

setup\_maxima-init.wxm

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A development system setup document for Geometric Algebra with wxMaxima that may be used to locate and show how to edit the path definition file named maxima-init.mac; then checks that there are no stdin errors due to batchload initialization; contains...  
User Path Definition

the variable below may or may not have a value after wxMaxima has been started, however, the user path definition will give it a value for the GAwxM project code;

```
--> display(wxMuserdir)$
```

the path definition file, maxima-init.mac must be located, moved and edited; after the first extraction from the download the file should be found alongside the folder holding all of the project code, /GAwxM;

the file contains the variable, wxMuserdir, and this allows the paths in file\_search\_maxima to be extended to point to both the GA and GC functions, and the initialization functions, wherever the user documents are located;

when wxMaxima is started a user directory is established by the CAS, and the path to this folder shows us where the CAS might first look for a user path definition file since we may wish to have our development code elsewhere (even on another drive); so we can move the maxima-init.mac file to the folder given by the variable, maxima\_initdir below;

```
--> ldisplay(maxima_userdir)$
/*maxima_initdir:strimr("maxima",maxima_userdir)$*/
maxima_initdir:maxima_userdir$
ldisplay(maxima_initdir)$
```

having moved the path definition file, maxima-init.mac to the folder given by the variable, maxima\_initdir above, we may now see how it needs to be edited;

```
--> ldisplay(file_search_maxima)$
```

the code below contains the first two lines from the file named maxima-init.mac; "userdir" is the location of the folder /GAwxM/ holding all of the sub-folders for the project code; the first line must be edited to point to the location of the folder named /GAwxM/ after the file maxima-init.mac has been moved to maxima\_initdir

```
--> userdir:"C:/gawxm-github/gawxm-for-Windows/"$
ldisplay(userdir)$
wxMuserdir:userdir$
ldisplay(wxMuserdir)$
```

If the download of the project has been to a folder other than C:/Maxima\_user/, then the value of the string variable, userdir should be edited both here and in the maxima-init.mac file

this setup document will keep appending each time it is run in order to test the maxima-init.mac file held within the maxima\_initdir folder; the duplicated paths will do no harm and help to show how the maxima-init.mac file operates when wxMaxima is started; it also shows how and why the variable "userdir" must be edited both here and within the maxima-init.mac file

here is the next line of code from the file named maxima-init.mac

```
--> fylenames:simplode([wxMuserdir,"GAwxM/GA_functions/###.wxm"])$
ldisplay(fylenames)$
```

and the next line from the file, maxima-init.mac, shows that the first path to the folder /GAwxM has been established in the last line of output; once the path definition is working we should see all the paths to /GAwxM and a duplicate of the first path

```
--> file_search_maxima: append (file_search_maxima,[fylenames])$
ldisplay(file_search_maxima)$
```

once we know that this file and maxima-init.mac should be working, we can Ctrl-S, to save this file and then Ctrl-Q, to exit from wxMaxima; then restarting wxMaxima will run all the lines of code in maxima-init.mac;

then try one of the active documents...  
e.g. /GAwxM/GA\_GC\_initialize.wxm  
or  
e.g. /GAwxM/GA\_syntax/geometric\_product\_syntax.wxm

N.B. running this setup file during a successful session will give only partial paths to the /GAwxM folders

```
--> ldisplay()$
```