

ISO
INTERNATIONAL ORGANIZATION FOR STANDARDIZATION
ORGANISATION INTERNATIONALE DE NORMALISATION
ISO/IEC JTC 1/SC 2/WG 2

**Universal Multiple-Octet Coded Character Set
(UCS)**

ISO/IEC JTC 1/SC 2/WG 2 *N 1117*

Date: 1994-10-31

Title:	Unconfirmed Minutes of ISO/IEC JTC 1/SC 2/WG 2 Meeting 26 Tuscan Inn - Fisherman's Wharf, San Francisco, CA, USA; 1994-10-10 through 14
Source:	V.S. UMAmaheswaran, Meeting Secretary; Mike Ksar, Convener
Action:	WG 2 Members and Member Bodies
Distribution:	ISO/IEC JTC 1/SC 2/WG 2 Members, ISO/IEC JTC 1/SC 2

1. Opening and roll call

1.1 Opening

The convener Mr. Mike Ksar opened the meeting at 9:20h. He welcomed the delegates to San Francisco and thanked the Unicode Consortium for hosting the meeting. The target to close the meeting was set for Friday noon.

Mr. Bill English, on behalf of the Unicode Consortium, informed the delegates that a dinner has been arranged for Thursday evening at the Spinnaker, Sausalito, and explained the logistics. Fax Number for the meeting hotel should be +1 415 561-1199, instead of the number on the meeting notice.

The convener informed of the availability of a set of documents received after the last mailing. Any new documents should be given to the convener to assign a number and make sufficient number of copies for the meeting.

Meeting objective (from N 1041 - Meeting Notice):

The objective of this meeting is to start working on some of the repertoire issues based on the initial ballot results on UTF-16, which has been mailed recently to SC 2 members.

1.2. Roll call

Input Document(s):
N 1051 WG2 Mailing List; 1994-08-03

The attendance list was circulated - all delegates were requested to mark any corrections to the mailing list of WG 2 distributed before the meeting. New attendees were requested to give full information - address, affiliation, telephone and fax numbers and e-mail address where available. Thirty three (36) delegates representing sixteen (16) member bodies, four (4) liaison organizations and three (3) observers were present. Vietnam member body was attending the WG 2 for the first time. The attendance list, sorted by the country of the member body is given below:

NAME	MEMBER BODY	AFFILIATION
V.S. Umamaheswaran	Canada; Meeting Secretary	IBM Canada
Hu Wanjin	China	Beijing Stone Group Corp.
Wang Xiao Ming	China	Center of Computer and Microelectronics Industry Development Research
Li Yunqin	China	China Standards Institute
Qu Li Jun	China	Lang Chao Group Corp.
Keld Simonsen	Denmark	Dknet
Sven Thygesen	Denmark	Kommunedata
Alaa Ghoneim	Egypt	IBM Egypt
Joachim Friemelt	Germany	Consultant
Evangelos Melagrakis	Greece	ELOT
George-Basil Tzortzinis	Greece	OTE S.A.
Michael Everson	Ireland	Everson Gunn Teoranta
Stefan Fuchs	Israel	Bezeq
Takayuki K. Sato	Japan	Hewlett-Packard Company
Kohji Shibano	Japan	Tokyo International University
Akio Kido	Japan; IRG Rapporteur	IBM Japan
Dae Hyuk Ahn	Korea	Han Microsystems Inc.
Kyongsok Kim	Korea	Pusan National University
Johan W. van Wingen	Netherlands	Consultant
Sten G. Lindberg	Sweden	IBM Sweden
Jürgen Bettels	Switzerland	Digital Equipment Corporation
Bruce Paterson	UK; Co-editor	Consultant
Peter Edberg	USA	Apple Computer, Inc.
Arnold Winkler	USA	Unisys
Mark Davis	USA, Co-editor	Taligent, Inc.
Mike Ksar	USA, Convener	Hewlett-Packard Company
Alan Griffiee	USA; AFII	IBM/Pennant USA
Joan Aliprand	USA; Unicode Consortium	Research Libraries Group
Nguyen Lam	Vietnam	Etat programme on Electronic-Informatic Communication
Ngo Trung Viet	Vietnam	Institute of Information Technology, Ha Noi
James Do	Vietnam	Mentor Graphics
Tran Luu Chuong	Vietnam	Ministry of Sciences and Technology of Vietnam
Ngo Thanh Nhan	Vietnam	New York University
Elaine Baskin	Observer	Communication Standards Review
Gary Twu	Observer	TCA, Acer Sertek Inc. (Guest)
T.C. Kao	Observer	TCA, Institute for Information Industry (Guest)

In the interest of keeping the cost down, delegates were asked to cull the number of recipients on the distribution list in N 1051. Those who have not attended more than two meetings in a row, and have not otherwise contributed to the work of WG 2, are candidates for deletion. The delegates were reminded that WG 2 experts must be nominated by the member bodies and their intended attendance at the meetings must be conveyed to the convener prior to the meeting. Documents to be discussed at the meeting should be sent to the members at least 6 weeks prior to a meeting. The convener also encouraged all submitters of contributions to provide an electronic version -- his preferred format is one of the formats that is recognized by MS Word for Windows.

2. Approval of the agenda (N 1041)

Input Document(s):

N 1041 Agenda, Venue and 2nd Call for WG2 Meeting # 26 in San Francisco;
Mike Ksar; 1994-08-02

WG 2 meetings will start at 9:00h on the following days. WG 3 meeting, originally scheduled at Cupertino for the 7th of October was rescheduled as a short meeting during this week. WG 3 meeting was scheduled for 13:00h on Wednesday, to be chaired by Mr. Sten G. Lindberg, representing the convener, Mr. Jan van den Beld. ECMA-TC 1 ad hoc may also meet Wednesday PM.

An ad hoc group on Defect Reports consisting of Messrs. Jürgen Bettels, Takayuki K. Sato, Arnold Winkler, Bruce Paterson, Mark Davis and Johan W. van Wingen was set up to re-examine N 1031 R and several new defect reports received since the last meeting.

A drafting committee consisting of Messrs. Mike Ksar, Bruce Paterson, Takayuki Sato, Akio Kido and V.S. Umamaheswaran was charged with having a set of draft resolutions ready for review and adoption by 10:30h on Friday.

A revised agenda document assigning document numbers (that were known prior to the meeting) to agenda items was prepared and distributed by the meeting secretary for the convenience of the delegates. The agenda was reviewed and approved with the following amendments.

- Add under liaison reports: SC 21/WG 3; ITU/T; SC 22/WG 3; SC 22/WG 20.
- Add under future meetings: Earlier Meeting no. 27 (prior to Helsinki meeting).
- The repertoire item on the agenda - will address the topic of whether or not WG 2 will accept a submission for inclusion of additional characters. No coding related discussions are expected at this meeting.
- A possible presentation by Mr. Michael Everson from Ireland will be added under other business. (Most likely for Thursday morning.)

1. Opening and roll call
2. Approval of the agenda (N 1041)
3. Approval of the minutes of meeting 25 (Antalya, Turkey)
N 1033, Corrigendum to N 1033
4. Review action items from previous meeting
N 1033, section 10 (with corrections)
AE
SC 2 Mail Ballots
5. Review feedback on proposed amendments
N 1035, N 1036, N 1042, N 1072
6. Repertoire issues:
 - 6.1 Reaffirm procedures and principles of allocation
N 946, N 947, N 973, N 990 (Guideline), N 1002, N 1061
 - 6.2 Additions to repertoire
N 1071, N 1073, N 1074, N 1075, N 1058, N 1057, N 1078
7. Defect Reports
 - 7.1 Review proposed Defect Correction procedures
N 1040
 - 7.2 Additional defect reports.
N 1044, N 1045, N 1046, N 1047, N 1048, N 1049, N 1052, N 1053R,
N 1054R, N 1062, N 1076
8. IRG and Related Items
 - 8.1 Report from WG 2/IRG meeting in Beijing
N 1063
 - 8.2 CJK Related Items
N 1060, N 1070
9. Liaison reports
 - 9.1 Unicode Consortium
 - 9.2 AFII

- 9.3 SC 18
WG 8
WG 9: N 1037, N 1038
- 9.4 SC 22
WG 3
WG 20
- 9.5 SC 21 WG 3
- 9.6 ITU/T
- 10. Other business
 - 10.1 New Work Item Proposals and Related Items
 - 10.1.1 Registry of Conversion Tables
N 1077
 - 10.1.2 Equivalencies of Combinations
N 1056, N 1064
 - 10.1.3 Source of Characters
N 1055, N 1066, N 1067, N 1068, N 1069
 - 10.1.4 CJK Unification Rules
N 1043, N 1059
 - 10.2 Presentations for information only
Michael Everson, Ireland
 - 10.3 Future meetings
Is another meeting required BEFORE Helsinki ??
 - a. WG 2 meeting no. 27:
Week of 1995-06-26 (June 26, 1995) (Monday to Wednesday, 3 days), along with SC 2 plenary and WG 3 meetings in Helsinki, Finland.
 - b. WG 2 meeting no. 28:
Week of 1995-11-06 (November 6, 1995) in Japan (possibly Kyoto)
 - c. WG 2 meeting no. 29:
Week of 1996-04-xx (April , 1996) (Monday to Friday, 5 days)
Canada or Denmark
 - d. WG 2 meeting no. 30:
- 11. Closing
 - 11.1 Approval of Resolutions
 - 11.2 Adjournment

Secretary's Note: The section numbers and associated documents in these minutes, while closely following the above modified agenda item numbers, differ somewhat to reflect what actually transpired during the meeting.

3. Approval of the minutes of meeting 25 (Antalya, Turkey)

Input Document(s):

N 1033 Unconfirmed Minutes of ISO/IEC JTC 1/SC 2/WG 2 Meeting 25; Falez Hotel, Konyaalti Falez Mevkil, 07050 Antalya, Turkey, 1994-04-18--22;
V.S. UMaaheswaran, Meeting Secretary, Mike Ksar, Convener

Dr. V.S. Umamaheswaran verbally presented highlights of the Antalya meeting. He pointed out the corrections (circulated as document N 1033-COR at the meeting, and listed below). The minutes of Antalya WG 2 meeting 25 was approved with the corrections.

Corrections to Antalya Meeting Report In document N 1033:

Note: Corrections are indicated by Bold, Italicized and Underscored text below. Refer to N 1033 for the section numbers and the context.

4. Review action items from previous meetings

Item	Assigned to / action (from N 955)	Reference Output/Status
1.	All member bodies	
a.	----	----
b.	to contribute input on source of ----	<u>(Delete all other documents listed)</u> <u>N 1032 Denmark</u>
c.	to contribute input towards ----	---- <u>(move N1032 to item b)</u>

5. Report from WG 2/IRG

e. A fifth column (V-column) --- unified Han set. About 2000 characters are --

Discussion:

1. Mr. John Clews - Is ---assignments? NO. IRG's Role is clearly ----

See resolutions ADMIN-1 and ADMIN-2 under item 9.1.1

7.1.2. N 973 - ----

N 973 Item 6: Remove TeX from Category A.

Discussion:

Dr. Asmus Freytag: TeX is ---- consideration. There are about 5000 symbols used, ---

8.4.1 ISCII - ----

- The origin of several ---- has been designated for 9 Indian scripts -----.

8.4.2. N 1011 - Mongolian, ----

- Present Mongolian script can be traced to the 10th century. The characters -----

10.2. From WG 2 Meeting 25 Antalya, Turkey

Item	Assigned to / action
2.	Convener (Mr. Mike Ksar):
c.	Look at <u>JTC 1</u> procedures regarding processing pDAMs, and advise the editor on the different options.
3.	Project Editor (Mr. Mark Davis):
d.	Act on resolutions <u>DR-1 and DR-2.</u>
5.	Japanese member body
a.	Requested to forward a ----
b.	Invited to prepare a ----
10.	Chinese member body
a.	China is requested to study ----
b.	Request that China and Mongolia ----
c.	China is requested to coordinate ----
13.	All member bodies
h.	All member bodies are invited to contribute input <u>on decomposition equivalencies</u> towards developing an informative Annex to ISO/IEC 10646-1 for consideration at the next SC 2/WG 2 meeting.

