



3D CAD and CATIA in ILD

- Toward an ILD CAD model
- CAD integration process
- Using Smartweb
- Conclusion



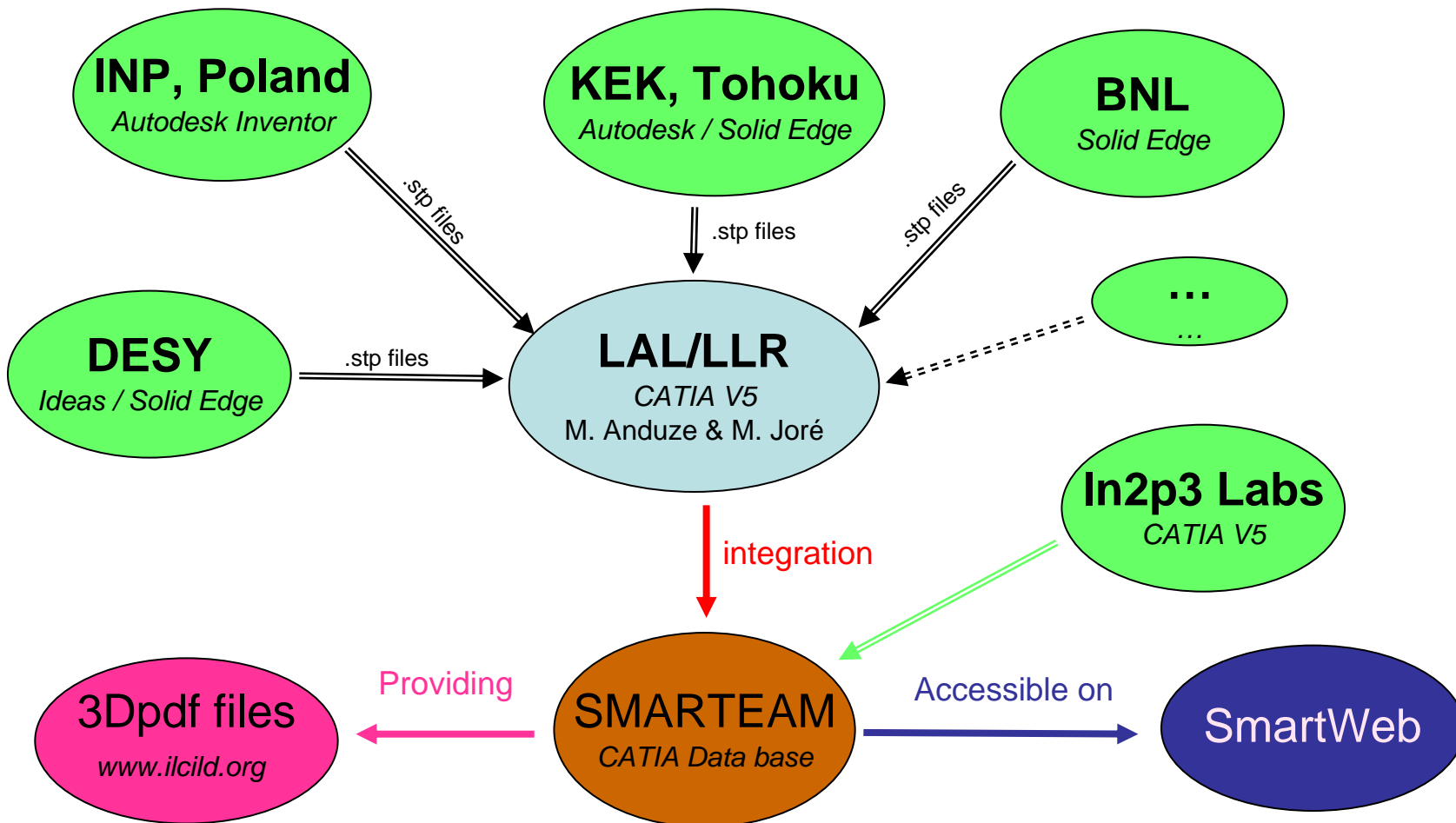


Toward an ILD CAD model

- Different CAD softwares are used :
 - **CATIA V5 : In2p3 labs and now KEK**
 - **Autodesk Inventor : KEK, LumiCal people, etc..**
 - **Solid edge : BNL, Tohoku, etc...**
 - **Ideas : DESY, etc..**
- So the following structure has been defined :
 - **LAL and LLR (*Marc Anduze*) do the overall integration with CATIA V5 and Smarteam database :**
 - Accessible for In2p3 labs
 - Models could be seen with SmartwebEditor
(<https://ccsmweb.in2p3.fr/webeditor/>)
 - **Integrate STEP file from each subdetector groups**
 - **Frequently provide 3Dpdf on www.ilcild.org**
 - Could be also STEP file but it's quite bigger one (about 70Mo)

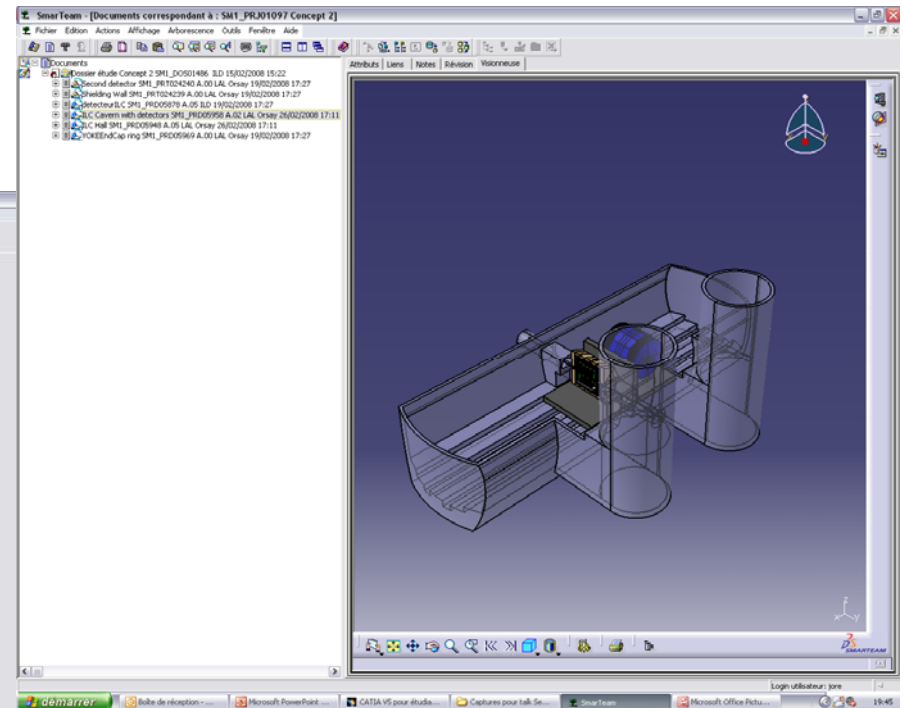
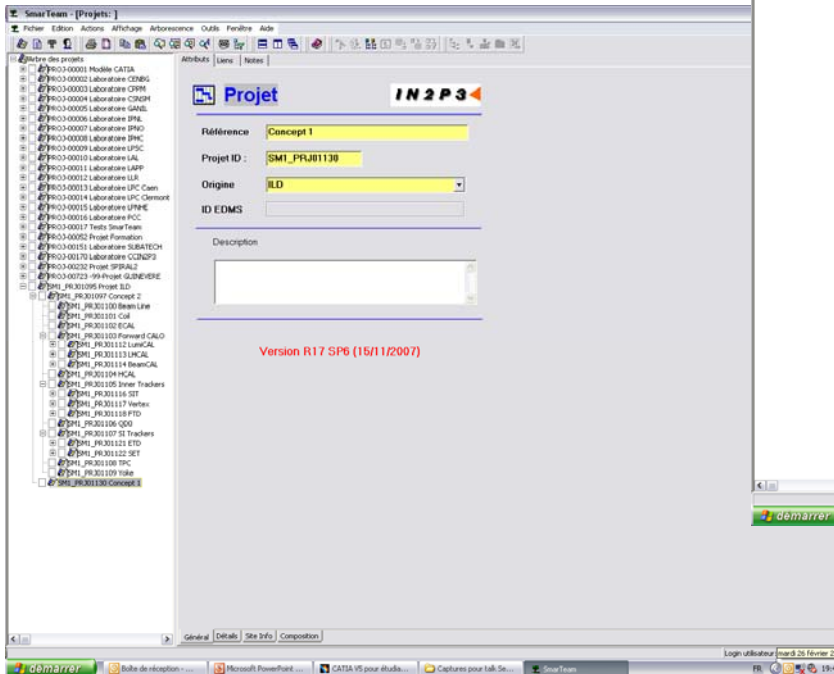


CAD integration process





- What is SMARTTEAM for CATIA V5?
 - CATIA data base for 3D model & drawings
 - Only accessible for In2p3 labs (for the moment...)





SmartwebEditor

- SMARTWeb editor
 - **Acces to CAD model & drawings via website**
 - **Quick visualisation for 3D model**
 - **Print drawings**
- An ILD visitor has been created (*please email me for login&password*)
 - **But it seems not very user-friendly !!!**
- But it's possible to send internet address of model and then quickly access to model
 - **Different address for each version...**
- So I propose to frequently send you an excel file with last address and some historic of change

Version	Address	Change	Comments
A34	ILD A34	New pillar design.	
A33			
A32			
A31			
A30			



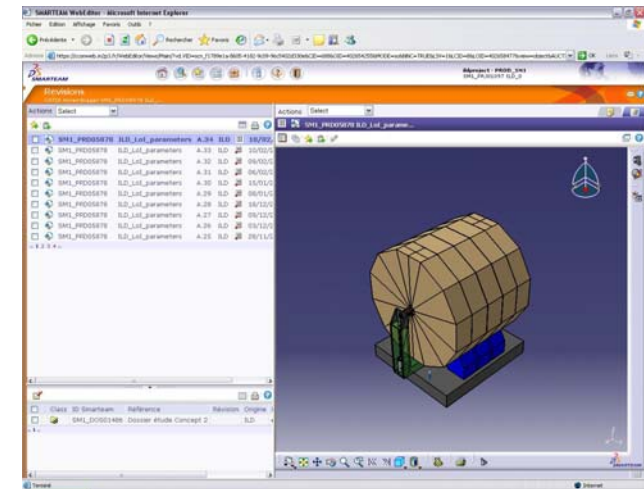
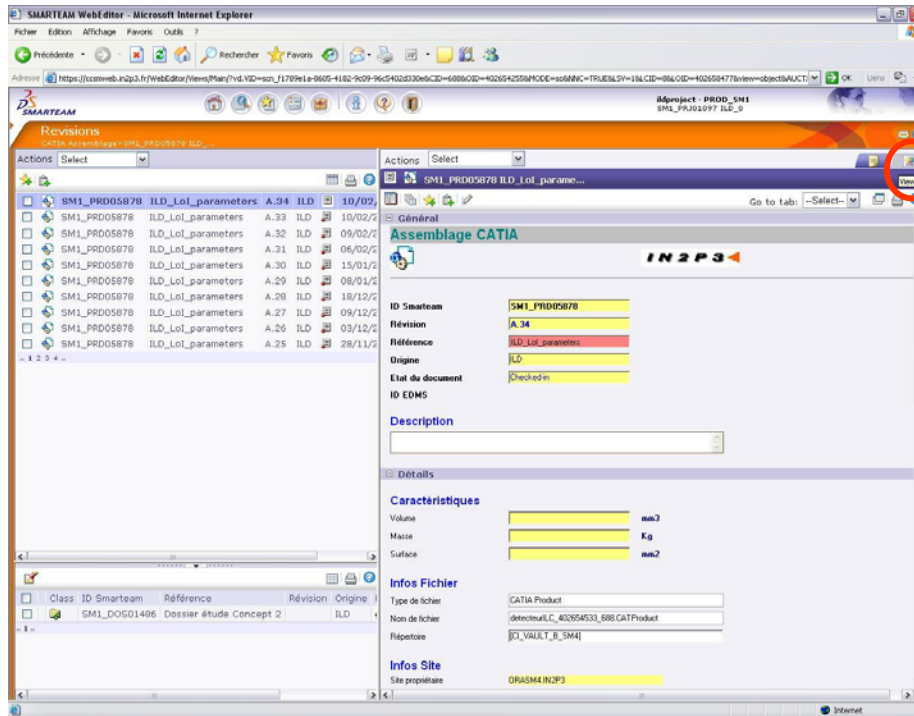
Smartweb tutorial

1 – login @ <https://ccsmweb.in2p3.fr/webeditor/> or open the Excel file



Version	Address	Change	Comments
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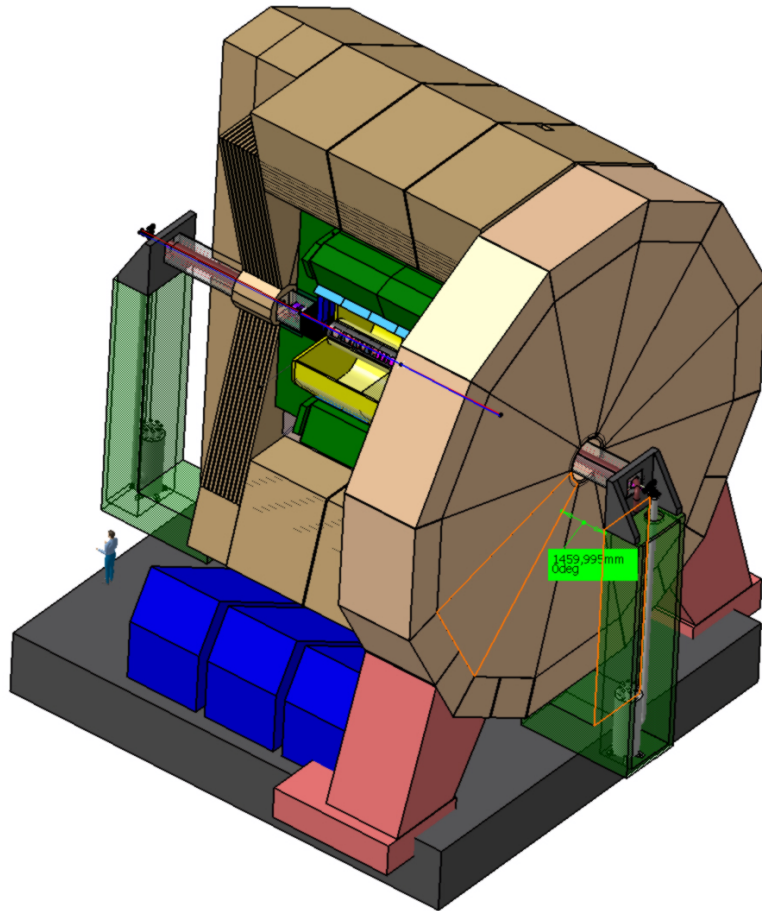
2 – Click on viewer to watch the model



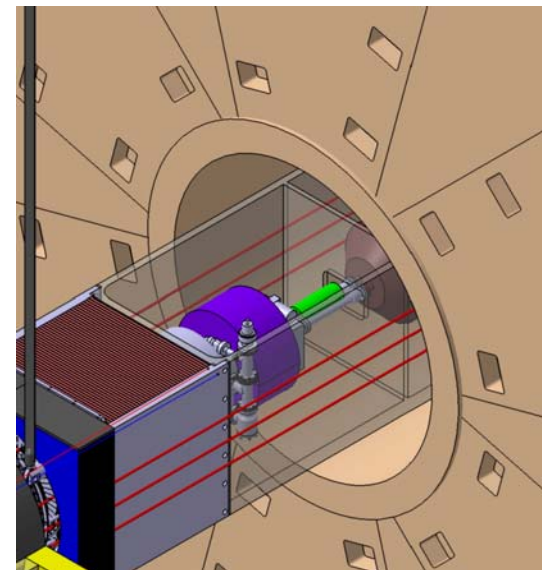
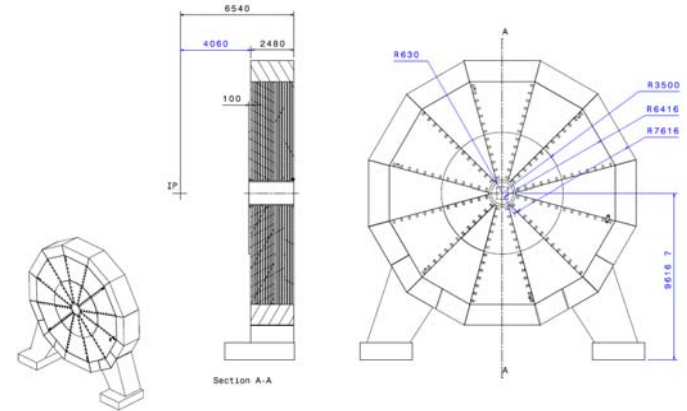


Example

- Recent DESY yoke integration



YOKE design received from DESY on 02-05-09





Conclusions

- It could be interesting to use smartweb with internet address
- It works but I think we have to find some solution for better using CAD system
 - **Avoid using big STEPs**
 - **Define some precise rules :**
 - Define box for each components
 - Check it before integration
 - **Contact with CERN to improve the CAD integration**
 - **Maybe start a new model after the Lol to start with better basis**