

CmdHPSDRProgrammer

CmdHPSDRProgrammer is a cross platform command command line program for

- Detecting the network connected to your computer
- Detecting HPSPDR board on one of your networks
- Changing the IPv4 address of your HPSPDR board.
- Or specifying the address to come from DHCP
- Erasing and Programming firmware into the FPGA of your HPSPDR Board by talking with the previous firmware.

```
$/CmdHPSPDRProgrammer
```

```
CmdHPSPDRProgrammer version:(0.1.0)
```

```
By Dave KV0S, 2014-11-24, GPL2
```

```
Last Updated: 2015-1-24
```

```
For a list of commands use -help
```

```
Interfaces on this Computer:
```

```
lo ()
```

```
eth0 (00:60:97:98:72:c2)
```

```
eth1 (00:1f:c6:7e:52:de)
```

```
$/CmdHPSPDRProgrammer --help
```

```
Usage of ./CmdHPSPDRProgrammer:
```

```
-ddelay=2: Discovery delay before a rediscovery
```

```
-debug="none": Turn debugging and output type, (none, dec, hex)
```

```
-interface="none": Select one interface
```

```
-load="none": Load a saved command file from default or a named file
```

```
-save="none": Save these current flags for future use in default or a named file
```

```
-selectMAC="none": Select Board by MAC address
```

```
-setIP="none": Set IP address, unused number from your subnet or 0.0.0.0 for DHCP
```

```
-setRBF="none": Select the RBF file to write to the board
```

```
-settings="none": Show the settings values (show)
```

CmdHPSDRProgrammer

```
$/CmdHPSDRProgrammer -settings=show
```

```
Saved Settings:
```

```
Interface: none
```

```
Filename: none
```

```
Selected MAC: (none)
```

```
SetRBF: none
```

```
Debug: none
```

```
Ddelay: 2
```

```
Temp settings:
```

```
Settings: show
```

```
SetIP: none
```

```
Save: none
```

```
Load: none
```

```
lo ()
```

```
eth0 (00:60:97:98:72:c2)
```

```
eth1 (00:1f:c6:7e:52:de)
```

```
$/CmdHPSDRProgrammer -debug=dec
```

```
lo () 127.0.0.1 ::1
```

```
eth0 (00:60:97:98:72:c2)
```

```
eth1 (00:1f:c6:7e:52:de) 192.168.1.10 fe80::21f:c6ff:fe7e:52de
```

```
$/CmdHPSDRProgrammer -interface=eth1
```

```
Computer: (00:1f:c6:7e:52:de)
```

```
OS: linux (amd64) 4 CPU(s)
```

```
IPV4: 192.168.1.10
```

```
IPV6: fe80::21f:c6ff:fe7e:52de
```

```
HPSDR Board: (0:4:a3:d3:a1:94)
```

```
IPV4: 192.168.1.22
```

```
Port: 1024
```

```
Type: Metis
```

```
Firmware: 2.9
```

```
Status: not running
```

```
HPSDR Board: (0:4:a3:64:25:95)
```

```
IPV4: 192.168.1.27
```

```
Port: 1024
```

```
Type: Hermes
```

```
Firmware: 3.0
```

```
Status: not running
```

CmdHPSDRProgrammer

```
$/CmdHPSDRProgrammer -interface=eth1
    Computer: (00:1f:c6:7e:52:de)
        OS: linux (amd64) 4 CPU(s)
        IPV4: 192.168.1.10
        IPV6: fe80::21f:c6ff:fe7e:52de

    HPSDR Board: (0:4:a3:d3:a1:94)
        IPV4: 192.168.1.22
        Port: 1024
        Type: Metis
    Firmware: 2.9
    Status: not running

    HPSDR Board: (0:4:a3:64:25:95)
        IPV4: 192.168.1.28
        Port: 1024
        Type: Hermes
    Firmware: 3.1
    Status: running

$/CmdHPSDRProgrammer -interface=eth1 -selectMAC=0:4:a3:64:25:95
    Computer: (00:1f:c6:7e:52:de)
        OS: linux (amd64) 4 CPU(s)
        IPV4: 192.168.1.10
        IPV6: fe80::21f:c6ff:fe7e:52de

    Selected MAC: (0:4:a3:64:25:95)
    HPSDR Board: (0:4:a3:64:25:95)
        IPV4: 192.168.1.27
        Port: 1024
        Type: Hermes
    Firmware: 3.0
    Status: not running

$/CmdHPSDRProgrammer -interface=eth1 -selectMAC=0:4:a3:64:25:95
-setIP=192.168.1.28
    Computer: (00:1f:c6:7e:52:de)
        OS: linux (amd64) 4 CPU(s)
        IPV4: 192.168.1.10
        IPV6: fe80::21f:c6ff:fe7e:52de

    Selected MAC: (0:4:a3:64:25:95)
    Changing IP address from 192.168.1.27 to 192.168.1.28
```

