# The unicode-math test suite

#### Will Robertson

# **Preamble**

The following pieces of output are generated from the code shown. As well as being good minimal examples, these tests are useful to ensure that new bugs don't affect old behaviour. When the test suite is run, the new output is compared pixel by pixel with that shown here and warnings produced if the outputs are not identical.

# 1 Test 001a

\input{umtest-preamble}
\usepackage[math-style=TeX]{unicode-math}
\setmathfont{Cambria Math}
\begin{document}
\[\LATINtext\]
\[\LATINmath\]
\[\latinmath\]
\end{document}

ABCDEFGHIJKLMNOPQRSTUVWXYZ

abcdef ghijklmnopqrstuvwxyz

ABCDEFGHIJKLMNOPQRSTUVWXYZ

abcdef ghijklmnopqrstuvwxyz

# 2 Test 001b

\input{umtest-preamble}
\usepackage[math-style=ISO]{unicode-math}
\setmathfont{Cambria Math}
\begin{document}
\[\LATINtext\]
\[\latintext\]
\[\LATINmath\]
\[\latinmath\]
\end{document}

ABCDEFGHIJKLMNOPQRSTUVWXYZ

abcdef ghijklmnopqrstuvwxyz

ABCDEFGHIJKLMNOPQRSTUVWXYZ

abcdef ghijklmnopqrstuvwxyz

# 3 Test 001c

\input{umtest-preamble}
\usepackage[math-style=literal]{unicode-math}
\setmathfont{Cambria Math}
\begin{document}
\[\LATINtext\]
\[\latintext\]
\[\LATINmath\]
\[\latinmath\]
\end{document}

ABCDEFGHIJKLMNOPQRSTUVWXYZ

abcdefghijklmnopqrstuvwxyz

ABCDEFGHIJKLMNOPQRSTUVWXYZ

abcdef ghijklmnopqrstuvwxyz

# 4 Test 001d

\input{umtest-preamble}
\usepackage[math-style=French]{unicode-math}
\setmathfont{Cambria Math}
\begin{document}
\[\LATINtext\]
\[\latintext\]
\[\LATINmath\]
\[\latinmath\]
\end{document}

ABCDEFGHIJKLMNOPQRSTUVWXYZ

abcdef ghijklmnopqrstuvwxyz

ABCDEFGHIJKLMNOPQRSTUVWXYZ

abcdef ghijklmnopqrstuvwxyz

#### 5 Test 002a

\input{umtest-preamble}
\usepackage[math-style=TeX]{unicode-math}
\setmathfont{Cambria Math}
\begin{document}
\[\GREEKtext\]
\[\greektext\]
\[\GREEKmath\]
\[\greekmath\]
\end{document}

ΑΒΓΔΕΖΗΘΘΙΚΛΜΝΞΟΠΡΣΤΎΦΧΨΩ αβγδεεζηθθικκλμνξοπωρρςστυφφχψω ΑΒΓΔΕΖΗΘΘΙΚΛΜΝΞΟΠΡΣΤΎΦΧΨΩ αβγδεεζηθθικκλμνξοπωρρςστυφφχψω

# 6 Test 002b

\input{umtest-preamble}
\usepackage[math-style=ISO]{unicode-math}
\setmathfont{Cambria Math}
\begin{document}
\[\GREEKtext\]
\[\greektext\]
\[\GREEKmath\]
\[\greekmath\]
\end{document}

ΑΒΓΔΕΖΗΘΘΙΚΛΜΝΞΟΠΡΣΤΥΦΧΨΩ αβγδεεζηθθικκλμνξοπωροςστυφφχψω ΑΒΓΔΕΖΗΘΘΙΚΛΜΝΞΟΠΡΣΤΥΦΧΨΩ αβγδεεζηθθικκλμνξοπωροςστυφφχψω

#### 7 Test 002c

\input{umtest-preamble}
\usepackage[math-style=literal]{unicode-math}
\setmathfont{Cambria Math}
\begin{document}
\[\GREEKtext\]
\[\greektext\]
\[\GREEKmath\]
\[\greekmath\]
\end{document}

ΑΒΓΔΕΖΗΘΘΙΚΛΜΝΞΟΠΡΣΤΥΦΧΨΩ αβγδεεζηθθικκλμυξοπωροςστυφφχψω ΑΒΓΔΕΖΗΘΘΙΚΛΜΝΞΟΠΡΣΤΥΦΧΨΩ αβγδεεζηθθικκλμυζοπωροςστυφφχψω

#### 8 Test 002d

\input{umtest-preamble}
\usepackage[math-style=French]{unicode-math}
\setmathfont{Cambria Math}
\begin{document}
\[\GREEKtext\]
\[\greektext\]
\[\GREEKmath\]
\[\greekmath\]
\end{document}

ΑΒΓΔΕΖΗΘΘΙΚΛΜΝΞΟΠΡΣΤΥΦΧΨΩ αβγδεεζηθθικκλμνξοπωροςστυφφχψω ΑΒΓΔΕΖΗΘΘΙΚΛΜΝΞΟΠΡΣΤΥΦΧΨΩ αβγδεεζηθθικκλμνξοπωροςστυφφχψω

#### 9 Test 010a

\input{umtest-preamble}
\usepackage{unicode-math}
\setmathfont{Cambria Math}
\begin{document}
\[\mathcal{\LATINtext}\]
\[\mathcal{\latintext}\]
\[\mathcal{\LATINmath}\]
\[\mathcal{\latinmath}\]
\end{document}

