



OpenNICTA Open Source Software Information and Video Transcript

Software name:	OKL4
Software description:	OKL4 is a microkernel-based virtualisation solution for embedded systems.
Project description:	Developed out of the ERTOS Research Group's <u>L4-embedded</u> at NICTA.
Link to Software:	http://wiki.ok-labs.com/

Video Transcript

Interview with Gernot Heiser

Tell us about yourself and the research you are currently working on

Gernot: Hi I'm Gernot. I lead the Embedded Systems Group at the Neville Roach Lab in Kensington and I work in operating systems and general systems technology for embedded systems. We aim to build embedded systems software with unprecedented reliability, safety and security.

Tell us about your open source software

Gernot: The OKL4 microkernel and hypervisor technology developed out of research we've done in NICTA a number of years back, when we developed this embedded version of the L4 microkernel. And at the time, we aimed to build a platform that could be used in reliable, secure and safe embedded systems, resource constraint systems as well as high performance systems – a really general purpose platform that has wide applicability. It was a cutting-edge piece of software that then found pick up in the real world. Qualcomm started using it on their wireless chip sets and that eventually led to the creation of the spin-out company Open Kernel Labs, which turned the research kernel into what we now have as this product, OKL4.

Why open source?

Gernot: The reason we decided to open source our system – and that was a decision that was really done very early on, even before NICTA was created – was just to get maximum impact. We wanted our research outputs to be used in products, and to ease this uptake the best way to do that is to open source it. It allows people to evaluate it very easily, have a look at it, see what it's really good for, whether there's real quality or just thrown together - it's the easiest way to get widespread uptake, or at least get people around the world to look at it seriously. So we did that early on and it was, in hindsight, definitely the right way to do it. It's the best way to achieve impact.