CRCL Port to Linux

1. New CodeSynthesis bash shell
2. New Netbeans project
   1. Need include path to libxsd and xercesc
   2. Lib to xerces
   3. All in code synthesis download
3. In g++ replace pragma once with extern
4. Different C++ excpeption (e.g., access null pointer) handling
   1. Have linux solution
5. No lambda expressions in C++99, rewrote as functions
6. No initialize reference variable value with function argument
   1. Replace with store in new step before
7. In #include file names must match EXACTLY
8. Used lib.so not lib.a – difference?
   1. Look for boost and other libraries under /usr/lib/x86\_64-linux-gnu/
   2. .so files are **dynamic libraries**. The suffix stands for "shared object"
   3. .a files are **static libraries**. The suffix stands for "archive", because they're actually just an archive (made with the ar command -- a predecessor of tar that's now just used for making libraries) of the original .o object files.
   4. .la files are static libraries used by the GNU "libtools" package
9. Urdf read – fix location of exe path
   1. Must use slash, not windows allowed backslash (i.e., ‘\’). Mixed a few.
10. Tested java CRCL client to C++ CRCL server
11. TODO:
    1. Port to ROS, remove dummy trajectory and controller.
    2. Simulate, and then use real robot
    3. gazebo