**Compiling and running SemRep locally:**

1- Ensure that you have *specialist* directory in your home directory (referred to as HOME below).  Back up its contents (*SAW* and *SKR* directories, specifically), so that you can revert back to old version if necessary.
2- Get SAW and SKR source code while in $HOME/specialist directory.
   a. Either check them out from the Subversion repository with the following commands:
      i. svn co svn://indsrv1.nlm.nih.gov/SAW/trunk SAW
      ii. svn co svn://indsrv1.nlm.nih.gov/SKR/trunk SKR
   b. Or copy them from the file system
      i. Copy SAW: *rsync –avz $NLS/specialist/SAW.Linux $HOME/specialist/SAW -- exclude=ARCHIVE –exclude='public*'* [1]
      ii. Move SKR: *mv $HOME/specialist/SAW/SKR  ../SKR*
3- Ensure that you have the new SKR and *SAW* directories under *$HOME/specialist*.
4- Create a symbolic link in *$HOME/specialist/SAW/src* to USemrep_generic.  Go to *$HOME/specialist/SAW/src* and
   a. *ln –s USemrep_generic USemrep*
   b. If you are working with SemRep DIM, the symbolic link command should be*: ln –s USemrep_dim USemrep*, instead.[2]
5- Go to *$HOME/specialist/SAW/src/USemrep/*.
6- Compile using the *linkSICStus_SAW* command.  (*linkSICStus_SAW –P –H* )
   a. Ensure that this command refers to *$HOME/specialist/SAW/bin/linkSICStus_SAW* script. You might have to set your PATH environment variable to include *$HOME/specialist/SAW/bin*, if it does not.[3]
   b. If you copied SAW and SKR files from the file system, you should already have the precompiled versions of the C and C++ programs (ABGene, etc.) for the platform. However, if you have to recompile them for some reason or if you checked the files out from Subversion, two things have to be done before running *linkSICStus_SAW*:
      i. Go to *$HOME/specialist/SKR/bin* and run *make_all* script in that directory. This will compile SKR-related C libraries.
      ii. Go to *$HOME/specialist/SAW/bin* and run *make_all* script in that directory. This will compile SAW-related C and C++ libraries.[4]
7- To run your compiled version of SemRep, you can use the following command in *$HOME/specialist/SAW/src/USemrep*.
   a. *SAWenv ./a.out.Linux –DS* <other command arguments>[5]

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[1] Exclude options are to avoid copying directories that are not needed (ARCHIVE, and public_semrep and public_mm directories)
[2] When switching between different versions of SemRep (SemRep_generic, SemRep_DIM, etc.), USemrep symbolic link should be recreated.
[3] If you followed SICStus_instructions file for SICStus setup, this should have already been done by setting SAW_HOME environment variable.
[4] Note that Linux compilation requires version 4.1.2 of GNU C Compiler.