



**ISO/IEC JTC 1/SC 2/WG 3**  
**7-bit and 8-bit codes and their extension**  
**SECRETARIAT : ELOT**

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**Disposition of comments on ballot results SC2 N3005 -  
Summary of Voting on SC2 N2946 - Combined CD  
Registration and FCD Ballot on Project JTC 1.02.20.15  
(.15 is tentative) - ISO/IEC 8859 Part 15 ("Latin 9")**

**Attachment 1 – Canada**

Canadian Ballot Response: FCD 8859-15 (2N2946)

Draft satisfactory - with requested changes

Comments:

- 1: Reinstate plus/minus sign into Latin-0 and replace International Currency Sign instead, with the Euro Sign. Plus/Minus sign is used in Canada.
  2. The G1-set of he proposed 8859-15 must be register ISO ISO-IR
  3. The text and tables have to be aligned with the style and common text to be found in 8859-1 (see SC2 N2988) -- for example, the Universal Character Identifiers and the Hex Notation to be used in the tables are missing.
1. *Accepted. It is proposed to put the EURO SIGN at position A4 and the PLUS-MINUS SIGN at position B1.*
  2. *Accepted. This is the normal procedure.*
  3. *Accepted. The draft will be aligned completely with the common text.*

**Attachment 2 – Finland**

We are prepared to accept the move of the EURO symbol from the currently proposed position to e.g. the one occupied in Latin-1 by the international currency symbol, if such a move is found acceptable also by other NBs

*Accepted. It is proposed to put the EURO SIGN at position A4 and the PLUS-MINUS SIGN at position B1.*

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**Attachment 3 – Germany**

POSITION AND COMMENTS of the German National Body (DIN) on the proposal for a new part of ISO/IEC 8859, covering the Euro symbol and full support for the Finnish and French languages.

**Position:**

The German NB rejects the proposal.

**Justification:**

The proposed graphic character set stands no chance of ever being implemented. It will only create confusion and endanger the well established basis for other standards like ISO/IEC 10646 or equivalent industry developments like the Unicode. Latin 1 (ISO/IEC 8859-1) is the cornerstone not only of the UCS, it is the national standard coded graphic character sets in ISO/IEC 8859 in order to take into consideration national requirements not covered so far. This proposal, however, would destroy the foundation on which so many other developments are based. Only the cost of a conversion or adaption of these would be prohibitive.

Comments: Some comments on the proposal itself are appropriate.

1. OE/oe Ligatures: When the author of these comments proposed the Latin 1 graphic character set in the now defunct ECMA TC1 it was based on a coding suggested by another member company of ECMA. That suggestion had been influenced by the coding of graphic characters as used in ISO 6937. Places for the OE/oe Ligatures were provided in the code table in positions 13/07 and 15/07, between the letters Ö/ö and Ø/ø. Violent opposition of members of the French national body (among others of French speaking countries) to the placement of the OE/oe Ligatures (no letters of the French language, not provided on French keyboards, only a writing and printing convention). In order not to leave two code table positions empty the x (Multiplication Sign) was coded in position 13/07 and the &χεδιλ; (Division Sign) was coded in position 15/07. If ever the OE/oe Ligatures were introduced in Latin 1 they ! should occupy positions 13/07 and 15/07.

2. Letters S/s and T/t with Caron: At the time of proposing the graphic character set for Latin 1 the relevant national bodies or their representatives were consulted. There was no indication from Finland that the S/s with Caron or the T/t with Caron would be required. Also, neither these characters nor the Caron itself (as a diacritical mark) were provided on the keyboards used in Finland.

Sources like Akira Nakanishi: "Writing Systems of the World", Georg von Osterman "Manual of Foreign Languages" or Kenneth Katzner: "The Languages of the World" do not mention the two letters as used

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in the Finnish language. Only C.G. Allen: "A Manual of European Languages for Librarians" shows the S/s with Caron as very rare and SH/sh as used for it. The letter T/t with Caron is not mentioned.

3.Euro Symbol: As the 8-bit single-byte coded graphic character sets according to ISO/IEC 8859 do not provide space for additional characters and changes like the one proposed are out of the question it may be necessary to think about opening the columns 08 and 09 of the code table for alternative use, either for control functions or for

additional graphic characters. According to ISO/IEC 6429 the C1-control functions can be represented by Esc Fe sequences and need not take up place in columns 08 and 09 of an 8-bit code table.

