

Title: Finalized Mapping between Characters of ISO 6438 and ISO/IEC 10646-1 (UCS)
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References: ISO/TC46/SC4/WG1 N 244, ISO/TC46/SC4/WG1 N 227 (revised 1998-05-29) and ISO/IEC JTC1/SC2 N3129 (Application for Registration No. 216) subsequently revised as replacement version of ISO-IR 39
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Action: For information
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1. Background

On May 9, 2000, ISO/TC 46/SC 4/WG 1 reviewed documents that compared mappings of the characters of TC 46 character set standards and character sets which were sources for these standards to ISO/IEC 10646. Based on these comparative analyses, WG1 agreed on final mappings for eight of the TC 46 character set standards.

This document is a modification of *Analysis of Proposed Mapping between Characters of ISO 6438 and ISO/IEC 10646-1 (UCS)* prepared for the WG1 meeting (ISO/TC46/SC4/WG1 N 244).

2. Mapping of Characters

The following table shows the final WG1 decisions compared to N227.

ISO 6438		Mappings		
Code	Character name	N 227	Final.	Status
2/0-2/1	<i>Unassigned</i>			
2/2	Bilabial voiced implosive - capital	U+0181	U+0181	
2/3	Post-alveolar or palatal	U+0187	U+0187	

ISO 6438		Mappings		
Code	Character name	N 227	Final.	Status
	ejective - capital			
2/4	Alveolar voiced implosive - capital	U+018A	U+018A	
2/5	Alveolar voiced retroflex - capital	U+0189	U+0189	
2/6	<i>Unassigned</i>			
2/7	Open mid front vowel - capital	U+0190	U+0190	
2/8	Mid-central vowel; schwa - capital	U+018E	U+018E	
2/9	<i>Unassigned</i>			
2/10	Bilabial unvoiced fricative - capital	U+0191	U+0191	
2/11	Velar voiced implosive – capital	U+0193	U+0193	
2/12	Velar voiced fricative - capital	U+0194	U+0194	
2/13	Pharyngeal unvoiced fricative - capital	U+0126	U+0126	
2/14	<i>Unassigned</i>			
2/15	Open high front vowel - capital	U+0197	U+0197	
3/0-3/1	<i>Unassigned</i>			
3/2	Bilabial voiced implosive - small	U+0253	U+0253	
3/3	Post-alveolar or palatal	U+0188	U+0188	

ISO 6438		Mappings		
Code	Character name	N 227	Final.	Status
	ejective - small			
3/4	Alveolar voiced implosive - small	U+0257	U+0257	
3/5	Alveolar voiced retroflex - small	U+0256	U+0256	
3/6	<i>Unassigned</i>			
3/7	Open mid front vowel - small	U+025B	U+025B	
3/8	Mid-central vowel; schwa - small	U+0259	U+01DD	Correction
3/9	<i>Unassigned</i>			
3/10	Bilabial unvoiced fricative - small	U+0192	U+0192	
3/11	Velar voiced implosive - small	U+0260	U+0260	
3/12	Velar voiced fricative - small	U+0263	U+0263	
3/13	Pharyngal unvoiced fricative - small	U+0127	U+0127	
3/14	<i>Unassigned</i>			
3/15	Open high front vowel – small	U+026A	U+026A	
4/0	Velar unvoiced ejective - capital	U+0198	U+0198	
4/1-4/6	<i>Unassigned</i>			
4/7	Velar nasal - capital	U+014A	U+014A	

ISO 6438		Mappings		
Code	Character name	N 227	Final.	Status
4/8	<i>Unassigned</i>			
4/9	Close mid-back vowel; open high-back vowel - capital	U+019F	U+019F	
4/10	Open mid-back vowel - capital	U+0186	U+0186	
4/11	Bilabial unvoiced ejective - capital	U+01A4	U+01A4	
4/12- 4/14	<i>Unassigned</i>			
4/15	Post-alveolar unvoiced fricative – capital	U+01A9	U+01A9	
5/0	Velar unvoiced ejective – small	U+0199	U+0199	
5/1	Lateral unvoiced fricative - small	U+026C	U+026C	
5/2	<i>Unassigned</i>			
5/3	Labio-dental nasal - small	U+0271	U+0271	
5/4	<i>Unassigned</i>			
5/5	Alveolar nasal retroflex - small	U+0273	U+0273	
5/6	Palatal nasal - small	U+0272	U+0272	
5/7	Velar nasal - small	U+014B	U+014B	
5/8	<i>Unassigned</i>			
5/9	Close mid-back vowel; open high-back vowel - small	U+0275	U+0275	
5/10	Open mid-back vowel -	U+0254	U+0254	