4. Review action items from previous meeting

Input Document(s):

N 1033 Unconfirmed Minutes of ISO/IEC JTC 1/SC 2/WG 2 Meeting 25; Falez Hotel, Konyaalti Falez Mevkil, 07050 Antalya, Turkey, 1994-04-18--22;
V.S. UMAheshwaran, Meeting Secretary, Mike Ksar, Convener; Section 10, including the corrections to N 1033 noted in above section.

Section 10 of N 1033 contained a list of action items from meetings 24 and 25. This list was circulated and reviewed at the meeting. The 'status' column in the following tables summarizes the results of this review: Items still outstanding are highlighted as 'OUTSTANDING' and are carried forward under section 12 for consideration prior to the next WG 2 meeting.

10.1. From WG 2 Meeting 24, Washington DC

Item	Assigned to / action (Reference N 954R - resolutions, and N 955 - minutes of Washington DC WG 2 meeting WG 2 - 24)	Status
2. Editor - Mr. Mark Davis:		
b.	to prepare an accompanying background paper showing clearly the benefits and disadvantages of the proposed UTF-16, addressing the comments and concerns brought up during the WG 2 meeting no. 24 by 1994-01-05; (reference resolution UTF16-3)	DONE: N 1042
d.	to include some text on 'what criteria can be used for defect report on character names' as part of the Set of Principles document (reference section 9-a-i.3).	OUTSTANDING Reassigned to ad hoc on principles and procedures
f.	to prepare a defect report to correct the names for all the non-presentation form characters that have the term LIGATURE in their names (reference resolution AE-1), excluding those under resolution AE-2; (reference resolution AE-3).	OUTSTANDING Reassigned to Messrs. Sven Thygesen and Bruce Paterson
h.	with assistance from the Japanese member body, to prepare appropriate text for a CORRIGENDUM to address the defects reported in document N 939 under items 1, 3, 4 and 5; (reference resolution DFR-1).	DONE: N 1014 is revision of N 939. N1014 was discussed in Antalya WG 2-25 meeting.

10.2. From WG 2 Meeting 25 Antalya, Turkey

Item	Assigned to / action	Status
1. Meeting Secretary (Dr. V.S. UMaaheswaran):		
a.	To revise N 1034 to incorporate all agreed to amendments and editorial corrections to in the draft resolutions.	DONE: N 1034
b.	To prepare the meeting minutes (unconfirmed) N 1033. Both these documents are to be sent to the convener as soon as possible for convener's distribution to WG 2 members and member bodies.	DONE: N1033
2. Convener (Mr. Mike Ksar):		
a.	To write a letter to the Greek member body inviting them to comment on the UK proposal on defect item number 5 on Greek character name change in N 998.	DONE
b.	Update document N 957-R containing the WG 2 program of work - capturing all the comments received under item 8.3 in this set of minutes.	OUTSTANDING
c.	Look at JTC 1 procedures regarding processing pDAMs, and advise the editor on the different options.	DONE
3. Project Editor (Mr. Mark Davis):		
a.	Act on resolution pDAM-UTF-16.	DONE: N1035 (Mr. Bruce Paterson)
b.	Act on resolution pDAM-UTF-8.	DONE: N1036 (Mr. Bruce Paterson)
c.	Act on resolution UTF-1.	OUTSTANDING
d.	Act on resolutions DR-1 and DR-2.	OUTSTANDING
e.	Act on resolution pDAM3.	OUTSTANDING
f.	Act on resolution PRIN-2.	OUTSTANDING
g.	Take note of contributions in N 1005 from SC 22/WG 20 and N 1029 from the Unicode Consortium towards work on the annex on Equivalence of combined sequences per resolution TKS-3 from Washington WG 2 meeting 24. Editor is invited to draft the annex text based on contributions received.	DONE: Japan: N 1056
4. French and the Netherlands member bodies.	Invited to prepare a formal defect report on Armenian characters (described in document N 1022). Mr. J.W. van Wingen had volunteered to contribute.	OUTSTANDING
5. Japanese member body		
a.	Requested to forward a set of bit maps and /or the outline of the corrected shapes reported in document N 1006 and N 1014 along with a blown-up (96x96) hard copy to the editor.	OUTSTANDING: Need more information from the editor.
b.	Invited to prepare a defect report to remove the inconsistency regarding annotations in character names from Rule 12 in the annex on naming rules in 10646-1.	OUTSTANDING
6. Korean member body	Korea is requested to forward the set of bit maps, and or the outline of the corrected shapes of the characters in defects in document N 975, along with a blown-up (96x96 bits) hard copy is needed by the editor.	OUTSTANDING
7. Messrs. Joachim Friemelt and Stefan Fuchs	Invited to prepare a paper containing ITU/T suggestions for clarification to the current naming rules in 10646-1.	OUTSTANDING
8. Indian member body	The Indian member body is invited to prepare a defect report asking for the appropriate editorial change regarding references to ISCI 1991 - following the JTC 1 Defect Reporting procedures (and forms).	OUTSTANDING

9.	Danish member body (Mr. Keld Simonsen) The Danish member body is encouraged to update the information in their contribution (Temporary Document) removing the parts that are not relevant to the Annex under resolution TKS-3 from the WG 2 Washington meeting no. 24.	OUTSTANDING
10.	Chinese member body	
a.	China is requested to study this possibility of composition to reduce the number of characters of the Yi script in document N 965 that needs coding in the BMP.	OUTSTANDING
b.	Request that China and Mongolia get together and come up with an agreed upon joint proposal between the two by the next WG 2 meeting	OUTSTANDING
c.	China is requested to coordinate the Tibetan script requirements by working with other member bodies such as India and other countries such as Bhutan and Sikkim using the Tibetan language and script.	OUTSTANDING
11.	Mr. John Clews Mr. John Clews is invited to draft and propose a proforma incorporating his suggestions for guidelines for submission of new repertoires to be coded.	OUTSTANDING
12.	Mr. Jürgen Bettels To update document 1031 (as 1031 R) to capture all the missing editorial defect reports and associated editing instructions.	DONE
13.	All member bodies	
a.	National bodies who are interested in attending IRG meetings should contact the new IRG rapporteur Mr. A. Kido.	DONE - no requests
b.	N 990 attempts to cross reference all the documents prior to those listed in this meeting report.. Member bodies are invited to verify and enhance document N 990.	DONE - Ed Hart: N 1078
c.	JTC 1 Procedures are being drafted to replace the 1992 procedures to deal with handling of defect reports. These classify the defects as Editorial or Technical in nature. National bodies are requested to follow these procedures and classify their defect reports.	Secretariat: N 1040 (= SC 2 N 2527)
d.	Member bodies are invited to nominate a WG 2 expert to be the liaison representative from SC 2 WG 2 to SC 29.	OUTSTANDING
e.	To inform the convener if they are interested in participating on the Mongolian script discussions to be initiated by China and Mongolia.	DONE - no requests
f.	WG 2 reconfirms the guidelines, principles and procedures in document N 946 for allocation of new characters and scripts to ISO/IEC 10646-1. All requesters for additional characters in the standard should take note	SC 18 WG 9: N 1037
g.	Inform the convener if they are interested in participating on the Tibetan script discussions to be initiated between China, India and other countries using the Tibetan script.	DONE - no requests
h.	All member bodies are invited to contribute input on sources of characters towards developing an informative Annex to ISO/IEC 10646-1 for consideration at the next SC 2/WG 2 meeting.	DONE: Japan: N 1055; Japan: N 1066, 1067, 1068, 1069
14.	IRG Rapporteur (Mr. Akio Kido)	
a.	IRG is requested to suggest a prioritization of all ideographic characters defined by it.	DONE: N 1061 is partial answer; Rest is part of IRG work.
b.	Annexes on Unification Rules and Supplemental Repertoires are to be forwarded to WG 2 convener in time for circulation prior to the next WG 2 meeting if they have to be considered by the October WG 2 meeting.	DONE: IRG: N 1043; N 1059

Discussion:

- a) The convener: there are several outstanding action items from Meetings 24 and 25. To alleviate some of the work load on the project editor, Mr. Bruce Paterson has volunteered to be a co-editor towards progressing the work of WG 2.
- b) Mr. Sven Thygesen has drafted a document related to action item, Meeting 24-2.f on the name for AE. This will be input to Mr. Bruce Paterson for preparing the technical corrigendum on AE.
- c) Item 2d from meeting 24 was reassigned to an ad hoc group charged with updating the documents N 946, N 947 on principles and procedures. See resolution M26.6 in section 6.1.2.4.
- d) The convener pointed out that six work item proposals and other documents for comments did not get sufficient responses from the SC 2 member bodies. WG 2 delegates are encouraged to ensure that their individual member bodies do respond in time to the various ballots originating from WG 2 and to support the various work items. As an example: the new work item on Character Glyph Model was NOT approved.

- e) Mr. Bruce Paterson: It is IMPORTANT to make the reply form attached to a ballot stand out so the ballot does get the attention and that action is required by the member bodies. Lack of such an 'attention getter' is considered to be the primary reason.
- f) Mr. Alan Griffie: What are the alternatives? Can we re-submit these for balloting? Are these ballots at SC 2 only, or some are JTC 1 ballots?
- g) Mr. Sten Lindberg emphasized the Importance of balloting by member bodies. In recent instances, countries with perfect voting record did not respond. The secretariat is not quite sure as to where the problems are. Couple of them were apparently sent without a REPLY form. Secretariat would like to know what happened. We should make a resolution requesting that these six items be re-mailed for another ballot..
- h) Mr. Arnold Winkler: Suggested using colour paper for reminder - it works. The SC 2 secretariat and JTC 1 secretariat should be requested to use Coloured ballot reply forms. Otherwise these documents get buried among other papers and are easily missed thereby causing missing of ballot closing dates.

Disposition: The convener is asked to request SC 2 secretariat and JTC 1 secretariat that document ballots be re-circulated

Relevant Resolution(s):

RESOLUTION M26.1 (on balloting of several items)

WG 2 recommends that SC 2 re-ballots the invalidated six ballots in document SC 2 N 2541 which failed because less than 50% of SC 2 members voted. The six ballots refer to the following SC 2 documents:

- N 2480 Subdivision of JTC 1.02.18 UCS
- N 2481 NP on Character Glyph Model
- N 2483 Request from SHARE Europe for C liaison
- N 2511 Request from Taipei Computer Association for C liaison
- N 2512 Request from Hong Kong Information Technology Federation Ltd. for C liaison
- N 2513 Request from EWOS Technical Computer liaison Group (TLG) subgroup on character sets for C liaison

WG 2 also recommends that SC 2 secretariat include a distinctive ballot reply form to help alert SC 2 members that they need to review the documents and submit their votes on time.

RESOLUTION M26.7 (Co-editor nomination):

WG 2 nominates Mr. Bruce Paterson as a co-editor of ISO/IEC 10646, and requests approval from SC 2.

