

OPEN SOURCE IN THE SILICON FOREST

Armies of talent from around the world are pooling their capabilities to create innovative, world-class products using open source software. In the center of this global revolution is Oregon's Silicon Forest.

Oregon, known for its natural beauty and quality of life, has long attracted individuals looking to balance independence, creativity and a shared commitment to common goals. The open source movement is a natural addition to this environment. Today, many of the world's most respected open source experts live and work in Oregon.

Companies of all sizes in Oregon – including IBM, Intel, HP and Merant, plus many individuals and supporting organizations – are significantly involved in the open source movement. Perhaps the most visible is the Open Source Development Lab (OSDL), the “center of gravity” for Linux and home to Linus Torvalds, the inventor of the operating system. OSDL is funded by global leaders

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WARD CUNNINGHAM
CREATOR, WIKI WIKI WEB

and is dedicated to accelerating the growth and adoption of Linux in the enterprise.

Another supporting organization is the Software Association of Oregon (SAO), which has encouraged, promoted and fostered the explosive growth of the Oregon software industry for fifteen years. As part of its charter, the SAO is an active supporter of open source developers and initiatives, with regular networking and professional development opportunities, sponsorship of major open source events such as OSCAMP and OSCON, and ongoing monthly coverage of open source issues in *The Cursor* (www.sao.org/newsletter).

Across the state, developers and technical staff are integrating open source systems in businesses, government, schools and non-profit organizations. The following profiles highlight just a few of the groups and individuals who have helped put Oregon on the worldwide open source map.

OPEN SOURCE DEVELOPMENT LAB(OSDL)

The Open Source Development Lab (OSDL) (www.osdl.org) in Oregon is dedicated to accelerating the growth and adoption of Linux in the enterprise. OSDL, a non-profit organization, was founded in 2000 by a global consortium of IT industry leaders, including IBM, HP, CA, Intel and NEC. OSDL provides Linux support and makes

its state-of-the-art test facilities available to developers around the world. Today, the OSDL has more than 40 members on five continents. Linus Torvalds, the creator of Linux, now works at the OSDL in Oregon to advance the Linux kernel.

OSDL's connection to Oregon is rooted in the Silicon Forest, with the presence of founding members IBM, Intel and HP, and the prevalence of high-end systems programming experience and open source mindset in its workforce.

“OSDL IS THE PLACE –
THE ONLY COMPLETELY
OPEN PLACE – THAT
DOES RELENTLESS
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TESTING NON-STOP.”

TIM WITHAM

OSDL supports a variety of activities surrounding the development and guidance of Linux: It provides hardware resources free of charge to OSDL Associates and it sponsors the Carrier Grade Linux and Data Center Linux working groups. OSDL is also actively involved in kernel testing by providing an open workbench for patch testing (the Scalable Test Platform), creating open source workloads, and contributing to the testing of the development kernel.

Visit developer.osdl.org, OSDL's developer resource portal, to see the kinds of engineering work OSDL is currently engaged in and to access other resources of particular interest to open source developers.

Contributions to this material were made by Tim Witham and Nelson Pratt of OSDL.

LINUX TECHNOLOGY CENTER – IBM

The mission of the IBM Linux Technology Center (LTC) is: 1) to make Linux better, 2) remain trusted, valued members of the Linux community, 3) support the IBM Linux technical community, and 4) help the IBM hardware, software and services brands win with Linux. The LTC has 600 staff members worldwide working on Linux. In addition, all IBM product groups are working on integrating Linux into the broad array of IBM hardware, software and services.

The Linux Technology Center in Beaverton, Oregon, home office of Director Dan Frye, was created in 1999 and currently has 90 employees working on Linux locally. Gerrit Huizenga, senior engineer and technical lead for kernel development in the LTC, says “a single development team contributed over a thousand patches to the Linux kernel in one year and the total number of patches contributed by the LTC

“IBM IS COMMITTED TO THE OPEN SOURCE MOVEMENT AND LINUX, AND HAS SUPPORT FROM THE TOP OF THE COMPANY FOR THE LINUX EFFORT. IBM IS ACTIVELY DEVELOPING SOFTWARE TO RUN ON LINUX, PORTING IBM APPLICATIONS TO THE PLATFORM, AND WILL PROVIDE THE SAME LEVEL OF CUSTOMER SUPPORT FOR LINUX AS ANY OTHER OPERATING SYSTEM.”

