CADS
engineering

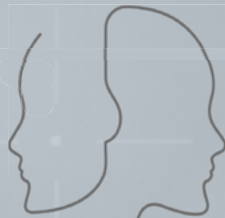# JANUS®

Engineering Automation Software
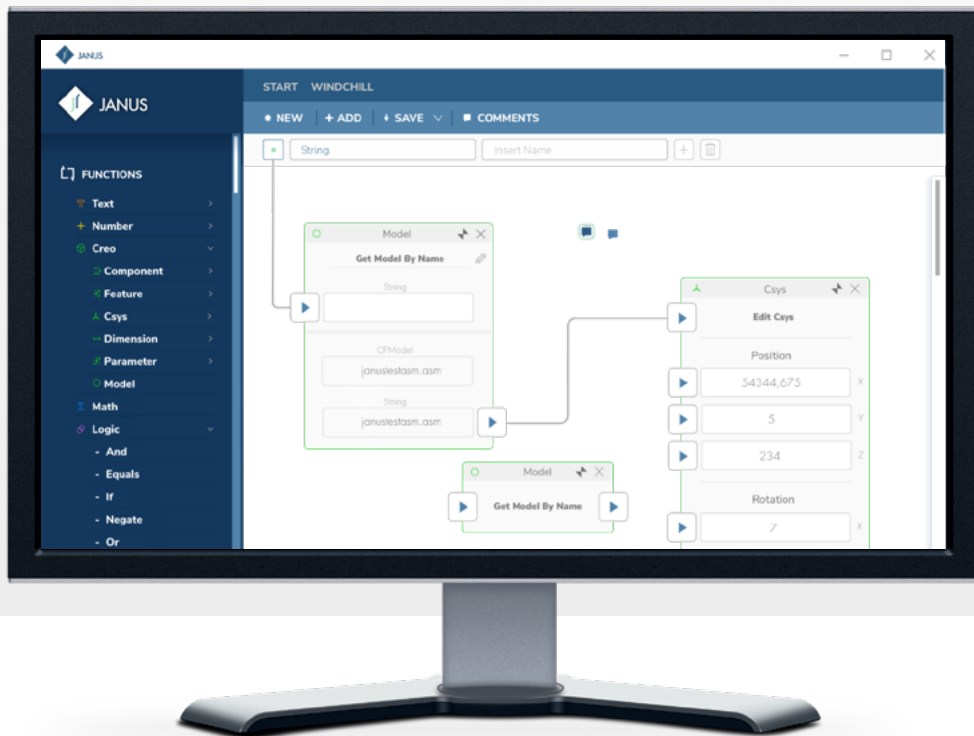
Configuration & Variant Management with PTC Creo Parametric and PTC Windchill

JANUS® – the Two-Faced Roman God of the Beginning and the End, the Past and the Future

Via our modular engineering automation software JANUS®, it is possible to enrich objects in PTC-Windchill with additional logic and to unite this additional information upon the server side with order-specific values. Through the segregated analysis of logic and configuration, products can be individually configured down to the individual part without foregoing the advantages of modern configuration & variant management.

This is enabled through an interface between Creo Parametric and the visual JANUS® Logic Editor. Via the Logic Editor, the modelling and administration of logic can take place outside the CAD system. Moreover, WT parts, WT docs or entire BOM structures (E|M|S) can thus be controlled in a fully-automated fashion.

