



TRANSITION
TECHNOLOGIES

TT PSC – End-to-End Partner for PLM, ALM & Digital Thread

Aerospace & Defense

TT PSC is more than an implementation partner

We support aerospace and defense companies end-to-end – from strategic alignment through implementation and integration to operations, service and long-term evolution.

We deliver not just systems, but sustainable, certification-ready value creation over decades – across the entire product, software and system lifecycle.

TT PSC = PTC excellence + End-to-end responsibility

From engineering to in-service support.

Why TT PSC for Aerospace and Defense?

In aerospace and defense, complexity, regulatory pressure and security requirements are all increasing simultaneously:

- ✓ Run development programs over decades
- ✓ Meet mission-critical safety, security and certification requirements
- ✓ Synchronize hardware, software and systems engineering
- ✓ Control variants, configurations and baselines end-to-end
- ✓ Ensure full traceability for audits (EASA, FAA, ITAR)
- ✓ Avoid tool silos that jeopardize transparency, compliance and time-to-certification

TT PSC addresses this reality with a clear focus:

- ✓ Focus exclusively on PTC solutions (Windchill, Codebeamer, Digital Thread, ServiceMax)
- ✓ Provide deep expertise in safety-critical development and certification
- ✓ Deliver technical depth down to data models, APIs and custom code
- ✓ Integrate systems instead of creating isolated solutions (PLM, ALM, ERP, MES, DevOps)
- ✓ Migrate and modernize systems without losing certification evidence
- ✓ Transfer knowledge from complex enterprise and long-running programs
- ✓ Ensure sustainable operations including service, maintenance and lifecycle support

Our Portfolio for Aerospace and Defense

End-to-End PLM + ALM + Digital Thread

We deliver a comprehensive service portfolio across the entire value chain – from requirements and system architecture through development, verification and certification to operations and in-service support.

PLM Services



Transform data management into a high-performance PLM system

We support two key target groups in A&D:

1

We support established aerospace and defense companies in modernizing existing PLM landscapes – transforming historically grown system environments into high-performance, configuration- and certification-ready enterprise PLM platforms that streamline processes, increase transparency and accelerate innovation.

2

We support growing A&D companies and suppliers in transformation processes – for example transitioning from automotive to A&D – by building scalable, certification-ready PLM platforms. We ensure compliance with regulatory requirements – including export control, access security, end-to-end traceability and long-term, audit-proof documentation.

Typical goals – Established A&D companies

- Modernize PLM landscapes to respond faster to new product requirements and shorten iteration cycles
- Enable efficient collaboration with partners, suppliers and global sites through secure and structured information flows
- Manage increasing software content through seamless PLM-ALM integration and end-to-end traceability
- Establish integrated variant and BOM management (eBOM, mBOM, sBOM)
- Enable cross-disciplinary collaboration across systems, hardware, software, electronics, manufacturing and service
- Integrate system landscapes including CAD, ECAD, simulation, ERP and supplier systems

Typical goals – Growing A&D companies and suppliers

- Establish structured configuration and baseline management across programs and lifecycles
- Ensure long-term audit and certification readiness
- Implement structured change and release processes (ECR, ECO, CCB)
- Deploy A&D-compliant PLM environments
- Build secure and compliant PLM infrastructure

Services

- Define PLM discovery and target architecture (A&D-compliant)
- Implement solutions and execute global rollouts
- Integrate CAD, ECAD, ERP and MES systems
- Migrate and upgrade systems including historical data
- Provide service, maintenance and lifecycle support

Results

- Establish a certification-ready data foundation
- Ensure controlled changes and stable baselines
- Enable reuse and adaptation of existing portfolios for A&D
- Provide a scalable PLM platform for long-running programs

[More information >](#)

ALM Services



Establish a control platform for safety-critical and regulated development

In A&D, ALM is not just a tool – it forms the backbone of **certification, quality and traceability**.

Typical goals

- Achieve audit readiness in accordance with DO-178C, DO-254, ARP4754A, EN 9100 and MIL standards
- Ensure end-to-end traceability from requirement to certification
- Synchronize hardware, software and systems engineering
- Identify risks early and ensure transparency

Services

- Define ALM target architecture (V-model, hybrid, agile-regulated)
- Implement and integrate ALM solutions
- Migrate and connect legacy systems (DOORS, Excel, custom tools)
- Execute global rollouts and enablement
- Provide audit reports and certification evidence
- Apply AI-supported analysis and testing

Results

- Achieve audit readiness at the push of a button
- Reduce certification risks
- Improve quality while maintaining controlled development speed
- Provide transparency for engineering, QA, certification and management

[More information >](#)

_Digital Thread Solutions



Enable traceability across system and lifecycle boundaries

We connect **PLM, ALM, DevOps, ERP** and **service** into a consistent digital thread – from requirements to in-field operation.

