

## Fusion Data Securely Available Worldwide

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The National Fusion Collaboratory Project: <http://www.fusiongrid.org/project/>  
A MICS/SciDAC Collaboratory Pilot Project

Worldwide data access on FusionGrid is available using the MDSplus data acquisition and data management system. In the fusion community, MDSplus is used at more than 30 sites, spread over 4 continents, and is the de facto standard for data access. MDSplus and the Globus toolkit have been combined to create secure X.509 certificate based client/server data access on FusionGrid using the standard MDSplus interface, without loss in speed or functionality. This system is now used routinely for Grid computing on FusionGrid in support of scientific research. Secure access includes the three large experimental facilities (Alcator C-Mod, DIII-D, NSTX). Data management by MDSplus of large datasets generated by simulation codes is being evaluated at NERSC using code results from SciDAC funded projects. The international adoption of MDSplus and its ability to securely manage both experimental and simulation datasets makes it the prime candidate for a data management system for the next generation burning plasma experiment including ITER.



*Alcator C-Mod, DIII-D, and NSTX data are securely available worldwide from the MDSplus data management system and this capability is used routinely to support scientific research via Grid computing on FusionGrid.*