The combination of data management, server-side logic analysis and a fully-automated Worker process enable JANUS® geometries to be manipulated; as required, new models can be created, reuses can be identified, sketches can be automated, models can be replaced, materials and colours can be selected and much more.
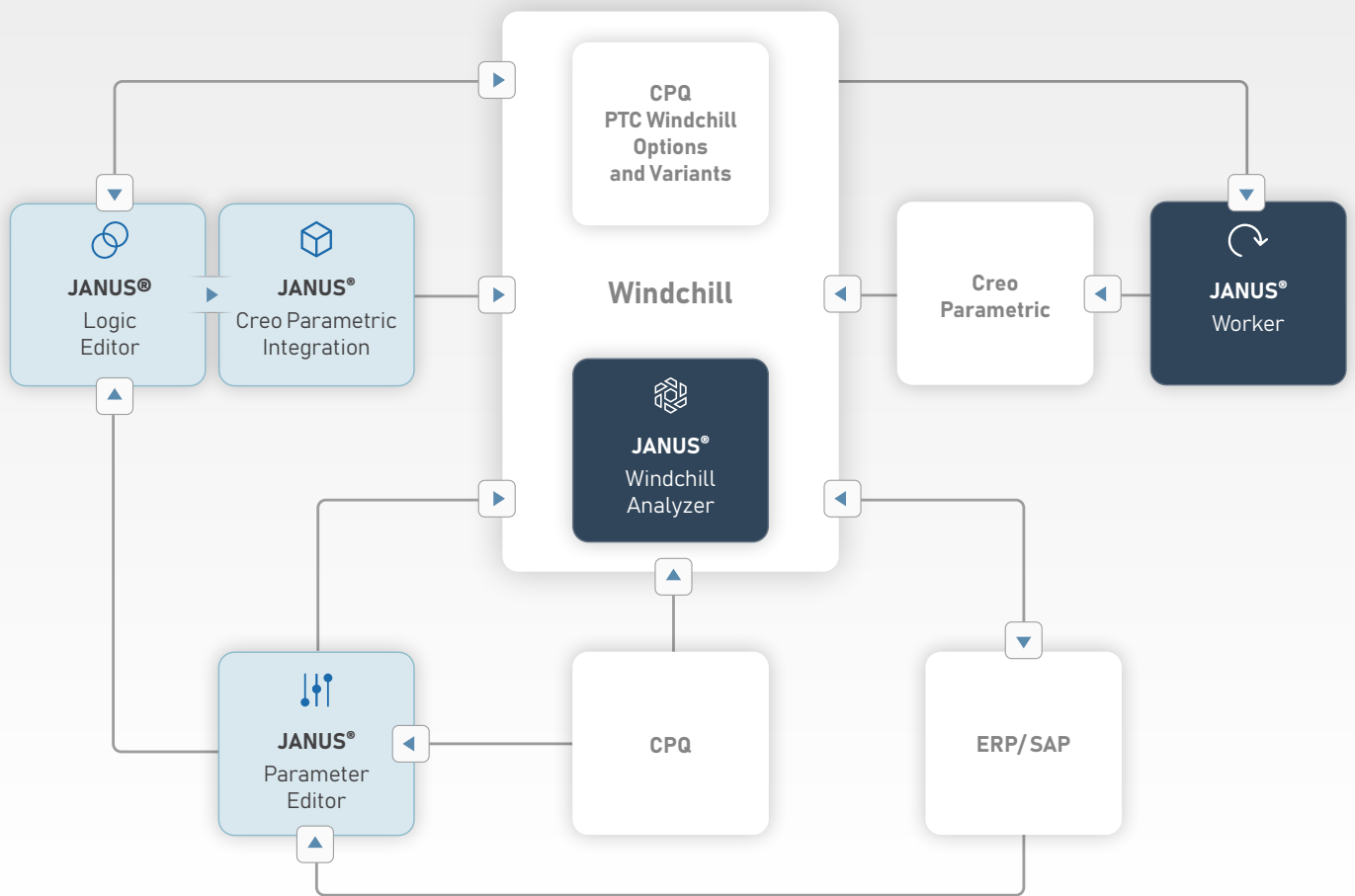
By merging information in JANUS® from diverse systems (e.g. CAD, ERP, PLM, CPQ), the flexibility of an engineering-to-order strategy can be combined with the advantages of a configure-to-order process. For this purpose, JANUS® OOTB is equipped with a standardised XML interface which enables a linkage (import) of all process-relevant systems.

Only when all this information is available can CAD models be controlled based upon the requirements, reuses identified and WT part/multi-BOM structures automatically created.

