



GUCC

(Groupe des Utilisateurs CAO du CERN)

CAD forum

2023-11-06

Agenda

- The GUCC and its mandate
- Local correspondents network
- CAD usage at CERN
- Ongoing working groups
- Useful information

Evolution of the steering committee

GUCS

Groupe Utilisateurs CATIA Smarteam



Thanks to Yvon Muttoni



GUCC

Groupe Utilisateurs CAD du CERN

Multi CAD

Steering committee:

Stephane Bally EP/CMX

Julie Coupard EN/ACE

Daniel Del Alamo EN/ACE (scientific secretary)

Per-Olof Friman EN/IM PLM team

Marc Timmins EN/MME



Organisation

EN
departement

CAEC

GUCC

S. Bally / J. Coupard / Daniel Del
Alamo / P.O. Friman / M. Timmins

Local
Correspondents
(Experts)

Users

CATIA users / Inventor users / AutoCAD-BricsCAD users / REVIT users

CAD FORUM

Conveners:
D. del Alamo
B. Riffaud
CAD Service



Design Office Responsible

- Civil Engineering (SCE-SAM): **Ludovic Barthelemy**
- Experiments
 - ATLAS (EP-ADO): **Lorenzo Quercia**
 - Alice
 - CMS (EP-CMX): **Stephane Brachet**
 - LHCb
- Integration
 - Accelerators (EN-ACE): **Julie Coupard**
 - Experimental Areas (BE-EA): **Michael Lazzaroni**
- Mechanics (EN-MME): **Alessandro Bertarelli et Ofelia Capatina**
- Mechatronics
- Services
 - Electrical (EN-EL): **Marko Wolf**
 - HVAC (EN-CV): **Yannic Body**
 - Tertiary HVAC (SCE-SAM): **Christophe Martel**

Catalogue

- **Raphael Leuxe** (EN-MME)

ATS Quality Service

- **Stephan Petit** (EN-ACE)

Configuration and Layout

•

GUCC External Network

CNRS/IN2P3

- Mathieu Walter (CAD Service)

ESS

- Fabien Rey (Integration) - fabien.rey@ess.eu

ITER

- Eric Martin (Design Office)

SLAC

- Robert Coy (Integration) - rcoy@slac-stanford.edu

GUCC mandate

CAEC mandate EDMS 1001439

Mandate of the Computer Aided Engineering Committee (CAEC)

Context

CAEC steers the activities concerning tools, processes, methodologies and support for computer-aided mechanical engineering and related fields at CERN. To this aim, it requests and controls the budget covering the purchase and maintenance of standardized software. CAEC reports to the Engineering (EN) and Information Technology (IT) Departments, as they provide relevant personnel and financial resources; if need be, CAEC further reports to the Directorate and concerned Departments of the Accelerator & Technology (ATS), Research and Computing (RCS) and Finance and Human Resources (FHR) sectors; CAEC Chairperson is appointed by the Head of the EN department in concertation with the Head of the IT Department.

Mandate

CAEC shall cover the following areas of Computer Aided Engineering (CAE):

- Mechanical computer aided design and engineering
- Multiphysics finite element analysis
- Electromagnetic field calculation programs
- Engineering data management systems (EDMS, PDM and PLM platforms)
- Engineering digital thread of equipment and the related tools for its lifetime management

The Computer Aided Engineering Committee (CAEC) has the mandate to:

1. represent the above-mentioned areas towards CERN Management, in particular to plan and to set priorities on investments and resource needs (hardware, software, training, development, testing, consulting) and to supervise their efficient use. CAEC shall advise the Support and User groups on the allocation of personnel resources in related matters.
2. define the official CAE tools and supervise the implementation of rules and standards for the coherent use and working methods at CERN of such tools, and of the related documents and processes, and provide guidelines to institutes collaborating in CERN projects.
3. define the policies for control, access, and training for the use of CERN CAE tools. CAEC shall advise CAE support and users on the selection and use of non-standardized software and hardware when the standard tools are not appropriate for specific tasks.

