# General rules for the SoCLib hardware components

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# A) Introduction

# **B) Naming convention**

### namespaces

SystemC being build upon C++, we use the C++ namespace constructs, to create unambiguous names. SoCLib defines the following namespaces:

- soclib
- soclib::common
- soclib::caba \*soclib::tlmt

#### variables

The following conventions have been defined:

- All component port names should be prefixed with p\_
- All component register names should be prefixed with r\_
- All component member variable names should be prefixed with m\_

# C) Component indexation

In a VCI-based architecture, all initiators and targets must be indexed. Initiators and targets have different address spaces.

- The target index is used by interconnect components: those components decode the VCI address MSB bits to get the target index and route the VCI command packets.
- The initiator index is used by the interconnect components to route the VCI response packets: the initiator index is the VCI SRCID value.

### Indexes can be:

- a simple scalar index, in case of a *flat* interconnect.
- a composite index, in case of a *clusterised* architectures, using a two level hierarchical interconnect. Each component is identified by two scalars: cluster\_index, local\_index.

The common/int\_tab.hfile defines an utility class storing a list of indexes: All indexes must be declared as IntTabs.