

How to Find the Character You Need in New Athena Unicode Font (v.5)

New Athena Unicode is the GreekKeys font with the greatest number of characters. Only some of the special characters listed below are available in the other three fonts.

The text file **NAU5cmap.txt** contains the list of 1842 of the 2190 glyphs in New Athena Unicode (v.5) that have official Unicode code points or that are assigned code points in the Private Use Area (PUA) block. These can be entered with GreekKeys keyboards or by using an alternative method such as Unicode Hex input (OS X) or the Character Viewer (OS X) or the Insert Symbol... function or the ALT-x method in Windows.

The cmap text file is easily searchable, and the code points are in order in the file, and each glyph has either the official Unicode description or one added for this purpose.

See the appendix of this document for a listing of the PUA code points showing, if applicable, the sequence of decomposed Unicode code points that is equivalent.

NAU also contains 348 glyphs that are not in the cmap listing because they have no code point but are instead generally accessible only as OpenType substitutions defined in the font. To produce these characters, you have to enter the proper components in the proper order (the special decomposed inputs for OS X give easy access to some of them). For instance, to add the rough and acute to lambda (for cryptographic writing), be sure you are using NAU font, and type lambda, then use (OS X) Unicode Hex input and type (with option key held down) 0314 and (with option key still held down) 0301 or (Windows) the ALT-X method for the same code points.

Here is a list of the glyphs not listed in the cmap file:

for cryptographic writing (medieval mss) [92 glyphs]

beta with acute	03B2 0301
beta with grave	03B2 0300
beta with circumflex	03B2 0342
beta with smooth	03B2 0313
beta with rough	03B2 0314
beta with smooth acute	03B2 0313 0301
beta with smooth grave	03B2 0313 0300
beta with rough acute	03B2 0314 0301
beta with rough grave	03B2 0314 0300
beta with smooth circumflex	03B2 0313 0342
beta with rough circumflex	03B2 0314 0342
theta with acute	03B8 0301
theta with grave	03B8 0300
theta with circumflex	03B8 0342
theta with smooth	03B8 0313
theta with rough	03B8 0314
theta with smooth acute	03B8 0313 0301
theta with smooth grave	03B8 0313 0300
theta with rough acute	03B8 0314 0301
theta with rough grave	03B8 0314 0300
theta with smooth circumflex	03B8 0313 0342
theta with rough circumflex	03B8 0314 0342

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lambda with acute	03BB 0301
lambda with grave	03BB 0300
lambda with circumflex	03BB 0342
lambda with smooth	03BB 0313
lambda with rough	03BB 0314
lambda with smooth acute	03BB 0313 0301
lambda with smooth grave	03BB 0313 0300
lambda with rough acute	03BB 0314 0301
lambda with rough grave	03BB 0314 0300
lambda with smooth circumflex	03BB 0313 0342
lambda with rough circumflex	03BB 0314 0342
sigma with acute	03C3 0301
sigma with grave	03C3 0300
sigma with circumflex	03C3 0342
sigma with smooth	03C3 0313
sigma with rough	03C3 0314
sigma with smooth acute	03C3 0313 0301
sigma with smooth grave	03C3 0313 0300
sigma with rough acute	03C3 0314 0301
sigma with rough grave	03C3 0314 0300
sigma with smooth circumflex	03C3 0313 0342
sigma with rough circumflex	03C3 0314 0342
chi with acute	03C7 0301
chi with grave	03C7 0300
chi with circumflex	03C7 0342
chi with smooth	03C7 0313
chi with rough	03C7 0314
chi with smooth acute	03C7 0313 0301
chi with smooth grave	03C7 0313 0300
chi with rough acute	03C7 0314 0301
chi with rough grave	03C7 0314 0300
chi with smooth circumflex	03C7 0313 0342
chi with rough circumflex	03C7 0314 0342
chi dieresis	03C7 0308
chi dieresis with acute	03C7 0308 0301
chi dieresis with grave	03C7 0308 0300
chi dieresis with circumflex	03C7 0308 0342
chi dieresis with smooth	03C7 0308 0313
chi dieresis with rough	03C7 0308 0314
chi dieresis with smooth acute	03C7 0308 0313 0301
chi dieresis with smooth grave	03C7 0308 0313 0300
chi dieresis with rough acute	03C7 0308 0314 0301
chi dieresis with rough grave	03C7 0308 0314 0300
chi dieresis with smooth circumflex	03C7 0308 0313 0342
chi dieresis with rough circumflex	03C7 0308 0314 0342
sampi with smooth	03E1 0313
sampi with rough	03E1 0314
koppa with acute	03D9 0301
koppa with grave	03D9 0300
koppa with circumflex	03D9 0342
koppa with smooth	03D9 0313
koppa with rough	03D9 0314
koppa with smooth acute	03D9 0313 0301

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koppa with smooth grave	03D9 0313 0300
koppa with rough acute	03D9 0314 0301
koppa with rough grave	03D9 0314 0300
koppa with smooth circumflex	03D9 0313 0342
koppa with rough circumflex	03D9 0314 0342
koppa dieresis	03D9 0308
koppa dieresis with acute	03D9 0308 0301
koppa dieresis with grave	03D9 0308 0300
koppa dieresis with circumflex	03D9 0308 0342
koppa dieresis with smooth	03D9 0308 0313
koppa dieresis with rough	03D9 0308 0314
koppa dieresis with smooth acute	03D9 0308 0313 0301
koppa dieresis with smooth grave	03D9 0308 0313 0300
koppa dieresis with rough acute	03D9 0308 0314 0301
koppa dieresis with rough grave	03D9 0308 0314 0300
koppa dieresis with smooth circumflex	03D9 0308 0313 0342
koppa dieresis with rough circumflex	03D9 0308 0314 0342

