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CADS engineering

EPP

Engineering Process Publisher

Your booster for positioning assemblies in PTC Windchill PDMLink®

EPP – Engineering Process Publisher 2.0

The Engineering Process Publisher (EPP) software suite from CADS Engineering GmbH is a modular extension and supplement to the Out-of-the-Box (OOTB) functionalities of Windchill PDMLink for the utilisation of positioning assemblies and extended positioning assemblies.

EPP will enable you to supply updated visualisation data (Creo View representations) in your Windchill system without having to republish the entire model each time. Unnecessarily long waiting times are thus avoided.

When using positioning assemblies or extended positioning assemblies, EPP enables the system to be able to differentiate between application cases as well as also to generate the corresponding type of representation for them. You will thus be able to publish large models and many changes faster and more efficiently.

An optimisation of the "mark-out-of-date" process helps to reduce the number of non-required "publish jobs" (and/or not even having to start them at all). This adaptation will enable you to more effectively control the workloads of the workers with regards to the anticipated duration and the queues to be used.

The EPP Solution

The initial impetus for developing the EPP suite was provided by missing functions in the Windchill standard system. An example is the mark-out-of-date process which is applied only to the last iteration. This and many other examples which had not been depicted or only insufficiently depicted in the past energised us to develop a solution which closes the gap(s) in Windchill's standard functionality. In this regard, EPP functions as a filter which enables it to generate Creo™ View files in a resource-sparing and fast manner.

Furthermore, the EPP software suite contains supplemental applications for Creo Parametric® whose algorithms will already analyse your data during the processing phase. Thus, it is promptly determined with which publishing strategy the data can be visualised.

Advantages: Data Reduction, High Degree of Flexibility and Viewing Data that are More Up-to-Date

Because, with positioning assemblies, merely the structure files which are required for Creo™ View are generated via EPP and thus ideally each part and each assembly unit must be published only once, the data quantity thus created can be massively reduced – and thus in a substantially-shorter time than with the OTB functionalities.

Through the publication already during check-in and not only then, for example, during the approval phase, the viewing data in your Windchill system are always kept completely up-to-date. Designers can thus make their decisions upon the basis of current viewing data during all process steps. EPP offers the possibility of adapting the publishing flexibly to your business requirements. Creo-View representations can, for example, be generated with various configurations based upon the life cycle state.

Make your workflow more efficient,
with accurate and up to date viewing data.

Platform Specifications

- Microsoft® Windows® 10
- Languages: English, German
- Beginning from Creo Parametric 4.0
- Beginning from Creo™ View 4.1 and newer
- Beginning from Windchill 11.x and newer

Engineering Process Publisher Modules

EPP Foundation

The EPP Foundation Module differentiates between which model is being published and how and ensures that the visualisation jobs are created and/or generated during check-in. Together with the Mark-Out-Of-Date Module, the EPP Foundation forms the basis for the Engineering Process Publisher and is mandatorily required for the deployment of all modules. Moreover, it offers the possibility to generate freely-configurable publish jobs, e.g. after the lifecycle state, to use various ConfigSpecs (Latest, Latest Released, As Stored) for the publishing.

EPP Windchill Mark-Out-Of-Date

The EPP Windchill Mark-Out-Of-Date-Module determines the value of the “out-of-date” parameters of the Creo-View representations in Windchill. It is used only for assembly units which have not been published as positioning assemblies. The functionality contained in this module makes it possible that only the last iteration is published or updated. Because it is generally not necessary to update obsolete iterations, the publishing jobs are reduced massively.

Type	Lifecycle	Child Lifecycle	Representation Type	RepName	Mark-Out-Of-Date
Assembly	InWork	Any	Positioning Assy.	Latest	False
Assembly	Released	Any	Positioning Assy.	Latest	False
Assembly	Released	Released	Positioning Assy.	Latest Released	False
Assembly	InWork	Any	Monolith	Latest	True
Assembly	Released	Any	Monolith	Latest	True
Assembly	Released	Released	Monolith	Latest Released	True

Table 1: The following options are filtered and set according to the Mark-Out-Of-Date parameters.

