Universal Multiple-Octet Coded Character Set
International Organization for Standardization
Organisation Internationale de Normalisation
Международная организация по стандартизации

Doc Type: Working Group Document
Title: Proposal to encode a Florin currency symbol
Source: German NB
Status: National Body Contribution
Action: For consideration by JTC1/SC2/WG2 and UTC
Date: 2009-04-06

f U+20B9   FLORIN SIGN
· Netherlands Antilles
· former currency of the Netherlands and other countries

Properties:
```
20B9;FLORIN SIGN;Sc;0;ET;;;;;N;;;;;
```

Also, it is proposed:

1. Regarding the alternative names of U+0192 LATIN SMALL LETTER F WITH HOOK:
   — delete: "= script f"
   — delete: "= Florin currency symbol (Netherlands)"

2. (editorial change in the printed version of the Unicode standard, p.743 of the 5.0 edition): delete U+0192 LATIN SMALL LETTER F WITH HOOK from the introductory which is preceding the table of currency symbols 20A0-20B5.

1. The Florin sign

The Florin sign is an unofficial sign for the Netherlands Antillean guilder (ISO 4217 code: ANG), used standalone or in the combination "NAf" [1] [2].
This currency is called "florin" in the local language [Papiamentu] of Curaçao and Bonaire [5].

In the past, it was used for the Dutch guilder (NLG, until 2002), the Surinamese guilder (SRG, until 2004), and other currencies.

While all these currencies are called "guilder" in English or "gulden" in Dutch, the symbol is widely known as "Florin sign" (after a former Dutch currency and in accordance with the local language of the larger part of the Netherlands Antilles).
Therefore, the naming "FLORIN SIGN" was preferred over "GUILDER SIGN".

Note: Some sources (like [3]) also claim the use as an unofficial sign for the Aruban florin (AWG), but this was not confirmed by the Aruban central bank [4].

The Florin sign often looks like an italic or script f with a hook at its low end bent to the left (thus resembling an italic Latin f or an italic Latin f with hook in several fonts).

Typographically, the Florin sign in a normal upright Roman font usually matches the f-glyph of the corresponding italic style. Whether this glyph may have a leftwards turning bottom hook or a straight descender, it has always to be distinguished from alphabetical f's by an unambiguous italic shaping.

2. The Florin sign: *ƒ* – and the Latin small letter "f with hook": ƒ

At present (Unicode 5.1), the U+0192 LATIN SMALL LETTER F WITH HOOK is commonly used to display the Florin sign. This is supported by the "alternative names" shown in the Unicode tables: directly by "= Florin currency symbol (Netherlands)" (if taken literally, obsolete anyway by the introduction of the Euro in the Netherlands 2002), indirectly by "= script f" which refers to the common appearance of the Florin sign.

The character U+0192 LATIN SMALL LETTER F WITH HOOK however is a usual Latin letter by its formal definition and properties, showing no difference in this way to other Latin letters like e.g. U+0199 LATIN SMALL LETTER K WITH HOOK.

Therefore, it is expected to be displayed as an unslanted letter in any Roman font, and as an italic letter only if it used with an italic font.

The "f with hook" is used in Central African orthographies like Éwé. Éwé is spoken by about 3,000,000 people in southern Ghana and Togo [9]. A text sample taken from [10]:

> Esi woɖe dzesi kɔtɛe be, amegbetɔwo katã ƒe gomekpɔkpɔ sɔsɔe, anye gɔmeɖokpe na amegbetɔfomea ƒe ablɔɖemenɔnɔ, nutefewɔwɔ kple ŋutifafa le xexeame ta la.

The users of such a language obviously need the possibility to print their letters in the expected form, i.e. getting unslanted letters unless when an italic font is selected explicitly, instead of getting a currency symbol with special design for one of their letters.
Recurring to higher level protocol is no acceptable solution, as all other Latin letters encoded so far are not unified with something which does not resemble its basic appearance. Moreover, common higher level protocols which refer to language are not applicable, as the *ƒ*/ƒ difference is no language difference (like the Russian/Serbian difference for the italic forms of some Cyrillic letters is). An Ewe writer mentioning the florin does not change language in doing so.

