
Minutes of X3J14 Meeting #6

*ANS Forth Technical Committee
October 26-29, 1988, Greenbelt, Maryland
Doc. no: X3J14/88-021A*

Call to Order

Ms Rather welcomed the X3J14 Technical Committee and introduced new members Martin Lacelles (IBM, Colorado), principle; R. J. Brown (Elijah Laboratories), principle; Gregory Ilg, principle; and Bob Davis (Naval Surface Warfare Center), observer. Mr. John Hayes and Mr. Martin Freeman, both from John Hopkins University, were later welcomed. George Shaw (Shaw Laboratories) and Steven Egbert (CDI Corporation) are now voting members.

Ms Rather thanked Mr. Rash, Mike Nemeth and Dr. Dorband for hosting this meeting. There were 14 voting members at this meeting. The attendance list for this meeting is document X3J14/88-022.

The minutes of X3J14 Meeting #5 were amended to direct Mr. Dickens to respond to TP-124. The amended minutes were approved by voice vote. Mr. Bailey requested to add to the agenda a discussion on the rationale section of BASIS. The amended agenda was approved by voice vote.

Action Item Review of Meeting #5

1. Deferred until the ISO report (see below).
2. Deferred until the ISO report.
3. Dr. Dorband agreed to be the ISO representative and attended the SC22 September meeting.
4. Deferred until the ISO report.
5. D0LOOP was implemented by Mr. Smith, Mr. Shaw, and Mr. Duncan.
6. The next four meetings will be January 25-28 (Mr. Duncan, host), May 3-6 (Mr. Colburn, host), July 26-29 (Mr. Shaw, host), and October 25-28 (Mr. Petty, host). Mr. Colburn noted that CBEMA is closed on Saturdays.
7. The 1's complement report was distributed at the end of the last meeting.
8. Mr. Baden solicited YET and THENCE comments at the L.A. and O.C. FIG meetings.
9. Mr. Rash has received feedback on the systems concepts section only from Mr. Braithwaite.
10. Mr. Dickens says we *may* publish through CBEMA.
11. Deferred until the Documentation Committee report.
12. Mr. Nemeth will chair the research committee, although he can attend only every other meeting.
13. Deferred until the ISO report.
14. Library copies of BASIS are filed at FORTH, Inc.
15. Mr. Dickens has purchased a readability index program.

It is not known if Mr. Baden has responded to the completed proposals assigned to him. Mr. Sanderson has not.

Mr. Dickens has received a letter from Mr. Mostafa, who does not think we understand his proposals.

Documentation Subcommittee Report

A motion to adopt BASIS-5 as the working document passed 15/0/0.

Mr. Dickens reported that the BASIS can take any form we need, since no standard has been accepted by ISO. The COBOL standard has functional divisions, each with its own documentation. Factoring BASIS into divisions might solve some of our problems.

There was discussion on how TC members might supply rationale for proposals to the Documentation committee.

Mr. Bailey moved that when the TC adopts a proposal it also determines whether a rationale is necessary and assigns responsibility for writing it. Direct conflicts, new words, additional word sets, and so on, would require a rationale. The rationale would be an appendix, that is, it would be distributed with the standard, but would not be part of it. All proposals approved at this point will be reexamined to see if they require a rationale. The motion passed 12/0/2.

Any TC member can add a rationale to the BASIS, which will appear in a double-lined box, along with the member's initials. It was suggested that TC members submitting a proposal should identify the rationale, or else note that none is needed. A motion that rationales be introduced at the beginning of the BASIS passed by voice vote.

We have identified two basic reader communities:

Implementors, developing conforming implementations

Programmers, developing conforming programs.

There are two unique needs within each group. The Standard may be used as a reference document, to look up a specific datum. It may also be used by people who are familiar with other languages but have no knowledge of Forth; they should be able to get a very good sense of Forth by reading the Standard. Mr. Dickens intends the BASIS to be structured so that you can read it from the front and understand Forth. We may possibly see BASIS in this form by the next meeting, complete with Table of Contents and index.

The Flesch Readability Index of the last few BASIS documents were as follows:

BASIS-4	54
BASIS-4N	56
BASIS-5	58

This shows a gradual improvement. In the opinion of Mr. Dickens, however, the readability programs are not suited for a reference document such as the BASIS due to its glossary structure and the large number of technical references (such as Forth words).

