

# Community Grids Top Projects

## PET Online Knowledge Center

<http://ptlportal.communitygrids.iu.edu/index.jsp>

### Project Overview

Information access and management are important tools for researchers and program managers in scientific and engineering fields. The Online Knowledge Center (OKC), funded by the Department of Defense's High Performance Computing Modernization Program (HPCMP), is designed to act as a clearinghouse for wide-ranging information. The HPCMP, through its Programming Environment and Training (PET) component, oversees research in a diverse range of computational areas, from chemistry and materials science, to computational electronics and electromagnetism, to environmental and weather modeling, to structural and fluid mechanics. The OKC is funded to organize the vast amounts of public information generated by programs such as the HPCMP, including research area overviews, contact information, publicly available codes, technical papers, and training and outreach opportunities. The OKC also is developing tools to help scientists communicate and organize their personal information.

Integrating both third party and locally developed technologies, the OKC consists of the following major components: a portlet-based portal interface, a WebDAV-based content management system, and an XML-based communication infrastructure. The central concept of our system is that all data in a distributed framework should be treated in the same way: All data are named with a URI and described by XML metadata, which may be stored in a variety of systems, including both relational and native XML databases.

### Research

OKC research focuses on the following areas:

- Developing portlet components and containers
- XML-based, peer-to-peer messaging middleware.
- Metadata information services, including URI naming, discovery, and hybrid search services.

### Contact

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### Web Sites

- Project web site: <http://ptlportal.communitygrids.iu.edu/index.jsp>
- OKC web site: <https://okc.wes.army.mil/index.jsp>
- GXOS Web Site: <http://ww2.cs.fsu.edu/~balsoy/gxos/>

