

Proposal for a new work item on

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

PROPOSAL FOR A NEW WORK ITEM

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| 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 (are) 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..... Are there any known requirements for coding?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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| Date of circulation: | Closing date for voting: | Signature of JTC 1/SC 25 Secretary: Dr. Walter v. Pattay |
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| <i>NEW WORK ITEM PROPOSAL - PROJECT ACCEPTANCE CRITERIA</i> | | |
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| Criterion | Validity | Explanation |
| A Business Requirement | | |
| A.1 Market Requirement | Essential <u> X </u> Desirable ___ Supportive ___ | This interface is available on many computers and storage systems. |
| A.2 Regulatory Context | Essential ___ Desirable <u> X </u> Supportive ___ Not Relevant ___ | |
| B. Related Work | | |
| B.1 | Yes ___ | |

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| Completion/Maintenance of current standards | No <input type="checkbox"/> X <input checked="" type="checkbox"/> | |
| B.2 Commitment to other organization | Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> | |
| B.3 Other Source of standards | Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> | |
| C. Technical Status | | |
| C.1 Mature Technology | Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> | The technology is mature. |
| C.2 Prospective Technology | Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> | The standard is needed now. |
| C.3 Models/Tools | Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> | |
| D. Conformity Assessment and Interoperability | | |
| D.1 Conformity Assessment | Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> | |
| D.2 Interoperability | Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> | If standard approved as this is the prime objective. |
| E. Other Justification | | |