To: Mark 5 Development Group  
From: Dan L. Smythe  
Subject: Changing DMA Mode

We have had problems with the Mark5A ‘disk2file’ command producing corrupt files. When re-written to a module with ‘file2disk’, the resulting scans usually pass ‘scan_check?’, but the scans can not be correlated. The corruption is caused by an incompatibility between the ServerWorks LE chip set in the Mark 5 SuperMicro P3TDLE mother boards and a Seagate disk drive in UDMA mode. To query the disk drive model and DMA mode, enter the following unix command as root:

/sbin/hdparm -i /dev/hdc

Where ‘hdc’ may need to be replaced by the device name of the hard disk, as returned from a ‘df’ command. Seagate disk drives will return “Model=ST...”. The active DMA mode is preceded by an ‘*’.

The fix (which dramatically slows down the disk access) is to enter the following unix command, as root:

/sbin/hdparm -c1 -d1 -X mdma2 /dev/hdc