Enhanced DIII-D Data Management Through a Relational Database\textsuperscript{1} J.R. BURRUSS, Q. PENG, J. SCHACHTER, D.P. SCHISSEL, General Atomics, T.B. TERPSTRA, Princeton Plasma Physics Laboratory — A relational database is being used to serve data about DIII-D experiments. The database is optimized for queries across multiple shots, allowing for rapid data mining by SQL-literate researchers. The relational database relates different experiments and datasets, thus providing a big picture of DIII-D operations. Users are encouraged to add their own tables to the database. Summary physics quantities about DIII-D discharges are collected and stored in the database automatically. Meta-data about code runs, MDSplus usage, and visualization tool usage are collected, stored in the database, and later analyzed to improve computing. Documentation on the database may be accessed through programming languages such as C, Java, and IDL, or through ODBC compliant applications such as Excel and Access. A database-driven web page also provides a convenient means for viewing database quantities through the World Wide Web. Demonstrations will be given at the poster.

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