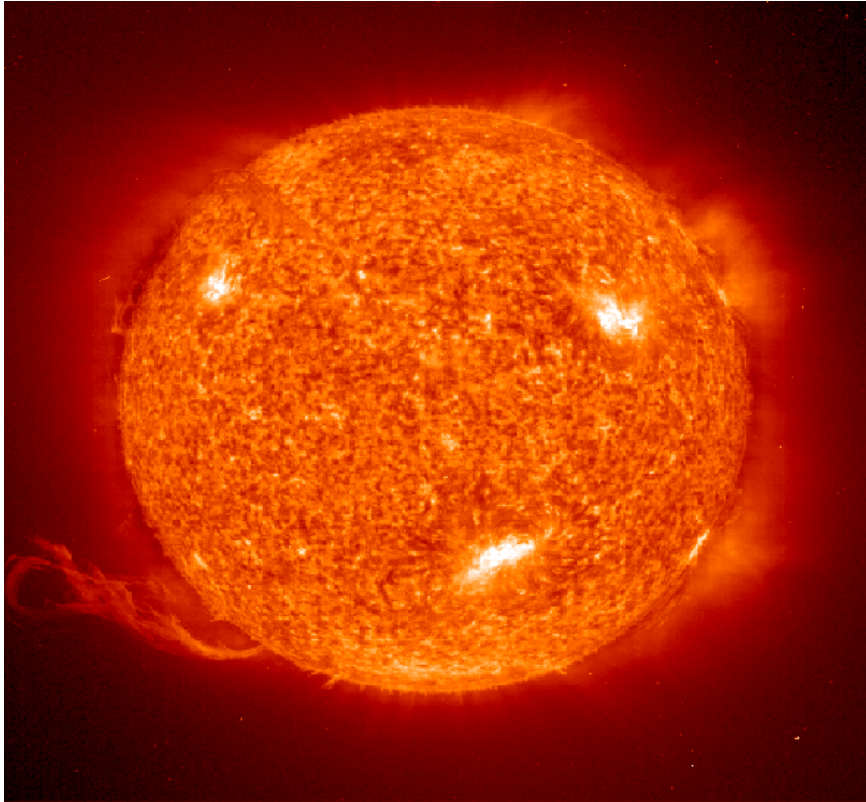




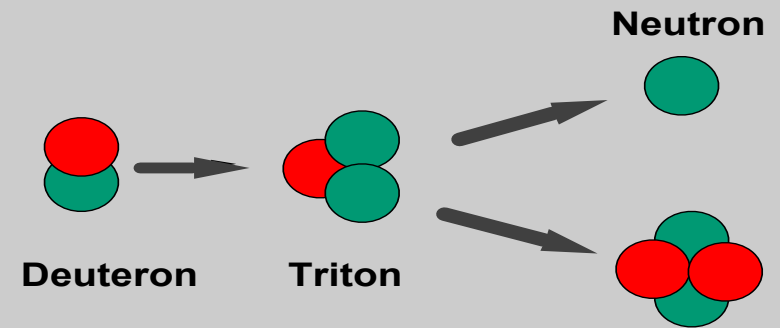
Data Acquisition for W7X Databases and Datamanagement

Max-Planck-Institut für Plasmaphysik
EURATOM Assoziation, Boltzmannstr. 2, 85748 Garching
RZG Garching, XDV
Josef Maier and XDV-Team

