data is available	

2 Details of Self-Assessment

The following chapters summarize the results of the CPO-related self-assessment of HCL’s Geometric Tech with regard to CAMWorks®.

2.1 CPO Chapter 2.1: Interoperability

APIs have the following standard language bindings:

- Microsoft® C/C++ (Microsoft® C++ 11),
- Microsoft® C# 4.0,
- Microsoft® VB.NET (.NET Framework 4)

Details of our Product offerings can be found at: <https://camworks.com/>

2.2 CPO Chapter 2.2: Infrastructure

Supported platforms (hardware and Operating system) are:

Supported OS:

- 64-bit version of Windows 10
- 64-bit version of Windows 8.1
- 64-bit version of Windows 7 (SP1 or higher)
 - * Home editions of the above Operating Systems are not supported.

Supported Hardware:

- Windows® PCs
- RAM: 8 GB or more recommended
- Processor: Intel or AMD processors with SSE2 support

Details of our Product offerings can be found at: <https://camworks.com/>

2.3 CPO Chapter 2.5: Standards

Supported CAD formats:

- 3D CAD* formats supported by SOLIDWORKS 2018 version
- 3D CAD* formats supported by Solid Edge ST10 version
 - * Formats for which respective CAD tool APIs provides B-Rep information

Details of our Product offerings can be found at: <https://camworks.com/>

2.4 CPO Chapter 2.6 Architecture

The IT systems Architecture is conforming CPO 2.6

Yes / No

CAMWorks has a documented and defined interface architecture available as part of the installation and configuration guide. CAMWorks has layers for user interface and automation. Automation is achieved through COM API layer.

We confirm the following statements:

- IT customers can create GUIs (clients) for specific user groups which leverage the capabilities of the different IT systems

- IT customer can access the individual component so that administration and continued operation of the different layers (e.g. Application and Database) can be delegated to the appropriate internal organizations.

Details of our Product offerings can be found at: <https://camworks.com/>

2.5 CPO Chapter 2.7 Partnership

2.5.1 Data Generated by User

Yes / No

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

2.5.2 Partnership Models

Partnership models are offered according CPO 2.7.7

Yes / No

Openness of an IT system exists between the IT vendor, the IT service provider and the IT customer. We are working across vendors to address customer requirements for their specific interdisciplinary and multi-system mapping of workflows. We were involved with other IT vendors & customers to support extensibility and integration of CAMWorks with other systems. HCL Technologies Ltd. is open to partnership & co-operation opportunities on CAMWorks.

2.5.3 Support of User and Innovation groups

HCL Technologies Ltd. supports user communities and other educational and industry institutes and is open to partnership & co-operation opportunities on CAMWorks. CAMWorks participates in various manufacturing technology events to explore possibilities of helping users meet their requirements. CAMWorks has dedicated support portal (IT tool) for continuous user support.

2.6 Additional Information

CAMWorks consists of components that are highly scalable and extensible. Over these building blocks interfacing to other 3rd party system is possible. Such building blocks are CAMWorks COM APIs, Universal post processor, xslt driven XML setup sheets. COM interfaces can be used for the connection with 3rd party systems and batch processing. CAMWorks technology database is designed in such a way that user can customize as per their manufacturing processes and standards. This helps them leverage knowledge and maintain standard across organization.