GERRIT HUIZENGA

number in the thousands. In 2003, over 50 LTC members worked on improving performance and scalability in the Linux 2.5/2.6 kernel, which will directly benefit customers in 2004.”

The LTC actively participates in the Linux development community by joining mailing list discussions, contributing new code, finding and fixing defects, and helping in the areas needed to increase the reach of Linux. The LTC website (www.ibm.com/linux/ltc) features a list of Linux open source projects and collections of patches in which IBM is directly working with the Linux development community. IBM also documents issues relating to the Linux OS, configuration hints and Linux technical papers at www.ibm.com/redbooks.

Quotes and input provided by Dan Frye. Includes material from Linda Barney's article: "IBM: Current Status of Open Source and Linux," and Joe Barr's article "Inside IBM's Linux Technology Center."

ECLIPSE

Eclipse (www.eclipse.org) was formed four years ago with a \$40 million contribution of code by IBM. IBM built a consortium around Eclipse, which totaled 60 companies through the end of last year. Eclipse has evolved into a not-for-profit, member-supported foundation that includes HP, Intel, Merant, SAP, Borland and Instantiations. Eclipse allows organizations to build tools without making monumental investments, which provides the infrastructure on which to build applications. It saves time, allowing the layering of tools on top of each other. This set of interoperable solutions provides increased value.

Eclipse was originally designed as a tooling platform, or an open framework upon which to build development tools. Over the past two to three years it has become hugely popular, and is evolving into a general purpose framework for building applications (with release of Eclipse 3.0 targeted for end of June).

The Eclipse Foundation, Instantiations and BEA Systems recently announced a new open source

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HERE.”

MARK JOHNSON

incubator project to create an Eclipse-based development environment and toolset name Eclipse Pollinate. Eclipse Pollinate will integrate with Apache Beehive to help developers more easily develop and deploy service-based and J2EE-based applications. Two additional companies, Soaring Eagle and Genuitec, have also announced plans to join and contribute to the Eclipse Pollinate code base.

Eclipse is a global project, however it has firm roots in the Silicon Forest: John Wiegand is the lead for the Eclipse platform, is on the board of the Eclipse Foundation, and works at IBM's Beaverton campus; Dan Frye, the director of the IBM Linux Technology Center, resides in Portland; Instantiations, a local company, leads Eclipse's marketing; Ling Yao, Intel's Eclipse representative, resides in Portland.

This material is based on conversations with John Wiegand, Bjorn Freeman-Benson, Mark Johnson of Instantiations, and Scott Lewis of Composit.

FREE GEEK

FREE GEEK (<http://freegeek.org>) recycles computer technology and provides low- and no-cost computers to individuals, not-for-profit agencies and social change organizations. Through Free Geek, 3,900 volunteers have spent more than 90,000 hours disassembling donated equipment and recycling into refurbished systems that are loaded with open source software.

Since its formation in 2000, Free Geek has recycled over 390 tons of electronic scrap and refurbished over 3,300 computer systems. Open source software is a big part

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RON BRAITHWAITE

of this success, but there are also cultural synergies. Open source is a collaborative model and operates through consensus – much like Free Geek. According to Ron Braithwaite, “Open source isn’t just about software. Open source is a way of working together... of collaboration. You can’t do open source with hidden agendas.”

This material derived from the Free Geek website (www.freegeek.org) and from conversations with Oso Martin and Ron Braithwaite.

WIKI WIKI WEB

Awiki is a computer program that lets people around the world collaborate to create and update web pages. The wiki concept was created in Oregon by Ward Cunningham for the Portland Pattern Repository (<http://c2.com/ppr>). Cunningham’s goal was to collect developers’ experiences so they could be shared and used in new situations. Both the wiki idea and Ward’s original Perl program were quickly cloned. Now there are hundreds of wiki implementations (most open source) and thousands of wiki sites (see www.wikipedia.org for the largest).