Research Subcommittee

The Research committee currently consists of Mr. Shaw, Mr. Rash, and Mr. Nemeth, chair. Mr. Nemeth promised that research committee survey results would be available at all meetings.

Mr. Dickens observed that the mandate of the Research committee was to identify and codify existing practice and resolve conflicts in existing practice. Mr. Colburn suggested we start with ourselves by identifying where some of the vendors present differ from Forth-83. Mr. Nemeth moved that common usage be defined by vendor usage. Mr. Bailey moved to commit Mr. Nemeth's motion to a group made of Mr. Bailey, Mr. Nemeth, and Mr. Colburn, to be called the "Committee on Common Practice." Passed 13/0/0.

Mr. Colburn moved that we establish a category of proposals which we send out for field trials, and which are tabled pending the results of the field trials, and which have a termination

date. This was followed by discussion on the mechanism of field trials. Some members were concerned that public field trials would be misunderstood as adopted proposals, even if properly identified. It was generally agreed that publishing in the press would be too slow to achieve results by the next meeting.

Mr. Sanderson amended that field trials be treated as surveys, with an essay response, and that they be sent to a specific mailing list, determined by the Research committee.

Mr. Nemeth amended further that the mailing list include the proposal submitters. Ms Rather suggested the Forth Vendors Group mailing list as modified by Mr. Kelley.

The amended proposal passed 11/2/0.

Technical Subcommittee Report

Mr. Bailey reported that there were 49 proposals ready for action: 19 brand new, 25 exhumable, and 18 more just submitted at the beginning of the meeting.

GENIE activity is still low. It was suggested that we use GENIE to post field trials and solicit reviewers. We will continue to post draft minutes and technical proposal logs there. We will also post a notice on the availability of the BASIS and where to send new proposals, followed by the names and addresses of TC members, with the exception of Mr. Dickens and Mr. Colburn. Ms Rather suggested that we might also post the boilerplate BASIS with comments as a text file.

Mr. Dickens moved that we retire the MCI official bulletin board. Passed 13/0/0.

ISO Report

Dr. Dorband reported that to have an ISO working group, 5 countries must commit to it. The US would be the primary developer. At the next TAG meeting (Tokyo, Japan), they will ask if other countries have heard of Forth. They will also send out a letter of involvement. Only 30 countries or so are involved in TAG.

Dr. Dorband outlined the methods of ISO standards approval. He suggested we try for a "fast track," which is for the approval of languages which do not have a world-wide representation. In this case, the US would go first and the rest of the world follow. It takes a year or so to even get the process going. The US TAG group meets once a year. The International group meets officially every other year. They address a lot of languages.

Mr. Bailey moved to encourage all TC members to establish international contacts and to encourage them to get involved in our proposal process. A great deal of discussion followed. It was generally agreed that the fast track method seemed the most suitable, and Mr. Dickens cautioned the TC not to mention ISO internationally at this time. Mr. Bailey's motion was amended but failed 6/6/1.

Mr. Dickens then moved that we continue the ISO process and apply for the fast track when appropriate. Ms Rather reminded us that the ISO representative is a required TC position, elected by the SMC. The motion was amended to to exclude any reference to fast track. The amended motion passed 13/0/0.

Other Business

Ms Rather called X3 for clarification on a voting issue. She reported that they were mostly concerned that an *organization* not have several votes. Evidently, an individual can have as many votes as organizational sponsors. Each organization must confirm in writing to the SMC that they are aware of the dual role. This requires approval by the SMC. There are absolutely no proxy votes. The relationship of the individual to the organization must be long-term. Individuals are not entitled to an alternate.

Ms Rather urged members to vote yes or no on TC issues, instead of abstaining, whenever possible. According to SD-2, abstentions are not permitted in TCs and TGs "on any technical issues or on the decision to forward a document." It is unclear whether this means that we may

not abstain on a vote to adopt a proposal, even when a member is unfamiliar with some of the technical issues. Ms Rather has written for clarification on this point.

Ms Rather reviewed all stages remaining to the approval of an ANS Forth standard. In her annual report, she will update our dpANS expected date. Originally, the dpANS was scheduled for Fall 1988. "Things to do in order to have a dpANS" were discussed and controversial issues were identified.

