

Open Source Software Distributed by Pervasive Technology Labs through June, 2006

**Items in bold indicate new for the reporting period 1/06 to 6/06.

Name	Description	Lab	URL	Comments
LAM/MPI	LAM/MPI implementation of the Message Passing Interface Standard	Open Systems	http://www.lam-mpi.org/	Latest version 7.1.2 released Spring 2006
Open MPI	Open MPI implementation of the Message Passing Interface Standard.	Open Systems	http://www.open-mpi.org/	Latest version 1.1.1 released Spring 2006
PSWEEP	Software framework for large-scale parameter studies	Open Systems	http://www.osl.iu.edu/~chemuell/new/downloads.php	
Boost Libraries: concept_check, dynamic_bitset, enable_if, function, graph, iterators, lambda, multi_array, operators, property_map, signals, tribool, tuple, mpi	Comprehensive collection of generic software libraries. The OSL has contributed a significant portion of the total software in Boost.	Open Systems	http://www.boost.org/	Boost is downloaded approximately 1,000 times per day.
OGCE Portal 2.0	JSR 168-compatible portlets and Web services for building Web portals for science gateways.	Community Grids	www.collab-ogce.org/ogce2/	
HPSearch 1.0.1.3	Tool to bind URI to an existing scripting language providing access to various URI's including webservices.	Community Grids	www.hpsearch.org	
WS-Context 0.9v4	Hybrid information service supporting scalability of large amounts of slowly varying data, and a high-performance, rapidly updated, information service for dynamic regions.	Community Grids	www.opengrids.org/wscontext	

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NaradaBrokering 1.1.6	Infrastructure for building distributed applications	Community Grids Lab	www.naradabrokering.org	
FIRMS 1.0.2	Web Services based support reliable messaging. Supports both WSRM and WS- Reliability specs	Community Grids Lab	www.naradabrokering.org	
FINS 1.0.11	Web Services based notification framework. Supports WS- Eventing	Community Grids Lab	www.naradabrokering.org	
CIMA Crystallography Lab Software	Software suite to provide remote access to diffractometers used in X-ray crystallography.	Knowledge Acquisition and Projection	www.instrument-middleware.org	Request software from mcmullen@ Indiana.edu
Matrix Template Library and Iterative Template Library (MTL and ITL)	Generic libraries for high performance numerical linear algebra.	Open Systems	http://www.osl.iu.edu/research/mtl/ http://www.osl.iu.edu/research/itl/	
OSCAR	Open Source Toolkit for installation and administration of high-performance computational clusters.	Open Systems	http://oscar.openclustergroup.org/	
Parallel Boost Graph Library	Library of generic algorithms and data structured for high- performance graph computations in parallel environments.	Open Systems	http://www.osl.iu.edu/research/pbgl/	
ConceptGCC	Extended version of GNU Compiler Collection (gcc) to support generic programming extensions to C++.	Open Systems	http://www.generic-programming.org/software/ConceptGCC/	

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BGL Python	Python bindings for Boost Graph Library.	Open Systems	http://www.osl.iu.edu/~dgregor/bgl-python/	
MPI C# Bindings	C# Language bindings for Message Passing Interface.	Open Systems	http://www.osl.iu.edu/research/mipi.net/	
Object Oriented MPI	Object Oriented library in C++ for Message Passing Interface.	Open Systems	http://www.osl.iu.edu/research/ompi/	
Blitz++	High performance array library in C++.	Open Systems	http://www.oonumerics.org/blitz/	
Caramel	Concept representation markup language and toolkit.	Open Systems	http://osl.iu.edu/research/caramel/	
XMPI	A run/debug gui for the Message Passing Interface.	Open Systems	http://www.lam-mpi.org/software/xmpi/	
Spoofwatch	Software suite that detects and locates infected computers on a network, particularly those illicitly trying to hide themselves by masquerading as legitimate systems.	Advanced Network Management	www.anml.iu.edu	Request Software from greg@iu.edu
Tsunami	High-speed file transfer system, especially suited for extremely long-distance data transfer.	Advanced Network Management	www.anml.iu.edu	Request Software from greg@iu.edu

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gCUBE	Three Dimensional Network Visualization tool. Allows real-time view of networks, including cyber attacks and high bandwidth utilizations	Advanced Network Management	www.anml.iu.edu	Request Software from greg@iu.edu
libDebug	Facilitates human-readable debugging output for programs using low-level Unix system libraries	Advanced Network Management	www.anml.iu.edu	Request Software from greg@iu.edu
libFormat	A library that gives applications an easy way to allow users to control the exact formatting of output through a simple format specification included in command-line arguments.	Advanced Network Management	www.anml.iu.edu	Request Software from greg@iu.edu
libDumpfile	libdumpfile is a library for processing packet capture files generated by the libpcap library which allows client applications to "subscribe" to any desired layer of the network stack for packet analysis.	Advanced Network Management	www.anml.iu.edu	Request Software from greg@iu.edu

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libFlowseek	a library that provides a structured query language for selecting subsets of flow records from collections of Netflow data. It is strongly optimized for speed and meant	Advanced Network Management	www.anml.iu.edu	Request Software from greg@iu.edu
L2QP	The Layer 2 Query Protocol is based on a standards-based mechanism for determining the topology of a switched Ethernet network using only SNMP and ICMP echo-requests.	Advanced Network Management	www.anml.iu.edu	Request Software from greg@iu.edu
Sebek/Hflowd/Walleye	Comprehensive Cybersecurity forensics suite. Released under Gnu Public Library (GPL).	Advanced Network Management	www.anml.iu.edu	Request Software from greg@iu.edu
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NLOPredict	Plugin to UCSF Chimera for nonlinear optical prediction and analysis of molecules	Scientific Data Analysis	http://sda.iu.edu/nlopredict/	
LifeScienceWeb clients	Plugins to UCSF Chimera and PyMOL for LifeScienceWeb clients	Scientific Data Analysis	http://www.lifescienceweb.org/	
GLEWpy	Python wrappings for OpenGL Extensions	Scientific Data Analysis	http://glewpy.sourceforge.net/	
Squeak projects	Applications/lessons for K-12 and Supercomputing science education	Scientific Data Analysis	http://sda.iu.edu/K-12/	