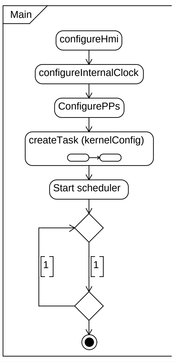
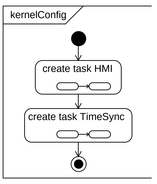
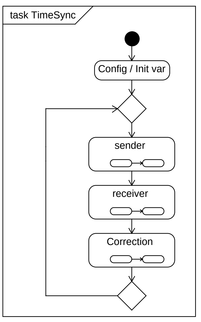
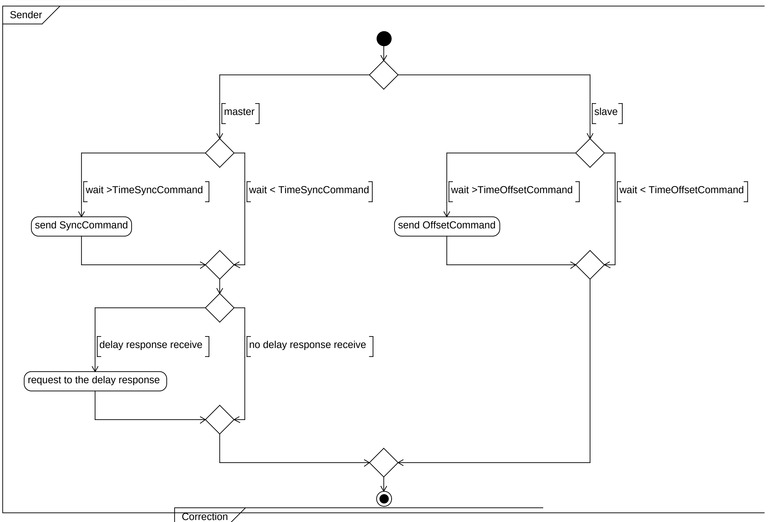
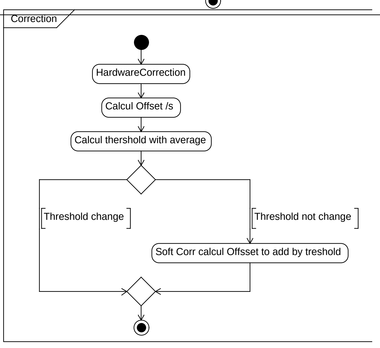
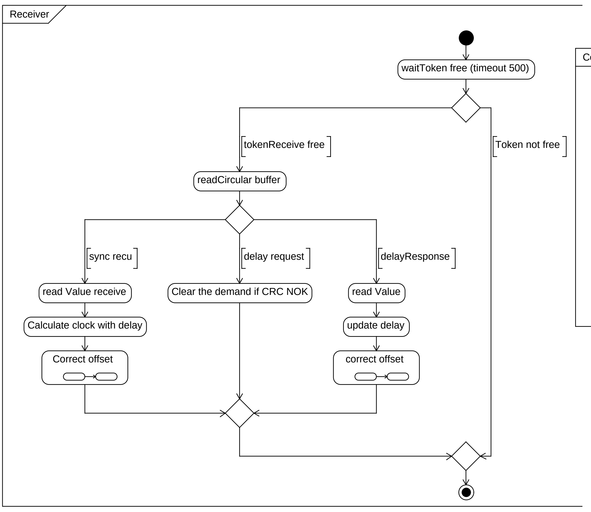

Main
configureHmi
configureInternalClock
ConfigurePPs
createTask (kernelConfig)
Start scheduler
1
1

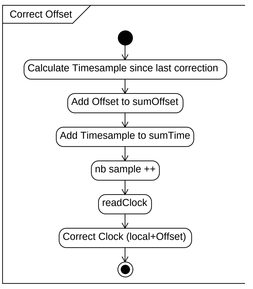

kernelConfig
create task HMI
create task TimeSync

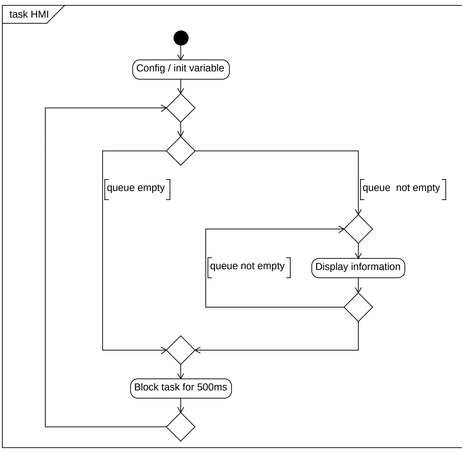

task TimeSync
Config / Init var
sender
receiver
Correction

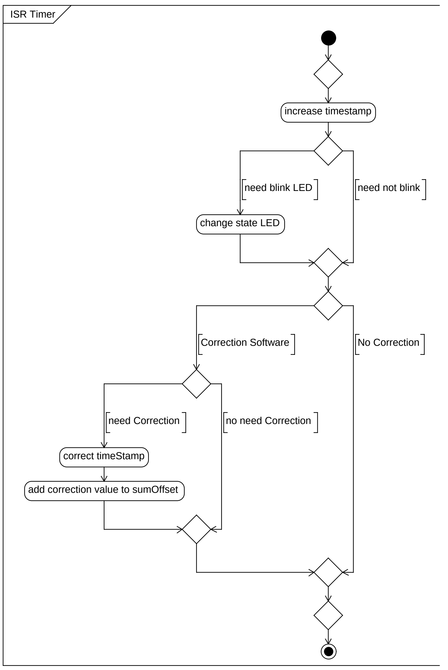

Sender
master
slave
wait >TimeSyncCommand
wait < TimeSyncCommand
send SyncCommand
wait >TimeOffsetCommand
wait < TimeOffsetCommand
send OffsetCommand
delay response receive
no delay response receive
request to the delay response

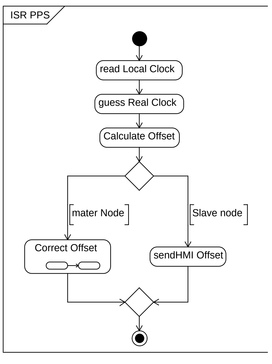

Correction
HardwareCorrection
Calcul Offset /s
Calcul thershold with average
Threshold change
Threshold not change
Soft Corr calcul Offsset to add by treshold


Receiver
waitToken free (timeout 500)
tokenReceive free
Token not free
readCircular buffer
sync recu
delay request
delayResponse
read Value receive
Clear the demand if CRC NOK
read Value
Calculate clock with delay
update delay
Correct offset
correct offset


Correct Offset
Calculate Timesample since last correction
Add Offset to sumOffset
Add Timesample to sumTime
nb sample ++
readClock
Correct Clock (local+Offset)


task HMI
Config / init variable
queue empty
queue not empty
queue not empty
Display information
Block task for 500ms


ISR Timer
increase timestamp
need blink LED
need not blink
change state LED
Correction Software
No Correction
need Correction
no need Correction
correct timeStamp
add correction value to sumOffset


ISR PPS
read Local Clock
guess Real Clock
Calculate Offset
mater Node
Slave node
Correct Offset
sendHMI Offset