

Technical Specifications (In-Cash Procurement)

Technical Specification — CATIA/ENOVIA V5 - Maintenance, Support and Development Services

This technical specification defines the framework of services — Maintenance, Support and Development — for the CATIA V5 and ENOVIA V5 platforms operated by the ITER Organization, setting out the scope, service levels and responsibilities expected from the contractor.

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1. Preamble

This Technical Specification is to be read in combination with the General Management Specification for Service and Supply (GM3S) – [Ref 1] that constitutes a full part of the technical requirements.

In case of conflict, the content of the Technical Specification supersedes the content of Ref [1].

2. Purpose

The IT Project Tools section is responsible for the maintenance and evolution of CATIA V5 and ENOVIA V5 from Dassault Systèmes. These systems are the primary CAD and Product Data Management platforms used by the ITER Organization.

The objective of this technical specification is to define the frame of services for Maintenance, Support and Development covering the CATIA V5 and ENOVIA V5 software platforms used by the ITER Organization.

To address its multi-discipline engineering complexity, the ITER project uses several 2D and 3D CAD applications for engineering design, which must be regularly adjusted and customized to meet new and evolving project requirements. One of the main CAD platforms is CATIA V5 combined with ENOVIA V5 from Dassault Systèmes, used primarily for plant design and mechanical design.

Beyond delivering mechanical deliverables and managing 3D model versioning, CATIA V5 / ENOVIA V5 is integrated within the wider ITER CAD infrastructure (authoring tools, the ICP data-management environment, downstream ERP and construction systems, and visualization), shown below, and must therefore evolve continuously towards project needs, including MultiCAD integration.

The figure below provides a simplified view of the ITER CAD tool map and the position of CATIA V5 / ENOVIA V5 within it.

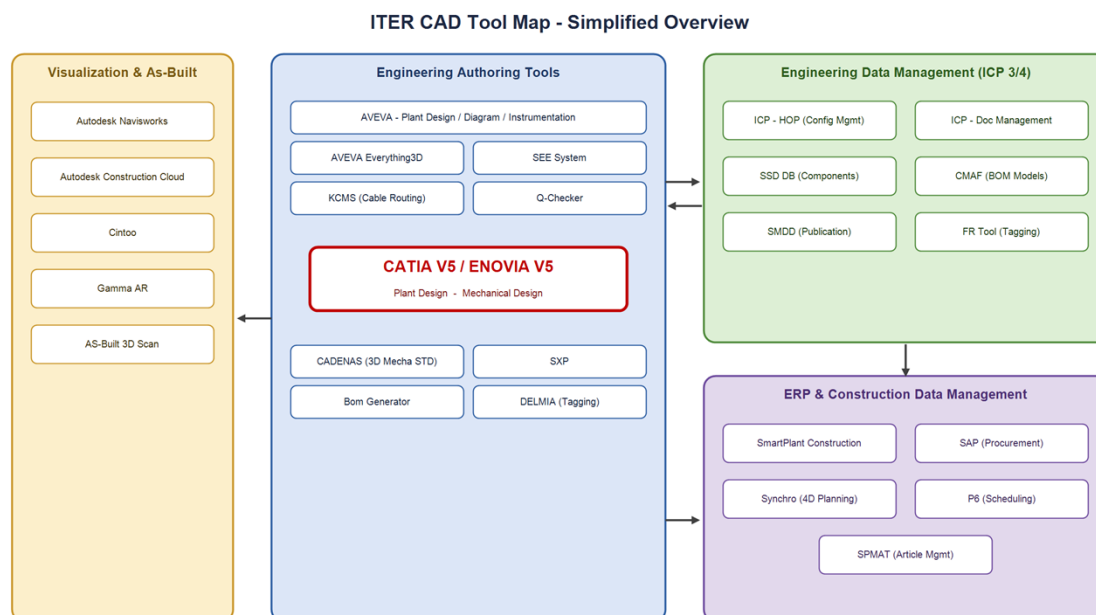


Figure 1 – Simplified ITER CAD tool map (position of CATIA V5 / ENOVIA V5 highlighted).

