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Message-Id: <199407131728.AA14818@kug.dk>
Date: Wed, 13 Jul 94 10:25:30 -0700
From: antoni drudis <antoni@kalibutsu.cup.hp.com>
To: SC22WG20@kug.dk
X-Charset: ASCII
X-Char-Enc: 29
Reply-To: il8nsc@sfsc.kelo.ac.jp
X-Sequence: il8nsc 1375
Subject: (il8nsc 1375) (SC22WG20.946) preliminary minutes from the WG20 Oxford meetin
g
Errors-To: owner-il8nsc@sfsc.kelo.ac.jp
Sender: il8nsc-request@sfsc.kelo.ac.jp
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Minutes of the WG20 meeting held in Oxford, U.K. on April 11-15, 1994

1 Introductions and announcements by Convener.

Some documents are distributed, and the convener notes that a full set of all the WG20 documents will be available.

The next meeting location (Cupertino) has been approved by ISO, and some information about transportation and lodging is distributed now.

The convener announces that Mr. Cote (secretary of SC22) has announced his intention to resign, but so far there are no candidates to take over his position.

The convener also notes that the participation in internationalization standards meetings is down, and stresses the need to increase our effort and commitment to ensure a timely delivery of our committed work.

2 Introduction of National Delegations and invited guests.

Canada: Alain La Bonte Gouvernement du Quebec
Denmark: Keld Simonsen Sekretariat du Conseil du Travaux
Japan: Akio Kido Danish Standards
Takayuki K. Sato IBM Japan
New Zealand: Bob Barbour Yokogawa Hewlett-Packard
U.K. Miles Ellis Oxford University
John Diamond Hoskyns
Bruce Patterson
U.S.A. Antoni Drudis Hewlett-Packard Company
Convener: Arnold Winkler Unisys

X/Open liaison: Vic Goddard
SC22/WG11: Brian Meek

3 Nominations for this meeting: Appointment of Chairperson, Secretary, and Drafting Committee.

Chair person: Arnold Winkler
Head of the drafting committee: Keld Simonsen
Secretary: Antoni Drudis

4 Special Presentation: Inter-programming languages standards, by Brian Meek (ISO-IEC/JTC1/SC22/WG11).

* References:

TR-10182 Binding techniques for programming languages 1994
DIS 10967-1 Language-independent arithmetic 1993
DIS 10404 Language-independent data types 1993
CD 13886 Language-independent procedure calling 1993
ANSI-IEEE 754 Binary floating point arithmetic 1985
JTC1 DIS 11578 Remote procedure call 1993

* Articles by Brian

Two-valued data types. SIGPLAN notices of ACM Vol 25 n.8
Problems of language bindings. Computer standards and interfaces. Vol 15, n.4. pp 353-360
Programming languages: towards greater commonality. SIGPLAN 04/94.
Taxonomy of data types: what is a procedure call (in preparation)
Presentation:

The original purpose of WG11 was to catch the experience of language bindings, specifically, GKS bindings.

The first step is to recognize that languages look different, feel different, behave different, and are different, but still have a lot in common.

It is fatal to be "too" ambitious: if you try too much, you'll never finish.

Two keys points: need to take into account the relevant standards, and need to know who is the target audience (in the case of SC22 the target audience is always the set of language implementors). Standards are for the benefit of the users, but the standard can be written using a technical language: precision is more important than "easy to be understood".

Beware of hidden assumptions. For example, beware of assuming POSIX functionality underneath the standard.

It is very difficult to be language-independent, and it is necessary to look at specific achievable targets.

There are several level of standards:

Base standard: raw material
Functional standard: add facilities
Generic standards: common definitions at the language level

It is necessary to check (and avoid) conflict with existing or emerging standards. For example, ensure that POSIX assumptions

W614/N373
XJ511/94-058

don't hinder the WG20's work.

It is counterproductive to point at bad assumptions from other programming languages.

Don't think that the ideal is not reached: be prepared to stop when the document is "good enough"

Concepts (for example, data types) have to be high-lightened.

There are several levels of abstraction:

Representation Disastrous for language-independent specification

Operational

Computational levels

Linguistic

Abstract

Language-independent representations have to be avoided, and abstract-level (i.e., it needs extra-rules to be implemented) has to be avoided.

During the writing of TR10176, the distinction was made between:

Syntax / Semantics

Static / Dynamic

Operational / Linguistic *** the standard has to indicate which level it is addressing

Political aspects of writing a standard: need to "sell" the standard: need to interact with other standards committees.

Last rule: decide very early on what to do about bindings: do sample bindings early (at least, three "major" languages) to avoid the political issues and to learn from the technology of each language.

