ISO/IEC JTC1/SC 35 – User Interfaces
N0114

ISO
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Document type	Liaison report ISO/TC 211 to ISO/IEC JTC 1/SC 35
Title	Report on cultural and linguistic adaptability work at the ISO/TC 211 plenary held in Kyoto, Japan (September 27th to 30th 1999)
Source	Yves Hudon, ISO/TC 211
Date assigned	1999-11-15
Action identifier	For information at the SC 35 plenary in Paris (November 22nd to 26th 1999)

1-   Background

ISO/TC 211 held its 9th plenary in Kyoto (Japan) on September 29/30 1999. About 115 persons representing 19 ISO P-member bodies and 18 international organisations attended the meeting (see ISO/TC 211 N TBD document entitled *Draft minutes of the ninth plenary meeting of ISO/TC 211, Kyoto, Japan, 1999-09-29/30)*.

2-   Workshop

As follow-up to TC211 Resolutions 91 and 92 adopted at Vienna plenary in March 1999 (see below), a two-hour workshop on cultural and linguistic adaptability was held on September 28th 1999. About 23 persons attended this workshop and 11 P-members body were represented (Canada, China, Germany, Japan, Malaysia, Norway, South Africa, South Korea, Sweden, Thailand, United Kingdom). This workshop was held in parallel with many others working groups meetings, project team meetings and editing committee meetings.

This workshop included two parts:
- ISO/TC 211 Chairman report on Cultural and linguistic adaptability,
- Report on Unique Identifiers for Encoding Purposes.

2.1 ISO/TC 211 Chairman report on Cultural and linguistic adaptability

- At its 8th plenary held in Vienna (Austria) in March 4/5 1999, ISO/TC 211 adopted the following resolution (see ISO/TC 211 N 695 document entitled *Resolutions of the 8th Plenary Meeting of ISO/TC 211, Vienna, Austria, 1999-03-04/05*):

  **" *Resolution 91 - Cultural and linguistic adaptability*
  ISO/TC 211 recognizes the importance of cultural and linguistic adaptability and requests nations to review the relevant documents from ISO/IEC JTC 1, JTC 1/SC 35 and other sources (including national/regional requirements) and to provide comments to the secretariat by 1999-06-01.
  ISO/TC 211 requests its chairman to compile these comments and prepare a summary for review by members prior to the 9th Plenary in Kyoto. ISO/TC 211 requests its chairman to convene during the meeting week in Kyoto a workshop to address the summary report on cultural and linguistic adaptability within ISO/TC 211.
  Unanimous ".

- The ISO/TC 211 chairman's recommendations discussed by the ISO/TC 211 at the Kyoto plenary read as follows (see Annex A for a copy of ISO/TC 211 N 772 document entitled *Summary of activity concerning cultural and linguistic adaptability - Basis for discussion at workshop at the Kyoto meetings on Tuesday 1999-09-28 at 1500 hrs*):
  - *" ISO/TC 211 should welcome the invitation from SC 35 and request a liaison connection to be established with ISO/IEC JTC 1/SC 35 User Interfaces,*
  - *ISO/TC 211 shall adopt and implement principles of CLA where appropriate as soon as possible. Such principles must be in compliance with ISO/IEC JTC 1/SC 35 work in the field,*
  - *A survey of relevant places in the standards under development by ISO/TC 211 where CLA should be taken into account, should be conducted prior to and presented at the next plenary in South Africa,*
  - *Compliance with CLA principles should not delay the progress of accepted work items – where appropriate work on technical addendums, or other means, should be started as soon as practically possible,*
  - *Following the liaison request for SC 35, ISO/TC 211 representative should attend SC 35 meeting in Paris, November 22-26 ".*

2.2 Report on Unique Identifiers for Encoding Purposes

- At its 8th plenary held in Vienna (Austria) in March 4/5 1999, ISO/TC 211 adopted the following resolution (re: ISO/TC 211 N 695 document entitled *Resolutions of the 8th Plenary Meeting of ISO/TC 211, Vienna, Austria, 1999-03-04/05*):
  *"**Resolution 92 - Unique identifiers for encoding purposes***
  ISO/TC 211 accepts Canada's offer to resource the work to develop rules for the generation of unique identifiers for encoding purposes. As this work is related to 15046-18 (encoding), the work should be done in close communication with the project team for 15046-18.
  The work shall address the issue of cultural and linguistic adaptability, and be completed in time to be sent out one month prior to 9th ISO/TC211 Plenary in Kyoto".
  Against : Finland, Sweden
  Accepted".

- Canada presented the Ad hoc group's report on Unique Identifiers for Encoding Purposes (see Annex B for a copy of the Power Point slides presented [re: ISO/TC 211 N xxx (TBD) document entitled *Report on unique identifiers for encoding purposes presented at workshop at the Kyoto meetings on Tuesday 1999-09-28*]).

