BRIDGE SOFTWARE NEWS

### THE OFFICIAL NEWSLETTER OF THE ALTERNATE ROUTE PROJECT

WSDOT LAUNCHES ALTERNATE ROUTE PROJECT

October 1, 1999 - The Washington State Department of Transportation, Bridge and Structures Office launched the Alternate Route Project. This project reflects WSDOT's commitment to developing state-of-the-art software tools for the AASHTO LRFD Bridge Design Specification and its commitment to sharing those tools with the entire bridge engineering community. WSDOT is creating software tools ranging from OLE objects that perform discrete engineering calculations that you can link into your spreadsheets to full-scale desktop applications. All of the resulting software products will be licensed with the Alternate Route Open Source Licenses.

The Alternate Route Project serves as both the implementation phase of the WSDOT Bridge Office's new policy on open source software and as the focal point for its software development efforts.

Open Source seems to be gaining buzzword status these days. The Open Source Initiative (www.opensource.org) and the Free Software Foundation (www.fsf.org) publish lengthy definitions of open source software. An abbreviated definition is software that is licensed such that you have the freedom to distribute, use, modify, and distribute modified versions of the software.

WSDOT's Bridge Office has established a policy whereby it will create, prefer the use of, and promote open source software for bridge engineering. All software developed by the WSDOT Bridge Office will be licensed with the Alternate Route Open Source Licenses. This policy applies to software developed by WSDOT staff and its consultants.
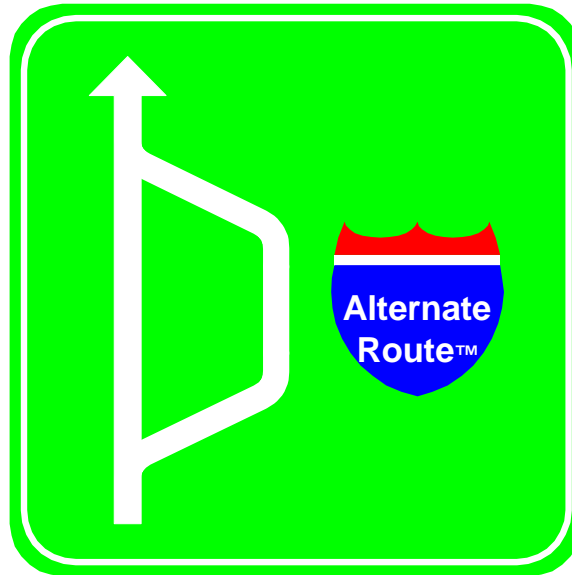
Creating open source software is only one side of the coin. It doesn't make sense to create open source software if no one uses it. To encourage others to join them in their efforts, WSDOT has made it a policy to prefer open source software when selecting bridge engineering software products. Put simply, when selecting software packages for the design or analysis of bridges and structures, open source products will be prefered over closed source products.

Using the highly successful project oriented development model of the GNU and Linux projects, WSDOT is developing its next generation of bridge engineering software tools. The Alternate Route Project is the focal point for the creation of Open Source Bridge Engineering Software. A web site (www.wsdot.wa.gov/eesc/bridge/alternateroute) has been dedicated to the project to promote open source software, provide information to end users, developers, and managers, and to provide links to open source bridge engineering software and development projects. Even though the Alternate Route Project is created and managed by WSDOT, it is viewed as an activity of the entire bridge engineering community. Don't be shy, get involved and make a contribution. WSDOT is eager to form partnerships with its neighbors in the bridge engineering community.

QCONBRIDGE UPGRADE RESCHEDULED

It has been over three years since the original release of QConBridge. A lot has changed since then. The AASHTO LRFD Bridge Design Specification has been through four revisions, our computers have gotten faster, and the Microsoft operating systems have been updated countless times. The time to upgrade QConBridge is well overdue.

Last May at the AASHTO Bridge Sub-committee meeting in San Diego, CA, WSDOT announced that it would begin work on QConBridge Version 2 in September of this year. WSDOT remains committed to the upgrade project, however, the start date has been pushed back to January 2000 so that the finishing touches can be put on PGSuper.

Armed with suggestions from users from around the globe, and a few good ideas of their own, the QConBridge development team will add several new features to the software including modeling of specific bridge types, modeling and analysis of construction stages, user defined notional live load models, support for add-in components, an OLE Automation compatible object model, and a faster analysis engine. The planning and development of QConBridge will take place as part of the Alternate Route Project. In the true spirit of open source development, the bridge engineering community will be able to participate in every step of the development process. The requirements and specifications documents for the software will be made available for public review and comment. As the project moves into the design and implementation phases, voluntary co-developers can be added to the project.

In the mean time, WSDOT has released QConBridge Version 1.1. This is a maintenance release containing minor bug fixes. QConBridge Version 1.1 has been released under the terms and conditions of the Alternate Route Open Source License.

Barlist's Explorer-style Interface

BARLIST VERSION 4.0 SHIPS

WSDOT Bridge and Structures Office has released Barlist Version 4.0, a reinforcing steel quantities estimation program. Barlist offers many new features including an Explorer-style user interface, rapid data entry, collaboration projects, and support for third party add-in components.

Using an Explorer-style interface, it is easier than ever to manage bar list data. Using features like drag and drop, automatic mark number generation, and the rapid input interface, it has never been so easy to create a bar list.

Collaboration projects are something new to Barlist. Every once in a while, a very large bridge project comes along that requires the collaborative effort of several engineers. Each engineer on the team is responsible for a portion of the design and responsible for a portion of the bar list. Eventually, all of the bar lists must be merged so final reinforcing steel estimates can be tallied and a comprehensive bar list sheet can be created for the contract drawings. Barlist now includes a Collaboration Project feature in which one engineer on the team links together the bar lists for the entire team, creating a composite bar list.

Believe it or not, Barlist provides support for add-in components developed by third parties. This powerful capability as been added to the software to support the generation of bar list contract drawings directly from the Barlist program. With the various CADD systems on the market today, a one size fits all solution simply doesn't work. Through the use of Add-in technology, you can customize Barlist to seamlessly interface with your CADD system.

Barlist and the Barlist Add-in SDK are open source software products and can be download from www.wsdot.wa.gov/eesc/bridge/software/Barlist.

WEB LINKS

WSDOT Home Page   www.wsdot.wa.gov

WSDOT Bridge Office   www.wsdot.wa.gov/eesc/bridge

Open Source Initiative   www.opensource.org

Free Software Foundation   www.fsf.org