An Automated Processing Workflow for Air/Spaceborne (Hyperspectral) Remote Sensing

» Motivation: triggered by multitude of airborne campaigns since 2004:
  » Frame camera’s
  » Wisk- and pushbroom (hyperspectral missions)
  » Video → near-realtime awareness

» Own developed middleware for distributed computing → FAST
  » Centred around a database
  » Pattern for parallelism include:
    » Master/Worker framework
    » Task/data decomposition
  » Parallelism is implemented in the middleware, NOT in the applications

» Own developed geo-correction module for better interfacing with Modtran, L2 processing on raw geometry and the ability to handle multitude of sensors.

» Atmospheric correction: no Modtran LUT tables but computed on the fly

» Controlled through www/xml interface

» Multitude of airborne sensors processed, in particular APEX PAF is hosted on the system

» Used for the Proba-V mission and Tuned for the processing of the VNREDSat1B hyperspectral space mission