Other combinations for various purposes. Some of the following may require the enabling of standard ligatures. [37 glyphs]

colon(dicolon) tilde punctuation ¹	003A 007E
triple vertical (end of stanza) = 3 bars ²	007C 007C 007C
capital E with macron and circumflex	0112 0302
small e with macron and circumflex	0113 0302
small e with macron and dot below	0113 0323
capital O with macron and circumflex	014C 0302
small o with macron and circumflex	014D 0302
small o with macron and dot below	014D 0323
capital I with diaeresis and grave	00CF 0300
small i with diaeresis and grave	00EF 0300
small ae with dot below	00E6 0323
small s with macron	0073 0304
small p with macron	0070 0304
small t with diaeresis	0074 0308
iota with single dot above and acute	03B9 0307 0301
iota with single dot above and grave	03B9 0307 0300
iota with single dot above and smooth	03B9 0307 0313
iota with single dot above and rough	03B9 0307 0314
iota with diaeresis and smooth	03CA 0313
iota with diaeresis and rough	03CA 0314
iota with single dot above	03B9 0307
upsilon with single dot above and acute	03C5 0307 0301
upsilon with single dot above and grave	03C5 0307 0300
upsilon with single dot above and smooth	03C5 0307 0313
upsilon with single dot above and rough	03C5 0307 0314
upsilon with diaeresis and smooth	03CB 0313
upsilon with diaeresis and rough	03CB 0314

¹ For this combination, you need to enable standard ligatures.

² For this combination, you need to enable standard ligatures. This glyph is also available as PUA U+EC3B via the OS X GreekKeys Symbol input.

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upsilon with single dot above	03C5 0307
alpha with double grave	03B1 030F
epsilon with double grave	03B5 030F
eta with double grave	03B7 030F
iota with double grave	03B9 030F
nu with double grave	03BD 030F
eta with macron	03B7 0304
eta with breve	03B7 0306
omega with macron	03C9 0304
omega with breve	03C9 0306

Standard lowercase Coptic letters with either a dot below or an overstroke above are obtained by typing the Coptic letter and then either combining dot below U+0323 or combining stroke above U+0305. [65 glyphs]

Standard lowercase polytonic Greek letters (including lunate sigma, digamma, koppa) with either a dot below or an overstroke above are obtained by typing the Greek letter and then either combining dot below U+0323 or combining stroke above U+0305. A dotted version (but not an overstroke version) is also available for the Greek vowels with diacritics. *These characters, unlike the others in this listing, are also present in the other three GreekKeys fonts.* [145 glyphs]

Old-style numerals 0–9 are present as alternate forms, and are supposed to be accessible through advanced typography (selection of alternate forms), but few applications support this. [10 glyphs]

Appendix: PUA Listing

I. PUA characters used in several scholarly fonts by consortial agreement

By code point:

description	decomposed Unicode	alternative (full) decomposition	PUA code point adopted
Drachmai		Use 1017b instead.	e197 (obsolete)
Denarius		Use 2733 instead.	e198 (obsolete)
etos		Use 10179 instead.	e199
h (for use in Greek text)			e19b
Sigma double (capital archaic sampi)		Use 0372 instead.	e19c
Iota reversed with breve below			e1a0
iota reversed with tilde below			e1a1
Upsilon reversed with breve below			e1a2
upsilon reversed with tilde below			e1a3
Yot		Use 037f instead.	e1a5
Kai symbol		Use 03cf instead.	e1a6
epsilon with breve	03b5 0306		e1a9
omicron with breve	03bf 0306		e1aa
Rho with smooth	03a1 0313		e1ab
Upsilon with smooth	03a5 0313		e1ac
Upsilon with smooth grave	03a5 0313 0300		e1ad
Upsilon with smooth acute	03a5 0313 0301		e1ae
Upsilon with smooth circumflex	03a5 0313 0342		e1af
epsilon with circumflex	03b5 0342		e1b0
epsilon with smooth circumflex	03b5 0313 0342		e1b1
epsilon with rough circumflex	03b5 0314 0342		e1b2
epsilon with macron	03b5 0304		e1b3
epsilon with macron and acute	03b5 0304 0301		e1b4
epsilon with macron and grave	03b5 0304 0300		e1b5
epsilon with macron and smooth	03b5 0304 0313		e1b6
epsilon with macron and rough	03b5 0304 0314		e1b7
epsilon with macron and smooth grave	03b5 0304 0313 0300		e1b8
epsilon with macron and rough grave	03b5 0304 0314 0300		e1b9
epsilon with macron and smooth acute	03b5 0304 0313 0301		e1ba
epsilon with macron rough acute	03b5 0304 0314 0301		e1bb
Epsilon with smooth circumflex	0395 0313 0342		e1bc
Epsilon with rough circumflex	0395 0314 0342		e1bd
Epsilon with macron	0395 0304		e1be
Epsilon with breve	0395 0306		e1bf
omicron with circumflex	03bf 0342		e1c0
omicron with smooth circumflex	03bf 0313 0342		e1c1
omicron with rough circumflex	03bf 0314 0342		e1c2
omicron with macron	03bf 0304		e1c3
omicron with macron and acute	03bf 0304 0301		e1c4
omicron with macron and grave	03bf 0304 0300		e1c5
omicron with macron and smooth	03bf 0304 0313		e1c6
omicron with macron and rough	03bf 0304 0314		e1c7
omicron with macron and smooth grave	03bf 0304 0313 0300		e1c8

