



Tacton Design Automation Product Description

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Table of Contents

1	Purpose of this document	3
2	Definitions and terminology	3
3	Tacton Design Automation Product Structure	4
3.1	Product access	4
3.2	Product Support.....	5
4	Tacton Design Automation Product Capabilities	5
4.1	Design Automation Studio	5
4.1.1	Product Architecture Definition.....	5
4.1.2	Constraint-Based Configuration Logic	6
4.1.3	CAD Mappings	6
4.1.4	Configuration Interface Design.....	6
4.1.5	Output and Drawing Template Definition	6
4.2	Design Automation Engineer.....	6
4.2.1	Guided Product Configuration.....	7
4.2.2	Conflict Detection and Notification	7
4.2.3	Automated CAD Assembly and Model Generation.....	7
4.2.4	Output Generation.....	7
4.2.5	2D Drawing and Document Generation	7
4.2.6	Manual Design Complement.....	7
5	System Requirements	8
5.1	Software & Hardware Prerequisites	8
5.2	Installation.....	8
5.3	Licensing.....	8
5.4	Data and Security	9



1 Purpose of this document

For a Tacton Design Automation customer, this document describes:

- High level product Capabilities (currently) available in Tacton Design Automation Software, based on how Tacton offers the product commercially. Full technical documentation about features is located in the Tacton Design Automation Manuals which can be found as part of the Tacton Design Automation installation.
- Definitions of the key terms used in the product and in Tacton's commercial agreements.

This document forms part of the Documentation referred to in the Tacton Master Services Agreement. Tacton may update this document from time to time. The then-current version is published at <https://www.tacton.com/legal-information/>. Superseded versions are available from Tacton on request.

2 Definitions and terminology

"Tacton Design Automation" means the suite of Windows-based desktop add-in applications delivered by Tacton that embed Tacton's constraint-based configuration engine inside the host CAD system. The suite consists of two applications: Design Automation Studio and Design Automation Engineer.

"Suite" means the Tacton Design Automation product as a whole, comprising both Design Automation Studio and Design Automation Engineer. Each of Studio and Engineer is referred to individually as an **"Application"**.

"Design Automation Studio" means the authoring application, installed as an add-in to the host CAD system, through which product engineers and CAD experts define the product's configuration logic, module variants, constraint rules, and CAD mappings. Design Automation Studio is a prerequisite for using Design Automation Engineer which requires the output from Design Automation Studio.

"Design Automation Engineer" means the runtime application, installed as an add-in to the host CAD system, through which sales engineers and CAD engineers run the product configurator for a specific customer project and generate the corresponding CAD output files (3D models, 2D drawings, and associated documents).

"CAD Platform" means the host computer-aided design application into which the Design Automation add-ins are installed. Supported CAD Platforms are SOLIDWORKS (Dassault Systèmes), Autodesk Inventor, and PTC Creo.

"Configuration Logic" means the product definition authored in Design Automation Studio, comprising the product's modules, module variants, attributes, constraint rules, and the mappings between configuration parameter values and CAD part properties.

"CAD Mapping" means the connection, defined in Design Automation Studio, between a selected module variant or configuration parameter value and the corresponding property of a CAD part or assembly in the host CAD system (e.g. a sketch dimension, a suppressed feature, or a replaced component).

"Named User" is a commercial unit in Tacton's licensing model. A Named User license authorizes one specific individual to use a single Application (Design Automation Studio or



Design Automation Engineer) for a single CAD Platform. A user who needs both Applications, or access to more than one CAD Platform, requires a separate Named User license for each.

"Node-Locked License" means a license bound to a specific machine. The license is activated on first launch using an activation code provided by Tacton.

"Floating License" (also referred to as concurrent or network license) means a license served from a network license server, allowing a pool of licenses to be shared across multiple users in an organization. Floating licenses support offline borrowing for a defined period.

3 Tacton Design Automation Product Structure

Tacton Design Automation is a suite of Windows-based desktop add-ins that seamlessly integrate Tacton's patented, constraint-based configuration engine inside the leading industrial CAD platforms. The product enables companies selling complex, configurable industrial equipment to automate the creation of customer-specific CAD designs – without manual engineering effort for each individual sales case.

