

CODELIST

INCLUDE/ & SRC/

All the description of the files can be found at [./document/html/files.html](#)

- `api.h`: API for users, including task functions
- `arp.h`: ARP protocol and global <IP address, MAC address> map
- `device.h`: support some functions to handle device or get information
- `ether.h`: support functions to send or handle frames on link layer
- `ip.h`: support functions to send and handle packets on network layer
- `massert.h`: functions to show LOG information
- `router.h`: global routing table. And functions to update or set routing table
- `sdp.h`: routing protocol. Support functions to send SDP frame
- `socket.h`: manage sockets
- `socketaddr.h`: socket address with ip and port
- `tcp.h`: basic TCP functions
- `tcpbuffer.h`: buffer used in data received
- `tcpsegment.h`: a class storing TCP segments
- `tcpseq.h`: manage sequence number in a socket
- `tcpstate.h`: states of socket
- `type.h`: types will be used

UTILS/

- `VNetUtils`: just a copy but use **LF** instead of CRLF. It can be used in any path now.

TESTS/

Following files is sorted by the time they are created. Can be found in [./document/html/files.html](#)

- `testList`: list all device in the host
- `testDeviceManager`: open all devices and begin listening on them. An warning will be shown when trying to add a device opened
- `testSendFrame`: open one device and send 100 frames to destination MAC address.
- `testARP`: ARP request and response.

- testChecksum: checksum function
- testIP: IP packet sent and received
- testSDP: SDP routing algorithm
- testRoute: routing and routing algorithm
- testSocketClient: test socket as a client. It will call functions of api::socket if `TEST_API` defined. Or it will call the functions of system
- testSocketServer: test socket as a server. It will call functions of api::socket if `TEST_API` defined. Or it will call the functions of system

SCRIPTS/

- build.sh: build the project
- make_vnet.sh: build the virtual net
- remove_vnet.sh: delete the virtual net