1. *Not accepted. France still maintains its historical requirement for the MULTIPLICATION SIGN and the DIVISION SIGN, which is why the LIGATUREs OE have been placed in column B.*
2. *Not accepted. The letters concerned are S WITH CARON and Z WITH CARON respectively. Their use in Finnish orthography is neither new nor optional. The common words "s^ekki" 'cheque' and "s^akki" 'chess' are properly written with S WITH CARON. The sources mentioned (Nakanishi, von Osterman, Katzner, and Allen) are not authoritative sources for Finnish orthography.*
3. *Not accepted. Use of Columns 8 and 9 for graphic characters is explicitly proscribed by ISO/IEC 8859 and ISO/IEC 2022.*

### Attachment 4 - Greece

The Hellenic Standards Body and its National Committee ELOT TE 74 are going to propose an alternative way to satisfy the same, as in Latin part, requirement.

*Not accepted. There is no substance in this comment that can be accommodated.*

### Attachment 5 – Italy

General EURO SIGN cannot flow on ISO-8 standards based interchanges without at least one ISO 8859-x part containing it. Also, it cannot be processed in an ISO-8 bit conforming environments without such a part. ISO/IEC 10646-1 Amendment that is being processed in SC2 WG2 will contain it in location x20AC. Announcement on Windows code pages that it will carry the EURO SIGN also warrants a vehicle in ISO-8 standards to be able to interchange the sign without LOSS or misinterpretation. 8859-15 addresses this problem for the Latin-1 countries that currently use 8859-1 providing the customers to migrate to the new part without discontinuing the use of

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the existing 8859-1 where the EURO SIGN is not needed. Several of the potential participants in the European Monetary Union (EMU) belong to Latin-1 countries list and their citizens can benefit from the new part. Other groupings of 8859-x using countries (non-Latin-1) who may participate in the EMU directly or peripherally may also need similar solutions. The long-standing unfulfilled requirement on Latin-1 for the missing three French characters is also being addressed by this new part proposed. IBM has not been meeting these requirements in the past based on our consistent effort to keep our 8-bit EBCDIC code pages in alignment with the corresponding 8-bit ISO standards. If the missing Finnish characters are also accommodated to complete

support for Finnish, then it is to the advantage of the ISO-8 bit code and to the corresponding EBCDIC 8-bit code. The proposed draft has 'EURO SIGN' occupying the previously occupied position of 'plus/minus sign'. Italy proposes it be moved to position currently occupied by the International Currency Sign instead, and reinstate the plus/minus sign. While we know of some existing uses of plus/minus sign as a mathematical sign, we do not know of any use of International Currency Sign as a Currency Sign.

*Accepted. It is proposed to put the EURO SIGN at position A4 and the PLUS-MINUS SIGN at position B1.*

### Attachment 6 - Japan

The National Body of Japan disapproves ISO/IEC FCD 8859-15 for the reasons below.

This FCD (N2946) contains incompatible changes which are not described in the project subdivision proposal of SC2 N2910.

The 6 characters are replaced in the character name table (Table 1) and in the character identifiers table (Table 3). They are listed as below.

13/00 "LATIN CAPITAL LETTER W WITH CIRCUMFLEX" instead of "LATIN CAPITAL LETTER ETH"

13/07 "LATIN CAPITAL LETTER T WITH DOT ABOVE" instead of "MULTIPLICATION SIGN"

13/14 "LATIN CAPITAL LETTER Y WITH CIRCUMFLEX" instead of "LATIN CAPITAL LETTER THORN"

15/00 "LATIN SMALL LETTER W WITH CIRCUMFLEX" instead of "LATIN SMALL LETTER ETH"

15/07 "LATIN SMALL LETTER T WITH DOT ABOVE" instead of "DIVISION SIGN"

15/14 "LATIN SMALL LETTER Y WITH CIRCUMFLEX" instead of "LATIN SMALL LETTER THORN"

The character "MACRON"(10/15) is replaced by "OVERLINE" in the character name table, but it remains as is in the character identifiers table inconsistently.

*Accepted. These changes were editorial errors arising from using a template and no alteration of the technical content was intended.*

**Attachment 7 - The Netherlands**

The NNI is aware of the imperfections of ISO 8859-1, and supports inclusion of the French LIGATURE O E in a part of 8859, but does not agree to the solution proposed.

1. Numbering in ISO standards starts with 1, not with 0, thus the proposed part should be called Latin Alphabet No. 9.
2. The code position chosen for the EURO is not acceptable.
3. The NNI doubts whether extra characters for Finnish are really required. In the report "Nordic Cultural Requirements on Information Technology" (1992) it is stated in Table 7 (p. 24) that the extra characters are in class 3, which means: "Letters used in names according to common practice, but not part of the language". Furthermore it is stated in Table 10 (p. 25,26) that 8859-1 satisfies the national requirements of Finland.