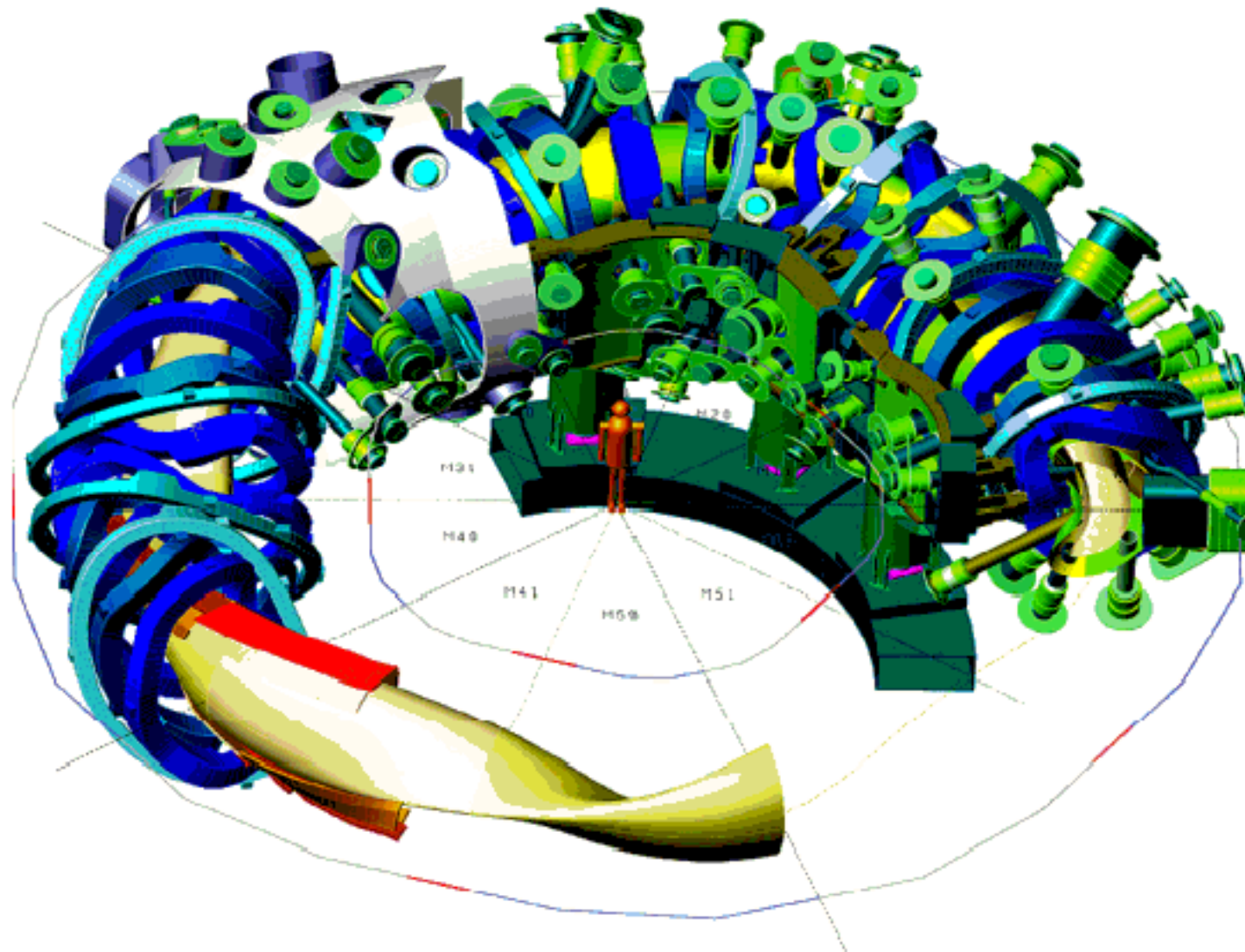
Fusion on Sun and in Laboratory



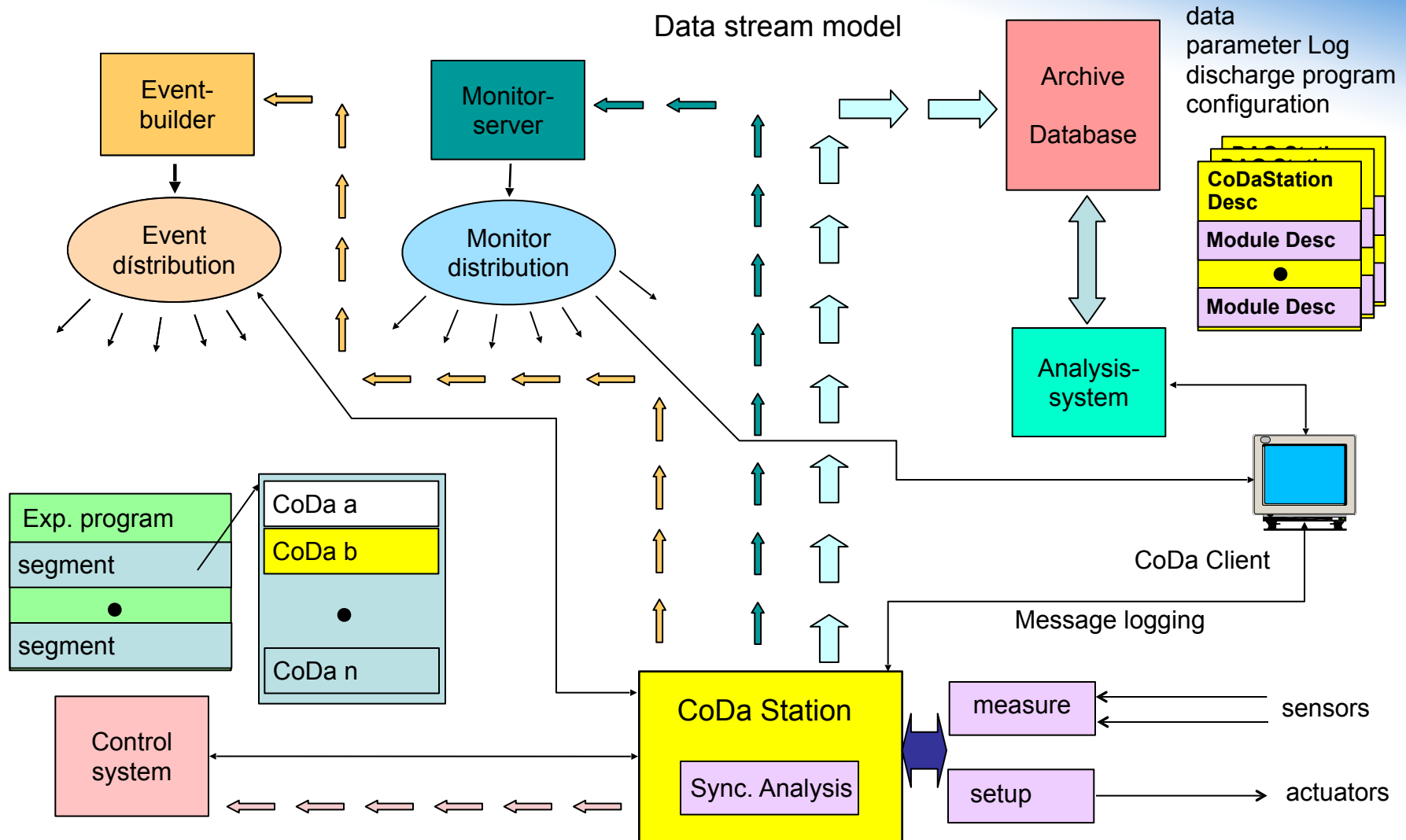
