

Golden Gate Bridge

à CATIA V5 / WINDCHILL connector, CAA RADE free

http://cao.etudes.ecp.fr/index.php?page=golden_gate.htm



Pascal MORENTON
Thomas PAVIOT

pascal.morenton@ecp.fr – <http://www.lgi.ecp.fr/~moren>
thomas.paviot@supmeca.fr – <http://www.supmeca.fr>

Warning !



This document presents the way we want to go for the golden gate interface CATIA V5 – WINDCHILL. This is a preview.

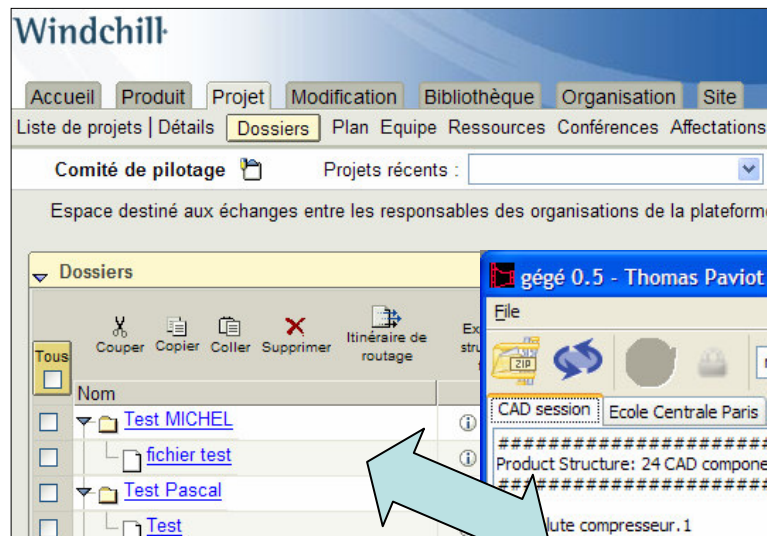
Some functions does work already, others will be soon implemented ...

Perhaps, many things will be changed in the interfaces and maybe in the functions ...

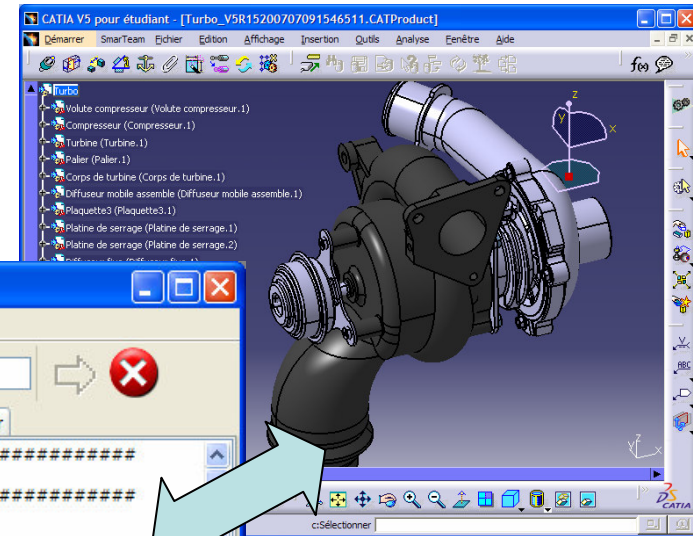
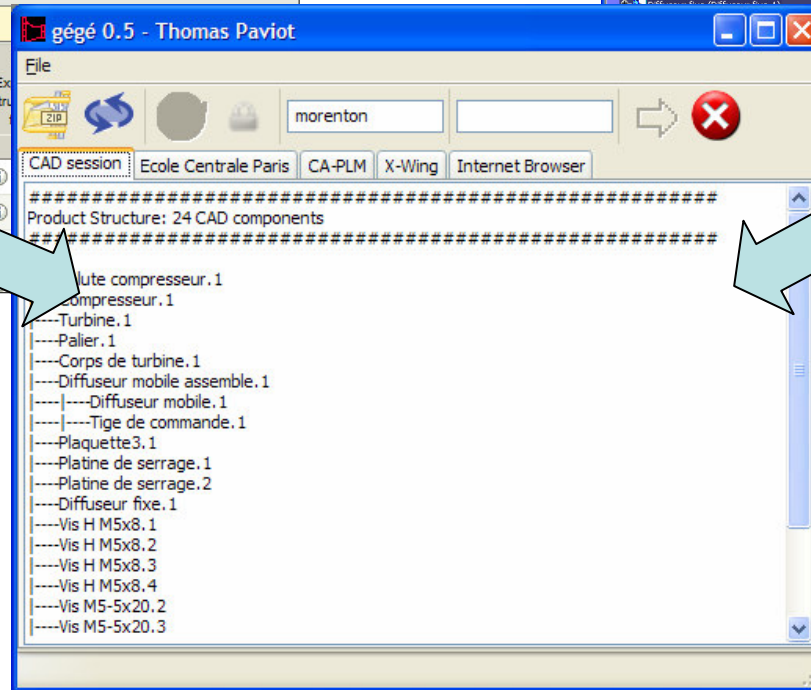
Helps and comments are welcome !