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description	decomposed Unicode	alternative (full) decomposition	PUA code point adopted
omicron with macron and rough grave	03bf 0304 0314 0300		e1c9
omicron with macron and smooth acute	03bf 0304 0313 0301		e1ca
omicron with macron and rough acute	03bf 0304 0314 0301		e1cb
Omicron with smooth circumflex	039f 0313 0342		e1cc
Omicron with rough circumflex	039f 0314 0342		e1cd
Omicron with macron	039f 0304		e1ce
Omicron with breve	039f 0306		e1cf
alpha with macron and grave	1fb1 0300	03b1 0304 0300	eaf0
alpha with macron and circumflex	1fb1 0342	03b1 0304 0342	eaf2
alpha with macron and smooth grave	1fb1 0313 0300	03b1 0304 0313 0300	eaf3
alpha with macron and rough grave	1fb1 0314 0300	03b1 0304 0314 0300	eaf4
alpha with macron and smooth circumflex	1fb1 0313 0342	03b1 0304 0313 0342	eaf5
alpha with macron and rough circumflex	1fb1 0314 0342	03b1 0304 0314 0342	eaf6
alpha with breve and grave	1fb0 0300	03b1 0306 0300	eaf8
alpha with breve and smooth	1fb0 0313	03b1 0306 0313	eaf9
alpha with breve and smooth grave	1fb0 0313 0300	03b1 0306 0313 0300	eafa
alpha with breve and rough acute	1fb0 0314 0301	03b1 0306 0314 0301	eafb
alpha with breve and rough grave	1fb0 0314 0300	03b1 0306 0314 0300	eafc
alpha with macron and acute	1fb1 0301	03b1 0304 0301	eb00
alpha with macron and smooth	1fb1 0313	03b1 0304 0313	eb04
alpha with macron and rough	1fb1 0314	03b1 0304 0314	eb05
alpha with macron and smooth acute	1fb1 0313 0301	03b1 0304 0313 0301	eb07
alpha with macron and rough acute	1fb1 0314 0301	03b1 0304 0314 0301	eb09
alpha with breve and acute	1fb0 0301	03b1 0306 0301	eb0a
alpha with breve and rough	1fb0 0314	03b1 0306 0314	eb0b
alpha with breve and smooth acute	1fb0 0313 0301	03b1 0306 0313 0301	eb0c
epsilon with macron and smooth circumflex	03b5 0304 0313 0342		eb20
epsilon with macron and rough circumflex	03b5 0304 0314 0342		eb21
epsilon with macron and circumflex	03b5 0304 0342		eb27
iota with macron and circumflex	1fd1 0342	03b9 0304 0342	eb36
iota with macron and grave	1fd1 0300	03b9 0304 0300	eb38
iota with macron and acute	1fd1 0301	03b9 0304 0301	eb39
iota with macron and smooth	1fd1 0313	03b9 0304 0313	eb3c
iota with macron and smooth acute	1fd1 0313 0301	03b9 0304 0313 0301	eb3d
iota with macron and rough	1fd1 0314	03b9 0304 0314	eb3e
iota with macron and rough acute	1fd1 0314 0301	03b9 0304 0314 0301	eb3f
iota with breve and acute	1fd0 0301	03b9 0306 0301	eb40
iota with breve and smooth	1fd0 0313	03b9 0306 0313	eb41
iota with breve and smooth acute	1fd0 0313 0301	03b9 0306 0313 0301	eb42
iota with breve and rough	1fd0 0314	03b9 0306 0314	eb43
iota with breve and grave	1fd0 0300	03b9 0306 0300	eb44
iota with breve and smooth grave	1fd0 0313 0300	03b9 0306 0313 0300	eb45
iota with breve and rough acute	1fd0 0314 0301	03b9 0306 0314 0301	eb47
iota with breve and rough grave	1fd0 0314 0300	03b9 0306 0314 0300	eb48
iota with macron and smooth grave	1fd1 0313 0300	03b9 0304 0313 0300	eb54

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description	decomposed Unicode	alternative (full) decomposition	PUA code point adopted
iota with macron and rough grave	1fd1 0314 0300	03b9 0304 0314 0300	eb55
iota with macron and smooth circumflex	1fd1 0313 0342	03b9 0304 0313 0342	eb57
iota with macron and rough circumflex	1fd1 0314 0342	03b9 0304 0314 0342	eb58
omicron with macron and circumflex	03bf 0304 0342		eb5a
omicron with macron and smooth circumflex	03bf 0304 0313 0342		eb5b
omicron with macron and rough circumflex	03bf 0304 0314 0342		eb5c
upsilon with macron and grave	1fe1 0300	03c5 0304 0300	eb6f
upsilon with macron and circumflex	1fe1 0342	03c5 0304 0342	eb70
upsilon with macron and smooth grave	1fe1 0313 0300	03c5 0304 0313 0300	eb71
upsilon with macron and rough grave	1fe1 0314 0300	03c5 0304 0314 0300	eb75
upsilon with macron and smooth circumflex	1fe1 0313 0342	03c5 0304 0313 0342	eb77
upsilon with macron and rough circumflex	1fe1 0314 0342	03c5 0304 0314 0342	eb78
upsilon with macron and acute	1fe1 0301	03c5 0304 0301	eb7a
upsilon with macron and smooth	1fe1 0313	03c5 0304 0313	eb7d
upsilon with macron and rough	1fe1 0314	03c5 0304 0314	eb7e
upsilon with macron and smooth acute	1fe1 0313 0301	03c5 0304 0313 0301	eb7f
upsilon with macron and rough acute	1fe1 0314 0301	03c5 0304 0314 0301	eb80
upsilon with breve and acute	1fe0 0301	03c5 0306 0301	eb81
upsilon with breve and rough	1fe0 0314	03c5 0306 0314	eb82
upsilon with breve and grave	1fe0 0300	03c5 0306 0300	eb83
upsilon with breve and smooth	1fe0 0313	03c5 0306 0313	eb84
upsilon with breve and smooth acute	1fe0 0313 0301	03c5 0306 0313 0301	eb85
upsilon with breve and smooth grave	1fe0 0313 0300	03c5 0306 0313 0300	eb88
upsilon with breve and rough acute	1fe0 0314 0301	03c5 0306 0314 0301	eb89
upsilon with breve and rough grave	1fe0 0314 0300	03c5 0306 0314 0300	eb8a

