
Appendix I

SCREENSHOT GUIDE TO ABSOFT COMPILER GRAPHICAL USER INTERFACE

The graphical interface to the Absoft compiler can be started from Windows by selecting Programs from the Start menu and then compile from the Absoft Tools submenu. A command line version of an individual compiler can be started with one of the commands `f90`, `f77`, or `cc`. Both methods allow the user to compile source files quickly and easily. The Absoft compilers can be run either from a command line or from the Absoft Developer Tools Interface.

Note: It is assumed that the compiler has been installed on the C: drive. If this is not the case, substitute the correct drive letter in the examples as appropriate.

Selecting **Programs** from the **Start** menu and then **Compiler Interface** from the Absoft submenu opens the Absoft Developer Tools Interface. It can also be started by selecting **Run** from the **Start** menu and typing `c:\Absoft\bin\Atools` or by typing Atools at a console or command line window. The Windows NT

Command Prompt or Windows XP **MS-DOS Prompt** should be opened by selecting **Programs** from the **Start** menu and then **Development Command Shell** from the **Absoft** submenu. Opening the console window in this way automatically sets the environment variables by executing the `c:\Absoft\bin\absvar.bat` batch file.

Error may occur when compiling a program in the source file syntax or with the compiler options selected. All errors and warning messages are shown in the compiler output window in a format similar to the following:

error on line 38 of PROG1.FOR: spelling error?

The following steps as illustrated in Figures I-1 – I-12 are used to compile and execute the Fortran programs in this book using the Absoft compiler.