Pascal et Thomas

Main principle of Golden Gate



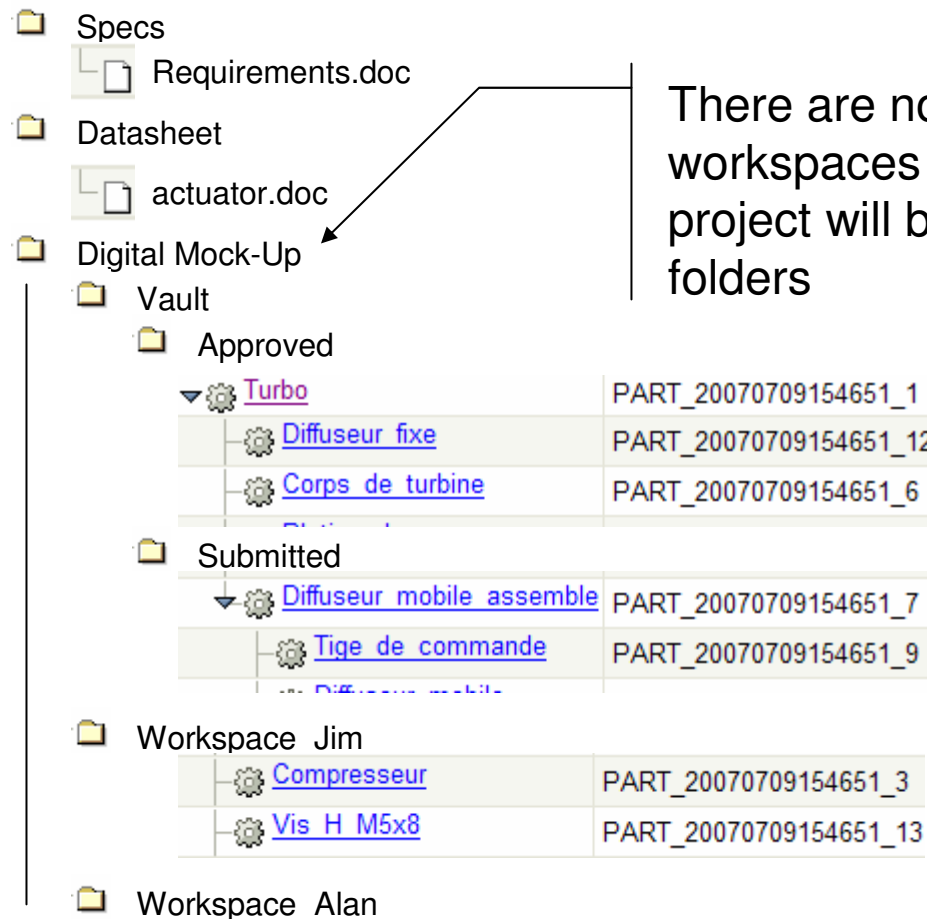
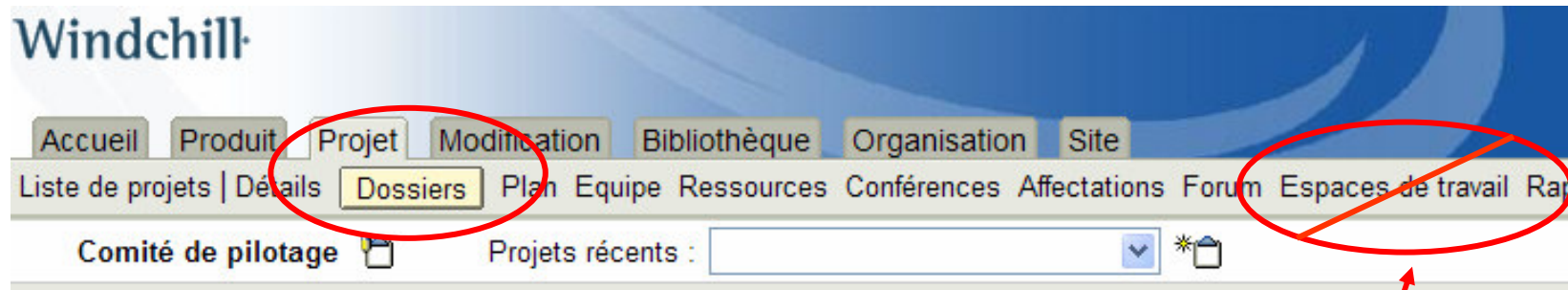
WINDCHILL



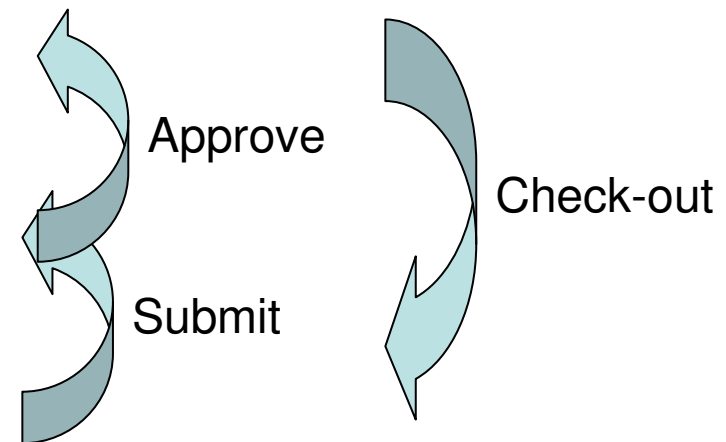
CATIA V5

Golden Gate : a standalone application that can communicate with CATIA V5 and WINDCHILL, *without the CAA RADE API*

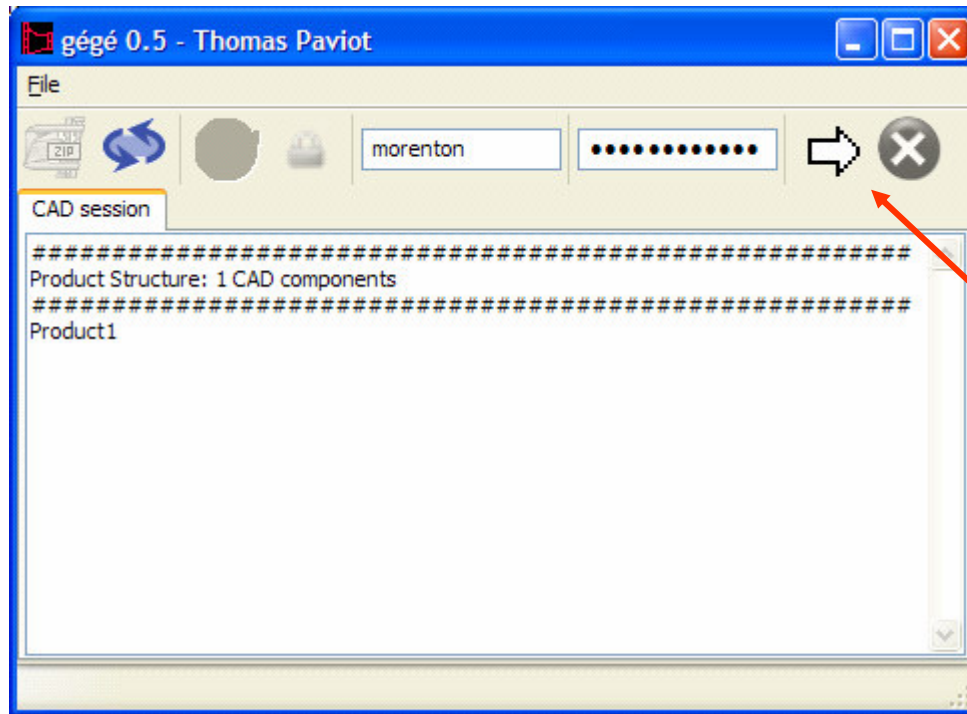
The ProjectLink view



There are no more specifics « CAD workspaces », all the CAD data related to a project will be stored in this folder and its sub-folders

