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## What is SoCLib

- SoCLib is an open platform for virtual prototyping of multi-processors system on chip (MP-SoC).
- The core of the platform is a library of SystemC simulation models for virtual components (IP cores), with a guaranteed path to silicon.
- The project is funded by the french ['Agence Nationale pour la Recherche'](#).
- It involves 6 industrial companies and 11 laboratories? which are working together to build this platform

You may want to have a look at [FeaturesDescription](#), or [\[GetAccount get an account\]](#)

## SoCLib Library

### Code

- [SoCLib Components General Index](#) : contains documentation about the hardware components (IP cores) available in the SoCLib library.

## Installation, usage

- [Installation Notes](#) : how to install the SoCLib platform on your computer

## Development

- [Adding new components to the library](#) : the rules to follow to add a new IP core to the library.
- [Soclib Cc](#) is the current build system for SoCLib platforms

## SoCLib OS & Middleware

- [MutekA](#) : OS kernel for MPSoCs with support for POSIX threads
- [MutekH](#) : exo-kernel based OS kernel for MPSoCs with support for POSIX threads
- [MutekS](#) : Optimised, static OS for DSX
- [MWMMR](#) : Hardware / Software communication middleware

# SoCLib Tools

- DSX : Design Space Exploration tool
- SystemCASS : Fast SystemC simulation kernel
- SoCView : Interactive simulation environment for debug and instrumentation
- GdbServer : A GDB server for multi-processor architectures
- MemoryChecker : A memory access error checker similar to valgrind.
- VCI Validation : A library for the validation of the VCI protocol (CABA and TLM-T versions)
- GAUT : A high-level synthesis tool allowing to generate automatically systemC CABA and TLM-T files.

# SoCLib Resources

## Mailing list

The dev@? Mailing list is public and targets general discussion about SoCLib component development.

To join the list, either

- send an email to dev-subscribe@?;
- see <http://www.soclib.fr/www/info/dev>.

## Writing and design guides

- General SoCLib Rules : general rules regarding the SoCLib components.
- CABA Writing Rules : rules to write SystemC CABA simulation models.
- TLM-T Writing Rules : rules to write SystemC TLM-T simulation models.
- Processor Modeling : a general method to write generic processor models.
- Endianness considerations? : Endianness rules in SoCLib

## Miscellaneous

- Critères Pour Plate-Forme TLM-T : criteria defined for writing TLM-T simulation models.
- SoclibCc/DesignGuide is an attempt to justify the choices made in soclib-cc
- Models of documents? to be used by the project partners
- Frequently asked questions: When things goes wrong

## Tutorials

- ?DSX tutorial
- and OS tutorial

## Posters and publications

- PosterICT-Soclib-V5-HD.pdf