

IEEE-SA Standards Board Project Authorization Request (PAR) (1999-Rev 1)

1. Sponsor Date of Request [October 1999]
2. Assigned Project Number [P]
3. PAR Approval DATE [] {IEEE Staff to fill in box}
{Copyright release must be received with appropriate signatures
by postal mail or FAX (1-732-562-1571)}
[] PAR Signature Page on File {IEEE Staff to check Box}
4. Project Title and Working Group/Sponsor for this Project
Document type : {Place an X in only one option below}
[X] Standard for {Document stressing the verb "SHALL"}
[] Recommended Practice for {Document stressing the verb "SHOULD"}
[] Guide for {Documents in which good practices are suggested}

TITLE: [High Performance Serial Bus Peer to Peer Data Transfer Protocol]

Name of Working Group(WG) : [P1394 Printer Working Group]

Name of Official Reporter (usually the WG Chair) who MUST be an SA member as well as an IEEE/Affiliate Member: [Gregory A. LeClair]

Title in WG: [CHAIR] IEEE/SA/Affiliate Memb # [41262514]
Company: [EPSON Portland, Inc.] Telephone: [408-576-4145]
Address: [150 River Oaks Parkway, Ste. 200] FAX: [408-474-0511]
City/State/Zip: [San Jose, CA 95134] EMAIL: [greg@erc.epson.com]

Signature of Official Reporter _____ Date _____

Name of WG Chair (if different than Reporter): []

IEEE/Affiliate Memb # [] {Required}

Company: [] Telephone: []
Address: [] FAX: []
City/State/Zip: [] EMAIL: []

Name of Sponsoring Society and Committee: [Microprocessor Standards Committee]

Name of Sponsoring Committee Chair: [David B. Gustavson]

IEEE/SA/Affiliate Member # [07430721] {Required}

Company: [SCIzzL] Telephone: [650-961-0305]
Address: [1946 Fallen Leaf Lane] FAX: [208-475-7525]
City/State/Zip: [Los Altos, CA 94024-7206] EMAIL: [dbg@scizzl.com]

5. Describe this Project by answering each of five questions below:

5a. Update an existing PAR? {Yes/No} [NO]

If YES: Indicated PAR number/approval date []

If YES: Attach cover letter indicating changes/rationale for changes.

If YES: Is this project in ballot now? [] {Yes/No}

5b. Choose one from the following:

b1 -[XX] New Standard

b2 -[] Revision of existing standard {number and year} []

b3 -[] Amendment (Supplement) to existing standard {number and year} []

b4 -[] Corrigenda to existing standard {number and year} []

5c. Choose one from the following:

c1 -[XX] Full Use (5-year life cycle)

c2 -[] Trial Use (2-year cycle)

5d. Choose one from the following:

d1 -[XX] Individual Sponsor Ballot Process

d2 -[] Entity (not Individual) Sponsor Ballot Process

5e. Fill in Target Completion Date to IEEE RevCom [March 2000]

6. Scope of Proposed Project

{what is being done, including technical boundaries on the work}

[

This is a full-use standard whose scope is the definition of a peer-to-peer data transport (PPDT) protocol between Serial Bus devices that implement ANSI NCITS 325-1998, Serial Bus Protocol 2. The facilities specified include, but are not limited to, the following:

a. Device and service discovery.

PPDT devices may use uniform discovery procedures to locate other PPDT devices on the same bus. These procedures are extensible to an interconnected net of buses, when specified by IEEE P1394.1, Draft Standard for Serial Bus to Serial Bus Bridges. Once other PPDT devices are identified, facilities are provided to permit client applications to discover services;

b. Self-configurable (plug and play) binding of device drivers to PPDT devices in a dynamic environment where users are free to insert and remove devices at will; and

c. Connection management. A PPDT device (either an SBP-2 initiator or target) may establish and manage uni- or bi-directional connections for data transfer with other PPDT devices. The connections may be blocking or nonblocking, dependent upon application requirements, and operate independently of each other.

Although the original impetus for the development of this standard came from participants knowledgeable about printers and printing, the work evolved and became relevant to any application that requires efficient, peer-to-peer transport of data between devices.

] {This should be brief (less than 5 lines recommended)}

7. Purpose of Proposed Project:

{why it is being done, including intended users, and benefits to users}

[

Experience with SBP-2 has demonstrated its high efficiency for the confirmed transport of large quantities of data between two devices. For historical reasons, SBP-2 is tailored to an environment where one device is the initiator (client) and the other the target (server); this is not necessarily the most natural approach when client applications and their associated servers may be located within initiator, target or both.

This standard creates a new layer of protocol services based upon SBP-2 but that provides building blocks more suited to a peer-to-peer environment. Because SBP-2 is already widely implemented in operating systems, this standard leverages that effort in order to enhance the value of Serial Bus to devices in a wider range of operational circumstances. These include printers, facsimile devices, scanners (or multifunction devices that present some combination of these functions) when a computer is present, but, it is also intended to address the peer-to-peer needs of devices to communicate with each other in the absence of a computer.

] {This should be brief (less than 5 lines recommended)}

8. Intellectual Property {Answer each of the questions below}

8a. Are you aware of any patents relevant to this project?

[NO] {Yes, with detailed explanation below/ No}

[] {Explanation}

8b. Are you aware of any copyrights relevant to this project?

[NO] {Yes, with detailed explanation below/ No}
[] {Explanation}

8c. Are you aware of any trademarks relevant to this project?

[NO] {Yes, with explanation below/ No}
[] {Explanation}

8d. Are you aware of any registration of objects or numbers relevant to this project?

[YES] {Yes, with explanation below/ No}

Protocol will use an IEEE Organizational Unique Identifier within the Configuration ROM definition.

9. Are you aware of other standards or projects with a similar scope?

[NO] {Yes, with explanation below/ No}
[] {Explanation}

10. International Harmonization

Is this standard planned for adoption by another international organization?

[??] {Yes/No/?? if you don't know at this time}

If Yes: Which International Organization []

If Yes: Include coordination in question 13 below

If No: Explanation []

11. Is this project intended to focus on health, safety or environmental issues?

[NO] {Yes/No/?? if you don't know at this time}

If Yes: Explanation? []

12. Proposed Coordination/Recommended Method of Coordination

12a. Mandatory Coordination

SCC 10 (IEEE Dictionary) by DR

IEEE Staff Editorial Review by DR

SCC 14 (Quantities, Units and Letter symbols) by DR

12b. Coordination requested by Sponsor and Method:

[] by [] {circulation of DRafts/LIaison memb/COmmon memb}

[] by [] {circulation of DRafts/LIaison memb/COmmon memb}

[] by [] {circulation of DRafts/LIaison memb/COmmon memb}

[] by [] {circulation of DRafts/LIaison memb/COmmon memb}

{Choose DR or LI or CO for each coordination request}

12c. Coordination Requested by Others:

[] {added by staff}

13. Additional Explanation Notes: {Item Number and Explanation}

[Uses ANSI NCITS 325-1998, Serial Bus Protocol 2 Standard]

{If necessary, these can be continued on additional pages}