BuildingThePrograms.md 2024-01-29

# AgileROHFinder and AgileROHFilter

The source code can be used to build two applications that work on either Linux or Windows computers:

AgileROHFinder:- which identifies autozygous regions in either next generation sequencing variant data in (uncompressed) vcf files or microarray SNP genotype data.

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AgileROHFilterer:- which identifies autozygous regions using exome variant data and then creates a 2nd filtered VCF that only contains variants in the autozygous regions.

## Compiling on a Linux computer

Linux - g++

Place all the source code files in an empty folder and navigate to it in a Bash shell terminal and issue one or bother of the commands below:

### AgileROHFinder

g++ -g AffyEngine.cpp AgileROHFinder.cpp GetRegions.cpp methods.cpp parameters.cpp Region.cpp SNP.cpp -o AgileROHFinder.exe 2> AgileROHFinder\_error.txt

## AgileROHFilterer

g++ -g AffyEngine.cpp CompareRegionList.cpp AgileROHFilter.cpp GetRegions.cpp methods.cpp parameters.cpp Region.cpp SNP.cpp VCFFilter.cpp -o AgileROHFilter.exe 2> AgileROHFilter\_error.txt

This should build the selected application with any errors stored in the error file. To see all the messages replace the '2>' with '>'.

### Windows - Visual Studio

Create an empty C++ windows console application and select the required source code (.cpp) and header (.h) files.

### AgileROHFinder:

- \*.cpp files: AffyEngine.cpp, AgileROHFinder.cpp, GetRegions.cpp, methods.cpp, parameters.cpp, Region.cpp, SNP.cpp
- \*.h files: AffyEngine.h, GetRegions.h, methods.cpp, parameters.h, Region.h, SNP.h.

## AgileROHFilterer:

- \*.cpp files: AffyEngine.cpp, CompareRegionList.cpp, AgileROHFilter.cpp, GetRegions.cpp, methods.cpp, parameters.cpp, Region.cpp, SNP.cpp, VCFFilter.cpp
- \*.h files: AffyEngine.h, CompareRegionList.h, GetRegions.h, methods.h, parameters.h, Region.h, SNP.h, VCFFilter.h.

Then create the applications by selecting the Build > Batch Build menu option and selecting a release version to run on either a 64 or 32 bit computer.