

To: X3T10 Membership

From: Steve Finch
Silicon Systems, Inc.

Date: January 14. 1994

Subject: Proposal for Proposed Project -- ATA3-PH

Per the agreement of the ATA Working Group meeting on January 10, 1994, I am submitting this project proposal as one of four new projects which will constitute the work on ATA-3 standards. I request that the discussion and, hopefully, forwarding of these project proposals be accomplished at the March X3T10 plenary meeting.

Respectfully,

Steve Finch
Chair, ATA Working Group

1. Identification of Proposed Project

1.1 Title: ATA-3 Physical Interface (ATA3-PH)

1.2 Proposer

This project is proposed by the X3T10 Technical Committee. For additional information, please contact John B. Lohmeyer, X3T10 Chairman, at NCR Corporation, 3718 N. Rock Rd., Wichita, KS 67226 (Phone: 316-636-8703 FAX: 316-636-8889) or Dal Allan, X3T10 Vice-Chairman at ENDL, 14426 Black Walnut Court, Saratoga, CA 95070 (Phone: 408-867-6630 Fax: 408-867-2115).

1.3 Date Submitted: January 14, 1994

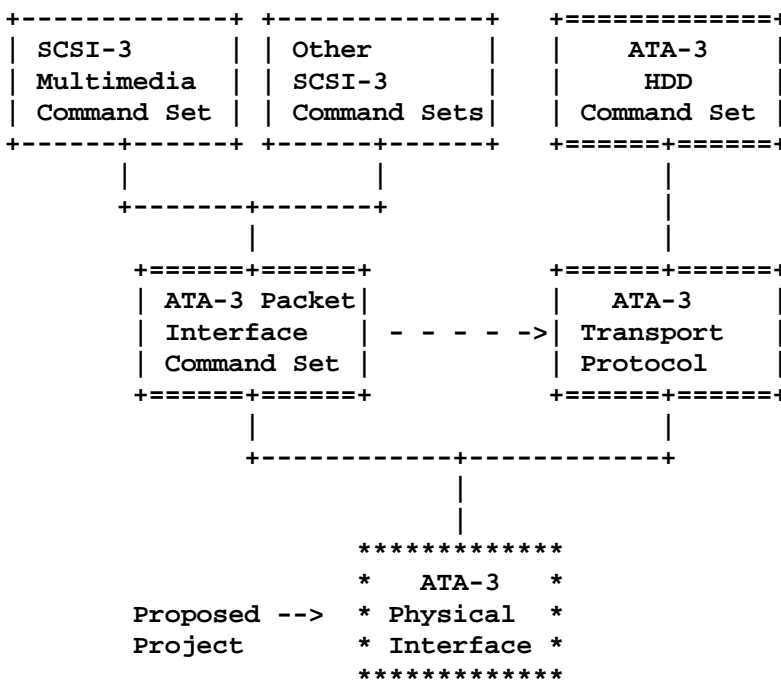
1.4 Project Type: Development

2. Justification of Proposed Standard or Technical Report

2.1 Needs

The draft standard for AT Attachment has been completed and the draft for the ATA Extensions (ATA-2) is near completion, but as the popularity of the interface has increased, its application area has grown outside the originally intended purpose of direct attachment of small disk drives to desktop computers.

ATA-3 is needed to continue to broaden the scope and application area of the ATA interface and to take advantage of the huge installed BIOS (Basic Input/Output System) base, and software. Support is needed for traditional HDD devices plus additional devices such as CD-ROM and tape devices. It is expected that the SCSI-3 command sets can be used for these new device types. In addition, support is also needed for removable media devices and expanded number of cabling options. The resulting increase in complexity has made it desirable to divide the ATA standard into a hierarchical set of standards, of which the ATA-3 Physical Interface is one.



2.2 Recommended Scope of Standard or Technical Report

The proposed ATA-3 Physical Interface standard shall maintain a high degree of compatibility with the AT Attachment while providing documentation for new capabilities including the following candidates:

- a) Provide a means to support the AT Attachment protocol on a variety of physical interfaces such as that for the newly-emerging requirements for memory cards.
- b) Other capabilities which fit within the general scope of implementing the AT Attachment Interface on a broader range of applications.

