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TO: X3T9.2 Membership

FROM: Jim McGrath   phone: 408-894-4504
          Quantum Corporation   fax: 408-894-3208

SUBJ.:   Power Management Modes in ATA

I have been alerted that there is another incompatibility between theory and practice in the use of low power modes for ATA drives. Specifically:

o   ATA 4.0 specifies that a drive in the IDLE mode must be able to respond immediately to media access commands. In practice, drives from several manufacturers (WD, Conner, Maxtor - I have heard no reports about Seagate) (and Quantum) will spin down the motor when in IDLE mode.

o   ATA 4.0 specifies that a drive placed in STANDBY mode with the timeout counter should go into that low power mode after the counter has expired. Instead, drives from these same manufacturers will immediate spin down the disk.

o   The immediate spindown of the disk in STANDBY mode prevents its use in many systems during booting (POST) - the most convenient time to set up power management. Thus IDLE is used instead, with the consequent need to spin down the disk.

I would like people to confirm the state of their implementations (in both 2.5" and 3.5") with the aim of modifying ATA Extensions and possibly issuing a SFF specification. I would like to discuss this at the ATA meeting on September 29 in Milpitas, CA. Please feel free to send me comments via fax, voice, or email (JMCGRATH@QNTM.COM).