Abstract Submitted
for the DPP00 Meeting of
The American Physical Society

Sorting Category: 6.6.2 (Experimental)

Data Management and Visualization to Enhance Science Discovery through Advanced Computing in the PSACI Project[1] D.P. SCHISSEL, J. SCHACHTER, General Atomics, S. KRUGER, SAIC, X. TANG, PPPL, W. DORLAND, U. Maryland — The USDOE/OFES supported Plasma Science Advanced Computing Initiative (PSACI) is designed to revolutionize fusion research by greatly enhancing simulation and modeling capabilities made accessible by terascale computing. The power of advanced computing to solve critical plasma science problems can be fully exploited only if simultaneously a capable infrastructure is established and effective software tools are made available. This infrastructure includes establishing standardized data structures and access methods, synthetic diagnostics, standard analysis and visualization utilities, and common code interfaces. Work has included support of two PSACI pilot programs: Macroscopic Modeling and Microturbulence Simulation of fusion plasmas. MDSplus provides a standard interface to simulation data from NIMROD, M3D, and GS2. IDL tools act as both synthetic diagnostics and provide interactive scientific visualization for these codes. Demonstrations will be given.

[1]Supported by U.S. DOE Grants DE-FG03-95ER54309, DE-FG03-91ER54124, DE-FG03-86ER52126, Contract DE-AC02-76CH03073, and the DOE/OFES PSACI Project.

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☐ Prefer Oral Session
☒ Prefer Poster Session

Special instructions: Data Analysis, immediately following RW Harvey

Date submitted: July 12, 2000 Electronic form version 1.4