CERTI Compilation HOWTO

Guide for the compilation of CERTI from *Source!!*

This notes has been written for compiling CERTI on Windows, but the steps are roughly the same on other platform if you replace Windows version of software (and screen shots) with their Linux (or your favourite system) counterpart.

1/ Tools for the development of CERTI

CERTI compilation requires a working C++ compiler and some development tools, you may have them already installed on your system or you may download & install the missing tools. All used tools are Open Source softwares.

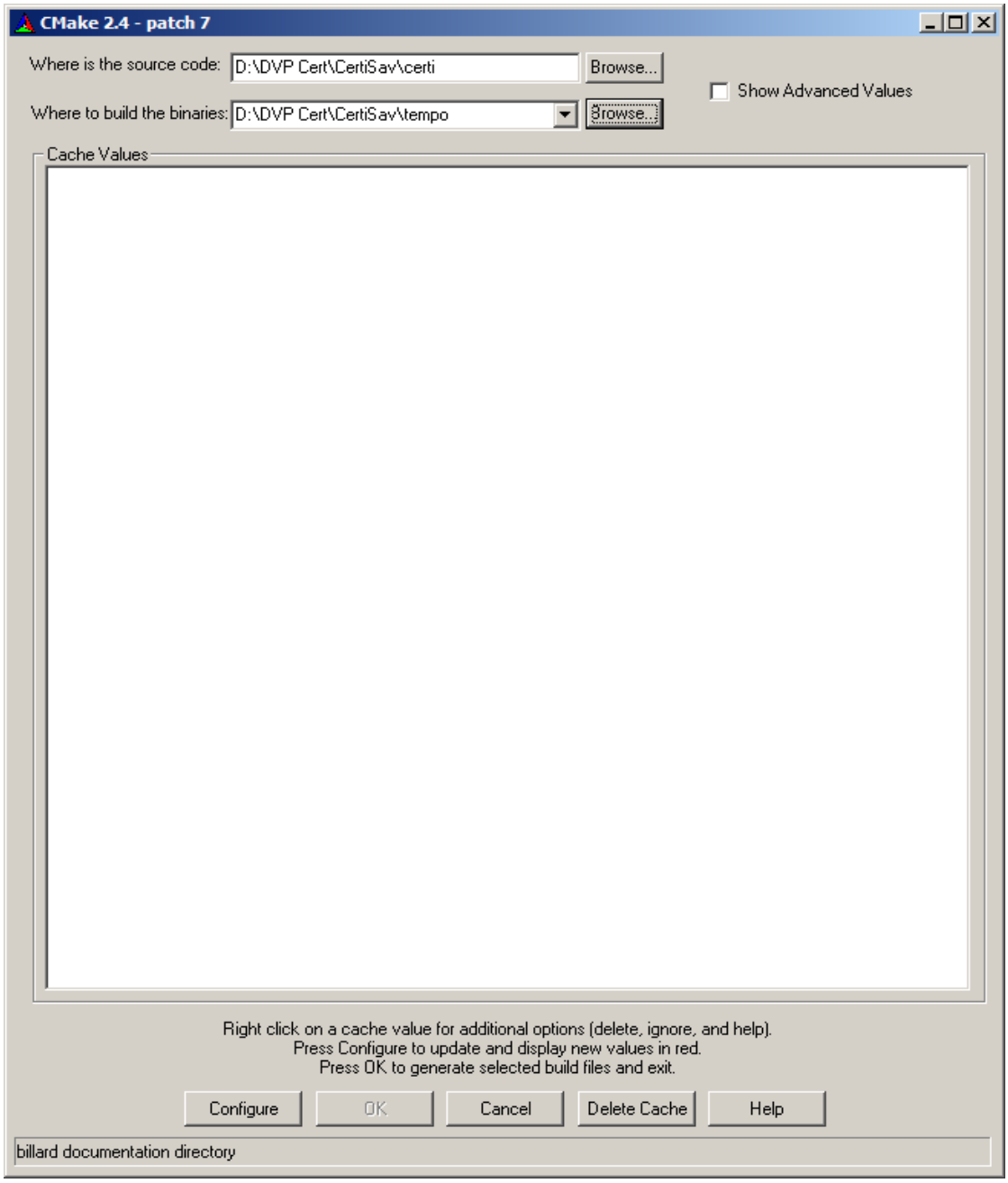
- CMake
  http://www.cmake.org/HTML/Download.html
- Flex/Bison
  - On Linux
    - Fedora: `yum install flex bison`
    - Debian/Ubuntu: `apt-get install flex bison`
  - On Windows
    http://gnuwin32.sourceforge.net/packages/bison.htm
    http://gnuwin32.sourceforge.net/packages/flex.htm
    - m4 : bison needs the installation of this software
      http://gnuwin32.sourceforge.net/packages/m4.htm
- (optional) NSIS for building an Installer:
  http://nsis.sourceforge.net/Main_Page
- (optional) libxml2
  - On Linux
    - Fedora: `yum install libxml2-devel`
    - Debian/Ubuntu: `apt-get install libxml2-devel`
  - for Windows
    http://www.zlatkovic.com/libxml.en.html

