Building Instructions

There are several ways to compile/build Cheddar tools on Linux/windows boxes :

- Through the command line.
- With an IDE : GPS (GNAT Programming Studio) or AdaGIDE (Ada GNAT Integrated Development Environment).

For other operating systems, one can use old makefile : makefile.manual.

Additional Packages

Cheddar is built using the GNAT compiler GPL 2007 (see AdaCore web site).

Furthermore, the following packages are needed to build Cheddar (available in Cheddar repository (*required_packages*)) :

Packages	Comment
Gtk and **GtkAda**	See GTK web site for details
XmlAda	See AdaCore web site
Aflex and **Ayacc**	If you plan to change the code of the parametric simulator
big number	From Jerome Delcourt
Ocarina AADL Parser	Distributed by the Telecom ParisTech Ocarina team

Command Line Building Instructions

Linux/Unix Boxes

Step 1

We assume that all the required component are already installed in your system. We also supposed that *gcc/GNAT* is in your binary *PATH* and *LD_LIBRARY_PATH* environment variable contains *GtkAda* and *Gtk* libraries directory (i.e. *libs/linux* directory).

For GtkAda library, one shall replace the *.../required_packages/GtkAda* directory content by the one from *gtkada_unix.tar.gz* file found in *.../required_packages/Archive* directory.

Step 2

If necessary, read and update the *config/*.ads* packages. These Ada packages contain all Cheddar's configurable constants.

Step 3

Type *make all* in a terminal to compile all Cheddar tools (*make alldebug* for debug version).

Note : if you want to remove all objects created during Cheddar compilation, type *make clean* (resp. *make cleandebug*).

Windows Boxes

Step 1

If necessary, read and update the *config/*.ads* packages. These Ada packages contain all Cheddar's configurable constants.

Step 2

Open a terminal (choose *Windows Menu -> execute* and type *cmd*). In Cheddar source main directory, type :

- *gnatmake -Pcheddargps.gpr -d -XBuild=Release* : build cheddar tools in *release* mode (optimized, no debug information).

- *gnatmake -Pcheddargps.gpr -d -XBuild=Debug* : build cheddar tools in *debug* mode (no optimization).

- *gnatclean -r -Pcheddargps.gpr -XBuild=Release* : remove objects from *release* mode compilation.

