## Documentation for the BMMusic Editor

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## 4 Contents

5	1	Introduction	1
6	2	Description of the editor	2
7	3	Fast and slow usage of the BMEditor	3
8	4	Some useful shortcuts	6
9	5	License Information	6

## 10 1 Introduction

The BMMusic Editor(Byzantine Music Editor) is a GUI that offers the user the ability to type all the commands of the byzantinemusic package without errors and at high speed. It is written by Mr. Zisis Tsiatsikas, a doctoral candidate of the Department of Information & Communication Systems Engineering of the University of the Aegean using the Java language, in collaboration with the designer of byzantinemusic package

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assistant professor Cornaros Charalampos. If you have installed Java Runtime 8 or later then you could run the BMEditor.jar by double clicking
it or using the terminal.

## <sup>20</sup> 2 Description of the editor

The editor consists of a main menu, from which we can choose any of the following buttons: *Musical Symbols*, *Martyries-Isokrathmata-Stavros*, *Init. Martyries- Tempo Signatures* and *Measures-Fthores*.

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<sup>26</sup> Pressing one of the above buttons, we enter a new menu that contains

<sup>27</sup> several auxiliary buttons. For example, if we choose to press "Musical

<sup>28</sup> Symbols", we will get the following table of buttons of "Musical Symbols".

k kk oli pet yps ypsA oxe			
iso apo ela xam xamxam ypo apoapo			
synela elaapo I V X			
bar bart pay			
ete oma lyg tro eks pia par			
anm ant psh psa edo			
t isa isk kla tsa			
g gg ggg gp pg			
arg dia tri			
yfen keno			

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The corresponding command is pasted into the middle text field, by pressing any one of those buttons e.g. the third one on the top row (the "oli"). At the same time, the (most of the) alternations (that begin with this command) are displayed in a transparent frame. For example, oli,

olit, olig, olid ... are all permitted commands that begin with the prefix oli. 34 Pressing one of these, we change the command displayed in the middle 35 field. If our intention were to write a very simple command, like the 36 command oli then we have almost finished: We just check the  $oldsymbol{o}$  of the 37 checkbox on the left of the middle text field, write a syllable in the lower 38 field, for example, the word "test" and press the middle Enter button. 39 We will see the final result in our large window at the bottom:  $t_{\infty}$ 40 {test}. The "\th" is one of the many commands of the byzantinemusic 41 package to enter the notes with the corresponding syllables in our text. 42 If we have already installed the above package in our system, then we 43 could press the Run button and after a while the PDF button and then 44 we will have the opportunity to see the results we get using the  $X_{\pi} \downarrow T_{F} X$ 45 machine. 46

#### 47 Comment.

<sup>48</sup> If we don't see any pdf file been created, we will need to edit a file named

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#### BYZANTINE-MUSIC-EDITOR.conf

located in the same folder as the BMEditor.jar file. As we can see, the first 50 line is the PATH = xelatex. Instead xelatex, we should write xelatex.exe, if 51 we are working on Windows. Generally, we should define the appropriate 52path of the  $X_{T} = X_{T} = X_{T}$  engine on the right of the =. Then we save the new 53 conf file and press Run. If we have not yet managed to see our pdf file, 54 then we could open the byzantinemusic-temp.tex file that was generated 55 using the editor and run it with X<sub>H</sub>IAT<sub>E</sub>X engine and check for all possible 56 57 errors.

### <sup>58</sup> 3 Fast and slow usage of the BMEditor

The main purpose of BMEditor is to type our commands with the minimum effort and therefore managing better typing speed. The most common commands are \th, \barth, \syn and other similar commands. If we want to use \barth instead \th, eg. \barth {\oli}{test}, then we will need to tick the barth option on the right before pressing the Enter button. If we want to enter the \lth or \syn, or any other command instead of \th then we should check the th2 check box and put in the adjacent field the command lth, syn or any other command we desire.
We go back to the use of "\th" command just un-checking the th2 or
barth checkbox.

There are some complicated cases of musical symbols combinations that do not correspond to any of the pre-defined commands of byzantinemusic package. For example, there is no command to put the "\kediaf fthora" above the "\oli". In this case, we simply type "\kediaf" after typing the first command oli and press the Enter key.



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We will get the output



This is the fastest way of typing complex musical commands. We should 77 be very familiar with the use of the package and quite careful of what and 78 where the output is pasted inside the large lower window. Any syntax 79 error will produce no output! For example, the \th {\oli \kedia}{any 80 syllable} would naturally create a problem because there is no command 81 named \kedia. We could confirm this by pressing the Measures-Fthores 82 menu and write in the middle text field the word kedia. As we can soon 83 see, there are many options starting with kedia, like kediaf, kediafA, and 84

kediafD, but there is no kedia command! In such cases, it is better to 85 use the slow input method of inserting musical commands. Following 86 this method, we build any musical combination step by step using the 87 top text field. First, we check the up arrow checkbox and then type our 88 first command eg. oli. The \oli command rises on the top text field after 89 pressing the Enter key. Then, we continue writing another command in 90 the middle text field, such as the "kediaf" command, having selected the 91 appropriate menu (in this case the Measures-Fthores). 92



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the result goes up after pressing the Enter key and we get the \oli \kediaf 94 combination. We could continue building a whole musical combination 95 of commands one after the other. Once we have built up our musical 96 combination and have written the syllable in the appropriate field, then 97 we can pass them into the main window by pressing the Enter button on 98 the right of the upper input field or by pressing the Alt C key combination. 99 If we have made a mistake we could fix it using X button before pressing 100 the Enter button. 101

#### 102 Comment

The [] checkbox is useful when you want to enter commands that should be put in square brackets, eg. the \bm[\kediaf, 0.1]. In such cases, we first insert the outer command (eg. \bm) into the top text field and then we write kediaf, 0.1 in the middle of the field and check the [] checkbox. The [\kediaf, 0.1] will come next to the previous \bm once we press the Enter button. In this way, we will get the right result \oli \bm [\kediaf, 0.1] with the minimum typing effort. The 2Gr button is useful when we want our syllables be exclusively inserted in Greek even if we use the Latin keyboard in the lower input field.

## **4** Some useful shortcuts

Using the Alt K key combination brings us to the middle text field while using the Alt L combination to the middle bottom field. With Alt M we go to the bottom large window.

## 116 5 License Information

The byzantinemusic package is intended for personal use under the 117 GPLv3 or later license. We aim at the individual user and lover of Byzan-118 tine music, the easy writing of musical texts and the free exchange of mu-119 sical documents between the users of the package. Also, we aim at the 120 research of traditional and church music and the construction of a large 121 data base of Byzantine Music texts that will be hosted by the Aegean 122 University, Greece. We would like you to indicate ``this text was written 123 using the byzantinemusic ©Cornaros 2016" in any text written using the 124 BMMusic editor and/or byzantinemusic package. 125

For any comments, musical texts that you have built and want to send us, or any partnership request for the byzantinemusic package or BMMusic Editor improvement you could send email to the authors.