2/ Download the Source Package

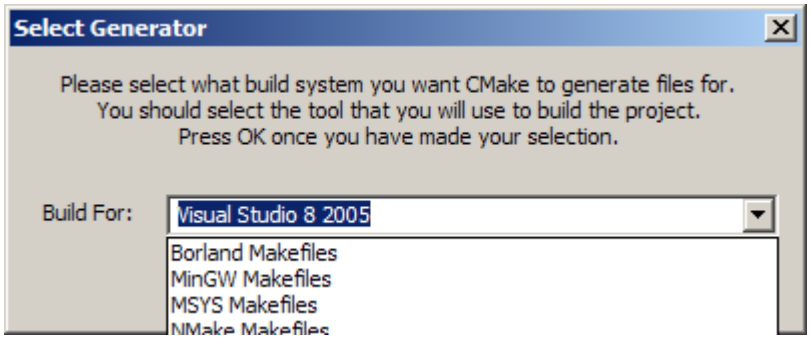
Take a look at http://download.savannah.gnu.org/releases/certi/ for getting the last package.
Unzip it!
Adventurous people may try beta snapshot (at your own risk):
http://download.savannah.gnu.org/releases/certi/beta

3/ Configure the source tree

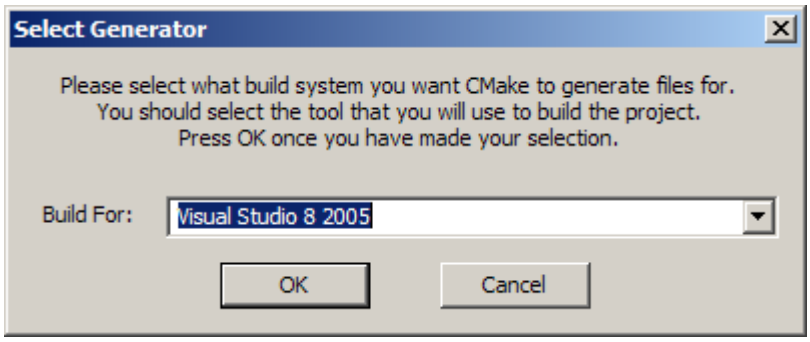
Launch CMake-GUI :
Enter the folder for the source code (here `\certi`, created during the previous step)
Enter the folder for building the programs (here `\tempo`)
.