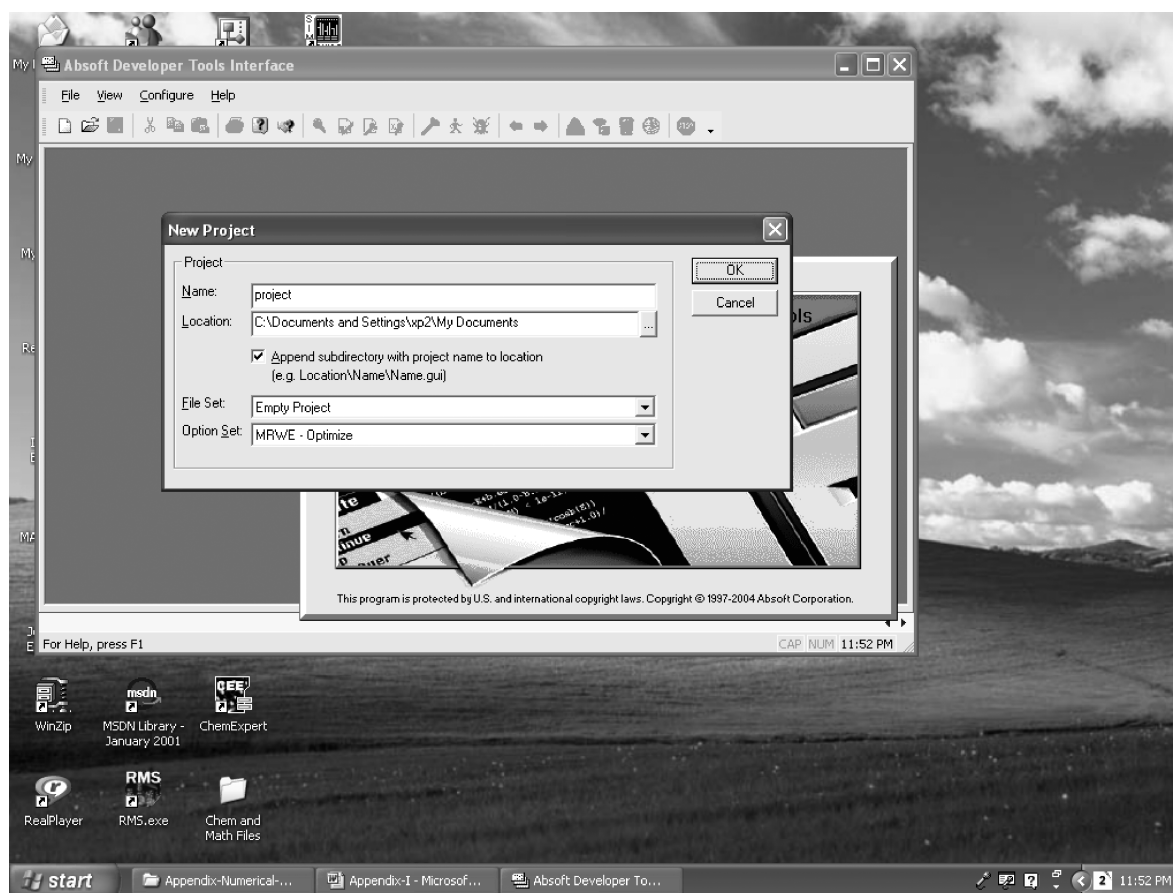


Figure I-1 Absoft compiler window.

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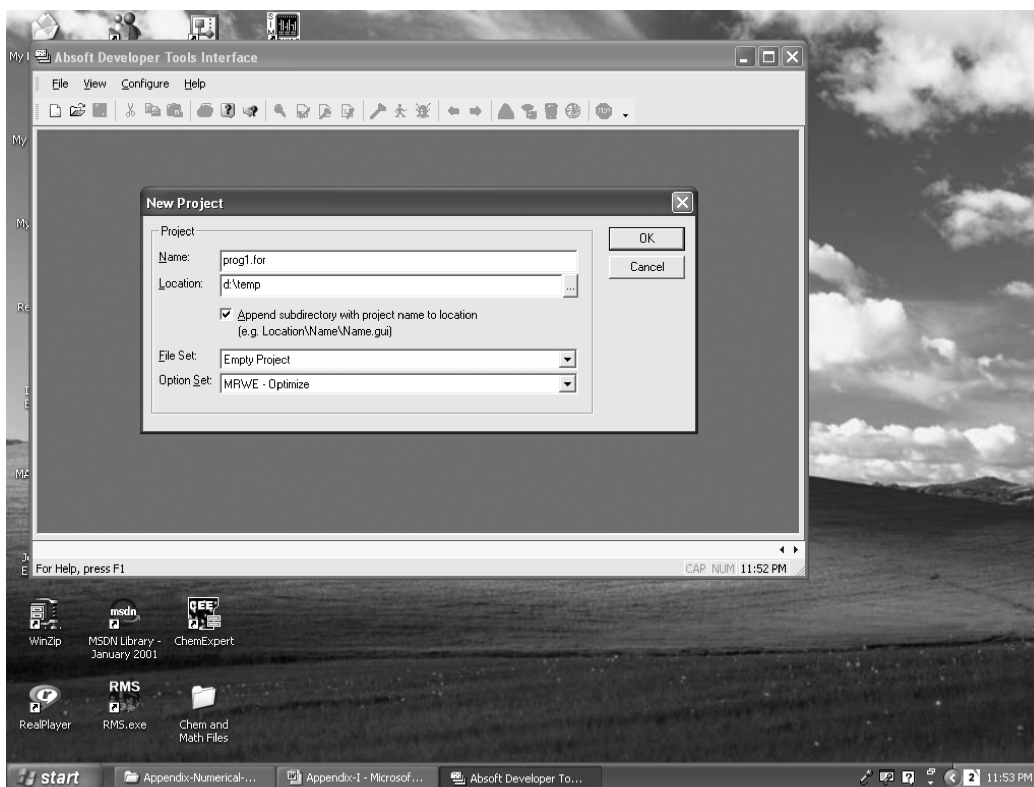


Figure I-2 New Project window from File submenu.



Figure I-3 Absoft Fortran 77 compiler dialog box.

