

PikeOS™ - Safe and Secure Virtualization

PikeOS is both an RTOS and a hypervisor built upon the Safe and Secure Virtualization (SSV) technology that enables multiple operating system interfaces, called Personalities, to work safely and securely on separate sets of resources within a single machine. PikeOS has the largest range of supported Personalities of the market, including PikeOS Native, ARINC 653, Linux, POSIX, Certified POSIX, Android™, RTEMS, AUTOSAR, iTRON and others. The PikeOS microkernel architecture allows it to be used in cost sensitive, resource constrained devices as well as large, complex systems with real-time performance that competes head-to-head with conventional proprietary RTOS solutions. PikeOS is hardware agnostic and supports both single- and multi-core processors. PikeOS includes CODEO, an Eclipse-based integrated development environment that provides guided configuration, remote debugging (often down to the hardware instruction level), target monitoring, remote application deployment, and timing analyses in addition to standard application development features such as compilers and assemblers. PikeOS is certifiable to safety standards like DO-178B/C, IEC 61508, EN 50128, IEC 62304 or ISO 26262, is MILS compliant, and is currently involved in various security standard Common Criteria EAL 5/6 certification projects. Recently PikeOS achieved the first EN 50128 SIL 4 certification of the market on a multi-core system.