Bison Mini Tutorial (Updated 12/2009)

0) Requirements

a) The guide below should work for Windows Vista and Windows XP
b) Visual Studio C++ Express edition must be installed on your machine. You can download this for free from: http://www.microsoft.com/express

1) Download and Install Bison

a) Download Bison from

http://gnuwin32.sourceforge.net/packages/bison.htm
Choose the "Complete package, except sources Setup" . You will now download *bison-2.4.1.exe*.

b) Run the downloaded file to install Bison.

bi) Click Next, "Accept the license" and click Next

bii) For the install directory, you **MUST** modify this to the following: C:\GnuWin32

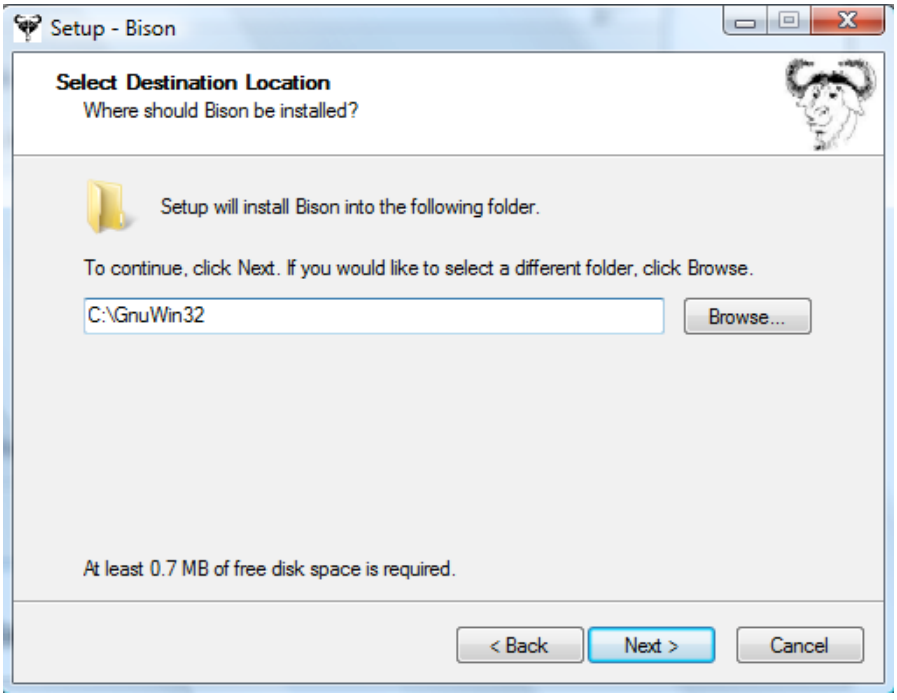

Figure 1: Modify the Install Directory

biii) Just click Next with the default choices from now on.

2) Setting the System Path

See the Flex mini tutorial, you only need to do this once.

3) A simple Bison example

a) To use Flex/Bison you must use the Visual Studio 2008 Command Prompt. Click on *Start -> All Programs -> Microsoft Visual C++ 2008 Express Edition -> Visual Studio Tools -> Visual Studio 2008 Command Prompt*. (See Figure 1)

