1. source/main.cc

main()

- Check command-line arguments
- Print output header
- Load shared libraries
- Call Simulator::declare_parameters()
- Read parameter file, check format
- Call Simulator::Simulator() - 2.
- Call Simulator::run() - 3.

2. source/simulator/core.cc

Simulator::Simulator()

- Call Simulator::parse parameters()
- Initialize Simulator variables (timestep, ...)
- Construct model domain, solution vectors
- Construct all plugin architectures
- Call parse_parameters() and initialize() for all plugins
- Call Simulator::set_assemblers (select equations to solve)

3. source/simulator/core.cc

Simulator::run()

- Do initial refinement
- Apply initial / boundary conditions
- Contains main time loop
  - Call functions that assemble matrices
  - Call functions that solve the system
  - Call individual plugin systems (like refinement, postprocessing)
- Return when model is complete