D-T Fusion Process



W7-X Stellarator



Data Acquisition System



Databases

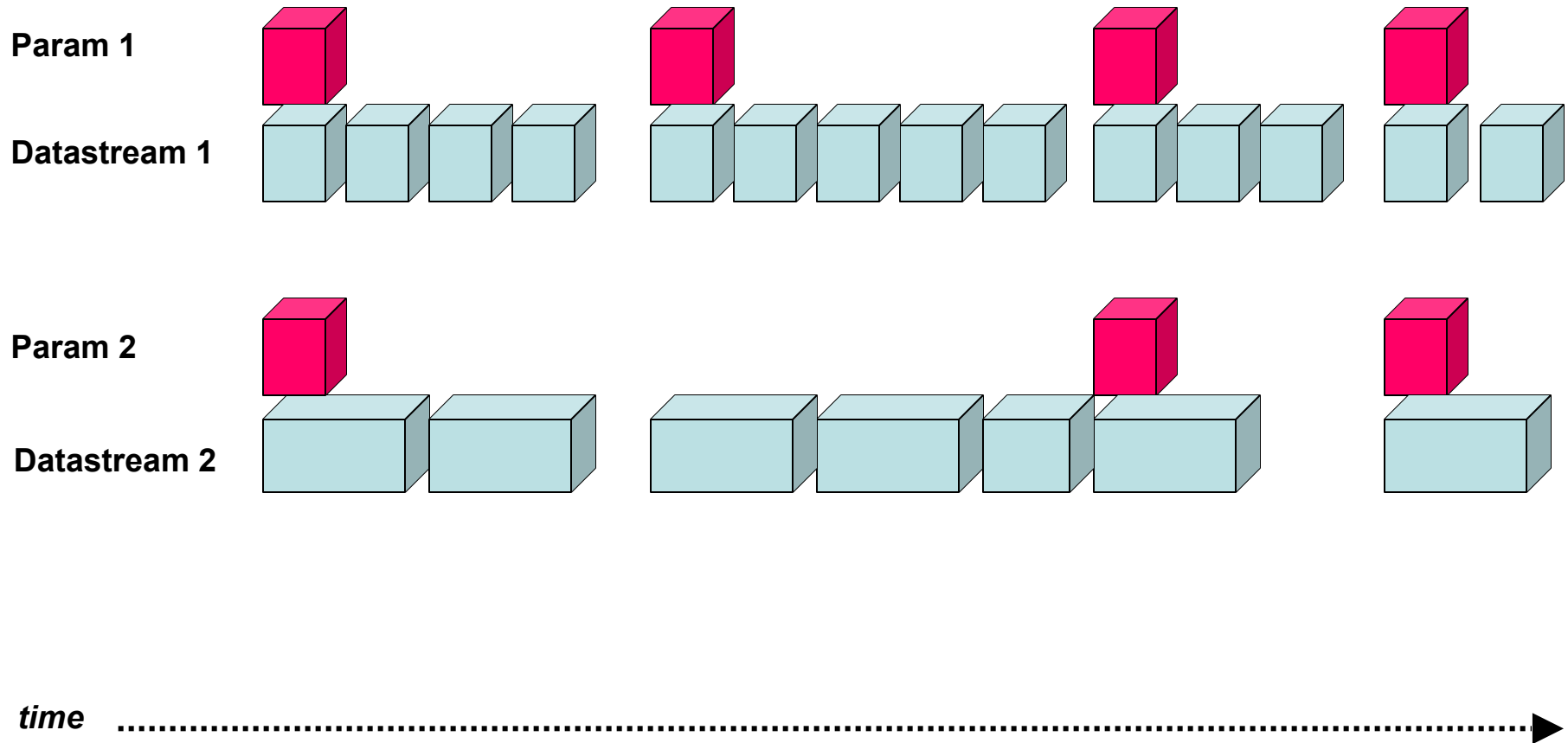
Configuration database for

