Collaborative modeling with Capella and Sirius

SIRIUSCON 2016

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November 15th, 2016

www.thalesgroup.com
Thales : A Wide Spectrum of Complex Systems

1. **Payloads for telecom satellites**
   - Air Traffic Management
   - Sonars
   - Security for interbank transactions

2. **Rail signalling systems**
   - In-flight entertainment and connectivity
   - Military tactical radiocommunications

3. **Avionics**
   - Civil satellites
   - Surface radars
Sirius history

- **2007**: First Obeo/Thales prototyping
- **2008**: Beginning of Capella development
- **2009**: Open Source
- **2013**: Specification and development of Sirius
- **2016**: Launch of Obeo Designer product

First deployments of Capella
Capella Diagrams

- FUNCTIONS, DATAFLOWS
- STRUCTURE
- INTERFACES
- BEHAVIOUR

Ref number: date
Name of the company/ Template : 87204467-DOC-GRP-EN-002
Examples of diagrams
| Figure 7  | Years of intensive usage |
| 30+       | Different kinds of representations |
| 1500+     | End-users |
| >###M     | € (biggest Thales projects it is used on) |
| 6m x 10p  | Most intensive collaborative modeling |
2016: A typical year of collaboration (the Capella perspective)

End of Capella need capture process

- January
- March
- April
- End of September
- November
- December

End of high-level Sirius evolutions prioritization

- Sirius 4.0
- Sirius 4.1.1
Main challenges

Performance
Ergonomics
Collaboration
3 years of strong focus on ergonomics
Multi-user, « optimistic » approach
Configuration management ≠ Multi-user

Clearcase, SVN
Team 4 Capella, principles

Fine-grained, short duration, and automated locks

Live update
Working on a remotely shared model

1. Push model to a repository

2. Work on shared model

3. Pull model from a repository

4. Archive, Compare, Continue Working, send to SCM, etc...
Working on a remotely shared model

Server host ID
Repository name
Login/password
Administration

Admin Client

Server

Manage user accounts

Model

Manage user sessions

Push models to

Pull models from

Scheduler

H2 Database

H2 Database

H2 Database

Start / Stop

Import / Backup / Validate / ...
Team 4 Capella (T4C) - DEMO

1 Jenkins server
1 T4C server
2 TC4 clients (User A, User B)

Basic lock ad update mechanisms, archives
Obeo Designer Team Edition

Collaborative Features

To facilitate collaborative work with other team members, Obeo Designer Team allows you to store your models and representations (diagrams, tables, matrices, trees) in a shared repository.
Thank You! Questions?

Capella website:  
http://www.polarsys.org/capella/
LinkedIn  
http://www.linkedin.com/company/capella-modelling-workbench
Twitter  
https://twitter.com/capella_arcadia
Arcadia forum:  
https://polarsys.org/forums/index.php/f/12/
Capella forum:  
https://polarsys.org/forums/index.php/f/13/
IFE model & doc.:  
http://www.polarsys.org/capella/start.html
www.thalesgroup.com