"Rule 0": get the conformity clauses straight. First question is: "are language bindings needed?" (i.e., can we satisfy the requirements by implementation instead of the standard?)

* Comments to the presentation

Political issues

Lessons to be learned

Need to get into other committee's schedules and processes: four years are already booked. For example, for FORTRAN/2000 it can be already too late.

WG20 needs representation in ADA and SQL committees

5 Approval of prior meeting's minutes (N226).

Minutes are approved with a comment from the U.K. (Miles Ellis): the next FORTRAN revision is not the final revision, because in the programming language standards there are only intermediate and major revisions, but not final ones.

The minutes are approved as amended.

6 Future meeting's schedule and plans.

October 3-7, 1994: Cupertino, California
May 15-19, 1995: There are several candidates:
1) France or Tunisia
2) Denmark

October 1995: 3) Quebec
4) New Zealand (dropped later on)
There are also some candidates:
1) Quebec
2) Denmark

April 8-12, 1996: Japan

7 Recognition of document and assignment of agenda items.

Some new documents (N230, N258, N259, N220R, N260, N245, N248, N261, N230R) are introduced and assigned to the agenda items for discussion during this meeting. Also, the document numbers N262 and N263 are open for Denmark and Japan to reply the documents N254 and N255.

Issues processing (N212) is taken out of the agenda.

The agenda is approved as amended.

8 Issues processing. Taken out of the agenda.

9 Revision of the agenda. See document N231R.

10 Approval of the agenda.

11 Liaison reports

11.1 Additions/deletions/changes to liaisons.

Standing document 4 (SD4): who are our liaisons to and from other working groups (for example, Jim Melton is the liaison for SC21 WG3 (SQL))

We need to add SC18 WG9 and ISO TC37 (alphabetic ordering)

Resolution: Invite Ann Wallace (COBOL) to the Cupertino meeting

Resolution: Keld Simonsen nominated liaison from WG20 to TC37

Discussion: Alain Labonte could be our liaison to SC18 WG9

11.2 SC22/WG4. No report from COBOL

11.3 SC22/WG15. POSIX, Rapporteur Group on Internationalization. Keld Simonsen.

POSIX.2 is now an international standard: ISO 9945-2, 1992

WG15 is working on an addendum (POSIX.2b, approximately 100 pages)

A Guideline of National Profiles and National Locales is coming soon.

Open Systems Guidelines, with an internationalization chapter written by Arnold 4 or 5 years ago for POSIX.0, and with final editing by Gary Miller 3 years ago.

11.4 X/Open. Vlc Goddard.

11.5 SC2/WG2

Meeting next week

280 Previous meeting was held in Washington DC, November 1993
 281
 282 Normalization is an issue because if a character is added, old
 283 valid normalized arrays would become invalid.
 284
 285 SC2WG2 is willing to provide collation information to WG20,
 286 conveyed through equivalency tables. Alain will provide the
 287 template to SC2WG2.
 288
 289 Comment by Keld: a-ring is coded only one way (no floating
 290 diacritics are allowed here).
 291
 292 Extension to ISO 10646 as a result of a defect of the old
 293 ISO/10646: one 'key' defect report from the U.S. because of
 294 the use of the C1 control character as valid character.
 295
 296 Next week: Japan almost finished the conversion between JIS
 297 and 10646, and more than 31 defects were uncovered.
 298
 299 Another issue for next week's meeting: extensions requiring
 300 more than two bytes: is this acceptable for programming
 301 languages?. Specifically, mixing UTF-16 and UTF-32 seems to
 302 be difficult.
 303
 304 11.6 SC2/WG14 C Keld Simonsen.
 305
 306 WG14 is ready to submit an extension for Danish support (7-bit
 307 replacement codes, with tri-graphs, di-graphs, and key-words)
 308
 309 Working on Multi-byte extensions (MSE). Kido-san distributed
 310 a copy of the specifications to the interested delegations.
 311
 312 Also working on interpretation (some of it, internationalization
 313 related)
 314
 315 Revision of the C standard due in 1995, but this is beyond reach.
 316
 317 Keld notes that ECMA is working on m² (initially from X/Open),
 318 for multi-byte, multi-locale extensions.
 319
 320 11.7 SC2/WG21 C++ Keld Simonsen.
 321
 322 About to send out CD registration ballot
 323
 324 There are a number of issues: string class, with extended
 325 character set support, and locale handling in C++
 326
 327 11.8 SC2/WG5 FORTRAN Miles Ellis.
 328
 329 WG5 has not met since our last WG20 meeting.
 330
 331 WG5 is planning to produce a revision of FORTRAN next year.
 332 After that, next revision is planned for 2001.
 333
 334 WG5 wants to put in features for internationalization but it
 335 needs to know the principles.
 336
 337 11.9 Share Europe Alain LaBonte'
 338
 339 Share is planning to merge with GUIDE Europe
 340
 341 11.10 SC18 WG9 Alain LaBonte'
 342
 343 A written report is distributed.
 344
 345 ISO 9995 - European keyboards parts 1 to 7 (out of 8) ready
 346 to be published.
 347
 348 Also working on input methods for ISO 10646 characters.
 349
 350

