

Report

CAD World wide support concept and procedures

This document describes concept, procedures and responsibilities related to the world wide CAD and PDM support for DA and DA suppliers.

<i>Approval Process</i>			
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CAD World wide support concept and procedures (34VB64_v1_3)	v1.3	Approved	16 Oct 2012	Accidental it was put to obsolete
CAD World wide support concept and procedures (34VB64_v1_2)	v1.2	Approved	19 Sep 2011	<p>Change for v1.1:</p> <p>For PBSA training performed by local trainer in addition to the training and certification a 1-2 weeks workshop of the trainee with the IO DECO is required before IO provide the role. Deep knowledge of the system shall be transferred in this workshop. Page 10</p> <p>Change for v1.2:</p> <p>Old cover page removed. Page 2 PLM removed. Complete reformatting to be compliant with ITER template.</p> <pre> if(typeof editorarray == 'object') { editorarray.push('MasterPlaceHolder_DocumentView1_ctl01_ctl00_ctl00_ctl16_ver_description') } </pre>
CAD World wide support concept and procedures (34VB64_v1_1)	v1.1	Signed	21 Jul 2011	For PBSA training performed by local trainer in addition to the training and certification a 1-2 weeks workshop of the trainee with the IO DECO is required before IO provide the role. Deep knowledge of the system shall be transferred in this workshop.
CAD World wide support concept and procedures (34VB64_v1_0)	v1.0	Approved	05 Jun 2010	

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1 Purpose

The international organization of the ITER project leads to the need of and international organization of the CAD/PDM support because:

The large number of designers and casual users (RO) in DAs and DA supplier

Limited resources of the IO support

Need of high efficiency (native language, proximity, time shift) to save time and cost

ITER IO has started a **World Wide Support** project to organize and implement this approach.

2 Scope

This document describes the concept of support and training for DO 3D CAD solutions. It can be used as a template for the DA DO to describe their specific concept in this area.

3 Definitions

CAD = All CAD tools user in ITER DO:

- CATIA mechanical
- CATIA plant design and equipment and system (E&S) as far as DA and DA suppliers have to perform plant design (including Piping, Tubing, HVAC and Electrical system and also civil construction and secondary structure).
-
- See System Design and other IGE-XAO schematics applications
- Applications:
 - Q-Checker
 - Cadenas
 - 2D-3D check
 - I-RUN (previously called ISOGEN)
 - Future applications
- Future CAD tools

PDM = Product Data Management:

- ENOVIA V5
- 3Dlive viewing solution
- Future PDM solutions

3Dvia composer are currently not part of this concept

Support:

- CAD/PDM tools basic training
- Standard CAD/PDM Tool methodologies
- ITER specific CAD/PDM Tool methodologies including CAD manual, How to and specific procedure for both designers and catalogue builders.
- ITER specific CAD/PDM Tool processes
- Certification of users

- Global Data CAD quality audit and check of CAD manual rules
 - Coaching to insure collaboration (replication, reconciliation)
 - Coaching for proper installation of ITER compliant environment for file-based site (CAD supplier package)
 - Collaboration with IO support for bug fixing, enhancement request etc.
 - Ensure proper execution, quality and delivery to IO of specific E&S catalogue production
1. level support - record and dispatch user request
 2. level support - solving of problems, provide answer
 3. level support will be performed by IO support – level 2 cannot provide solution/answer
- E&S catalogue production

Target group:

- DA designers
- Designers of DA suppliers
- CAD/PDM administrators of DA suppliers
- DA RO/RE and other casual users

4 Organization

4.1 Actors and responsibilities

IO support coordinator:

- Define the framework
- Project plan in coordination with Local Support Manager
- Acceptance of local support concept
- Organize train the trainer program
- IO support 3. level support planning and supervision
- Organize regular coordination meetings

Local support manager:

- Project plan in coordination with IO Support Manager
- DA support concept
- Organize local training
- Organize consulting partner selection process
- Local support planning and supervision
- Participate in regular coordination meetings with IO support
- Organize E&S catalogue production

