A local I/O bus that can be operated as a data rate up to 16 Mbyte permits per second depending upon the controller implementation choices. The primary objective of the interface is to provide host computers with device independence within a class of devices. Thus, different disk drives, tape drives, printers, optical media drives, and other devices can be added to the host computer without requiring modifications to generic system hardware or software. Provision is made for the addition of special features and functions through the use of reserved and vendor unique fields and codes.

A second key objective of the interface is to provide compatibility with those SCSI devices that support bus parity and that meet conformance level 2 of X3.131-1986. While some previously vendor unique commands and parameters have been defined by the SCSI-2 specification, devices meeting X3.131-1986 and SCSI-2 can co-exist on the same bus. It is intended that those operating systems providing support for both command sets will be able to operate against environments mixing SCSI and SCSI-2 devices. Properly conforming SCSI devices, both initiators and targets, will respond in an acceptable manner to reject SCSI-2 protocol extensions. All SCSI-2 protocol extensions are designed to be permissive of such rejections and to allow the SCSI device to continue operation without requiring the use of the extension.

A third key objective of SCSI-2 is to move device dependent intelligence out to the SCSI-2 devices. This requires the definition of a command set that allows a sophisticated operating system to obtain all required initialization information from the attached SCSI-devices. The formalized sequence of requests will identify the type of attached SCSI-2 device, the characteristics of the device, and all the changeable parameters supported by the device. Further requests can determine the readiness of the device to operate, the types of media supported by the device, and all other pertinent system information. These parameters not required for the operating system for operation initialization, or system tuning are not exposed to the SCSI-2 interface, but are managed by the SCSI-2 device itself.

This compatibility requirement should not make any new demands on the proposed SCSI-2. No other changes should be required to adopt this philosophy.

Thank you for your acceptance of this proposal.

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