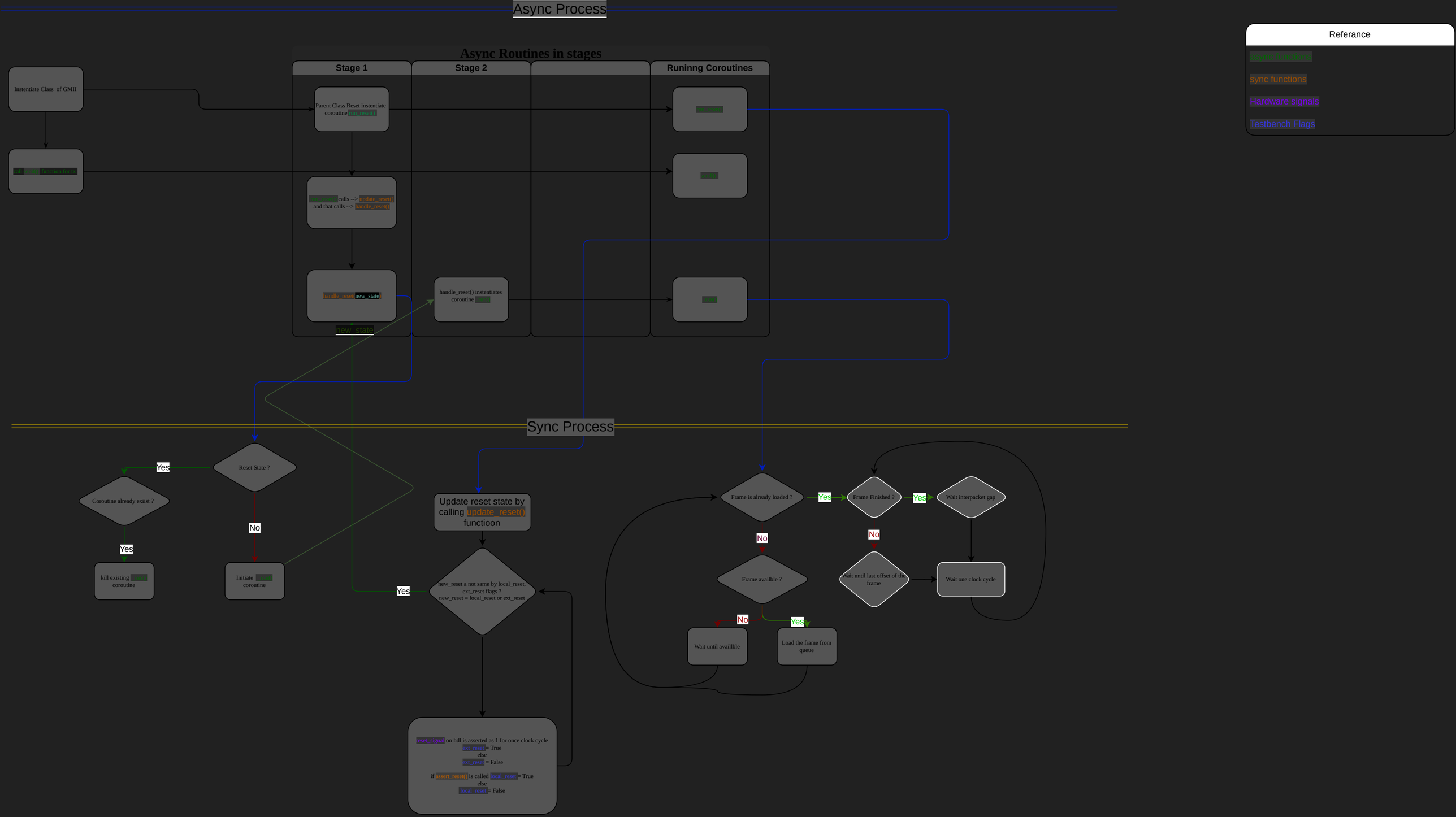
Async Process
Referance
async functions
sync functions
Hardware signals
Testbench Flags
Async Routines in stages
Stage 1
Stage 2
Runinng Coroutines
Instentiate Class of GMII
Parent Class Reset instentiate coroutine nat_reset()
nat_reset()
call monitor function for rx
monitor()
reset_signal calls --> update_reset() and that calls --> handle_reset()
handle_reset(new_state)
handle_reset() instentiates coroutine state()
state()
new_state
Sync Process
Reset State ?
Yes
No
Coroutine already exiist ?
Yes
kill existing state() coroutine
Initiate state() coroutine
Update reset state by calling update_reset() functioon
new_reset a not same by local_reset, ext_reset flags ?
new_reset = local_reset or ext_reset
Yes
reset_signal on hdl is asserted as 1 for once clock cycle
ext_reset = True
else
ext_reset = False
if assert_reset() is called local_reset = True
else
local_reset = False
Frame is already loaded ?
Yes
Frame Finished ?
Yes
Wait interpacket gap
No
No
Frame availble ?
Wait until last offset of the frame
Wait one clock cycle
No
Yes
Wait until availble
Load the frame from queue