

How do I use a SYNC adapter without a timecode source?

Model:

All Network Adapters

Software:

DBL, Sniffer10G, MVA

Operating System:

Supported Windows and Linux releases as highlighted in the User Guide.

Information:

In the following instructions, the **DBL** software is used as an example. These same instructions apply for the **Sniffer10G** or **MVA** software, where the keywords **DBL** and **myri dbl** are replaced by **snf** and **myri_snf** or **mva** and **myri_mva**, respectively.

By default, **10G-PCIE2-8C2-2S-SYNC** adapters expect to be connected to an external timecode generator and will return 0 for the timestamp if they are not connected to a timecode generator. If the **10G-PCIE2-8C2-2S-SYNC** adapter is not connected to an external timecode generator (the timecode circuitry to be ignored), you must load the DBL module with the parameter **myri_timesource=0**.

On Linux, the instructions to set **myri_timesource=0** and thus switch to using host timestamps on the SYNC adapter are:

```
# /opt/dbl/sbin/myri_start_stop start myri_timesource=0
```

On windows, the instructions to set **myri_timesource=0** and thus switch to using host timestamps on the SYNC adapter are(create the following registry key, followed by a reboot):

```
REG ADD HKLM\SYSTEM\CurrentControlSet\services\dbl /v myri_timesource /t REG_DWORD /d 0
```

The Windows EventViewer will then show:

```
Myri_db1 INFO: Timesource function disabled by registry entry
```

Specifying this option will put the adapter into host timestamp mode, where the timestamps will be based on the host's time.

The "timestamps will be based on host time" means that:

On driver load, the host time is compared to the adapter's concept of time and appropriate variables are set.

Once a second, the driver checks to see how much the host and adapter have drifted apart and calculates the necessary correction factors.

When a packet is passed to user space, the adapter's original packet timestamp is converted to a timestamp based on the host's time using the correction factors.

If the host has a stable clock, the timestamps returned will be stable. If the host's clock has sudden changes then those changes may be reflected in the packet timestamps the next time the correction factors are calculated. This calculation allows the timestamps returned with packets to be compared with the host's time.

Host timestamp mode is available on all of our adapters.

Revision	Date	Change
1	6/23/2016	Initial Draft
2	7/22/2016	Feedback

