



# MICE Configuration DB and Batch Reconstruction

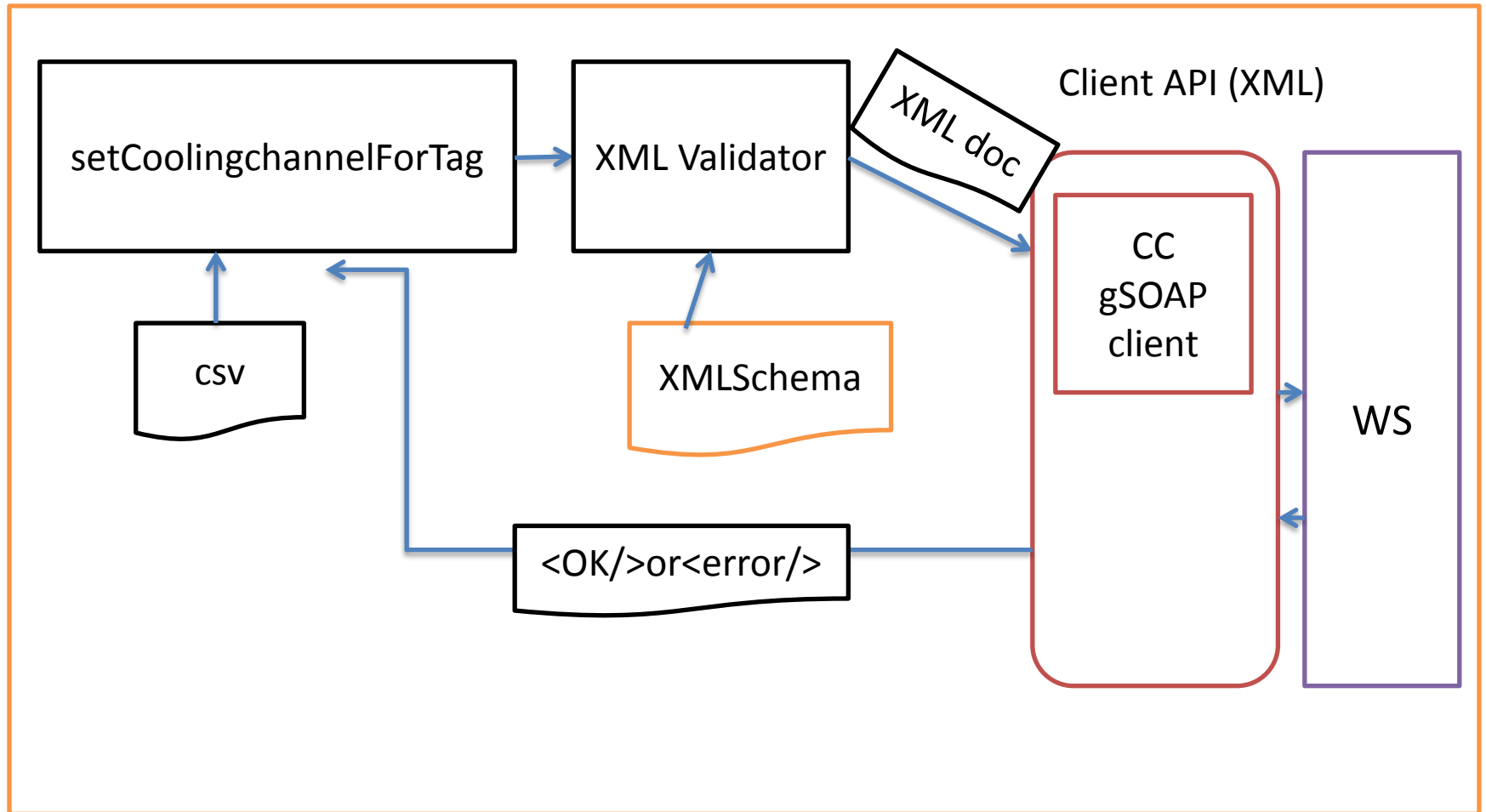
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MICE CM40 Software Parallel

# Cooling Channel Client API

- Presented in detail at CM39
- java, Python and C APIs now exist
- On Ip:  
*bzr+ssh://bazaar.Launchpad.net/~janusz-martyniak/mcdb/mice.cdb.client.api-C/*
- Deployed on *preprod* CDB Web Service mid August
- Waiting for testing... please !

# setX workflow example



# Batch Iteration Number API

Create a new table to store a relation between a batch iteration number used by the Grid reconstruction system, MAUS version and MAUS datacards. B.I.N will allow to reprocess the data to allow for any changes not related to the MAUS version itself.

The batch reconstruction number will determine the datacards which to be used by MAUS.

The datacards will be stored in the DB.

See: <http://micewww.pp.rl.ac.uk/issues/1285>

# Batch Iteration Number API

- WS server side implemented (java)
- WS client API written in Python
- On Ip:

<bzd+ssh://bazaar.Launchpad.net/~janusz-martyniak/mcdb/mice.cdb.client.api-python/>

- Deployed on preprod CDB mid August
- Not tested with MAUS

# MC Serial Number

- Similar functionality and implementation to B.I.N
- Links MAUS version and MC s/w version with datacards
- Implemented and deployed on preprod DB
- Python API provided.
- Testing with MAUS on the Grid will follow shortly

# (Detector) Quality Flags

- Binary flags to store hardware status (DAQ, Detectors, MICE coolingchannel ..)
- Create a WS with basic operations to allow storing and retrieving the flags from the CDB
- Will be used from a Control Room to write to the CDB
- Read worldwide.
- Status: have a list of proposed flags

# Data Quality Flags

- Determined by MAUS during the reconstruction process
- Major problem: MAUS has no write access to the DB (can only access a CDB via a user level API)
- Have to provide a DB MAUS can write to and pull the data from the Control Room **OR**
- Post-process data locally (RAL PPD?)
- Details:  
<http://micewww.pp.rl.ac.uk/projects/maus/wiki/FF251014>



# Batch Processing

- MAUS version 0.9.1 installed at IC and Brunel
- Successfully tested at IC
- File Transfer Controller required a major upgrade (to allow copying data from Grid sites to Castor)
- Processing restarted on Oct 25<sup>th</sup> .

# More on the File Transfer Controller

- It is a Web Service hosted at IC which can be securely contacted by Grid jobs.
- After successful reconstruction a job stores a file transfer request between 2 SEs (in our case from a close (local) SE to Castor at RAL).
- It decouples file transfer submission and monitoring from a grid job.
- Is the Controller a candidate for storing Quality Flags ?

# Adapting File Transfer Controller to store Quality Flags

- Maus makes flags available at the end of the reconstruction process.
- Grid job makes a request to the Controller to store the flags (it could be combined with a FTS request)
- A WS has to be written to expose a getFlags(..) operation to allow users (i.e the Control Room) to read the flags

# Conclusion

- CDB programming done for the Coolingchannel, B.I.N and MC.S.N. Testing by the users is required !
- Add a WS to store Quality Flags being designed.
- Batch Reprocessing on a new Controller runs, needs some polishing (SL6 etc., adding more sites, ongoing)