EN-03-2022-016 CAEC Mandate - 2022-12-06 Page 1.1
EDMS 1001439

GUCC mandate EDMS 2805571

Mandate

Groupe des Utilisateurs CAO du CERN
GUCC

1. Mandate

The "Service des Utilisateurs CAO du CERN" is a steering committee mandated by CAEC to follow with the CAD user community at CERN. The objective is to make sure the best practices and methodologies in terms of CAD software and associated PDM are consistent, compatible across the different design offices and shared amongst the community while remaining in line with CAEC's recommendations.

The GUCC also manages priorities of needs with the CAD service in terms of developments, enhancements, training, and software upgrades.

The GUCC reports to CAEC.

The GUCC ensure a two-way communication channel with CAEC and Departments.

Top-down communication for passing on information and instructions to the CAD user community.

Bottom-up for providing feedbacks, requests, and proposals from the CAD user community.

The GUCC relies on a network of so called "local correspondents" identified as CAD experts in their domains and will cover all the CAD software's supported by CAEC and design offices at CERN.

The GUCC organizes CAD user forums on a regular basis.

2. Local Correspondent

Mandated by the GUCC, the local correspondents are identified as experts in the use of their CAD software related to their field of activity and are in charge of the following tasks:

- Carrying the voice of a group of CAD users in the same field of expertise as them.
- Maintaining the two-way communication channel with the GUCC.
- Assisting, promoting, and making sure the best practices and methodologies are understood and applied correctly within their group of users.
- Maintaining the list of users which they represent, making sure newcomers are captured in the user community network.

Document created by: CAEC members
Document created by: A. Barletti, CAEC Chair, A. Omela, Auser-CAEC Chair

- Reports to CAEC
- Sets Priorities to support service for tools enhancements.
- Top-down communication with CAD users.
- Collect feedback from CAD user community.
- Relying on local expert users (local correspondents) for communication and feedback from users.
- Organisation of forums.

GUCC communication tools

GUCC website

CAD forums

- Conveners
Daniel del Alamo
Benoit Riffaud
- 4 forums per year

GUCC-Steering@cern.ch

[GUCC \(Groupe des Utilisateurs CAO du CERN\) - Home \(sharepoint.com\)](https://sharepoint.com)

#	Name	Status	Start Date	End Date	Pilote
#0	Realisation Scans et Traitements.url	Completed			Jean-Bap.
#1	Modèle simplifié CATIA V5.url	In progress	8/1/2023	12/31/2023	Anastasij
#2	Old Drawings.url	In progress	7/2/2023	9/30/2023	Julie Cou
#3	Modèle simplifié REVIT.url	In progress	11/1/2023	6/30/2024	Ludovic I

GUCC – Local correspondents

MEYRIN / LHC-1 / LHC-1.8



Missing local correspondents:

- LHC-1.8
- LHC-8
- Meyrin-1
- Meyrin-2
- Meyrin-4
- Meyrin-7
- Meyrin-11
- Meyrin-13
- Meyrin-14
- Preveessin-1

Any volunteers ?