351
 352 Alain is the editor.
 353
 354 Issues of alphabetic keyboards (telephone versus banks)
 355 and voice messaging services (standard for data entry)
 356 when using non-latin alphabets.
 357
 358 12 Reports on related activities. Keld Simonsen.
 359
 360 12.1 CEN TC 304 (documents N260, N261)
 361
 362 Have had two meetings since our last WG20 meeting.
 363
 364 Have proposed to liaise with WG20.
 365
 366 Will do a registration of cultural elements in the way we see
 367 appropriate.
 368
 369 Registration will include:
 370
 371 - General specification
 372 Numbered sections where you can register anything
 373
 374 - POSIX locales
 375
 376 - POSIX charmaps
 377
 378 - POSIX repertoire (like ISO 10646 symbolics)
 379
 380 Name scheme:
 381
 382 - Language, using the ISO/630 language code en: English,
 383 da: Danish....
 384
 385 - Territory, using the ISO/3166 standard cn: Canada, jp: Japan....
 386
 387 - Revision number (main version + subrevision)
 388
 389 - Use (librarians, data bases, phone books, dictionaries)
 390
 391 TC304 is different from the WG20's NP mainly in the use of charmaps.
 392 It is also harmonized with the X/Open registry.
 393
 394 CEN TC304 is an approved project, planned for ballot in October,
 395 1994.
 396
 397 CEN European repertoire: fourth draft
 398
 399 Latin
 400 Greek
 401 Cyrillic
 402 Some special characters
 403
 404 European sub-repertoire of ISO/10646 (level-1 only), for all
 405 European languages (both official and minority languages), plus
 406 what is commonly used in European character sets.
 407
 408 Liaison statement from CEN. N260 (WG2 resolutions).
 409
 410 WG20 questions the relevance of N260 to WG2 as a group, because
 411 WG20 will not produce locales (see agenda item 19)
 412
 413 WG20 members (e.g., Japan) cannot respond to these questions.
 414 Instead, the questions have to be forwarded to their corresponding
 415
 416 12.2 ECMA. Arabic Task Group
 417
 418 No personal liaison report (see N245)
 419
 420
 421

Working on international ordering and Arabic ordering

Alain will review it and he will inform WG20 about possible items that require actions from the group.

Alain notes that N245 discusses mono-casing, not collation.

WG20 accepts the offer from ECMA to cooperate with them.

13 Review of action items. Standing document 5 (SD5)

SD5 was sent out in March.

Items "done" will stay in the list one more meeting, and then they will be deleted.

14 Framework, requirements, and model for internationalization TR11017 Document N230 (and revisions - the new version is N277).

Plan:

- We will review the document
- Sato-san will edit it
- Miles Ellis will do some English proof-reading and editing

Note: the secretary has notes of all the changes proposed and all the decisions made in the meeting. Since they will be reflected in the final version of TR-10176, they will not be included in the agenda.

Dates:

End of May: send changes to Sato-san

End of May: Sato-san sends draft to Miles Ellis

End of June: Miles sends the edited document to Arnold

Early July: Arnold makes copies, and sends them to WG20

End of July: send copies to SC22 conveners and SC22 TAG

15 Special presentation. Character-less programming, by Bob Barbour.

Words by themselves don't convey any meaning.

New Zealand wants to draw attention to the need to separate messages from the program. This is a move towards solving the problems at the screen level.

The solution presented by New Zealand includes binding the messages at compile time.

The proposal includes the replacement of programming language tokens be "local" tokens.

Discussions: Issues with source code portability and order of tokens in a sentence.

16 Revision of TR 10176

Japan asks for a 6-months delay for this project because of lack of responses for TR-10176

Text will be sent in LaTeX and plain ASCII.

Approval of the revision policy for TR/10176

If a facility required from the programming language is not supported by the platform, the programming language compiler has to provide it by itself.

Do not require extra-functionality, just require that if the programming language has a given feature, that feature has to be internationalized. For example, if the programming language provides date and time, the compiler has to provide localized date and time services.

WG20 may recommend extensions (such as how to identify the language)

Comments due June 6, 1994, and final comments due in August 1994.