5.. Review feedback on proposed amendments

Input Document(s):

- N 1035 ISO/IEC 10646-1 Proposed Draft Amendment 1 (UTF-16); Mark Davis, Project Editor; 1994-08-01
- N 1036 ISO/IEC 10646-1 Proposed Draft Amendment 2 (UTF-8); Mark Davis, Project Editor; 1994-08-01
- N 1042 UTF-16 Background Information; Mark Davis, WG2 Project Editor; 1994-08-05
- N 1083 UK Comments accompanying vote of approval on PDAM 1 (UTF-16) to 10646; BSI, UK; 1994-09-23
- N 1084 UK Comments accompanying a vote of approval on PDAM2 (UTF 8) to 10646; BSI, UK; 1994-09-23
- N 1085 N 988 UTF-16 re-presented, not misre-presented; Peter Fenwick, UK; Sept. 1994
- N 1088 Universal Version of UTF-16 encoding; Canada, Marc E. Gauthier; 1994-10-07

5.1 pDAM-1 and pDAM-2 Early Ballot Response Comments

Report:

The convener reported that he had copies of the early ballot response comments from Canada, the US, Switzerland and the UK. Generally the responses are positive. Several technical and editorial corrections have been suggested. Negative ballots seem to be aimed at ensuring that their editorial comments have been accommodated. All the delegates were reminded to ensure that their member bodies do return the ballots.

The two documents N 1035 and N 1036 are still under ballot (closing on 29th of October 94). N 1042 is the document requested of the project editor to be circulated along with the ballot as background information on pDAM-1 (UTF-16) (the background information did not get circulated with the ballot; it was sent only to the WG 2 membership.).

Discussion:

- a) Netherlands will be meeting 20 October 94; will send comments; Vietnam will be balloting. Germany will be meeting on 18 or 19 October 94. Greece - do not know the status, Egypt - will be balloting. Israel has met a couple of days ago - Mr. Stefan Fuchs did not have the results. Japan meets on the 17th. Sweden will meet next week. Korea will mail the ballot response soon. China is planning to vote.
- b) Mr. Keld Simonsen suggested that e-mail could be used as a reminder to those member bodies who were not present. Can be UNOFFICIALLY done.
- c) National body comments received to date will NOT be distributed at this Meeting since the letter ballot has NOT closed yet (the UK responses were distributed by mistake - N 1083, N 1084).

5.2 Other Documents

N 1085: Document N 1085 was not discussed.

N 1088: Universal UTF-16

Dr. V.S. Umamaheswaran briefly explained the contents of document N 1088 - a Canadian expert contribution on Universal UTF-16. The contribution proposes a modification to the UTF-16 in pDAM-1 making it transform the entire UCS-4 range of code positions instead of about a million code positions in current pDAM-1 without sacrificing the key objectives of UTF-16 in pDAM-1. Member bodies were requested to examine this proposal for its value add. The document was not discussed any further since pDAM-1 ballot had not yet closed.

- a) Mr. Bruce Paterson - does the Canadian member body intend to send it to the secretariat as part of the ballot response?
- b) Dr. V.S. Umamaheswaran - Canada intends to submit the proposal as ADDITIONAL comments (since Canada's ballot response was already sent to the secretariat) before the deadline.

6. Repertoire Issues:

6.1 Reaffirm procedures and principles of allocation

Input Document(s):

- N 946 Proposed principles and procedures for allocation of new characters and scripts; Davis/Hart/Lindberg; 1993-11-03
- N 947 A proposed initial list of character allocations; Davis/Hart/Lindberg; 1993-11-03
- N 973 National position on N 884; Kim, Kang and Ahn; KBS, Korea; 1994-01-20
- N 1002 Comments on N 947 "Proposed categorization and allocation of characters"; Japan (TKS); 1994.03.28
- N 1061 IRG Comments to WG2 N 946 (Proposed Principles and Procedures for Allocation of New Character and Scripts); IRG; 1994-09-14
- N 1090 Chu Nom in Category B; Viet Nam, TCVN/TC1; 1994-10-05

Output Documents:

- N 1116 Principles and procedures for allocation of new characters and scripts; Ad hoc group on principles and procedures - V.S. Umamaheswaran, Peter Edberg, Sven Thygesen and StenG. Lindberg; 1994-11-xx

6.1.1 N 1061: Mr. Akio Kido presented

- a: IRG has requested another category H to deal with LARGE collections. Currently it is aimed at Han, from IRG perspective. It is called Name ideographs. It is buried under Category B in document N 946. A large number of ideographs are being brought to IRG, especially for Taiwanese (required for applications like passports.).
- b: Correction Request to First page of N 946
Proposed to remove 'and individual personal name ideographs' from end of first paragraph in N 946. Even though it is an example, it seems to imply that Name ideographs cannot appear in BMP.
- c: N 1061 Item 3: "YI" language script is currently included in Category F of N 946 (also in N 947). It should be moved to Category A.
- d: N 1063 Item 4: Chu Nom and Archaic Han - move these from category F to category B.

Discussion:

- a) Mr. Mike Ksar: Proposed that we split Category B instead of inventing a new one: B.1 will be specialized small collections; B.2 will be specialized large collections. Same text - with different examples
- b) Dr. Ngo Thanh Nhan: Chu Nom has about 2500 characters, qualifying it for perhaps a large collection - category B.2 is logical choice. Will this conflict with Name Ideographs also being part of B.2? Would prefer another category. B.2a - large collections (not for names); B.2b - large collections (used for names).
- c) Ms. Joan Aliprand: Will the value of Name ideographs being differentiated from others be lost by putting Chu Nom into the same group (B.2 Large Collections)?
- d) Professor Kyongsok Kim: Roughly how many Name Ideographs are known? Who has submitted them?
- e) Mr. Akio Kido: We are still accumulating the information. We do not have a number at this time. Currently TCA has submitted some Name ideographs. Japan may submit some in the future.
- f) Professor Kohji Shibano: the so-called Name Ideographs can be contemporary characters also.
- g) Mr. Peter Edberg: Perhaps there should be another category - B.3? Also, if B.2 is added, where will B.2 go in the evaluation procedure?
- h) Mr. Mike Ksar: What is the benefit of having another B.x category? For the purposes of N 946 we should stay with B.1 and B.2.

- i) Ms. Joan Aliprand: wanted confirmation that this request for a new category H from IRG is not to 'include' name ideographs in BMP.
- j) Mr. Alan Griffie: Is there an implication of priority based on which category a character belongs to?
- k) Mr. Takayuki Sato: Category A - in N 946 can be misinterpreted to be automatically included in BMP. This is not true. N 1002 (accepted at the Washington meeting) has made clarification - no matter which category (A through D) a character belongs to - it does not automatically mean that it will be encoded in BMP. Document N 946 has to be clarified in this regard.
- l) Mr. Alan Griffie: What should be the basis of categorizing as Small or Large collection between B.1 and B.2.? Is there a cut-off number?
- m) Mr. Mike Ksar: Suggested that we leave this open - for flexibility.
- n) Professor Kyongsok Kim: Clarification - re: last sentence in first paragraph on N 946 of 'Principles.. BMP'. The title is misleading.
- o) Mr. Bruce Paterson: There may be other locations in N 946 which can be looked at for removing the identified conflicts.
- p) Dr. V.S. Umamaheswaran: there seems to be a different kind of conflict - IRG's suggestion is related to inclusion of 'Category' in page 3 along with procedures.
- q) Professor Kyongsok Kim: Is there a deadline for the submission of repertoire for the Next Standard revision?
- r) Mr. Mike Ksar: Revising and enhancing the standard and repertoire is an ongoing process.
- s) Mr. J. W. van Wingen - volunteered to input some information on Japanese characters. Another group is Railway users. The convener encouraged Mr. van Wingen to submit his contribution to WG 2.
- t) Mrs. Li Yunqin: Requested to add DAI script from N 1013 to Category A in N 947.

Disposition:

Accept items 2, 3 and 4 as suggested by IRG. Accept item 1 in principle - Split B into B.1 small and B.2 Large collections. Same wordings as current text, except - examples. See Resolution M 26.6 listed later.

6.1.2 N 946, N 947, N 973 and N 1002 - Principles and Procedures

The convener addressed these documents - the documents N 946 and N 947 have not been updated to incorporate comments from N 973 and N 1002 (see action items discussions in section 4, item 2d from meeting 24.). All delegates are requested to ensure all highlights are captured during the discussions. The principles and procedures in N 946 were restated:

- a) BMP: contemporary characters in common use; widely implemented; supplementary planes should be considered for others; BMP need not include characters that may be included in future standards.
- b) Categories: Contemporary - Category A; Specialized - Category B. Other categories C through G have been documented.
- c) Submitter's responsibilities are outlined. If a submission is considered incomplete then it may be sent back for more information.
- d) Evaluation procedure is also listed. If a character already exists, it will not be encoded. A glyph variant will not be encoded. If a composition method can be used, consideration should be given for using the composite sequence than encoding the composed symbol.

Convener: This meeting should look at whether a repertoire submission is complete enough from inclusion in UCS. We will focus less on the coding aspects at this meeting (only if there is time left we will look at it).

Ad hoc group on principles and procedures:

The convener asked for volunteers to an ad hoc group to take on the responsibility to update the principles and procedures incorporating contents of N 946, N 973, N 1002 and N 1061 (see 6.1.1 above). Mr. Sten G. Lindberg who was one of the original authors of N 946 and Dr. V.S. Umamaheswaran volunteered. This ad hoc group was later expanded in scope to design a checklist (or a form) towards assisting in the evaluation of each submission and its disposition by WG 2. Mr. Peter Edberg and Mr. Sven Thygesen volunteered. The four members constituted the new ad hoc group on principles and procedures. See resolution M 26.6. Mr. Mark Davis was also consulted during his presence at the meeting.

One of the action items for the ad hoc is to update N 946 and N 947 - based on accepted contributions on the topic before the next meeting (if possible get it done at this meeting). Otherwise, get it done before the next meeting.

Secretary's note: Since several revisions of the proposal summary form were presented, discussed and modified, the comments as captured below may not be entirely cohesive. I have attempted to keep them grouped in the context of discussions at the meeting.

6.1.2.1 General:

- a) Mr. Sven Thygesen: Need a table for each of the script identifying the attributes listed N 946 or N 947. Such a table should be prepared and distributed for comments back from the countries.
- b) Professor Kohji Shibano: Several contributions were made long before these criteria were set up.
- c) Professor Kyongsok Kim: Since I am not an old timer with this group, I would like to see the rationale re-stated.
- d) Mr. Alan Griffiee: Are we justified in going back to the submitter based on the new rules? First come, first served may be the criterion to use.
- e) Mr. Mike Ksar: Disagreed with first come, first served. There is a priority in the order in which the contributions will be considered -- National Body first, Liaison organizations next. Individual contributions will be considered only with some agreement or support from the national bodies.
- f) Mr. Jürgen Bettels: How to categorize the scripts? Some measure of more important characters first - may be the number of characters is a measure.

The ad hoc group was charged with formatting a workable table incorporating N 946 and N 947 modifications, possibly using N 1078 as the starting repertoire references. The format of the table may be in the form of a checklist; and to see if all the information is available.

6.1.2.2 Contents of the Proposal Summary Form

Mr. Peter Edberg presented the initial proposal of the ad hoc. A summary form or cover sheet for submissions was presented. It consisted of Administrative, Technical - General, Technical - Justification, and WG 2 Tracking sections with several questions under each. The form captured all the key information contained in N 946, N 947, N 1002 etc. The rest of the information was presented as a spreadsheet format, to assist the WG keep track of the items' progress.

Discussion:

- a) Mr. Alan Griffiee: If a proposed set is a mixture of some existing characters and some new ones how would one record it? (It can be added as information from the submitter.)
- b) Mr. Akio Kido: Does the submitter have to fill all the information requested on the form or only some parts? N 946 did have information as to what is minimum information. For example, if used for Kanji, how does one quantify number of users. Can the number of users in the world be taken up as the only criterion?