PREVESSIN



LHC-8

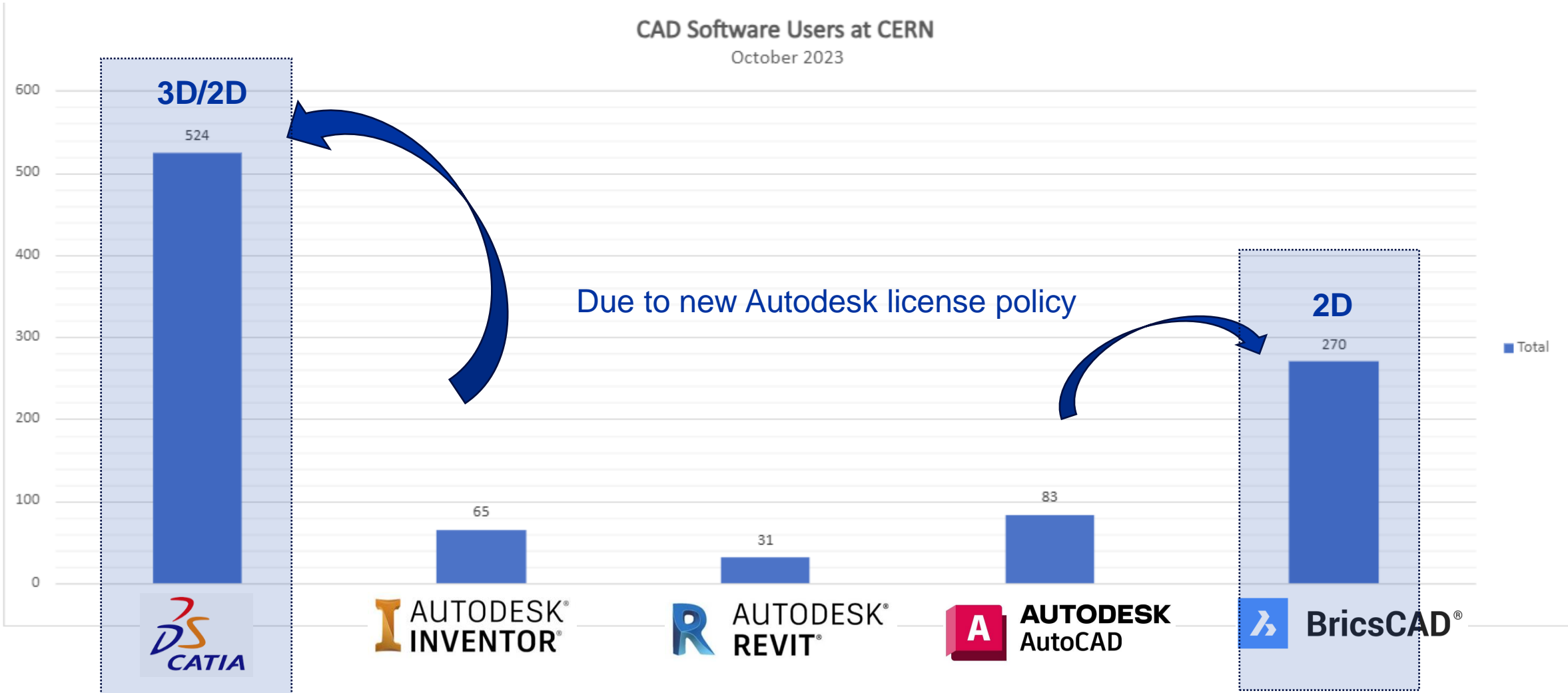


Site	Mail	CAD_Tool
LHC-1	edouard.demeure@cern.ch	CATIA
	martin.doubek@cern.ch	BricsCAD
Meyrin-3	nicolas.sebastien.chritin@cern.ch	CATIA
Meyrin-5	karol.rapacz@cern.ch	CATIA BricsCAD
Meyrin-6	angel.navascues.cornago@cern.ch	CATIA Revit Inventor AutoCAD BricsCAD

Meyrin-8	damien.brethoux@cern.ch	CATIA BricsCAD	filip.kubaszak@cern.ch	BricsCAD
Meyrin-9	cristina.penades.huesca@cern.ch	CATIA BricsCAD	jean-pierre.billon.grand@cern.ch	CATIA
Meyrin-10	julien.pascal.dequaire@cern.ch	CATIA	johan.paul.dauge@cern.ch	CATIA Revit AutoCAD BricsCAD
Meyrin-12	christophe.bault@cern.ch	CATIA BricsCAD	yoann.obry@cern.ch	CATIA Revit AutoCAD BricsCAD
Preveessin-2	regis.seidenbinder@cern.ch	CATIA		
	stephane.brachet@cern.ch	CATIA BricsCAD		
Grand Total				

