



Archive and Visualize Data from Models not Executed at CCMC

Needed:

- Output data, reader routine or file format description
- Run metadata (time stamps, parameters)
 - Input (control) file used
- Sample visualization (images) from modeler (for new model)

CCMC can provide:

- Model data import into CCMC-Vis framework
- Online vis interfaces (use ones applicable to similar models)
- URLs
 - run pages (e.g. GUMICS 1-year run)
 - direct visualization links.

Dissemination of Model Results

- CCMC-Vis
 - Import/display of externally generated run results
 - 1D trajectories, 2D slice plots
 - 1D timeseries, 2D line-time plots
 - 2D slices, 3D field line traces
 - Kameleon
 - Download CDF files for offline interpolation and model coupling
 - Kameleon-Live

Reproducibility

Run execution:

- Model version is recorded in Run-on-Request metadata.
- CCMC is keeping archive of all model versions ever run
 - Version changes rarely once a model is established
 - Very old runs may not be reproduced easily (re-installation of old model versions)
 - External runs: Source code base is unknown to CCMC

Visualization:

- Need to have version of visualization for publication date
 - Approximate reproduction of any published image is possible with basic knowledge of plot interface for given model.
 - Need to record all parameters for exact reproduction.
 - Most authors alter images after generation at CCMC when creating figures.
- Regular tags of CCMC-Vis versions
 - CCMC-Vis may change weekly or even daily
 - Published images need to include date of generation