**Installation Instructions**

1. Open the notebook "Geom Alg Palette 2021Jan”. Double click on the 2nd bracket to the left on the right hand side of Begin Package. That opens the next level of documentation which, in this case, is some code. Place you cursor anywhere in the code and press shift-enter to run the code. A palette should be created. Move it to where you would like it. (You can move it again later. It will “remember” the location as well as which triangles are open and closed). From the Palette menu, select Install Palette. In the Source drop-down menu select Geometric Algebra Palette. In the Install Name box, type Geometric Algebra. Click OK. That should install the palette. To check, click the red circle to put away the palette. Then click on the Palette menu to verify the new palette, Geometric Algebra Palette, is there. Close the source file.

**Note**: On a Mac, the default location for the installed palette is Library/Mathematica/SystemFiles/FrontEnd/Palettes/Geometric Algebra.nb

in your home folder

1. Open the notebook GeomAlg2021Jan src. Save it as a type .m Mathematica file (that is, a Wolfram Mathematica Package) in the Applications folder of your $UserBaseDirectory. Do not change its name. On a Macintosh, for example, one would select SAVE AS from the file menu, navigate to Library/Mathematica/Applications in your user folder, and select Wolfram Mathematica Package (\*.nb) from the Format drop-down menu near the bottom of the SAVE AS dialog box, and press the SAVE button. You can close the source file or copy it to a working folder in case you later wish to examine or modify it.
2. This is a 1-time operation. Next read Quick Start.

**Files:**

**Copyright** – License

**Documentation** – User Guide (Microsoft Word and Mathematica Notebook)

**Working Tutorial** – Sample file demonstrating usage of many of the functions

**g-1fg Example** – A step-by-step example on how to use this package (actually, on how to use Mathematica) to solve equations by examining the output, deciding how to simplify it and executing that step, deciding how to further simplify and executing that step, and so on until the simplest answer is reached.

**Compare all Lists**–A Notebook to supplement the Working Tutorial that displays, side-by-side, examples of the different lists that this GA package can generate from a given multivector.

**Example Formatted Output** - Shows how function AtomCoefG can be used to format output to line up in a table format

**GeomAlg2021Jan src** – Source file for package

**Geom Alg Palette src** – Source file for creating palette. Includes development notes.

**Improvements List** – Wish list of future mods (Microsoft Word)

**Installation Guide** – This file (Microsoft Word and Mathematica Notebook)

**Multivector Terminology** – Excel spreadsheet illustrating multivector terminology used in this package

**Package Names** – A names file provided for those who use such files to manage working with many packages

**Quick Start** – Quick Start guide (Microsoft Word and Mathematica Notebook)

**Read Me First –** Overview and 1st file to read. Then read this file.