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## Product Notes - Wide SCSI Adapter with TZ89N

**1. Wide SCSI Adapter Issue with Ignore Wide Residue**

Problem Statement:   Wide SCSI adapters listed in Table 1 fail to recognize odd byte record transfers.

**User Impact:** **The problem has been seen using specific test programs to simulate data overrun situations. The user will see no impact using standard Digital utilities or applications. If your user specific application uses odd byte counts, please read the attached information. In all cases, the change to SCSI adapters will occur in July 1997, resolving this issue.**

Description:    When reading a record with an odd byte count from a wide SCSI peripheral the device will always return an even number of bytes, the device will return one extra byte because of the 16 bit data transfer. The requested read will result in an '*Ignore Wide Residue 1 byte*' message to inform the adapter that the last byte is not a valid byte. The Wide SCSI adapter firmware does not handle this message properly and will transfer the invalid byte to the host as part of valid data. This problem only occurs on a partial read of a record operation on all wide devices.

Short term resolution: Do not perform a partial record read with odd byte operation. If unsure use the application default block sizes when performing read operations

Permanent Resolution: On Alpha Workstations this problem will be corrected with Console Firmware CD 3.9 release. On Alpha Servers, this problem will be corrected with a Console Firmware CD scheduled to be released in July 1997.

Table 1- Affected Wide Adapters

| Adapter | AS Workstation | AS Server |
|---|---|---|
| KZPSM/P1SE | AS 500 | All except 8200/8400 |
| P2SE | AS 600 | None |
| KZPDA | All PCI Base | All except 8200/8400 |
| KFTIA | None | AS 8200/8400 |

**2. Multiple Fixed Block Writes with Odd-Byte Records**

Problem Statement: Not all SCSI devices implement the same method of handling multiple block write operations in fixed block mode.

**User Impact:** **This problem has only been seen with *Microsoft Windows NT HCT* test suites or test program. Standard utilities or applications do not perform multiple fixed block writes with odd-byte records. Only NTBackup and Seagate Backup Exec for WNT operate in fixed block mode but they always operate with even-byte blocking factor as such this situation poses no impact to normal device operations. This issue does not impact any users on DIGITAL UNIX or OpenVMS.**

Description    The problem occurs when a wide device operates in block-boundary mode and the wide adapter operates in a byte-boundary mode. A block-boundary is defined as an odd-byte block which has one residue byte in each block transfer, with this byte being padded byte. Byte-boundary implementation has no residue between block transfers, with every byte being valid in the transfer.

When performing multiple fixed block writes with odd-byte records there is an opportunity for the device to request more data than is available. This causes the adapter to force a reset to the device aborting the data transfer.

Short term resolution:   Avoid multiple fixed block writes with odd-byte records. If your application requires an odd-byte block in fixed block mode, we recommend that you disable wide transfer on the wide SCSI adapter.