Typical goals

- Ensure end-to-end traceability from engineering to production to operation and MRO
- Maintain consistent configurations and versions over decades
- Provide full compliance and safety evidence
- Establish a foundation for digital twin, predictive maintenance and analytics

Services

- Assess digital thread maturity and define target architecture
- Design architecture and integrations
- Build robust traceability chains
- Harmonize data models and identifiers
- Establish governance and operating models

Results

- Replace tool fragmentation with full transparency
- Ensure verifiable compliance and safety
- Enable faster decisions for changes and incidents
- Provide a future-proof innovation platform

[More information >](#)

_AI Services



Enable AI for PLM, ALM and Digital Thread

We make A&D data secure, controlled and usable for AI while ensuring security and compliance.

Benefits



Analyze requirements, changes and risks intelligently



Link complex datasets automatically



Support engineering and compliance with AI-assisted capabilities

Use Case 1

Configuration and BOM Governance

Situation

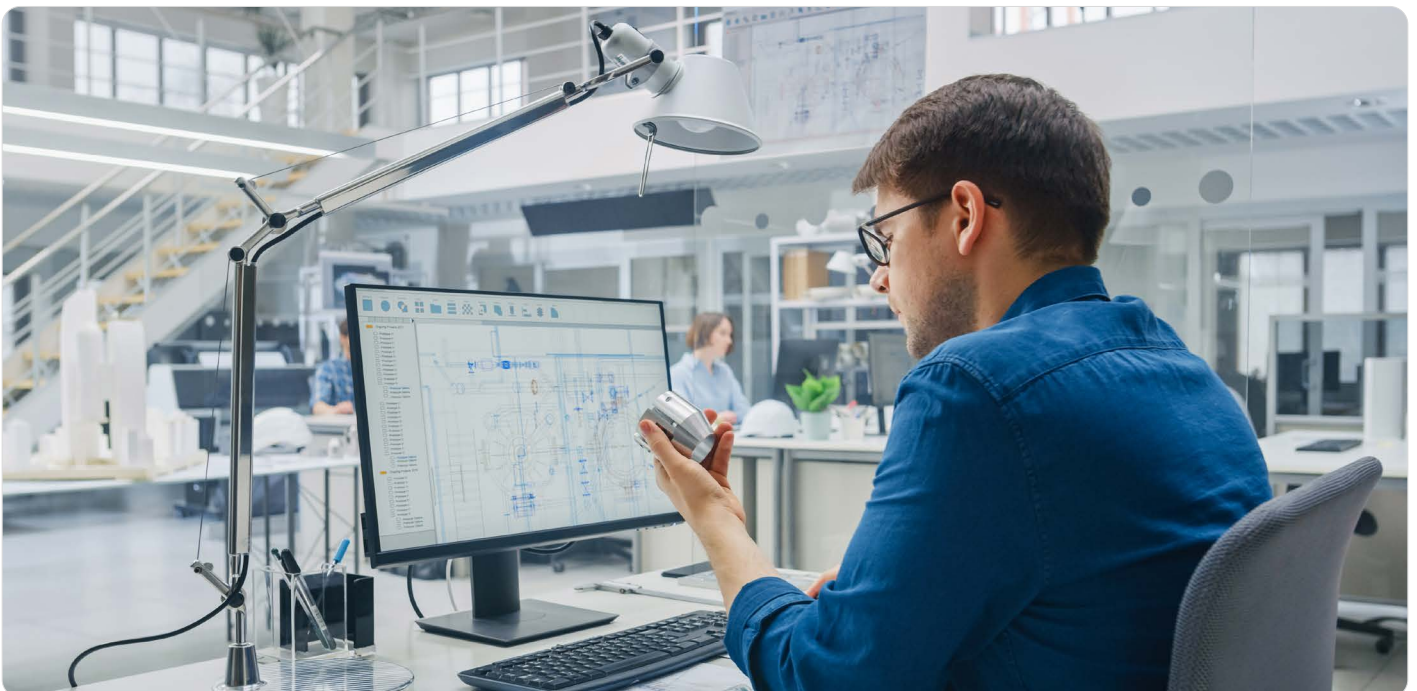
- Manage complex variants and long-running programs
- Handle disconnected eBOM, mBOM and sBOM structures
- Address inconsistencies caused by manual handovers

Approach

- Structure and connect eBOM, mBOM and sBOM end-to-end
- Standardize change and release processes
- Ensure full traceability across the lifecycle
- Integrate CAD, ECAD, ALM and ERP systems

Result

- Enable audit-ready configuration and baseline management
- Synchronize BOM structures across disciplines
- Reduce change cycle time and associated risks



_Use Case 2

Certification without slowing development

Situation

- Comply with strict regulatory requirements
- Manage manual documentation and siloed tools

Approach

- Define a certification-ready ALM architecture
- Build automated traceability and audit trails
- Standardize reporting across stakeholders

Result

- Provide certification evidence at the push of a button
- Increase early visibility into risks and deviations
- Reduce rework through integrated quality assurance
- Improve product quality at controlled development speed

_Use Case 3

Digital Thread across lifecycle

Situation

- Operate across disconnected systems in engineering, production and service
- Lack transparency across configurations and lifecycle stages

Approach

- Integrate systems into a unified digital thread
- Ensure end-to-end traceability across all lifecycle stages
- Establish governance for configuration and change management

Result

- Provide full transparency across development, certification and operations
- Maintain audit-ready configurations over decades
- Accelerate releases and reduce associated risks
- Improve collaboration across all disciplines