ISO 6438		Mappings		
Code	Character name	N 227	Final.	Status
	small			
5/11	Bilabial unvoiced ejective - small	U+01A5	U+01A5	
5/12	<i>Unassigned</i>			
5/13	Retroflex flap or rolled retroflex - small	U+027D	U+027D	
5/14	<i>Unassigned</i>			
5/15	Post-alveolar unvoiced fricative – small	U+0283	U+0283	
6/0	Alveolar unvoiced ejective - capital	U+01AC	U+01AC	
6/1	Alveolar unvoiced retroflex - capital	U+01AE	U+01AE	
6/2	<i>Unassigned</i>			
6/3	Open high back vowel - capital	U+01B1	U+01B1	
6/4	Bilabial voiced fricative - capital	U+01B2	U+01B2	
6/5	Uvular unvoiced fricative – capital	U+03A7	U+03A7	
6/6	Glottalized palatal semivowel - capital	U+01B3	U+01B3	
6/7	Post-alveolar voiced fricative - capital	U+01B7	U+01B7	
6/8-6/15	<i>Unassigned</i>			
7/0	Alveolar unvoiced ejective	U+01AD	U+01AD	

ISO 6438		Mappings		
Code	Character name	N 227	Final.	Status
	- small			
7/1	Alveolar unvoiced retroflex - small	U+0288	U+0288	
7/2	<i>Unassigned</i>			
7/3	Open high back vowel – small	U+028A	U+028A	
7/4	Bilabial voiced fricative - small	U+028B	U+028B	
7/5	Uvular unvoiced fricative - small	U+03C7	U+03C7	
7/6	Glottalized palatal semivowel – small	U+01B4	U+01B4	
7/7	Post-alveolar voiced fricative – small	U+0292	U+0292	
7/8	Pharyngeal voiced fricative - small	U+0295	U+0295	
7/9	Glottal stop - small	U+0294	U+0294	
7/10	Bilabial click - small	U+0298	U+0298	
7/11	Dental click - small	U+01C0	U+01C0	
7/12	Alveolar click - small	U+01C2	U+01C2	
7/13	Retroflex click - small	U+01C3	U+01C3	
7/14	Lateral click - small	U+01C1	U+01C1	
7/15	<i>Unassigned</i>			

3. WG1 Action: Correction of Errors

3/8, Mid-central vowel; schwa – small

Possible mappings for character 3/8, Mid-central vowel; schwa – small are U+0259 LATIN SMALL LETTER SCHWA and U+01DD LATIN SMALL LETTER TURNED E. Case pairing can be used as the tie-breaker. Character 2/8 Mid-central vowel; schwa – capital maps unequivocally to U+018E LATIN CAPITAL LETTER REVERSED E, for which the lowercase form is U+01DD LATIN SMALL LETTER TURNED E.

4. Comments on Specific Characters (for information)

2/13 Pharyngal unvoiced fricative – capital & 3/13 Pharyngal unvoiced fricative – small

The upper and lower case forms of the Pharyngal unvoiced fricative (at positions 2/13 and 3/13) characters are also encoded in ISO 5426-2, as the case forms of the Latin letter h with stroke (at positions 62 and 72). Although the characters have different names in the two standards, they are functionally the same. Because these case pairs are both mapped to the same pair of UCS characters (U+0126 LATIN CAPITAL LETTER H WITH STROKE and U+0127 LATIN SMALL LETTER H WITH STROKE), it will be impossible to reconstitute the original character set encoding after conversion to ISO/IEC 10646 (or Unicode) without special measures,

2/15 Open high front vowel – capital & 3/15 Open high front vowel – small

Character 2/15, Open high front vowel – capital, maps to U+0197 LATIN CAPITAL LETTER I WITH STROKE. The normal case pairing for U+0197 LATIN CAPITAL LETTER I WITH STROKE is U+0268 LATIN SMALL LETTER I WITH STROKE. The mapping of character 3/15, Open high front vowel – small, to U+026A LATIN LETTER SMALL CAPITAL I is in accordance with the case pair shown in ISO 6438.