By description:

description	decomposed Unicode	alternative (full) decomposition	PUA code point adopted
alpha with breve and acute	1fb0 0301	03b1 0306 0301	eb0a
alpha with breve and grave	1fb0 0300	03b1 0306 0300	eaf8
alpha with breve and rough	1fb0 0314	03b1 0306 0314	eb0b
alpha with breve and rough acute	1fb0 0314 0301	03b1 0306 0314 0301	eafb
alpha with breve and rough grave	1fb0 0314 0300	03b1 0306 0314 0300	eafc
alpha with breve and smooth	1fb0 0313	03b1 0306 0313	eaf9
alpha with breve and smooth acute	1fb0 0313 0301	03b1 0306 0313 0301	eb0c
alpha with breve and smooth grave	1fb0 0313 0300	03b1 0306 0313 0300	eafa
alpha with macron and acute	1fb1 0301	03b1 0304 0301	eb00
alpha with macron and circumflex	1fb1 0342	03b1 0304 0342	eaf2
alpha with macron and grave	1fb1 0300	03b1 0304 0300	eaf0
alpha with macron and rough	1fb1 0314	03b1 0304 0314	eb05
alpha with macron and rough acute	1fb1 0314 0301	03b1 0304 0314 0301	eb09
alpha with macron and rough circumflex	1fb1 0314 0342	03b1 0304 0314 0342	eaf6
alpha with macron and rough grave	1fb1 0314 0300	03b1 0304 0314 0300	eaf4
alpha with macron and smooth	1fb1 0313	03b1 0304 0313	eb04

Appendix: PUA Listing

description	decomposed Unicode	alternative (full) decomposition	PUA code point adopted
alpha with macron and smooth acute	1fb1 0313 0301	03b1 0304 0313 0301	eb07
alpha with macron and smooth circumflex	1fb1 0313 0342	03b1 0304 0313 0342	eaf5
alpha with macron and smooth grave	1fb1 0313 0300	03b1 0304 0313 0300	eaf3
epsilon with breve	03b5 0306		e1a9
Epsilon with breve	0395 0306		e1bf
epsilon with circumflex	03b5 0342		e1b0
epsilon with macron	03b5 0304		e1b3
Epsilon with macron	0395 0304		e1be
epsilon with macron and acute	03b5 0304 0301		e1b4
epsilon with macron and circumflex	03b5 0304 0342		eb27
epsilon with macron and grave	03b5 0304 0300		e1b5
epsilon with macron and rough	03b5 0304 0314		e1b7
epsilon with macron and rough circumflex	03b5 0304 0314 0342		eb21
Drachmai		Use 1017b instead.	e197 (obsolete)
Denarius		Use 2733 instead.	e198 (obsolete)
epsilon with macron and rough grave	03b5 0304 0314 0300		e1b9
epsilon with macron and smooth	03b5 0304 0313		e1b6
epsilon with macron and smooth acute	03b5 0304 0313 0301		e1ba
epsilon with macron and smooth circumflex	03b5 0304 0313 0342		eb20
epsilon with macron and smooth grave	03b5 0304 0313 0300		e1b8
epsilon with macron rough acute	03b5 0304 0314 0301		e1bb
epsilon with rough circumflex	03b5 0314 0342		e1b2
Epsilon with rough circumflex	0395 0314 0342		e1bd
epsilon with smooth circumflex	03b5 0313 0342		e1b1
Epsilon with smooth circumflex	0395 0313 0342		e1bc
etos		Use 10179 instead.	e199
h (for use in Greek text)			e19b
Iota reversed with breve below			e1a0
iota reversed with tilde below			e1a1
iota with breve and acute	1fd0 0301	03b9 0306 0301	eb40
iota with breve and grave	1fd0 0300	03b9 0306 0300	eb44
iota with breve and rough	1fd0 0314	03b9 0306 0314	eb43
iota with breve and rough acute	1fd0 0314 0301	03b9 0306 0314 0301	eb47
iota with breve and rough grave	1fd0 0314 0300	03b9 0306 0314 0300	eb48
iota with breve and smooth	1fd0 0313	03b9 0306 0313	eb41
iota with breve and smooth acute	1fd0 0313 0301	03b9 0306 0313 0301	eb42
iota with breve and smooth grave	1fd0 0313 0300	03b9 0306 0313 0300	eb45
iota with macron and acute	1fd1 0301	03b9 0304 0301	eb39
iota with macron and circumflex	1fd1 0342	03b9 0304 0342	eb36
iota with macron and grave	1fd1 0300	03b9 0304 0300	eb38
iota with macron and rough	1fd1 0314	03b9 0304 0314	eb3e
iota with macron and rough acute	1fd1 0314 0301	03b9 0304 0314 0301	eb3f
iota with macron and rough circumflex	1fd1 0314 0342	03b9 0304 0314 0342	eb58
iota with macron and rough grave	1fd1 0314 0300	03b9 0304 0314 0300	eb55