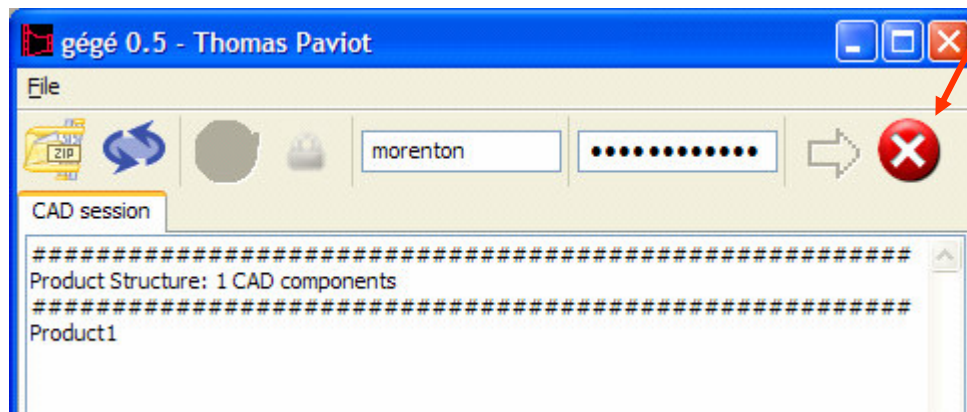


The Golden Gate – Connecting to a server



Login to WINDCHILL
default server

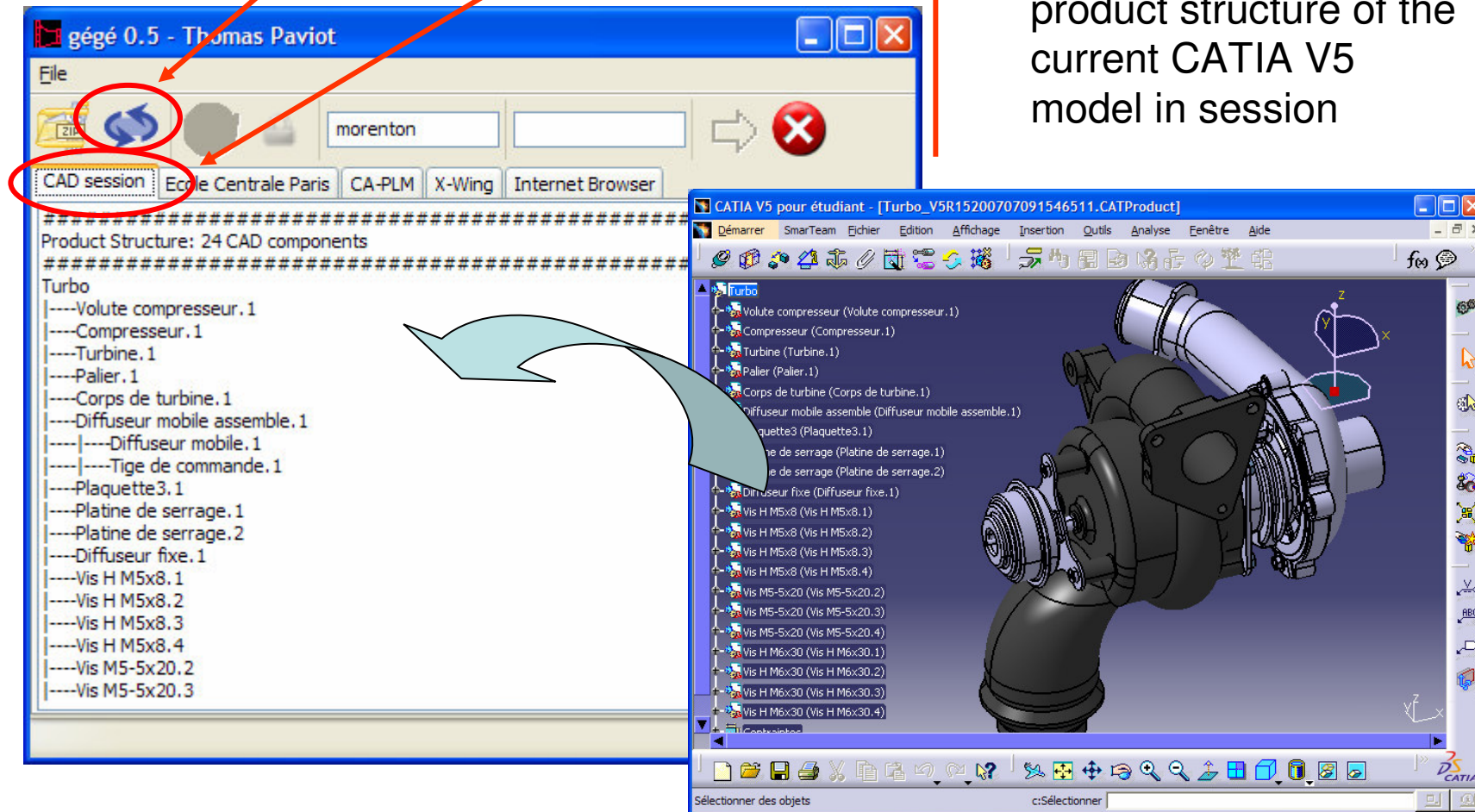
Disconnect from current
Windchill session