- *gnatclean -r -Pcheddargps.gpr -XBuild=Debug* : remove objects from *debug* mode compilation.
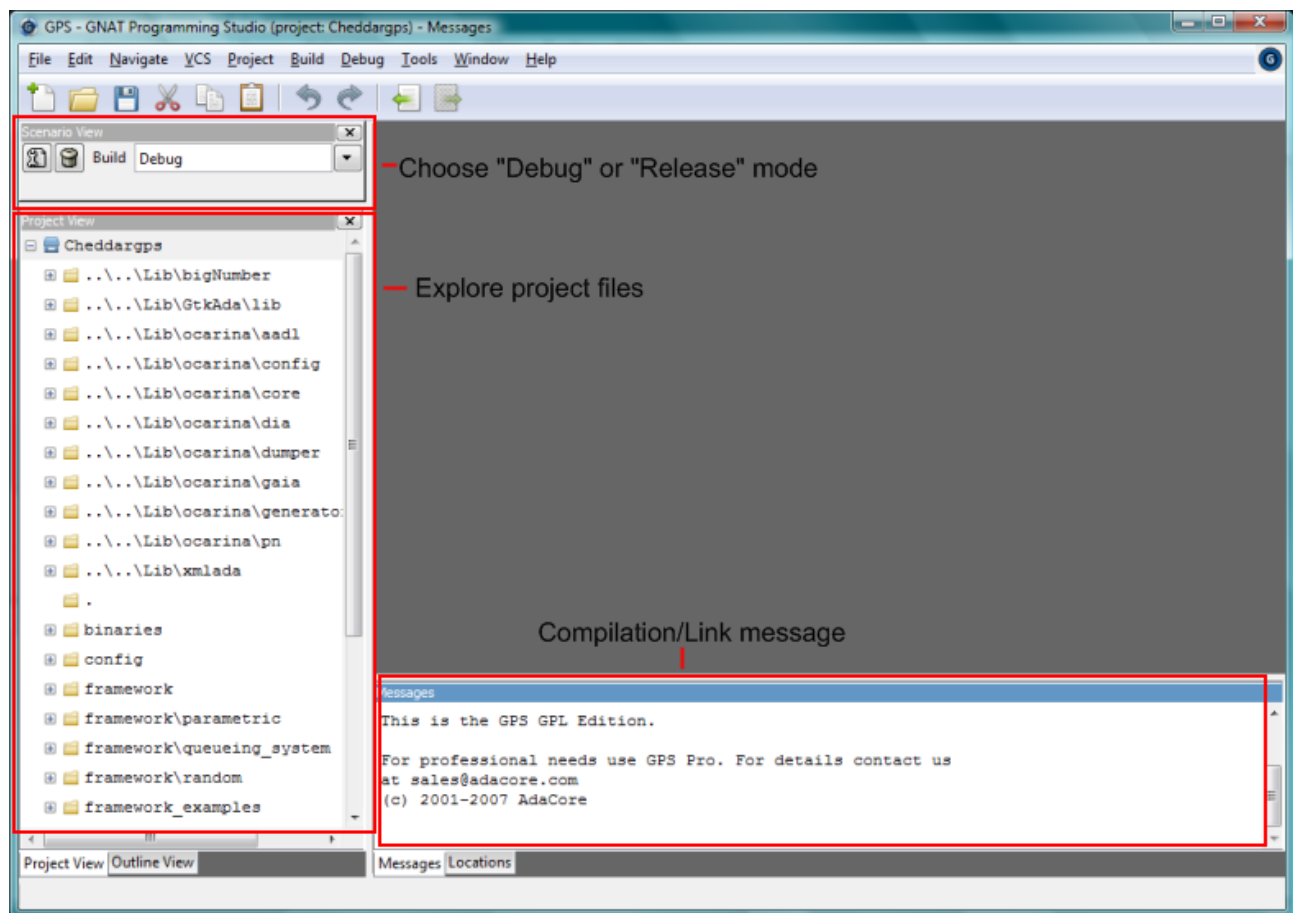
GPS Building Instructions

Step 1

Install the GNAT GPL 2007 distribution (GNAT Programming Studio and GNAT Ada compiler should be installed on your system).
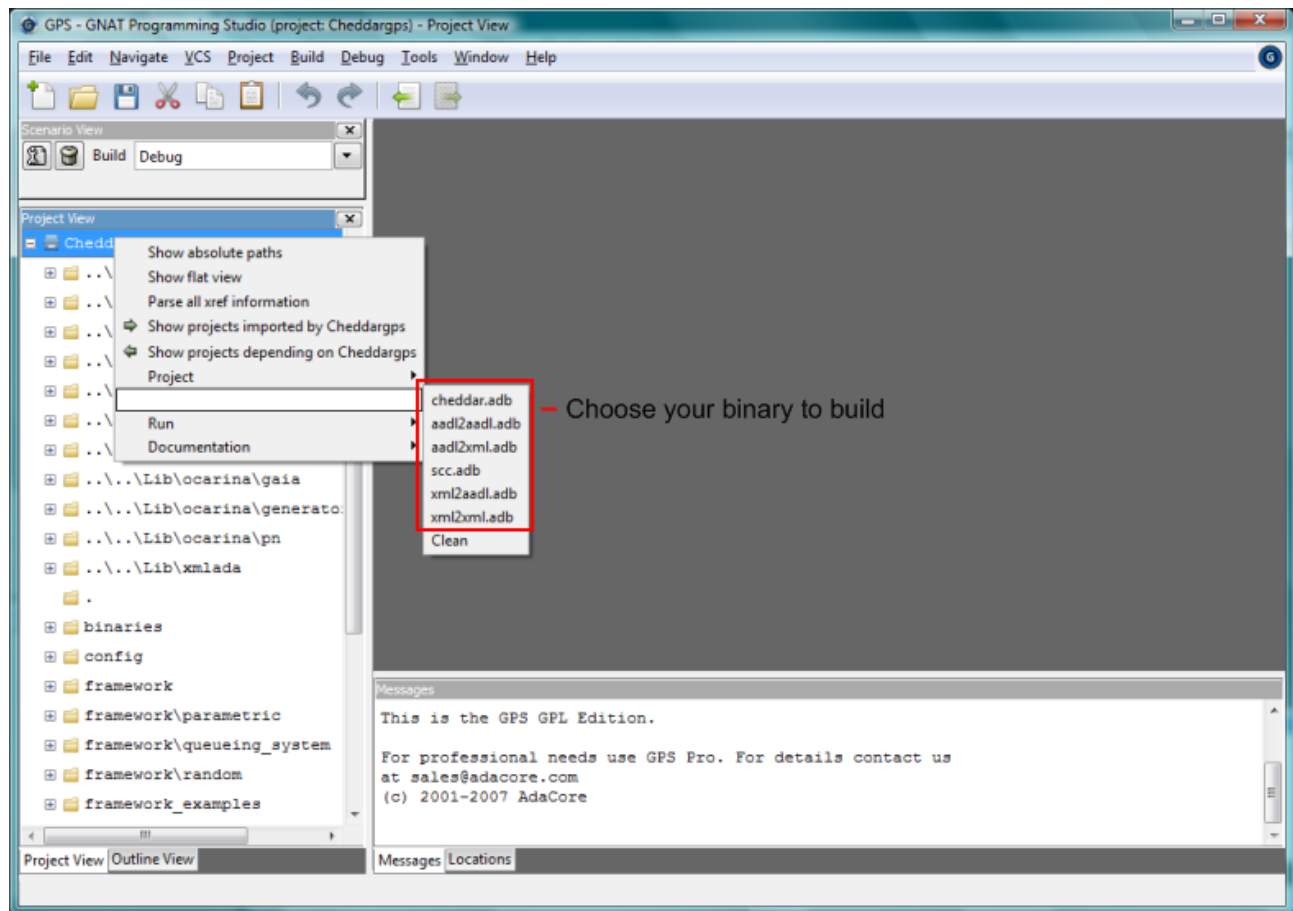
For Windows, just double click on the executable downloaded from AdaCore web site.

