

## IEEE Project Authorization Request

1. Sponsor Date of Request

August 8, 1996

2. Assigned Project Number

P1394a

3. PAR Approval Date

September 19, 1996

4. Project Title, Copyright Agreement and Working Group Chair

I will write/revise a Standards Publication with the following title:

High Performance Serial Bus (Supplement)<sup>1</sup>

I hereby acknowledge my appointment as Official Reporter/Working Group Chair to the:

High Performance Serial Bus (Supplement) Working Group

In consideration of my appointment and the publication of the Standards Publication identifying me, at my option, as an Official Reporter, I agree to avoid knowingly incorporating in the Standards Publication any copyrighted or proprietary material of another without such other's consent and acknowledge that the Standards Publication shall constitute a "work made for hire" as defined by the Copyright Act, and, that as to any work defined, I agree to and do hereby transfer any right or interest I may have in the copyright to said Standards Publication to the Institute of Electrical and Electronic Engineers, Inc.

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5. Type of Project

Supplement to a Full Use Standard (5-year life cycle)

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<sup>1</sup> The existing standard, IEEE Std 1394-1995, already has the somewhat generic title of Standard for a High Performance Serial Bus. The proposed title for the supplement closely identifies it with the standard to which it relates.

## 6. Scope of Project

The project scope is to write a supplement to IEEE Std 1394-1995 that defines or clarifies features and mechanisms that facilitate management of Serial Bus resources, at reconfiguration or during normal operation, and that defines alternate cables and connectors that may be needed for specialized applications.

The following have been identified for inclusion in the supplement:

- a) Cables and connectors for a 4-pin variant (from the 6-pin already standardized);
- b) Standardization of the PHY/LINK interface, which at present is an informative annex to the existing standard;
- c) A connection management protocol, and the necessary CSR facilities, for isochronous data;
- d) Performance enhancements to the PHY layer that are interoperable with the existing standard, e.g., a method to shorten the arbitration delay when the last observed Serial Bus activity is an acknowledge packet;
- e) An incremental reconfiguration protocol, invoked when a device is connected to or disconnected from Serial Bus, which is designed to limit the circumstances under which a Serial Bus reset is necessary;
- f) A technique for Serial Bus topologies that form a physical loop to be resolved into a logical tree structure (required by the existing standard) without user intervention;
- g) Minor corrigenda to the existing standard.

The preceding are arranged in no particular order.

## 7. Purpose of Project

Experience with Serial Bus has revealed some areas in which additional features or improvements may result in better performance or usability. This project provides a forum for these to be considered by a variety of users, to be further refined into generally useful facilities or features, and added as a supplement to IEEE Std 1394-1995.

## 8. Sponsor Society / Committee

Computer Society / Microprocessor Standards Committee

### 9a. Patented, Copyrighted or Trademarked Material

No patented, copyrighted or trademarked material has been identified that has relevance to the proposed scope of the project. If any such material is identified as standards development work proceeds, it is anticipated that patent, copyright or trademark holders will be file a statement with the working group that indicates their intent with respect to IEEE policy.

### 9b. Other Standards with a Similar Scope

IEEE Std 1394-1995.

### 9c. Intended International Standardization

If IEEE Std 1394-1995 is submitted for international standards approval, it is expected that this proposed supplement would also be forwarded for international standards approval.

### 9d. Health, Safety and Environmental Issues

The proposed project does not address itself to any of these concerns.

## 10a. Mandatory Coordination

IEEE Staff Editorial Review:	Circulation of Drafts
SCC 10 (IEEE Dictionary):	Circulation of Drafts
SCC 14 (Quantities, Units, and Letter Symbols):	Circulation of Drafts

## 10b. Proposed Coordination

IEC TC100 United States National Committee:	Circulation of Drafts
IEEE Registration Authority Committee:	Circulation of Drafts
IEEE P1394.1:	Circulation of Drafts, Common Membership
IEEE P1394.2:	Circulation of Drafts, Common Membership
ISO/IEC JTC1 SC26 United States TAG:	Circulation of Drafts

## 10c. Additional Coordination Requested by Others

## 11. Submitter

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Chair, Microprocessor Standards Committee

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