The JANUS® Architecture

The JANUS® Software Suite consists of four main components which are used during a variant configuration. During the definition and/or design phase, these are primarily the JANUS® Logic Editor and/or the JANUS® Parameter Editor. Both these tools support the designer in correspondingly setting up the models or testing new variants. The JANUS® Windchill Analyzer, jointly with the JANUS® Worker, handles the fully-automated configuration of new orders upon the server side. The order information obtains these components from the JANUS® Parameter Editor or optionally from a sales configurator (CPQ) or an ERP system.
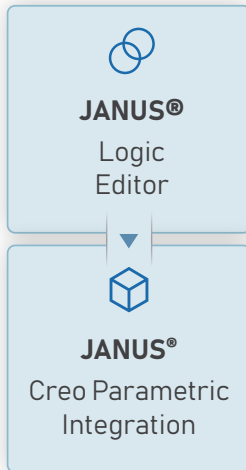

● — *JANUS® for Windchill*

○ — *JANUS® Client for Creo*

○ *- Requirements or extensions (not JANUS®)*

JANUS®
Parameter
Editor

▶ **JANUS® Parameter Editor**

Via the JANUS® Parameter Editor, options or variants of a product can be defined. This module provides the opportunity to use option codes from PTC Windchill, to link an already-existing sales configurator (e.g. CAMOS, SAP VC) or to define the variants themselves or to import them via a standardised XML interface.

JANUS®
Logic
Editor

JANUS®
Creo Parametric
Integration

▶ **JANUS® Logic Editor & JANUS® Creo Parametric Integration**

The Logic Editor and the Creo Parametric Integration form an entity – the centrepiece of the JANUS® solution. The Logic Editor supports the user during the visual definition (EUD) of the product logic. Information from the CAD/PLM/ERP can be directly linked together and thus the models (form and structure) can be controlled. Moreover, the WT part structures such as EBOM and MBOM can be automated and generated via JANUS®. This results in a significant reduction in the order-specific expenditures in the downstream processes.

JANUS®
Windchill
Analyzer

▶ **JANUS® Windchill Analyzer**

The Windchill Analyzer handles the server-side interpretation of the JANUS® files. In so doing, it tests whether, among others, new structures must be set up, variants have possibly already been configured and can be reused or components must be replaced. Furthermore, this module manages the JANUS® Worker queue which sends the components to be updated to the JANUS® Worker.

JANUS®
Worker

▶ **JANUS® Worker**

Via the JANUS® Worker, all components, parts and sketches are updated which have been modified owing to a new configuration. Thus, it is guaranteed that all individual documents, sketches and models are depicted completely and correctly. Particularly for the downstream processes, this is of importance because divisions, such as the Production Planning Division or the Production Division, must rely on accurate data.

What are the Unique Features of JANUS®?

Engineering-to-Order-Process can be 100% automated
- New WT parts and CAD models are created as required
- No manual intervention required/possible

Configuration throughout the entire product structure down to the individual part
- JANUS® supports non-CAD upper structures
- Full compatibility with Windchill O&V

Significant reduction of expenditures through reuse
- Reuse of already-configured variants
- Matrix of already-configured variants in Windchill
- Construction of all variants no longer required

Automated configuring of EBOM and MBOM, incl. new objects
- Derivation of MBOM and automated configuring
- Possibility of ordering a logic in MBOM, e.g. structural position in EBOM

Supporting all CAD methods in Creo, e.g. layouts, ProProgram, relationships
- Know-how is extracted from the CAD models and provided transparently to everyone
- Applying the existing CAD logic through the regeneration of the CAD models

Geometry, components and materials can be:
created, modified, replaced or deleted

Creation of a digital twin
through a 100% 3D visualisation
of each client variant

JANUS® – Pricing 2021/22

JANUS®-Subscription - Pricing

If you have any questions, please feel free to contact us at office@cads-engineering.com

Basis	+	+
JANUS® for Windchill	**JANUS® Client for Creo**	**Additional JANUS® Worker**
€ 14.950 / year	**€ 2.950 / year**	**€ 9.950 / year**
↻ **1 JANUS® Worker**	┆┆ **JANUS® Parameter Editor**	↻ **+1 JANUS® Worker**
+	+	
JANUS® Windchill Analyzer	**JANUS® Logic Editor**	
	+	
	JANUS® Creo Integration	
Requirement for JANUS® Client for Creo and additional workers	1 JANUS® for Windchill package is required	1 JANUS® for Windchill package is required

Requirements

Licenses required from PTC to use JANUS®

- **Creo 7.0 or newer**

- **Windchill 11.2**