The Golden Gate – Viewing default tabs

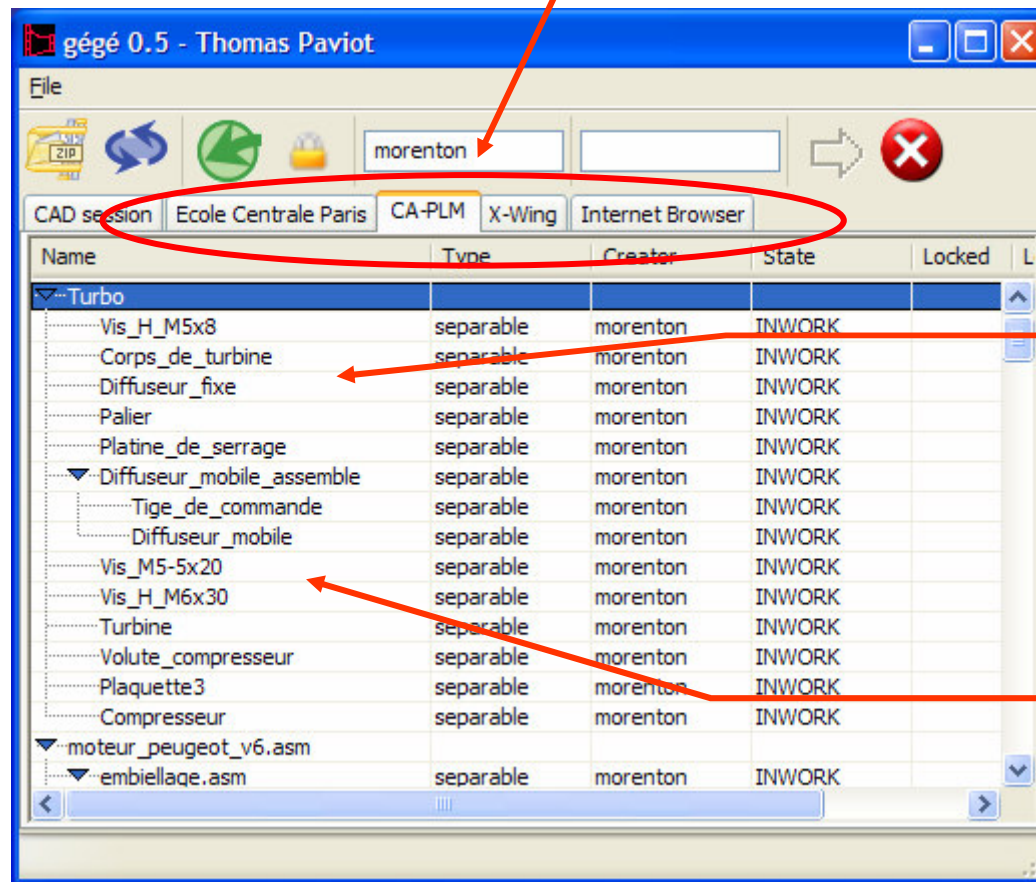
Refresh CAD session data

CAD Session shows the product structure of the current CATIA V5 model in session



The Golden Gate – Viewing default tabs

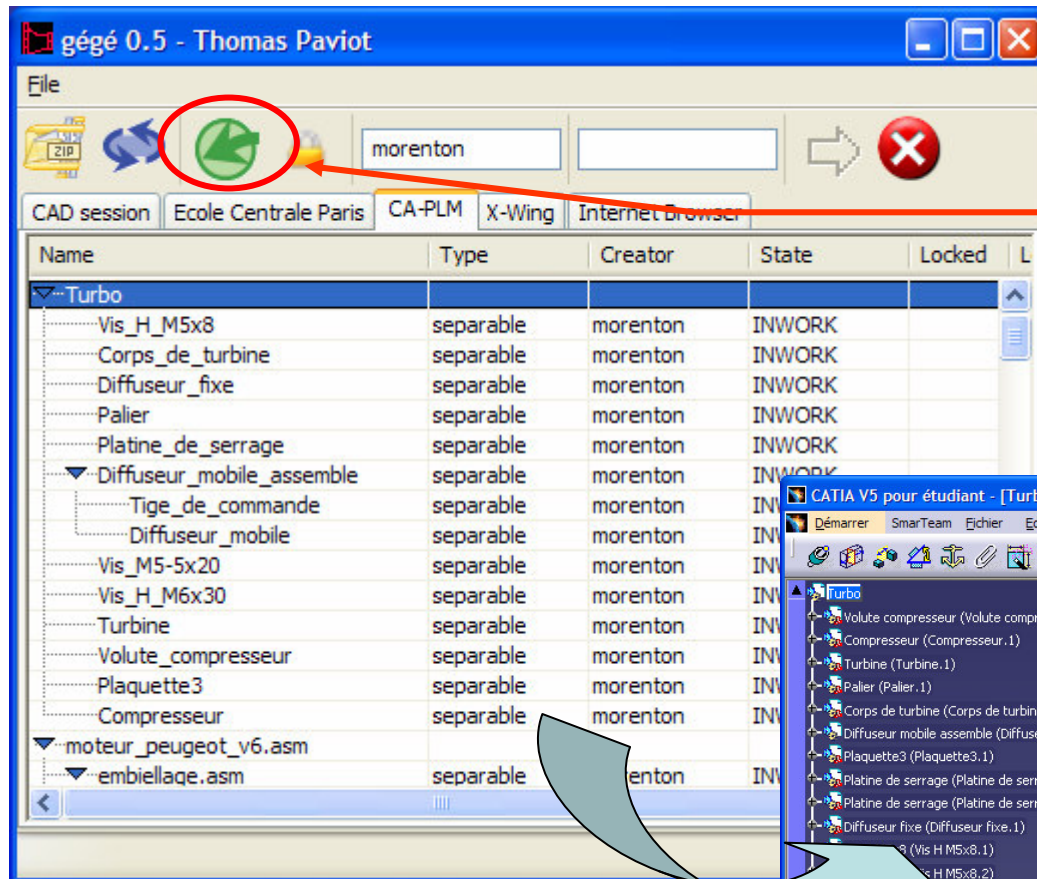
All the windchill projects you can access to are displayed in tabs



