DNA/OS

General presentation

DNA/OS is a replacement for MutekA, that has been withdrawn and is no longer supported. It is a kernel-mode lightweight operating system for Multiprocessor System on a Chip. It is build on top of a thin HAL to ease porting on new platforms and processor architecture. DNA/OS does not support virtual memory.

It currently targets the following architectures:

- ARM7, ARM9, Cortex A8/A9 (ISS not yet available in SoCLib)
- MIPS
- Micro Blaze
- SparcV8
- NiOS

It comes in two flavors:

- SMP (Symmetric multiprocessing), in which the threads share the processor pool in a fair manner, first come first served.
- DS (Distributed Scheduling), in which a task is assigned to a processor at creation time.

The libraries associated with DNA/OS currently available are :

- Native POSIX Threads
- newlibc (provided by Redhat) with support for multiprocessor

The DNA/OS repository is available at : ?http://tima-sls.imag.fr/viewgit/apes/