

AntiSym

Antique mathematical symbols font

Azzeddine LAZREK

Department of Computer Science, Faculty of Sciences,
University Cadi Ayyad, P.O. Box 2390, Marrakech, Morocco

Phone: +212 44 43 46 49 Fax: +212 44 43 74 07

`lazrek@ucam.ac.ma`

`http://www.ucam.ac.ma/fssm/rydarab`

May 6, 2003

1 Introduction

AntiSym is a font conceived to achieve some symbols used formerly in mathematical. It's a package that can be used in a \TeX system.

\TeX is a system of document treatment developed initially by D. E. Knuth of the Stanford university. It is conceived for the exchange and the transmission of text, a real, language of communication, and the formatting, an excellent capacity of composition, of document. It contains families of fonts **Computer Modern** developed in **METAFONT**. \TeX is a set down mark of American Mathematical Society. **METAFONT** is a set down mark of Addison-Wesley Inc. The format **plain** \TeX has been developed by D. E. Knuth.

The \LaTeX format has been developed initially by L. Lamport. \LaTeX is protected by a free license that is LPPL (*\LaTeX Project Public License*) of \LaTeX 3 Project.

Notation: In the following, we will use \TeX to mean the motor \TeX , when the description is independent of a particular format, that it is **plain** \TeX or \LaTeX .

2 Package

2.1 Files

The package **AntiSym** is distributed as:

`antisym.zip`: file compressed in ZIP format for Windows or Linux platform.

The decompression package gives the following directory tree:

`readmeas.tex`: this file in TEX format for a preliminary description.

`readmeas.pdf`: this file in PDF format for a preliminary description.

`lpp1.txt`: license information of the L^AT_EX Project Public License.

`tex`: the subdirectory of files for plain T_EX composed of:

`antisym.tex`: the file of font definition.

`latex`: the subdirectory of files for L^AT_EX composed of:

`antisym.sty`: the extension of font.

`uantisym.fd`: the file of font definition.

`antisymf.tex`: the file of font declarations.

`mf`: the subdirectory of files in METAFONT composed of:

`font.mf`: the file of font generalized.

`param.mf`: the file of parameters.

`base.mf`: the file of basis.

`antisym.mf`: the file of font call.

`antisymc.mf`: the file of glyphs of font characters.

2.2 Installation

To install this package, one can put it into a folder intended to be the usual one.

3 Versions

3.1 Historic

- 2002/03/01 v1.1: the version used to compose the manuscript of the thesis [1].
- 2003/03/03 v1.2: includes:
 - more characters;
 - adapted for `plain TEX`.
- the future version will include:
 - more characters;
 - the improvement of glyphs;
 - etc.

3.2 Compatibility

There is a compatibility between the first versions.

The **AntiSym** extension is compatible with all extensions that we had the opportunity to use jointly. It can happen that incompatibilities are generated at the time of the utilization of **AntiSym** together with other extensions.

4 Preamble

To generate the Arabic literal symbols of the **AntiSym** font with the \LaTeX format, the user must insert, in the preamble document, the following command:

```
\usepackage{antisym}
```

or in `plain TEX`:

```
\input antisym
```

5 Commands

(Cf. Table 1)