- c) Dr. V.S. Umamaheswaran: Not all the entries in the form are considered mandatory. We still have to go around once more to establish the minimum set.
- d) Mr. Joachim Friemelt: Appreciated the work done so far. German contribution was pointed out(?). For example 2000 characters in their character proposal. The submitter has some responsibility and the proposal should be checked by other WG 2 experts also. How does one decide to keep part of one set in the BMP and the others outside the BMP?
- e) Mr. Mike Ksar: Reminded the meeting that UTF-16 (currently under ballot) will permit us to go beyond the BMP using UCS-2 code implementation. Member bodies are requested to keep possibility of using extended planes in mind. This form is to assist the submitter to provide the maximum benefit so that their request can be processed by WG 2 meaningfully. Also suggested to merge the BMP related items in General Technical section with the item under Technical Justification section.
- f) Mr. J. W. van Wingen - the justification part of the form needs a polishing. Correct the wording 'composed characters'. Which level of conformance is expected to be used.? Would like to see clear text in N 946 on the topic of Context of Use information.
- g) Also, would like to see references to where used. Statistics on use versus examples of use. (Type of use should cover it.)
- h) Mr. Takayuki Sato: Administrative part - is this advance information or existing information?. Is there more information to be submitted? A question on availability of FONT information with possible sources should be added. Simplify the form to make it more readable -- like 'where used', 'in what context', sources of characters, etc.. The items on 'precomposed or decomposed' should be worded in such a way as not to imply a bias one way or the other (i.e. 'milder').
- i) Professor Kohji Shibano: What are the valid compositions / equivalencies if any? Is there any specific composition method that is used with the script?
- j) Mr. Michael Everson: Offered to fill the form for a new script being proposed from Ireland.
- k) Mr. Sven Thygesen: Irish proposal to use the form should be accepted. (It was accepted.).
- l) Mr. Akio Kido: Presentation and Semantic questions should be separated. Mr. Everson's input can be used as an example.
- m) Ms. Joan Aliprand and Mr. Mark Davis: Should address the possibility of a character looking like another character already encoded. If it exists (looks like another one in the code) can we use it? If not why not?
- n) Mr. Alan Griffie: Suggested a change - under Technical Justification - to include 'IT' to qualify the user community.
- o) Mr. Mike Ksar: The user community should be in the broad sense world wide. Our users include, for example, the 'development community' also.
- p) Mr. Peter Edberg: Regarding IT users versus users who can benefit from the technology - some scripts may not have an existing user community at all. We have to look at potential user community also.
- q) Dr. V.S. Umamaheswaran: Have difficulty accepting limiting to IT users only.
- r) Mr. Mark Davis: The whole of publishing industry worldwide is a potential user. We should not use the development community as the only indication.

The ad hoc group revised the form based on suggestions. Several minor revisions were made to the form. China's DAI Script (proposed in document N 1013) was used as an example for filling the modified form. This exercise led to further discussion and proposed changes to the form.

- a) Item B 5. References - is meant to get some Citations or sources of information so that one can go to a library (for example) or the referenced source for more information.
- b) Item B 6. 96x96 300 dpi - for example - A list of acceptable fonts by the editor for publishing the standard should be included in N 946 revision. Modify item 6 to explicitly state: who will provide the font for publication of 10646? If it is not available now, please provide a date by which the font can be expected to be available?
- c) Item B 7. Published examples: Copies of published examples should be attached to the submission where available

- d) Item C 4: Following the guidelines in N 946... must the proposed characters be entirely in the BMP?
- e) Item C 6: Reword - Is a proposed character ...? If YES, is there a rationale..?.
- f) Items C 4 through C10 are all having the connotation - a subset of characters proposed may be of the Level 1, or presentation or duplicated semantic etc. Such sub sets should be identified with appropriate properties and rationale.
- g) Move level of implementation question to General - Technical section.
- h) Ask separate question on composition method.. If yes ask for algorithm / list of valid sequences?: Split 9 and 10 A parts into - another question; Group 9 and 10 B into another question aimed at Equivalence (Level 3).
- i) A reference number and a title for the form 'Proposal Summary Form ... ' were added.

6.1.2.3 Handling of the Proposal Summary Form

The following items were discussions on 'how the form will be made available to users and the rules and guidelines on its usage for WG 2 work items':

- a) Mr. Bruce Paterson: The form is a valuable addition. This form should be encapsulated in a working paper of WG 2 so that submitters can start using new submissions. Contents of N 947 is only a 'sample' script list. We would like to encourage all the future submissions to use this form.
- b) Mr. Arnold Winkler: The form should be used as a template for the documentation of the submission. Currently it contains the summary.
- c) Mr. Mike Ksar: The form should be included as part of updating N 946 and N 947. Ad hoc group's output - the form - can be captured as part of revised N 946 document as an alternative.
- d) Mr. Takayuki Sato: Will the completed forms have WG 2 document numbers? (No it will be in a single document maintained by the convener.)
- e) Mr. Alan Griffie: A notice should be sent to all SC 2 member bodies to use this form to help in filling the information for all the past submissions. (ACTION: Ad hoc to draft such a notice)
- f) Mr. Jürgen Bettels: An introduction or notes as to how to use the form - for all NEW submissions must be stated.
- g) Mr. Michael Everson: How to use the new form for Existing contributions?
- h) Mr. Mark Davis: We should be stronger in our requirement. We should get the form for all the previous submissions also filled, before we consider them.
- i) Mr. Mike Ksar: The old submissions will have to be reviewed from the perspective of - if the characters are already in 10646 or not? This will help in the efficiency of processing the requests. Member bodies can be requested to assist in the process by using the form to fill the information.

6.1.2.4 Disposition

The form designed by the ad hoc group and revised at the meeting was accepted to be used for future work on repertoire additions by WG 2. The associated spreadsheet form of keeping track of the requests is still to be reviewed and is only for administrative work within WG 2.

Ad hoc group is instructed to incorporate the form into the revision of N 946 (new document number N 1116 has been assigned for it) along with a set of guidelines towards assisting a submitter in filling the summary form. The form may also be used as a template in the preparation of a new proposal or in re-presenting an existing proposal.

Some rules / guidelines as to when to use the form:

- a. The form must be filled for all NEW submissions.
- b. WG 2 strongly recommends that the Member Bodies fill the form for existing submissions.
- c. The form and the need to fill them must be distributed widely to liaison organizations as well as member bodies.
- d. It should be emphasized that *not submitting* the form can involve a potential risk of non-acceptance or delay.
- e. The form is intended to be used as a check list and possibly capture information that can be entered directly in the form as short strings. Additional information should be referenced - in an attachment.

Several member bodies filled the form for some of the existing proposals as a test on the usability of the form. Soft copies of the blank form can be made available to anyone who needs it. Will also make it available for use by others via E-mail (pure text only format).

The feedback on usability and some suggestions to improve were given to the ad hoc group. These suggested modifications were incorporated by Dr. V.S. Umamaheswaran and the version of the form that will be incorporated in the revised N 946 (given the new number N 1116) was distributed at the end of the meeting to the attendees. **WG 2 members are to note that the final form in N 1116 should be referenced since the ad hoc may find that further revisions might have been warranted during the preparation of N 1116.**

ACTION: Member bodies are requested to review their submissions to ensure that the current standard does not already have the character requested by them. We have to revisit all submissions that were made prior to May 93 (when 10646-1993 was used as the starting point).

Relevant Resolution(s):

RESOLUTION **M26.6 (on principles and procedures):**

WG 2 instructs its ad hoc group on principles and procedures (V.S. Umamaheswaran, Sven Thygesen, Peter Edberg and Sten G. Lindberg) to prepare a revised version of N 946 as a new document (N 1116) taking the following points into account:

1. outstanding action number '2d' from Washington List of Action Items (in N 1033)
2. comments from N 1002 points 2 and 3
3. comments from N 1061 (with point 1 modified per WG 2 discussion)
4. inclusion of the 'Proposal Summary Form To Accompany Submissions For Additions To The Repertoire of ISO/IEC 10646' devised and approved at this meeting, with appropriate instructions on its use. This form will facilitate the qualification process for additions to the repertoire of ISO/IEC 10646.

6.2 Additions to repertoire

Input Document(s):

- N 1044 Defect Report on 10646 Repertoire (Add FULLWIDTH OVERLINE); Japan; 1994-08-01
- N 1045 Defect Report on 10646 Repertoire (Add ISO 2047 symbols); Japan; 1994-08-01
(Ignore 'Defect Report' in the titles of the above two documents)
- N 1057 Feedback on Sinhala Script; Sri Lanka Standards Institution; 1994-05-30
- N 1058 Proposal for support of Irish Gaelic characters; Michael Everson, Ireland; 1994-08-23
- N 1071 Characters for Addition to UCS; Hugh McG Ross, U.K.; 1994-09-19
- N 1073 Enhanced Proposal for Canadian Aboriginal Scripts; Hugh Ross, U.K.; 1994-09-21
- N 1074 A Simple Way of Coding and Implementing the Yi Syllabary; H. Ross; 1994-09-22
- N 1075 Making a Start on Part 2; Hugh Ross, U.K.; 1994-09-23
- N 1078 Cross-reference of WG2 documents to scripts and repertoire issues
(revised N887R and N 990); Edwin Hart, U.S.; 1994-10-07
- N 1079 Proposed addition of Hebrew cantillation marks to 10646; SII, Israel; 1994-09
- N 1082 Correction to document N 984, Dirk Vermeulen, Canada; 1994-08-31
- N 1087 Suggested additions to repertoire of APL; SC22/WG3; 1994-10-07
- N 1091 Chur Nom in BMP; Viet Nam; TCVN/TC1; 1994-10-05
- N 1092 Vietnamese currency symbol in the BMP; Viet Nam, TCVN/TC1; 1994-10-05

- N 1093 Braille Letters; Kohji Shibano, Japanese Expert; 1994-10-10
- N 1094 Requirement for extension of non-ideographic Japanese characters; Japan, Kohji Shibano; 1994-10-10
- N 1095 Proposal for encoding Tibetan script on BMP; China, Nima Zhaxi; 1994-09
- N 1096 Proposal for Adding Typesetting Symbol; China; 1994-10
- N 1097 Proposing to supplement with the special script and character for Uighur, Kazakh and Kirghiz in Arabic; China; 1994-10
- N 1098 Proposal for encoding Mongolian, Todo and Xibe characters on BMP; China, Shi Zhongxiao; 1994-10
- N 1099 The motion on coding of old Xishuang Banna Dai Writing in BMP; China; 1994-10
- N 1103 Proposal for coding Ogham script; Ireland, Michael Everson; 1994-10-11
- N 1104 Proposed Unified Canadian Syllabic Character Set Repertoire, version 2.0 (Comment on WG N984); Michael Everson, Ireland, expert contribution; 1994-10-11

Please see the discussions under Section 6.1 above regarding principles and procedures while studying the above documents. Only some of the documents from the above were discussed at the meeting. Some of these were dealt with under Defect Reports by the ad hoc on defect reports.

ACTION: Member bodies are invited to examine these contributions and suggest enhancements, corrections etc., if there is any impact on the proposed characters' usage in their user communities.

6.2.1 N 1078 - Personal Contribution - Ed Hart, USA

The document N 1078 was reviewed and several updates were proposed:

- a) add N 1044, N 1045 (though titles indicate defect reports) at end of section 2, item 1.12.
- b) move section 2, item 18 Kazhak and 27 Uighur as part of item 3.7 - Supplement Arabic.
- c) add new item Cham script (Vietnam will provide document) at the end of document. Vietnam would like to move Cham script into category A in N 947. Vietnam is planning a contribution on this script. WG 2 will do it only after we receive a contribution.
- d) move item 22 Malayalam under item 17 as sub item 5.
- e) move item 25 Sinhala script under item 17.3 on Sinhala script.
- f) add Hebrew N 1079 in place of Sinhala item 25.
- g) replace CJK-JRG with IRG.
- h) add N 1082 under item 6.2.
- i) replace reference to N 895, item 3 with N 935 under item 14.
- j) replace reference to N 874 with N 936, and reference to N 811 Korea 4 - with N 936 under item 20.1.
- k) there was a suggestion that the term CJK should perhaps be replaced with CJKV.