ABCDEFGHIJKLMNOPQRSTUVWXYZ

abcdefghijklmnopqrstuvwxyz

ABCDEFGHIJKLMNOPQRSTUVWXYZ

abcdefghijklmnopqrstuvwxyz

#### 10 Test 010b

\input{umtest-preamble}
\usepackage{unicode-math}
\setmathfont{Cambria Math}
\begin{document}
\[\mathfrak{\LATINtext}\]
\[\mathfrak{\LATINmath}\]
\[\mathfrak{\LATINmath}\]
\[\mathfrak{\latinmath}\]
\end{document}

ABCDEFGHIJKIMNOPQRSTUBWXY3

abcdefghijkImnopqrstubwxy3

ABCDEFGHIJKIMnopqrstubwxy3

#### 11 Test 011a

\input{umtest-preamble}
\usepackage{unicode-math}
\setmathfont{Cambria Math}
\begin{document}
\[\mathup{\LATINtext}\]
\[\mathup{\latintext}\]
\[\mathup{\LATINmath}\]
\[\mathup{\latinmath}\]
\end{document}

ABCDEFGHIJKLMNOPQRSTUVWXYZ

abcdefghijklmnopqrstuvwxyz

ABCDEFGHIJKLMNOPQRSTUVWXYZ

abcdefghijklmnopqrstuvwxyz

# 12 Test 011b

\input{umtest-preamble}
\usepackage{unicode-math}
\setmathfont{Cambria Math}
\begin{document}
\[\mathup{\GREEKtext}\]
\[\mathup{\greektext}\]
\[\mathup{\GREEKmath}\]
\[\mathup{\greekmath}\]
\end{document}

ΑΒΓΔΕΖΗΘΘΙΚΛΜΝΞΟΠΡΣΤΎΦΧΨΩ αβγδεεζηθθικκλμυξοπωροςστυφφχψω ΑΒΓΔΕΖΗΘΘΙΚΛΜΝΞΟΠΡΣΤΎΦΧΨΩ αβγδεεζηθθικκλμυξοπωροςστυφφχψω

#### 13 Test 012a

\input{umtest-preamble}
\usepackage{unicode-math}
\setmathfont{Cambria Math}
\begin{document}
\[\mathit{\LATINtext}\]
\[\mathit{\LATINmath}\]
\[\mathit{\LATINmath}\]
\[\mathit{\latinmath}\]
\end{document}

ABCDEFGHIJKLMNOPQRSTUVWXYZ

abcdef ghijklmnopqrstuvwxyz

ABCDEFGHIJKLMNOPQRSTUVWXYZ

abcdef ghijklmnopqrstuvwxyz

#### 14 Test 012b

\input{umtest-preamble}
\usepackage{unicode-math}
\setmathfont{Cambria Math}
\begin{document}
\[\mathit{\GREEKtext}\]
\[\mathit{\GREEKmath}\]
\[\mathit{\greekmath}\]
\chimathit{\greekmath}\]
\end{document}

ΑΒΓΔΕΖΗΘΘΙΚΛΜΝΞΟΠΡΣΤΥΦΧΨΩ αβγδεεζηθθικκλμνξοπωροςστυφφχψω ΑΒΓΔΕΖΗΘΘΙΚΛΜΝΞΟΠΡΣΤΥΦΧΨΩ αβγδεεζηθθικκλμνξοπωροςστυφφχψω

# 15 Test 013a

\input{umtest-preamble}
\usepackage{unicode-math}
\setmathfont{Cambria Math}
\begin{document}
\[\mathbb{\LATINtext}\]
\[\mathbb{\latintext}\]
\[\mathbb{\LATINmath}\]
\[\mathbb{\latinmath}\]
\end{document}

# ${\tt ABCDEFGHIJKLMNOPQRSTUVWXYZ}$

abcdefghijklmnopqrstuvwxyz
AB2DEFG2IJKLM20222STUVWXY2
abcdefghijklmnopqrstuvwxyz

#### 16 Test 013b

\input{umtest-preamble}
\usepackage{unicode-math}
\setmathfont{Cambria Math}
\begin{document}
\[\mathbb{0123456789}\]
\[\numbersmathbb\]
\end{document}

0123456789

0123456789

# 17 Test 013c

\input{umtest-preamble}
\usepackage{unicode-math}
\setmathfont{Cambria Math}
\begin{document}
\[\LATINmathbb\]
\[\latinmathbb\]
\end{document}

ABCDEFGHIJKLMNOPQRSTUVWXYZ abcdefghijklmnopqrstuvwxyz

# 18 Test 100a

\input{umtest-preamble}
\usepackage{unicode-math}
\setmathfont{Cambria Math}
\begin{document}
\[ \left( \left( \left( \left( \left( \right)^2 \right)^2 \right)^2 \right)^2 \right\\end{document}

 $\left(\left(\left(\left(\left(\left(x^2\right)^2\right)^2\right)^2\right)^2\right)^2\right)$ 

# 19 Test 100b

\input{umtest-preamble}
\usepackage{unicode-math}
\setmathfont{Cambria Math}
\begin{document}
\[ \left[ \left[ \left[ \left[ \left[ \right]^2 \right]^2 \right]^2 \right]^2 \right]\]

 $\left[\left[\left[\left[\left[x^2\right]^2\right]^2\right]^2\right]^2\right]$ 

#### 20 Test 100c

\input{umtest-preamble}
\usepackage{unicode-math}
\setmathfont{Cambria Math}
\begin{document}
\[ \left\{ \left\{ \left\{ \left\{ \left\\ \left\\ \right\}^2 \right\}^2 \right\}^2 \right\\}^2 \ri

 $\left\{ \left\{ \left\{ \left\{ \left\{ x^{2}\right\} ^{2}\right\} ^{2}\right\} ^{2}\right\} ^{2}\right\} ^{2}\right\}$