Code	Commande	Glyphe	Code	Commande	Glyphe	Code	Commande	Glyphe
0	<code>\point</code>	⋅	32	<code>\flechelg</code>	↗	64		
1	<code>\tire</code>	–	33	<code>\flecheld</code>	↖	65	<code>\unr</code>	↗
2	<code>\bare</code>	⊥	34	<code>\flechecg</code>	↗	66	<code>\deuxr</code>	↗
3	<code>\droitbg</code>	⊥	35	<code>\flehecd</code>	↗	67	<code>\troisr</code>	↗
4	<code>\droitbd</code>	⊥	36	<code>\racines</code>	ℙ	68	<code>\quatrер</code>	↗
5	<code>\droithg</code>	⊥	37	<code>\cloub</code>	↓	69	<code>\cinqr</code>	↗
6	<code>\droithd</code>	⊥	38	<code>\raciner</code>	ℙ	70	<code>\sixr</code>	↗
7	<code>\angleg</code>	∠	39	<code>\racinerr</code>	ℙ	71	<code>\septr</code>	↗
8	<code>\angled</code>	∠	40	<code>\racinev</code>	↗	72	<code>\huitr</code>	↗
9	<code>\infg</code>	<	41	<code>\racinevv</code>	↗	73	<code>\neufr</code>	↗
10	<code>\infd</code>	>	42	<code>\racinevvv</code>	↗	74	<code>\dixr</code>	↗
11	<code>\info</code>	<	43	<code>\racinevvvv</code>	↗	75	<code>\vingtr</code>	↗
12	<code>\clouh</code>	↗	44	<code>\doitg</code>	ℙ	76	<code>\tranter</code>	0
13	<code>\cloug</code>	↗	45	<code>\doitd</code>	ℙ	77	<code>\quaranter</code>	↗
14	<code>\cloud</code>	↗	46	<code>\fleurg</code>	↗	78	<code>\cinqanter</code>	↗
15	<code>\arc</code>	⊥	47	<code>\fleurd</code>	↗	79	<code>\soixanter</code>	↗
16	<code>\diamondv</code>	◇	48	<code>\clouba</code>	↗	80	<code>\soixantedixr</code>	↗
17	<code>\diamondp</code>	◆	49	<code>\circlep</code>	○	81	<code>\quatrevingtr</code>	↗
18	<code>\cerclev</code>	◦	50	<code>\owstarp</code>	★	82	<code>\quatrevingtdixr</code>	↗
19	<code>\cerclep</code>	•	51	<code>\owstar</code>	☆	82	<code>\centr</code>	↗
20	<code>\ellipse</code>	○	52			84	<code>\deuxcentr</code>	↗
21	<code>\poissond</code>	⊥	53			85	<code>\troiscentr</code>	↗
22	<code>\lunev</code>	↗	54			86	<code>\quatrecentr</code>	↗
23	<code>\lunep</code>	↗	55			87	<code>\cinqcentr</code>	↗
24	<code>\homme</code>	♂	56			88	<code>\sixcentr</code>	↗
25	<code>\tildeb</code>	↗	57			89	<code>\septcentr</code>	↗
26	<code>\tildeh</code>	↗	58			90	<code>\huitcentr</code>	↗
27	<code>\poissong</code>	⊥	59			91	<code>\neufcentr</code>	↗
28	<code>\escargotg</code>	⊥	60			92		
29	<code>\escargotd</code>	⊥	61			93		
30	<code>\luneh</code>	↗	62			94		
31	<code>\dbare</code>	↗	63			95		

Table 1: Antique mathematical symbols font **AntiSym**

6 Documentation

In [1], we have give a large presentation for this font and a manual of utilization. In [2] we have present a study for an Arabic mathematical font in Unicode.

7 Copyright

AntiSym is copyrighted. The system and its source program's are in the public domain. That will encourage its use in one hand, and in the other hand, it allow its extension and improvement. The system is copyright only in order to forbid unauthorized copies.

However, you may use it freely for any scientific, experimental and strictly personal, non-commercial purposes if you give proper credit to the author. All other uses require a separate written license from the author.

This program may be distributed and/or modified under the conditions of the L^AT_EX Project Public License, either version 1.2 of this license or any later version.

The latest version of this license is in:

<http://www.latex-project.org/lppl.txt>

and version 1.2 or later is part of all distributions of L^AT_EX version 1999/12/01 or later.

This program consists of all files listed in this file `readmeas.tex`.

The **AntiSym** project is far from finished. It supposed to change without prior notice.

8 Acknowledgements

I want to thank Khalid Sami and Mostafa Banouni for there contribution in redaction. I also want to thank Mohamed Jamel Eddine Benatia for his assistance at the time of the font development. Finally, thank you very much for all users who have transmit me their remarks, suggestions, and mistakes.

9 Author

Copyright © 2003-2001 Azzeddine LAZREK. All rights reserved.

Address: Azzeddine LAZREK

Department of Computer Science, Faculty of Sciences,
University Cadi Ayyad, P.O. Box 2390, Marrakech, Morocco

Phone: +212 44 43 46 49

Fax: +212 44 43 74 07

lazrek@ucam.ac.ma

<http://www.ucam.ac.ma/fssm/rydarab>

CV author: Ph.D. in Computer Science 1988, Work on Processing multilingual scientific documents, Professor of Computer Science since 1989 in University Cadi Ayyad, Marrakech, Morocco.

References

- [1] Azzeddine Lazrek, *Vers un système de traitement du document scientifique arabe*, Thèse d'État ès-Science, Université Cadi Ayyad (2002), Marrakech.
- [2] Azzeddine Lazrek and Khalid Sami, *Arabic script in Unicode*, Submitted (2003).