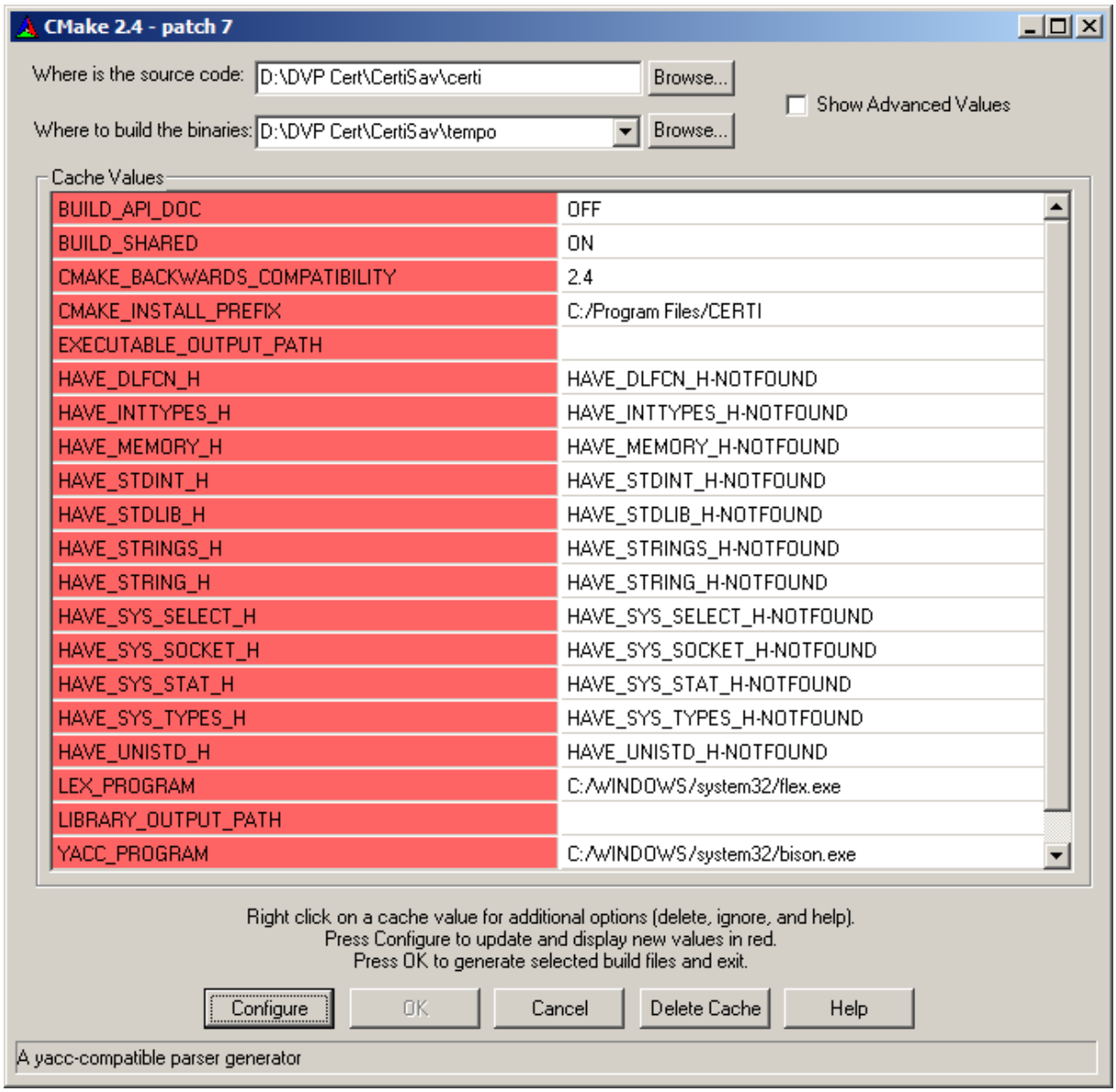


Hit Configure button



