Software Tools for Enhanced Data Visualization and Analysis Capabilities\textsuperscript{1} J. SCHACHTER, Q. PENG, D.P. SCHISSEL, C. CAMPO, General Atomics, T. TERPSTRA, Princeton Plasma Physics Laboratory — Two software tools working together are being used to enhance data analysis and visualization capabilities at DIII-D. The first is “ReviewPlus,” a graphical user interface for viewing plasma data. Written in IDL using object-oriented programming (OOP), the tool allows users to interact with time histories, profiles, contour and surface plots on the same window, and quickly perform mathematical manipulations or combinations of data from different diagnostics. The OOP techniques allow representation of powerful operations in concise program statements, and provide an easy means of extending functionality. The second software tool is “MDSplus,” developed by MIT, LANL, and IGI-Padova. At DIII-D, MDSplus is used as a central repository for analyzed data. Employed in ReviewPlus, MDSplus provides access to data from diagnostics, analysis codes, and even different experiments located around the globe. A description of these two tools will be presented along with a live demonstration of their use.

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