## D'ni: U+E830 - E88F

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The D'ni script was created by programmer Richard A. Watson for the Myst series of videogames and novels by Cyan Worlds, Inc. (now Cyan, Inc.) and is used to write the artificial language D'ni.
D'ni should be treated as a Category D (Attested Extinct) alphabet: there is a relatively limited corpus, and a relatively small (but existent) scholarly body studying it. In order to provide a standard D'ni character coding for such scholars and enthusiasts, it has been suggested that this character set be included into the ConScript Unicode Registry. 6 columns should be reserved to encode D'ni. Character names derive from the most commonly used romanization (OTS, Old Transliteration Standard).

## General Principles of the D'ni script

The D'ni alphabet is comprised of 24 consonants and 11 vowels, plus numerals for a base- 25 numeral system, punctuation and 6 symbols for colors. There are 25 basic signs (included DNI APOSTROPHE, which is actually a glottal stop), 11 of which are modified by the addition of a DNI APOSTROPHE.
D'ni is written from left-to-right. D'ni numerals are written from right-to-left (the least significant digit is on the left).
No positional variants of the letters exist and no composition is required. The script is based on calligraphic handwriting, however every letter begins and end at the same height, therefore no ligatures are needed, although no kerning should be applied between glyphs.
Two alternative letters are included in the script for completedness, as these are generally considered improper shapes, but nontheless occasionally used.

## Numeral system

D'ni language uses a base- 25 system, subdivided in two sets of 5 glyphs each. There are unique glyphs for numerals ZERO, ONE, TWO, THREE and FOUR; glyphs for FIVE, TEN, FIFTEEN and TWENTY are respectively ONE, TWO, THREE and FOUR rotated 90 degrees anticlockwise. The remaining glyphs - all of which to be encoded separately, up to TWENTYFOUR - are superpositions of these sets, e.g. seventeen is the combination of FIFTEEN + TWO. There are also stand-alone glyphs for TWENTYFIVE, ZERO, and CYCLIC ZERO (a numeral used in cyclic countings, it is both zero and the maximum value, e.g. the equivalent of $0 / 24$ in clocks or $0 / 360$ in degrees).

## Punctuation

D'ni punctuation characters are considered to be unique to the script and are coded in the D'ni block: DNI APOSTROPHE, DNI FULL STOP and DNI HYPHEN; no other punctuation is known. D'ni fonts provide an appropriately-sized space character.
In D'ni usage, DNI FULL STOP is placed at the beginning of the sentence instead of the end.

## Fonts availability

Mainly two fonts are in use: Dnifont, from Cyan itself, and D'ni Script, made by Colin Arenz and Sebastian Ochs; these two fonts have a slightly different encoding for numerals and symbols. D'ni Script is also available in the LM version, which is mapped to the equivalent characters in the NTS romanization (New Transliteration Standard) and therefore has a radically different encoding from the other two fonts.
A dingbat font with about 93 symbols is available, but these are Category E (Minor): the utility of encoding them is open to question.

## Sources

Summaries of the alphabet
http://www.omniglot.com/conscripts/dni.htm
http://dni.wikia.com/wiki/D\'ni_Alphabet
Fonts sets
http://www.mystcommunity.com/storage/Dnifont/Dn $\qquad$ .TTF
http://linguists.riedl.org/old/sebastian/index.htm
http://www.mediafire.com/?
sharekey=99e6cc74f9b647ecab1eab3e9fa335caf64de741b23b30a4
Dictionary of the language
http://www.eldalamberon.com/dni_dict.htm