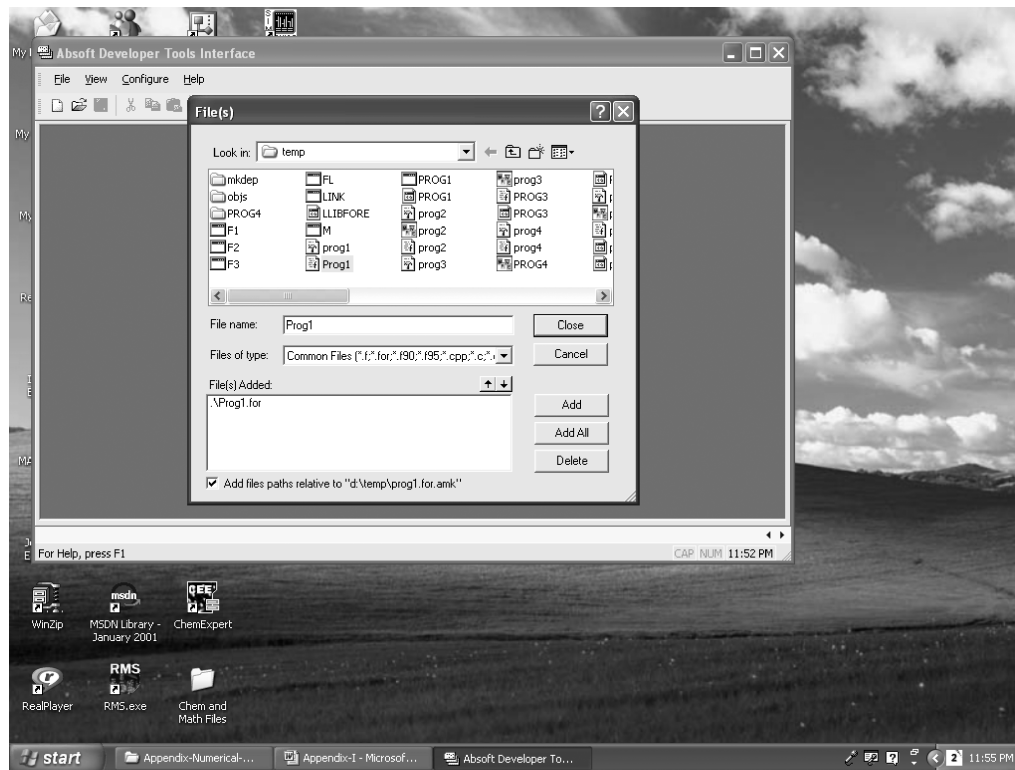


Figure I-4 Source file from Configure submenu.

