

## T10/05-241r0 SAT - Read-Write Error Recovery mode page

To: T10 Technical Committee  
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Subject: T10/05-241r0 SAT- Read-Write Error Recovery mode page

### Revision History

Revision 0 (June 14, 2005) first revision

### Related Documents

(T10) sat-r04 – SCSI to ATA Translation (SAT), Revision 4

(T10) sbc-2r16 – SCSI Block Commands - 2, Revision 16

(T13) ata7v1r4b – AT Attachment with Packet Interface -7 Volume1, Revision 4b

### Overview

1. The Read-Write Error Recovery mode page is useful for providing notice to the SCSI application client that not much can be done to control error recovery with ATA end devices.
2. Complexity of the emulation is estimated to be “minimal”.

### Suggested Changes

#### 10.1.4 Read-Write Error Recovery mode page (01h)

~~This page contains the parameters used by the device server during error condition when read write commands are processed. Read write operations include all variants of the READ command, the WRITE command and WRITE AND VERIFY commands. Note that an ignored bit may be changed, unless otherwise stated, but the change shall have no effect on the operation of the target.~~

The Read-Write Error Recovery mode page specifies the error recovery parameters the device server shall use during any command that performs a read or write operation to the medium. (See SBC-2.)

**Table 2 — Read-Write Error Recovery mode page fields**

Field	SATType	Description or reference
<del>PS (parameters savable)</del>	<del>E</del>	<del>Set to a value of 0b. A value of 1b is not supported.</del>
PAGE CODE	I	Set to a value of 01h. This field value is specific to the Read-Write Error Recovery mode page. The SATL shall support the PAGE CODE field.
PAGE LENGTH	I	Set to 0Ah. Any other value is not supported.
<del>AWRE (Automatic Write Reallocation)</del>	<del>I</del>	<del>Set to a value of 1b. A value of 0b is not supported. This bit is ignored and shall be set to 1 to indicate that automatic Write reallocation of defective blocks shall always be enabled at drive level.</del>
<del>ARRE (Automatic Read Reallocation)</del>	<del>I</del>	<del>Set to a value of 1b. A value of 0b is not supported. This bit is ignored and shall be set to 1 to indicate that automatic read reallocation of defective blocks shall always be enabled at drive level.</del>
TB (Transfer Block)	E	Set to a value of 0b. A value of 1b is not supported. This bit is ignored and set to 0 to indicate that a logical block that is not recovered within the recovery limits specified shall not be transferred to the application client.
RC (Read-Continuous)	E	Set to a value of 0b. A value of 1b is not supported. This bit is ignored and set to 0 to indicate that error recovery delays are acceptable and

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		<del>that Data shall not be fabricated.</del>
EER (Enable Early Recovery)	E	<del>Set to a value of 0b. A value of 1b is not supported. This bit is ignored and set to 0 to indicate that the device server shall use the error recovery procedure that minimizes the risk of mis-detection or mis-correction.</del>
PER (Post Error)	E	<del>Set to a value of 0b. A value of 1b is not supported. This bit is ignored and set to 0 to indicate that recovered errors not reported to the user.</del>
DTE (disable transfer on error)	E	<del>Set to a value of 0b. A value of 1b is not supported. This bit shall be ignored and set to 0 to indicate that data transfers shall not be terminated at the detection of a recovered error.</del>
DCR (disable correction)	E	<del>Set to a value of 0b. A value of 1b is not supported. This bit shall be set to 0b and ignored as data correction is done at drive level.</del>
READ RETRY COUNT	E	<del>Set to a value of 0b. A value of 1b is not supported. This field shall be set to 00h and ignored. This field identifies the maximum number of times the operation shall be retried by the device server in its recovery algorithm.</del>
WRITE RETRY COUNT	E	<del>Set to a value of 0b. A value of 1b is not supported. This field shall be set to 00h and ignored. This field identifies the maximum number of times the operation shall be retried by the device server in its recovery algorithm.</del>
RECOVERY TIME LIMIT	E	<del>Set to a value of 0b. A value of 1b is not supported. This field is ignored and set to 00h. This field specifies in increments of one millisecond, the maximum duration the device server shall use for error recovery.</del>

Bit or field values that are not supported shall cause the SATL to return a CHECK CONDITION with sense key set to ILLEGAL REQUEST and additional sense code set to INVALID FIELD IN PARAMETER LIST.