- In a cultural and linguistic adaptability perspective, the report suggested that ISO/TC211 should, at a minimum, implement the 4 following items:
  1. Use of the appropriate character coding set standard from ISO/IEC JTC 1/SC2 (ideally ISO/IEC 10646) to cover any languages involved in a geographic data interchange or in a geographic dataset. This item is already handled at ISO/TC 211.
  2. Use of Linguistically neutral identifier or equivalence tables for model components (objects, attributes and relationships) and metadata elements. The report proposed the use of tables structured to support localization requirements including multilingual equivalencies. This proposal was accepted pending a test to ensure workability.
  3. Use of codified permissible values for metadata elements described with a domain of values. This item is already handled at 70% in ISO/TC 211 work.
  4. Use of multi languages in free text metadata element. To accomplish this, ISO 11179-3 was proposed for use in ISO/TC 211 work. (ISO 11179-3 standard is currently under the five - year review).

- The UK suggested that the legal environment and jurisdictional issues of countries should also be taken into account in cultural adaptability in TC211. Many geographic features are defined in laws in different countries.

  Informative note: This problem and related issues has already been identified by the JTC1 BT -EC as a high priority area for new standardization work. It is also a high priority need for standards development work on business semantic descriptive techniques for implementation of Open-edi. TC211 understands that this is being address in ISO/IEC JTC 1/SC32.

- The recommendations in the report to ISO/TC 211 read as follows:

⌘ *"**Recommendation 1**: It is proposed that an equivalence table mechanism be used in TC211 to facilitate encoding and to permit for Cultural and Linguistic Adaptability.*

⌘ ***Recommendation 2:** It is proposed that TC211 adopts the following resolution.*
   Resolution xx - Equivalence tables
   ISO/TC211 recognises the need for Cultural and Linguist Adaptability in the TC211 suite of standards and the utility of providing additional information to assist an encoding process. It therefore adopts the use of equivalence tables for the use of Localization and encoding. Each of the parts of the TC211 suite of standards that contain schemas or define data elements shall include a normative annex containing a equivalence table identifying all of the schema and data elements. The Encoding Project Team in co-operation with the Model Harmonization Team shall provide the format of this table.".

2- Relevant resolutions to ISO/IEC JTC 1 /SC 35 work adopted at the ISO/TC 211 9th Plenary in Kyoto on cultural and linguistic adaptability

Re: ISO/TC 211 N 794 document entitled *Resolutions of the 9th Plenary Meeting of ISO/TC 211, Kyoto, Japan, 1999-09-29/30*:

Resolution 103   Request for liaison with ISO/IEC JTC 1/SC 35

ISO/TC 211 welcomes the invitation from ISO/IEC JTC 1/SC 35 User Interfaces, and instructs the secretariat to contact SC 35, to establish liaison between the two committees. ISO/TC 211 appoints Mr. Yves Hudon to serve as liaison representative from ISO/TC 211 to ISO/IEC JTC 1/SC 35.

Unanimous

Resolution 104   Cultural and Linguistic Adaptability (CLA)

ISO/TC 211 recognizes the principles of CLA and the related work of ISO/IEC JTC 1/SC 35.

ISO/TC 211 welcomes the offer from the NB of Canada to carry out a survey of relevant places in the standards under development by ISO/TC 211 where CLA should be taken into account. The survey, which shall include an impact analysis, shall be presented at the next plenary, where ISO/TC 211 shall decide how to implement the principles.

Compliance with CLA principles should not delay the progress of accepted work items – where appropriate work on technical addenda, or other means, should be started as soon as practically possible.

Unanimous

Resolution 105   Equivalence tables

ISO/TC 211 recognizes the need for Cultural and Linguistic Adaptability in the ISO/TC 211 standards and the utility of providing additional information to assist an encoding process.

ISO/TC 211 requests that the Encoding Project Team with Canada's assistance produce a case study/test of the use of equivalence tables for the use of localization and encoding. The study shall be sent out for review by the national bodies one month prior to the Cape Town meetings.

Pending a successful review of this test, ISO/TC 211 adopts the use of equivalence tables.