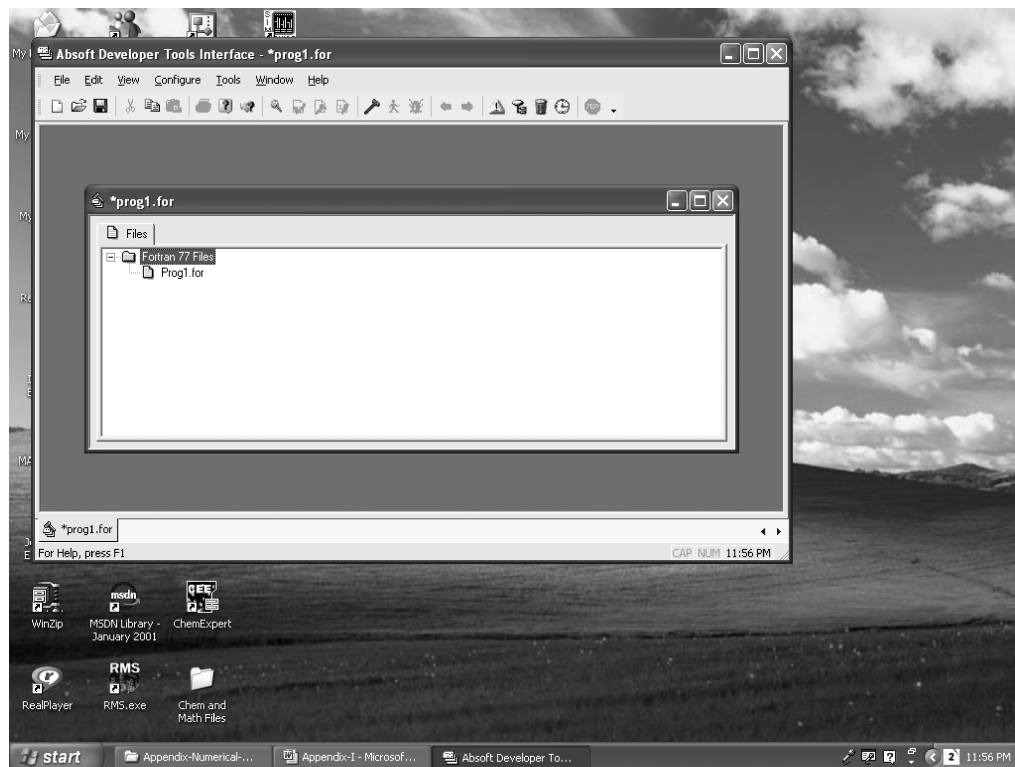


Figure I-5 Source file (e.g. PROG1) is selected and added to the File(s) Added box.

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Figure I-6 f77 General Options.

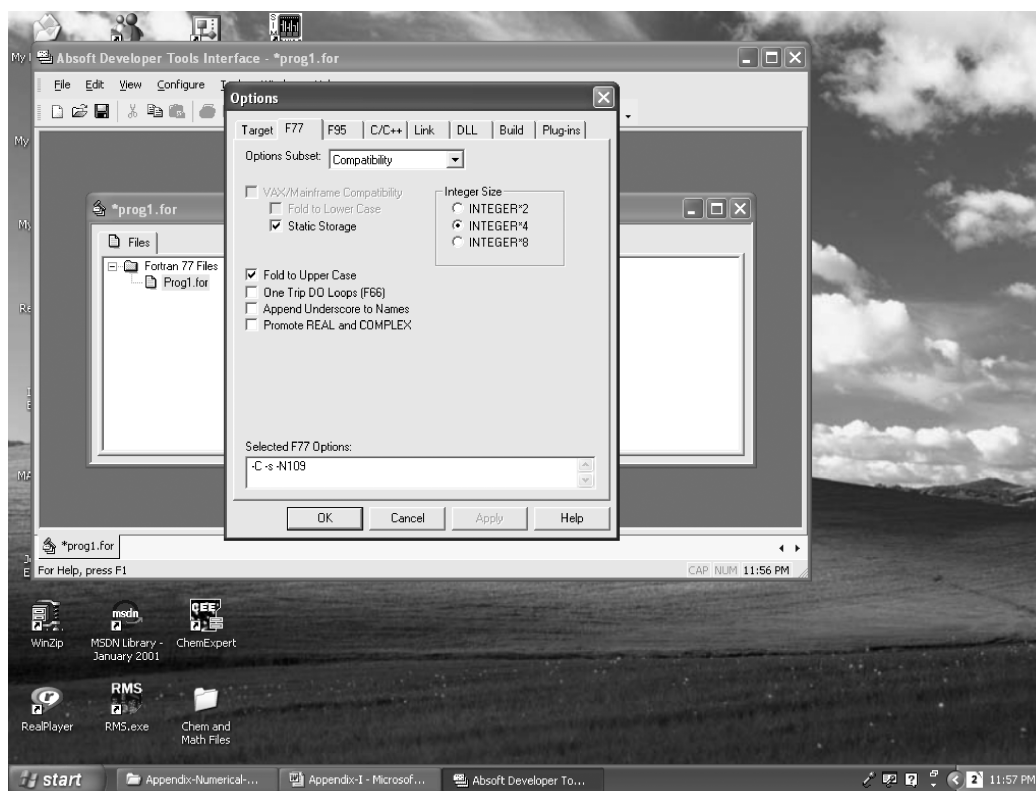
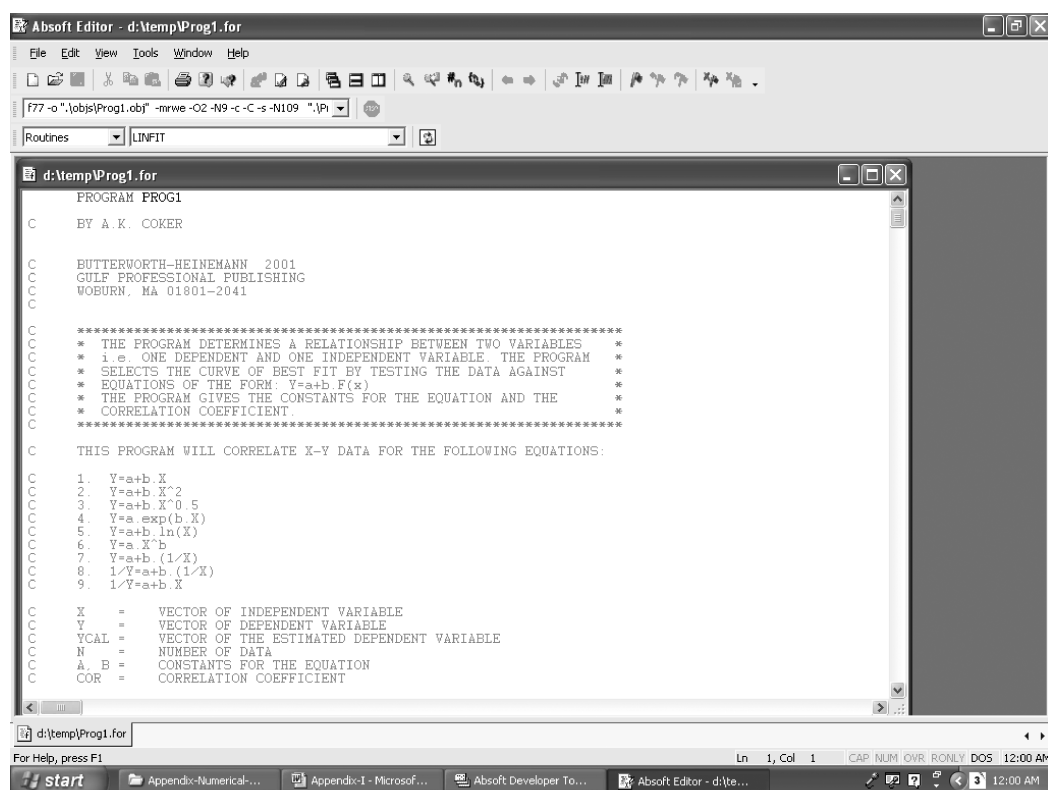