Tacton Design Automation is positioned in the Design and Order Execution phases of the manufacturing value chain. In the Design phase, it is used by product engineers to build and maintain the automation templates. In the Order Execution phase, it is used by sales and CAD engineers to generate customer-specific designs. It is deployed as a standalone product.

Tacton Design Automation offers two standard applications for each supported CAD Platform:

- Design Automation Studio
- Design Automation Engineer

Supported CAD Platforms:

- SOLIDWORKS (Dassault Systèmes)
- Autodesk Inventor
- PTC Creo

Tacton supports the three (3) most recent major releases of each CAD Platform at the time of installation. Refer to the current release notes for the specific versions validated at each release.

Tacton Design Automation is sold and implemented exclusively through a network of certified reseller and implementation partners. A current list of partners can be found at <https://www.tacton.com/partners/>.

3.1 Product access

After purchase, customer can download their subscribed products from Tacton's Product Portal <https://products.tacton.com/>. For access, please contact your Tacton representative or Reseller to ensure that you are a registered user.



Once logged in, you will be able to access the most recent version of installation files, installation manuals and release notes for your subscribed products.

3.2 Product Support

Support is handled by the customer's reseller. For access to the Tacton support portal at <https://www.tacton.com/product-support/>, please contact your Tacton reseller to ensure that you are a registered user.

User manuals for Design Automation Studio and Design Automation Engineer can be found inside the respective application after installation. The Tacton License Server installation manual is included with the License Server installer.

4 Tacton Design Automation Product Capabilities

The capabilities described below apply equally across all three supported CAD Platforms (SOLIDWORKS, Autodesk Inventor, PTC Creo). Platform-specific implementation details are documented in the respective installation and user manuals.

4.1 Design Automation Studio

Design Automation Studio is the authoring (design-time) application, embedded as an add-in inside the host CAD system. It is used by product engineers and CAD experts to define the complete automation template for a configurable product. The template, once defined, serves as the starting point for every new customer design created in Design Automation Engineer.

Article Number	Product Name	License Type
AA073	Tacton Design Automation Studio for SOLIDWORKS®	Node-locked
AA075	Tacton Design Automation Studio for SOLIDWORKS®	Floating
AA087	Tacton Design Automation Studio for Autodesk® Inventor®	Node-locked
AA089	Tacton Design Automation Studio for Autodesk® Inventor®	Floating
AA178	Tacton Design Automation Studio for PTC Creo®	Node-locked
AA472	Tacton Design Automation Studio for PTC Creo®	Floating

4.1.1 Product Architecture Definition

- Define product modules, their available variants, and the properties that characterize each variant

- Encode the product platform in a shared, company-wide definition rather than individual engineers' knowledge
- Support for both part-level and assembly-level design automation

4.1.2 Constraint-Based Configuration Logic

- Patented constraint solver evaluates all defined constraints and is designed to produce configurations that satisfy the Configuration Logic authored in Design Automation Studio and the requirements entered during configuration
- Automatic conflict resolution across complex, multi-module interdependencies

4.1.3 CAD Mappings

- Define mappings between selected module variants or configuration parameter values and the corresponding properties of CAD parts and assemblies in the host CAD system
- Supported mapping depends on the CAD system and the Design Automation version. A detailed description can be found in the specific manuals.

4.1.4 Configuration Interface Design

- Design the guided configuration interface presented in Design Automation Engineer
- Define questions, input controls, and conditional show/hide logic based on prior selections

4.1.5 Output and Drawing Template Definition

- Define 2D drawing layout and formatting to render correctly across all product variants
- Specify output file formats, supporting all native CAD formats plus standard 2D and 3D exchange formats

4.2 Design Automation Engineer

Design Automation Engineer is the runtime (front-end) application, embedded as an add-in inside the host CAD system. It is used by sales engineers and CAD engineers to configure a specific customer design by working through the guided configurator, and to generate the finished CAD output. Design Automation Engineer is intended to be operated without advanced CAD modelling skills.