Appendix: PUA Listing

description	decomposed Unicode	alternative (full) decomposition	PUA code point adopted
iota with macron and smooth	1fd1 0313	03b9 0304 0313	eb3c
iota with macron and smooth acute	1fd1 0313 0301	03b9 0304 0313 0301	eb3d
iota with macron and smooth circumflex	1fd1 0313 0342	03b9 0304 0313 0342	eb57
iota with macron and smooth grave	1fd1 0313 0300	03b9 0304 0313 0300	eb54
Kai symbol	Use 03cf instead.		e1a6
omicron with breve	03bf 0306		e1aa
Omicron with breve	039f 0306		e1cf
omicron with circumflex	03bf 0342		e1c0
omicron with macron	03bf 0304		e1c3
Omicron with macron	039f 0304		e1ce
omicron with macron and acute	03bf 0304 0301		e1c4
omicron with macron and circumflex	03bf 0304 0342		eb5a
omicron with macron and grave	03bf 0304 0300		e1c5
omicron with macron and rough	03bf 0304 0314		e1c7
omicron with macron and rough acute	03bf 0304 0314 0301		e1cb
omicron with macron and rough circumflex	03bf 0304 0314 0342		eb5c
omicron with macron and rough grave	03bf 0304 0314 0300		e1c9
omicron with macron and smooth	03bf 0304 0313		e1c6
omicron with macron and smooth acute	03bf 0304 0313 0301		e1ca
omicron with macron and smooth circumflex	03bf 0304 0313 0342		eb5b
omicron with macron and smooth grave	03bf 0304 0313 0300		e1c8
Omicron with rough circumflex	039f 0314 0342		e1cd
omicron with rough circumflex	03bf 0314 0342		e1c2
Omicron with smooth circumflex	039f 0313 0342		e1cc
omicron with smooth circumflex	03bf 0313 0342		e1c1
Rho with smooth	03a1 0313		e1ab
Sigma double (capital archaic sampi)	Use 0372 instead.		e19c
Upsilon reversed with breve below			e1a2
upsilon reversed with tilde below			e1a3
upsilon with breve and acute	1fe0 0301	03c5 0306 0301	eb81
upsilon with breve and grave	1fe0 0300	03c5 0306 0300	eb83
upsilon with breve and rough	1fe0 0314	03c5 0306 0314	eb82
upsilon with breve and rough acute	1fe0 0314 0301	03c5 0306 0314 0301	eb89
upsilon with breve and rough grave	1fe0 0314 0300	03c5 0306 0314 0300	eb8a
upsilon with breve and smooth	1fe0 0313	03c5 0306 0313	eb84
upsilon with breve and smooth acute	1fe0 0313 0301	03c5 0306 0313 0301	eb85
upsilon with breve and smooth grave	1fe0 0313 0300	03c5 0306 0313 0300	eb88
upsilon with macron and acute	1fe1 0301	03c5 0304 0301	eb7a
upsilon with macron and circumflex	1fe1 0342	03c5 0304 0342	eb70
upsilon with macron and grave	1fe1 0300	03c5 0304 0300	eb6f
upsilon with macron and rough	1fe1 0314	03c5 0304 0314	eb7e
upsilon with macron and rough acute	1fe1 0314 0301	03c5 0304 0314 0301	eb80
upsilon with macron and rough circumflex	1fe1 0314 0342	03c5 0304 0314 0342	eb78
upsilon with macron and rough grave	1fe1 0314 0300	03c5 0304 0314 0300	eb75

Appendix: PUA Listing

description	decomposed Unicode	alternative (full) decomposition	PUA code point adopted
upsilon with macron and smooth	1fe1 0313	03c5 0304 0313	eb7d
upsilon with macron and smooth acute	1fe1 0313 0301	03c5 0304 0313 0301	eb7f
upsilon with macron and smooth circumflex	1fe1 0313 0342	03c5 0304 0313 0342	eb77
upsilon with macron and smooth grave	1fe1 0313 0300	03c5 0304 0313 0300	eb71
Upsilon with smooth	03a5 0313		e1ac
Upsilon with smooth acute	03a5 0313 0301		e1ae
Upsilon with smooth circumflex	03a5 0313 0342		e1af
Upsilon with smooth grave	03a5 0313 0300		e1ad
Yot	Use 037f instead.		e1a5

II. PUA characters used in NAU (without consortial agreement)

By description:

Description	decomposed equivalent (or character name)	PUA code point
aeolic basis = two small circles	25EF 25EF	EC3E
alternate capital omega with downward opening	uniEC3F	EC3F
CALENDRIAL SIGN SELENE	uniEC63	EC63
CALENDRIAL SIGN SUN VARIANT	uniEC64	EC64
capital alpha with reduced iota	uni1FBC.001	EC00
capital alpha with reduced iota and rough	uni1F89.001	EC02
capital alpha with reduced iota and rough and acute	uni1F8D.001	EC04
capital alpha with reduced iota and rough and circumflex	uni1F8F.001	EC08
capital alpha with reduced iota and rough and grave	uni1F8B.001	EC06
capital alpha with reduced iota and smooth	uni1F88.001	EC01
capital alpha with reduced iota and smooth and acute	uni1F8C.001	EC03
capital alpha with reduced iota and smooth and circumflex	uni1F8E.001	EC07
capital alpha with reduced iota and smooth and grave	uni1F8A.001	EC05
capital alpha with subscript	uni1FBC.002	EC20
capital alpha with subscript and rough	uni1F89.002	EC22
capital alpha with subscript and rough and acute	uni1F8D.002	EC24
capital alpha with subscript and rough and circumflex	uni1F8F.002	EC28
capital alpha with subscript and rough and grave	uni1F8B.002	EC26
capital alpha with subscript and smooth	uni1F88.002	EC21
capital alpha with subscript and smooth and acute	uni1F8C.002	EC23
capital alpha with subscript and smooth and circumflex	uni1F8E.002	EC27
capital alpha with subscript and smooth and grave	uni1F8A.002	EC25
capital Egyptological yod	uniEC49	EC49
capital eta with reduced iota	uni1FCC.001	EC09
capital eta with reduced iota and rough	uni1F99.001	EC0B
capital eta with reduced iota and rough and acute	uni1F9D.001	EC0D
capital eta with reduced iota and rough and circumflex	uni1F9F.001	EC11
capital eta with reduced iota and rough and grave	uni1F9B.001	EC0F
capital eta with reduced iota and smooth	uni1F98.001	EC0A
capital eta with reduced iota and smooth and acute	uni1F9C.001	EC0C
capital eta with reduced iota and smooth and circumflex	uni1F9E.001	EC10