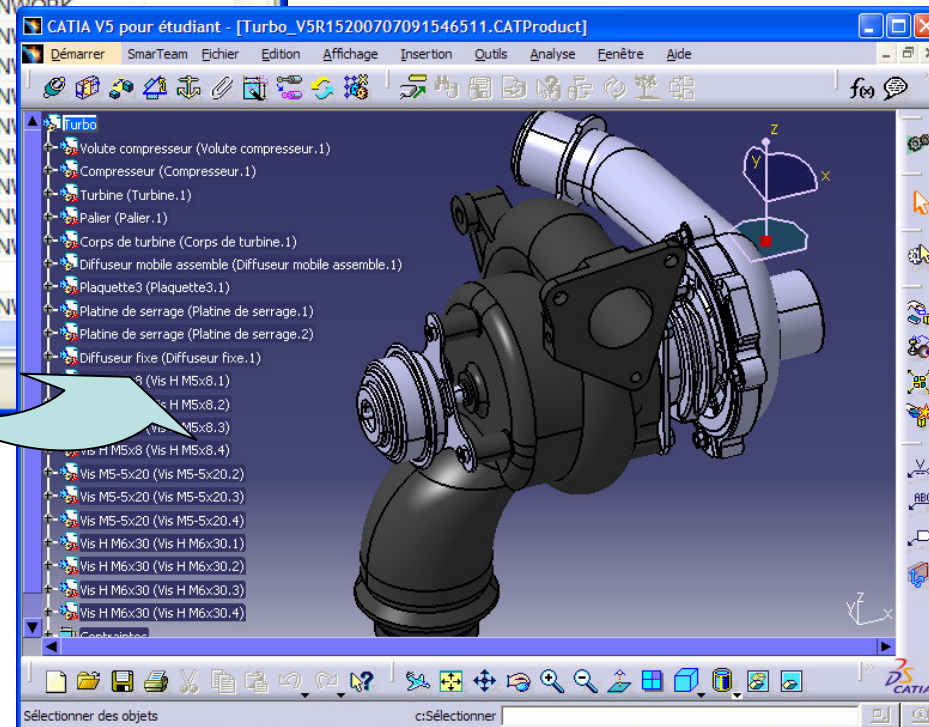
The product structures related to the selected project are displayed in the main area of the window

Explore BOM in a user-friendly hierarchical tree view.

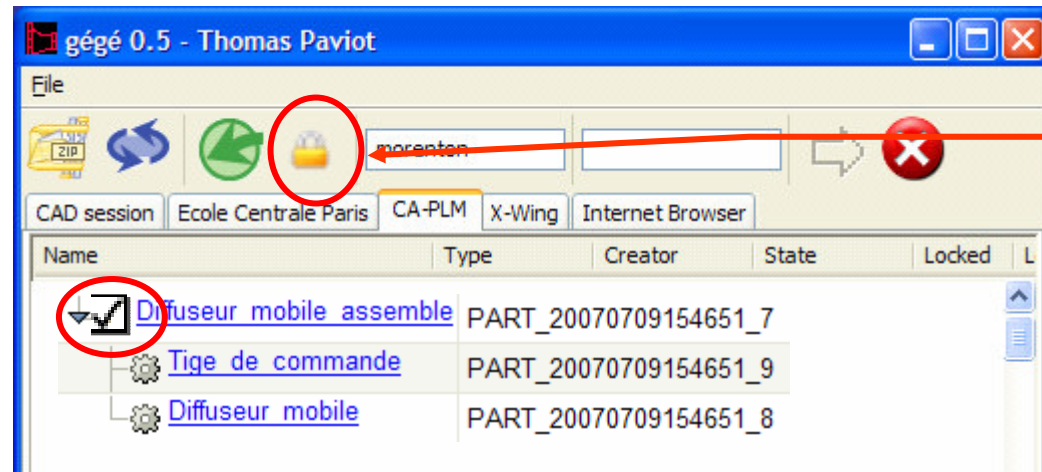
The Golden Gate – Loading CAD data



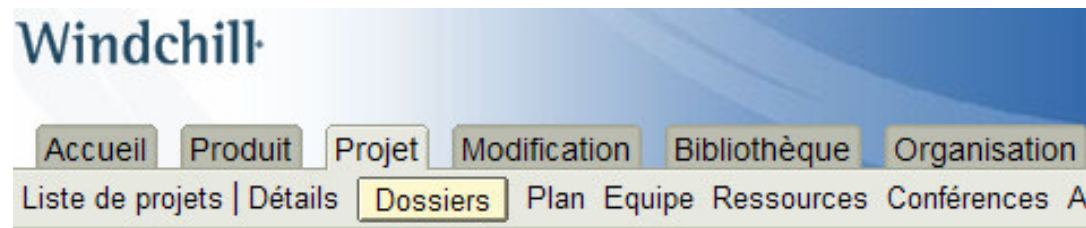
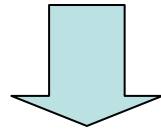
The selected product (or part) will be loaded in the CATIA Session



The Golden Gate – Checking-out



The selected part or product has been « checked-out »



The workspace of the user has been updated in ProjectLink

The Golden Gate – Saving a CAD session

the CAD data of the
CATIA session will
be saved in the
workspace of the
user

The image illustrates the process of saving a CAD session from CATIA V5 to a Windchill workspace. A large blue arrow points from the CATIA V5 window to the Windchill interface.

CATIA V5 pour étudiant - [Turbo_V5R15200707091546511.CATProduct]

The CATIA window shows a 3D model of a turbine assembly. The left-hand tree structure lists the following components:

- Turbo
- Volute compresseur (Volute compresseur.1)
- Compresseur (Compresseur.1)
- Turbine (Turbine.1)
- Pallier (Pallier.1)
- Corps de turbine (Corps de turbine.1)
- Diffuseur mobile assemble (Diffuseur mobile assemble.1)

gégé 0.5 - Thomas Paviot

The Windchill window shows the 'File' menu and a list of saved CAD sessions. The 'CAD session' tab is selected, and the list contains the following items:

Name	Type	Creator	State	Locked	L
Diffuseur mobile assemble	PART_20070709154651_7				
Tige de commande	PART_20070709154651_9				
Diffuseur mobile	PART_20070709154651_8				

Windchill

The Windchill interface includes a navigation bar with the following tabs: Accueil, Produit, **Projet**, Modification, Bibliothèque, Organisation, Site. Below the navigation bar, the 'Dossiers' tab is selected, showing a list of projects: Liste de projets | Détails | **Dossiers** | Plan Equipe | Ressources | Conférences | Affectations.

