

*Qik*DRIVE & *Qik*CACHE

FreeBSD Software Installation

User Guide

P/N: UI00901999 Rev B.

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DRIVE32-BSDSW-UG-0500

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Software Installation

Thank you for purchasing a *QikDRIVE* or *QikCACHE* PCI card. From this point on the *QikCACHE* will be referred as a *QikDRIVE* as installation instructions are the same for both products. The only difference being that the *QikCACHE* does not have secondary power support for retaining information. If you have purchased a *QikCACHE*, ignore references to secondary power.

The *QikDRIVE* is shipped with a driver that supports Microsoft operating systems FreeBSD (x86) systems and a driver for the Linux operating system. The Microsoft operating systems supported are, Windows NT 4, Windows 95, Windows 98 and Windows 2000. Follow the instructions below to correctly install the driver for the operating system installed on your system.

New drivers and the latest revision of current drivers for your *QikDRIVE* can be downloaded from the Platypus Technology web page.

www.platypus.net

From this URL select *Support* and then select *Software Archive* to find the latest drivers. If you experience any difficulty, contact Platypus Technology technical support as described on page 3.

FreeBSD

Follow the steps listed below to install the *QikDRIVE* into a system running the FreeBSD operating system.

Note: Tests have show that FreeBSD will not allow the *QikDRIVE* driver to share IRQs with another *QikDRIVE* and therefore requires that for additional *QikDRIVE*s they must have a unique IRQ.

1. Turn on the computer, boot FreeBSD and log in as the ***root*** user.

2. Untar the tarball distribution into a temporary directory.
For example...

```
root# cd /tmp
root# mkdir qikdrive
root# cd qikdrive
root# tar xvzf qikdrive_freebsd.tgz
```

3. Copy the module object into the kernel module directory.
root# cp qikdrive.ko /modules

4. Create the device nodes with the supplied script...
root# sh ./makedev

5. Copy the *QikDRIVE* monitor application to a suitable execution directory. For example...

```
root# cd /var/log
root# mkdir qikmon
root# cd qikmon
root# cp /tmp/qikdrive/qms .
```

6. The *QikDRIVE* monitoring application must be run periodically to collect statistics from the driver. Note that the driver statistics will not overflow for at least 2 hrs of peak operation. However, the frequency of updates will affect the currency of the statistics in the error logs.

One way to achieve this is to run the application as a **cron** job in a user account. The following entry in the **crontab** runs the application every minute...

```
0 * * * * cd /var/log/qikmon; ./qms
```

7. The module may now be loaded using

```
root# kldload qikdrive
```

And may also be loaded at boot time either by adding the above line to rc.local, or preloading the module at boot time.

8. The drive will now be accessible as a standard FreeBSD disk. Use **disklabel** or **fdisk** to add slices and partitions. Alternatively the **makedisk** script provided or third-party **DriveSetup** program may be used.

For each partition that will be mounted, create a mount-point, for example

```
slice 1, partition 1: cd /mnt; mkdir qd0s1a
```

```
slice 2, partition 1: cd /mnt; mkdir qd0s2a
```

9. Make a filesystem on each drive using, for example

```
root# newfs /dev/qd0s1a
```

10. Each time the drive loses power, you will have to re-partition and remake the file system on the drive.
11. You may now mount the drive. For example, mounting the drive manually...

```
root# mount -t ufs /dev/qd0s1a/mnt/qd0s1a
```

Diagnostics and Error Logging

Log File

When installed on a FreeBSD platform, the *Qik*DRIVE driver logs error statistics to the `sysctl` variable `debug.qd*` (`debug.qd0`, `debug.qd1`, `debug.qd2...`).

As in the Linux driver, the *Qik*MON application, running as a cron job, extracts this information in exactly the same format as the Linux version from the `sysctl` variables for each *Qik*DRIVE.

Contacting Platypus Technology

If you have tried the solutions recommended in this manual and are still experiencing problems with your *Qik*DRIVE, please contact Platypus Technology Technical Support using the contact details below.

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