- module descriptors
- parameters
- discharge control

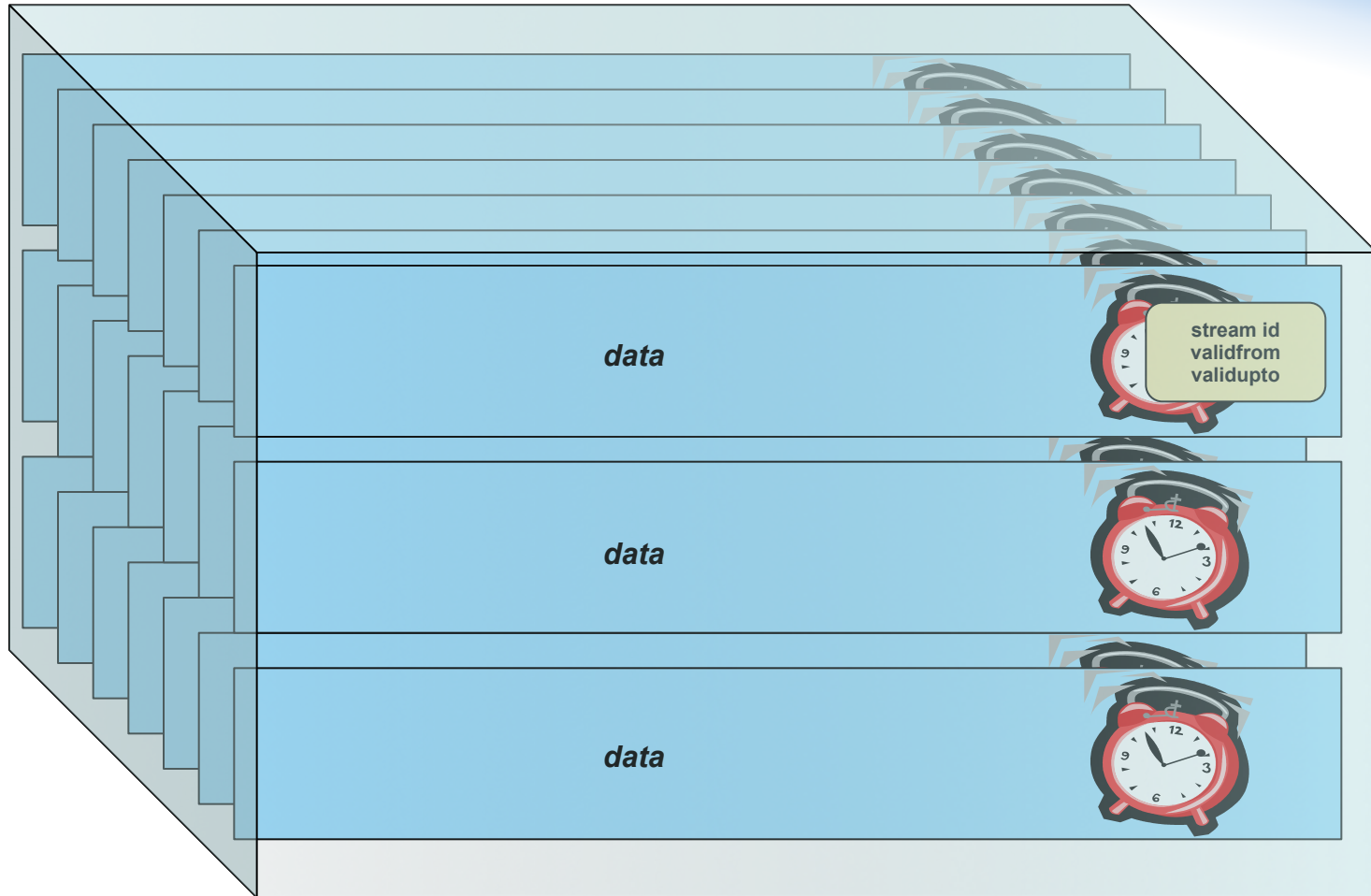
Archive database for datastreams

- measured data from the CoDa-Stations
- preprocessed or processed data
- parameter and configuration history