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3. Acronyms & Definitions

3.1. Acronyms

The following acronyms are the main one relevant to this document.

Abbreviation	Description
CRO	Contract Responsible Officer
GM3S	General Management Specification for Service and Supply
IO	ITER Organization
PRO	Procurement Responsible Officer
CAA	Component Application Architecture
P&O	People and Organization
VPM	Virtual Product Management
E&S	Equipment and Systems
MES	Mechanical Design
PBS	Product Breakdown Structure
ICP	ITER Collaborative Platform
FR	Functional Reference
NWD	Navisworks Document

3.2. Definitions

Contractor: shall mean an economic operator who have signed the Contract in which this document is referenced.

4. Applicable Documents & Codes and standards

4.1. Applicable Documents

This is the responsibility of the Contractor to identify and request for any documents that would not have been transmitted by IO, including the below list of reference documents.

This Technical Specification takes precedence over the referenced documents. In case of conflicting information, this is the responsibility of the contractor to seek clarification from IO.

Upon notification of any revision of the applicable document transmitted officially to the contractor, the contractor shall advise within 4 weeks of any impact on the execution of the contract. Without any response after this period, no impact will be considered.

Ref	Title	IDM Doc ID	Version
1	General Management Specification for Service and Supply (GM3S)	82MXQK	1.4

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4.2. Applicable Codes and Standards

This is the responsibility of the contractor to procure the relevant Codes and Standards applicable to that scope of work.

5. Scope of Work

This section defines the specific scope of work for the service, in addition to the contract execution requirement as defined in Ref [1].

The framework contract will be set up for 5 years (3 firm years + 2 options of 1 year each) with task(s) order(s) to be established according to the needs identified by IO.

5.1. Description

This service covers the maintenance, support and further development of the CATIA V5 / ENOVIA V5 customizations used by the ITER Organization, based on IO specifications: configuration and customization of V5 functionalities, design and implementation of new customizations and integrations, bug-fixing, testing, package deployment, and handling of end-user incidents and service requests. It also covers integration of V5 with other ITER data-management systems, primarily ICP (ITER Collaboration Platform), through APIs and messaging; experience of enterprise application integration (preferably DELMIA and BI tools) is expected.

The activities include:

- Analyse the As-Is / To-Be architecture and design V5 customizations from business and technical requirements.
- Specify interfaces and interfacing strategy with other ITER systems, and the data-migration strategy and high-level design.
- Develop, test and deploy standard and specialized packages, patches and hotfixes (CATIA V5 R34 / ENOVIA V5).
- Provide first- and second-level support for user-reported issues (tool errors, data inconsistencies, access / configuration), including scripting fixes (SQL, Python, PowerShell).
- Define data-governance best practices, review work products, and maintain support documentation, FAQs and the knowledge base.
- Support the ITER Infrastructure team in installing / administering V5 (consulting) and contribute input on future functionality and standards.

The team is expected to have the following expertise and experience (the CATIA V5 / ENOVIA V5 customization items are mandatory):

- CATIA / ENOVIA customization using CAA libraries, CATVBA and CATScript (mandatory).
- Part / document lifecycle configuration and customization; ENOVIA V5 P&O (People and Organization) and Rational Data Modeler (mandatory).
- CATIA Equipment & Systems (E&S), Mechanical Design (MES) and Plant Layout modules; E&S and Mechanical catalogue management (added value).
- Engineering / design change management, configuration, part / component / BOM / drawing management and 2D/3D design.

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- Enterprise (structured and unstructured) data management, incl. Microsoft SQL Server and Oracle; development frameworks (.NET, VB) and interface design (SOA a plus).
- Ability to leverage AI-powered development tools (e.g. VS Code, Cursor, Claude Code) to accelerate CAA, CATScript and CATVBA development.

The expected deliverables are:

- Source code and data-migration / correction scripts.
- Code, development and support documentation (how-to, manuals, presentations).
- Test case results.
- Software configuration management guidelines (release and deployment management).
- Activity reports (tickets managed, issue severity, solution implemented, improvement proposals).

5.2. Team and Expected Workload

The service is expected to be delivered by a small dedicated team of one to two developers experienced in CATIA V5 / ENOVIA V5 customization (CAA C++, CATScript and CATVBA).