## Encoding Structure

The D'ni block is divided into the following ranges:

```
U+E830 -> E852 Letters
U+E857 -> E859 Punctuation
U+E860 -> E879 Numerals
U+E87C -> E87D Additional numerals
U+E880 -> E885 Symbols for colors
U+E888 -> E889 Additional letters
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| Letters |  |  | Numerals |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| U+E830 | DNI | LETTER V | U+E860 | DNI | NUMBER | ZERO |
| U+E831 | DNI | LETTER B | U+E861 | DNI | NUMBER | ONE |
| U+E832 | DNI | LETTER T | U+E862 | DNI | NUMBER | TWO |
| U+E833 | DNI | LETTER S | U+E863 | DNI | NUMBER | THREE |
| U+E834 | DNI | LETTER SH | U+E864 | DNI | NUMBER | FOUR |
| U+E835 | DNI | LETTER J | U+E865 | DNI | NUMBER | FIVE |
| U+E836 | DNI | LETTER G | U+E866 | DNI | NUMBER | SIX |
| U+E837 | DNI | LETTER Y | U+E867 | DNI | NUMBER | SEVEN |
| U+E838 | DNI | LETTER K | U+E868 | DNI | NUMBER | EIGHT |
| U+E839 | DNI | LETTER KH | U+E869 | DNI | NUMBER | NINE |
| U+E83A | DNI | LETTER AH | $\mathrm{U}+\mathrm{E} 86 \mathrm{~A}$ | DNI | NUMBER | TEN |
| U+E83B | DNI | LETTER I | $\mathrm{U}+\mathrm{E} 86 \mathrm{~B}$ | DNI | NUMBER | ELEVEN |
| U+E83C | DNI | LETTER F | U+E86C | DNI | NUMBER | TWELVE |
| U+E83D | DNI | LETTER P | U+E86D | DNI | NUMBER | THIRTEEN |
| U+E83E | DNI | LETTER IH | U+E86E | DNI | NUMBER | FOURTEEN |
| U+E83F | DNI | LETTER EE | U+E86F | DNI | NUMBER | FIFTEEN |
| U+E840 | DNI | LETTER EH | U+E870 | DNI | NUMBER | SIXTEEN |
| U+E841 | DNI | LETTER AY | U+E871 | DNI | NUMBER | SEVENTEEN |
| U+E842 | DNI | LETTER R | U+E872 | DNI | NUMBER | EIGHTEEN |
| U+E843 | DNI | LETTER M | U+E873 | DNI | NUMBER | NINETEEN |
| U+E844 | DNI | LETTER TH | U+E874 | DNI | NUMBER | TWENTY |
| U+E845 | DNI | LETTER DH | U+E875 | DNI | NUMBER | TWENTYONE |
| U+E846 | DNI | LETTER D | U+E876 | DNI | NUMBER | TWENTYTWO |
| U+E847 | DNI | LETTER H | U+E877 | DNI | NUMBER | TWENTYTHREE |
| U+E848 | DNI | LETTER O | U+E878 | DNI | NUMBER | TWENTYFOUR |
| U+E849 | DNI | LETTER OY | U+E879 | DNI | NUMBER | TWENTYFIVE |
| U+E84A | DNI | LETTER CH |  |  |  |  |
| U+E84B | DNI | LETTER W | Additional numerals |  |  |  |
| U+E84C | DNI | LETTER U | U+E87C | DNI | NUMBER | CYCLIC ZERO |
| U+E84D | DNI | LETTER OO | U+E87D | DNI | SYMBOL | INFINITY |
| U+E84E | DNI | LETTER TS |  |  |  |  |
| U+E84F | DNI | LETTER L | Symbols | for | colors |  |
| U+E850 | DNI | LETTER A | U+E880 | DNI | SYMBOL | RED |
| U+E851 | DNI | LETTER Z | U+E881 | DNI | SYMBOL | ORANGE |
| U+E852 | DNI | LETTER N | U+E882 | DNI | SYMBOL | YELLOW |
| Punctuation |  |  | U+E883 | DNI | SYMBOL | GREEN |
|  |  |  | U+E884 | DNI | SYMBOL | BLUE |
| U+E857 | DNI | APOSTROPHE | U+E885 | DNI | SYMBOL | VIOLET |
| U+E858 | DNI | FULL STOP |  |  |  |  |
| U+E859 | DNI | HYPHEN |  |  |  |  |


| E83 | E84 | E85 | E86 | E87 | E88 |
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| 9 | $\checkmark$ | $\sim$ | 且 | 区 | 2 |
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