Artificial Scripts X.X Cirth

#### **X.X Cirth** (draft by Michael Everson, 2000-04-22)

#### Cirth 1xx00–1xx7F

The Cirth script was invented by the philologist and author J. R. R. Tolkien as part of the mythological world he created and was widely popularized through his work, *The Lord of the Rings*, *The Silmarillion*, etc. Along with a family of artificial languages and a large corpus of etymological data describing their relationships, the Cirth script has attracted the attention of a community of linguists and other enthusiasts interested in this expression of Tolkien's expertise in historical and comparative linguistics (*cirth* is plural of Sindarin *certh* 'rune'; the Quenya singular and plural are \**certa* and *certar*). The Cirth should be treated as a Category D (Attested Extinct) script: there is a relatively limited corpus, and a relatively small scholarly body studying it. In order to provide a standard Cirth character coding for both scholars and enthusiasts (many of whom create new texts with the Cirth), it has been suggested that this character set be included in Plane 1 of the UCS. Eight columns are reserved to encode the Cirth.

The Cirth are used to write the languages Sindarin and Khuzdûl, among others. They have also been used to write English, as on the title page of *The Lord of the Rings*.

General Principles of the Cirth script. The Cirth are a Runic-type alphabet, although they are not connected with Germanic runes except due to a general resemblance resulting from the constraints of letterforms carved in wood or stone. Some of the Cirth had two different forms, which seem to represent glyphic variants; these variants are explicitly encoded because they may be significant. The Cirth were written from left to right. One positional variant is known to exist; this can be rendered as a ligature with the ZERO-WIDTH JOINER: U+xx1E + l+zwJ + U+xx1E + l yields H U. Note that a related ligature has been encoded as a unique character P U.

Ordering follows the presentation of the Cirth of Eregion and Moria followed by the earliest Beleriand runes (from *The Return of the King*, Appendix E, and *The Treason of Isengard*, Appendix on Runes). Additional early Doriathrin and Noldorin Cirth follow these in the main sequence, as have other Cirth used for English, etc. Where duplication in letter names occurs, a modifier has been added to the name to differentiate it from the primary form. Pronouncible or meaningful names are not known for the Cirth, so their phonetic values are used for the names; as usual, long vowels are written doubled in the names.

**Punctuation and diacritics.** Little is known about punctuation marks, though four have been identified: a single dot serves sometimes to separate letters or words; two vertical dots is used to break up groups longer than a word; three or four vertical dots are used at the beginning and ending of texts. The first three of these are attested in the Mazarbul texts (Tolkien 1992b). U+xx6B = DOUBLE EM DASH is also attested in the Mazarbul texts. Vowel or consonant length is sometimes indicated by a horizontal bar below the letter; U+0331 COMBINING MACRON BELOW should be used for this. Nasality or consonant length can be indicated by the use of U+0302 COMBINING CIRCUMFLEX ACCENT.

*Numbers.* Only three Cirth numbers are attested (in the Mazarbul texts); each is formed by placing a dot beneath an existing *certh*:  $\ ^\circ$  '3',  $\ ^\vee$  '4',  $\ ^\vee$  '5'. To indicate that a *certh* has numeric value, U+0323 COMBINING DOT BELOW should be used.

Sometimes word space is not used; word separation may be achieved in that case with U+200B ZERO-WIDTH SPACE. Hyphenation is not generally used, but in one instance where it is found (Carpenter 1981:132) the glyph has two strokes like a short equals sign.

## Sources for characters

The characters in this proposal are attested in the following sources. Page numbers follow the UCS code positions given.

#### Carpenter 1981 (Letters)

xx0E:132, xx1D:132

Tolkien 1965a (Fellowship of the Ring)

xx23:2, xx3C:333, xx3D:2, xx40:333, xx6A:2

Tolkien 1965b (*Return of the King*)

xx04:402, xx06:402, xx09:402, xx0F:402, xx12:402, xx13:402, xx16:402, xx17:402, xx18:402, xx19:402, xx1A:402, xx1B:402, xx1F:402, xx21:402, xx24:402, xx25:402, xx29:402, xx2D:402, xx2E:402, xx32:402, xx35:402, xx36:402, xx37:402, xx38:402, xx3B:402, xx3B:402, xx3F:402

#### Tolkien 1992a (Treason of Isengard)

xx42:461, xx43:461, xx44:461, xx45:461, xx46:464, xx47:461, xx48:461, xx49:461, xx4A:461, xx4B:461, xx4C:464, xx4C:460, xx4F:461, xx50:461, xx53:461, xx56:461, xx58:461, xx59:461, xx5B:461, xx5C:461, xx5D:464, xx5F:461, xx60:464, xx61:461, xx62:461, xx64:461, xx65:461, xx66:461

#### Tolkien 1992b (*Pictures*)

xx00:24, xx01:24, xx02:24, xx03:24, xx05:24, xx07:24, xx08:24, xx0A:2, xx0B:24, xx0C:24, xx0D:24, xx10:24, xx11:24, xx14:24, xx15:24, xx1C:24, xx1E:24, xx20:24, xx22:24, xx26:24, xx27:24, xx28:24, xx2A:24, xx2B:24, xx2B:24, xx2F:24, xx30:24, xx31:24, xx33:24, xx34:24, xx39:24, xx3A:24, xx4E:24, xx55:24, xx57:24, xx57:24, xx5E:24, xx5E:24, xx67:24, xx68:24, xx69:24, xx6B:24

#### Unused positions:

xx6C, xx6D, xx6E, xx6F, xx70, xx71, xx72, xx73, xx74, xx75, xx76, xx77, xx78, xx78, xx7A, xx7B, xx7C, xx7D, xx7E, xx7F

#### *Encoding Structure.* The Cirth block is divided into the following ranges:

U+xx01 -> xx66 Cirth U+xx67 -> xx6B Punctuation U+xx6C -> xx7F unassigned

## **Unicode Character Properties**

(These have not been sorted out yet.)