Unanimous

ISO

ISO/TC 211 **N 772**

ISO/TC 211
Geographic information/Geomatics

Title:	**Summary of activity concerning cultural and linguistic adaptability - Basis for discussion at workshop at the Kyoto meetings on Tuesday 1999-09-28 at 1500 hrs.**
Source:	ISO/TC 211 Chairman
Status:	Summary by the chairman regarding resolution 91 in Vienna
Required action:	For information - A workshop will be held in Kyoto on Tuesday 1999-09-28 at 1500 - 1700 hrs.
Reference:	N 695 Resolution 91
File names:	211n772.doc - 211n772.PDF
Distribution:	P, O and L members Chairman WG Convenors Mr. Keith Brannon, ISO CS Mr. François Salgé, CEN/TC 287

Summary of activity concerning cultural and linguistic adaptability (CLA)

Olaf Østensen, Chairman of ISO/TC 211

Background

We recall the following resolution approved at the ISO/TC 211 Vienna-plenary :

> **Resolution 91 - Cultural and linguistic adaptability**
>
> ISO/TC 211 recognizes the importance of cultural and linguistic adaptability and requests nations to review the relevant documents from ISO/IEC JTC 1, JTC 1/SC 35 and other sources (including national/regional requirements) and to provide comments to the secretariat by 1999-06-01.
>
> ISO/TC 211 requests its chairman to compile these comments and prepare a summary for review by members prior to the 9th Plenary in Kyoto. ISO/TC 211 requests its chairman to convene during the meeting week in Kyoto a workshop to address the summary report on cultural and linguistic adaptability within ISO/TC
> 211.
>
> *Unanimous*

The term "Cultural and Linguistic Adaptability" is according to ISO/IEC JTC 1/SC 35 User Interfaces defined as follows:

> "Cultural and Linguistic Adaptability" is the ability for a product, while keeping its portablilty and interoperability properties, to:
>
> - be internationalized, that is, be adapted to the special characteristics of natural languages and the commonly accepted rules for their use, or of cultures in a given geographic region;
> - fully take into account the needs of any category of users.
>
> The term "internationalization" is defined in ISO/IEC TR 11017 as a process of producing an application platform or application which is easily capable af being localized for (almost) any cultural environment. Examples of characteristics of natural languages are: national characters and associated elements (such as hyphens, dashes, and punctuation marks), writing systems, correct transformation of characters, dates and measures, sorting and searching rules, coding of national entities, (such as country and currency codes), presentation of telephone numbers and keyboard layouts. Related terms are localization, jurisdiction and multilingualism.

In Vienna ISO/TC 211 also welcomed the Canadian offer to resource work to develop rules for the generation of unique identifiers for encoding purposes. As this work is related to
ISO 15046-18 (encoding), the work should be done in close communication with the project team for 15046-18.

The work should especially address the issue of cultural and linguistic adaptability. Unfortunately, we have no report from this work available at the moment.

Comments received

We have received comments from two member bodies, Japan and Spain.

Comments from NB of Japan

Japan points to the importance of the issue and the work of ISO/IEC JTC 1/SC 35.

Japan believes that Cultural and linguistic adaptability should be respected. We are now reviewing concrete examples.
ISO/IEC JTC1,JTC 1/SC 35 is discussing this problem, so we had better to get as much information as possible from them.

The relationship with ISO/IEC JTC 1/SC 35 will be discussed later in this document.

Comments from NB of Spain

The comments from Spain are included *in extenso* in Annex 1.

Here is a short summary of the contribution from Spain.

The NB of Spain points at the following important points for considerin g CLA:

- to fully address specific cultural characteristics
- to avoid potential reluctance against the implementation of the standard
- to speed up the process of dissemination and implementation of the standard

Spain especially emphasizes the need for CLA in concern with the following ISO/TC 211 projects Part 10 *Feature Cataloguing Methodology*, Part 15 *Metadata* and Part 18 *Encoding*.

CLA must be considered with respect to neutral identifiers and also with respect to neutral codification of possible values for items

Additional information

Today it seems that the international body concerned with the issues of CLA and most relevant to ISO/TC 211 is the ISO/IEC JTC 1/SC 35 User Interfaces. Within this sub-committee there is presently a lot of interesting effort s of interest to us. We should, however, be aware that the scope of ISO/TC 211 is much broader (of course, within the field of geomatics) than SC 35 that is mostly concerned with user interfaces, input/output devices etc. Still, many of the principles are of general nature and the work of SC 35 should absolutely be recognized.

The preliminary scope of SC 35 is as follows:

> Standardization in the field of interfaces between users (including people with special needs) and systems, encompassing input and output devices in information technology environments, with the priority of meeting the JTC 1 requirements for cultural and linguistic adaptability.

> The standardization work on SC 35 includes the following areas:

> - interfaces between users and devices, such as keyboards, mice, pointers, pens, visual displays, and forms of audio and tactile input/output, with the emphasis on functionality

> - rules for system control by voice, vision, movement, gestures, etc.

> - presentation techniques, icons, graphical symbols, etc.

> - dialogue control and navigation in interactions between humans and systems systems assistance and tutoring

> (Reference document ISO/IEC JTC 1/SC 35 N 0079 and Resolution N 19 in document ISO/IEC JTC 1/SC 35 N 0083.)

