Background: The liaison contribution ISO/IEC JTC 1/SC2 N4522 “Proposal to incorporate the symbols of ISO/IEC 9995-7:2009 and its Amendment 1 and of ISO/IEC 9995-10:2013 into the UCS” was briefly discussed at the SC2 #22 meeting in Hohhot, Inner Mongolia, China (see RESOLUTION M 22-02). This document provides a response to SC2 N4522.

Comments:
This proposal for 108 symbols and two named sequences states the symbols are “intended for use in plain text, especially instructions how to use a keyboard, or how to enter specific texts.” However, no examples of the characters in use are provided, other than an image of a German keyboard with some of the symbols, and a snippet showing a few of the symbols from the DIN 2137-1:2012-06 standard. The appearance of a graphic symbol in an ISO (or national) standard is not a guarantee that a character need be encoded to represent it.

The USNB feedback sent in 2011 (L2/11-078) still rings true:

We would welcome attestation and analysis of each symbol in wide use as text characters, and a full proposal along these lines. It would also be useful if the proposal documented keyboard symbols that are in widespread use for functions that correspond to those covered by the repertoire of symbols in the proposal.

Specific questions to answer:
- Are the characters in widespread use? If so, provide evidence in text, such as hardware or software manuals.
  Note: While the proposal states that the characters are intended for use in documentation or “how-to” guides for using keyboard layouts, no evidence has been provided, other than a single DIN standard, and a single document does not provide evidence for need of public interchange of text information.
- What digital text interchange requirement can be cited that makes it necessary to interchange these particular keyboard symbols icons as encoded characters, rather than as images?
- Show the variety of symbols being used today.
  For example, Microsoft has different glyphs for ZWNJ and ZWJ (https://www.microsoft.com/typography/otfntdev/glyphs.htm). If the Microsoft glyphs are widely used, encoding rarely used glyphs could be counter-productive. How common are the dotted box glyphs for ZWNJ and ZWJ?
Microsoft:                                 Current glyphs:                       Proposed in SC2 N4522:

![Image](http://images.farnet.ir/2014/06/Android-L-Persian-Keyboard.jpg)

- 'ZWJ' 'ZWNJ'  U+200C U+200D
- D
  ![Image](http://madoxweb.com/how-to-control-windows-with-only-a-keyboard/)  ZWNJ
  ZWJ

Compare also the Android ZWNJ (from [http://images.farnet.ir/2014/06/Android-L-Persian-Keyboard.jpg](http://images.farnet.ir/2014/06/Android-L-Persian-Keyboard.jpg)):

- The menu symbol ![Image](http://madoxweb.com/how-to-control-windows-with-only-a-keyboard/) has been found on a keyboard ([http://madoxweb.com/how-to-control-windows-with-only-a-keyboard/](http://madoxweb.com/how-to-control-windows-with-only-a-keyboard/)), so if documented widespread use is provided, it may be eligible for encoding.

In sum, a full proposal showing the symbols in use in text would be welcome in our opinion, and particularly a document with evidence of any symbols used widely.