



Project Management

FILA10G project management at the MPIfR. Project documentation and progress status. Source code is shared in the MPIfR SVN repository (svn+ssh://username@svnze.mpifr-bonn....gner/svn_repos).

Project documentation: FiLa10G Output on 10GE

See files attached at end of this page. Most recent project book: [ProjectPlan_20Jul2010.pdf](#). Most recent testing book: [Testing.pdf](#)

Project documentation: FiLa10G Correlator

See sub-page here: [Project Documentation: FiLa10G Correlator](#)

10G switch configuration (HP 6410cl)

User manual [6400-5300-4200-3400-MgmtCfg-Oct2006-59906050.pdf](#)

Advanced routing manual [6400-5300-4200-3400-AdvTrafficMgmt-Oct2006-59906051.pdf](#)

The installed firmware is M.08.109 from 2007. Release notes for the current M.08.116 [6400cl-RelNotes-M08116-59914765.pdf](#) mention at least one important bug which has been corrected (*Jumbo Frames (PR_0000011564) — Hot-swapping the CX4 module stops jumbo frames from passing, but non-jumbo traffic will still pass.*). Upgrade or not...

Mark5C/Conduant card needs static MAC entries in the switch port MAC caches. Only then the switch knows behind which port there is a Mark5C (5C doesn't transmit, so port auto-discovery doesn't work).

Bug(?): adding static MAC addresses to the port MAC cache does not seem to work. A similar bug was corrected long ago in the enterprise models.

```
ProCurve Switch 6410cl-6XG# configure

#-- Enable Jumbo frames on all ports
ProCurve Switch 6410cl-6XG# vlan 1 jumbo

#-- Try to configure static MAC behing port 1
ProCurve Switch 6410cl-6XG(config)# show mac-address
Status and Counters - Port Address Table

MAC Address      Located on Port
-----
```

```

ProCurve Switch 6410cl-6XG(config)# port-security 1 learn-mode
configured
ProCurve Switch 6410cl-6XG(config)# port-security 1 address-limit
2
ProCurve Switch 6410cl-6XG(config)# port-security 1 address-list
0c0090-123456
Invalid input: address-list    --Can't add static MAC entries on
this switch, great...

```

```

ProCurve Switch 6410cl-6XG(config)# port-security 1 mac-address
0c0090-123456
ProCurve Switch 6410cl-6XG(config)# show port-security
Port Security

```

Port	Learn Mode	Action
1	Configured	None
2	Continuous	None
3	Continuous	None
4	Continuous	None
5	Continuous	None
6	Continuous	None
7	Continuous	None
8	Continuous	None

```

ProCurve Switch 6410cl-6XG(config)# show mac-address

```

Status and Counters - Port Address Table

MAC Address Located on Port

The current impression is that static MAC table entries in the HP 6410cl will not work. Thus for Mark5C it may be necessary to use broadcast/multicast (or set ip forwarding on the switch)... Another method is to use 'learn-mode static', briefly connect a real 10G computer to let the switch to allow it to learn the MAC, then 'write memory' to persistently store the MAC table on the switch, and finally exchange the 10G computer for a Mark5C on the same port (see page 10 [Retention of static addresses](#)).

Hardware wishlist

1. a minimum of four two-colour debug LEDs tied to FPGA I/O
2. a minimum of two user-definable microswitch push-buttons tied to FPGA I/O (for example, custom Reset button)
3. better power supply rail decoupling before the switching regulators

Status: Michael W. has added these and more to the 2nd spin of the design.