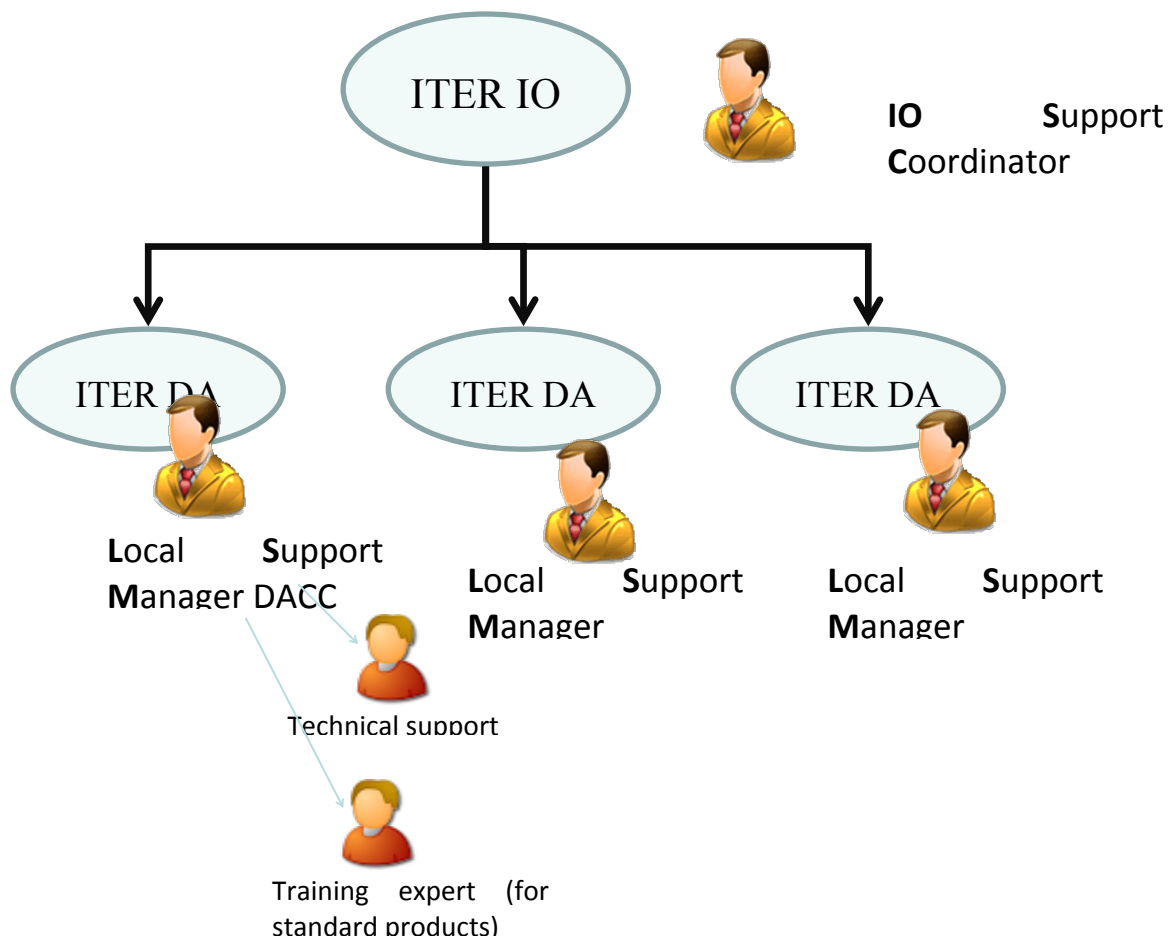
Technical support:

- Provide ITER specific training
- Provide support as defined in chapter 2
- Can be DA member or employee of consulting company

Training expert for standard products

- Provide standard/basic training for CAD/PDM tools

Can be DA member or employee of consulting company.



4.2 Local support concept

DA will provide IO with a document to describe the local support concept. This concept includes the task distribution between DA members and employees of consulting companies.

Examples of possible organizational models:

- All tasks are performed by consulting company(ies)
- All tasks are performed by DA members

Or combinations:

- Standard training is performed by consulting company (DS business partner for CATIA, IGE-XAO or partner for SSD etc.)
- E&S Catalogue production is performed by specialized company (like TechnGraphics)
- Etc

4.3 Contractual relation and budget

If DA include consulting company in the local support concept, DA will sign a contract with this company. A confidentiality document has to be signed by the employees of the consulting company. This document has to be sent to IO to keep record. It is also prerequisite for local certification process.

All local support will be paid by DA.