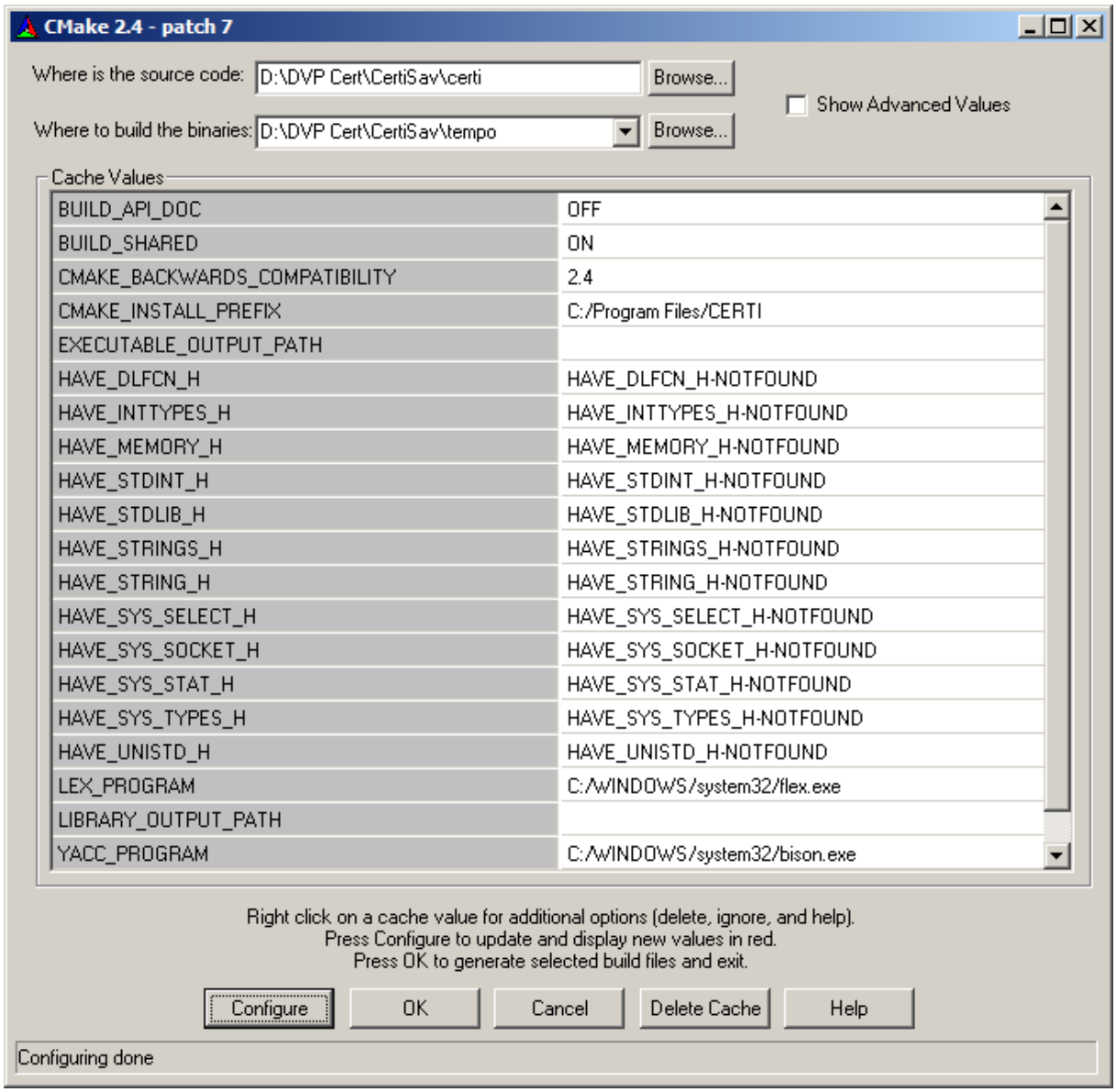
Choose the appropriate Generator:



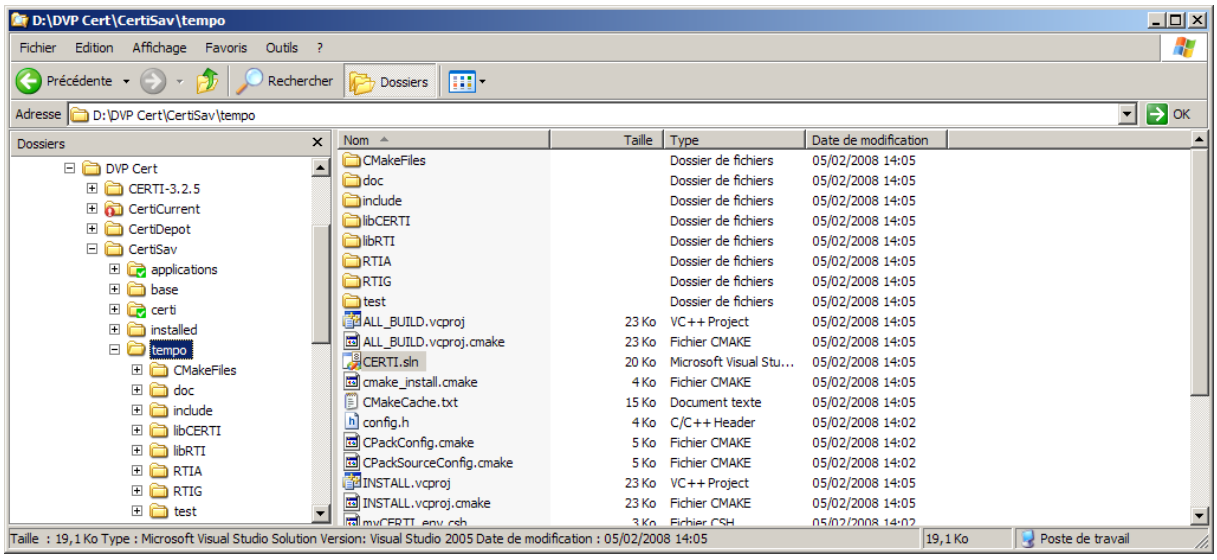


Verify the the paths for the different tools (flex, bison..) before hitting "*Configure*" again

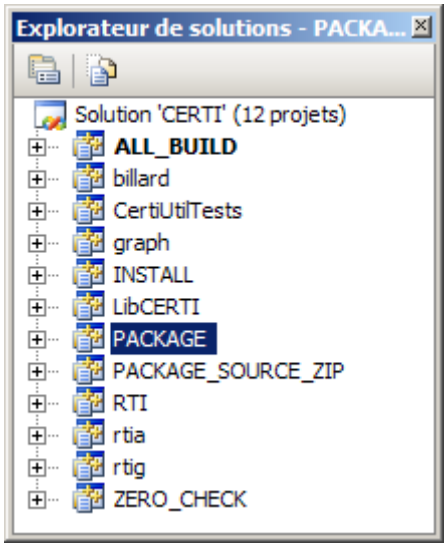
Repeat "*Configure*" until you get a valid OK box .



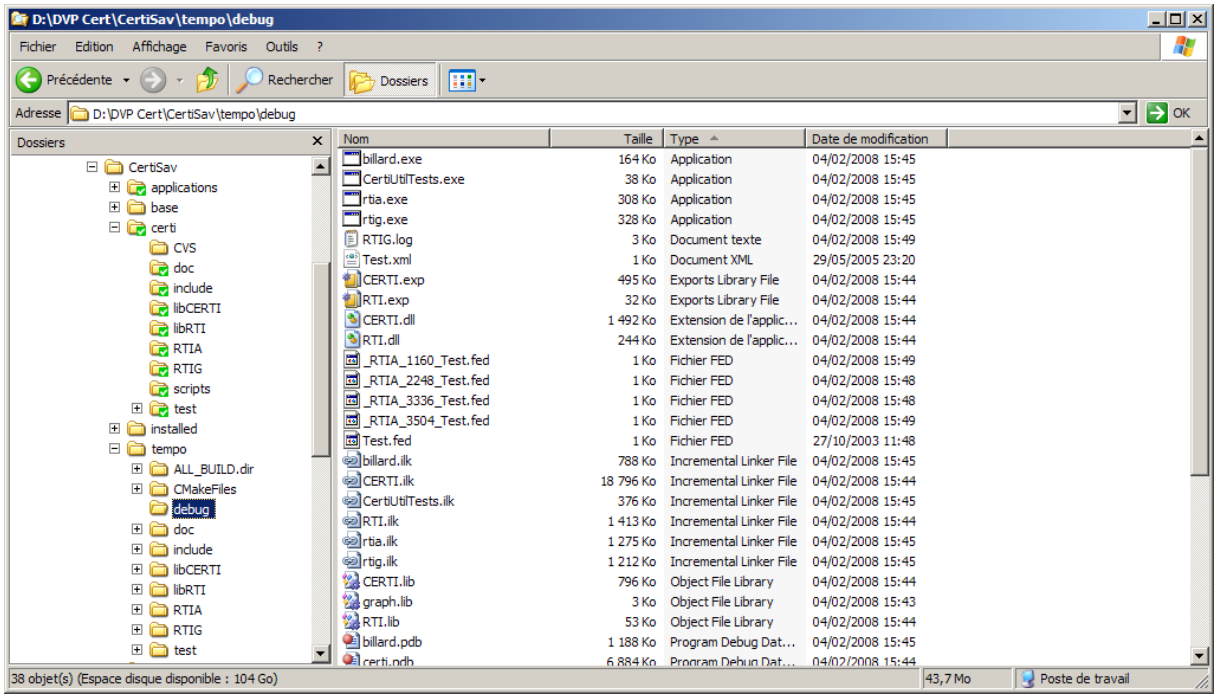
You should get a BUILD folder (named tempo in our example) which looks like that:



Launch CERTI.sln (here Visual C++ 2005 version)

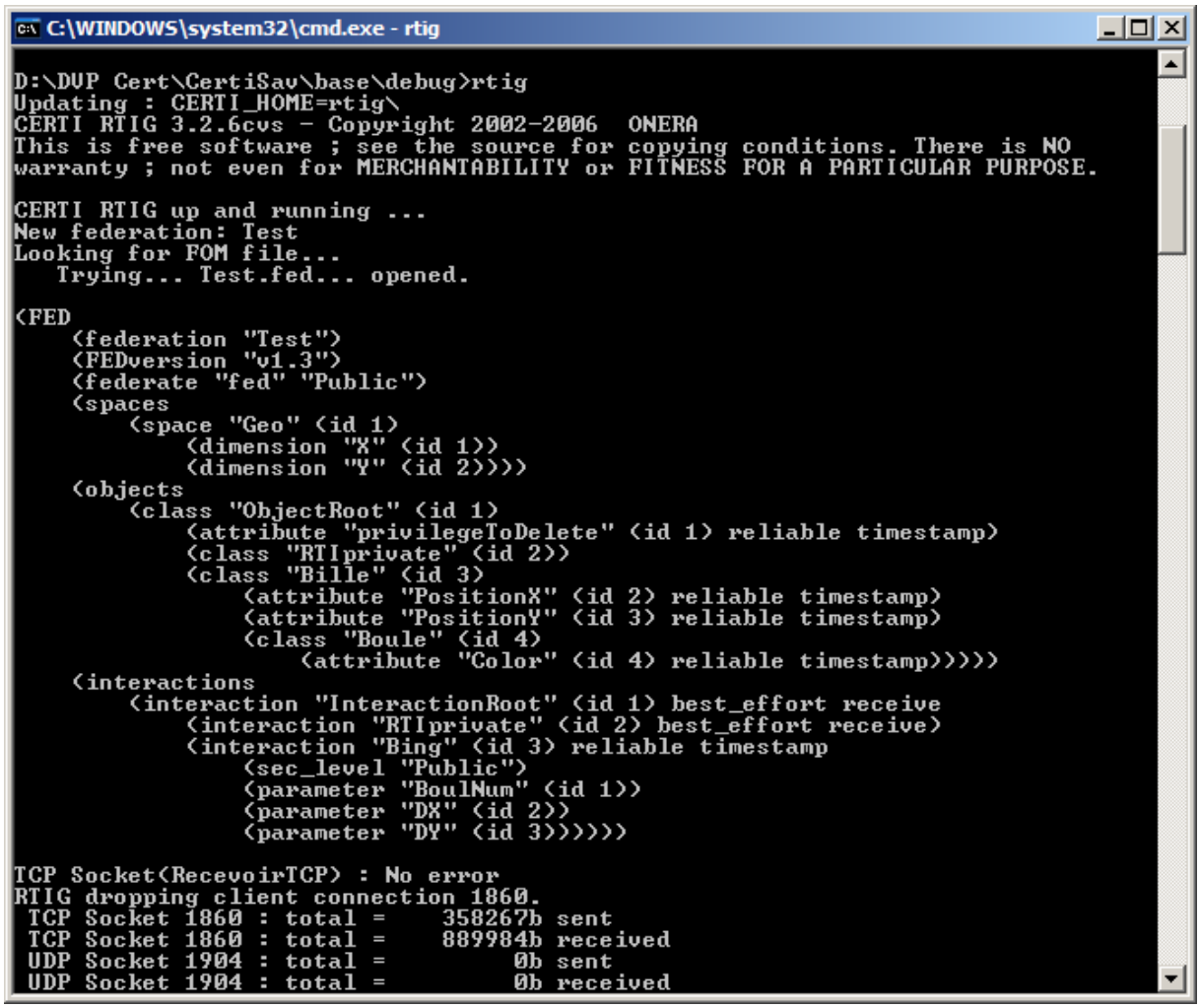


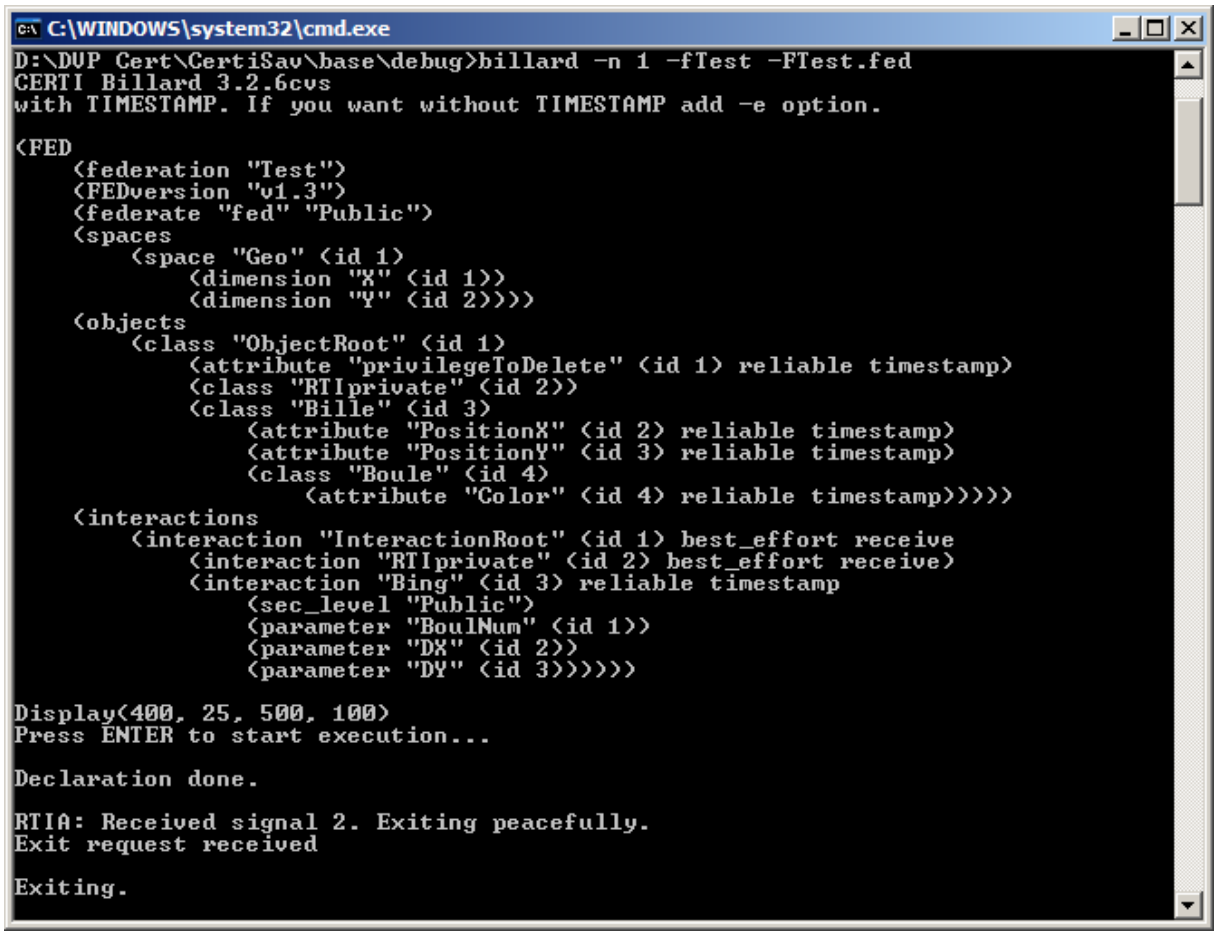
Build all… Take a look at your folder …



4) Check the test out

- open a windows command prompt before running RTIG
- open another windows command prompt before running the billard program.
- Don't forget the parameters : -n 1 fTest FTest.fed


C:\WINDOWS\system32\cmd.exe - rtig
D:\DVP Cert\CertiSav\base\debug>rtig
Updating : CERTI_HOME=rtig\
CERTI RTIG 3.2.6cvs - Copyright 2002-2006 ONERA
This is free software ; see the source for copying conditions. There is NO
warranty ; not even for MERCHANTABILITY or FITNESS FOR A PARTICULAR PURPOSE.
CERTI RTIG up and running ...
New federation: Test
Looking for FOM file...
Trying... Test.fed... opened.
(FED
(federation "Test")
(FEDversion "v1.3")
(federate "fed" "Public")
(spaces
(space "Geo" (id 1)
(dimension "X" (id 1))
(dimension "Y" (id 2))))
(objects
