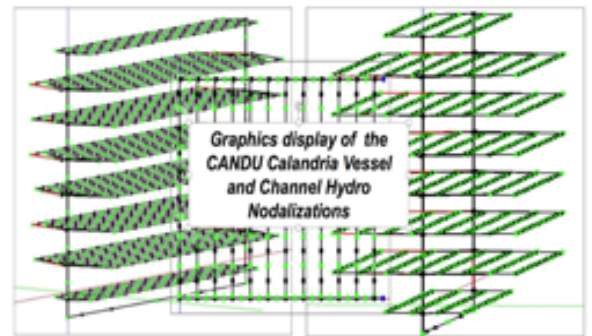
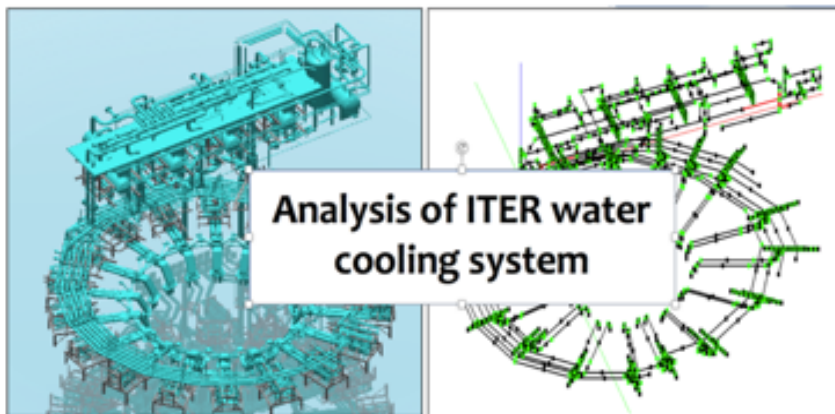
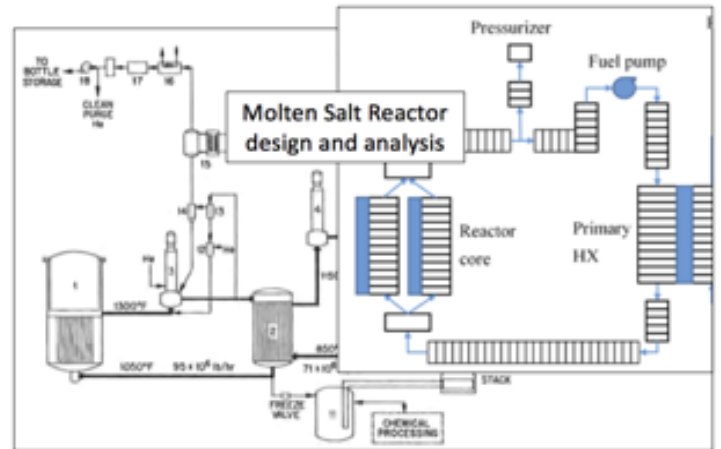


RELAP/SCDAPSIM SPECIAL FEATURES AND OPTIONS

Advanced Multi-D Fluids System Simulation

MOD4x series have the most advanced fluid systems options

- Models fluids and correlations for Pb-based and Na molten metals, molten salts, non-condensable gases, oil..
- Advanced water properties more accurate for LWR and SCWR applications
- Completely rewritten to FORTRAN 90/95/2000 standards for easier model/code development and maintainability



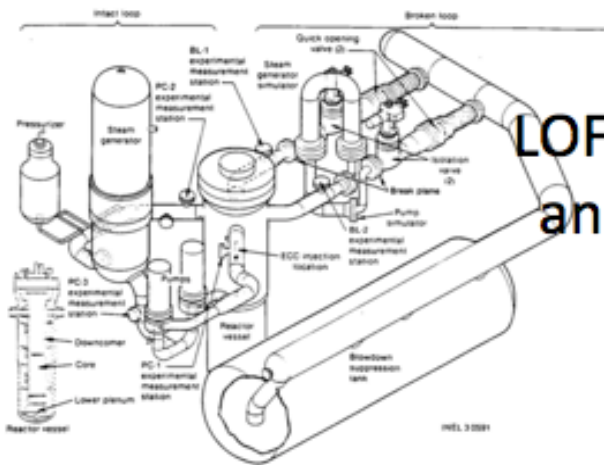
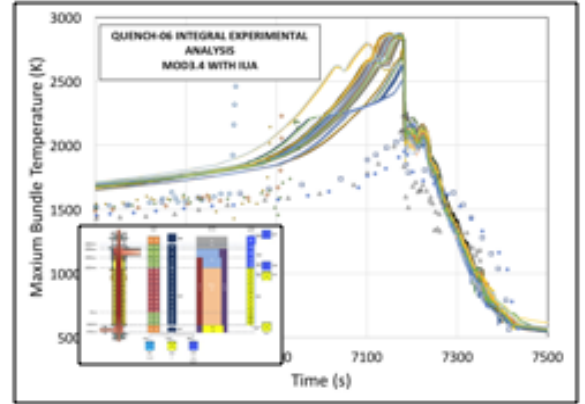
Comprehensive training and technical support options