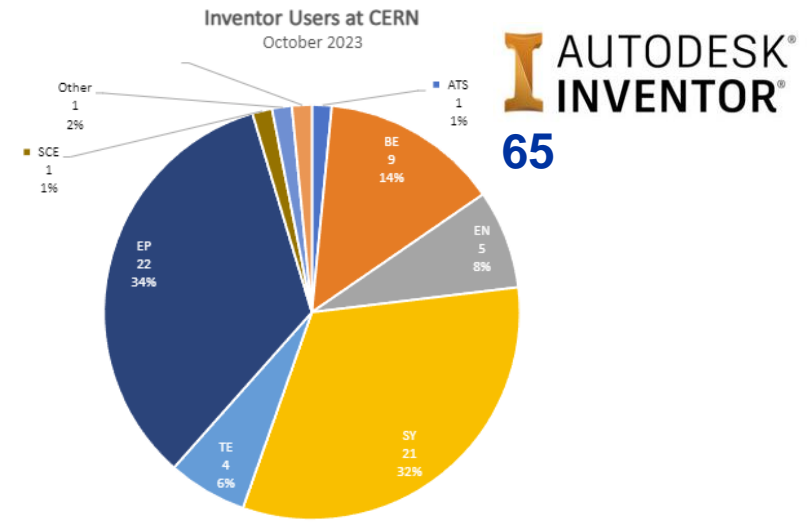
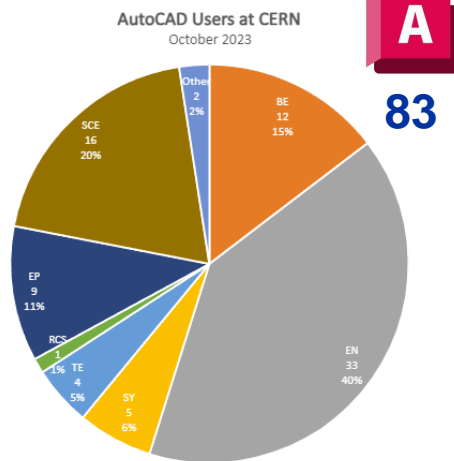
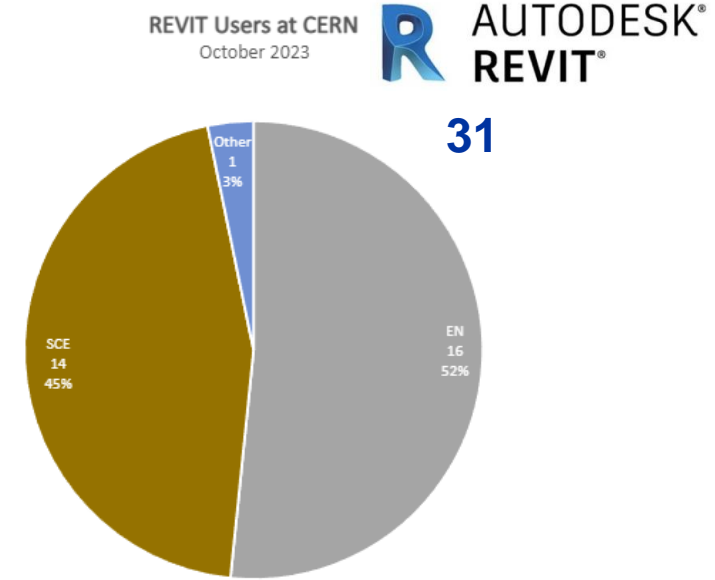
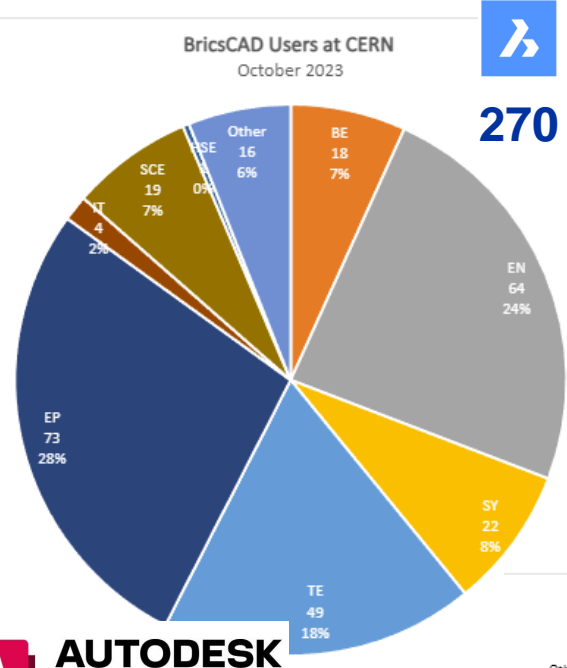
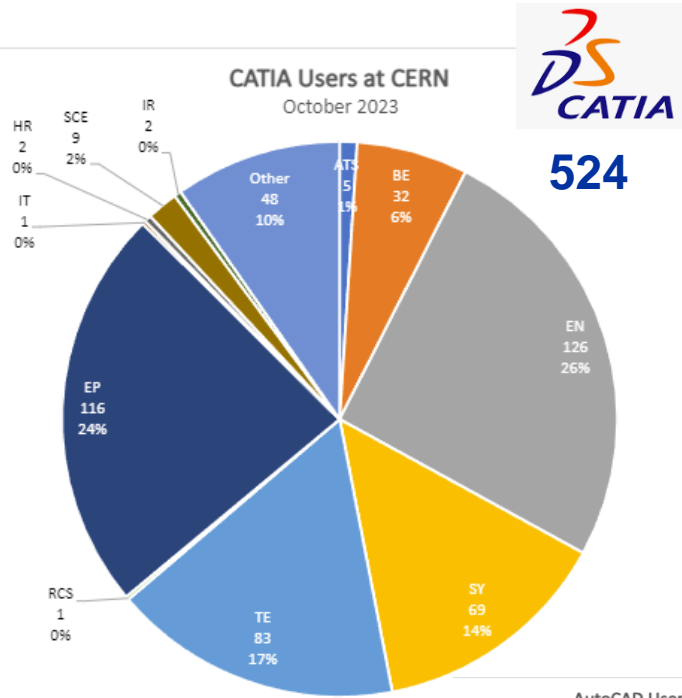
CAD usage at CERN