Also, as it was said before, the Florin sign usually matches the f-glyph of the italic style of a given font. If this glyph has a straight descender, the Florin sign also has such, and therefore it is by no ways a "f with hook".

The unification of the Florin sign with the "f with hook" is an error which has persisted from the beginnings of Unicode, which is proposed here to be corrected at last by a disunification.

While there is an Unicode character which has some glyphic similarity with some glyphs of the Florin sign (U+1D456 MATHEMATICAL ITALIC SMALL F), it is not appropriate to simply transfer the unification with the Florin sign to that character. The latter character is designed for a special purpose with typographic constraints, which are not necessarily applicable to a well-designed Florin sign contained in the same font.

When U+0192 is regarded as a common Latin character which usually appears unslanted in a Roman font, the unification with "script f" (as expressed by the current "alternative name") is inappropriate also. This unification is outdated anyway, as there now exists a "script f" in Unicode (U+1D4BB MATHEMATICAL SCRIPT SMALL F). Therefore, it is proposed to drop this unification also.

A disunification is also devised by interoperability reasons to enable the clean implementation of keyboard projects like the work item of ISO/IEC JTC1/SC35/WG1 called ISO/IEC 9995-9 [7] [8], which will enable to type African characters as well as currency symbols by every keyboard compliant to such a standard. (In fact, this proposal was initiated by that work.)

3. Compatibility issues

3.1 Compatibility issues within Unicode itself

No normative or informative property has to be changed for U+0192, compared to Unicode 5.1 [6], as the possibility to use U+0192 as a currency symbol is in no way reflected in its properties.

Especially, the possibility to use U+0192 as a currency symbol is not reflected in the name of U+0192 (which follows the usual pattern for Latin letters), or its General Category Ll, or its membership of a case pair (with U+0191).

(This, by the way, together with the stability policies for case pairing, rules out the possibility to retain U+0192 as Florin sign and encoding a new "latin small letter f with whatever-named hook" for the orthographic use).

Thus, the disunification of the Florin sign from the latin small letter f with hook causes no compatibility problems for Unicode itself.

3.2 Compatibility issues concerning existing data

All text data where U+0192 acts as a orthographic character obviously cause no problems.

Text data where U+0192 is used as a Florin sign cause no technical problems, as no Unicode character is declared as currency symbol by a formal property, and the use of Latin letters as currency symbols is common anyway.
When such data is displayed or printed, there will be shown an unslanted form of a "f with hook" instead of a slanted or script one when a font has incorporated the disunification. However, this is not a new situation as several fonts already use an unslanted form. Also, the unslanted form is not used for any other currency in contrast to the florin, thus it will be recognized by the user without problem in its context.
(On the other hand, only the use of the disunified Florin sign will reliably enable the display of the real currency symbol instead of an unexpected orthographic character.)

3.3. Notes on the use as "function symbol"

As this use is not subject of this proposal, the alternative name "function symbol" is not proposed here to be transferred from U+0192 to the Florin sign.

Anyway, in mathematical contexts, it is expected that a f with hook is recognized as a function symbol whether it is unslanted or cursive. It is expected that fonts specially designed for use in mathematical context will provide a glyph for U+0192 which is recognized as function symbol.

Thus, it seems not appropriate anyway to change anything relevant to the scope of mathematical use without proven necessity demonstrated by the mathematical user community.

3.4. Notes on the use as "abbreviation convention for folder"

As this use is not subject of this proposal, the informative note "used as abbreviation convention for folder" is not proposed here to be transferred from U+0192 to the Florin sign.

Anyway, such conventions are not subject of Unicode or ISO/IEC 10646, and such conventions are more related to technical issues of operating systems than of unslanted or italic glyphic appearance.

3.5. Notes on code conversion tables

There are some legacy 256-byte character codes which incorporate a "Florin sign" which is unified with a "function symbol" and a "folder symbol". Currently, conversion tables map this character to U+0192.