CmdHPSDRProgrammer

HPSDR Board: (0:4:a3:64:25:95)
IPV4: 192.168.1.28
Port: 1024
Type: Hermes
Firmware: 3.1
Status: not running

```
$/CmdHPSDRProgrammer -interface=eth1 -selectMAC=0:4:a3:64:25:95  
-setRBF=/home/hpsdr/Downloads/Hermes_V3.1.rbf
```

Computer: (00:1f:c6:7e:52:de)
OS: linux (amd64) 4 CPU(s)
IPV4: 192.168.1.10
IPV6: fe80::21f:c6ff:fe7e:52de

Selected MAC: (0:4:a3:64:25:95)

Erasing the HPSDR Board
Erasing Done

Found rbf file: /home/dlarsen/Downloads/Hermes_V3.1.rbf
Size rbf file: 646967
Size rbf in memory: 647168
Packets: 2528

Percent: 100

HPSDR Board: (0:4:a3:64:25:95)
IPV4: 192.168.1.28
Port: 1024
Type: Hermes
Firmware: 3.1
Status: not running

CmdHPSDRProgrammer

```
$/CmdHPSDRProgrammer -interface=eth1 -debug=dec
```

Discover

[illegible]

```
received : 192.168.1.28:1024: [239 254 2 0 4 163 100 37 149 31 1 1 1  
1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1  
1 1 1 1 1 1 1 1 1 1 1 0 0 0 0] : length=64
```

```
received : 192.168.1.22:1024: [239 254 2 0 4 163 211 161 148 29 0 0 0
0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0] : length=64
```

```
$/CmdHPSDRProgrammer -interface=eth1 -debug=hex
```

Discovery

```
sent : 255.255.255.255:1024:
```

[illegible]

```
received : 192.168.1.28:1024:
```

[illegible]

```
received : 192.168.1.22:1024:
```

[illegible]

```
./CmdHPSDRProgrammer -interface=eth1 -debug=hex -settings=show
```

Saved Settings:

```
Interface: eth1
```

```
Filename: none
```

Selected MAC: (none)

SetRBF: none

```
Debug: hex
```

Ddelay: 2

Temp settings:

```
Settings: show
```

CmdHPSDRProgrammer

```
SetIP: none
Save: none
Load: none
```

Discovery

```
sent : 255.255.255.255:1024:
```

[illegible]

length=64

```
received : 192.168.1.22:1024:
```

[illegible]

length=64

```
received : 192.168.1.28:1024:
```

[illegible]

length=64

```
./CmdHPSDRProgrammer -interface=eth1 -debug=hex -save=default
```

Discovery

```
sent : 255.255.255.255:1024:
```

[illegible]

length=64

```
received : 192.168.1.22:1024:
```

[illegible]

length=64

```
received : 192.168.1.28:1024:
```

[illegible]

length=64

```

$ ./CmdHPSDRProgrammer -load=default -settings=show

```

Saved Settings:

```
Interface: eth1
```

Filename: CmdHPSDRProgrammer.json

Selected MAC: (none)

SetRBF: none

Debug: hex

CmdHPSDRProgrammer

Ddelay: 2

Temp settings:

```
Settings: show
```

SetIP: none

Save: none

Load: default

Discovery

```
sent : 255.255.255.255:1024:
```

[illegible]

length=64

```
received : 192.168.1.22:1024:
```

[illegible]

length=64

```
received : 192.168.1.28:1024:
```

[illegible]

length=64

```
$/CmdHPSDRProgrammer -interface=eth1 -debug=hex -save=mymetis.json
```

Discovery

```
sent : 255.255.255.255:1024:
```

[illegible]

length=64

```
received : 192.168.1.28:1024:
```

[illegible]

length=64

```
received : 192.168.1.22:1024:
```

[illegible]

length=64

CmdHPSDRProgrammer

```
$/CmdHPSDRProgrammer -debug=hex -load=mymetis.json -settings=show
```

Saved Settings:

```
Interface: eth1
```

Filename: mymetis.json

Selected MAC: (none)

SetRBF: none

Debug: hex

Ddelay: 2

Temp settings:

```
Settings: show
```

SetIP: none

Save: none

Load: mymetis.json

Discovery

```
sent : 255.255.255.255:1024:
```

[illegible]

length=64

```
received : 192.168.1.28:1024:
```

[illegible]

length=64

```
received : 192.168.1.22:1024:
```

```
effe020004a3d3a1941d00000000000000000000000000000000000000000000  
0000000000000000000000000000000000000000000000000 : 
```

length=64

```
$cat mymetis.json
```

 $\{$

```
"Filename": "mymetis.json",
```

```
"Interface": "eth1",
```

```
"SelectMAC": "none",
```

```
"SetRBF": "none",
```

```
"Debug": "hex",
```

```
"Ddelay": 2
```

}