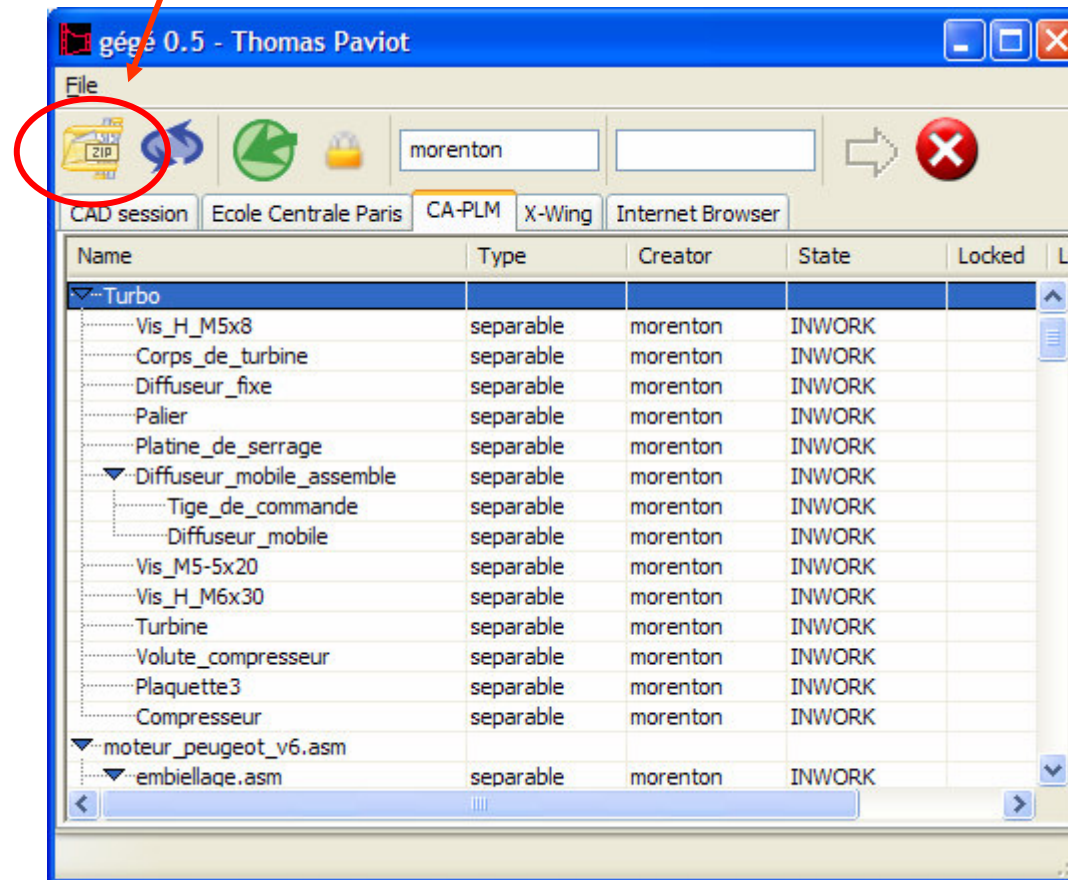
Workspace_Jim

The workspace shows the following structure:

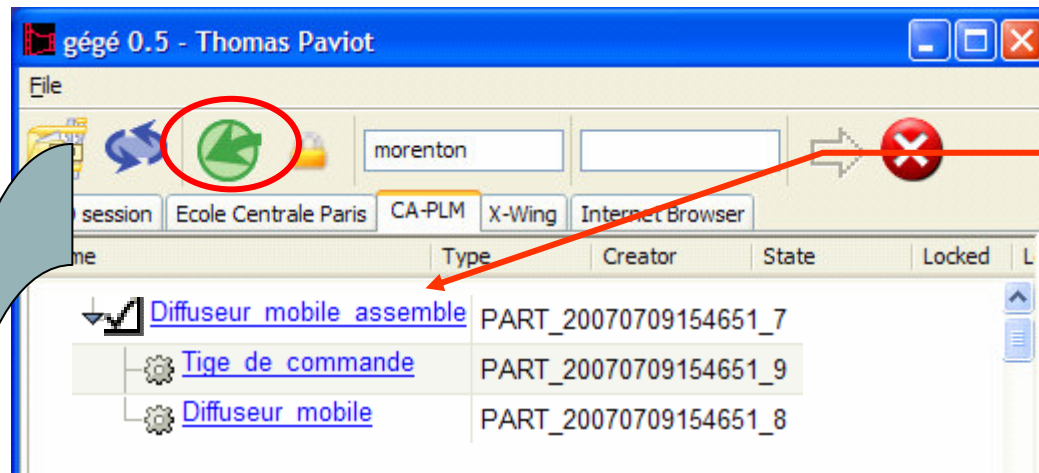
- Diffuseur mobile assemble (PART_20070709154651_7)
 - Tige de commande (PART_20070709154651_9)
 - Diffuseur mobile (PART_20070709154651_8)

The Golden Gate – exporting with XML files

Export current product structure, CAD files and 3DXML view to a zip package ready for Windchill import

