

Proposal for a Project to Develop  
A New or Revised X3 Technical Report

1. IDENTIFICATION OF PROPOSED PROJECT

Development of an Enhanced BIOS Disk Drive Technical Report to provide technical information which facilitates the likely evolution of disk drives including the accommodation of disk drives with capacities greater than 8 Gigabytes.

1.1 Title: Enhanced BIOS Disk Drive Technical Report

1.2 Proposer: X3T13

1.3 Date Submitted: 4/26/96

1.4 Project Type: DT

2. Justification of Proposed Standard or Technical Report

2.1 Needs

Some operating systems and Basic Input Output Systems (BIOS) have implemented impediments to logical expansion of disk drive capability. A technical report is needed to guide operating system and BIOS designers to facilitate the evolution of disk drives.

2.2 Recommended Scope of Standard or Technical Report

The scope of this technical report is to provide a downward compatible method for expanding the current Fixed Disk Parameter Tables, a new method of accessing these tables, as well as providing extended BIOS services. This technical report is intended to not only provide for the unlimited expansion of systems beyond two drives, but also to provide information regarding ATA-compatible features enabled by the BIOS for OS and application software.

2.3 Existing Practice in Area of Proposed Standard or Technical Report

Some operating systems and BIOS have already implemented candidate definitions for this technical report to provide logical expansion of disk drive capability. However there are other implementations which are causing significant problems for system expansion.

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

The useful life of the proposed technical report is expected to be at least five years.

3. Description of Proposed Project

3.1 Type of Document (Standard or Technical Report) Technical report.

3.2 Definitions of Concepts and Special Terms (if any)

The terms are industry standard.

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

The technical report addresses closed systems and has no relationship to X3 Reference Models.

3.4 Recommended Program of Work

Develop a set of goals for the technical report; solicit additional participants for the development of the technical report; solicit technical contributions for the technical report; review the contributions for compatibility with the family of ATA standards and for logical expansions to those standards; format the technical report in accordance with X3 requirements; and forward the resultant technical report to X3 for further processing.

### 3.5 Resources - Individuals and Organizations Competent in Subject Matter

X3T13 presently includes membership with the necessary technical expertise to complete the technical report. However additional participation will be solicited to broaden the representation for the technical report.

### 3.6 Recommended X3 Development Technical Committee (Existing or New)

X3T13.

### 3.7 Anticipated Frequency and Duration of Meetings

X3T13 presently meets quarterly and authorizes ad hoc meetings as warranted for the needs of the projects. It is anticipated that these meetings are adequate to address this technical report as one of the agenda items for these meetings.

### 3.8 Target Date for Initial Public Review (Milestone 4)

August 1997

### 3.9 Estimated Useful Life of Standard or Technical Report

It is estimated that the useful life of the technical report will be at least three years.

## 4. Implementation Impacts

### 4.1 Impact on Existing User Practices and Investments

The lack of a standard or technical report in this area has had negative impact on user practices and investments. It is anticipated that the net impact from the technical report will be a positive impact.

### 4.2 Impact on Supplier Products and Support

The lack of a standard or technical report in this area has had negative impact on supplier products and support. It is anticipated that the net impact from the technical report will be a positive impact.

### 4.3 Techniques and Costs for Conformity Assessment

Conformity for a technical report is not applicable. However X3T13 intends to request that members voluntarily test the validity of the resultant technical report.

### 4.4 Legal Considerations

For at least one anticipated proposal for the technical report Phoenix Technologies Ltd. has indicated that they will make their definitions available without charge for use in developing computer systems and disk drives and that they will release their copyright for the material to be included in the technical report. Beyond that X3T13 will make regular calls for patents in the meetings addressing the technical report.

## 5. Closely Related Standards Activities

### 5.1 Existing Standards

ATA and ATA-2.

### 5.2 X3 Standards Development Projects

ATA-3 and ATA/ATAPI-4.

### 5.3 X3 Study Groups

None.

### 5.4 Other Related Domestic Standards Efforts

None.

### 5.5 ISO/IEC JTC 1 Standards Development Projects

None.

### 5.6 Other Related International Standards Development Projects

None.

5.7 Recommendations for Coordinating Liaison  
None.

5.8 Recommendations for Close Liaison  
X3T10 and IEEE xxxx

D96134R0

Page 3