More statistics can be found here: [statistics](#)



CAD usage at CERN

More statistics can be found here: [statistics](#)



Ongoing working groups

GG GUCC (Groupe des Utilisateurs CAO du CERN) Not following Site access

Home New Page details Analytics Published 7/18/2023 Share Julie Coupard is editing this page Edit

GUCC Working Groups
GUCC Steering Committee
Documents
Pages
Site contents
Recycle bin
Edit

Liens rapides

- GUCC Mandate (EDMS 2805571)
- GUCC MEMBERS AND NETWORK
- CAD User Community
- local_correspondents_map

GUCC Working Groups See all

New Upload Edit in grid view Sync Export to Excel All Documents

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GUCC



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#3	Modèle simplifié REVIT.url	In Preparation			



4 working groups
1 completed
2 in progress
1 in preparation

Useful information

Consignes d'utilisation de CATIA au CERN: [edms 943040](#) (exists in French and English)

CERN
CH-1211 Genève 23
Suisse

N° EDMS: 943040 | VERSION: 6 | VALIDITÉ: APPROVED

RÉFÉRENCE: ---

Date: 2016-08-09

METHODOLOGIE CATIA

Consignes d'utilisation de CATIA au CERN

ABSTRACT:
This document summarizes the instructions and procedures intended for the CERN design offices, for their subcontractors as well as for collaborative institutes. The objective is to standardize the use of the design tool - CATIA - for the accelerators and the experiences at CERN. *The English version is available in the same EDMS node.*

RÉSUMÉ:
Ce document recense des consignes et procédures destinées aux bureaux d'études du CERN, à leurs sous-traitants ainsi qu'aux instituts collaborateurs, l'objectif étant d'homogénéiser l'utilisation de l'outil de conception CATIA pour les accélérateurs et expériences du CERN.