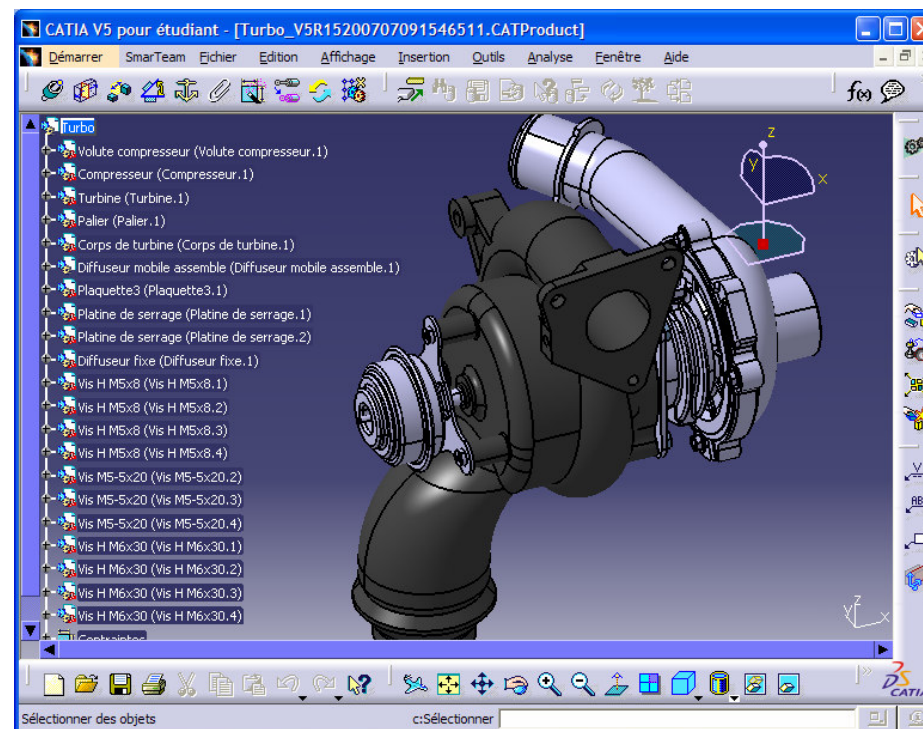


The Golden Gate – The day after ...

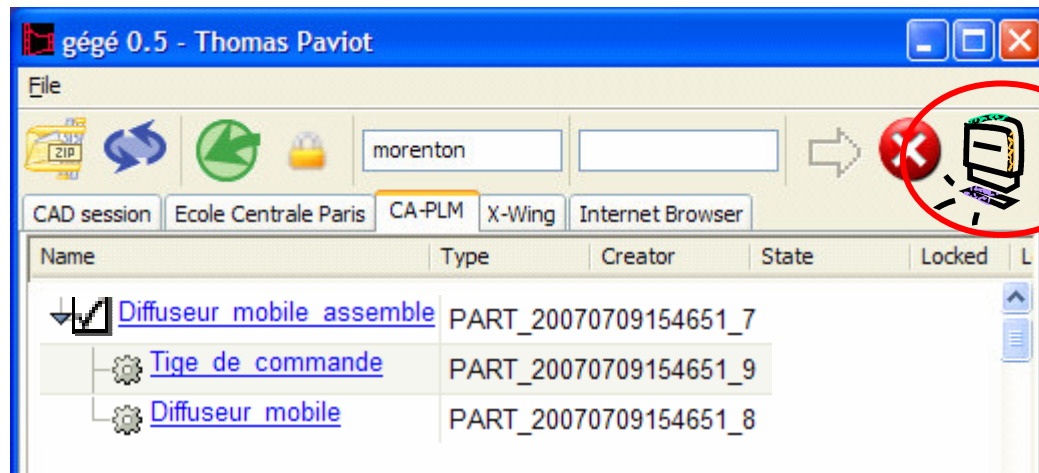


By default, you find the last BOM you worked on

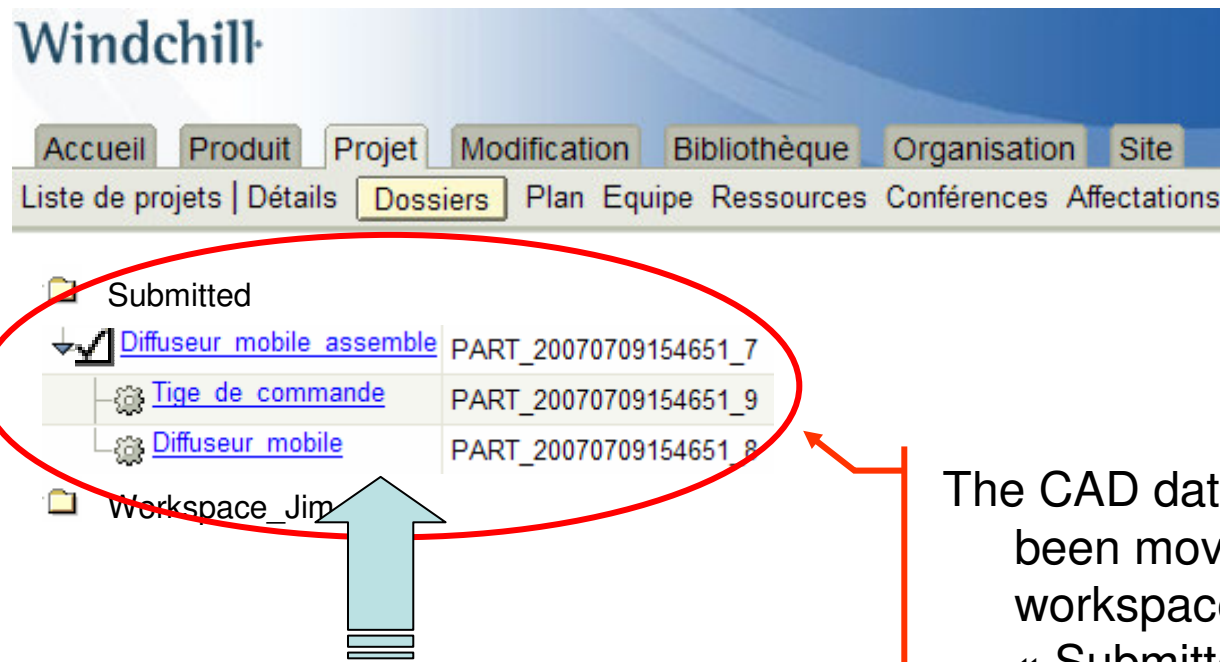
the CAD data corresponding to the BOM selected are loaded into a CATIA session



The Golden Gate – Submitting your work ...



a « submit » workflow is launched in ProjectLink



The CAD data submitted has been moved from the user's workspace to the « Submitted » folder

The Golden Gate – Your work is official

The screenshot shows the Windchill web interface. The top navigation bar includes tabs for 'Accueil', 'Produit', 'Projet', 'Modification', 'Bibliothèque', 'Organisation', and 'Site'. Below this is a secondary navigation bar with links like 'Liste de projets', 'Détails', 'Dossiers', 'Plan Equipe', 'Ressources', 'Conférences', 'Affectations', 'Forum', 'Espaces de travail', and 'Rap'. A 'Comité de pilotage' button and a 'Projets récents' dropdown are also visible. The main content area displays a file tree structure:

- Specs
 - Requirements.doc
- Datasheet
 - actuator.doc
- Digital Mock-Up
 - Vault
 - Approved** (circled in red)
 - Turbo** (expanded)
 - Diffuseur fixe
 - Corps de turbine
 - Submitted
 - Workspace_Jim
 - Workspace_Alan

On the right side of the 'Approved' folder, a table lists parts:

PART_20070709154651_1
PART_20070709154651_12
PART_20070709154651_6

An orange arrow points from the text on the right to the 'Approved' folder.