Step 2

Open GPS cheddar project (cheddargps.gpr file in Cheddar source code *trunk* directory) :

And Build your selected binary :

Cheddar tools binaries can be found in *trunk/binaries/bin/release or debug* directory.

AdaGide Building Instructions

Step 1

Idem GPS building procedure.

Step 2

Unzip all necessary packages in a "lib" directory in order to have the following tree (Due to AdaGide restriction, *Cheddar* and *Lib* directory should be located in hard drive root directory, e.g. *c:*) :
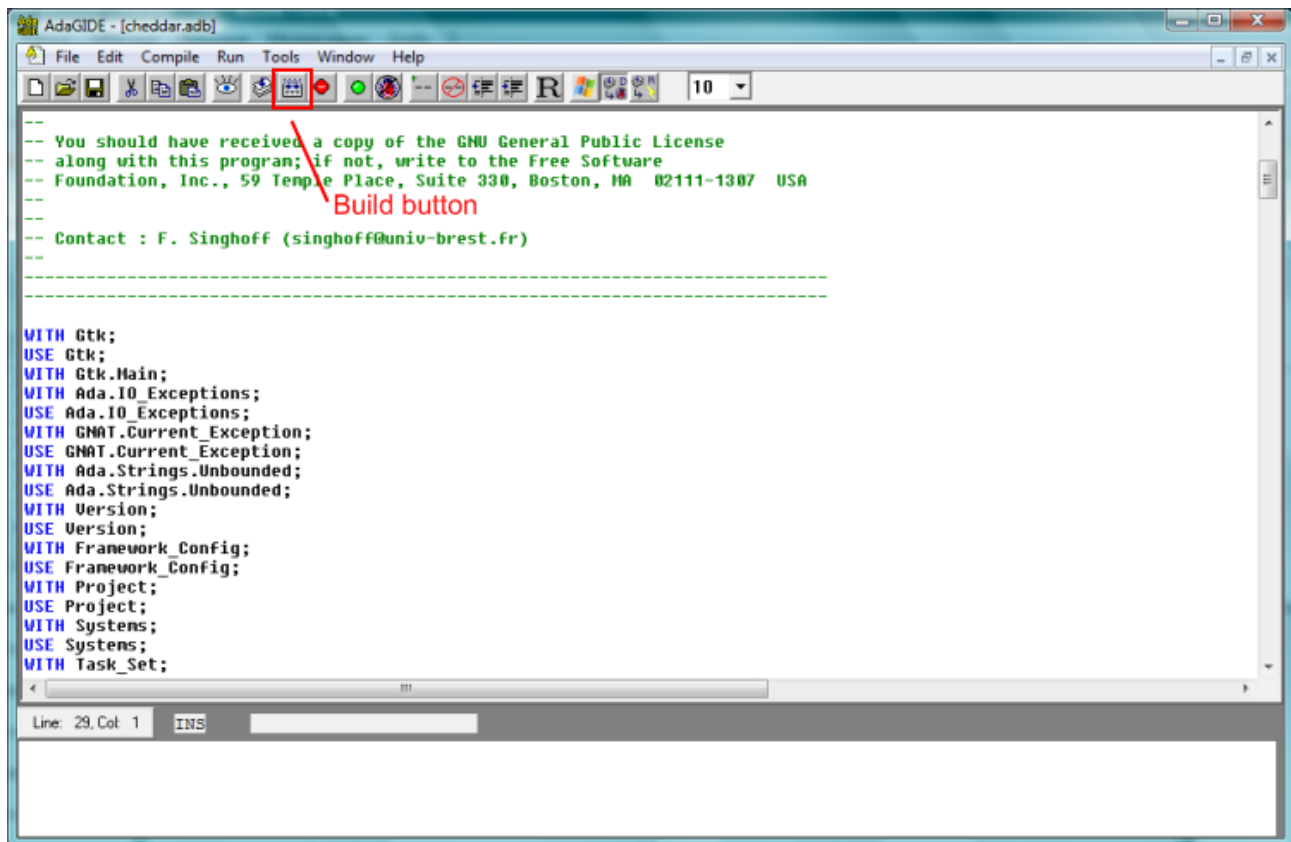
- Cheddar
    - branch
    - tags
    - trunk
        - binaries -> contains Adagide configuration and project files (gnat.ago, ...)
        - ...
        - txt
- Lib
    - BigNumber
    - GtkAda
    - Ocarina

- aadl
- checker
- config
- core
- dia
- dumper
- gaia
- generators
- lib -> contains Ocarina libraries
- pn
- runtime
  - XmlAda

If packages are located in different directories (default : *c:\Cheddar* and *c:\Lib*) , update "gnat.ago" (*Cheddar/binaries*).

Step 3

Open cheddar.adb with AdaGide and push the AdaGide "Build" button. Built binary can be found in *Cheddar/trunk/binaries/* directory.

Step 4

Repeat step 3 with xml2xml.adb, aadl2xml.adb, xml2aadl.adb, aadl2aadl.adb and scc.adb.

Framework Examples

In order to build Cheddar framework examples, one can follow building instructions for Cheddar tools (command line and GPS) with the GPS project *frameworkexamples.gpr* and Makefile option *examples* and *examplesdebug*.

Other Operating Systems

Step 1

Same as command line building instructions.

Step 2

Update the Makefile.vars file :

- You have to give the Cheddar directory source code location (pointed by the *ROOT_CHEDDAR* variable).
- Update *ADAC_INCLUDE* and *ADAC_LIB* variables according to Gtk, GtkAda, XmlAda, BigNumbers and Ocarina installation directories

Several Makefile.vars examples are provided in Cheddar source code (Makefile.vars.linux for Linux, Makefile.vars.solaris for Solaris, Makefile.vars.win32 for Windows boxes ...).

Step 3

If necessary, read and update the config/*.ads packages. These Ada packages contain all Cheddar's configurable constants.

Step 4

Type `gmake' to compile Cheddar.

Installation Instructions

If the compilation succeed, Cheddar tools binaries can be found in *binaries/bin/release* directory (*binaries/bin/debug* for debug version).

- On Unix boxes : just copy executables in the installation directory (eg. */usr/local/bin*). Your *LD_LIBRARY_PATH* shell variable shall point

to *libs/linux* directory.

- On Win32 boxes : copy *cheddar.exe* and the *Dll* files from *libs/win32dll* directory in the **Same** installation directory (eg. *C:\Cheddar*).

Contact Us

Feel free to contact us if you have any compilation problems via Cheddar mailing list.