DOCUMENT prepared by: A. Bouzoud, B. Feral, P.O. Friman, J. M. Lacroix, R. Leuxe, C. Menot, Y. Muttoni, B. Nicquevert, A. Qabbal, T. Renaglia, B. Riffaud, D. Steyaert, P. Trilhe, M. Timmins, G. Villiger.	DOCUMENT checked by: CAD Design Offices leaders	DOCUMENT approved by: A. Onnela on behalf of CAEC
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Document updated in 2015 by the
CAD Support Team.

DOCUMENT sent for information to:
CAD Design Offices leaders
CATIA Users

example



EDMS: 943040 V6 | 2016-08-09 | 15

2.3 CATProduct (assemblage)

2.3.1 Repères et positionnement

R Recommandation 3-1-a

| Placer le premier élément d'un CATProduct aux coordonnées (0,0,0).

2.3.2 Etat "Activate/Deactivate" ou "Hide/Show"

O Obligation 3-2-a !

| Ne désactiver aucune CATPart ou CATProduct dans un CATProduct.

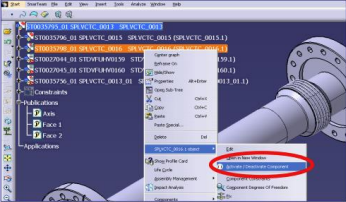
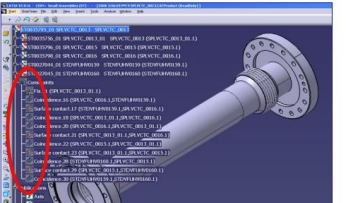


Figure 17 : Obligation 3-2-a

O Obligation 3-2-b !

| Cacher toutes les **contraintes** et les groupes de **contraintes** dans un CATProduct.



CAD service website: here

CAD Service website Services Support FAQ Methodology Training Aras

CERN CAD Service

CAD Links
 CDD
 CDD Guest
 CERN PLM
 CDN - CAD Data Navigator
 EDMS CAD Exchange
 Web Viewer

CERN
 CERN
 EDMS
 EDH
 Phonebook

Recent
 Site Contents

CERN Computer Aided Design Service

The CERN CAD Service provides the organisation with tools, support, training and methodology for mechanical CAD. This service is provided by EN/IM in collaboration with IT/CDA and with user input from [GUCC](#), [GrACQ](#) and [PLM WG](#).

News

Title	Body	Created
There are no items to show in this view of the "News" list.		

How to work with CATIA/SmarTeam remotely in case of need of teleworking

In order to improve as much as possible the performance working with CATIA/SmarTeam using remote connection:

CATIA Options (Tools > Options)

(1) [Preselect In geometry View \(Set to off\)](#)
 Go to General > Display (Tab "Navigation")

Note: This is really useful when you work with Large Assembly settings.

(2) [Configure LOD and 3D/2D accuracy \(rendering performance\)](#)
 Go to General > Display (Tab "Performance")

Note: The higher, the better performance.

Remark:

- These modifications have to be done each time CATIA is started.
- If you do not want to have to change these options each time, please save your own personal settings.

CERN Toolbox

You can also open the CERN toolbox (the Swiss knife icon) and check the options in the tab "Display options" where most of the options in the "Performance" tab explained above are gathered. Also it can be useful to adjust in the "Selection" to module the performance

Index

- Dashboard
- SmarTeam
- SmarTeam - Life Cycle
- CATIA - General
- CATIA - Getting Started
- CATIA - Part Design
- CATIA - Assembly Design
- CATIA - Drafting
- CATIA - Routing
- CATIA - Wireframe and Surface Design
- CATIA - Sheet Metal
- CATIA - Knowledge and Optimizer
- CATIA - Generic Tools
- CATIA - Integration and Reverse engineering

Viewers

- CATIA Forum - CATIA Tips & Tricks


CATIA/SMT FAQ

New and Updated FAQs

Img	Title	Question	Update Summary
	Released For Integration	How to use "Released For Integration" in SmarTeam?	
	CDD where Used	How to use Where Used functionality in CDD?	
	Baselines in SmarTeam	How to use baselines in SmarTeam	
	Valid For Integration in SmarTeam	How to use Valid For Integration in SmarTeam	
	Features recognition	How to use Features recognition tool?	
	Title Block Editor	How to use the Title Block Editor tool for drawings?	
	Quick access to project when saving as in SmarTeam	How to quickly access a specific project during the first saving (save as) of a document in smarteam?	

