Macros

The HP E5200A broadband service analyzer uses TCL (Tool Command Language), a public-domain script language, as the foundation for its command line interface and macro recording and playback feature. The following macro configures and runs the cell loss test several times in succession with increasing bandwidths.

```
#########################
# This macro runs a series of cell loss tests at increasing bandwidths.
#
#########################
### Initialize inputs
set vTransmitVpi 200
set vTransmitVci 88
set vReceiveVpi 200
set vReceiveVci 88
set vTestDuration 15
set vCellLossRatioThreshold 0.001
### Configure input parameters
# Use port A for both transmit and receive.
moset _Test CellLossTest transmitPort _PortA
moset _Test CellLossTest receivePort _PortA
# Configure transmit and receive channel parameters
moset _Test CellLossTest transmitVpi $vTransmitVpi
moset _Test CellLossTest transmitVci $vTransmitVci
moset _Test CellLossTest receiveVpi $vReceiveVpi
moset _Test CellLossTest receiveVci $vReceiveVci
# Use a ‘constant’ traffic profile.
moset _Test CellLossTest trafficProfile M_CONSTANT
# Configure duration of test
moset _Test CellLossTest durationThreshold $vTestDuration
# Threshold on cell loss ratio, not on cell loss count.
moset _Test CellLossTest cellLossCountThresholdActive M_OFF
moset _Test CellLossTest cellLossRatioThresholdActive M_ON
# Configure cell loss ratio threshold.
moset _Test CellLossTest cellLossRatioThreshold $vCellLossRatioThreshold
### Fetch the bandwidth limits for the ‘constant’ traffic profile.
moexec _Test CellLossTest getConstantProfileLimits
  {vMinBandwidth vMaxBandwidth}
### Prompt user for the bandwidth step.
puts “The bandwidth range is $vMinBandwidth to $vMaxBandwidth b/s”
puts “Enter the bandwidth step.”
set vBandwidthStep [gets stdin]
### Display cell loss test configuration.
puts
 Cell loss test:
===============
```

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Transmit VPI: $vTransmitVpi
Transmit VCI: $vTransmitVci
Receive VPI: $vReceiveVpi
Receive VCI: $vReceiveVci
Test duration: $vTestDuration
Cell loss ratio threshold:
  $vCellLossRatioThreshold
Min bandwidth: $vMinBandwidth b/s
Max bandwidth: $vMaxBandwidth b/s
Bandwidth step: $vBandwidthStep b/s"

### Run the test several times, using bandwidths
### ranging from minimum to maximum using the
### bandwidth step specified by the user.
set vTestnumber 0
set vCurrentBandwidth $vMinBandwidth
while {$vCurrentBandwidth < $vMaxBandwidth} {
    incr vTestnumber 1
    puts "Running test number $vTestnumber
    - bandwidth $vCurrentBandwidth"
    moexec _Test CellLossTest setConstantProfile
    $vCurrentBandwidth
    # Start the test.
    moexec CellLossTest start {}
    # Poll the test to see if it is still running.
    while {[moget _Test CellLossTest testStatus]
        == "CTS_RUNNING"} {
        # Fetch the interim test results.
        moexec _Test CellLossTest getResultSet
        {vPassFailResult vTestReason
         vExecutionTime
         vAverageTransmitBandwidth
         vAverageReceiveBandwidth
         vCellLossCount
         vCellLossRatio}
    }
    ### Fetch and display the final cell loss test ### results.
    moexec _Test CellLossTest printResultSet
    {vResults}
    puts "Test number : $vTestnumber
    Bandwidth   : $vCurrentDisplay
    $vResults
    ============="
    # Calculate the bandwidth to be used for the
    # next test.
    set vCurrentBandwidth [expr $vCurrentBandwidth + $vBandwidthStep]
}
puts "******* End of macro *******"
### End of macro ###