

Technology Disclosures by Pervasive Technology Labs through June, 2006

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

Tech No.	Tech Name	PTL Director	Description	Status	Comments
06218	Narada Brokering	Fox	A CGL Open-Source project that researches fundamental issues pertaining to distributed middleware systems.	New	
07003	SMEApp	McMullen	Diagnostic software that learns from expert actions.	New (at RTC intake stage)	
06163	Single-Packet Radiolocation of 802.11 Wireless Sources	Wallace	Apparatus consists of a set of sixteen directional antennas, a radio receiver, a power-measuring device and data collection equipment.	Provisional Patent Filed	
06088	ArtXplore, Location Tracking System	Baker	Location tracking system for ArtXplore, a Digital Museum Experience, and some of the overall system architecture and data design.	Non-exclusive license	
06020	ConceptGCC	Lumsdaine	Extends the existing, O/S GNU C++ compiler with language support generic programming.	Open Source	
05119	Navigating New Spaces	Baker	Application allowing Indianapolis Museum of Art (IMA) visitors to browse the IMA collection on the PercepTable.	On same license as 0360	
05118	PhotoBoard	Baker	Prototype application for examining large groups of digital images and assigning them to categories.	On same license as 0360	
05105	Type checker prototype for extended generic C#	Lumsdaine	Prototype implementation of a type checker and translator to standard Generic C# for some extended features we propose for that language.	Open Source	
05101	Open MPI	Lumsdaine	Parallel run-time environment and message passing system that is an implementation of the Message Passing Interface (MPI) standard.	Open Source	

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05099	Web services and applications for structural visualization of mutation data	Heiland/Mooney (PTL Fellow) Collaboration	Software providing web services functionality to access and display genetic mutation data.	Active	
05097	Information Visualization Cyberinfrastructure Database	Borner (PTL Fellow)	Database of scholarly work that aims to serve researchers and technologists interested in the large-scale analysis, modeling, and visualization of literature data sets.	Active	
05095	Information Visualization Cyberinfrastructure Software Framework	Borner (PTL Fellow)	Framework designed to facilitate the integration of data analysis, modeling and visualization algorithms into a unified system.	Open Source	
05091	MutDB	Mooney(PTL Fellow)	Database, software, and website suitable for genome annotation.	Active	
05090	S-BLEST, structure based local environment search tool	Mooney (PTL Fellow)	Software that rapidly finds structurally similar sites in protein structures within a database and identifies structural environments associated with a given function.	Active	Copyright Application
05085	Parallel Boost Graphic Library	Lumsdaine	Library for parallel computation of graph (or network) data structures.	Open Source	
05056	Indiana University Case-Based Reasoning Framework (IUCBRF)	McMullen	Framework to facilitate the development of case-based reasoning (CBR) systems.	Open Source	
05052	Traffic-Based Mechanism for Ordering Search Results	Wallace	Tool to analyze traffic on a data network to determine the requested and referring URL's for HTTP requests on the World Wide Web.	Active	

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05021	Compression scheme for improved efficiency of sparse matrix computations.	Lumsdaine	Encoding scheme that reduces memory requirements necessary to store and access matrices.	Active	Provisional Patent Filed
05009	Make a Meal Auto-Sensing Interface for Nutrition Education	Baker	Computer interface that uses physical objects for teaching about food nutrient values by detecting what food items are present on a tray.	Hold	
04074	Matrix Template Library version 1-2, iterative Template Library versions 1-4	Lumsdaine	Generic library written in C++ for basic linear algebra computations	Open Source	
04073	Boost Graphic Library	Lumsdaine	Provides algorithms and data-structures concerning graphs (nodes and edges).	Open Source	
04072	Slashtmp: Method to convey authorization to one outside of the party's administrative domain	Wallace	Method to create a unique Uniform Resource Locator (URL) that can be used to authorize a specific web-based action for a party outside the user's administrative domain.	Non-Exclusive License	
04067	Boost MultiArray	Lumsdaine	Generic library of multi-dimensional arrays.	Open Source	
04020	Boost enable if	Lumsdaine	General purpose tool for controlling template function overloading and class template specializations in C++.	Open Source	
04009	MPI.NET (P/Invoke Bindings Subset)	Lumsdaine	Set of bindings from C# to the MPI standard allowing high-performance parallel communications from programs written in C# and other CLI languages.	Open Source	

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0397	Narada Brokering	Fox	Distributed middleware to handle a large number of clients. Also supports a variety of interactions such as centralized, distributed and P2P.	Open Source	
0383	Distributed Shared Memory with Just-In-Time Compilation	Lumsdaine	Just-in-time compilation to effect distributed shared memory functionality in a distributed memory (cluster) virtual machine.	Hold	
0361	MUTT (Multi-User Tool Tracking)	Baker	Software to track and decode user interaction with physical objects used in a user interface without wires, mouse or keyboard.	Active	
0360	PercepTable™	Baker	Device for display and interaction with computer-generated graphics. Graphics are projected onto a horizontal table and users interact with display using tools tracked by video camera.	Non-exclusive License	
0352	LAM-MPI	Lumsdaine	MPI programming environment and development system for heterogeneous computers on a network.	Open Source	
0349	SourceGrid	Lumsdaine	Portal for software project managers that is a collection of compatible development and testing portlets.	Exclusive License	
0314	Spoofwatch	Wallace	SNORT plug-in that detects IP packets using spoofed source addresses.	Open Source	
0313	Tsunami	Wallace	Implementation of file transfer protocol of the same optimized to transfer large files over long distance network links where there may be packet loss due to errors.	Open Source	