

Farance Inc.

WG14/N341

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ABSTRACT

This document proposes procedures, tools, and methods for maintain electronic documents with the X3J11 committee. This is the first draft of the document.

1. RATIONALE FOR ELECTRONIC DOCUMENTS

Electronic documents have several advantages over paper document:

- Easier to edit.
- Easier to copy.
- Easier to distribute (via, say, Internet).
- Easier to search.
- Easier to merge.
- Easier to compare.
- Easier to index.

The primary reasons for not using electronic documents previously were:

- Procedures haven't been established.
- Standards hadn't been developed.
- Electronic communication wasn't as connected or widespread.
- The existing paper method was working, so why fix it?

As X3J11's work has grown over the years, the number of people involved has grown and the distance between organizations has grown. Rather than 20-30 companies meeting solely within the United States, there are now over 100 organizations worldwide. While paper is still the common media for communication, electronic communication, as evidenced by the use of the X3J11 and WG14 reflectors, is grown substantially.

Electronic documents facilitate faster, cheaper distribution. Along with distribution, the recipient can quickly edit and/or respond because original text is available in machine readable form. This use of distribution, response, correction, editing, has

been most successfully with short messages sent via E-mail to the X3J11 or WG14 E-mail reflectors. The paper proposes to expand this capability to standing and transient documents within X3J11.

2. EXISTING FACILITIES

2.1 Existing Standards

The following are standards that define format and interchange protocols.

- ISO 8879, *Information processing — Text and office systems — Standard Generalized Markup Language (SGML)*.
- ISO 9069, *Information processing — SGML support facilities — SGML Document Interchange Format (SDIF)*.
- ISO/IEC TR 9573, *Information processing — SGML support facilities — Techniques for using SGML*.

The SGML standard is very similar to the formatters NROFF/TROFF, TEX, RUNOFF, TBL, EQN, BOOKMASTER.

2.2 Current Products

The Adobe company has several products out that perform some SGML translation, viewing, and printing. I am evaluating these products and will report back at the next X3J11 meeting.

There are SGML tools available on the Internet. Although these tools require compilation and linking, I will be making executables and source code available on the X3J11 FTP site. These tools are under evaluation now.

Both Microsoft and WordPerfect have announced forthcoming SGML compatibility in their word processors. I don't think it is available now, but maybe sometime this year (?).

2.3 Work In Progress

I have been in touch with the X3 Ad Hoc Mechanization committee, chaired by Karen Higgenbottom of Apple. This committee is interesting in setting procedures and standards within X3. I plan on maintaining contact with this group and maintaining consistency with whatever they propose. Likewise, there are interested in what we are doing too.

3. PROPOSED METHODS

Overall, the goal is to move towards an SGML-based document description. It would be inappropriate to require *all* incoming and outgoing documents and correspondence to conform to these methods because: (1) it might create an expensive bottleneck, (2) the overhead would be excessive for short messages (e.g., E-mail). The best compromise is to take the bulk of standing documents and many (new) technical papers and convert them **in parallel** with their submission and circulation. Working in

parallel has the advantage of not interfering with the existing work process.

3.1 Document Format

Most X3J11 documents are standing documents (the same document with many revisions) or transient documents (new, unrelated papers).

3.1.1 Standing Documents

Each standing document has a well-defined style, as dictated by ISO/ANSI conventions and the technical content. In fact, the SGML documents have standard representations for much of our document format (clause, subclause, footnote, paragraph, table, figure, etc.).

3.1.1.1 Language Standard

The existing C Language Standard is in NROFF/TROFF format. This format is easily converted to SGML format.

3.1.1.2 Rationale

The existing Rationale is in TEX format. This format is easily converted to SGML format.

3.1.1.3 Record of Response

This document is in Ventura Publisher format. This appears to be convertible with minimal effort but this has not yet been attempted. Conversion will be attempted by 1994-06-01.

3.1.1.4 Technical Corrigendum

This document is in Ventura Publisher format. This appears to be convertible with minimal effort but this has not yet been attempted. Conversion will be attempted by 1994-06-01.

3.1.2 Transient Documents

Transient documents vary in style and format. These type of documents require the most work. Typically, there are no style guides (or requirements) for these documents. Furthermore, authors use a wide variety of incompatible tools (e.g., WordPerfect, Microsoft Word, TEX, NROFF/TROFF, etc.) for formatting their documents.

3.1.2.1 Correspondence

Initially, no correspondence will be converted to SGML format. Authors may choose to use SGML format if they desire. The publicly available tools, templates, and assistance would be able to guide them.

3.1.2.2 Technical Papers

Most technical papers are prepared with some word processor or text processor. For authors that make a machine readable form available, these papers will be converted. After I get some more experience with conversion of technical papers, I should be able to make good estimates on how long it will take to turn around a converted document (maybe one day to a week?). At that point, authors might elect to send the document out for conversion, prior to submission to X3J11, or choose to use SGML themselves if they feel comfortable with it (reminder: the goal of this process is to facilitate document interchange, not to cramp or constrain anyone's style or presentation format).

For papers that have no machine readable form available, no attempt will be made to convert them.

3.1.3 Archived Documents

All documents will be stored on X3J11 FTP site `ftp.dmk.com`. For each document, the following documents will be available:

- The original document in its machine-readable format.
- The document converted to SGML.
- The PostScript output of the formatter.
- The HPGL output of the formatter.
- A text-only rendition of the output.

3.2 Document Flow

The following is an outline of the flow of X3J11 documents. It is in the best interest of the committee not to change the existing flow, but to "bolt-on" any changes on the side. All participation should be voluntary.

3.2.1 Document Creation

Currently, authors create their documents using their own word processor or text processor. Authors would have the following choices:

1. Don't participate at all. Just send the paper copy to X3J11.
2. Send the paper copy to X3J11, but send the machine readable for conversion to SGML.
3. Send the machine readable for conversion to SGML. Then submit the converted document to X3J11.
4. Use the public templates and tools for creation of the SGML document.
5. Don't use the templates, but use the tools for creation of the SGML document.

3.2.2 Public Templates

Templates will be available for:

1. Standing documents (standard, rationale, RR, TC).
2. Transient documents (technical paper, memo, correspondence, agenda).

Authors may choose to contribute additional templates.

3.2.3 Public Tools

The following tools will be available:

1. Tools developed from public domain source code.
2. Tools developed within X3J11.

The following tools will **not** be available:

1. Licensed tools.
2. Tools developed from proprietary sources.

3.2.4 Publishing Assistance

I will provide assistance to those who need help with tools, template, organization, and other publishing issues. I don't plan on helping with editing, composing, and so on.

3.2.5 Document Registration

Bill Plauger will still be the person to contact for document numbers and document registration. There is no need to change this procedure.

3.2.6 Document Submission

Documents will be submitted, as usual, to Bill Plauger. The electronic documents will be made available, separately on the X3J11 FTP site.

3.2.7 Document Archives

Currently, the archived documents are available via anonymous FTP. In the future, they may be available via E-mail request.

3.2.8 Document Catalogue

A document catalogue and keyword index system will be maintained so that users can locate a document.

4. SCHEDULE

I expect the following tasks to be completed:

- 1994-06-01: Evaluation of SGML tools complete.
- 1994-07-15: RC and TC converted to SGML format. Templates published.

- 1994-08-15: Technical papers converted from the pre/post San Jose and pre/post Tokyo mailings. NOTE: Only those papers with machine readable available.
- 1994-12-01: Conversion of C Standard to SGML format.