iTOP/electronics/tags/2015.09.08.carrier-test/

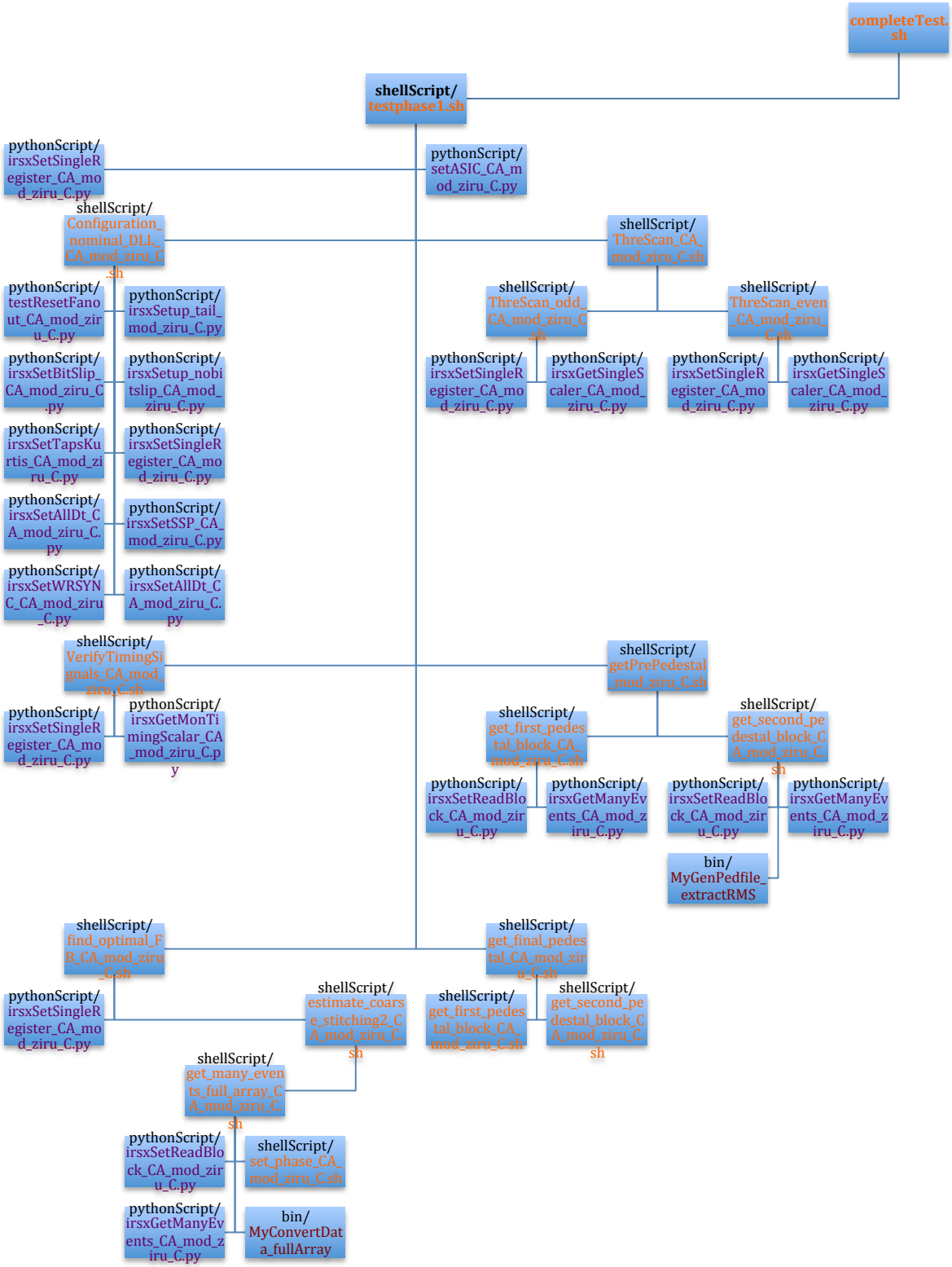
Overview:
Documenting the iTOP production test scripts that use the IRSX ASIC for sampling/digitizing waveforms. miniTime Cube (mTc) will use the IRS3D which is part of the same IRS family so it makes sense to try use and edit the same software that iTOP was using to verify their chips.