The NNI is fully prepared to consider better solutions for the French OE than presented in the proposal, in particular a part of 8859 that also satisfies requirements for Turkish. The lack of provision for a language spoken in Western Europe by two million people in Germany alone is a far bigger problem than that which is attempted to be solved by the proposal in SC2 N 2910.

1. *Accepted. The part should be called Latin Alphabet No. 9.*
2. *Accepted. It is proposed to put the EURO SIGN at position A4 and the PLUS-MINUS SIGN at position B1.*
3. *Not accepted. S WITH CARON and Z WITH CARON are required in Finnish.*
4. *Not accepted. It is known that the Netherlands currently uses 8859-9; it might be advantageous for Turkey and the Netherlands to consider that standard with regard to the EURO SIGN.*

**Attachment 8 - Sweden**

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The Swedish NB recognizes the needs intended to be satisfied by this new part of ISO/IEC 8859 for better coverage of the Finnish and, in particular, the French language; as well as the desirability of including the Euro sign in it.

1. The positioning of the Euro sign appears however not optimal, considering possible future revisions and/or replacements of existing parts of the standard. It should, namely, be desirable to have the Euro sign placed in the same position in the various parts of the standard, as far as possible.
2. This aspect was described in the comments to the Swedish NB's vote on the "Latin-0" subdivision, and they are again referred to here. It appears that the free-standing CEDILLA positioned in 11/08 in many parts of ISO/IEC 8859 might be a suitable character to be replaced by the Euro sign. This position, as well as other possible common positions, should be investigated before the draft is progressed further.
3. Using the position of the CURRENCY SIGN for the Euro - as has sometimes been suggested - has the advantage that a reasonable "fall-back" presentation may result when differing code tables get used in data transmission and processing. Since the currency sign has however become used in various application programs for purposes quite unrelated to currency, it seems that the drawbacks of replacing that sign outweighs the advantage.
4. Also, the exchange of the currency sign for the dollar sign in the latest ISO/IEC 646 IRV may have resulted in a number of applications, especially in data communication, where translation between these two characters occur, possibly causing confusion if the Euro would take the place of the currency sign.

The Swedish NB may change its vote to Approval after the final positioning of the Euro sign has been presented with supporting justification.

1. *The EURO SIGN has been requested in this ballot by a significant number of countries to take the same code position as the one occupied by the CURRENCY SIGN in Latin 1.*
2. *Not accepted. See disposition of point 1 above and of point 3 below.*
3. *Partly accepted. Applications using the CURRENCY SIGN, if this appears to be dependent on the glyph, which is unlikely, will be able to continue to use Latin 1. If however these applications use the code position of the CURRENCY SIGN just as other applications use the code position of the dollar sign to overload its meaning within the limits of a given application,*

*then there is no big technical problem in changing glyph as well. So drawbacks are minimal and virtually inexistent.*

4. *Keyboards, in the ISO realm (ISO/IEC 9995-3) as well as in the industry, will most likely change the CURRENCY SIGN position for the EURO SIGN so that the former glyph could become a fallback. Since, contrarily to the DOLLAR SIGN which has real monetary meaning, the CURRENCY SIGN never has been equated to any currency in existence, confusion of the hypothetical kind quoted by Sweden is unlikely to occur in practice.*

### **Attachment 9 - UK**

#### **UK COMMENTS ON FCD 8859-15, 8-BIT GRAPHIC CHARACTER SET. LATIN ALPHABET 0**

The UK approves the document with the following comments:

#### Editorial comments

1. Title - Amend title to read "Latin Alphabet No. 9" or the next available number in the series. Justification: Counting of items conventionally proceeds in ascending order, starting from No. 1. To identify a Latin Alphabet as No. 0 (Zero) is contrary to the usual custom and practice.
  2. 7.1 - The last two lines before the Note should read:  
GZD4 04/02 (ESC 02/08 04/02)  
G1D6 t.b.a (ESC 02/13 t.b.a)  
where "t.b.a" is to be replaced by the Final Byte(s) of the Registration before the Final Text of the standard is prepared.
  2. 7.2 - In the last size lines replace "14" and "XX" by "15" (four instances).
  4. Annex D - Delete this Annex, and absorb the hex notations and identifiers into Table 1.
  5. General - Align the common text with the revisions agreed for Parts 1 to 10 of ISO/IEC 8859 in the recent DIS ballots.
1. *Accepted. The part should be called Latin Alphabet No. 9.*
  2. *Accepted. Section 7.1 will be amended as specified.*
  3. *Accepted.*
  4. *Accepted.*