Appendix: PUA Listing

capital eta with reduced iota and smooth and grave	uni1F9A.001	EC0E
capital eta with subscript	uni1FCC.002	EC29
capital eta with subscript and rough	uni1F99.002	EC2B
capital eta with subscript and rough and acute	uni1F9D.002	EC2D
capital eta with subscript and rough and circumflex	uni1F9F.002	EC31
capital eta with subscript and rough and grave	uni1F9B.002	EC2F
capital eta with subscript and smooth	uni1F98.002	EC2A
capital eta with subscript and smooth and acute	uni1F9C.002	EC2C
capital eta with subscript and smooth and circumflex	uni1F9E.002	EC30
capital eta with subscript and smooth and grave	uni1F9A.002	EC2E
capital h with circumflex below	uniEC48	EC48
capital H with line below for demotic egyptian	uniEC40	EC40
capital omega with reduced iota	uni1FFC.001	EC12
capital omega with reduced iota and rough	uni1FA9.001	EC14
capital omega with reduced iota and rough and acute	uni1FAD.001	EC16
capital omega with reduced iota and rough and circumflex	uni1FAF.001	EC1A
capital omega with reduced iota and rough and grave	uni1FAB.001	EC18
capital omega with reduced iota and smooth	uni1FA8.001	EC13
capital omega with reduced iota and smooth and acute	uni1FAC.001	EC15
capital omega with reduced iota and smooth and circumflex	uni1FAE.001	EC19
capital omega with reduced iota and smooth and grave	uni1FAA.001	EC17
capital omega with subscript	uni1FFC.002	EC32
capital omega with subscript and rough	uni1FA9.002	EC34
capital omega with subscript and rough and acute	uni1FAD.002	EC36
capital omega with subscript and rough and circumflex	uni1FAF.002	EC3A
capital omega with subscript and rough and grave	uni1FAB.002	EC38
capital omega with subscript and smooth	uni1FA8.002	EC33
capital omega with subscript and smooth and acute	uni1FAC.002	EC35
capital omega with subscript and smooth and circumflex	uni1FAE.002	EC39
capital omega with subscript and smooth and grave	uni1FAA.002	EC37
catalexis caret	0020 0020 032D	EC3D
contracted biceps = two dots over macron	2012 0308	EC3C
Coptic small letter iauda with diaeresis	2C93 0308	EC4F
Coptic small letter ua with diaeresis	2CA9 0308	EC50
Coptic small letter ua with horizontal through it	uniEC4A	EC4A
drachme alternative glyph	uniEC52	EC52
end of stanza mark = three vertical bars	007C 007C 007C	EC3B
etos alternative glyph	uniEC53	EC53
etos alternative glyph	uniEC54	EC54
four chalkoi alternative glyph	uniEC51	EC51
GREEK breathing style descriptor (half eta form)	uniEC62	EC62
GREEK breathing style descriptor (quarter eta form)	uniEC66	EC66
GREEK EPSILON BREVE ACUTE	03B5 0306 0301	EC73
GREEK EPSILON BREVE GRAVE	03B5 0306 0300	EC74
GREEK EPSILON BREVE ROUGH	03B5 0306 0314	EC76
GREEK EPSILON BREVE ROUGH ACUTE	03B5 0306 0314 0301	EC7A
GREEK EPSILON BREVE ROUGH GRAVE	03B5 0306 0314 0300	EC78