5 Required knowledge

Staff for technical support shall have:

- Good knowledge about industrial background (mechanical or plant, PDM) to understand the needs of the designers
- Good knowledge about the functionality of the tools (CATIA) in the specific application area (mechanical or plant), for SSD IO will provide training or support staff will use IO training material and exercises for self study
- Minimum of 2 years experience in training and support
- Good English language skills

The variety and complexity of the tools leads to specialisation. Minimum 2 technical support people are required 1 for mechanical and 1 for plant design.

For specific task like CATIA plant design and equipment and system (E&S) support and catalogue production specialized profile are required as software module and associated methodologies have nothing in common with classical Mechanical design.

E&S user and administration training are required as SR1 and SSD training.

For all ITER specific methodologies IO support will provide a train the trainer program.

DA will send CV/profile of candidates to IO support for review and comment before final decision is taken.

IO will certify the local staff by a support certification to prove and ensure sufficient knowledge.

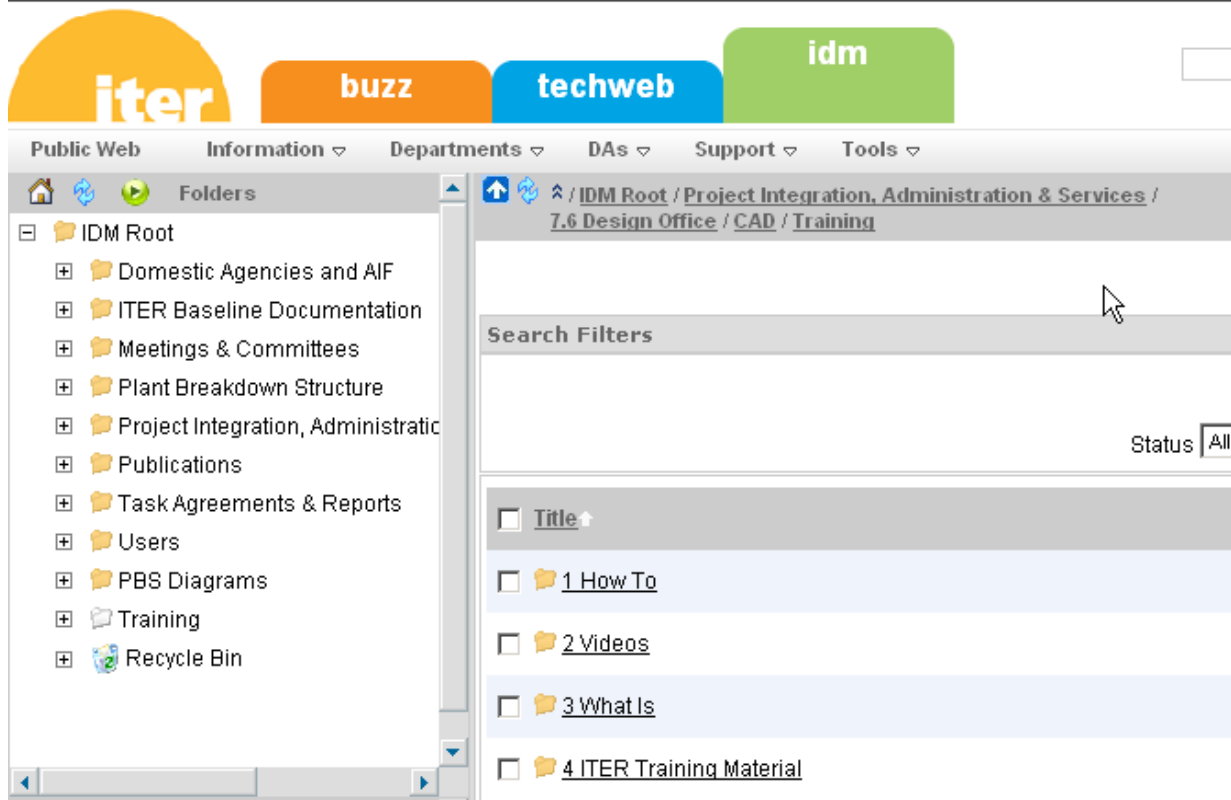
6 Training material and support tools

6.1 ENOVIA training environment

Prerequisite for a local ENOVIA training and certification with practical exam is the availability of a local training environment/storage area with train user accounts, example data and certification PRC. Local support staff will maintain the training and certification data stored in this environment.

