

Package ‘hexfont’

December 18, 2023

Type Package

Title 'GNU Unifont' Hex Fonts

Version 0.4.0

Description Contains most of the hex font files from the 'GNU Unifont Project' <<https://unifoundry.com/unifont/>> compressed by 'xz'. 'GNU Unifont' is a duospaced bitmap font that attempts to cover all the official Unicode glyphs plus several of the artificial scripts in the '(Under-)ConScript Unicode Registry' <<http://www.kreativekorp.com/ucsur/>>. Provides a convenience function for loading in several of them at the same time as a 'bittermelon' bitmap font object for easy rendering of the glyphs in an 'R' terminal or graphics device.

URL <https://github.com/trevorld/hexfont>

BugReports <https://github.com/trevorld/hexfont/issues>

License GPL (>= 2)

Imports bittermelon (>= 1.1.2), utils

Suggests knitr, oblicubes, rmarkdown, testthat, Unicode

VignetteBuilder knitr, rmarkdown

Encoding UTF-8

RoxygenNote 7.2.3

NeedsCompilation no

Author Trevor L Davis [aut, cre] (<<https://orcid.org/0000-0001-6341-4639>>),
GNU Unifont authors [cph]

Maintainer Trevor L Davis <trevor.l.davis@gmail.com>

Repository CRAN

Date/Publication 2023-12-18 08:50:15 UTC

R topics documented:

unifont	2
unifont_combining	3
unifont_version	4

Index	5
--------------	----------

unifont

Load GNU Unifont font

Description

The function `unifont()` loads in several GNU Unifont hex files as a single `bittermelon::bm_font()` object.

Usage

```
unifont(upper = TRUE, jp = FALSE, csur = TRUE, sample = FALSE, ucp = NULL)
```

Arguments

<code>upper</code>	Include glyphs above the Unicode Basic Multilingual plane.
<code>jp</code>	Use Japanese version of Chinese characters.
<code>csur</code>	Include (Under-)Conscript Unicode Registry glyphs.
<code>sample</code>	Add circle to "Combining" characters.
<code>ucp</code>	Character vector of Unicode Code Points: glyphs not in this vector won't be read in. If NULL (default) read every glyph in the font.

Value

A `bittermelon::bm_font()` object.

Examples

```
# Much faster to load only the subset of GNU Unifont one needs
# Mandarin Chinese
if (require("bittermelon")) {
  s <- "\uff32\u5f88\u68d2\uff01"
  font <- unifont(ucp = str2ucp(s))
  bm <- as_bm_bitmap(s, font = font)
  print(bm, px = px_ascii)
}

# Emoji
if (require("bittermelon")) {
  s <- "\U0001f42d\U0001f432\U0001f435"
  font <- unifont(ucp = str2ucp(s))
  bm <- as_bm_bitmap(s, font = font)
  print(bm, px = px_ascii)
}
```

unifont_combining *Get combining character code points*

Description

`unifont_combining()` returns a character vector of the code points for all the "combining" characters in Unifont.

Usage

```
unifont_combining(upper = TRUE, csur = TRUE, unicode = FALSE)
```

Arguments

<code>upper</code>	Include glyphs above the Unicode Basic Multilingual plane.
<code>csur</code>	Include (Under-)Conscript Unicode Registry glyphs.
<code>unicode</code>	Include combining glyphs assigned by the Unicode Consortium (i.e. not ones in the Private Use Area like the CSUR ones). By default FALSE since <code>bittermelon::bm_compose()</code> can usually guess that a Unicode Consortium assigned glyph is a combining glyph by using <code>Unicode::u_char_property()</code> .

Value

A character vector of Unicode code points

See Also

Can be used with the `pua_combining` argument of `bittermelon::bm_compose()` and `bittermelon::as_bm_bitmap()`.

Examples

```
uc <- unifont_combining()
print(uc)

# Tengwar with combining glyphs
if (require("bittermelon")) {
  s <- "\ue004\ue014\ue04a\ue005\ue000\ue040\ue022\ue04a\ue003\ue04e"
  font <- unifont(ucp = str2ucp(s))
  bml <- as_bm_list(s, font = font)
  to_raise <- which(names(bml) %in% c("U+E04A", "U+E04E"))
  bml[to_raise] <- bm_shift(bml[to_raise], top = 1L)
  bml <- bm_compose(bml, pua_combining = uc)
  bml <- bm_pad(bml, type = "trim", left = 1L, right = 0L)
  bm <- bm_call(bml, cbind)
  print(bm, px = px_ascii)
}
```

unifont_version	<i>GNU Unifont version number</i>
-----------------	-----------------------------------

Description

The function `unifont_version()` returns the GNU Unifont version number this package packed their hex files from.

Usage

```
unifont_version()
```

Value

The Unifont version number as a `numeric_version()` class.

Examples

```
unifont_version()
```

Index

`bittermelon::as_bm_bitmap()`, 3
`bittermelon::bm_compose()`, 3
`bittermelon::bm_font()`, 2

`numeric_version()`, 4

`Unicode::u_char_property()`, 3
`unifont`, 2
`unifont_combining`, 3
`unifont_version`, 4