



OSGi ALLIANCE PROVES AGILITY DURING LIVE IoT DEMONSTRATION

2015 OSGi Community Event highlights OSGi advantages and benefits

SAN RAMON, Calif. — Dec. 3, 2015 — Developers controlling a LEGO® train track and trains made real-time updates and changes within an OSGi Internet of Things environment to change the train and track operation. The demonstration showed how simple it is to build, interoperate, run and change live IoT services running in the edge devices and in the cloud using OSGi and OSGi enRoute.

The demonstration was part of the [OSGi Community Event](#) Nov. 3-5, co-located with [EclipseCon Europe 2015](#), an annual event that helps attendees share and understand how OSGi is being used.

The second annual [OSGi IoT Demo and Contest](#) was based on [OSGi enRoute](#), which provides an easy-to-use tool chain delivering the best-known practices for OSGi development. Contest participants were able to modify and create their own applications using the provided OSGi enRoute based software development kit. Paremus provided OSGi cloud service for the demo with [Paremus Service Fabric](#) and ProSyst Software provided the cloud-based administration and management platform with [mPRM](#).

The SDK gave the developers access to two key OSGi-based control functions, the Train Manager and the Track Manager. The Train Manager was installed on OSGi-enabled Raspberry Pi devices located in a number of locations on the track. The Train Manager controlled the train operation with responsibilities including obeying track signals and points and managing the train speed. It was also responsible for communicating with the Track Manager to obtain permission for trains to use specific track segments. The Track Manager was running in the OSGi cloud and received information from RFIDs on the track. It was responsible for calculating a route for the train to follow to get to its destination, including controlling the signals and points and dispatching events to the Train Managers.

Submissions by contestants were provided as new OSGi bundles to alter Track and Train Manager capabilities. Examples of new functionality included varying train speeds, making the trains go backwards, controlling and flashing the train lights and altering the train behavior when interacting with signals.

Ghislean Nadeau won the OSGi IoT contest. Runners up were John Harper and Tobiasz Dworak. The IoT demo [SDK](#) is still available for use.

“As of today, no technology is both more future proven on IoT gateways and more mature than OSGi,” said Stefan Ferber, Bosch Software Innovations, during his keynote speech.

In addition to the IoT demo and contest, there were more than 25 OSGi presentations and talks.



Highlights included:

- A sold-out OSGi enRoute tutorial.
- Presentation of the IoT Expert Group activities and plans.
- Introductions and highlights from OSGi Release 6 specifications, including Enterprise, Declarative Services and Residential specifications.
- Nearly 600 attendees attended the co-located OSGi Alliance and EclipseCon Europe events, which share developer and business audiences and interests.
- Several OSGi developers earned OSGi Developer Certification - Professional designations after passing a certification exam offered during the OSGi Community Event.
- The live changes participants made to the demo's software development kit while running the track and train IoT environment will be included in Bndtools Version 3.1, available this month.
- The announcement of new OSGi Laureate Dr. Susan Schwarze, OSGi Alliance vice president of marketing from ProSyst Software, part of the Bosch Group, for her outstanding contributions and leadership in driving the OSGi Alliance and the adoption of OSGi technology.

Presentation slides and recordings from the event are now available.

About the OSGi Alliance

The OSGi Alliance is a worldwide consortium of technology innovators that advances a proven and mature process to enable the componentization of applications into well-defined software modules, and ensure interoperability of applications and services over a broad variety of devices. The Alliance provides specifications, reference implementations, test suites and certification to foster a valuable cross-industry ecosystem. OSGi technology is shipping in millions of units worldwide, and is deployed by Fortune Global 500 companies in enterprise, desktop, smart home/energy and telematics markets. Member companies collaborate within an egalitarian, equitable and transparent environment and promote adoption of OSGi technology through business benefits, user experiences and forums. For more information on the non-profit technology corporation, visit www.osgi.org.

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Media Contact:

Alisa Pfeil
Inventures for OSGi Alliance
apfeil@inventures.com
+1.775.720.5071
www.osgi.org