

1 ESQP

ESQP is text and line-oriented protocol with TCP. This protocol is used Experiment Node Configuration Driver (ENCD). The client of this protocol can recognize entities of experiment on ENCD. Some client implementation draw topology of the experiment.

Line of protocol is terminated CR and LF. Response have 3 digit as response code. Port number is 3458.

Futhermode, early versions of ESQP are called SSQP.

2 Commands

To do health-check, SSQP have commands for resource list retrieval.

Command	description
SYST	print system version
VER	print protocol version
HELP	print help message
QUIT	quit
NODESETLIST	print list of node-set
NODELIST	print list of node
NODEINFO	print information of node
NETSETLIST	print list of net-set
NETLIST	print list of net
NETINFO	print information of netn

2.1 SYST

request

```
SYST
```

response

```
100 master/1.0
```

2.2 VER

request

```
VER
```

response

```
100 SSQP/0.4
```

2.3 HELP

request

```
HELP
```

response

```
101 OK
  human readable message
  ...
.
```

2.4 QUIT

request

```
QUIT
```

no response.

2.5 NODESETLIST

request

```
NODESETLIST [simnode]
```

Prints all nodes when sim-node is not specified.

response(success)

```
201 <N> OK
<simnode1> <stat1> <w1> <m1> <physnode1-1> <physnode1-2> ... <physnode1-
<simnode2> <stat2> <w2> <m2> <physnode2-1> <physnode2-2> ... <physnode2-
...
<simnodeN> <statN> <wN> <mN> <physnodeN-1> <physnodeN-2> ... <physnodeN-
```

<stat> indicate stat of node. S indicates that it is stable. U indicates un-stable.

When no resource, print empty list with response code 201.

example:

```
201 2 OK
sv U 1 2 sintclc001 sintclc002
cl S 1 1 sintclc003
.
```

response(empty)

```
201 0 OK
.
```

2.6 NODELIST

request

```
NODELIST [simnode]
```

response(success)

```
201 <N> OK
<simnode1> <stat1> <physnode1-1>
<simnode2> <stat2> <physnode2-1>
...
<simnodeN> <statN> <physnodeN-1>
.
```

example:

```
201 4 OK
sv-0 U
sv-1 S sintcla003
cl-0 S sintclc003
cl-1 S sintclc004
.
```

response(empty)

```
201 0 OK
.
```

2.7 NODEINFO

print information of nedes

request

```
NODEINFO <simnode>
```

response(success)

```
201 OK
name <name>
resourcenname <resourcenname>
netif <attributes-1>
netif <attributes-2>
...
netif <attributes-N>
.
```

response(error; not found)

```
400 <simnode> NG not found
```

example:

```
nodeinfo client-0
```

response

```
200 OK
name client-0
state SECONDBOOT
resourcenname sintclb049
agent host=sintclb049 ipaddr=172.16.1.49 portnum=2345
netif type=2 media=fastethernet ipaddr=192.168.3.1/24 macaddr=00:00:4C:4
.
```

response

```
400 simnode[0] NG not found
```

response(no bounding)

```
201 OK
name client-0
resourcenname
state INIT
agent host= ipaddr= portnum=
netif type=0 media=fastethernet ipaddr= macaddr=
netif type=0 media=fastethernet ipaddr= macaddr=
netif type=0 media=fastethernet ipaddr= macaddr=
netif type=0 media=fastethernet ipaddr= macaddr=
.
```

2.8 NETSETLIST

request

```
NETSETLIST
```

response

```
200 <N> Okay
<name1> <status1> <m1>
<name2> <status2> <m2>
...
<nameN> <statusN> <mN>
.
```

example

```
200 1 Okay
ethnet S 2
.
```

2.9 NETLIST

request

```
NETLIST
```

response

```
200 <N> Okay
<name1> <status1> <vlannum2>
<name2> <status2> <vlannum2>
...
<nameN> <statusN> <vlannumN>
.
```

example:

```
200 2 Okay
ethnet-0 U 0
ethnet-1 S 133
.
```

2.10 NETINFO

print information of network.

request

```
NETINFO <name>
```

response

```
201 Okay
name <name>
resourcename <resourcename>
media <media>
ipaddrange <ipaddrange>
members <mem1> <mem2> ...
.
```

example

```
201 OK
name ethnet-0
resourcename vlan0804
media fastethernet
ipaddrange 192.168.3.0/24
members server-0-0 client-0-0
.
```

2.11 Others

The server of this protocol replies 500 when command is unknown or un-implemented.

```
500 not implemented yet
```

or

```
500 ignore commmand
```

3 Name of Entities

Basically, names used ESQP are logical.

4 See Also

[1] ERRP/0.6