(class "ObjectRoot" (id 1)
(attribute "privilegeToDelete" (id 1) reliable timestamp)
(class "RTIprivate" (id 2))
(class "Bille" (id 3)
(attribute "PositionX" (id 2) reliable timestamp)
(attribute "PositionY" (id 3) reliable timestamp)
(class "Boule" (id 4)
(attribute "Color" (id 4) reliable timestamp)))))
(interactions
(interaction "InteractionRoot" (id 1) best_effort receive
(interaction "RTIprivate" (id 2) best_effort receive)
(interaction "Bing" (id 3) reliable timestamp
(sec_level "Public")
(parameter "BoulNum" (id 1))
(parameter "DX" (id 2))
(parameter "DY" (id 3))))))
TCP Socket(RecevoirTCP) : No error
RTIG dropping client connection 1860.
TCP Socket 1860 : total = 358267b sent
TCP Socket 1860 : total = 889984b received
UDP Socket 1904 : total = 0b sent
UDP Socket 1904 : total = 0b received


C:\WINDOWS\system32\cmd.exe
D:\DVP Cert\CertiSav\base\debug>billard -n 1 -fTest -FTest.fed
CERTI Billard 3.2.6cvs
with TIMESTAMP. If you want without TIMESTAMP add -e option.
(FED
(federation "Test")
(FEDversion "v1.3")
(federate "fed" "Public")
(spaces
(space "Geo" (id 1)
(dimension "X" (id 1))
(dimension "Y" (id 2))))
(objects
(class "ObjectRoot" (id 1)
(attribute "privilegeToDelete" (id 1) reliable timestamp)
(class "RTIprivate" (id 2))
(class "Bille" (id 3)
(attribute "PositionX" (id 2) reliable timestamp)
(attribute "PositionY" (id 3) reliable timestamp)
(class "Boule" (id 4)
(attribute "Color" (id 4) reliable timestamp)))))
(interactions
(interaction "InteractionRoot" (id 1) best_effort receive
(interaction "RTIprivate" (id 2) best_effort receive)
(interaction "Bing" (id 3) reliable timestamp
(sec_level "Public")
(parameter "BoulNum" (id 1))
(parameter "DX" (id 2))
(parameter "DY" (id 3))))))
Display(400, 25, 500, 100)
Press ENTER to start execution...
Declaration done.
RTIA: Received signal 2. Exiting peacefully.
Exit request received
Exiting.