Appendix: PUA Listing

GREEK EPSILON BREVE SMOOTH	03B5 0306 0313	EC75
GREEK EPSILON BREVE SMOOTH ACUTE	03B5 0306 0313 0301	EC79
GREEK EPSILON BREVE SMOOTH GRAVE	03B5 0306 0313 0300	EC77
GREEK FRACTION 1/2 VARIANT	uniEC65	EC65
GREEK MARGINAL QUOTATION MARK	uniEC5E	EC5E
GREEK MEDIEVAL ABBREV grafetai/grafe	uniEC71	EC71
GREEK MEDIEVAL ABBREV hora	uniEC69	EC69
GREEK MEDIEVAL ABBREV semeiosai/semieoteon	uniEC68	EC68
GREEK MEDIEVAL BETA VARIANT 1	uniEC5C	EC5C
GREEK MEDIEVAL BETA VARIANT 2	uniEC5D	EC5D
GREEK MEDIEVAL CURSIVE DOUBLE TAU	uniEC55	EC55
GREEK MEDIEVAL GAMMA VARIANT	uniEC5A	EC5A
GREEK MEDIEVAL LIGATURED to VARIANT 1	uniEC6A	EC6A
GREEK MEDIEVAL LIGATURED to VARIANT 2	uniEC6B	EC6B
GREEK MEDIEVAL REFERENCE MARK CURSIVE SIGMA	uniEC61	EC61
GREEK MEDIEVAL REFERENCE MARK TWO CROSSES	uniEC60	EC60
GREEK MEDIEVAL SMALL NUMERICAL KOPPA VARIANT 1	uniEC5F	EC5F
GREEK MEDIEVAL TAU VARIANT 1	uniEC56	EC56
GREEK MEDIEVAL TAU VARIANT 2	uniEC57	EC57
GREEK MEDIEVAL TAU VARIANT 3	uniEC58	EC58
GREEK MEDIEVAL TAU VARIANT 4	uniEC59	EC59
GREEK OMICRON BREVE ACUTE	03BF 0306 0301	EC7B
GREEK OMICRON BREVE GRAVE	03BF 0306 0300	EC7C
GREEK OMICRON BREVE ROUGH	03BF 0306 0314	EC7E
GREEK OMICRON BREVE ROUGH ACUTE	03BF 0306 0314 0301	EC82
GREEK OMICRON BREVE ROUGH GRAVE	03BF 0306 0314 0300	EC80
GREEK OMICRON BREVE SMOOTH	03BF 0306 0313	EC7D
GREEK OMICRON BREVE SMOOTH ACUTE	03BF 0306 0313 0301	EC81
GREEK OMICRON BREVE SMOOTH GRAVE	03BF 0306 0313 0300	EC7F
GREEK OPEN-FACED UNCIAL KAPPA	uniEC67	EC67
GREEK SUSPENDED OU	uniEC5B	EC5B
REVERSED LOWERCASE N	uniEC72	EC72
small c with caron and dot below for demotic egyptian	uniEC41	EC41
small Egyptological ain = new U+A725	uniEC43	EC43
small Egyptological alef = new U+A723	uniEC42	EC42
small Egyptological yod	uniEC46	EC46
small h with circumflex below	uniEC47	EC47
small i with inverted breve below for demotic egyptian	uniEC44	EC44
small u with inverted breve below for demotic egyptian	uniEC45	EC45
SYMBOL PAGE CORNER LOWER LEFT	uniEC6E	EC6E
SYMBOL PAGE CORNER LOWER RIGHT	uniEC6F	EC6F
SYMBOL PAGE CORNER UPPER LEFT	uniEC6C	EC6C
SYMBOL PAGE CORNER UPPER RIGHT	uniEC6D	EC6D
SYMBOL THREE DOT PUNCTUATION (mirror of 2056)	uniEC70	EC70

Appendix: PUA Listing

By code point:

Description	decomposed equivalent (or character name)	PUA code point
capital alpha with reduced iota	uni1FBC.001	EC00
capital alpha with reduced iota and smooth	uni1F88.001	EC01
capital alpha with reduced iota and rough	uni1F89.001	EC02
capital alpha with reduced iota and smooth and acute	uni1F8C.001	EC03
capital alpha with reduced iota and rough and acute	uni1F8D.001	EC04
capital alpha with reduced iota and smooth and grave	uni1F8A.001	EC05
capital alpha with reduced iota and rough and grave	uni1F8B.001	EC06
capital alpha with reduced iota and smooth and circumflex	uni1F8E.001	EC07
capital alpha with reduced iota and rough and circumflex	uni1F8F.001	EC08
capital eta with reduced iota	uni1FCC.001	EC09
capital eta with reduced iota and smooth	uni1F98.001	EC0A
capital eta with reduced iota and rough	uni1F99.001	EC0B
capital eta with reduced iota and smooth and acute	uni1F9C.001	EC0C
capital eta with reduced iota and rough and acute	uni1F9D.001	EC0D
capital eta with reduced iota and smooth and grave	uni1F9A.001	EC0E
capital eta with reduced iota and rough and grave	uni1F9B.001	EC0F
capital eta with reduced iota and smooth and circumflex	uni1F9E.001	EC10
capital eta with reduced iota and rough and circumflex	uni1F9F.001	EC11
capital omega with reduced iota	uni1FFC.001	EC12
capital omega with reduced iota and smooth	uni1FA8.001	EC13
capital omega with reduced iota and rough	uni1FA9.001	EC14
capital omega with reduced iota and smooth and acute	uni1FAC.001	EC15
capital omega with reduced iota and rough and acute	uni1FAD.001	EC16
capital omega with reduced iota and smooth and grave	uni1FAA.001	EC17
capital omega with reduced iota and rough and grave	uni1FAB.001	EC18
capital omega with reduced iota and smooth and circumflex	uni1FAE.001	EC19
capital omega with reduced iota and rough and circumflex	uni1FAF.001	EC1A
capital alpha with subscript	uni1FBC.002	EC20
capital alpha with subscript and smooth	uni1F88.002	EC21
capital alpha with subscript and rough	uni1F89.002	EC22
capital alpha with subscript and smooth and acute	uni1F8C.002	EC23
capital alpha with subscript and rough and acute	uni1F8D.002	EC24
capital alpha with subscript and smooth and grave	uni1F8A.002	EC25
capital alpha with subscript and rough and grave	uni1F8B.002	EC26