Access to CATIA & smarteam at CERN

CAEC memorandum



CERN/CAEC
EDMS: 1276911 v4
Date: 2015-12-10

MEMORANDUM

To: CERN CATIA and SmarTeam users and their supervisors
Subject: Requirements on user access to CERN CATIA and SmarTeam
From: CERN Computer Aided Engineering Committee (CAEC)
<https://caec.web.cern.ch>
Date: Approved in the CAEC meeting of 10 December 2015

1. INTRODUCTION

These requirements concern the authorisation to use CATIA CAD-system and its data manager SmarTeam at CERN.

The requirements are set for the following reasons:

- Help users to work efficiently with CATIA and SmarTeam
- Assure quality of CERN CAE data
- Protect the system and the existing CAE data
- Assure efficient use, re-use and sharing of produced data
- Ensure efficient usage of CERN resources in the use and support of CATIA and SmarTeam

2. PERSONS CONCERNED BY THESE REQUIREMENTS

These access requirements concern all persons needing to *create or modify* native CATIA and/or SmarTeam data at CERN, typically designers and engineers.

For persons needing to *view* CATIA and/or SmarTeam data there are other tools available, in particular the CAD Data Navigator (CDN): <https://edms.cern.ch/cdn>.

Further information on the CERN CAD systems and data accesses is available in <https://cad-support.web.cern.ch/Pages/Tools.aspx>.

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3. ACCESS REQUIREMENTS

The following requirements need to be met to obtain user access to CATIA and SmarTeam at CERN:

1. CATIA and SmarTeam are to be used for CERN-related professional work only.
2. The user has followed the CERN training course "*CATIA - SmarTeam Basics*", earlier versions of this course, or has subscribed to this training¹ and is supported by a tutor, see chapter 5 below.

4. ACCESS EXCEPTIONS:

1. A user whose contract with CERN does not exceed 6 months, for example a summer student, may be given access provided he/she is supported by a tutor as described in chapter 5 below. A user falling under this exception shall turn to his/her tutor for initiation and local support on CATIA and SmarTeam use².
2. If the user already has a proven³ knowledge of CATIA, the "*CATIA-SmarTeam Basics*" course can be replaced by a shorter training course "*SmarTeam - CATIA data manager at CERN*".

5. TUTOR

The tutor is to provide the initiation and local support to a new or temporary user who has not followed the CERN CATIA-SmarTeam training.

The tutor needs to be an experienced CATIA-SmarTeam user him/herself and must have followed the CERN training course "*CATIA - SmarTeam Basics*", "*SmarTeam - CATIA data manager at CERN*" or an earlier version of these courses and the "*SmarTeam - Refresher*".

Very importantly, the tutor shall be sufficiently available to provide the needed local support and to watch that CATIA and SmarTeam are used respecting the current rules.

The *supervisor* of the new or temporary user is responsible for the assignment of the tutor and also for the consequences in case CATIA-SmarTeam usage rules are not respected.

6. DATA STORAGE

All CATIA data shall be stored in SmarTeam. Existing projects that have not yet migrated from the initial dedicated DFS working area shall plan for migration of their projects to SmarTeam and contact CAD support for advice on the process.

¹ CERN reserves the right to revoke access if the training is not followed due to refusal by management, withdrawal by the user or any other reasons. The user should inform the CERN CAD support of any such events.
² CERN reserves the right to revoke access if the tutor does not fulfil his/her role and the user is found to depend on the help of the CERN CAD support.
³ Documented equivalent training or prior extensive professional usage of CATIA V5.

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**Thank you for your
attention**

Questions ?