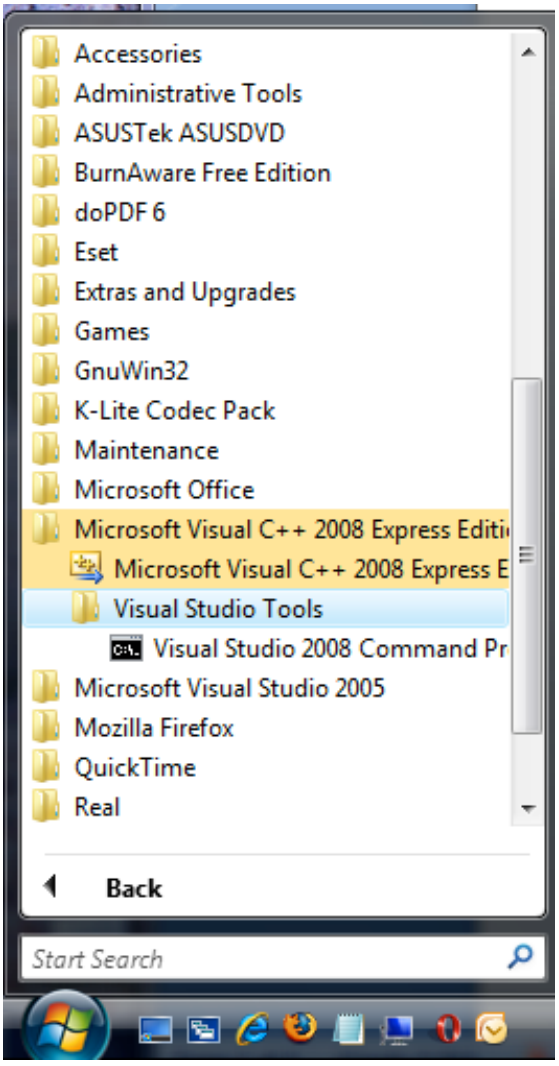

Figure 1: Start the Visual Studio 2008 Command Prompt

b) You may want to navigate to a folder in your home-directory. Type cd c:\Users\"Your User Name" (my user name is gjermundrod.h). Then you may want to create a separate folder for comp375 course; this is done with the *mkdir* command. In order to go to a new folder you use *cd*, to go back to the previous folder use *cd ..* (that is cd followed by two dots).To list all the files in a directory use *dir*. To see all the options that the Flex program provides to you can type *bison -h* (see Figure 2)

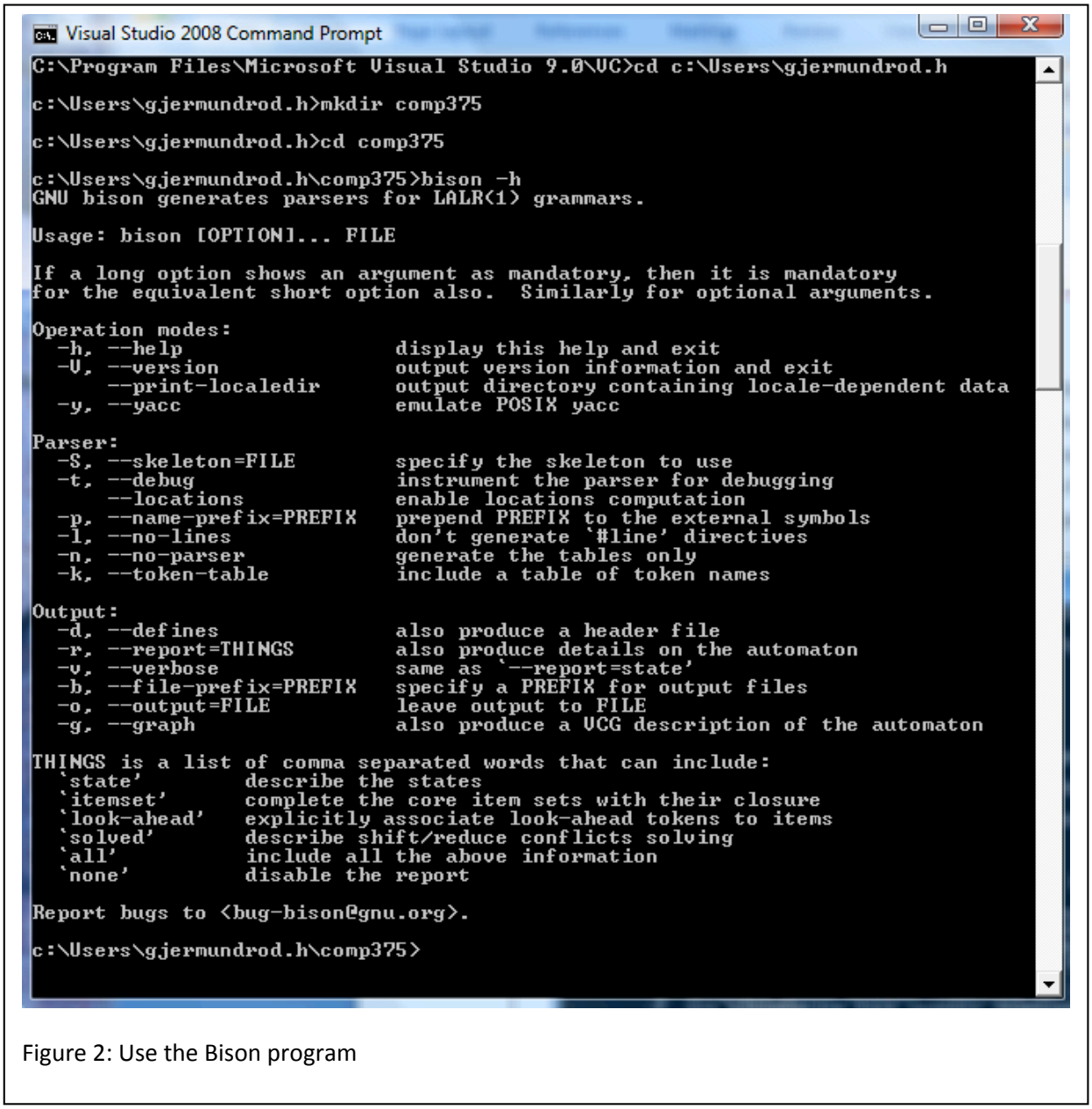

Figure 2: Use the Bison program

c) You can use an editor to create your bison specification or download the example (*calc3.rar*) from the website and save it in your *comp375* folder. You will then use the following three commands (**bison command is UPDATED**):

flex *calc3.l*

bison *-dl -o y.tab.c calc3.y*

cl lex.yy.c y.tab.c interpreter.c -o calc3.exe

calc3.exe *argument* (where argument is a source file like: *test.cal*)