This proposed standard is not intended to require changes to presently installed devices or existing software. It is intended that this proposed standard would be used to provide additional capabilities.

2.3 Existing Practice in Area of Proposed Standard or Technical Report

The proposed project involves evolutionary expansion of the draft AT Attachment standards to provide additional capabilities.

2.4 Expected Stability of Proposed Standard or Technical Report with Respect to Current and Potential Technological Advance

The nature of the proposed project is to insure that the AT Attachment has an upward, highly compatible growth path. This will insure that current investments in AT Attachment are provided with more stability in the face of technological developments.

3. Description of Proposed Project

3.1 Type of Document (Standard or Technical Report): Standard

3.2 Definition of Concepts and Special Terms (if any): none

3.3 Expected Relationship with Approved X3 Reference Models (e.g., DBMS, OSI)

The ATA-3 Physical Interface standard is for use in closed systems.

3.4 Recommended Program of Work

The following program of work is planned for the ATA-3 Physical Interface standard:

- o Solicit continuing participation by the present AT Attachment participants through X3T10 procedures and new participants through press releases. Invite comments by end-user organizations and invite proposals from organizations that may have a contribution to a viable ATA-3 Physical Interface standard.
- o Establish functional requirements for ATA-3 Physical Interface functional additions along with downward compatibility requirements.
- o Prepare a draft standard based on proposals submitted and other information gathered during the initial investigation.
- o Consider the results of ATA3-Physical Interface testing as may be available to the committee through the voluntary efforts of the various participants in X3T9 and its assigned task group.
- o Submit the draft proposed standard to X3 for further processing.

3.5 Resources - Individuals and Organizations Competent in Subject Matter

The current membership of X3T10 includes representatives from all parts of the computer industry from semiconductor chip manufacturers to large mainframe system manufacturers as well as Government agencies. The members of X3T10 have expressed their desire to participate and cooperate in the development of this proposed standard.

There are sufficient resources to complete the development of this standard without delaying work on other standards.

3.6 Recommended X3 Development Technical Committees (Existing or New)

It is recommended that the development work be done in task group X3T10 which is responsible for developing the draft ATA Extensions standard.

3.7 Anticipated Frequency and Duration of Meetings

Task group X3T10 meets for two days bimonthly. Specific task ad hoc groups are called as may be required for one to three days between the regular meetings but their results are not binding.

3.8 Target Date for dpANS to X3 (Milestone 10): December 1995

3.9 Estimated Useful Life of Standard or Technical Report

It is anticipated that this standard will have a life of over 10 years.

4. Implementation Impacts

4.1 Impact on Existing User Practices and Investments

The proposed ATA-3 Physical Interface standard will provide an upward growth path complementary to the existing practices and investments. It is likely that any isolated negative impacts would occur in any case through non-standard evolution or revolution.

4.2 Impact on Supplier Products and Support

The proposed ATA-3 Physical Interface standard will provide an upward growth path complementary to the existing practices and investments. It is likely that any isolated negative impacts would occur in any case through non-standard evolution or revolution.

4.3 Techniques and Costs for Compliance Verification

The committee will consider the results of ATA-3 Physical Interface testing as may be available to the committee through the voluntary efforts of the various participants in X3T9 and its assigned task group. With this method all costs are borne by the organizations of the various participants and have for the most part been mainly an adjunct of their normal development costs.

4.4 Legal Considerations

No new legal considerations are expected that are not already attendant with AT Attachment and in accordance with accepted X3 patent policies.

5. Closely Related Standards Activities

5.1 Existing Standards: none

5.2 X3 Standards Development Projects

X3T9.2/90-058 Attachment Interface

X3T9.2/91-104 ATA Extensions

5.3 X3/SPARC Study Groups: none

5.4 Other Related Domestic Standards Efforts: none

5.5 ISO Standards Development Projects

It is anticipated that this standard will be proposed to JTC1/SC25/WG4.

5.6 Other Related International Standards Development Projects: none

5.7 Recommendations for Coordinating Liaison: none

5.8 Recommendations for Close Liaison: none