While recognizing the competence of SC 35 and co-operate with them through the liaison mechanism, we should still be prepared that our CLA concerns could bring us outside of the SC 35 scope.

There are a three SC 35 resolutions that approved in their May meeting in Québec that we should be aware of:

RESOLUTION N 27 (Québec, May 1999) IT-Interface and user Interfaces: Cultural and linguistic Adaptability

SC 35 resolves that with respect to interworking among information and communication systems, JTC1 should ensure that future standards support the development of unique, unambiguous and linguistically neutral identifiers for values. This will facilitate the production of multilingual equivalent values from a human user interface perspective. SC 35 recommends that JTC1 solicit input from its SCs on how best to accomplish this.

UNANIMOUS

RESOLUTION N 29 (Québec, May 1999) Liaison with ISO/TC 211

ISO/IEC JTC 1/SC 35 appreciates the excellent presentation by Mr Yves Hudon of ISO/TC 211 (Geographic information/Geomatics) activities. SC 35 is interested to cooperate with ISO/TC 211 in a cultural and linguistic adaptability and user interface perspective. SC 35 will value to have a formal liaison with ISO/TC 211 in a near future.

UNANIMOUS

RESOLUTION N 34 (Québec, May 1999) Next meetings

SC 35 next meeting is scheduled in Paris, 22nd to 26th November 1999.
The following meeting is scheduled in Japan. Tentative date is May 15th to 19th 2000.

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Recommendations to ISO/TC 211

Based upon the presentation and discussion above, I recommend the following to be discussed by the ISO/TC 211 in the Kyoto plenary:

- ISO/TC 211 should welcome the invitation from SC 35 and request a liaison connection to be established with ISO/IEC JTC 1/SC 35 User Interfaces
- ISO/TC 211 should adopt and implement appropriate principles of CLA as soon as possible. Such principles must be in compliance with ISO/IEC JTC 1/SC 35 work in the field
- A survey of relevant places in the standards under development by ISO/TC 211 where CLA should be taken into account, should be conducted prior to and presented at the next plenary in South Africa
- Compliance with CLA principles should not delay the progress of accepted work items – where appropriate work on technical addendums, or other means, should be started as soon as practically possible
- Following the liaison request for SC 35, ISO/TC 211 representatives should attend SC 35 meeting in Paris, November 22-26

Annex

SPANISH CONTRIBUTION ON CULTURAL AND LINGUISTIC ADAPTABILITY (CLA)

Foreword

This contribution is prepared following ISO/TC21 resolution 91 approved in its 8th Plenary Meeting, Vienna, Austria, 1999-03-04/05.

CLA in a multicultural world

Spain fully support the principles contained in ICO/TC211 N 649 on Cultural and Linguistic Adaptability (CLA) as defined in ISO/IEC JTC1 N 5629. Spain think that CLA need to be applied to ISO 15046 suite of standards, because of the following reasons:

- To fully address specific cultural characteristics
- To avoid potential reluctance against the implementation of the standard
- To speed up the process of dissemination and implementation of the standard

It's necessary to take into account that we live in a multilingual and multicultural world. Some facts would help to understand the incredible mixture of influences in modern world:

- There are more than 5 000 different languages in use in the world, but only a little more than two hundred countries.

- In Europe, only four countries has an unique official language all over its territory: Portugal, France, Greece and Netherlands.

- In France, one of those European countries having an unique official language, there are 36 different dialects in use.

- Some countries are essentially multilinguistic, for example South Africa has eleven official languages.

- In Spain we have four official languages: Spanish, Galician (*galego*), Basque (*euskera*) and Catalan (*català*).

- Geographic Information is essentially multilingual and multicultural. In Spain, there are geographic names in common use not only in the four official languages , but also in the more than five dialects commonly used in our country.

Some proposals

CLA need to be addressed in ISO 15046, specially in parts 10 *Feature Cataloguing Methodology*, 15 *Metadata* and 18 *Encoding*. Two different aspects need to be taken on board:

1) The definition of linguistically and culturally neutral identifiers of items. The best solution is to define a system identifiers based on neutral alphanumeric labels.

2) The neutral codification of allowed values of items. Whenever is possible to define a fixed set of possible values for an item, those values need to be neutrally codified.

References

Data in "CLA in a multicultural world" has been collected from the following sources:

- "The Cambridge encyclopaedia of language" David Cristal, Cambridge University Press, Cambridge,1997.

- "L'Aventure des langues en Occident: leur origine, leur histoire, leur géographie" Henriette Walter, Éditions Robert Laffont,Paris, 1994.

- "Encyclopaedia Britannica" Encyclopaedia Britannica Inc. 1994