Data- and Parameterstreams in Archive

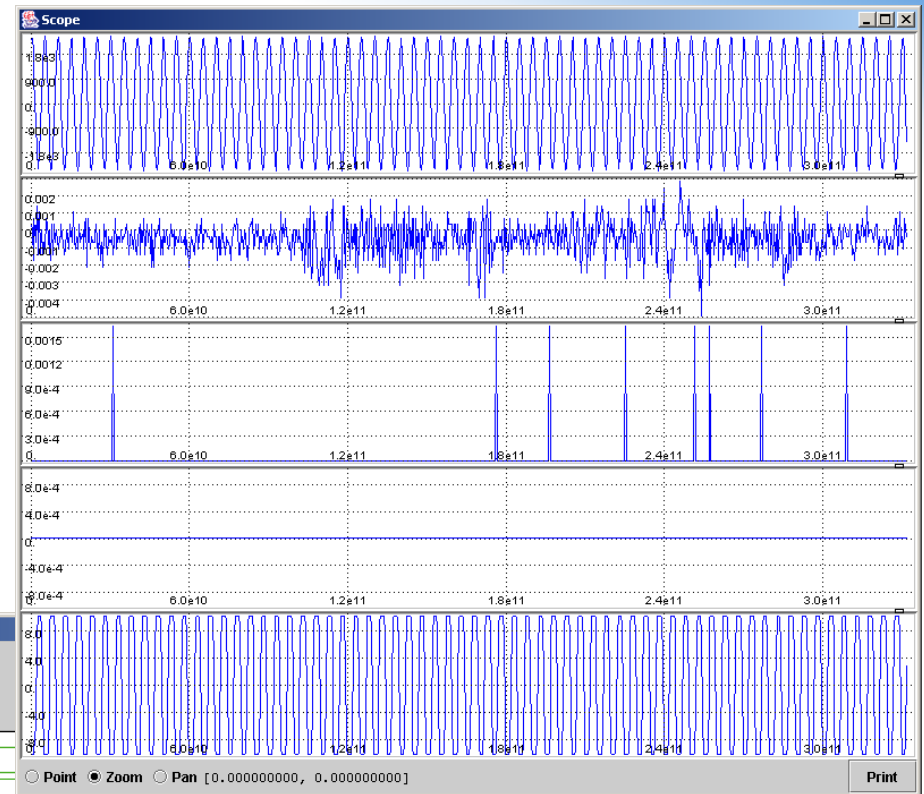
