

# VciMultiRam Functional Description

This VCI target is an embedded SRAM controller. This hardware component implements up to 16 independent memory segments : Each segment is defined by a BASE address and a SIZE (number of bytes). Both the BASE and the SIZE parameters must be multiple of 4. The segments allocated to a given instance of this component is defined in the mapping table.

Each segment is implemented as aa array of *int* dynamically allocated in the constructor. A segment can be initialised using the

## VciMultiRam CABA Implementation

The caba implementation is in

- source:trunk/soclib/systemc/include/caba/target/vci\_multi\_ram.h
- source:trunk/soclib/systemc/src/caba/target/vci\_multi\_ram.cc

### Template parameters:

- The VCI parameters

### Constructor parameters

```
VciMultiRam(  
    sc_module_name name,      // Instance name  
    const soclib::common::IntTab &index,    // Target index  
    const soclib::common::MappingTable &mt,    // Mapping Table  
    soclib::common::ElfLoader &loader);
```

### Ports

- sc\_in<bool> **p\_resetn** : Global system reset
- sc\_in<bool> **p\_clk** : Global system clock
- soclib::common::VciiTarget<vci\_param> **p\_vci** : The VCI port