See Figure 3 for an execution run.

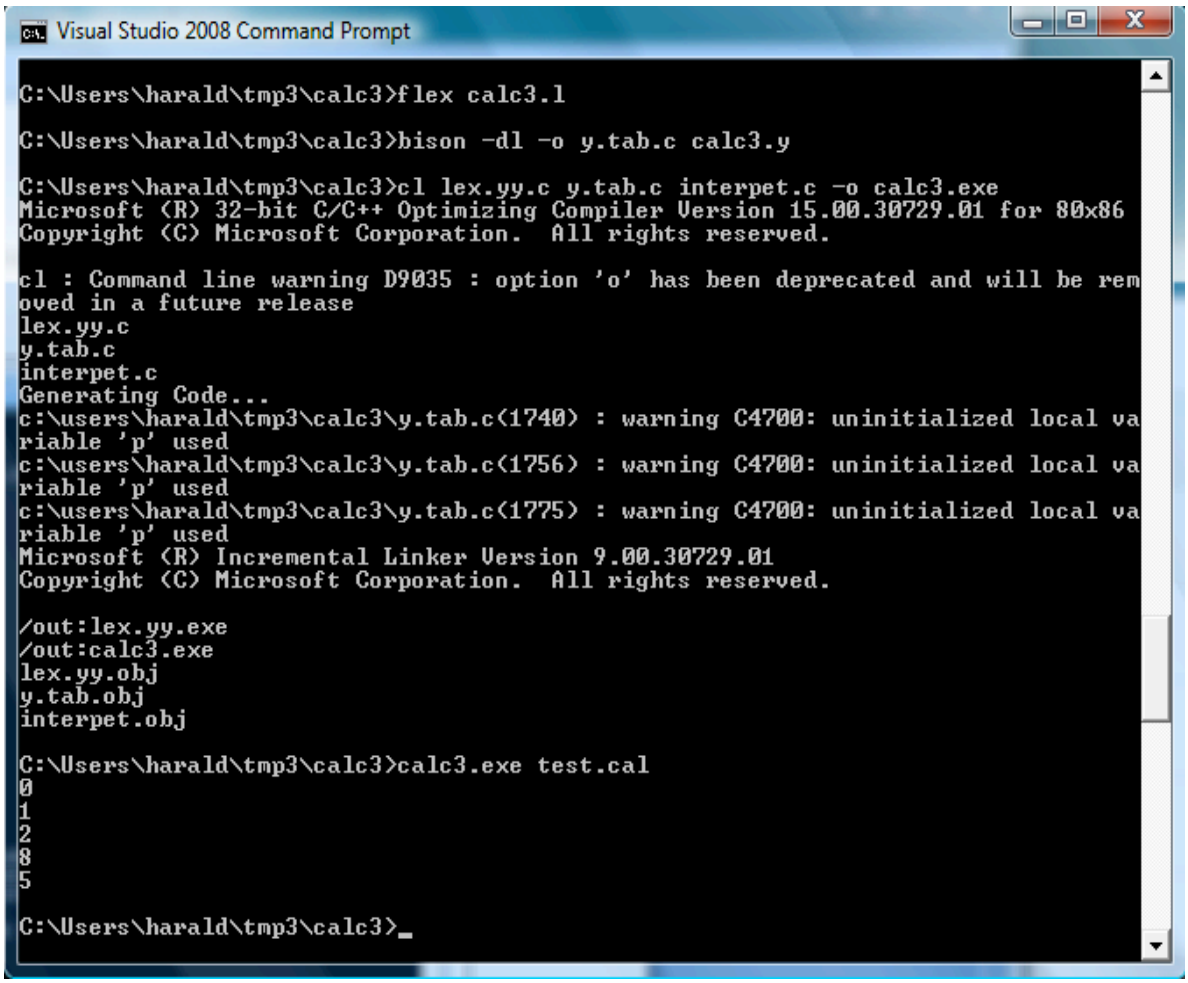

Figure 3: Execution run