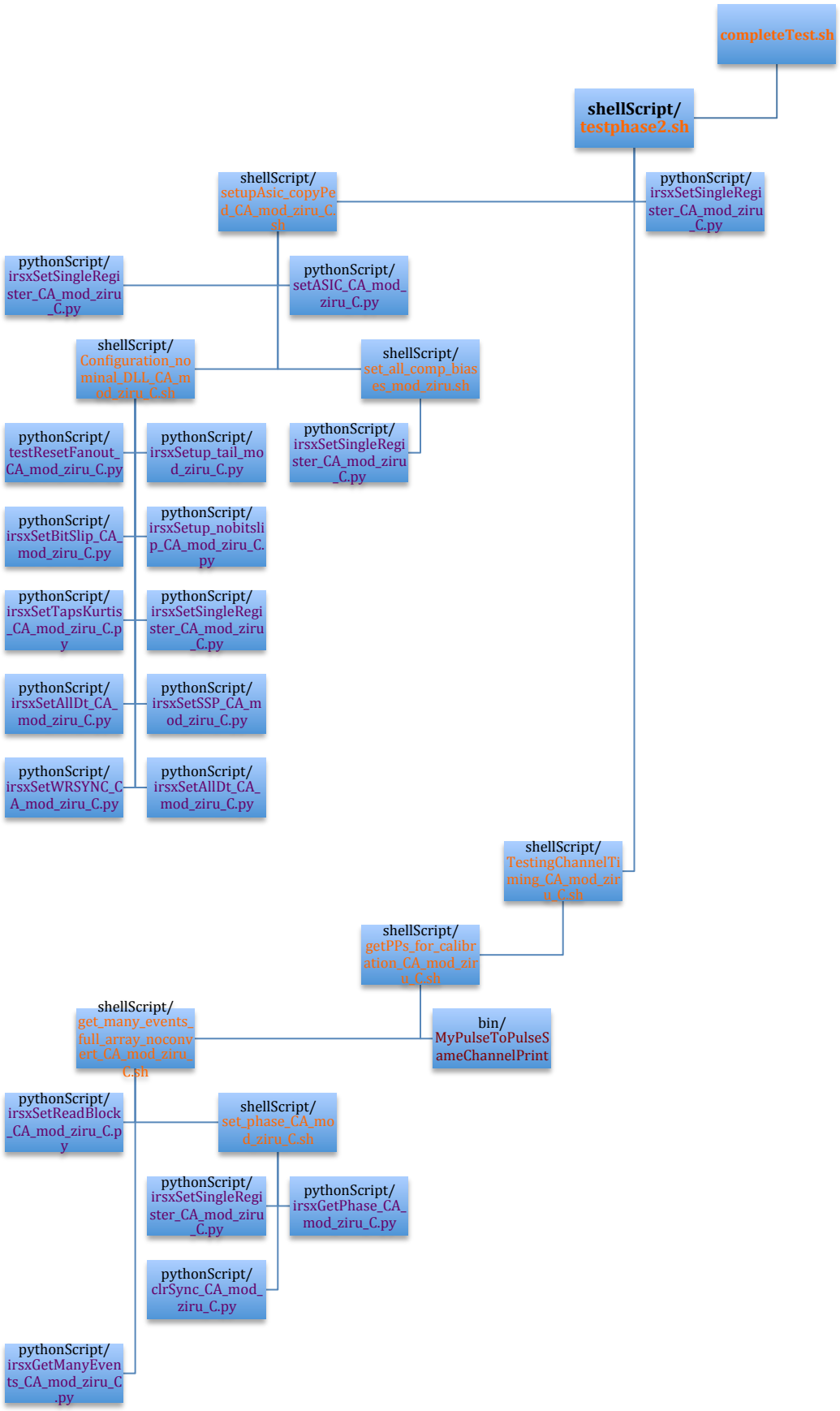
Description:
CompleteTest.sh

1. shellScripts/testphase1.sh
    a. Does all static checks basically check all timing generator signals are correct
    b. Get all pedestals and check if all correct
    c. Check if communication with Ethernet is correct
    d. Feeds sinusoid and based on that finds best stitching
2. shellScripts/testphase2.sh
    a. Does only peak to peak (actually pulse to pulse) timing to estimate timing resolution values of delta t

mTc's API for low-level operations:

1. Login mTc computer
    a. Login: ssh mtcuser@128.171.30.97
    b. PW: NIST2014
2. Check network settings
    a. CMD Line: vi /etc/network/interfaces
    b. CMD Line: sudo vi /usr/local/etc/mtc/settings.set
    c. <reboot>
3. Start it up and check to see if correct
    a. CMD Line: readoutd2
    b. CMD Line: arping –I scrod1 10.0.254.2 # to check if correct link
       10.0.254.1 # data or command for diff ip
    c. cd /home/mtcuser/TestIRS3D/ProductionTesting/preTest