5. *Accepted.*

#### **Attachment 10 - USA**

U.S. Comments accompanying the Disapproval vote for SC2 N 2946  
The US recommends to dis-approve the registration and FCD consideration of  
ISO/IEC 8859-15 (Latin-0)

Major comments:

The US disapproves of the registration of ISO/IEC 8859-15 for the following reasons:

- 1) It is the US long stated position that additional parts of 8859 should not be created, except to capture existing 8-bit practice (viz Part 11). Rather than addressing problems with particular solutions, which are extremely costly to implement, industry efforts should be focused on implementing a comprehensive solutions via the support of ISO/IEC 10646.
  
- 2) From document L2/175 (WG3 N 388) it is clear that the intent is to replace ISO 8859-1, for the same user community. Because of the prominent role that 8859-1 has gained as the default character set in many internet protocols, introducing a near equivalent standard will have disastrous effects. Due to their large intersection part 1 and part 15 would appear to interoperate without proper adherence to announcing mechanisms. Were part 15 accepted and widely implemented, the result would be that no-one could be sure that ANY character from the non-intersecting part of each set can be used reliably. In many ways, this situation is reminiscent of the problems that plagued the 7-bit sets of ISO 646.
  
- 3) The adoption of ISO/IEC 10646 by the vendor community is making rapid progress, therefore it cannot be argued that a flawed solution must be accepted for lack of practical alternatives.

Editorial comments:

- 4) "0" should not be used as the number designation.
  
- 5) Delete Annex B. It is irrelevant for a first edition.

Add a reference to Clause 3 to Annex C "Bibliography".

Suggested wording: See also Clause 3, Normative references

1. *Not accepted. There are user requirements for this part of 8859 in Europe. 10646 will not displace 8859 for many years to come. It is to be noted that this*

*standard project rectifies existing 8-bit practice with French characters, a practice which causes operational problems in interchange because it is not standardized. Furthermore, the requirement for the EURO SIGN has been expressed sufficiently enough in Europe that it has to be accommodated and that 8-bit technology is there to cohabit with multiple-octet coding long after the UCS will have been implemented (most mainframes in the world are still using 8-bit technology; this will obtain for a long time to come, and interchange between 8-bit technology and the UCS has to be done in a standard way, a standard way which would otherwise be missing for integral French (this is currently recognized in ISO/IEC 8859 tables which only partly support French), integral Finnish, and support of the EURO SIGN).*

2. *Not accepted. Protocols for identification of code tables in e.g. HTML or mail protocols exist and can be used to identify whether something was written in Latin 1 or Latin 5 or Latin 9. If those protocols are used then the stated problem does not exist. It is a simple question of the will to implement. Those who do not have the requirement for EURO SIGN, or French and Finnish characters, will not see any difference indeed with the new characters if it is not properly tagged and assumed to be Latin 1. Those who have the need will not suffer as characters replaced are near to being insignificant or irrelevant in actual applications. That said, the standard specifies that agreement must exist between sender and recipient for identifying the character set. This will either be done implicitly or by proper tagging. This is not more problematic than deciding between the different versions of the UCS (pre-amendment 5, 2 octet, 4 octet, UTF-8 or UTF-16). Furthermore care has been taken not to modify Latin 1 itself, but to create a new table, to avoid repeating the pre-amendment-5 UCS obsolescence problem (that is to say, this solution was arrived at after consideration and rejection of the idea of modifying Latin 1 itself, creating instead a new code table. We note that some companies have already undertaken to support 8859-15 in their implementations as no other solutions have been put forward.*
3. *Not accepted. "Rapid progress" is not seen to be rapid enough. Requirement for 8-bit support will not go away just because the vendor community is "making rapid progress". Neither is the adoption of the UCS by the vendor community equivalent to the obsolescence of the 8-bit world or the end of its development (for instance, Windows 98 will externally still be 8-bit, with even modifications relatively to the Windows 95 native character set, namely for the EURO SIGN and Finnish characters: Latin 9 will allow standard interchange of those additions. As another example, IBM will have to modify its CECP EBCDIC code tables for the EURO SIGN, as well as the code page 850; the lack of a standard interchange between all those development outcomes would mean a missing link with the UCS and between these environments). In fact standardizing Latin 9 serves the vendor community as well as user requirements.*
4. *Accepted. The part should be called Latin Alphabet No. 9.*
5. *Accepted in principle. Text will be aligned with the common text of 8859.*