## How to Install and Run TOPAS on the TAMARIN Server

The only assumption we are making here is that you have previously installed this correctly on your own PC or Mac and are able to run it successfully without error. If you have not, then you must do that before continuing.

The obvious first step is to make sure you are able to log into TAMARIN. Good? Good. Next you want to find a specific version of TOPAS running off of centOS6. There is a version there that runs centOS7 as well but we found that version is not compatible for some reason. However, this may have changed from the time of writing this guide.

Once you have downloaded the correct version onto your PC or Mac, you also need to be able to transfer it to the server. A reliable way to do this is through CyberDuck if you haven't already downloaded it. A peculiar instance we have found is that it matters greatly where you unpack TOPAS on the server. We found that it works the easiest (i.e. you don't need to make a lot of changes to the code) if you place it in your HOME directory, not on /project/name.

The most straight forward way to get it on the server and unpack is the following:

- 1. Begin by making a temporary folder on your computer called something like "topastamarin" that you place the unpacked downloaded centOS6 topas and a copied versions of your G4Data folder.
- 2. You can transfer the folder to anywhere on the server, a common practice is to transfer it to your HOME directory under /usr/name.
- 3. Once it has transfered, get onto the server and go to your home directory and into your folder that you just transfered. Move the contents of the folder, the .tar file and the G4Data up one level to your home directory. Once done, you should have, in your home directory, a .tar file, G4Data folder, and your temporary folder that you no longer need.
- 4. Make a new topas directory: mkdir topas. Next, you want to unpack the tar file by typing "tar -xvf 'topas archive name' -C topas/".
- 5. Now you should have in your HOME directory a folder called topas and a folder called G4Data.
- 6. In your bash profile, you need to add the export statements that can be found in the attached file to this document. This was typed in LATEX and it doesn't like the export statements which is why they are not listed here.

Now you want to make a new directory called addlibs in your HOME directory. In there, you should put the C library that is also attached to this document.

Theoretically, you should be ready to run TOPAS. At the end of this document are common errors that have been ecountered and their solutions. Please note that you don't run TOPAS on tamarin the same way you run in on your computer. Topas runs via PBS scripts. If you are unfamiliar with these, see the example attached.

Common Errors and Bug Fixes