EPP Checker for Creo Parametric®

The EPP Checker is a supplemental application for Creo Parametric® whose algorithms already analyse the data during the processing. Thus, it is determined at the outset with which publishing strategy the data can be visualised. Moreover, the analysis contains the recursive checking of the assembly units. If there are design elements which alter the geometry of individual components, an identified parameter is generated. The toolkit application can be utilised throughout the entire company and is not restricted to a max. number of users.

Engineering Process Publisher Modules

EPP Scheduled Jobs

The Scheduled Jobs Module offers an abundance of pre-defined and configured scheduled jobs which will only then enable the efficient and successful utilisation of visualisation data at your company:

- **EPP_PublishAssembliesNoRep:** Generates visualisation data in a freely-definable Windchill context for all assembly units which still have no representation. If this should encompass "old data" which still have no EPP parameters, then a standard positioning representation will be generated.
- **EPP_PublishParts:** Generates a new representation for all components in one context if they still have none.
- **EPP_PublishDrawings:** Generates a new representation for all drawings in one context if they still have none.
- **EPP_Purge:** Enables the "purging" of representations which are no longer needed based upon a wide array of criteria, e.g. the number of versions or iterations which one would like to retain and/or in which context or product the job is supposed to run.
- **EPP_Repair:** If the default representation is not suitable for the settings, they it is deleted and regenerated. Thus, it is ensured that, for example, the Default Rep has always been generated with the Config Spec Latest.

EPP Queue Management

Via the Queue Management Module, Publish Jobs can be categorised to the pre-configured queues based upon various features. An Extended Position Assembly Job from an assembly unit can thus be saved, for example, in another queue than a Positioning Job of an individual part.

Queue	Description
CreoHighMem	Queue for Creo jobs which require high memory capacities
CreoLowMem	Queue for Creo jobs which require no high memory capacities
CreoDrw	Queue for Creo drawings
CATIALowMem	Queue for CATIA jobs which require no high memory capacities
CATIAHighMem	Queue for CATIA jobs which require high memory capacities

Job Type	Windchill Doc Type	CAD Application	Queue
Extended Positioning	CAD Assembly Unit	Creo	CreoHighMem
Positioning	CAD Assembly Unit	Creo	CreoLowMem
-	CAD Part	Creo	CreoLowMem
-	CAD Drawing		CreoDrw
Positioning	CAD Assembly Unit	CATIA	CATIALowMem
-	CAD Part	CATIA	CATIALowMem
-	CAD Drawing	CATIA	CATIAHighMem

Table 2: Queue Management

Engineering Process Publisher Modules

EPP Priority Filter

In order to be able to provide the user with the required representations as fast as possible, the EPP Priority Filter Module offers the possibility of prioritising Publish Jobs via a wide array of criteria. Thus, it becomes possible to determine with a high degree of precision which data have "priority" within the system because Windchill filters in the standard process only based upon EPM documents, but cannot differentiate between individual parts, positioning assembly units, monolithic assembly units and drawings. Other criteria such as Check-In or Scheduler are likewise taken into consideration.

The time required for the creation of representations can be reduced drastically via this mechanism. If multiple visualisation workers should be deployed, the Queue Management Module is thus the optimal complement to a fast, efficient visualisation process.

EPP Visualisation Packages

Module	EPP Essentials	EPP Advanced	EPP Premium	Subscription Module Only
Foundation	●	●	●	–
Mark-Out-Of-Date	●	●	●	–
Checker	○	●	●	**€ 3495.-**
Priority Filter	–	○	●	**€ 3495.-**
Queue Management	–	○	●	**€ 3495.-**
Scheduled Jobs	○	○	●	**€ 3495.-**
Subscription Package:	**€ 4950.-**	**€ 7950.-**	**€ 19950.-**	

● *Included in Package* | ○ *Optionally Available* | – *Not Available in Package*