The steps remaining to dpANS are projected to be as follows:

Year	Meeting(s)	Action
1989	Winter, Summer	Continue evaluating technical proposals.
1989	Fall	Begin final BASIS cleanup.
1990	Winter	Finish BASIS cleanup and produce dpANS.
1990	Spring	dpANS goes to SPARC.
1990	Summer-Fall	dpANS goes to X3.
1991	Winter, Spring	dpANS out for public review.
1991	Summer	final X3 approval.

Action on Technical Proposals

TP#	Name	Status
TP-023	Delete system extensions.	withdrawn by author.
TP-025	MAYBE	failed 0/12/0. TD letter.
TP-037	DO...LOOP construct.	failed 0/12/0. WB letter.
TP-050	Affirmative action.	withdrawn by author.
TP-051	Remove binary definitions.	withdrawn by author.
TP-052	?DO	passed 12/1/0. TD rationale.
TP-058A	#TIB	failed 0/12/1.
TP-125	Portable addressing.	failed 0/15/0. DS letter.
TP-143	CHAR	failed 3/9/3.
TP-148	Modify file access words.	failed 0/11/4.
TP-161	Avoiding unnecessary trouble.	passed 12/0/0.
TP-166	File access word names.	tabled 8/5/0.
TP-169	User values.	withdrawn by author.
TP-170A	Eliminate +n's.	passed 15/0/0. TD rationale.
TP-172	TEXT	failed 1/13/1.
TP-173A	Single to Double conversion.	passed 15/0/0. RD rationale.
TP-174A	Floating point conversion.	passed 12/0/0.
TP-175	Double Number storage.	withdrawn by author.
TP-179	CONCORDANCE	withdrawn by author.
TP-180	Address unit clarification.	passed 11/0/1.
TP-181A	Force issue on ASCII-Pro.	passed 12/0/0. TD rationale.
TP-183	Banish troubles.	passed ??/?/?.
TP-184A	Housekeeping.	passed 12/0/0.
TP-185	Repair 2@ and 2!	passed 12/0/0.
TP-186	CMOVE realities.	withdrawn by author.
TP-187	Simplify FIND	passed 12/0/0.
TP-188	Finis to END	passed 12/0/0. GB rationale.
TP-191A	Controlled Reference layers.	passed 12/1/0. AK rationale.
TP-192A	Rationale notes.	passed 13/0/0. DC letter.

TP#	Name	Status
TP-194b	String buffers cleanup 1.	postponed.
TP-194c	String buffers cleanup 2.	failed 0/12/1. GS letter.
TP-197	CMOVE realities II.	failed 0/12/1. DC letter.
TP-198	Word name pronunciations.	failed 0/9/4. DC letter.
TP-200A	Input to # and #S	passed 13/0/0. DC letter.
TP-201a	Example of a data type 1.	failed 0/7/6. DC letter.
TP-201b	Example of a data type 2.	failed 0/12/1. TD letter.
TP-205	Double mixed arithmetic.	failed 0/12/1.
TP-206	Change DOES> to DOES	failed 1/11/1. TD epitaph.
TP-207	Change EVAL to EVALUATE	passed 11/2/0. GBA letter & rationale.
TP-208	BLOCK size.	failed 0/8/5.
TP-210A	Globals and Locals.	field trials 12/0/1. Packet by DC.
TP-212A	Eliminate SYSTEM word set.	passed 10/1/2.
TP-213A	Demote PAD	passed 12/1/0. ER rationale.
TP-214A	Delete unneeded tests.	passed 9/4/0. MT letter.
TP-216A	Variables.	passed 12/0/1.
TP-217A	Remove implementation ...	passed 12/0/1.
TP-219A	Delete "screens."	passed 12/0/1. ER rationale.
TP-220	MOVE	passed 12/0/1. GS rationale.
TP-221A	All the right moves.	passed 13/0/0. GS rationale.
TP-226	Eliminate problems ... EXPECT	postponed.
TP-227	User values II.	passed 13/0/0.
TP-228	: and ; and ;CODE ...	passed 13/0/0.
TP-229	... data in counted strings.	passed 11/0/2.
TP-230	Accessing system data.	passed 13/0/0.
TP-231	Correct ... <#	passed 9/0/4.
TP-232	Parameter field definition.	passed 13/0/0.
TP-233	Post proposals for BASIS-5	passed 13/0/0.
TP-234	Remove unused concept: fatal errors.	passed 13/0/0.
TP-235	Definition of dictionary.	passed 13/0/0.
TP-236	Relax ... double numbers.	passed 12/1/0.
TP-237A	Relax ... double numbers II.	passed 13/0/0.
TP-239	Deferred compilation.	field trials 12/0/1. Packet by GB and DS.
TP-240A	... file positioning.	passed 8/2/3.
TP-241	Minor cleanups ...	passed 13/0/0.
TP-242A	Require DUMP	passed 11/1/1.
TP-243	Discard unnecessary words.	passed 13/0/0.
TP-245A	Eliminate 1+, 1-, 2+, 2-	passed 10/2/1.
TP-246	Make RECURSE required.	passed 13/0/0.
TC-004	SHORTCUTS?	AK letter.
TC-005	was TP-026.	
TC-006	was TC-200. Typesetting ...	TD letter.
TC-007	was TC-201. Proposal notation.	TD letter.
TC-008	was TC-204. Stack protocol ...	