- **Model development, verification, and assessment**
- **Training centers and extended training internships available in US, Europe, India**
- **Regional technical consultants in China, Southeast Asia, Europe, Middle East**
- **Frequent regional specialized training workshops/seminars**

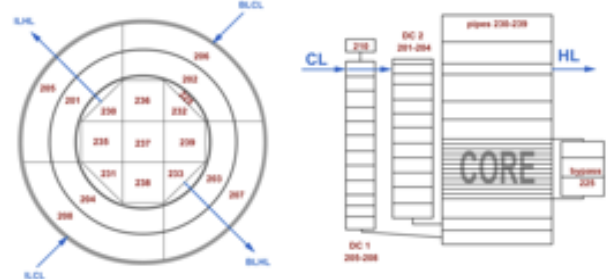
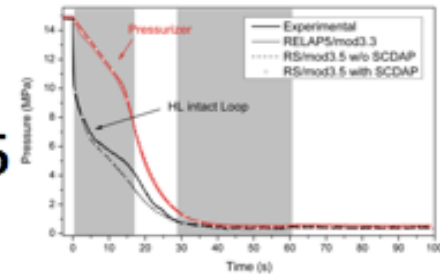
Unique modeling options

MOD3x series have the most advanced fuel and severe accident models and correlations

- Models validated with data from TMI-2 and wide range of integral TH/SA experiments including LOFT, PHEBUS FP, PBF-SFD, CORA, QUENCH, PARAMETER and TMI-2
- Supports the design and analysis of on-going integral experiments in Europe including influence of air-ingression and accident tolerant cladding materials
- Supports the Fukushima Daiichi decommissioning R&D

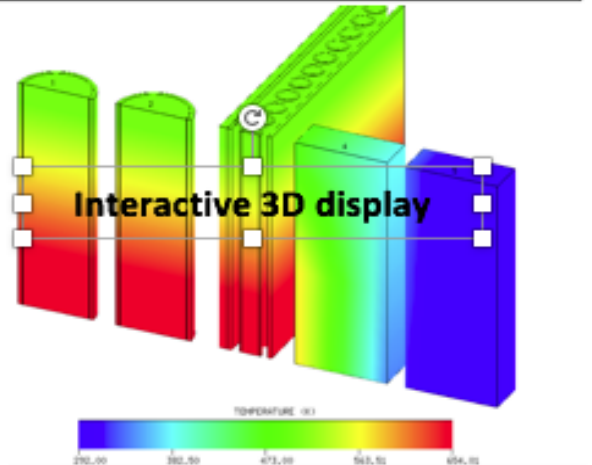


LOFT L2-5 analysis



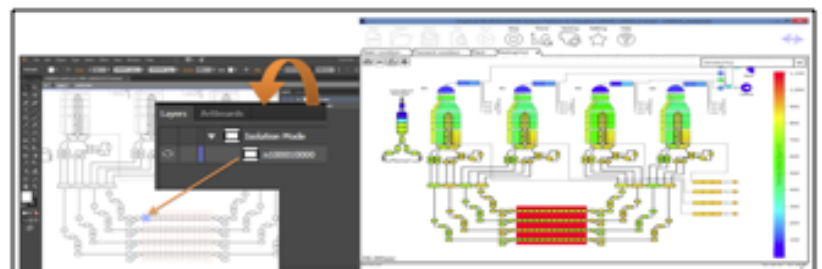
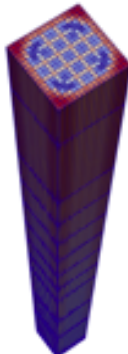
Unique user options

- Uncertainty analysis
- 3D reactor kinetics options
- Hydrodynamic loads
- Interactive 3D displays
- Desktop training simulator GUIs (GRAPE)
- SAMPSON-based containment and source modules
- CTF and SAMPSON subchannel models and correlations
- User supplied 3D kinetics packages



CTF coupling (IV)

- 3D display:
 - CTF Fluid and rods VTK files are generated to plot in 3D the following data:
 - For fluid channels:
 - PRESSURE
 - MIXTURE TEMPERATURE
 - MIXTURE MASS FLUX
 - DENSITY: LIQUID, VAPOR
 - ENTHALPY: LIQUID, VAPOR
 - VELOCITY: LIQUID, VAPOR, DROPLET
 - VOLUME FRACTION: LIQUID, VAPOR, ENTRAINED
 - EQUILIBRIUM QUALITY
 - WETTED PERIMETER
 - CELL FLOW AREA
 - For rods:
 - MAX CLAD TEMPERATURE: INSIDE, OUTSIDE
 - MAX FUEL SURFACE TEMPERATURE
 - FUEL CENTERLINE TEMPERATURE
 - CLAD OUTER CHF
 - PIN MINIMUM DNBR



Using GRAPE advanced GUI environment to display results of CANDU-6 calculation