ACTION: Member bodies are requested to review 1078 and the above noted corrections, and send feedback to Mr. Hart for updating the document. Several new contributions received after N 1078 are not included in the document.

6.2.2 N 1071

Several Additional Characters (from Mr. McGregor Ross) are proposed in this document. Some items were briefly discussed.

- a) Section 1.10: The US member body X3L2 has rejected Mr. Saba's proposal. The belief is that the Koranic requirements can be satisfied by current 10646.
- b) Mr. J.W. van Wingen - will take action on ALGOL characters ?
- c) Ms. Joan Aliprand will take parts related to TC 46 for formal submission as liaison document to TC 46.
- d) Rest of N 1071 will be taken up at the next meeting.

6.2.3 N 1073

ACTION: Mr. McGregor Ross is requested to work with the Canadian member body (and CASEC) and get any differences out of the way.

6.2.4 N 1104

(This document has not yet been distributed)

ACTION: Mr. Michael Everson is requested to work with Canadian member body (and CASEC) and get any differences out of the way.

6.2.5 N 1093

Professor Kohji Shibano: BRAILLE - is currently for public comment in Japan. Apparently there were about 9 different ways to code Braille. The problem is NAMING of the characters for different symbols.

ACTION: Member bodies are requested to feedback any specific requirements / comments to Japan.

6.2.6 N 1058

Mr. Michael Everson: Proposes one pre-composed character for Irish-Gaelic, and introduces a new character (has two distinct presentation form). Will submit the proposal summary form.

6.2.7 N 1098

All member bodies were requested to give feedback to China on their proposal on Mongolian.

7. Defect Reports

7.1 Review proposed Defect Correction procedures

Input Document(s):

N 1040 Proposal for SC2 Defect Correction Procedure; SC2 Secretariat, Geneva; June 1994

Discussion:

- a) Mr. Bruce Paterson: UK has made the following comments to the SC 2 ballot. Section 3 Item b is wrong title; should be editorial defects; Title for Technical defect should be that of item d. There are also new JTC 1 Directives under ballot (closing today). These will impact the way defect response report are responded to by WG 2.
- b) Mrs. Li Yunqin - referencing point 5 in N 1040 clarification on P members versus O members - who can vote? (Liaison members cannot vote.)
- c) Mr. J.W. van Wingen: A contiguous list of all possible suggested changes will be useful. Also please check disposition of Armenian in 1031R compared to the minutes.
- d) Professor Kohji Shibano: We may need discussion with ITTF as to how to deal with publication of the editorial corrections.
- e) Mr. Alan Griffie: In his experience, if we send only the instructions to ITTF, then we may not get what we really want. We should send camera ready copy only.
- f) Mr. Mike Ksar: ITTF will be dependent on WG 2 editors to get the camera ready copy of editorial changes. WG 2 document will be instructions to editors - Mr. Mark Davis will be dealing with the Glyph changes etc. Mr. Bruce Paterson will be dealing with the corrigenda etc. The editorial changes - some of these are glyph changes - we have to be careful in how these are sent to ITTF. Because of the complexity associated with 10646, we should manage the work ourselves. ITTF may not have the word processing capability. We should send the camera ready copy to ITTF.

The ad hoc group on defect reports will meet and handle all the defects and categorize them into technical defects and others. There were about 13 new defect reports received from Ireland. The ad hoc will group the defect reports into two groups: Editorial and non-Editorial.

The convener suggested the need for some guidelines for submissions of defect reports and for their disposition by WG 2, such as:

- a) we may not need separate defect for each character from a set (for example, use a single one for all Cyrillic).
- b) Do not MIX characters from different sets into the same defect report.
- c) A submitter should check if the defect has already been processed by the national body or considered before by WG 2. Member bodies can get copies of the disposition of prior defect reports from SC 2 Secretariat or the WG 2 convener.
- d) If the proposed name change is due to an error following the naming guidelines it will be a technical defect. If the new name is just an alternative preference, it may be rejected.
- e) The technique of using an explanatory note to enhance the standard can be used (in instances where the name change causes a potential problem for compliance but may be handled with a simple explanatory note).

7.2 Additional defect reports.

Input Document(s):

- N 1044 Defect Report on 10646 Repertoire (Add FULLWIDTH OVERLINE); Japan; 1994-08-01
- N 1045 Defect Report on 10646 Repertoire (Add ISO 2047 symbols); Japan; 1994-08-01
- N 1046 Annotation Proposal on 10646 characters; Japan; 1994-08-01
- N 1047 Defect Report on 10646 clause 7; Japan; 1994-08-02
- N 1048 Defect Report on 10646 clause 17.5; Japan; 1994-08-01
- N 1049 Defect Report on 10646 clause 16 (2022); personal contribution, Takayuki K. Sato, Japan; 1994-08-04
- N 1052 Defect Report 10646 clause 16 (6429); personal contribution, Takayuki K. Sato, Japan; 1994-08-04
- N 1053R Relation with existing standards and compatibility characters; personal contribution, Takayuki K. Sato, Japan; 1994-08-02
- N 1054R Proposal to make the nature of Restricted Use zone clear; personal contribution, Takayuki K. Sato, Japan; 1994-08-02
- N 1062 Defect Report on 10646: name of source standards of CJK Unified Ideographs; IRG; 1994-09-16
- N 1076 Revision of names in 10646 (N 1025 R, Hebrew); SIL, Israel; September 1994

(The following documents were submitted but were distributed only to the ad hoc group on defect reports for consideration. They will be distributed in the next document mailing by the convener. **Of these, N 1107, N 1108, N 1110 and N 1113 were formally withdrawn by Ireland's delegate Mr. Michael Everson, and the convener will not be distributing these.)**

- N 1080 Defect Report on annex-E names; Japan, Takayuki K. Sato; 1994-09-20
- N 1081 Make the difference between BYTE and OCTET clear; Takayuki K. Sato, Japan; 1994-09-07
- N 1105 Defect Report - Character names in Latin Extended-B; Ireland; 1994-10-11
- N 1106 Defect Report, missing latin character; Ireland; 1994-10-11
- N 1107 Defect Report, missing Armenian characters; Ireland; 1994-10-11 (**withdrawn**)
- N 1108 Defect Report, missing Latin Extended B characters; Ireland; 194-10-11 (**withdrawn**)
- N 1109 Defect Report, error in Latin-1 supplement and Lati Extended-B, add two new LATIN CAPITAL LIGATURE AE and LATIN SMALL LIGATURE AE; Ireland; 1994-10-11
- N 1110 Defect Report, missing Armenian punctuation symbol (star asterisk); Ireland; 1994-10-11 (**withdrawn**)
- N 1111 Defect Report - 4 reports , rename some Cyrillic characters table 11 - row 4; Ireland; 1994-10-11
- N 1112 Defect report, rename general punctuation characters;; Ireland; 1994-10-11
- N 1113 Defect Report, error in Armenian, unify two characters and delete two others; Ireland; 1994-10-11 (**withdrawn**)
- N 1115 National body comments on WG 2 N 1019 (Defect Report on Greek script); ELOT; 1994-10-06

Output Documents:

- N 1086 Updated Defect Report (Updated of 1031R); Arnold Winkler et al, WG2 ad hoc; 1994-10-10
- N 1114 Summary of technical defect reports; Arnold Winkler et al, ad hoc editing group; 1994-10-12

It was noted that several defect reports were for adding new characters or replacing existing ones. Some were based on the disposition of comments on the ballot response prior to the publication of ISO/IEC 10646-1: 1993.

Submitters of defect reports are recommended strongly to revisit their submissions, and if the proposal is to add new character(s), to use the new form for filling the information requested in the proposal summary form. The ad hoc group on defect reports should look at only those defects or additions of characters --- that are based on the published version of the standard.

7.2.1 N 1086: Ad hoc group's report on Disposition of Editorial Defect Reports

Mr. Arnold Winkler introduced this document prepared by the ad hoc group. The previous collection of defect report dispositions in document N 1031R was not reflecting minute contents. This has been rectified. Defect report dispositions are entered with number, country, accepted/rejected, and disposition.

Discussion:

- a) ACTION: Member bodies are requested to check the contents of N 1086 with respect to their contributions / defect reports.
- b) Professor Kyongsok Kim: N 1054R entry - Korea would like to study this further before accepting N 1086.

Mr. Bruce Paterson: 10.3 proposal in N 1054R is simply moving the paragraph from section 7 to section 10.

N1054 R contains two parts. One of them is the change in the text and the other one is a call for an annex on list of compatibility characters.

ACTION: China, Korea and Canada to contribute to this annex.

Reword action to indicate that this deals with part of N 1054 R. The last part about "Japan is invited to provide ..." should be deleted.

- c) N 1115 - is a response from Greece (for information only) for a Proposed defect report.. It is not considered in N 1086.

N 1086 was modified with the suggestions and re-distributed at the meeting. All attendees were requested to discard the previous version.

Relevant Resolution(s):

RESOLUTION M26.2 (on disposition of editorial defect reports):

WG 2 instructs its editor to prepare editorial corrigenda from the instructions to the editor contained in N 1086. Further the editor is instructed to accumulate these corrigenda with those previously agreed to by WG 2. The editor is further instructed to prepare camera ready revised text for submittal to ITTF at a future date.

7.2.2 N 1114: Ad hoc group's report on Suggestions on Non-Editorial Defect Reports

Mr. Arnold Winkler presented this output from the ad hoc on defect reports. Everything that did not fall under the category of Editorial Defects is included here. Ad hoc has made suggestions to WG 2. In many cases, the member bodies will need to address them individually. In some cases, there is a ballot under way. In other cases the recommendation is precise. The Proposal Summary form prepared during this meeting (to be documented in N 1116) is recommended to be used for new character submissions. Member bodies were asked to discuss the contents.

Discussion:

- a) ACTION: N 1114 - will not be approved at the meeting. Member bodies are to examine the contents and take appropriate actions on the suggestions from the ad hoc.
- b) The column 'Country' should identify the type of submitter - for example, Member Body, Liaison Organization, . The column marked 'Country' will be marked 'Source'.
- c) Mr. Alan Griffie: The response on N 1113 has been marked 'rejected'. The editor has been asked to mark 'to be deprecated'.
- d) Mr. Jürgen Bettels: Remove N 1113 from N 1084.
- e) ACTION: Ref. N 1054 R - Compatibility Characters - Data re: sources etc.- must be sent by member bodies who have such compatibility characters - to IRG / Japan.
- f) Mr. Stefan Fuchs: Introduced N 1079R from Israel: The document is a proposal to add new characters from Israeli standard - IS 1311 part 2 - to support religious texts (cantillation marks) into 10646. Mr. Fuchs will take it back to Israel, use the new form and re-submit to WG 2. Missing information (per Proposal Summary form) will be provided.

Ms. Joan Aliprand: there is also a community in USA who will be interested in using the cantillation marks.

Professor Kyongsok Kim: please provide a specific list of new characters (and names) that are being requested. The information is embedded within the text of N 1079R.

The proposal was accepted in principle.

- g) N 1087-2: APL character names: from SC 22/WG 3 was listed as a non-editorial defect under N 1114. After some discussion this defect was accepted in principle (this item should have been moved to N 1086) - the actual wording of the annotations to character names is to be selected by the editor. These characters are interpreted correctly by the APL community following the glyphs shown.
- h) Mr. Michael Everson: Was discussing with a group AESA (Armenian Education Society of America (?)) about 10646. Apparently the government of Armenia may come up with 10646 change requests.

Defect reports in documents N 1107, 1108, 1110 and 1113, dealing with some Armenian characters and some other characters, were formally withdrawn by Ireland, due to information received about the expected release of a National Encoding Standard by Armenia. Ireland may re-submit parts of 1108 at a later time.