In September the editors will send a draft to the convener, and in October we will have a discussion in Cupertino.

17 International ordering of ISO/10646.

Languages have different number of ordering levels (Latin: 4, Cyrillic: 3, Arabic: 5 - may be 4-, etc)

A new header for each script will describe the properties of the script. But the 'header' should be placed at the end of the file to be compliant with POSIX.

When a file has several scripts, it has to have several 'headers'.

Japan proposes Alain to send a technical paper to the Japanese delegation to discuss the subject off-line.

Schedule:

Alain proposes to have in October 15 the text and tables for draft

Kido-san proposes working drafts in October 94 and April 95, and to have a final draft, ready for registration, in October 95.

18 Normalization of ISO 10646 N266, N243.

The list of equivalences should be completed with a list of non-equivalencies.

Resolution: WG20 acknowledges N266 (N266R).

19 Cultural convention-sets and registry (N253, N254, N255)

19.1 Summary of voting and comments resolution.

SC22 approved Mr. Kido and Mr. Noda as project co-editors.

19.2 N255: NWI on cultural convention sets specification.

Comment from Germany: cost evaluation should be part of the project. Keld Simonsen takes an action item.

Comments from the Netherlands not well understood by WG20. We will ask for clarification, and will provide N224 to SC22 (once approved by WG20)

Comments from Japan: move POSIX information to WG20, and recommend POSIX to point to WG20.

Discussion: what internationalization services are not in POSIX?

Data Input

Multi-lingual synchronization

Measuring units
Paper size
Postal address format

Next POSIX (WG15) meeting in Tokyo (May 1994): WG15 can write a formal letter to WG20 asking WG20 to take over the registry.

19.3 Charnap registry.

N254: cultural convention sets registry

Comments from the Netherlands not well understood by WG20. (same as with N255)

Comments from Denmark: want charmaps included in the registry

UK raises the question: Is the registry just a list of national standards?

Discussion:

Arnold: No sufficient knowledge about the standard of registration

Doubts about the need of a registration based on the comments received for N254

Miles: Efforts are promature

Does WG20 has the time and resources to do the registry?

Kido-san: C and POSIX allow Implementation-defined locale names. This doesn't make the WG20 registry mandatory.

Miles: Write a statement saying that in view of lack of support, WG20 withdraws its proposal.

Another discussion (Keld) should we register locales?

Keld: yes

Miles, Kido-san: we are not registering locales, so the question is moot.

Decision: tactical withdrawn. We will not proceed at this time. We will revisit the subject once we have some more understanding of the prerequisites.

19.4 Resolution BV from the Paris meeting

We need to modify the paper to indicate that we are not going to pursue the registry.

20 Other business

Instructions to the convener for the SC22 plenary:

Report from WG20 convener to SC22

Talk to Jim Isaac (WG15 convener) about the registry

Keld points out the "selling" aspect of the meeting and recommends the convener to set up a special presentation for internationalization: "we have a product/we need feedback"

Distribute the Framework document

Ask for dates from member bodies (Miles points out the need to have a CD prior to that)

635 Ask for clarification about the ballot procedures

636 Sell out our standards plan

637 Issue: we need inputs from different cultural backgrounds.

638 We are cross-language and cross-culture.

639 21 Review of priorities and target dates

640 Comments for TR-10176 by July 29

641 Informal ballot for TR-10176 by July 29

642 22 Review of action items for this meeting

643 Alain: send the ISO number for the Address Format Standard to Sato-san

644 Convener: meeting in France
Invite COBOL and SQL conveners to Cupertino
Letter to TC37

645 Japan: time schedules for TR-10176

646 Draft of Alain's paper

647 23 Approval of resolutions

648 Future meetings

649 Liaisons

650 Disposition of comments on N1547
651 comments from Japan
652 comments from Germany
653 comments from the Netherlands

654 Disposition of comments on N1563

655 Liaison statement N270

656 Liaison statement to SC2/WG2

657 Resolution about N272: Response to resolution 288 (BV) from the SC22 plenary in Paris

658 Keld Simonsen raises the issue of Resolution 4 (N271 and last sentence of N272). By show of hands (3 in favor, 1 opposed, 1 abstention), the resolution is passed.

659 The remaining resolutions are approved by unanimous consent.

660 Thanks to the host for organizing the meeting and inviting us to a nice dinner, thanks to the convener for making 10*6 copies of each document so everybody would have a full set of WG20 docs, thanks to the editors of all the projects for their contributions, thanks to the special guests for their help, thanks to the drafting committee, thanks to the secretary, and thank God, I'm done for this time.

661 24 Adjourn.

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