completeTest.sh
shellScript/testphase1.sh
pythonScript/irsxSetSingleRegister_CA_mod_ziru_C.py
pythonScript/setASIC_CA_mod_ziru_C.py
shellScript/Configuration_nominal_DLL_CA_mod_ziru_C.sh
shellScript/ThreScan_CA_mod_ziru_C.sh
pythonScript/testResetFanout_CA_mod_ziru_C.py
pythonScript/irsxSetup_tail_mod_ziru_C.py
pythonScript/irsxSetBitSlip_CA_mod_ziru_C.py
pythonScript/irsxSetup_nobitslip_CA_mod_ziru_C.py
pythonScript/irsxSetTapsKurtis_CA_mod_ziru_C.py
pythonScript/irsxSetSingleRegister_CA_mod_ziru_C.py
pythonScript/irsxSetAllDt_CA_mod_ziru_C.py
pythonScript/irsxSetSSP_CA_mod_ziru_C.py
pythonScript/irsxSetWRSYNC_CA_mod_ziru_C.py
pythonScript/irsxSetAllDt_CA_mod_ziru_C.py
shellScript/ThreScan_odd_CA_mod_ziru_C.sh
shellScript/ThreScan_even_CA_mod_ziru_C.sh
pythonScript/irsxSetSingleRegister_CA_mod_ziru_C.py
pythonScript/irsxGetSingleScaler_CA_mod_ziru_C.py
pythonScript/irsxSetSingleRegister_CA_mod_ziru_C.py
pythonScript/irsxGetSingleScaler_CA_mod_ziru_C.py
shellScript/VerifyTimingSignals_CA_mod_ziru_C.sh
shellScript/getPrePedestal_mod_ziru_C.sh
pythonScript/irsxSetSingleRegister_CA_mod_ziru_C.py
pythonScript/irsxGetMonTimingScalar_CA_mod_ziru_C.py
shellScript/get_first_pedestal_block_CA_mod_ziru_C.sh
shellScript/get_second_pedestal_block_CA_mod_ziru_C.sh
pythonScript/irsxSetReadBlock_CA_mod_ziru_C.py
pythonScript/irsxGetManyEvents_CA_mod_ziru_C.py
pythonScript/irsxSetReadBlock_CA_mod_ziru_C.py
pythonScript/irsxGetManyEvents_CA_mod_ziru_C.py
bin/MyGenPedfile_extractRMS
shellScript/find_optimal_FB_CA_mod_ziru_C.sh
shellScript/get_final_pedestal_CA_mod_ziru_C.sh
pythonScript/irsxSetSingleRegister_CA_mod_ziru_C.py
shellScript/estimate_coarse_stitching2_CA_mod_ziru_C.sh
shellScript/get_first_pedestal_block_CA_mod_ziru_C.sh
shellScript/get_second_pedestal_block_CA_mod_ziru_C.sh
shellScript/get_many_events_full_array_CA_mod_ziru_C.sh
pythonScript/irsxSetReadBlock_CA_mod_ziru_C.py
shellScript/set_phase_CA_mod_ziru_C.sh
pythonScript/irsxGetManyEvents_CA_mod_ziru_C.py
bin/MyConvertData_fullArray


completeTest.sh
shellScript/
testphase2.sh
shellScript/
setupAsic_copyPed_CA_mod_ziru_C.sh
pythonScript/
irsxSetSingleRegister_CA_mod_ziru_C.py
pythonScript/
irsxSetSingleRegister_CA_mod_ziru_C.py
pythonScript/
setASIC_CA_mod_ziru_C.py
shellScript/
Configuration_nominal_DLL_CA_mod_ziru_C.sh
shellScript/
set_all_comp_biases_mod_ziru.sh
pythonScript/
testResetFanout_CA_mod_ziru_C.py
pythonScript/
irsxSetup_tail_mod_ziru_C.py
pythonScript/
irsxSetSingleRegister_CA_mod_ziru_C.py
pythonScript/
irsxSetBitSlip_CA_mod_ziru_C.py
pythonScript/
irsxSetup_nobitslip_CA_mod_ziru_C.py
pythonScript/
irsxSetTapsKurtis_CA_mod_ziru_C.py
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irsxSetSSP_CA_mod_ziru_C.py
pythonScript/
irsxSetWRSYNC_CA_mod_ziru_C.py
pythonScript/
irsxSetAllDt_CA_mod_ziru_C.py
shellScript/
TestingChannelTiming_CA_mod_ziru_C.sh
shellScript/
getPPs_for_calibration_CA_mod_ziru_C.sh
shellScript/
get_many_events_full_array_noconvert_CA_mod_ziru_C.sh
bin/
MyPulseToPulseSameChannelPrint
pythonScript/
irsxSetReadBlock_CA_mod_ziru_C.py
shellScript/
set_phase_CA_mod_ziru_C.sh
pythonScript/
irsxSetSingleRegister_CA_mod_ziru_C.py
pythonScript/
irsxGetPhase_CA_mod_ziru_C.py
pythonScript/
clrSync_CA_mod_ziru_C.py
pythonScript/
irsxGetManyEvents_CA_mod_ziru_C.py

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