Article Number	Product Name	License Type
AA077	Tacton Design Automation Engineer for SOLIDWORKS®	Node-locked
AA079	Tacton Design Automation Engineer for SOLIDWORKS®	Floating



AA091	Tacton Design Automation Engineer for Autodesk® Inventor®	Node-locked
AA093	Tacton Design Automation Engineer for Autodesk® Inventor®	Floating
AA180	Tacton Design Automation Engineer for PTC Creo®	Node-locked
AA473	Tacton Design Automation Engineer for PTC Creo®	Floating

4.2.1 Guided Product Configuration

- Step-by-step configuration interface embedded directly in the CAD environment
- Real-time validation against the constraint engine, with automatic adjustment of dependent parameters

4.2.2 Conflict Detection and Notification

- Flags incompatible selections and identifies the source of the conflict
- Blocks progression where the configuration does not satisfy the defined constraints

4.2.3 Automated CAD Assembly and Model Generation

- Compiles the configured assembly by applying all CAD mappings defined in Design Automation Studio
- Generates parameterized designs on demand, and is designed to support product platforms with millions of possible variant combinations

4.2.4 Output Generation

- Produces all required output files at the click of a button
- Supports native CAD formats plus standard 3D and 2D exchange formats, including STEP, IGES, Parasolid, DXF, and PDF. A complete list of supported formats is available in the platform-specific user manuals.

4.2.5 2D Drawing and Document Generation

- Automatically generates 2D assembly drawings, including correct dimensions, annotations, and parts lists
- Generates associated output documents such as technical specifications and quote documents

4.2.6 Manual Design Complement

- Configuration-driven designs can be complemented with manual changes for requirements outside the parameterized range
- Provides a validated starting point that reduces remaining manual effort



5 System Requirements

The following requirements apply to each machine on which Design Automation Studio or Design Automation Engineer is installed.

5.1 Software & Hardware Prerequisites

- Tacton Design Automation has no software or hardware requirements of its own beyond those of the host CAD Platform, and is designed to run on the Windows versions supported by the host CAD Platform. We guarantee compatibility with the Windows version the host CAD system support.
- The host CAD system (SOLIDWORKS, Autodesk Inventor, or PTC Creo) must be fully installed and licensed on the machine prior to installing Tacton Design Automation. The CAD Platform license is acquired separately by the customer directly from the CAD vendor or an authorized CAD reseller and is not included with a Tacton Design Automation license.

5.2 Installation

- Installation must be performed by a user with administrator rights on the machine
- The Tacton Design Automation add-in is activated inside the host CAD application's add-in manager after installation
- Any previously installed version of the same Design Automation application must be uninstalled before installing a new version, and the host CAD system must be shut down before starting installation
- All Design Automation installation files and installation manuals are available through the Tacton Product Portal (see Product Access above).

5.3 Licensing

- Tacton Design Automation licenses are per Named User, per application (Studio or Engineer), and per CAD Platform
- Two license delivery modes are supported:
 - Node-Locked License – bound to a specific machine, activated on first launch using an activation code provided by Tacton
 - Floating License (also referred to as concurrent or network license) – served from a network license server, allows a pool of licenses to be shared across multiple users; supports license borrowing for offline use for a defined period
- Floating licenses require the Tacton License Server to be installed and activated on a dedicated server in the customer's network. The Tacton License Server consists of the Tacton License Manager (a web-based interface for monitoring license usage and availability) and a license activation utility. The License Server installer and installation manual are available through the Tacton Product Portal (see Product Access above).



5.4 Data and Security

- Tacton Design Automation runs as a desktop add-in within the customer's CAD environment. Product configuration logic, CAD models, and generated output remain on the customer's own machines and network, and are not transmitted to or stored by Tacton.
- Tacton Design Automation may transmit diagnostic and error reporting information to Tacton for the purpose of maintaining and improving the Software. Such information does not include Configuration Logic, CAD models, project data or generated output.