

McStas: Looking further McStas 1.9

Version 1.9 is really close from release

But still some requests from users, and other original ideas

- Faster simulations ?
- Improved grammar: JUMP, ALIAS
- New tools ?
- New components

- **Parallel computing** (MPI already OK and tested):
 - using *Sun Grid Engine* for heterogeneous systems
- Using **threads**
 - looking forward multi-core machines
- Automatic **parameter optimization** on Intensity/width
 - must use standard perl (or C)
 - perl**: Math::Evol, Math::Amoeba called within mcrun
 - C**: must have access to data (files/memory)
and relaunch until optimisation

McStas: Extending grammar

- **JUMP** between components
 - Still to do, and not so difficult
 - Enables component looping and concentric components
 - Be careful with wrong usage !!!
- **ALIAS** Define a component as an alias of an other
 - with possibly different parameter names
 - with some additional sections (INITIALIZE ...)

- **Java data viewer (V3D)** exists (ILL/DS/CS)
requires to import McStas data files
(will be adapted this summer for data browsing)
- **McStas Web Server**
Distribute McStas web interface with McStas/Linux
make webservice
- **Virtual Reality Instruments (mcdisplay)**
Have *mcdisplay* generate VRML scene directly (see web server)
Little work
- **Format conversion tool (mcformat)**
Moderate work, partly done

McStas: New Components

Request for:

- Monochromator (Lucia's work): to be finished
- Magnetic field computation
- Bloch equation propagation
- Inelastic single Xtal.

ResTrax Si/Ge model (is it top secret ?)

Extend 'phonon_simple' (acoustic) ?