Technical Proposal Notes

1. TP-028 Definition of Division. Restore inadvertant deletion.
2. Rationales must be mailed to Mr. Dickens within one week. Or send them to him on Comuserve, 76-701,272.
3. Regarding the list of issues to be resolved for a final basis, people volunteered to accept responsibility for preparing proposals on each issue, according to the table below. Issues are ranked in ascending priority order, the priority being based upon the number of members expressing concern about the issue.

Priority	Topic	Assignees
1	, , C, (cell alignment)	Martin
1	Concepts section	Jim
1	Deletion of PICK and ROLL	Action pending
1	Eliminate [ASCII]	Don
1	Implications of one's complement machines	Greg
1	Mixed data type operations	Greg
1	ROMability	Martin & Ray
2	[COMPILE], COMPILE and IMMEDIATE	Action pending
2	Bit mask operations	Greg & Ted
2	Clarification of file/block access	George
2	Data types	Ted & Greg
2	Address spaces	Martin & Ray
3	Definition of terms	All
3	Generalization of compilation	Action pending
3	Mixed arithmetic	Elizabeth
3	Multitasking impact	Andy
4	Expanded character sets	Ted
4	Global variables	Action pending
4	Input stream	Martin
4	Local variables	Action pending
4	Organization of BASIS	Deferred
4	Rationale section	Deferred
5	Byte/character relationships	Ted
5	Flow of control	Wil
5	Numbers & number conversion	Bob
5	Vocabularies	Elizabeth & George
6	Error handling	Andy
6	Floating point numbers (I/O)	Ray
6	Organization of word sets	Ted
6	Unsigned division for modulo operations	Bob
7	String operations	George
8	EVAL and consequences for the input stream	Martin

Action Items

New action items are listed below:

1. Mr. Dickens will ask Mr. Cramer to respond to TC-124.
2. Mr. Colburn needs proposals from last meeting. 101-110, 119, 121-126.
3. Mr. Nemeth will prepare a solicitation asking for volunteers for field trials.
4. Ms Rather will send this solicitation to the FVG and other mailing lists.
5. Mr. Tracy will post draft minutes and proposal log on GENIE.
6. Mr. Nemeth will ask Gary Smith to move minutes and proposal log from GENIE to ECFB. He will also post a notice that the BASIS is available for \$5 and that new proposals should be mailed to the TC.
7. Mr. Tracy will verify that we send the appropriate disclaimer when we send out BASIS.
8. Ms Rather will determine the BASIS mailing cost when sent to foreign countries.
9. Dr. Dorband will write a letter to the SMC volunteering for ISO representative.
10. Mr. Tracy will add the status "individual" to the attendance list.
11. Mr. Tracy will remove the revised BASIS comment from TP-053, and TP-054.
12. Ms Rather will send Mr. Colburn, and any others who request, official stationery in machine-readable form.
13. Mr. Tracy will send Mr. Colburn copies of proposals 101-110, 119, and 121-126; Mr. Keene proposals 240-248, and Mr. Ragsdale 192-268.
14. Members who have volunteered to tackle controversies will submit proposals on their topics by the next meeting.

Next Meeting

The next meeting will be on January 25-28, 1989, in Los Angeles. Mr. Duncan will be the host.

Mr. Duncan suggested that we meet Thursday through Sunday, but the consensus was to continue meeting Wednesday through Saturday.

Adjournment

The sixth meeting of the X3J14 ANS Forth Technical Committee was adjourned at 7:00 P.M., on Saturday, October 29, 1988.

Submitted by: Martin Tracy, Secretary