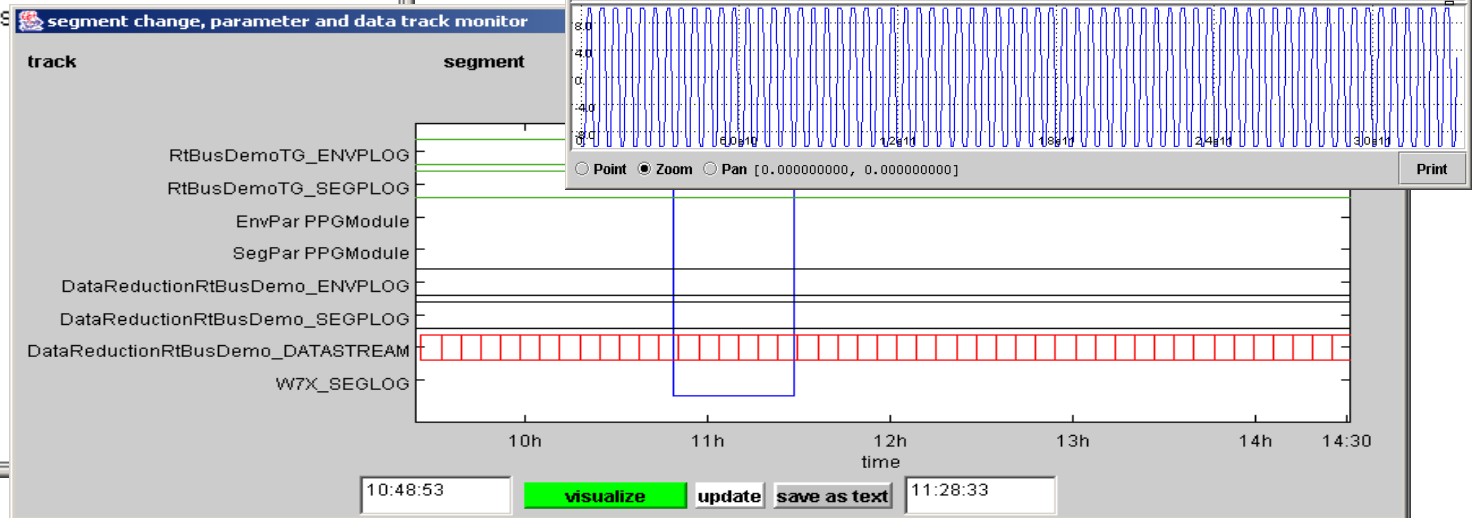
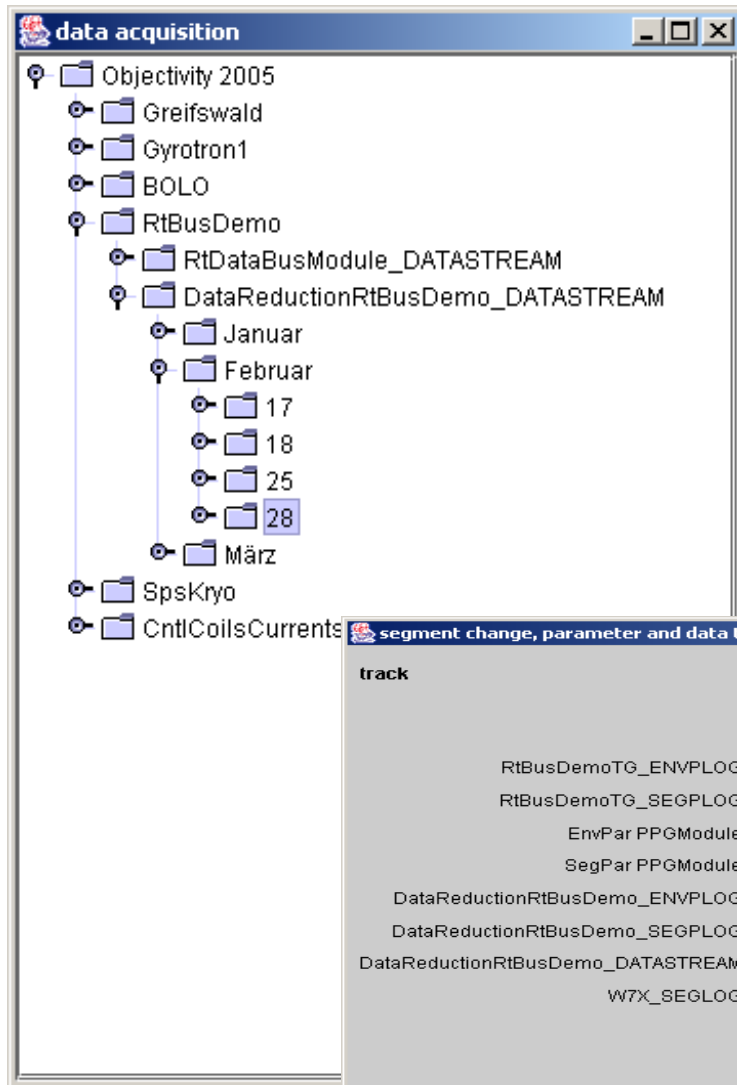