- i) Mr. J. van Wingen: there are two ways of pronunciations for Armenian characters - Eastern and Western. Apparently the interested parties are getting together in Armenia and trying to get an agreement in naming of characters etc..
- j) Mr. Mike Ksar: Once Armenia submits their contribution to WG 2 we will process them following the existing WG 2 procedure.
- k) Ms. Joan Aliprand: Currently they plan to become a Unicode consortium member and pass their requests through the channel. Unicode consortium, while welcoming contributions to Unicode, they prefer that the country organization becomes either a P or an O member of JTC 1/SC 2.
- l) Mr. Sten Lindberg: would like to get the names and addresses of the individuals who are involved from Armenia, so that SC 2 secretariat can follow up with the appropriate Armenian authorities.
- m) N 1109 - Ireland is invited to comment on Ballot on technical corrigendum on Æ.
- n) N 1111-P1 - Rejected on the basis of name change
- o) N1111-P2 or N1111-P3 (no decision at this meeting).
- p) N 1112 - Rejected.

Disposition:

N 1114 was modified with the suggestions and re-distributed at the meeting. All attendees were requested to discard the previous version.

8. IRG and Related Items

8.1 Report from WG 2/IRG meeting in Beijing

Input Document(s):

- N 1043 Draft text of Annex: Rules of CJK Unified Ideographs (WG2/IRG N 100); WG2/IRG; 1994-07.07 (This document is superseded by N 1059)
- N 1059 Annex: Rules of Unification and Arrangement for CJK Ideographs; IRG; 1994-09-16
- N 1060 IRG's proposal on 5 columns representation of East Asian Unified Ideographs; IRG; 1994-09-14
- N 1063 Meeting Report of IRG third meeting in Beijing; Akio Kido, Rapporteur of IRG; 1994-09-14
- N 1070 Vertical Unification of CJK Ideographs; Zhang Zhoucai, individual contribution, LIDI; 1994-08-26
(Note: this document is subject matter of IRG and was not discussed in WG 2.)

8.1.1 Report - Mr. Akio Kido

Mr. Akio Kido reported on the last IRG meeting. In addition to the meeting report in N 1063, N 1059 to N 1062 were prepared by IRG.

N 1059 - is input from IRG to WG 2 - completion of action item.

N 1060 - a request to WG 2 for format of the Ideographs.

N 1061 was discussed earlier (see section 6.1.1 above).

N 1062 is a set of defect reports (dealt with under section 7.2.1 above).

There is an IRG Internal Supplementation document on extensions to IRG repertoire. IRG is currently working on Vertical Extensions - approx. 70 000 - new code points will be needed. Currently prioritization discussions are going on. The internal supplementation will be distributed in about 2 months. Next IRG is scheduled for February 1995 in Taipei. Several attachments are included in N 1063 for information of WG 2.

Mr. Mike Ksar: The IRG has met productively - three times. They have contributed significantly towards progressing the Han part of 10646 - WG 2 appreciates the work of IRG.

8.1.2 Actions requested to be taken by WG 2:

Documents N 1061 was discussed under 6.1.1, and N 1062 was discussed under 7.2.1 above and are not included in this section.

8.1.2.1 item 1: N 1059

N 1059 - annex containing rules of unification - is requested to be processed as a pDAM.

Discussion:

- a) Mr. Akio Kido: Who should be the project editor for this pDAM?
- b) Professor Kohji Shibano: Should the IRG editor be given the responsibility for future progression of this pDAM also?
- c) Mr. Mike Ksar: Since Mr. Bruce Paterson does not have the glyph facilities, Mr. Mark Davis may have to handle the role of being a project editor. IRG editor can be requested to be the co-editor using the SC 2 template to provide a camera ready copy. The project editor may request IRG to assist in the form of sub-contract in this work. For example, as a camera ready copy or as bit-map-fonts.
- d) Mr. Mark Davis: if any document is sent in the form of .RTF document, it can be handled.
- e) Mr. Bruce Paterson: Has some minor editorial comments. These will be taken off line or can be included in the national body comments.

Disposition:

WG 2 accepted the work item request from IRG. Together with IRG, Mark Davis is responsible for processing the pDAM. The pDAM should be processed and submitted to SC 2 secretariat for processing

Relevant Resolution(s):

RESOLUTION M26.3 (on IRG items):

WG 2 accepts N1059 as the draft text of an annex to ISO/IEC 10646-1, and instructs its project editor to provide pDAM text for SC 2 ballot.

8.1.2.2 item 2: N 1060

N 1060 contains a proposal on 5 columns representation of East Asian Unified Ideographs to accommodate the fifth column for Vietnamese Han Glyph Images. The suggestion is to reduce the size of the fonts in order to accommodate the fifth column..

Mr. Akio Kido: The request to WG 2 is for acceptance of the notion of 5 columns for Han? An action item would be is to test the quality of output.

Discussion:

- a) Mr. Mike Ksar: we did a lot of work earlier to get the current standard in to the current level of legibility. Can the Han users (with IRG representation) can discern the differences between the characters (no loss of information) with a workable font (smaller size)?
- b) Mr. Alan Griffie: AFII's capability to deal with High Quality bit map fonts for ALL the scripts under Han will be available in the near future. Current 10646 is based on 96x96 - but in the final phase the 48x48 doubled was used due to production problems. Alan also pointed out that Reproduction of standards loses a lot of quality. The MASTER must have a font quality sufficient enough to reproduce multiple times and not lose the glyph. 96x96 fonts - 4 columns at 24 points is acceptable, not sure about 20 point quality.
- c) Professor Kyongsok Kim: Vertical size decrease will add white space. Also relation with existing (other fonts) may have to be examined.
- d) Mrs. Li Yunqin: In IRG they have been using the 5 column documents. Why are we discussing this now?
- e) Mr. Mike Ksar, Mr. Akio Kido: WG 2 has not accepted the 5-column format for final 10646 publication. It is OK for the internal IRG work. The current internal documents of IRG do not look exactly like current 10646
- f) Mr. Alan Griffie: What is the alternative for the 5-column?
- g) Mr. Mike Ksar: The Vietnamese Han glyph shapes will have to be accommodated by some other means in the standard. Another alternative is horizontal format increasing page count.

Mr. Peter Edberg volunteered to print a sample using available fonts.

The next day a sample was distributed to member bodies interested in Han characters. He took a 24 point based section, using an outline font reduced the 24 to 22 points to squeeze in 5 column. The fonts used for testing was of heavier variety. 300 dpi was used. Multiple reproductions were also tried.

Vietnam - has seen the sample from Peter and is quite satisfied with the reproduction. Complements Mr. Peter Edberg for the work - 600 dpi would have done a better job. China - is satisfied. Japan - is satisfied. TCA - is satisfied. Korea - is satisfied.

Disposition:

IRG can be given a conditional go ahead to proceed with the five-column, subject to final verification that the reproduction process at ITTF does not pose any problems. Final decision will be made at the next meeting.

Relevant Resolution(s):

RESOLUTION M 26.4 (on IRG items):

WG 2 accepts 5-column layout that includes Vietnamese for the code tables of the block of CJK Unified Ideographs in the future revision of ISO/IEC 10646-1, with the following conditions:

1. No additional pages are required to accommodate the 5 columns
2. Print quality of each character shape is good enough to distinguish the differences across 5 columns in a row. An agreed upon minimum design resolution is 96 by 96 dots matrix, for presentation at 22 points in print size.

8.1.2.3 item 3: Next IRG meeting:

WG 2 is requested to approve holding of next IRG meeting - February 1995, in Taipei.

Disposition:

Approved.

Relevant Resolution(s):

RESOLUTION M26.5 (on IRG items):

WG 2 approves that the IRG holds its fourth meeting in Taipei from February 27 to March 3, 1995.

9. Liaison reports

Input Document:

N 1032 Liaison Report - *Encoding* Newsletter; The Unicode Consortium; Winter 1994

Note: this report was distributed since WG 2 meeting 25.

9.1 Unicode Consortium - Ms. Joan Aliprand - Acting Liaison

Ms. Joan Aliprand reported verbally the highlights of the Unicode liaison report. The following written report was given to the secretary for inclusion in the minutes:.

Liaison Report from the Unicode Consortium - Delivered by: Joan Aliprand, Acting Liaison

New Edition of *The Unicode Standard*

As a result of alignment with International Standard ISO/IEC 10646-1, changes and additions were made to the Unicode character repertoire and codes. These changes and additions were originally documented in a supplement to *The Unicode Standard, Version 1.0*.

The Unicode Consortium has undertaken preparation of a new edition, *Version 1.1*, under the editorship of Glenn Adams. This new edition consolidates Version 1.0 and the supplement, and incorporates some new material. The projected publication date is first quarter, 1995.

The Consortium has consolidated various tables of character attributes and properties into a single database. The CJK cross-mapping table is being verified by the Consortium's contractor. The Unicode Technical Committee has verification of the non-Han cross-mappings a new work item. It is planned to issue all these databases on a CD-ROM with *Version 1.1*.

Korean

At the Unicode Technical Committee (UTC) meeting held on September 30, Microsoft Corporation presented a proposal for addition of approximately 4,000 hangul (that it currently must encode in the Private Use Area). This proposal was presented by Microsoft, as a corporate member of the Unicode Consortium, for consideration by other members.

It was the view of the UTC that if a proposal to add the hangul was to be made to WG 2, the proposal should be made by the Korean national body. It would be inappropriate for the Unicode Consortium to make such a proposal..

No decision was made regarding the merits of the proposal. The Microsoft representative was asked to prepare a more detailed paper for the UTC discussing all the options (e.g., the use of UTF-16 should it pass), and explaining how the proposal would benefit all the members of the Consortium.

Previously, the UTC has formally expressed its intent to keep the Unicode character repertoire and code point assignment aligned with ISO/IEC 10646-1. Although no vote was taken at this meeting to reaffirm the UTC's intent, the sense of the meeting was extremely strong support for this policy.

Other News Items

The sixth Unicode Implementers' Workshop, held in Santa Clara, California, on September 8-9, was attended by over 200 participants. Mike Ksar was one of the speakers: his topic was the relationship between ISO/IEC 10646 and Unicode. The Proceedings of the Workshop have been published (for details, contact the Unicode Office at unicode-inc@unicode.org).

The American Library Association has established a subcommittee to develop mappings between the character sets currently used by the American library community and ISO/IEC 10646. Members represent the Library of Congress, the National Library of Medicine, the principal bibliographic utilities, and library software companies; I represent the Research Libraries Group. The subcommittee's work will also address the use of ISO/IEC 10646 in American library records (i.e., in the USMARC formats for library data). At an international library conference in August 1993, I called upon librarians to decide how to use the new international standard in their particular environment; the creation of this Subcommittee is the first response to that call.

Related Discussion:

Mr. Mike Ksar: He participated in the workshop and made a presentation on 10646. Slides that were used at the presentation - history, architecture, structure, WG 2 program of work etc. is made available to any one (request Mike). The presentation has been about 6 or 7 conferences - spreading the word on the work on 10646 standards development and its use by the various communities. A number of requests for 'sources for fonts' to assist with implementation of 10646. Queries are being received by SC 2 secretariat. Need information from member-bodies to assist with this.

Mr. Michael Everson - has an action item to produce fonts for TC 304 work to produce non-Han characters. To be used for standards related work. It is specifically meant for E-mail exchanges. If these are publicly available for standards Mr. Everson was requested to make the information available to membership of SC 2.

Mr. Alan Griffie: What about the concern about maintaining the consistency of fonts used in 10646? If the whole document is completely published, the consistency with existing fonts would be a consideration.

The fonts proposed by Mr. Michael Everson is for making discussion documents.

The final font required for new characters are to be supplied by AFII. AFII has volunteered to prepare final versions.