6.2 Training material

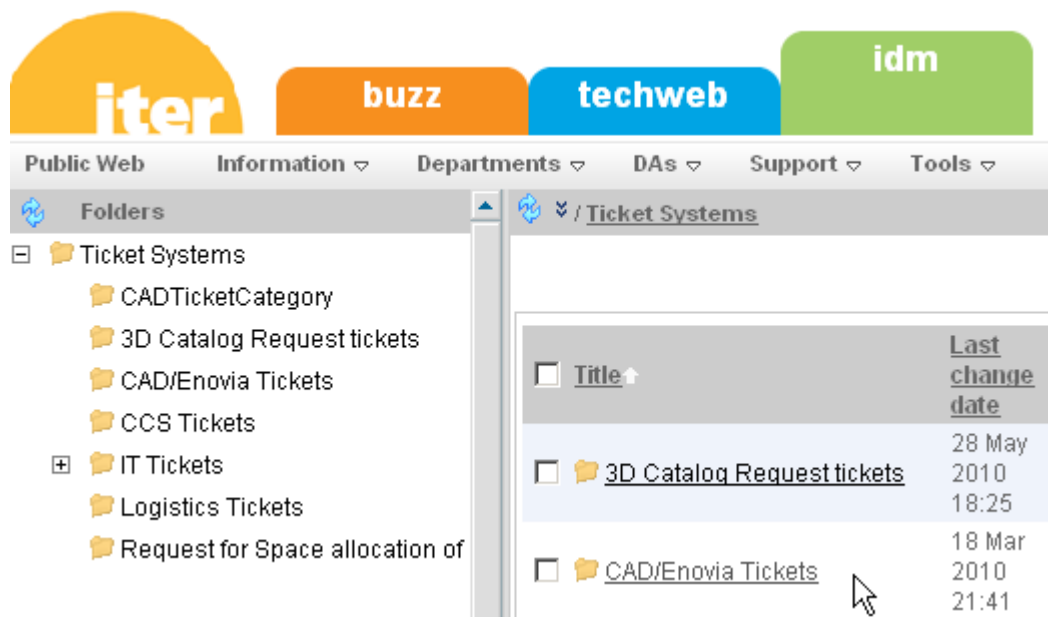
Local support will use IO training material stored in IDM.



Additional training material or enhancement of existing will be managed by a request from Local support to IO support. Either the material is developed by IO or by DA in the framework of a review and approval process by IO. All material can be used by all DAs support.

6.3 Support tools

Local support staff will use the IO ticket system to request 3rd level support. DA or DA supplier designers will not use this ticket system.



7 Training concept

7.1 Basic training

CATIA:

Basic training of standard functionality (mechanical or E&S for plant) will be organized by DA or DA supplier. This is a prerequisite for further training about ITER specific methodology. IO will not provide training material for this kind of training.

ENOVIA

ENOVIA basic training is part of the ITER training concept. No basic training is required.

SSD:

ITER IO has developed basic training material. Training will be organized according to discipline:

- Basic
- One line
- Routing
- Cabling
- Fluid
- Civil engineering
- I&C
- Ect.

Target group are plant designers.

For 3Dlive, Q-Checker, Cadenas basic training is part of the ITER training concept.

7.2 Training methodology

Depending on the complexity of the methodology different kind of communication is used:

Type	Slides	Demonstration	Exercise	Questions(1)	Certification
Presentation	x	x			
Workshop	x	x	x	x	
Training	x	x	x	x	x

7.2.1 Presentation

The trainer present and explain slides and demonstrate the functionality and workflow using an example for a specific methodology. Example: enhancement in new software release

7.2.2 Workshop

The trainer present and explain slides and demonstrate the functionality and workflow using an example for a specific methodology which is more complex. Attendees have to perform exercise to ensure correct application. With a written questionnaire the trainer checks the level of understanding. Example: how to use CADENAS application

7.2.3 Training

Several lessons; prerequisite for specific rights in the system; certification ensures sufficient level of knowledge.

Each attendee of training shall fill a feedback form provided by IO. This feedback form shall be sent together with certification results to IO to keep record.

