libLDA(5)

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$ groff -man -Tascii libLDA.5 | col -b > manual.txt


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NAME
       LibLDA - configuration file format for Calice's libLDA


DESCRIPTION
       libLDA  is  a  library that drive the LDA Calice's devices. The library
       provides non-regression tests  and  exemples  executables.  These  exe-
       cutable all  accept  a configuration file from command line parameter.
       Theses files has the following structure, using the python array  gram-
       mar in order to gives hardware parameters and routes.


GRAMMAR
       stanza: parameter "=" (value|array)

       value: [:alnum:]* | array

       array: "{" port ":" value "}"

       port:  [:digit:]*

       Empty  lines  are ignored. If a line contains a hash mark (#), the hash
       mark and the remaining part of the line are ignored.


SHORT EXEMPLE
       # This is a comment
       LDA(ethernet_port = "eth6",
 ethernet_address = MACAddress("5e:70:0c:d2:5e:8e"),
 ports = {
   1: DIF(
     bypass = False,
     nbAsics = 24,
     drv_inpath_asu = "conf/sc1.asu"
   ),
   2: DCC(ports = {
     8: DIF(bypass = False,
nbAsics = 24,
drv_inpath_asu = "conf/sc2.asu"
     )
   })
 })
       data_buffer_size = 70000
       freq_slc = 2.

FIELD DESCRIPTION
   LDA
       ethernet_port
```

Ethernet port name on the host. See '/sbin/ifconfig' and 'sudo ethtool'. Can be overriden with the '-i IFNAME' flag of the program. Exemple value: eth1

ethernet_address
MAC address of the LDA we intent to configure. Exemple value: MACAddress("5e:70:0c:d2:5e:8e")

DCC

no parameter for DCC

DIF

bypass Instead of writing 'DIF()', write 'DIF(bypass=True)' to tell that the DIF should be detected but will not be used for the tests.

ftdi_id
Offer a way to store the ftdi Id (not related to hardware).

nbAsics
Tell the hardware how many ASICs are manage by the DIF. Used values: 4 or 8 depending of how many ASU are connected to the DIF.

drv_inpath_asu
Path of the ASU configuration file.

rng_packets_num
Number of packets to ask the DIF during random generator test. Note: 511 for inifite.

rng_packets_words
Number of 16b words in each DIF random generator packet (< 500)

rng_packets_gap
Gap between each DIF random generator packet (number of words)

GLOBAL

reinit Do reinitialize LDA, DCC and DIF hardware.

infloop
Enter into infinite loop, so do the job more than only once.

mode Set the mode (default: 8) among: 8 (ilc-manual), 0 (ilc-auto) or 4 (beam-test) Note: today only the beam-test is functional

time_out
Read-out trigger timeout (unit is microsecond)

pcap_buffer_size
PCAP input buffer size (unit is 1Ko packet).

trig_buffer_size
Read-out trigger buffer size (unit is 1 trigger)

data_buffer_size
Read-out data buffer size (unit is 2 bytes)

freq_trg
Slow control frequency (unit is Hertz)
Note: this thread is not included into the libLDA.

freq_usr
Trigger frequency (unit is Hertz)
Note: this thread, not included in the libLDA, only run in the 8 (ilc-manual) mode.

freq_slc
User read out frequency (unit is Hertz)
Note: this thread is not included into the libLDA.

REPORTING BUGS

Please send a report to nicolas.roche@llr.in2p3.fr

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LICENCE

SEE ALSO

The full documentation for libLDA is maintained as a Latex2Html intranet. If a browser is installed at your site, the URL <http://polype/~roche/calicei/>should give you access to the complete manual.
libLDA(3)

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