Figure I-7 f77 Compatibility Options.



```
PROGRAM PROG1
C
C BY A. K. COKER
C
C BUTTERWORTH-HEINEMANN 2001
C GULF PROFESSIONAL PUBLISHING
C WOBURN, MA 01801-2041
C
C *****
C * THE PROGRAM DETERMINES A RELATIONSHIP BETWEEN TWO VARIABLES *
C * i.e. ONE DEPENDENT AND ONE INDEPENDENT VARIABLE. THE PROGRAM *
C * SELECTS THE CURVE OF BEST FIT BY TESTING THE DATA AGAINST *
C * EQUATIONS OF THE FORM: Y=a+b F(x) *
C * THE PROGRAM GIVES THE CONSTANTS FOR THE EQUATION AND THE *
C * CORRELATION COEFFICIENT. *
C *****
C
C THIS PROGRAM WILL CORRELATE X-Y DATA FOR THE FOLLOWING EQUATIONS:
C
C 1. Y=a+b X
C 2. Y=a+b X^2
C 3. Y=a+b X^0.5
C 4. Y=a.exp(b.X)
C 5. Y=a+b.ln(X)
C 6. Y=a.X^b
C 7. Y=a+b.(1/X)
C 8. 1/Y=a+b.(1/X)
C 9. 1/Y=a+b.X
C
C X = VECTOR OF INDEPENDENT VARIABLE
C Y = VECTOR OF DEPENDENT VARIABLE
C YCAL = VECTOR OF THE ESTIMATED DEPENDENT VARIABLE
C N = NUMBER OF DATA
C A, B = CONSTANTS FOR THE EQUATION
C COR = CORRELATION COEFFICIENT
```

Figure I-8 Source code Window from Absoft Editor.

