Status FW

New things

1) Command Line Interface has been updated
    a) getGBTxNotRdyMask
    b) CalLatency
    c) initGBTxs

2) Timing errors are fixed

3) Memory blocks on CRI

Command Line Interface (CLI)

1) getGBTxNotRdyMask: Get the GBTx not ready mask, 1-bit for each GBTx of a total of 6
    a) If this bit is ‘1’ the GBTx is not ready
    b) If this bit is ‘0’ the GBTx can be ready, buggy!
    c) If GBTx is power off this bit is always ‘0’

2) calLatency: Calculate the GBTx latency for each e-link/GET4 the GET4 enable mask must be set before starting this tool
    Parameters: nTaps: number of taps/delay to try
        AcqTime: time in us to check if an error is detected
        Nloops: Number of times to repeat the acquisition

3) initGBTxs: Init the GBTxs if not ready mask is zero, and then check the other ones
    Parameters: initMask: 1-bit for each GBTx. If set the GBTx is ignored
        Nloops: Number of times trying to set the GBTx
        Wait: wait time in us between tryings

Timing Errors

Timing errors with 6 GBTx and 24 GET4 ASICs.

Procedure:

1st Deactivate all debug counters → failed
2nd Added some pipeline register into the converger module → failed
3rd Reduce the size of the first FIFO into the converger module → success

There are two Version with 24 and 32 GET4 in GitLab ready to be tested

Next steps

Check Pattern functionality