Indicator	Indicative value
Team size	One to two CAA developers
Customization packages per year	~4 to 6 (current version V45)
Service-desk activity, last 6 months (ITSD)	~120 tickets: 28 incidents, 31 service requests, 21 changes, 9 problems
Open backlog (ITSD)	~50 open items (28 change requests, 14 problems)
Customization codebase (CAA)	~22 CATIA modules (~69 commands), 7 ENOVIA server modules, ~40 batches

5.3. Future Changes and Roadmap

The customization will keep evolving towards project needs. A maintained roadmap drives the work, and the service desk holds of the order of 50 open items for the CATIA V5 / ENOVIA V5 customization service. Key planned items include:

Near-term (2026):

- Open / extract filter evolution (PBS and Model Type, CMAF / FR filtering).
- CAD Model Type with AI integration
- Detailed Model Step export and NWD models generation
- On demand Step export

Strategic projects (backlog):

- Improved MultiCAD integration, 2D/3D consistency checking. ICP 4 attributes in EV5; PNI enrichment;
- Clash-reduction and QC tooling; EV5 / SMDD reinforcement.

6. Location for Scope of Work Execution

The Contractor may perform the work at IO site or at their own location, following a Local/Near-site Delivery Model with regular on-site presence for workshops, user support, and close collaboration with ITER engineering teams.

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7. IO Documents

No input is expected from IO.

8. List of deliverables and due dates

The Supplier shall provide IO with the documents and data required in the application of this technical specification, the GM3S Ref [1] and any other requirement derived from the application of the contract.

Technical contract deliverables (T0 = contract commencement date):

8.1. IO General Deliverables

IO IT provides in-house developed tools to record exhaustive work completed and to log activities. These tools are mandatory to use as they provide a basis for accounting and invoicing.

- Descriptions of work completed: Jira Worklogs and Confluence Pages.
- Logging of time spent: Jira Worklogs and WorklogPro approved timesheets
- Records of absence: Confluence Team Calendars and WorklogPro time logged in Absence Tickets.

Monthly activity reports contain qualitative and quantitative detailed information about the issues the Contractor has been confronted to, about the solution proposed and implemented, the innovations introduced in the processes and the ideas to further improve the service. These reports shall be agreed and accepted from IO TRO to release the corresponding payment.

9. Quality Assurance requirements

The Quality class under this contract is [4], [Ref 1] GM3S section 8 applies in line with the defined Quality Class.

10. Safety requirements

Not Applicable

10.1. Nuclear class Safety

Not Applicable

10.2. Seismic class

No specific safety requirement related to PIC and/or PIA and/or PE/NPE components apply.

11. Special Management requirements

Requirement for [Ref 1] GM3S section 6 applies completed/amended with the below specific requirements:

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11.1. Contract Gates

The contract gates are defined in [Ref 1] section 6.1.5. This scope of service calls for the following technical gates:

Gate 1 – Kick-off meeting (T0). Gate 2 – Mid-term review (T0+6 months). Gate 3 – End-of-contract review and renewal decision (T0+12 months).

11.2. Work Monitoring

Progress and status meetings shall be held with a frequency to be agreed during the kick-off meeting. Monthly activity reports shall describe issues handled, solutions implemented, and proposed improvements.

11.3. Description of the technical environment

Information management system: a distributed system consisting of the components below.

CAD Tools: CATIA V5 R34, CATIA V5 (Mechanical + E&S modules).

Integration and Product Breakdown Management, Document Management: ENOVIA V5 R34, EDB.

Change Management: PCR system, other embedded workflows.

CAD Quality Checking: Q-CHECKER.

IT tools: Microsoft Visual Studio, Microsoft SQL Server / Oracle, Apache Tomcat / IBM WebSphere, VSCode, Cursor, Claude Code, Git/SVN, GitHub Copilot, Confluence, JIRA, Bamboo, Windows 11, Windows Server 2019/2022, Microsoft Azure Entra, Active Directory, Office 365 including Teams, Copilot.

11.4. CAD design requirements

This contract does not imply CAD activities.