Spacing letters, category "Lo", bidi category "L" (strong left to right)

Symbols, category "Po", bidi category "L" (strong left to right) xx66-xx69

## References

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Carpenter, Humphrey, ed. 1965a. *The letters of J. R. R. Tolkien*. Boston: Houghton Mifflin. ISBN 0-395-31555-7

- Tolkien, J. R. R. 1965a. *The Fellowship of the Ring*. Boston: Houghton Mifflin. ISBN 0-395-08254-4
- Tolkien, J. R. R. 1965b. "Appendix E: Writing and spelling" in *The return of the King*. Boston: Houghton Mifflin. Pp. 391-404. ISBN 0-395-08256-0
- Tolkien, J. R. R. 1992a. "Appendix on runes" in *The treason of Isengard*. (The History of *The Lord of the Rings*; 2) London: Grafton. Pp. 307-327. ISBN 0-261-10220-6
- Tolkien, J. R. R. 1992b. *Pictures by J. R. R. Tolkien*. Foreword and notes by Christopher Tolkien. London: HarperCollins. Plate 48. ISBN 0-261-10258-3

## Examples

Presented here are typeset examples of Cirth texts as found in the references above.

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After Tolkien 1965a:2

	Ų
	Y · I · R ↑ ' · N ↑ ↑ ' 4 ł M I Y N B ł
∴ ∴ ∴ ∴ ∴ ∴ ∴ ∴ ∴ ∴ ∴ ∴ ∴ ∴ ∴ ∴ ∴ ∴ ∴	
	144.RH  &N8.R 
	〈lł ·\Y\
* * * * * * * * * * * * * * * * * * *	841  949-97
N//	1 18111 11

After Tolkien 1992b:24

mımp ap acd

After Tolkien 1992b:24

After Carpenter 1981:132

# RN-HY 10XIY 0+ 0.LRNPIN-LNPPXB0

· MT A B R A 4 T A 4 Y I X 2 P R A Y F > Y I + M S

After Tolkien 1965b:333

**TABLE XX - Row xx: CIRTH** 

	xx0	xx1	xx2	xx3	xx4	xx5	xx6	xx7
0	7	人	Ж	Ħ	1		A	
1	R	Y	>	n	1	Æ	\$	
2	4	ľ	<	A	<b>&gt;</b>	<u>l</u>	$\Diamond$	
3	Я	١	X	Λ	K	<u> </u>	×	
4	\$	7	*	W	4	$\bigcirc$	M	
5	<b>B</b>	Y	M	M	7	M	Ÿ	
6	\$	~	M	$\Lambda$	*	V	Ŵ	
7		1	1	Λ		W	•	
8	<b>F</b>	7	4	Y	Ŀ	W	<b>;</b>	
9	1	×	7	人	7	V	:	
Α	7	7	Ŷ	Image: Control of the	#	A	:	
В	1	K	×	~	1	A		
С	K	K	<b>?</b>	1	*	Ж		
D	L	K	$\hat{x}$	~	Z	h		
E	1	+	衆	Þ	#	1		
F	4	1	H	4	$\bowtie$	7		

G = 00 P = 01

## **TABLE XX - Row xx: CIRTH**

dec	hex	Name	dec	hex	Name
000 001 002 003 004 005 006 007 008 009 0110 012 013 014 015 016 017 018 019 020 021 022 023 024 025 026 027 028 029 030 031 032 033 034 035 036 037 038 039 040 041 055 066 067 075 066 067 068 069 070 071 072 073 074 075 076 077 078 079 070 070 071 072 073 074 075 076 077 078 079 079 070 070 071 072 073 074 075 076 077 077 078 079 079 070 070 071 072 073 074 075 076 077 077 078 079 070 070 071 072 073 074 075 076 077 077 078 079 079 070 070 071 072 073 074 075 076 077 077 078 079 079 070 070 070 070 071 072 073 074 075 076 077 078 079 079 079 079 079 079 079 079	0123456789ABCDEF01123456789ABCDEF02123456789ABCDEF03133333333333333333333333333333333333	CIRTH LETTER P CIRTH LETTER B CIRTH LETTER B CIRTH LETTER F CIRTH LETTER F CIRTH LETTER W CIRTH LETTER M CIRTH LETTER D CIRTH LETTER S CIRTH	089 090 091 092 093 094 095 096 097 098 099 100 101 102 113 114 115 116 117 118 119 120 121 123 124 125 126 127	59ABC55CDEFF 661 623 634 65 667 77 77 77 77 77 77 77 77 77 77 77 77	CIRTH LETTER BU CIRTH LETTER NOLDORIN OE CIRTH LETTER NOLDORIN OE CIRTH ETTER DORIATHRIN O CIRTH ETTER DORIATHRIN O CIRTH ENGLISH OF CIRTH ENGLISH OF CIRTH ETTER VARIANT Y CIRTH LETTER VARIANT Y CIRTH LETTER VARIANT Y CIRTH LETTER NOLDORIN OE CIRTH SEPARATOR SINGLE DOT CIRTH SEPARATOR TRIPLE DOT CIRTH SEPARATOR TRIPLE DOT CIRTH SEPARATOR TRIPLE DOT CIRTH SEPARATOR DOUBLE DOT CIRTH SEPARATOR SINGLE DOT CIRTH SEPARATOR DOUBLE DOT CIRTH SEPARATOR SINGLE CIRTH SEPARATOR SINGLE CIRTH SEPARATOR CIRTH SEPAR