UPVLC SSSA CTU CEA UC MNIS VT

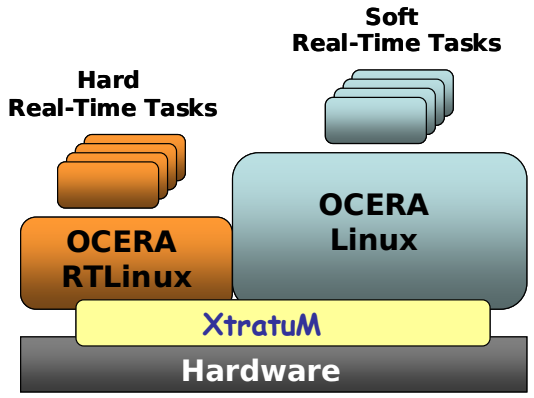
OCERA

Information Society Technologies

**OPEN COMPONENTS FOR REAL-TIME APPLICATIONS IST 2001 - 35102**

http://www.ocera.org

# OCERA




## Available for

- x86
- PowerPC
- ARM

## Supported languages

- C
- C++
- Ada
- Java

**OCERA** is an Open Source project which provides an integrated execution environment for embedded real-time applications . It is based on components and incorporates the latest tecniques for build embedded systems.

**OCERA** combines the use of two kernels, Linux and RTLinux-GPL to provide support for critical tasks (RTLinux-GPL executive) and soft real-time applications (Linux kernel). Several components for both environments have been developed to bring a innovative development and deployment platform to the embedded developer.

**OCERA** enables the use of three profile components to build real-time applications:

- Hard real-time environment, a minimal kernel based on RTLinux-GPL that can be built jointly or separately from Linux.
- Soft real-time systems, a Linux environment incorporating Quality of Service management.
- Hard and Soft real-time systems, providing the facilities of both environments.

### Main features

The OCERA kernels incorporate components for building scalable, reliable and innovative real-time applications. The main features that are provided are:

- A POSIX compliant OCERA RTLinux-GPL kernel
- Application defined scheduling. The user can define its own scheduling policy at thread level.
- Constant bandwith server (IRIS) to control the soft real-time application execution
- Fault tolerant mechanisms. It enables the management of fault situations and define degraded tasks associated to fault task
- Full range of communitations software options such as RT-Ethernet, CAN, etc.
- Lightweight tracing POSIX facilities and Metrics component which allows for obtaining high level traces of the system.
- Stand-Alone RTLinux-GPL. A minimal version of RTLinux-GPL that can be embedded without Linux.
- XtratuM nanokernel which permits a hardware partitioning and virtualisation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