Proposal for a new work item on

Title: Information technology --- for AT Attachment with Packet Interface-7

PROPOSAL FOR A NEW WORK ITEM

Date of presentation of proposal: 2004-03-09
Proposer: SC25
Secretariat: Germany(DIN) ISO/IEC JTC 1 / SC 25 N, nnnnnn-mmm

A proposal for a new work item shall be submitted to the secretariat of the Subcommittee of ISO/IEC joint technical committee 1 concerned with a copy to the secretariat of ISO/IEC JTC1 and to the ISO Central Secretariat. Presentation of the proposal - to be completed by the proposer Guidelines for proposing and justifying a new work item are given in ISO Guide 26.

Title ISO/IEC: INFORMATION TECHNOLOGY: AT Attachment with Packet Interface-7

Scope: This standard specifies parallel and serialized ATA data link interfaces. Normative information is provided to allow a technical design team to construct a device that will operate correctly with another device designed to this specification..

Goals and objectives
New Features in ATA/ATAPI-7
- Follow on to widely used ANSI INCITS series of disk drive interface standards (ATA-1 to ATA/ATAPI-6)
- Streaming Command Set (For AV applications)
- Long Logical Block (>512 byte) Support for RAID applications
- Long Physical Block (e.g. 4096 byte) for improved ECC implementation
- Improved Self Test Commands
- Forced Unit Access Commands
- Unload Immediate command (prepare for shock mode)
Parallel ATA Transport
- Ultra DMA 133 Megabyte/s transfer mode
Serial ATA Transport
- Primary inside-the-box storage connection (no outside the box)
- Completely SW transparent w/ parallel ATA (easy transition)
- Low pin count for both host and devices (2 pairs)
- Favorable (low) voltages
- Much better cabling/connectors (thin, flexible)
- Allows roadmap spanning ~10 years
- Cable length comparable to parallel ATA (~1 m)
- Transfer rate exceeding best parallel ATA (~150 MB/s) with scalability to higher rates
- Light protocol allowing overhead latencies to be minimized
- Asynchronous only (no isochronous requirements)
- No Peer-peer transfer support (to/from host only)
- Storage device centric (no cameras/scanners/printers)
- Single host (no multi-initiators or host/host networking)
Programme of work: If the proposed new work item is approved, which of the following document(s) is expected to be developed?

- [X] A single International Standard
- [ ] More than one International Standard

Relevant documents to be considered:

Cooperation and liaison: None.

Preparatory work offered with target date(s): Available May 2004

Signature: Dr. Walter v. Pattay, Secretary of ISO/IEC JTC 1/SC 25

Will the service of a maintenance agency or registration authority be required? No

Does the proposed standard concern known patented items? No

Comments with respect to the proposal in general, and recommendations thereon:

It is proposed to assign this new item to JTC 1/SC 25 as project 1.25.13.mm.nn.

Voting on the proposal - Each P-member of the ISO/IEC JTC 1/SC 25 has an obligation to vote within the time limits laid down.

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<tr>
<th>Date of circulation</th>
<th>Closing date for voting</th>
<th>Signature of JTC 1/SC 25 Secretary</th>
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<td>Dr. Walter v. Pattay</td>
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**NEW WORK ITEM PROPOSAL - PROJECT ACCEPTANCE CRITERIA**

<table>
<thead>
<tr>
<th>Criterion</th>
<th>Validity</th>
<th>Explanation</th>
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<tbody>
<tr>
<td>A Business Requirement</td>
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<tr>
<td>A.1 Market Requirement</td>
<td>Essential [X]</td>
<td>This interface is available on many computers and storage systems.</td>
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<td>A.2 Regulatory Context</td>
<td>Essential [X]</td>
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<td>B. Related Work</td>
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<tr>
<td>B.1</td>
<td>Yes [X]</td>
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<td>Completion/Maintenance of current standards</td>
<td>No__X__</td>
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| B.2 Commitment to other organization | Yes ___  
No__X__|
| B.3 Other Source of standards | Yes ___  
No__X__|
| C. Technical Status | |
| C.1 Mature Technology | Yes _X_  
No___ | The technology is mature. |
| C.2 Prospective Technology | Yes ___  
No__X__ | The standard is needed now. |
| C.3 Models/Tools | Yes ___  
No__X__ |
| D. Conformity Assessment and Interoperability | |
| D.1 Conformity Assessment | Yes ___  
No__X__ |
| D.2 Interoperability | Yes _X_  
No___ | If standard approved as this is the prime objective. |
| E. Other Justification | |