While, after a disunification, it is advisable to have additional conversion tables for cases where it is known that the original character is to be converted to the new Unicode Florin sign or one of the mathematical f's, it is advisable to not change the standard conversion tables. Where the original character represents the "function symbol" or the "folder symbol", this is bound to special semantics regarding the further text processing (mathematical context for the "function symbol") or the interpretation by the operating system (for a "folder symbol"), while the use of the "wrong" character for a currency symbol causes no harm (especially as existing implementations may display the "wrong" [i.e. unslanted] symbol even now, depending on the font), as currency symbols can be letters anyway.

Thus, the proposed disunification does not require a general change of existing code conversion tables.

4. References

[1] http://en.wikipedia.org/wiki/Netherlands_Antillean_guilder , as of 2009-03-26

[2] Gerrits, Henri (Bank van de Nederlandse Antillen): private communication 2008-08-18

[3] http://en.wikipedia.org/wiki/Currency_sign , as of 2009-03-28

[4] Winterdaal, Jessica J. (Centrale Bank van Aruba): private communication 2008-09-03

[5] Ratzlaff, Betty: Papiamentu/Ingles Dikshonario, second print, pg. 81, ISBN 99904-0-030-X

[6] http://www.unicode.org/versions/Unicode5.0.0/ch03.pdf , as of 2009-03-28

[7] ISO/IEC JTC1/SC35/WG1: New Work Item Proposal for an IS titled "ISO/IEC 9995, Keyboard layouts for text and office systems – Part 9: Multilingual-usage, multiscript keyboard group layouts"
http://www.open-std.org/jtc1/sc35/wg1/docs/SC35N1382.doc , as of 2009-03-28

[8] ISO/IEC JTC1/SC35/WG1: Preparatory work done prior to the NP proposal on ISO/IEC 9995-9 – Multilingual, Multiscript Keyboard Group Layouts
http://www.open-std.org/jtc1/sc35/wg1/docs/SC35N1381.doc , as of 2009-03-28

[9] http://www.ethnologue.com/show_language.asp?code=ewe , as of 2009-04-06.

[10] http://unicode.org/udhr/d/udhr_ewe.pdf , as of 2009-04-06.

5. Acknowledgements

ISO/IEC JTC 1/SC 2/WG 2
PROPOSAL SUMMARY FORM TO ACCOMPANY SUBMISSIONS
FOR ADDITIONS TO THE REPERTOIRE OF ISO/IEC 10646[1]
Please fill all the sections A, B and C below.
Please read Principles and Procedures Document (P & P) from http://www.dkuug.dk/JTC1/SC2/WG2/docs/principles.html **for guidelines and details before filling this form.**
Please ensure you are using the latest Form from http://www.dkuug.dk/JTC1/SC2/WG2/docs/summaryform.html.
See also http://www.dkuug.dk/JTC1/SC2/WG2/docs/roadmaps.html **for latest** *Roadmaps.*

A. Administrative

1. **Title:** *Proposal to encode a Florin currency symbol*
2. Requester's name: *German NB*
3. Requester type (Member body/Liaison/Individual contribution): *Member body contribution*
4. Submission date: *2009-04-06*
5. Requester's reference (if applicable):
6. Choose one of the following:
   This is a complete proposal: *Yes*
   (or) More information will be provided later:

B. Technical – General

1. Choose one of the following:
   a. This proposal is for a new script (set of characters): *No*
      Proposed name of script:
   b. The proposal is for addition of character(s) to an existing block: *Yes*
      Name of the existing block: *Currency Symbols*
2. Number of characters in proposal: *1*
3. Proposed category (select one from below - see section 2.2 of P&P document):
   A-Contemporary **X**   B.1-Specialized (small collection)   B.2-Specialized (large collection)
   C-Major extinct   D-Attested extinct   E-Minor extinct
   F-Archaic Hieroglyphic or Ideographic   G-Obscure or questionable usage symbols
4. Is a repertoire including character names provided? *Yes*
   a. If YES, are the names in accordance with the "character naming guidelines"
      in Annex L of P&P document? *Yes*
   b. Are the character shapes attached in a legible form suitable for review? *Yes*
5. Who will provide the appropriate computerized font (ordered preference: True Type, or PostScript format) for publishing the standard?
   If available now, identify source(s) for the font (include address, e-mail, ftp-site, etc.) and indicate the tools used: *The glyphs provided for U+0066 in the italic part of a lot of font families are suitable, e.g. Gentium available from http://scripts.sil.org/cms/scripts/page.php?site_id=nrsi&item_id=Gentium is provided with a license which enables to use the glyph in the environment specified here*
6. References:
   a. Are references (to other character sets, dictionaries, descriptive texts etc.) provided? *Yes*
   b. Are published examples of use (such as samples from newspapers, magazines, or other sources) of proposed characters attached? *Yes*
7. Special encoding issues:
   Does the proposal address other aspects of character data processing (if applicable) such as input, presentation, sorting, searching, indexing, transliteration etc. (if yes please enclose information)? *No*

8. Additional Information:
Submitters are invited to provide any additional information about Properties of the proposed Character(s) or Script that will assist in correct understanding of and correct linguistic processing of the proposed character(s) or script. Examples of such properties are: Casing information, Numeric information, Currency information, Display behaviour information such as line breaks, widths etc., Combining behaviour, Spacing behaviour, Directional behaviour, Default Collation behaviour, relevance in Mark Up contexts, Compatibility equivalence and other Unicode normalization related information. See the Unicode standard at http://www.unicode.org for such information on other scripts. Also see http://www.unicode.org/Public/UNIDATA/UCD.html and associated Unicode Technical Reports for information needed for consideration by the Unicode Technical Committee for inclusion in the Unicode Standard.

[1] Form number: N3152-F (Original 1994-10-14; Revised 1995-01, 1995-04, 1996-04, 1996-08, 1999-03, 2001-05, 2001-09, 2003-11, 2005-01, 2005-09, 2005-10, 2007-03, 2008-05)

C. Technical - Justification

1. Has this proposal for addition of character(s) been submitted before?   *No*
    If YES explain

2. Has contact been made to members of the user community (for example: National Body,
    user groups of the script or characters, other experts, etc.)?   *Yes*
        If YES, with whom?   *see text*
        If YES, available relevant documents: *see text*

3. Information on the user community for the proposed characters (for example:
    size, demographics, information technology use, or publishing use) is included?   *see text*
    Reference:

4. The context of use for the proposed characters (type of use; common or rare)   *common*
    Reference:

5. Are the proposed characters in current use by the user community?   *Yes*
    If YES, where? Reference: *see text*

6. After giving due considerations to the principles in the P&P document must the proposed characters be entirely
    in the BMP?   *Yes*
        If YES, is a rationale provided?   *Yes*
          If YES, reference: *Keeping in line with other currency symbols*

7. Should the proposed characters be kept together in a contiguous range (rather than being scattered)?   *n/a*

8. Can any of the proposed characters be considered a presentation form of an existing
    character or character sequence?   *No*
        If YES, is a rationale for its inclusion provided?
        If YES, reference:

9. Can any of the proposed characters be encoded using a composed character sequence of either
    existing characters or other proposed characters?   *No*
        If YES, is a rationale for its inclusion provided?
        If YES, reference:

10. Can any of the proposed character(s) be considered to be similar (in appearance or function)
    to an existing character?   *Yes*
        If YES, is a rationale for its inclusion provided?   *Yes*
        If YES, reference: *see text*

11. Does the proposal include use of combining characters and/or use of composite sequences?   *No*
    If YES, is a rationale for such use provided?
        If YES, reference:
    Is a list of composite sequences and their corresponding glyph images (graphic symbols) provided?
        If YES, reference:

12. Does the proposal contain characters with any special properties such as
    control function or similar semantics?   *No*
        If YES, describe in detail (include attachment if necessary)

13. Does the proposal contain any Ideographic compatibility character(s)?   *No*
    If YES, is the equivalent corresponding unified ideographic character(s) identified?
        If YES, reference: