From: Matthew Deane [mdeane@ANSI.org]
Sent: Monday, April 29, 2002 11:37 AM

Subject: (SC22docs.1437) SC 22 N 3393 - Summary of Voting on SC 22 N3356, Letter Ballot on the New Work Item Proposal for a Type 2 Technical Report on Specification for Additional Character Data Types to the Programming Language C

ISO/IEC JTC 1/SC22
Programming languages, their environments and system software interfaces
Secretariat: U.S.A. (ANSI)

ISO/IEC JTC 1/SC22 N3393

TITLE:
Summary of Voting on SC 22 N3356, Letter Ballot on the New Work Item
Proposal for a Type 2 Technical Report on Specification for Additional
Character Data Types to the Programming Language C

DATE ASSIGNED: 2002-04-29

SOURCE: SC 22 Secretariat

BACKWARD POINTER: N/A

DOCUMENT TYPE: Summary of Voting

PROJECT NUMBER: 1.22.20.01

STATUS:
Per the results of this ballot, and as no comments were received during the JTC
1 review period (JTC 1 N 6644), the NWIP has been approved and this project has
been added to the SC 22 Programme of Work. SC 22/WG 14 is instructed to begin
working on this project, taking into account the national body comments
received. Please note that this project has been assigned the ISO/IEC
designation "19769". The summary of voting is located at:
http://www.dkuug.dk/jtc1/sc22/def/n3393.pdf

ACTION IDENTIFIER: ACT

DUE DATE:

DISTRIBUTION: PDF; DISTRIBUTION FORM: Def

CROSS REFERENCE: SC 22 N3356

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Voting Summary on JTC 1/SC 22 N 3356 – Letter Ballot on the New Work Item Proposal for a Type 2 Technical Report on Specification for Additional Character Data Types to the Programming Language C

P-Member	Q.1	Q.2	Q.3	Q.4	Q.5	Q.6	Comments
Austria							
Belgium							
Brazil							
Canada	YES	YES	YES/C	NO	NO	NO	Raymond Mak rmak@ca.ibm.com
China							
Czech Republic	YES	YES	NO	NO	NO	NO	
Denmark	YES	YES	YES/C	NO	NO	NO	Jan Kristoffersen jkristof@ramtex.dk
Egypt							
Finland	YES	YES	NO	NO	NO	NO	
France							Abstain
Germany	YES	YES	YES	YES/C	NO	NO	Mr. Nobuyoshi Mori nobuyoshi.mori@sap.com
Ireland	YES	YES	NO	NO	NO	NO	
Japan	NO/C	NO	NO	NO	NO	NO	See Attached
DPR of Korea							
Republic of Korea	YES	YES	NO	NO	NO	NO	
Netherlands	YES	YES	YES/C	NO	NO	NO	Mr. W.F. Wakker willemw@ace.nl
Norway	NO/C	NO/C	NO/C	NO	NO	NO	See Attached
Romania							
Russian Federation							
Slovenia							
Switzerland							Abstain
Ukraine							
United Kingdom	YES	YES	YES	NO	NO	NO	
United States	YES	YES	YES/C	NO	NO	NO	Randy Meyers rmeyers@ix.netcom.com

Japan

1) No PROJECT ACCEPTANCE CRITERIA
Because JTC1 N6644 has no descriptions in PROJECT ACCEPTANCE CRITERIA, it is not able to judge a necessity and a validity of the ballot. Therefore Japan thinks JTC1 N6644 is not a valid NWI proposal.

2) Is the proposed issue the real problem?

This NWI proposal says that some "problems" regarding the character data types exists in the current Standard C(see below).

The C Standard requires that the type wchar_t be capable of representing any character in the current locale. However, a minimum width is not guaranteed. On the other hand, the width of wchar_t may be large, implying excessive memory requirements for application programs. In multi-user environments, as well as on mobile devices, memory is limited. Additional memory overhead means that cache limits will be exceeded more often and paging will occur more frequently.

Using wchar_t, the portability of programs is limited since the width is platform dependent.

   However, Japan believes that there is no consensus among SC22 and WG14 committee whether or not the above issues are general problems for users and implementers of C language.

   Japan believes that it is necessary to discuss if the proposed issue is the real and general problem for users and implementers before this ballot. That is, Japan believes that it is too early to conclude to make a TYPE II TR of the specification of new data type for characters which is intended to be incorporated into the normative part of the Standard C in the future.

3) Is the proposed idea the appropriate approach?

  Even if SC22/WG14 recognized that the issue described above is the real problem to be solved, there is no consensus that the proposed idea (an introduction of a new data type for character with fixed length 16-bits) is a reasonable solution.

  Japan believes that it is necessary to discuss what is the most appropriate solution before the ballot which proposes a new data type.

4) No proposed specification

  This NWI is proposing only the idea to introduce the fixed length character data type without any specification for it. Japan believes that the information provided in this ballot is too few to vote to make a type II TR..

5) Proposed new data type will be burden

   Mandatory new data types with fixed 16-bits length for characters must be burden to a implementation which does not need such an extra data type. Therefore Japan does not agree with the proposal of introducing the new character data type for every implementation.

5) Library functions must be discussed

   This NWI does not have a proposal of library functions which process new data types. Japan strongly believes new character data types lacking a necessary and enough set of library functions must introduce a big confusion which is caused by many varieties of library and API for new character data types.   New character data types and library functions for them must be proposed simultaneously. Therefore Japan can not agree with a proposal without library functions.

Norway

Q.1

Comments: We are in general positive towards the NP, but we think the current proposal is not sufficient as it stands. We request the following additions and clarifications to be made:

NOR.1: We support that UTF-16 should be supported by IS 9899 in a portable way.

NOR.2: We also support that a number of other character encodings should be supported, in a portable way. This could be done in the way that is currently done for the gettext() system. It is important that this be a general encoding support, and not restricted to IS 10646 encodings.

NOR.3: The character set portion of the cultural conventions registry, IS 15897 should be amongst the specifications for encodings that can be supported in a portable way.

NOR.4: It should be possible to create character constants in different encodings.

NOR.5: It should be possible to indicate whether a string is really a constant, or something that is intended for translation.

NOR.6: WG20 should be consulted as a liaison.

Q.2
This will be reversed to a "yes" given that adequate modification as requested in Q.1 be done.

Q.3
This will be reversed to a "yes" given that adequate modification as requested in Q.1 be done.