Datastreams and Databoxes



full databox

XDV-ObjyBrowser - Screenshots



Basic Database User Interface

API objyaccess for database access: (XDV Development)

*initAccess()
termAccess()*

Common

*archiveBox()
getBox()
getData()
getBoxIntervals()
checkBoxExistence()
....*

Archive Database

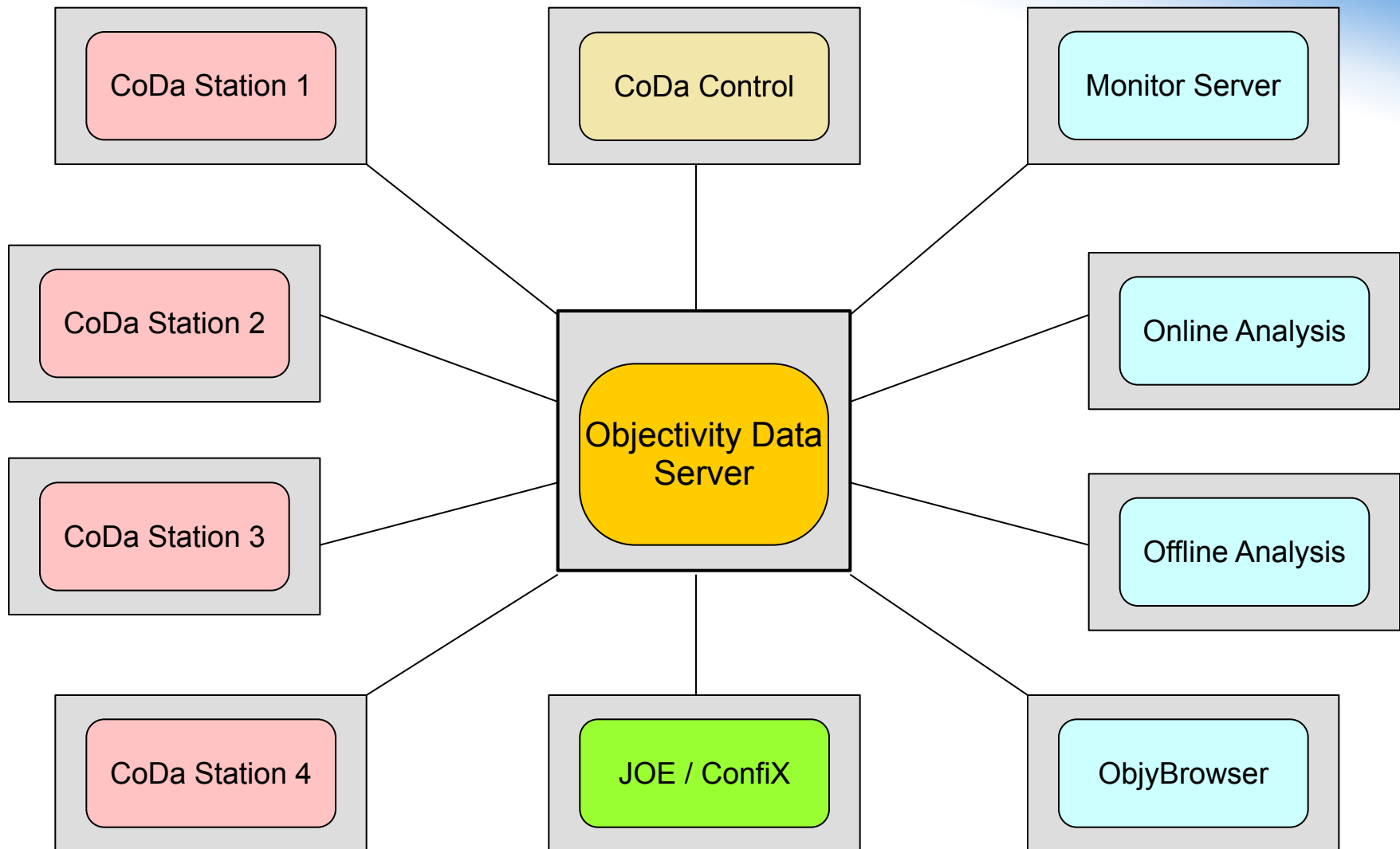
*addObject()
getObject()
updateObject()
....*

Configuration Database

Database Access

- Basic JAVA objyaccess library (XDV developed)
- XDV-ObjyBrowser
- JavaScope
- Jython and IDL
- C++, C, SciLab
- Configurations editor XDV-ConfIX
- Java Object Editor XDV-JOE

Prototype System



Status Summary

- Data structures defined
- Database established
- Data access procedures implemented
- Two successful prototype demonstrations