Moscow, October 12, 2005.

Linux Verification Center is Open in Russia

The Institute for System Programming of Russian Academy of Sciences (ISP RAS) has won a competitive contract with the Russian Federal Agency for Science and Innovations on LSB standard formalization, creation of an open source conformance test suite and establishing Linux Verification Center.

In Russia, as well as in the world, the interest grows to the OS Linux as an open and reliable platform. One of additional illustrations of this interest is the tender announced by the Russian Federal Agency for Science and Innovations for establishing Linux Verification Center. This work includes formalization of the LSB Core 3.1 standard and creation of a test suite for OS Linux based on this formalization. These tests will be in the open source domain, and the Linux Verification Center will operate at the Institute for System Programming of Russian Academy of Sciences (ISP RAS) for development, maintenance and support of these tests.

The Director of ISP RAS and the Corresponding Member of RAS Victor Ivannikov said at the Open Source Russia workshop:

> «ISP RAS considers this project as a start of a long-term programme aimed at the increasing of figure of merit of the Linux software. The specification and the standardization of the OS interfaces is the first step towards the creation of reliable and compatible platforms for various applications».

Practice shows that standards contain many ambiguities and even contradictions. Thus, without sufficient test suites, they are just guidelines. The formalization of LSB will help to eliminate ambiguities from this standard. In addition, formal specifications will allow the automatic generation of tests for checking the conformance to this standard. This will solve the problem of creation of the reference test suite and its coordinated update as requirements change in the further versions of the standard or for taking into account the features of particular systems with various configuration parameters. Such a test suite will help to detect defects and discrepancies between various Linux implementations, which will increase both the quality of implementations and their compatibility to each other.

The Institute for System Programming of Russian Academy of Sciences is one of the leading research companies in the area of software development technologies. One of the projects developed at the institute is the UniTesK technology for automated testing based on formal specifications of interfaces. This technology was successfully used during 11 years for software testing in the joint industrial projects with such companies as Intel, Microsoft Research, Nortel Networks, Vympelkom Communications, Luxoft. More information on the Institute can be found at the web-site http://www.ispras.ru. More information on the UniTesK technology is at the web-site http://www.unitesk.com.

Linux Standard Base (LSB) is the standard for Linux interfaces mostly based on POSIX. The goal of LSB is to achieve compatibility between different Linux versions, which should allow running applications without recompilation on any compliant operating system of this family. More information on LSB can be found at the web-site http://www.linuxbase.org.

The tender for development of the open source test suite and establishment of the Linux Verification Center (IT-CP.4/03) was announced by the Russian Federal Agency for Science and Innovations on August 13, 2005. More information on this tender can be found at the web-site http://goszakupki.ru/public/66-n/ (in Russian). The official web-site of the Agency is http://www.fasi.gov.ru (in Russian).