Appendix: PUA Listing

capital alpha with subscript and smooth and circumflex	uni1F8E.002	EC27
capital alpha with subscript and rough and circumflex	uni1F8F.002	EC28
capital eta with subscript	uni1FCC.002	EC29
capital eta with subscript and smooth	uni1F98.002	EC2A
capital eta with subscript and rough	uni1F99.002	EC2B
capital eta with subscript and smooth and acute	uni1F9C.002	EC2C
capital eta with subscript and rough and acute	uni1F9D.002	EC2D
capital eta with subscript and smooth and grave	uni1F9A.002	EC2E
capital eta with subscript and rough and grave	uni1F9B.002	EC2F
capital eta with subscript and smooth and circumflex	uni1F9E.002	EC30
capital eta with subscript and rough and circumflex	uni1F9F.002	EC31
capital omega with subscript	uni1FFC.002	EC32
capital omega with subscript and smooth	uni1FA8.002	EC33
capital omega with subscript and rough	uni1FA9.002	EC34
capital omega with subscript and smooth and acute	uni1FAC.002	EC35
capital omega with subscript and rough and acute	uni1FAD.002	EC36
capital omega with subscript and smooth and grave	uni1FAA.002	EC37
capital omega with subscript and rough and grave	uni1FAB.002	EC38
capital omega with subscript and smooth and circumflex	uni1FAE.002	EC39
capital omega with subscript and rough and circumflex	uni1FAF.002	EC3A
end of stanza mark = three vertical bars	007C 007C 007C	EC3B
contracted biceps = two dots over macron	2012 0308	EC3C
catalexis caret	0020 0020 032D	EC3D
aeolic basis = two small circles	25EF 25EF	EC3E
alternate capital omega with downward opening	uniEC3F	EC3F
capital H with line below for demotic egyptian	uniEC40	EC40
small c with caron and dot below for demotic egyptian	uniEC41	EC41
small Egyptological alef = new U+A723	uniEC42	EC42
small Egyptological ain = new U+A725	uniEC43	EC43
small i with inverted breve below for demotic egyptian	uniEC44	EC44
small u with inverted breve below for demotic egyptian	uniEC45	EC45
small Egyptological yod	uniEC46	EC46
small h with circumflex below	uniEC47	EC47
capital h with circumflex below	uniEC48	EC48
capital Egyptological yod	uniEC49	EC49
Coptic small letter ua with horizontal through it	uniEC4A	EC4A
Coptic small letter iauda with diaeresis	2C93 0308	EC4F
Coptic small letter ua with diaeresis	2CA9 0308	EC50
four chalkoi alternative glyph	uniEC51	EC51

Appendix: PUA Listing

drachme alternative glyph	uniEC52	EC52
etos alternative glyph	uniEC53	EC53
etos alternative glyph	uniEC54	EC54
GREEK MEDIEVAL CURSIVE DOUBLE TAU	uniEC55	EC55
GREEK MEDIEVAL TAU VARIANT 1	uniEC56	EC56
GREEK MEDIEVAL TAU VARIANT 2	uniEC57	EC57
GREEK MEDIEVAL TAU VARIANT 3	uniEC58	EC58
GREEK MEDIEVAL TAU VARIANT 4	uniEC59	EC59
GREEK MEDIEVAL GAMMA VARIANT	uniEC5A	EC5A
GREEK SUSPENDED OU	uniEC5B	EC5B
GREEK MEDIEVAL BETA VARIANT 1	uniEC5C	EC5C
GREEK MEDIEVAL BETA VARIANT 2	uniEC5D	EC5D
GREEK MARGINAL QUOTATION MARK	uniEC5E	EC5E
GREEK MEDIEVAL SMALL NUMERICAL KOPPA VARIANT 1	uniEC5F	EC5F
GREEK MEDIEVAL REFERENCE MARK TWO CROSSES	uniEC60	EC60
GREEK MEDIEVAL REFERENCE MARK CURSIVE SIGMA	uniEC61	EC61
GREEK breathing style descriptor (half eta form)	uniEC62	EC62
CALENDRIAL SIGN SELENE	uniEC63	EC63
CALENDRIAL SIGN SUN VARIANT	uniEC64	EC64
GREEK FRACTION 1/2 VARIANT	uniEC65	EC65
GREEK breathing style descriptor (quarter eta form)	uniEC66	EC66
GREEK OPEN-FACED UNCIAL KAPPA	uniEC67	EC67
GREEK MEDIEVAL ABBREV semeiosai/semioteon	uniEC68	EC68
GREEK MEDIEVAL ABBREV hora	uniEC69	EC69
GREEK MEDIEVAL LIGATURED to VARIANT 1	uniEC6A	EC6A
GREEK MEDIEVAL LIGATURED to VARIANT 2	uniEC6B	EC6B
SYMBOL PAGE CORNER UPPER LEFT	uniEC6C	EC6C
SYMBOL PAGE CORNER UPPER RIGHT	uniEC6D	EC6D
SYMBOL PAGE CORNER LOWER LEFT	uniEC6E	EC6E
SYMBOL PAGE CORNER LOWER RIGHT	uniEC6F	EC6F
SYMBOL THREE DOT PUNCTUATION (mirror of 2056)	uniEC70	EC70
GREEK MEDIEVAL ABBREV grafetai/grafe	uniEC71	EC71
REVERSED LOWERCASE N	uniEC72	EC72
GREEK EPSILON BREVE ACUTE	03B5 0306 0301	EC73
GREEK EPSILON BREVE GRAVE	03B5 0306 0300	EC74
GREEK EPSILON BREVE SMOOTH	03B5 0306 0313	EC75
GREEK EPSILON BREVE ROUGH	03B5 0306 0314	EC76

Appendix: PUA Listing

GREEK EPSILON BREVE SMOOTH GRAVE	03B5 0306 0313 0300	EC77
GREEK EPSILON BREVE ROUGH GRAVE	03B5 0306 0314 0300	EC78
GREEK EPSILON BREVE SMOOTH ACUTE	03B5 0306 0313 0301	EC79
GREEK EPSILON BREVE ROUGH ACUTE	03B5 0306 0314 0301	EC7A
GREEK OMICRON BREVE ACUTE	03BF 0306 0301	EC7B
GREEK OMICRON BREVE GRAVE	03BF 0306 0300	EC7C
GREEK OMICRON BREVE SMOOTH	03BF 0306 0313	EC7D
GREEK OMICRON BREVE ROUGH	03BF 0306 0314	EC7E
GREEK OMICRON BREVE SMOOTH GRAVE	03BF 0306 0313 0300	EC7F
GREEK OMICRON BREVE ROUGH GRAVE	03BF 0306 0314 0300	EC80
GREEK OMICRON BREVE SMOOTH ACUTE	03BF 0306 0313 0301	EC81
GREEK OMICRON BREVE ROUGH ACUTE	03BF 0306 0314 0301	EC82