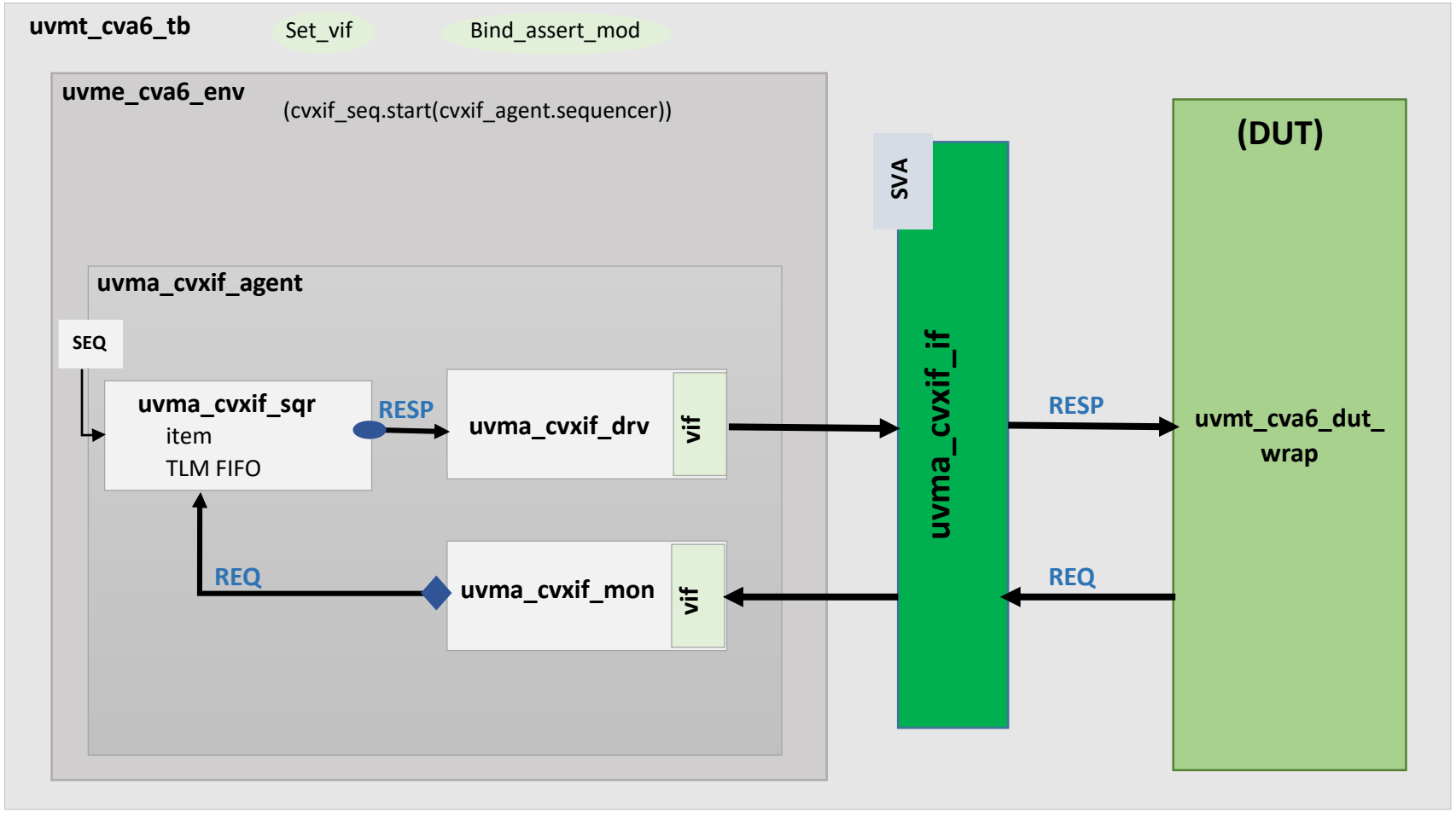
CVXIF Agent


uvmt_cva6_tb
Set_vif
Bind_assert_mod
uvme_cva6_env
(cvxif_seq.start(cvxif_agent.sequencer))
uvma_cvxif_agent
SEQ
uvma_cvxif_sqr
item
TLM FIFO
RESP
uvma_cvxif_drv
vif
REQ
uvma_cvxif_mon
vif
SVA
uvma_cvxif_if
RESP
REQ
(DUT)
uvmt_cva6_dut_
wrap

Files Organization

```
lib/uvm_agents/uvma_cvxif/
                +--------- docs/
                +--------- bin/
                +--------- examples/
                +--------- README.md/
                +--------- src/
                        +------- uvma_cvxif_if.sv         //cvxif interface
                        +------- uvma_cvxif_assert.sv //assertion module
                        +------- instr_pkg.sv              //issue_resp for each instruction
                        +------- uvma_cvxif_pkg.sv
                        +------- uvma_cvxif_pkg.flist
                        +------ comps/
                                +------- uvma_cvxif_agent.sv //Agent
                                +------- uvma_cvxif_drv.sv    //Driver
                                +------- uvma_cvxif_mon.sv //Monitor
                                +------- uvma_cvxif_sqr.sv    //Sequencer
                        +-------obj/
                        +------- seq/
                                +------- uvma_cvxif_base_seq.sv //Base Sequence
                                +------- uvma_cvxif_seq.sv          //Sequence
                                +------- uvma_cvxif_req_item.sv  //Sequence_item1
                                +------- uvma_cvxif_resp_item.sv //Sequence_item2
```

THALES

First version of CVXIF Agent

The first version of the cvxif agent support:

- 3 interfaces (issue_interface, commit_interface and result_interface)
- accept 2 custom instructions (CUS-ADD, CUS-ADD-RS3)
- Fix delay to send result response
- Result response is in order
- Issue_ready signal is always 1
- 4 assertions in the assertion module

Coming versions will support:

- accept more than 2 custom instructions (CUS-ADD, CUS-ADD-RS3, CUS-ADD-MULTI, CUS-EXC …)
- Synchronous Exception
- Random delay to send result response
- Issue_ready signal will be randomized
- More assertions in the assertion module
- Results in an out of order fashion

THALES

Question

- Core-v-cores/cva6/core/include/

  +--------- **cvxif_pkg.sv** //all interface signals and
  //parameters are described here.

- lib/uvm_agents/uvma_cvxif/

  +--------- docs/
  +--------- bin/
  +--------- examples/
  +--------- README.md/
  +--------- src/
  +------- uvma_cvxif_if.sv // import **cvxif_pkg**
  +------- uvma_cvxif_assert.sv // uses interface parameters with **cvxif_pkg::**
  +------- uvma_cvxif_pkg.sv
  +------- uvma_cvxif_pkg.flist
  +------ comps/
  +-------obj/
  +------- seq/

➢ Cvxif_pkg.sv is in the core directory, used by the RTL and also by the agent, is there a similar case in cv32, how is it managed ?