If your submit request is accepted, your data will be moved automatically in the « Approved » folder

The Golden Gate – The project at a glance

Windchill

Accueil Produit **Projet** Modification Bibliothèque Organisation Site

Liste de projets | Détails **Dossiers** Plan Equipe Ressources Conférences Affectations Forum Espaces de travail Rap

Comité de pilotage Projets récents :

- Specs
 - Requirements.doc
- Datasheet
 - actuator.doc
- Digital Mock-Up
 - Vault
 - Approved
 - Submitted
 - Workspace_Jim
 - Turbo
 - Diffuseur fixe PART_20070709154651_12
 - Corps de turbine PART_20070709154651_6
 - Workspace_Alان
 - Diffuseur mobile assemble PART_20070709154651_7
 - Tige de commande PART_20070709154651_9
 - Diffuseur mobile PART_20070709154651_8

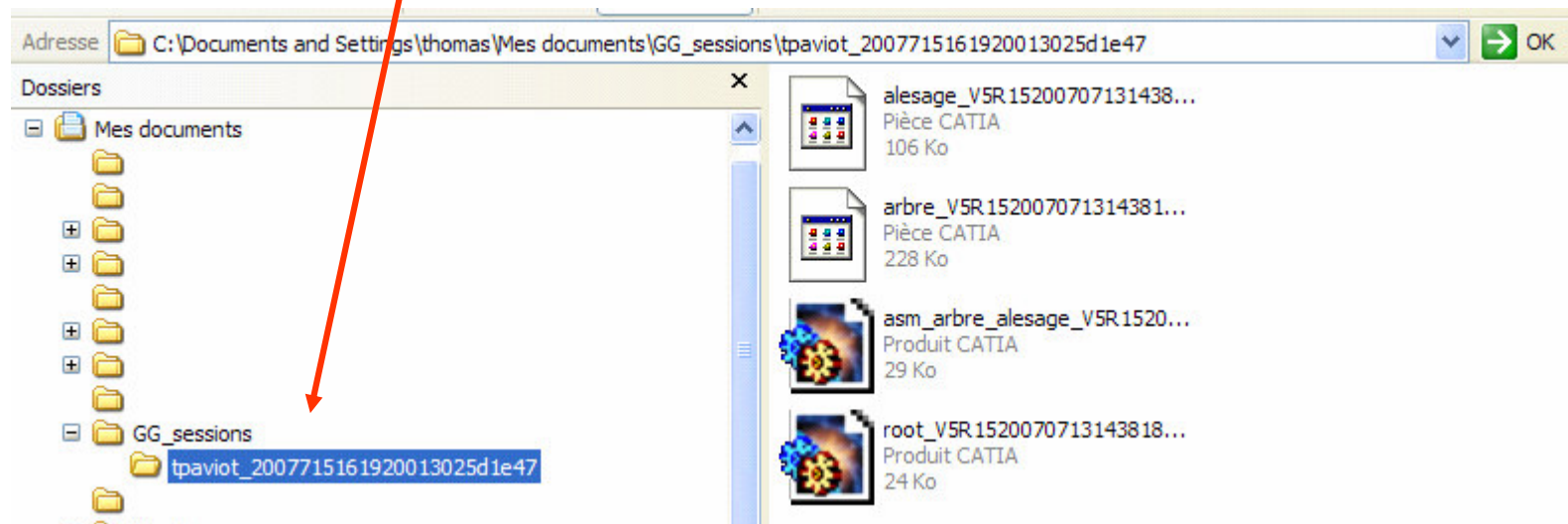
I am the project leader : I can see the workspaces and the vault at a glance

The Golden Gate – Desktop Integration

Documents are saved in a session folder located in My Documents\GG_session . Each session folder has a unique identifier :

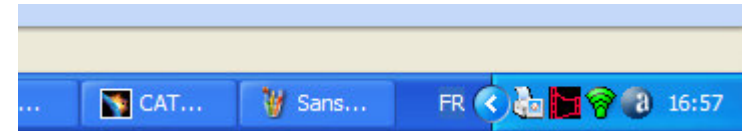
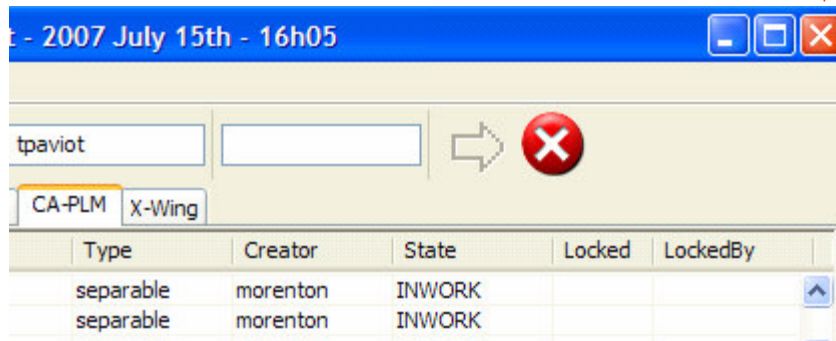
user_DateTimeStamp_NetworkCardMacAdress

This folder is deleted when the session is closed.

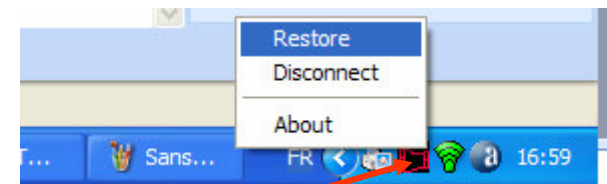


The Golden Gate – Desktop Integration

Send GG window to Windows taskbar in order to save screen size for CAD Design.



Double-click to restore Window or right click to Popup menu.



The Golden Gate - Roadmap

- Support web services related to the PLCS standard
- Support versions management of WINDCHILL PDM Link