

X3T10/95-298R0

**Project Proposal
For a New
X3 Technical Report**

**Boot Considerations For Devices
Greater than 8GB**

July 19, 1995

1. IDENTIFICATION OF PROPOSED PROJECT**1.1 TITLE: Boot Considerations for Devices Greater than 8GB****1.2 PROPOSER: X3T10.****1.3 DATE SUBMITTED: July 19, 1995.****1.4 PROJECT TYPE: D - Development of a Technical Report within an X3 TC.****2. JUSTIFICATION OF PROPOSED STANDARD****2.1 NEEDS:**

The traditional personal computer firmware mechanism for accessing files on a hard disk has an intrinsic limit of 8 GB total disk capacity. SCSI disks are now available that exceed 8GB, and similar ATA drives will be available in the near future. There has been considerable confusion over how to deal with this situation. The X3T10 System Issues Study Group has addressed this question and feels that the industry would be well served by a document describing the current limitation and the recommended solution.

2.2 RECOMMENDED SCOPE OF TECHNICAL REPORT:

This project will address hard disk addressing mechanisms on PC/AT compatible computers.

2.3 EXISTING PRACTICE IN AREA OF PROPOSED TECHNICAL REPORT:

The proposed project involves evolutionary expansion of existing BIOS and OS designs for hard disk access.

2.4 EXPECTED STABILITY OF PROPOSED TECHNICAL REPORT WITH RESPECT TO CURRENT AND POTENTIAL TECHNOLOGICAL ADVANCE:

The recommended enhancement to the mechanism for host access to hard disks exceeds the maximum capability of both the ATA and SCSI interfaces as they are defined today. This should support several years of growth in individual disk capacity.

3. DESCRIPTION OF PROPOSED PROJECT:**3.1 TYPE OF DOCUMENT: Technical Report.****3.2 DEFINITION OF CONCEPTS AND SPECIAL TERMS: None.****3.3 EXPECTED RELATIONSHIP WITH APPROVED X3 REFERENCE MODELS:**

This Technical Report is for use in closed systems.

3.4 RECOMMENDED PROGRAM OF WORK:

The following program of work is planned for this Technical Report:

- 1) Draft document to be prepared by Duncan Penman based on discussion at the X3T10 System Issues Study Group meeting of July 12, 1995.
- 2) Review and update draft document at the System Issues Study Group meeting to be held on September 13, 1995.
- 3) Present the draft document to the full X3T10 committee for review.
- 5) Submit the draft proposed Technical Report to X3 for further processing.

3.5 RESOURCES - INDIVIDUALS AND ORGANIZATIONS COMPETENT IN SUBJECT MATTER:

The proposed Technical Report is expected to be less than 10 pages in length. Its content will be drawn from material which is already in existence.

There are sufficient resources to complete the development of this Technical Report without delaying work on other projects of X3T10.

3.6 RECOMMENDED X3 DEVELOPMENT TECHNICAL COMMITTEE:

It is recommended that the development work be done in Technical Committee X3T10 which is responsible for the ATA and SCSI interface standards.

3.7 ANTICIPATED FREQUENCY AND DURATION OF MEETINGS:

Technical Committee X3T10 meets bi-monthly. 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: November 1995**3.9 ESTIMATED USEFUL LIFE OF TECHNICAL REPORT:**

It is anticipated that this Technical Report will have a life of over 5 years.

4. IMPLEMENTATION IMPACTS

4.1 IMPACT ON EXISTING USER PRACTICES AND INVESTMENTS:

The proposed Technical Report will aid in the smooth migration of the industry to larger capacity ATA and SCSI disks.

4.2 IMPACT ON SUPPLIER PRODUCTS AND SUPPORT:

The proposed technical report will aid in the smooth migration of the industry to larger capacity ATA and SCSI disks.

4.3 TECHNIQUES AND COSTS FOR COMPLIANCE VERIFICATION:

Not applicable, as this Technical Report contains recommendations, not requirements.

4.4 LEGAL CONSIDERATIONS:

There are no known legal considerations. A Call for Patents will be made.

5. CLOSELY RELATED STANDARDS ACTIVITIES

5.1 EXISTING STANDARDS: None.

5.2 X3 STANDARDS DEVELOPMENT PROJECTS:

5.3 X3 STUDY GROUPS: X3T10 System Issues Study Group.

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: None.