

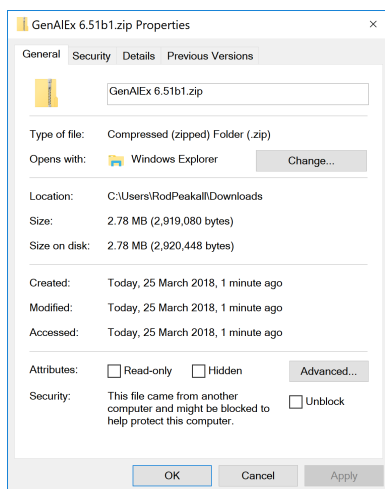
## Readme GenAIEx 6.51b2 (beta 2 release)

### After downloading in Windows

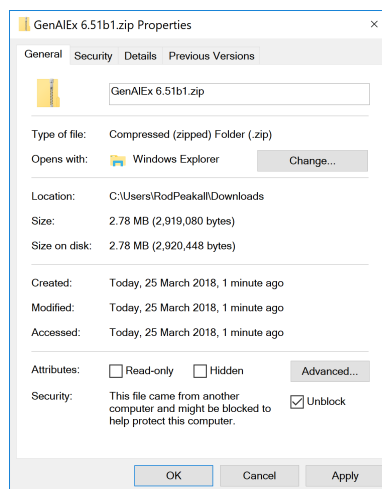
Note that current releases of Windows 10 impose multiple layers of security, not seen in earlier versions. For example, under some security settings, all files downloaded from another computer or the internet are automatically blocked without warning. Fortunately, it is straightforward to unblock such files. It is strongly recommended that you follow the steps below, before proceeding to unzip the GenAIEx download folder.

#### How to Unblock the GenAIEx download file

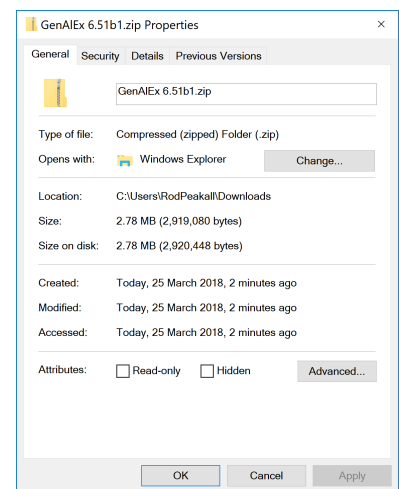
1. Locate the GenAIEx download zip file. (e.g. GenAIEx 6.51b2 download.zip)
2. Right click the GenAIEx zip file, then choose *Properties* from the drop-down menu.
3. On the *General* tab of the *Properties* Dialog Box, see if the *Unblock* check box is shown in the Security Information at the bottom. If so, click the *Unblock* check box to select this option.
4. Next, click the *Apply* button. The Security Information and the *Unblock* check box, should now disappear.
5. Proceed to install GenAIEx as outlined in the separate instructions read me file.



Step 1



Step 3



Step 4

See these and similar sites for further details about unblocking windows files:

<https://www.tenforums.com/tutorials/5357-unblock-file-windows-10-a.html>

<https://winaero.com/blog/how-to-unblock-files-downloaded-from-internet-in-windows-10/>

### Before Installing GenAIEx

**Note that this \*.xlam version of GenAIEx is optimised for Excel 2016 compatibility in Windows 10, but is backwards compatible to Excel 2010 and other Windows versions. (It may run in Excel 2007, but has not been tested).**

**Note that while this version of GenAIEx is not yet fully compatible with Excel 2016 on the Macintosh. Nonetheless, our recent tests show that most GenAIEx options do run successfully, but with some minor dialog box and Ribbon button image issues. These minor, mostly cosmetic issues, have yet to be fully resolved. You can also safely ignore any compile error messages that may occur on loading by clicking OK.**

If your *GenAIEx 6.503.xla* or an earlier version opens every time you launch Excel, you need to uninstall it first. You can do this directly in Excel, or use *GenAIEx->Options->Uninstall* within GenAIEx. Alternatively, remove *GenAIEx 6.503.xla* from its current location, before launching Excel. Next copy *GenAIEx 6.503.xlam* to your Add-in folder, open from within Excel then use *GenAIEx->Options->Install*. If, as recommended, you only use *GenAIEx 6.503.xla* on demand, remove the old version to a new backup location, and replace it with *GenAIEx 6.51b1.xlam*.

## **New features of GenAEx 6.51**

This current version is a beta release of our forthcoming release of GenAEx 6.51. The primary reason for this new release is to offer the new *QDiver* analysis option introduced in our recent open access publication:

Smouse, P. E., Banks, S. C., and Peakall, R. (2017) Converting quadratic entropy to diversity: Both animals and alleles are diverse, but some are more diverse than others. *PLOS ONE* 12, e0185499.

Freely available here:

<http://journals.plos.org/plosone/article?id=10.1371/journal.pone.0185499>

Note that presently the *QDiver* option is restricted to codominant data containing a hierarchical population and regional structure, such that there must be two or more regions specified, each containing two or more populations within each of the regions.

We also take the opportunity in this release to fix some minor bugs (see Release history for details).

## **If you like it, please cite it!**

Just a reminder that GenAEx has a dual citation (Peakall and Smouse 2006, 2012)! Please give both citations whenever you reference GenAEx. Note also that this dual citation applies for anyone using GenAEx 6.1 onwards. This is because the note by Peakall and Smouse (2012) is only an update that covers the features in GenAEx that have been progressively released since the original computer note of Peakall and Smouse (2006). That is, Peakall and Smouse (2012) is not a substitute for Peakall and Smouse (2006), but rather an update to be read and cited with the original reference. Wherever possible, we would be very grateful if you would update your citations and references in any existing manuscripts.

Peakall, R. and Smouse P.E. (2012) GenAEx 6.5: genetic analysis in Excel. Population genetic software for teaching and research – an update. *Bioinformatics* 28, 2537-2539.

Freely available as an open access article from:

<http://bioinformatics.oxfordjournals.org/content/28/19/2537>

Peakall, R. and Smouse P.E. (2006) GENALEX 6: genetic analysis in Excel. Population genetic software for teaching and research. *Molecular Ecology Notes*. 6, 288-295.

Thanks for using GenAEx!

Rod Peakall and Peter Smouse

June 16, 2018