_Why PTC benefits from TT PSC in A&D

1

Increase project success rates in complex and regulated programs

2

Improve adoption and long-term platform usage

3

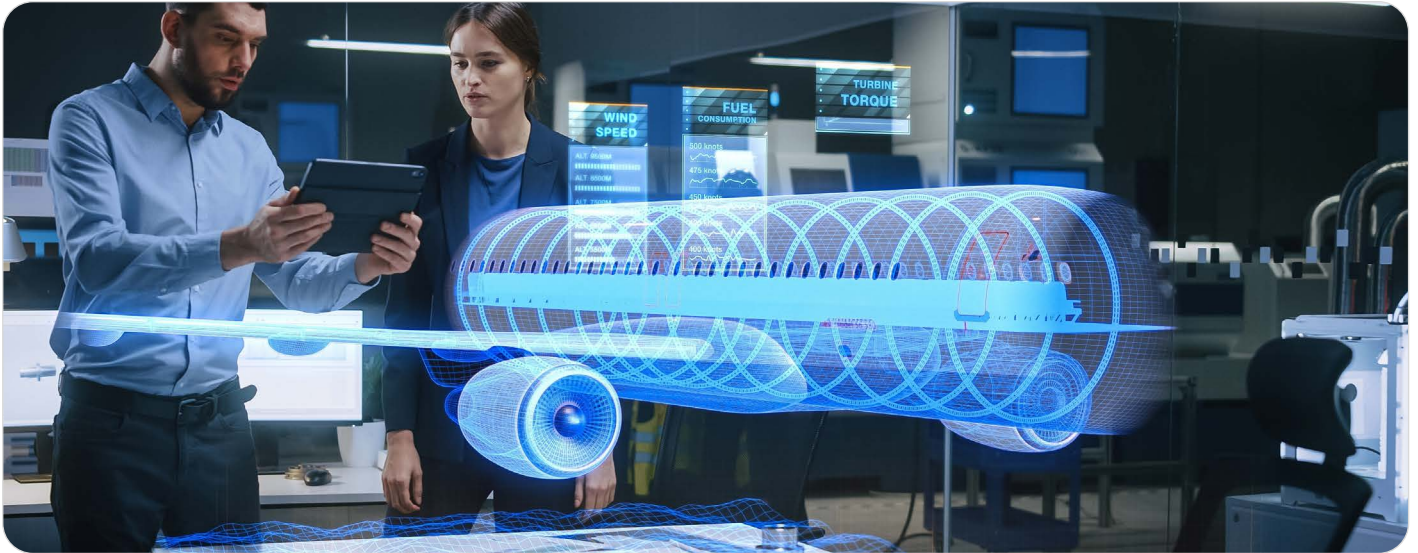
Reduce escalations through deep technical expertise

4

Strengthen presales and certification capabilities

5

Leverage turnaround experience in critical programs



_Benefits for PTC – Why TT PSC is the ideal partner



Increase project success rates through structured implementation and clean integration



Accelerate value realization through strong enablement and user adoption



Increase renewals and reduce churn through end-to-end responsibility



Scale in complex enterprise environments through rollout and governance expertise



Reduce escalation effort through deep technical capabilities



Strengthen presales through early-phase expert support



Use digital thread capabilities to expand platform adoption



Enable cross-selling and upselling across the PTC portfolio



Recover critical projects through turnaround expertise

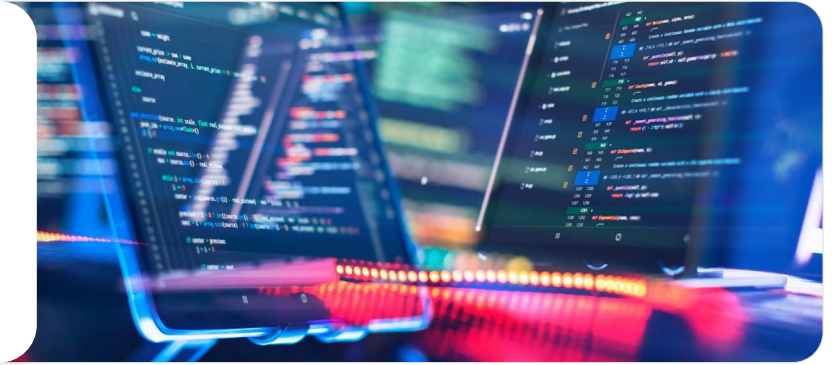


Collaborate closely with PTC for long-term platform success



Align people, processes and technology through a holistic approach

With TT PSC, a PTC project becomes a long-term platform success – delivered end-to-end from implementation to service and maintenance.



“ In our collaboration with TT PSC at Lufthansa Technik, it became clear how crucial the alignment of business strategy and IT architecture is in enterprise PLM.

TT PSC excels at translating complex business requirements into a scalable PLM target architecture, enabling optimal implementation and control. This integrated consulting approach lays the foundation for sustainable value creation across the entire product lifecycle.

Robert Huber

Strategic Account Manager, PTC

Success Story Airbus Helicopter Tech



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