To: T11.2 Plenary
From: MJS working group
Date: December 10, 1997
Subject: Proposed SD3 for MJS-2 project

Following is a proposal for an SD3 for the MJS-2 project. It is patterned after the SCSI SPI-2 project proposal which is similar in that it extends an existing piece of work.

The working group is expected to review and modify the wording in this document so that it may be submitted to T11.2 for submission to NCITS.

Project Proposal
For a New
NCITS Technical Report

Methodology for Jitter Specification - 2

MJS-2

December 10, 1997

1. IDENTIFICATION OF PROPOSED PROJECT

1.1 TITLE: Methodology for Jitter Specification - 2 (MJS-2)

1.2 PROPOSER: T11.2

1.3 DATE SUBMITTED: December 10, 1997

1.4 PROJECT TYPE: D - Development of a technical report within an NCITS TC.

2. JUSTIFICATION OF PROPOSED TECHNICAL REPORT

2.1 NEEDS:

The Methodologies for Jitter Specification (MJS) has recently been forwarded to T11.2 letter ballot.. There is a continuing need to evolve and enhance Fibre Channel jitter methodologies. The proposed MJS-2 technical report would add a number of new features.

A particular need to be addressed by the MJS-2 project is to develop new methodologies to handle extended data rates above 1.062 Gbaud.

2.2 RECOMMENDED SCOPE OF TECHNICAL REPORT:

The MJS-2 technical report will define the methodologies that will support the physical layer used by the FC Protocol transport layer and the command sets above it, while maintaining a high degree of compatibility with the methodologies in the current MJS technical report.

Candidates for inclusion in the MJS-2 draft technical report are:

1. Extension of MJS-1 methodologies to higher data rates

2. Improved compliance testing methods of FC systems

3. More precise algorithm for extraction of Gaussian jitter components from the total jitter population

4. Enhancements to MJS-1 to include interactions of:

   signal amplitude
   signal/noise
   slew rate
   receiver sensitivity
   component bandwidth
   transmission reflections

5. Jitter accumulation in FC systems

6. Additional methodologies as may be proposed

This proposed technical report is not intended to address areas above the physical level (such as protocol and command sets).

2.3 EXISTING PRACTICE IN AREA OF PROPOSED TECHNICAL REPORT:

The proposed project involves evolutionary expansion of the present MJS technical report.

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

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

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 NCITS REFERENCE MODELS:

The MJS-2 technical report is intended for use in closed systems.

3.4 RECOMMENDED PROGRAM OF WORK:

The following program of work is planned for the MJS-2:

(1)   Solicit continuing participation by the current membership of T11.2 through NCITS procedures. Invite comments and proposals from organizations that may have a contribution to the MJS-2 technical report.
(2)   Prepare a draft proposed technical report based on proposals submitted and other information gathered during the initial investigation.
(3)   Consider the results of MJS-2 testing as may be available to the committee through the voluntary efforts of the T11.2 membership.
(4)   Submit the draft proposed technical report to NCITS for further processing.

3.5 RESOURCES - INDIVIDUALS AND ORGANIZATIONS COMPETENT IN THE SUBJECT MATTER:

The current membership of T11.2 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 T11.2 have expressed their desire to participate and cooperate in the development of this proposed technical report.

There are sufficient resources to complete the development of this technical report without delaying work on other projects.

3.6 RECOMMENDED NCITS DEVELOPMENT TECHNICAL COMMITTEE:

It is recommended that the development work be done in Technical Committee T11.2 which is responsible for developing the family of Fibre Channel standards and technical reports.

3.7 ANTICIPATED FREQUENCY AND DURATION OF MEETINGS:

Technical Committee T11.2 meets 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 NCITS: February 2000.

3.9 ESTIMATED USEFUL LIFE OF TECHNICAL REPORT:

It is anticipated that this technical report will have a life of 5 years.

4. IMPLEMENTATION IMPACTS

4.1 IMPACT ON EXISTING USER PRACTICES AND INVESTMENTS:

The proposed MJS-2 technical report will provide an evolutionary growth path 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 MJS-2 technical report will provide an evolutionary growth path 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 MJS-2 testing as may be available to the committee through the voluntary efforts of the various participants in T11. 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:

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

5. CLOSELY RELATED STANDARDS ACTIVITIES

5.1 EXISTING STANDARDS:

> FC-PH [need exact numbers]
> FC-PH2 [need exact numbers]

5.2 NCITS STA DARDS / technical report DEVELOPMENT PROJECTS:

BSR Number	Title	Project
NCITS.XXXXXX	Methodologies for jitter specification	
NCITS.xxxxxxxxx	FC-PH3	

5.3 NCITS STUDY GROUPS: None.

5.4 OTHER RELATED DOMESTIC STANDARDS EFFORTS: None.

5.5 ISO/IEC JTC 1 STANDARDS / TECHNICAL REPORTS DEVELOPMENT PROJECTS: FC-PH and FC-PH2 are being processed as a NWI at JTC1/SC25/WG4 [NEED TO VERIFY AND ASSIGN APPROPRIATE NUMBERS]. It is anticipated that MJS-2 will be proposed to JTC1/SC25/WG4 [NEED APPROPRIATE NUMBERS].

5.6 OTHER RELATED INTERNATIONAL STANDARDS DEVELOPMENT PROJECTS: None.

5.7 RECOMMENDATIONS FOR COORDINATING LIAISON: None.

5.8 RECOMMENDATIONS FOR CLOSE LIAISON: None.