9.2 AFII

Mr. Alan Griffie presented the liaison report verbally. The following written report was given to the secretary for inclusion in the minutes:

Date: 10 October 1994
To: ISO/IEC JTC 1/SC 2/WG 2
From: Association for Font Information Interchange (AFII)

The Association for Font Information Interchange (AFII) recently concluded its sixth year in business, holding its annual meeting at the end of August in Oslo, Norway. At that time, the AFII Board of Directors reaffirmed AFII's "Vision, Mission, and Objectives" statement, and agreed upon a business strategy for 1995. AFII is committed to its support of the International Standardization efforts of ISO SC 2 and SC 18 and expresses to the members of SC 2/WG 2 that we want to work with you in your efforts to standardize character coding for the world.

AFII's primary focus is to provide font and glyph information services for the font and document processing industries, not to establish the standards, which we respectfully defer to the member bodies of ISO SC 2 and SC 18. AFII helped SC 2/WG 2 in its efforts to publish the ISO/IEC 10646 standard and we would like to continue to work with WG 2 and its representative countries to provide similar support in the future. AFII is also being requested by SC 18/WG 8 to provide registration services for font and glyph information used by the ISO 9541 Font standard and the ISO 10180 SPDL standard.

The font and glyph information collected and used by AFII in the past is in the process of being migrated from the Xerox Interpress system to a Microsoft Access database system. It is hoped that the data base system of AFII will be used by SC 2 and SC 18 members in their standardization efforts. Database queries and report generation capabilities will permit members to perform the studies necessary to determine the relationship among the various glyph identification systems of the world, the character coding systems of the world, and the font resource naming conventions of the world. We invite the members of SC 2/WG 2 to work with AFII, adding their information to the collected data of AFII, so all of us can use the database as a tool for determining future standardization requirements.

9.3 SC 18

9.3.1 SC 18 WG 8

Mr. Alan Griffiee gave a verbal liaison report.

WG 8 met 6 weeks ago in Oslo. SPDL standard was being prepared for final standard. The glyph registration procedure standard was requested to be amended with SPDL font resources and SPDL font references. WG 8 is working on the amendments to 10036 procedure standard (Font Information Object standards). SC 18 HOD and Convener meeting in London 1st week of December. If SC 2 is going to send a request to SC 18, Alan offered to carry the liaison request - to use the Proforma and re-submit the math symbols request. WG 8 meets end of January - and request for Math symbols can be resubmitted by WG 8 with the needed information. The original request was prior to publication of 10646.

9.3.2 WG 9: N 1037, N 1038

Input Document(s):

N 1037 Liaison statement from SC18/WG9 to SC2/WG2 - Inclusion of new characters required in ISO/IEC 10646-1; SC18/WG9; 1994-06-24

N 1038 New Work Item Proposal for SC18; SC18/WG9; 1994-06-29

Dr. V.S. Umamaheswaran briefly introduced the submission from WG 9. identifying that SC 18 WG 9 has complied with the request for filtering from WG 2 meeting in Antalya.

ACTION: SC 2 WG 2 to send back a liaison statement to SC 18 WG 9 that the contribution in N 1037 has been added to the list and the Proposal Summary form will be sent to them.

9.4 SC 22

Mr. J. W. van Wingen reported verbally. He had reported activities of SC 2 to SC 22. A report will be forwarded to SC 2. by SC 22 No resolutions from SC 22 from Copenhagen meeting. Even JTC 1 secretary made a mistake by putting "8859-1 (ASCII)" in the e-mail header. The C-language community is still not changing the terminology -- w-char -- is used to mean multiple-byte codes.

Mr. Alan Griffiee: At the Copenhagen ad hoc meeting SC 22 delegate was going to create a registry of Linguistic Elements

Mr. Arnold Winkler - convener of SC 22 WG 20. Not enough people were there for Ad Hoc group on Character Sets since most of them were in Cupertino (?). I18N ad hoc group is expected to give the correct guidance, and because of that the interest is not in the character sets level. Character set issues were part of the WG 20 meeting in Cupertino, last week.

9.4.1 SC 22 WG 20: (Mr. Takayuki K. Sato)

Mr. Takayuki Sato reported verbally.

SC 22 WG 20 met last week for four days in Cupertino. There was no formal liaison report. In Antalya SC 22 WG 20 requested WG 2 for equivalency tables etc. The Unicode consortium submitted as an input to this work item. SC 22 WG 20 is anxiously awaiting completion of the work. One of the projects - default ordering of standards - uses the Equivalency table as one of the corner stone. On top of the equivalency table, culturally correct list of repertoires should be requested from the submitters. WG 2 did not want to entertain this request in the past, The Guidelines for Programming Language standards -- SC 22 Plenary resolution -- 10646 will be included in programming language support. The particular TR is about 18 months from now.

Two observations: there are differences in the definition of CHARACTER between SC 22 and SC 2. We should attempt to overcome the difference. Some of the SC 22 experts do not have experience of going through 10646, they are talking from rumor - simply because of the cost of buying the standard. We have to think about making it easier for them.

Mr. Mike Ksar: SC 22 WG 20 will be focusing guidelines for 10646 - we would like to monitor from this WG 2. Suggestion - can use of WG 2's proforma - as starting point and can make additions needed for SC 22 WG 20's work. Cost of standards should not be a deterrent for those in Standards Work. National bodies usually make a free copy available to the experts for such work.

9.4.2 SC 22 - WG 3 APL working group

Input Document:

N 1087 Suggested additions to repertoire of APL; SC22/WG3; 1994-10-07

N 1087 contains the request for a full QUAD character and some name changes. Name changes were dealt with under the defect reports.

ACTION: SC 2 WG 2 should send a response liaison statement indicating that their proposal in N 1087 has been included with the rest of the proposals and the Proposal Summary form be filled by the submitter.

9.5 SC 21 WG 3

Professor Kohji Shibano reported.)

SC 21 WG 3 is responsible for Data Bases. SQL is a database language. Extended support for national character sets has been added. SQL 3 version supports completely the First Version of DIS of 10646 - will be amended to support full 10646 including UTF16 as well UTF-8. Another project is the Multimedia project. Part 2 is -- text - will support together with SQL languages, all of 10646 in the future. ISO 9075 - Refers to UCS-2 and UCS-4.

Representative from SC 21 WG 3 attended SC 22 WG 20 and he left with the impression that we know what we were doing. X.500 - stepping up to support 10646 - earlier version supported using ASN.1 identifiers for UCS-4. This is being changed to UTF-8, UTF-16 and UCS-2.

9.6 ITU/T - SG 8

The following liaison statement was supplied to the secretary by Mr. George Tzortzinis for inclusion in the minutes:

For: JTC 1/SC 2/WG 2 consideration

From: G.B. Tzortzinis, ITU-TS Liaison Officer

Subject: ITU-TS Liaison Statement

ITU-TS has already approved as a first step a new work item titled: "Multiple-octet coding (according to ISO 10646-1) and conversion to and from 7/8 bit coding systems, for telematic services". The result should be a new T.5x Recommendation which is anticipated to be approved by the end of 1996.

9.7 Others

XoJIG is planning to provide the support - including support for locales for composition techniques.

10. Other business

10.1 New Work Item Proposals and Related Items

10.1.1 Registry of Conversion Tables

Input Document(s):

N 1077 Registry for conversion between 10646 and other coded character sets; ANSI, U.S.;
September 1994

No Discussion at this meeting.

10.1.2 Equivalencies of Combinations

Input Document(s):

N 1056 NP on Equivalency data of 10646 characters; personal contribution,
Takayuki K. Sato, Japan; 1994-08-08

N 1064 Equivalency List of 10646 Characters (Japanese); Japan, T. K. Sato; 1994-08-31

No Discussion at this meeting.

10.1.3 Source of Characters

Input Document(s):

N 1055 NP on 10646 character source data and cross-reference with other standards;
personal contribution, Takayuki K. Sato, Japan; 1994-08-08

N 1066 List of JIS X 0201 Sourced 10646 Characters (Part 1); Japan, T. K. Sato; 1994-08-31

N 1067 List of JIS X 0201 Sourced 10646 Characters (Part 2); Japan, T. K. Sato; 1994-08-31

N 1068 List of JIS X 0208 Sourced 10646 Characters; Japan, T. K. Sato; 1994-08-31

N 1069 List of JIS X 0212 Sourced 10646 Characters; Japan, T. K. Sato; 1994-08-31

No Discussion at this meeting.

10.2 Future meetings

Based on the large number of outstanding work items, and based on the need for proposal summary forms to be filled and submitted for the next meeting, in order to progress the work on additions to the repertoire it was decided that there is a need for another meeting prior to the Helsinki meeting (in conjunction with the SC 2 plenary). Filled forms may be brought to the meeting. All repertoire additions past the publication date of 10646-1 should be considered. A letter along with document N 1116 will be sent to all liaison organizations and member bodies.

Mr. J. W. van Wingen: Would like to see a WG 2 E-mail distribution list set up to facilitate in-between-meeting discussions.

Mr. Mike Ksar: If E-mail ids are available to everyone then we can distribute WG 2 documents. Formal distribution of documents cannot be done via E-mail. JTC 1 ad hoc group will be discussing the meeting and some recommendations will be upcoming. Large documents cause problems using E-mail.

A list of volunteer host countries was added to the meeting list.

Relevant Resolution(s):

RESOLUTION M 26.9 (Future Meetings):

- a. **WG 2 meeting no. 27:**
Week of 1995-04-03 (April 3, 1995) (Monday to Friday 5 days) in Egypt (Cairo) or Switzerland. (the location will be finalized by end of November 94).
 - b. **WG 2 meeting no. 28:**
Week of 1995-06-26 (June 26, 1995) (Monday to Wednesday, 3 days), along with SC 2 plenary and WG 3 meetings in Helsinki, Finland
 - c. **WG 2 meeting no. 29:**
Week of 1995-11-06 (November 6, 1995) in Japan.
 - d. **WG 2 meeting no. 30:**
Week of 1996-04-xx (April , 1996) (Monday to Friday, 5 days)
Canada or Denmark. (Note: we should avoid conflict with SC 22 WG 20 meeting)
- Volunteer countries for future meetings:**
Vietnam, China, Netherlands, Greece, Ireland, Israel and USA

11. Closing

11.1 Approval of Resolutions

N 1118 (Proposed) containing draft resolutions was discussed. The resolutions are being numbered in the form of Mxx.n, for example M26.1, to facilitate easier referencing and tracking in the future. Nine resolutions M 26.1 through M 26.9 were adopted. Some of the changes made to the draft recommendations were:

- a) Rewording to clarify different aspects.
- b) Question regarding resolution M 26.3 - Is our intent to send the corrigenda responses piecemeal or collect a number of changes?
Answer: WG 2 will accumulate several defect reports and package the corrections to a collection of these in a single 'corrigendum' and send the camera ready copy of the revised text to ITTF at a later date (whenever WG 2 decides to forward it).
- c) List of volunteer countries was added.
- d) Egypt volunteered as an alternative site (to Switzerland) to host the April 95 meeting. The convener in consultation with Egypt and Switzerland member bodies, will select the site before end of November 94.
- e) Appreciation to the ad hoc group on defect reports and to the meeting secretary were added.

The amended recommendations were unanimously adopted. The final text of these resolutions is in document **N 1118** and is recorded in the appropriate sections in these minutes.

Relevant Resolution(s):

RESOLUTION M26.8 (Appreciation):

WG 2 expresses its sincere thanks to the Unicode Consortium, especially Mr. Bill English and its office staff for the excellent arrangements, their kind hospitality and continued support during the WG 2 meeting no. 26.

WG 2 expresses its appreciation to its ad hoc group on defect reports - Messrs. Arnold Winkler, Bruce Paterson, Jürgen Bettels, Takayuki Sato, and Johan van Wingen - for preparing the dispositions to several defect reports input to this meeting and preparing documents N 1086 and N 1104.