Today, the wiki is growing and healthy through the protection of its community. On any given day there are approximately 10,000 readers and 100 changes. The site has grown to 28,000 pages, of which Cunningham himself wrote fewer than 200 pages. The rest were contributed and shaped by others. On average, one of every 100 people who visit the site becomes an author.

This material is based on a conversation with Ward Cunningham, and a Seattle Post-Intelligencer Reporter article, “Microsoft Notebook: Wiki pioneer planted the seed and watched it grow,” January 26, 2004.

OREGON OPEN SOURCE RESOURCES

OREGON RESOURCES

Accelerated Learning Center	http://www.alcpress.com/
Axian	http://www.axian.com
CheepGeeks	www.cheepgeeks.com
CSG Professional Services	http://www.csqpro.com
Command Prompt	http://www.commandprompt.com/ Contact: Joshua Drake
Deer Run Associates – Hal Pomeranz, Perl	hal@deer-run.com
Elematics, Inc.	http://www.elematics.com/
eMerchandise.com	http://www.emerchandise.com/main/s.eSpvdavC
Fetter Consulting	http://www.fetterconsulting.com/index.php
Free Geek	http://www.freegeek.org/
Hands On Technology Transfer, Inc.	http://www.hot-unix-linux-training.com/CityAll/Portland-OR.htm
IBM – Linux Technology Center (Beaverton)	http://www.ibm.com/linux/ltc Contact: Gerrit Huizenga, gh@us.ibm.com
Immunix	http://www.immunix.com
Instantiations	http://www.instantiations.com
Iron Mountain Foundry, LLC	http://www.ironmountainfoundry.com/northwest/portland.php
Lane Community College – Ken Barber, Linux	email: kenb@nu-world.com
Mentor Graphics	http://mentor.com/
Moxley Data Systems	http://www.moxleydata.com/
Mt. Hood Computer Services, Inc.	http://www.mthoodcomputers.com/
Mti (Linux applications running in retail kiosks & devices)	http://www.mti-interactive.com/
Naked Ape Consulting	http://nakedape.cc/
Onyx Neon	www.onyxneon.com
Open Source Consulting, LLC	http://www.oscl.net/ Contact: David Pool , email:dpool@hevanet.com
Open Source Development Lab	http://www.osdl.org
Open Sourcing	http://O sourcing.com Contact: Brian Jamison - brian@jamison.org
Planet Argon	http://www.planetargon.com/
Polyserve	http://www.polyserve.com/
Portland State University – Bart Massey	http://ossclass.wiki.cs.pdx.edu/
Seaquest Software	http://www.seaquest.com
Stonehenge Consulting	http://www.stonehenge.com/
TempusDictum	Swarm Development Group (SDG) http://tempusdictum.com
The Portland Group (now owned by STMicroelectronics)	http://www.pgroup.com
White Knight Hackers	www.whiteknighthackers.com
Visionary Networks	Contact Sean Whitney: sean@visionary-networks.com

ADDITIONAL OPEN SOURCE RESOURCES

OREGON ORGANIZATIONS

Beaverton/Beginning Linux Users Group	http://www.bluegroup.org/
Mid-Willamette Valley Linux Users Group	http://www.mwvlug.org/
Open Source Development Lab (OSDL)	http://www.osdlab.org/
Portland Linux/Unix Users Group	http://www.pdxlinux.org/
Portland Perl Mongers	http://pdx.pm.org/
Portland Personal Telco Project	http://www.personaltelco.net/
Portland Python Interest Group	http://www.porpig.org/
UO Open Source Users Group	http://www.cs.uoregon.edu/open/

OREGON OPEN SOURCE PROJECTS

Eclipse Plugin Central – Instantiations, Mark Johnson	http://eclipseplugincentral.com & http://www.instantiations.com
IBM JFS	http://www.ibm.com/developerworks/oss/jfs/index.html
K-12 Linux Project	http://www.k12tsp.org/
PostgreSQL database	http://www.commandprompt.com/
X Windows System	keithp@keithp.com

PURSUE YOUR DREAM IN OREGON

If your dream is to grow your company, become more profitable and more competitive, and enjoy a great lifestyle, Oregon is where you need to be. For information, go to **www.oregon4biz.com** or call toll-free, **(866) 467-3466**, to reach the Oregon Software Team.