7.3 Training sequence ENOVIA and ITER specific methodologies

Nr	Kind	Mechanical	Plant	Prerequisite
1	Standard functionality (no IO training material and concept)	Basic, assembly design, part design, drafting	Basic, assembly design, part design, drafting, E&S modules, SDD, SR1	No prerequisite
2	DES-B (Designer basic)	Basic ENOVIA, basic ITER methodology like SKELETON usage	Basic ENOVIA, basic ITER methodology like plant interface	1
3	Certification	Practical theoretical	Practical theoretical	
4	Practical work	design	design	
5	DES-A (Designer advanced; if required)	Advanced ENOVIA, ITER methodology like SKELETON creation	No specific part	3
6	Certification	Practical theoretical	Practical theoretical	

7	Practical work	design	design	
8	PBSA (PBS architect; if required)	Advanced ENOVIA, promotion, light check etc.	No specific part	6
9	Certification	Practical theoretical	Practical theoretical	
10	Train the trainer program (support only)			1
11	Support certification	Theoretical	Theoretical	

Training and certification concept:

[ITER_D_2XVM3S - IODO_Certification_Concept](#)

For PBSA training performed by local trainer in addition to the training and certification a 1-2 weeks workshop of the trainee with the IO DECO is required before IO provide the role. Deep knowledge of the system shall be transferred in this workshop.

7.4 Request for additional training

In general DA local support will apply the training concept and sequence defined by IO support. This is the minimum amount of training required.

Further training and workshops will be defined in collaboration IO and DA as far as they go beyond standard functionality.

8 Train the trainer program

The train the trainer program is designed to train support staff for:

- ITER specific methodologies
- ITER specific processes – lifecycle, training, QA, collaboration, catalogue production etc.
- Tools used in addition to standard tools
- Frequently asked questions of users
- Support tools and documents
- Certification

Train the trainer program is composed of classic training sessions and training on the job by solving user questions/problems in collaboration with IO support staff.

The concept of this program requires the presence in CADARACHE. The program can be split in 2 sessions.

DES-B up to PBSA trainings are part of this program.

Train the trainer program (TTP) will be finished by support certification. Successful support certification is the prerequisite to provide local training and certification of users according to IO standards.

If a recertification is needed a part of the train the trainer program will be repeated.

Examples for duration of TTP:

All based on at least 2 technical support people - 1 for mechanical and 1 for plant design.

Example 1:

Technical support people with DESA level knowledge and E&S knowledge for plant design and certification: 6 weeks.

Example 2:

Technical support people with no ITER specific knowledge but CATIA mechanical or E&S knowledge for plant design: 8-9 weeks

In case of change in the local support staff, DA will inform IO 3 month in advance to enable scheduling of TTP. TTP will be organized in 2 steps:

1. Certified local support will perform DESB-DESA-PBSA and other tools basic training.
2. IO support will perform support specific training and certification. This will take place in Cadarache and will last about 3 weeks (based on current toolset).

9 Certification

Certification of users is important to ensure the required level of quality of the data. In addition IO will assess the quality during reintegration or acceptance process of incoming data.

Local certification of DA designers or DA supplier designers requires successful support certification of the Local support staff by IO support.

All certification data and detailed results are confidential. Local support staff has to sign a confidentiality document.

Certification questions, concept and duration are defined by IO support, are intellectual property of IO and will be applied by local support staff.

Local support staff will maintain certification related data in the local pre prod ENOVIA environment.

Certification result in form of scan of theoretical exam and zip of exported data produced during practical exam have to be send to IO support after the certification regardless whether the candidate passed or not.

IO will record all certification and certification attempts of DA designers or DA supplier designers.

Successful certification is the prerequisite for a user to get specific rights in the tools.

Training and certification concept:

[ITER_D_2XVM3S - IODO_Certification_Concept](#)

10 Enhancement request and error reporting

Local support staff shall make proposal for enhancement request for methodology, training, customization and report errors and bugs.

IO support will review and decide on actions.

For bug reporting local support staff will provide IO support with all necessary information like scenario documentation and example data. IO support will manage the service request with the editor's help desk.

11 Update Process

IO support will organize regular coordination meeting (via live meeting) to get feedback, exchange experience and inform about news and future planning.

IO support staff will inform immediately local support staff about changes, enhancements and new documents (local support staff shall subscribe in IDM to be informed automatically). Also local support staff will be informed in advance about release changes or rollout of new tools and will be involved in the testing and rollout.

For important changes like new version of existing tools or new tools a dedicated train the trainer program will be performed.