WG 2 thanks Dr. V.S. UAmaheswaran for serving as meeting secretary for the San Francisco WG 2 meeting 26.

11.2 Adjournment

The meeting was adjourned at 10:30h.

12. List of Action Items

12.1. Outstanding Items From WG 2 Meeting 24, Washington DC

Item	Assigned to / action (Reference N 954R - resolutions, and N 955 - minutes of Washington DC meeting WG 2-24)
2. Editor - Mr. Mark Davis:	
d.	to include some text on 'what criteria can be used for defect report on character names' as part of the Set of Principles document (reference section 9-a-i.3) Note: Re-assigned to ad hoc group on principles and procedures - reference resolution M26.6..
f.	to prepare a defect report to correct the names for all the non-presentation form characters that have the term LIGATURE in their names (reference resolution AE-1), excluding those under resolution AE-2; (reference resolution AE-3).

12.2. Outstanding Items From WG 2 Meeting 25 Antalya, Turkey

Item	Assigned to / action (Reference N 1034 - resolutions, and N 1033 - minutes of Antalya meeting WG 2-25, and corrections to these minutes in Annex A of N 1117)
2. Convener (Mr. Mike Ksar):	
b.	Update document N 957-R containing the WG 2 program of work - capturing all the comments received under item 8.3 in this set of minutes.
3. Project Editor (Mr. Mark Davis):	
c.	Act on resolution UTF-1.
d.	Act on resolutions DR-1 and DR-2.
e.	Act on resolution pDAM3.
f.	Act on resolution PRIN-2.
4. French and the Netherlands member bodies.	Invited to prepare a formal defect report on Armenian characters (described in document N 1022). Mr. J.W. van Wingen had volunteered to contribute.
5. Japanese member body	
a.	Requested to forward a set of bit maps and /or the outline of the corrected shapes reported in document N 1006 and N 1014 along with a blown-up (96x96) hard copy to the editor. Note: Japan needed more information from the project editor regarding fonts See discussion under section 8.1.2 in WG 2-M26 minutes document N 1117.
b.	Invited to prepare a defect report to remove the inconsistency regarding annotations in character names from Rule 12 in the annex on naming rules in 10646-1.
6. Korean member body	Korea is requested to forward the set of bit maps, and or the outline of the corrected shapes of the characters in defects in document N 975, along with a blown-up (96x96 bits) hard copy is needed by the editor.
7. Messrs. Joachim Friemelt and Stefan Fuchs	Invited to prepare a paper containing ITU/T suggestions for clarification to the current naming rules in 10646-1.
8. Indian member body	The Indian member body is invited to prepare a defect report asking for the appropriate editorial change regarding references to ISCII 1991 - following the JTC 1 Defect Reporting procedures (and forms).

9. Danish member body (Mr. Keld Simonsen)	The Danish member body is encouraged to update the information in their contribution (Temporary Document) removing the parts that are not relevant to the Annex under resolution TKS-3 from the WG 2 Washington meeting no. 24.
10. Chinese member body	a. China is requested to study this possibility of composition to reduce the number of characters of the Yi script in document N 965 that needs coding in the BMP. b. Request that China and Mongolia get together and come up with an agreed upon joint proposal between the two by the next WG 2 meeting c. China is requested to coordinate the Tibetan script requirements by working with other member bodies such as India and other countries such as Bhutan and Sikkim using the Tibetan language and script.
11. Mr. John Clews	Mr. John Clews is invited to draft and propose a proforma incorporating his suggestions for guidelines for submission of new repertoires to be coded. Note: Resolution M 26.6 taken at this meeting makes this action no longer required.
13. All member bodies	d. Member bodies are invited to nominate a WG 2 expert to be the liaison representative from SC 2 WG 2 to SC 29.

12.3. New Items From WG 2 Meeting 25, San Francisco, CA, USA

Item	Assigned to / action
1. All WG 2 Experts	a. To note that WG 2 experts must be nominated by the member bodies and their intended attendance at the meetings must be conveyed to the convener prior to the meeting. Documents to be discussed at the meeting should be sent to the convener at least 6 weeks prior to a meeting. Documents submitted at the meeting may get considerations only at the next meeting. b. To ensure that their member bodies do return the ballots on pDAM-1 and pDAM-2, before the closing date, if they have not already done so.
2. All Member Bodies	a. Revisit their submissions prior to May 93 (when 10646-1993 was used as the starting point), and send a filled Proposal Summary Form for each to the WG 2 convener.. b. To examine all proposals for additions to the repertoire (refer to list in document list in N 1078 and in N 1050, and N 1100) and suggest enhancements, corrections etc., if there is any impact on the proposed characters' usage in their user communities. c. To review 1078 along with the noted corrections in WG 26 meeting minutes, and send feedback to Mr. Hart for updating the document. Several new contributions received after N 1078 are not included in the document. d. To feedback any specific requirements / comments to Japan with reference to document N 1093 on BRAILLE characters proposed by Japan. e. To give feedback to China on their proposal on Mongolian in document N 1098. f. To check the contents of N 1086 with respect to the disposition of their editorial defect reports. g. To examine the non-editorial defect reports in document N 1114 and take appropriate actions on the suggestions for their dispositions from the ad hoc.

2.	All Member Bodies (continued)
h.	To provide available information on 'sources of fonts' to answer questions received during promotional presentations on the standard, and by the SC 2 secretariat, by implementers of the of the standard.
i.	All contributors of WG 2 documents are encouraged to provide an electronic version of the documents -- preferred format is any one of the formats that is recognized and can be converted by MS Word for Windows. If the documents include any glyphs in RTF format, they are easier for the project editors to use directly.
3.	Project Editor / Co-Editor: Mr. Mark Davis / Mr. Bruce Paterson
a.	With reference to RESOLUTION M26.2, to prepare editorial corrigenda from the instructions to the editor contained in N 1086; to accumulate these corrigenda with those previously agreed to by WG 2 (document N 1031R); and, to prepare camera ready revised text for submittal to ITTF at a future date. The disposition regarding change request for some APL character names in N 1037 should also be incorporated (though it is listed only in N 1114 and not in N 1086).
b.	With reference to Resolution M26.3, and with N1059 as the draft text of an annex to ISO/IEC 10646-1, to provide pDAM text for SC 2 ballot.
4..	WG 2 Convener - Mr. Mike Ksar
a.	Convey to SC 2 request of WG 2 (with reference to recommendation M 26.1) regarding re-balloting of the six items: N 2480 -Subdivision of JTC 1.02.18 UCS; N 2481 - NP on Character Glyph Model; N 2483 - Request from SHARE Europe for C liaison; N 2511 - Request from Taipei Computer Association for C liaison; N 2512 - Request from Hong Kong Information Technology Federation Ltd. for C liaison; N 2513 - Request from EWOS Technical Computer liaison Group (TLG) subgroup on character sets for C liaison, including a 'distinctive ballot response form'.
b.	Request SC 2 to confirm WG 2 nomination of Mr. Bruce Paterson as a co-editor (with reference to recommendation M 26.7).
c.	To mark N 1107, N 1108, N 1110 and N 1113 in the WG 2 document list as WITHDRAWN (by submitter - Mr. Michael Everson, Ireland).
d.	To respond to liaison statement from SC 18 WG 9 that their contribution in N 1037 has been added to the list of proposals for consideration by WG 2, along with the request to fill the Proposal Summary Form.
e.	To respond to liaison statement from SC 22 WG 3 that their contribution in N 1037 has been considered. The request to add QUAD character, has been added to the list of proposals for consideration by WG 2, along with the request to fill the Proposal Summary Form. The request to change the names has been dealt with (disposition is in N 1114 under item 1037-2).
5.	Meeting Secretary - Dr. V.S. Umamaheswaran
a.	To update the resolution document N 1118 with all the modifications agreed to during the meeting and send it to the convener.
b.	To prepare (unconfirmed) meeting minutes document N 1117 and send it to the convener.
6..	IRG (Mr. Akio Kido)
	To take necessary action in IRG with reference to resolution M 26.4 regarding 5-column layout of Han block.
7.	Ad hoc group on principles and procedures (Messrs. V.S. Umamaheswaran, Sven Thygesen, Peter Edberg and Sten G. Lindberg)
	With reference to resolution M 26.6 and prepare N 1118, (and a transmittal letter to be sent to member bodies, liaison organizations and other potential submitters of proposals for additional characters to the standard), by end of November 1994 at the latest.

8. Ms. Joan Aliprand - Liaison to TC 46	To take parts related to TC 46 in document N 1071 for formal submission as liaison document by TC 46 along with the completed Proposal Summary Form.
9. Mr. Alan Griffie - Liaison to SC 18 WG 8	To convey to SC 18 WG 8 that their Math symbols proposal be resubmitted along with the completed Proposal Summary Form. The original request was prior to publication of 10646.
10. Mr. Sven Thygesen	input to Mr. Bruce Paterson proposal to assist in the preparation of technical corrigendum on AE (reference action item M 24 - 2f on AE)
11. Mr. Johan W. van Wingen	a. Communicate to SC 22 ALGOL working group, characters from document N 1071, towards preparation of a liaison statement to WG 2 along with the completed Proposal Summary Form. b. Invited to prepare contributions on Japanese, and Railway users that he volunteered to prepare during the meeting.
12. Mr. Michael Everson	a. To advise the SC 2 chair (Mr. Sten G. Lindberg) and the SC 2 secretariat, the names and addresses of contacts regarding Armenian encoding standardization effort. b. With reference to N 1105, Ireland is invited to submit improved glyph (check with editor) as well as proposed alternative names. c. With reference to N 1109, Ireland is invited to submit their comments as part of the ballot on technical corrigendum on $\mathcal{A}$.
13. Mr. Michael Everson and Canada	With reference to document N 1104 on Canadian Aboriginal syllabics, to work with Canadian member body (and CASEC) and get agreement on a common position.
14. Mr. Hugh McGregor Ross and Canada	With reference to document N 1073 on Canadian Aboriginal syllabics, to work with Canadian member body (and CASEC) and get agreement on a common position.
15. Canada, China, Korea - on Compatibility Characters	With reference to N 1054 R - act on the call for information on an annex on list of compatibility characters.

13. Output Documents

The following documents contain the results of discussions at this meeting:

N 1086	Disposition of Editorial Defect Reports and Instructions to the Editors of ISO/IEC 10646-1; Ad hoc group on defect reports - Messrs. J. Bettels, B. Paterson, T.K. Sato, J. van Wingen, A. Winkler; 1994-10-13
N 1100	Partial Document Register; Mike Ksar, Convener; 1994-10-??
N 1101	Updated WG2 Mailing List; Mike Ksar, Convener; 1994-10-??
N 1114	Summary of Non Editorial Defect Reports for ISO/IEC 10646-1; Ad hoc group on defect reports - Messrs. J. Bettels, B. Paterson, T.K. Sato, J. van Wingen, A. Winkler; 1994-10-13
N 1116	Principles and Procedures for Allocation of New Characters and Scripts (Revised N 946); Ad hoc group on Principles and Procedures (Messrs. V.S. Umamaheswaran, Sven Thygesen, Peter Edberg, and Sten G. Lindberg); 1994-11-xx
N 1117	Unconfirmed Minutes of ISO/IEC JTC 1/SC 2/WG 2 Meeting 26; Tuscan Inn - Fisherman's Wharf, San Francisco, CA, USA; 1994-10-10 through 14; V.S. UMaaheswaran, Meeting Secretary and Mike Ksar, Convener; 1994-11-xx
N 1118	Resolutions of WG 2 meeting 26; WG 2 Meeting 26, San Francisco, USA, 1994-10-10 through 14; 1994-10-18

===== END OF WG 2 Meeting 26 MINUTES =====