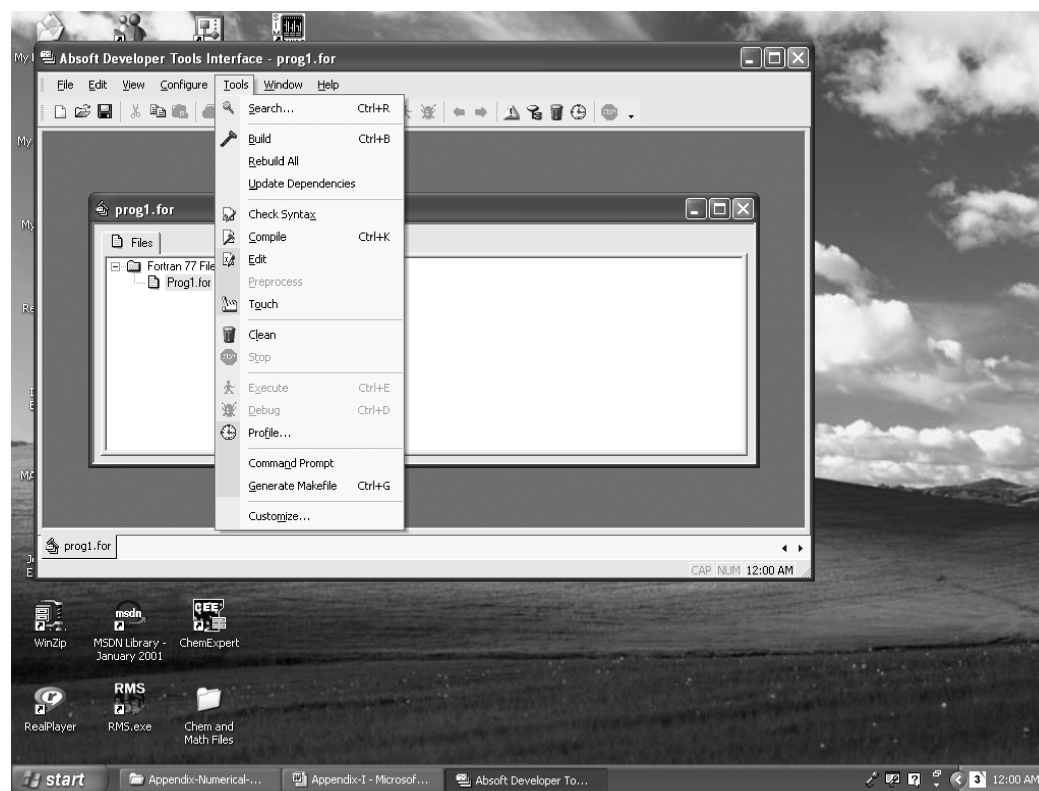
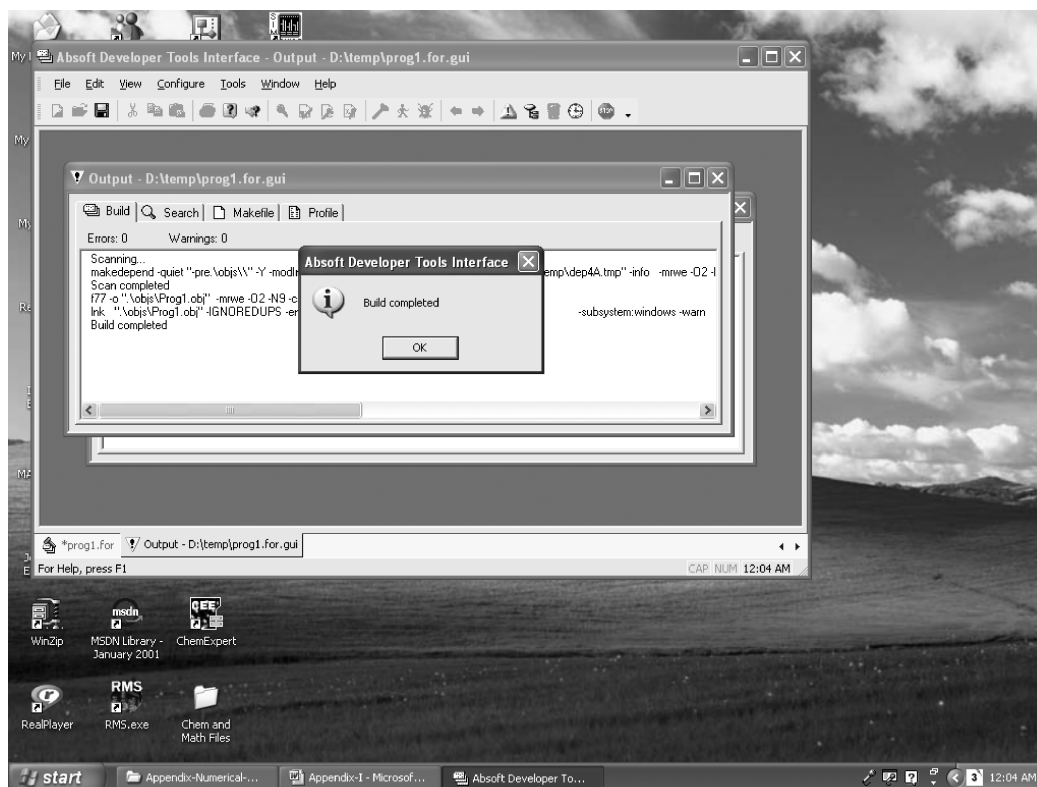
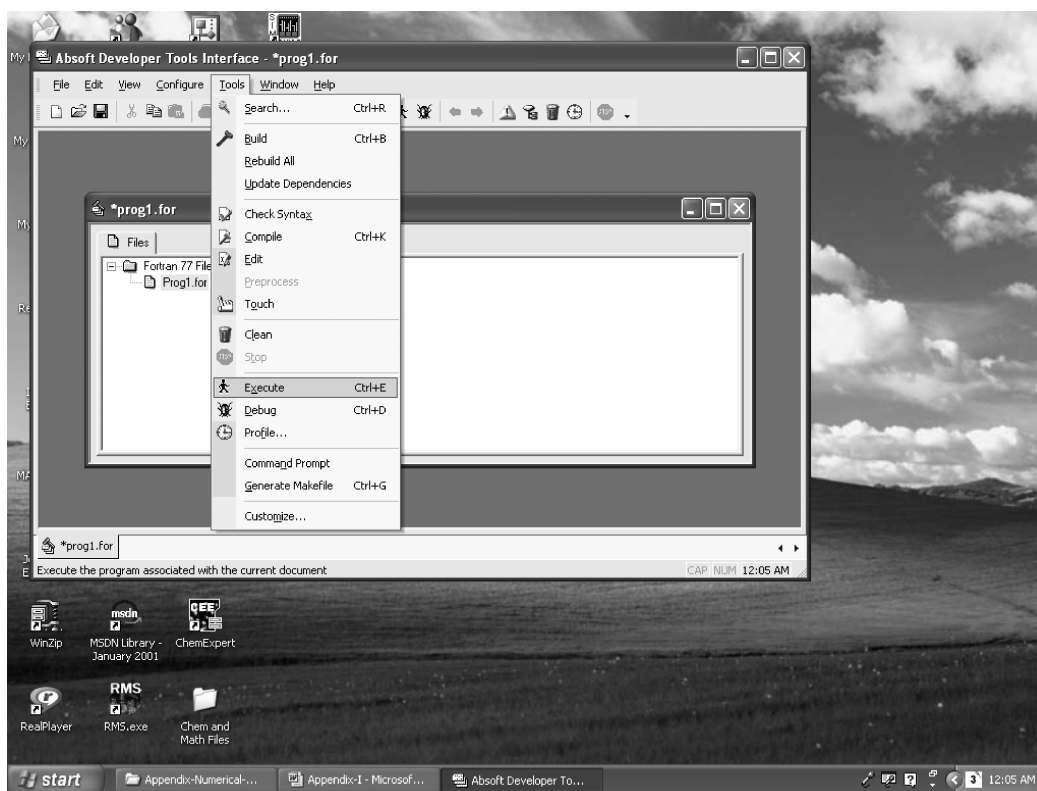


Figure I-9 Compiled source code from Tools submenu.

982 SCREENSHOT GUIDE TO ABSOFT COMPILER GRAPHICAL USER INTERFACE**Figure I-10** Errors and warning messages shown in the compiler output window.**Figure I-11** Execute the compiled source file from Tools submenu.

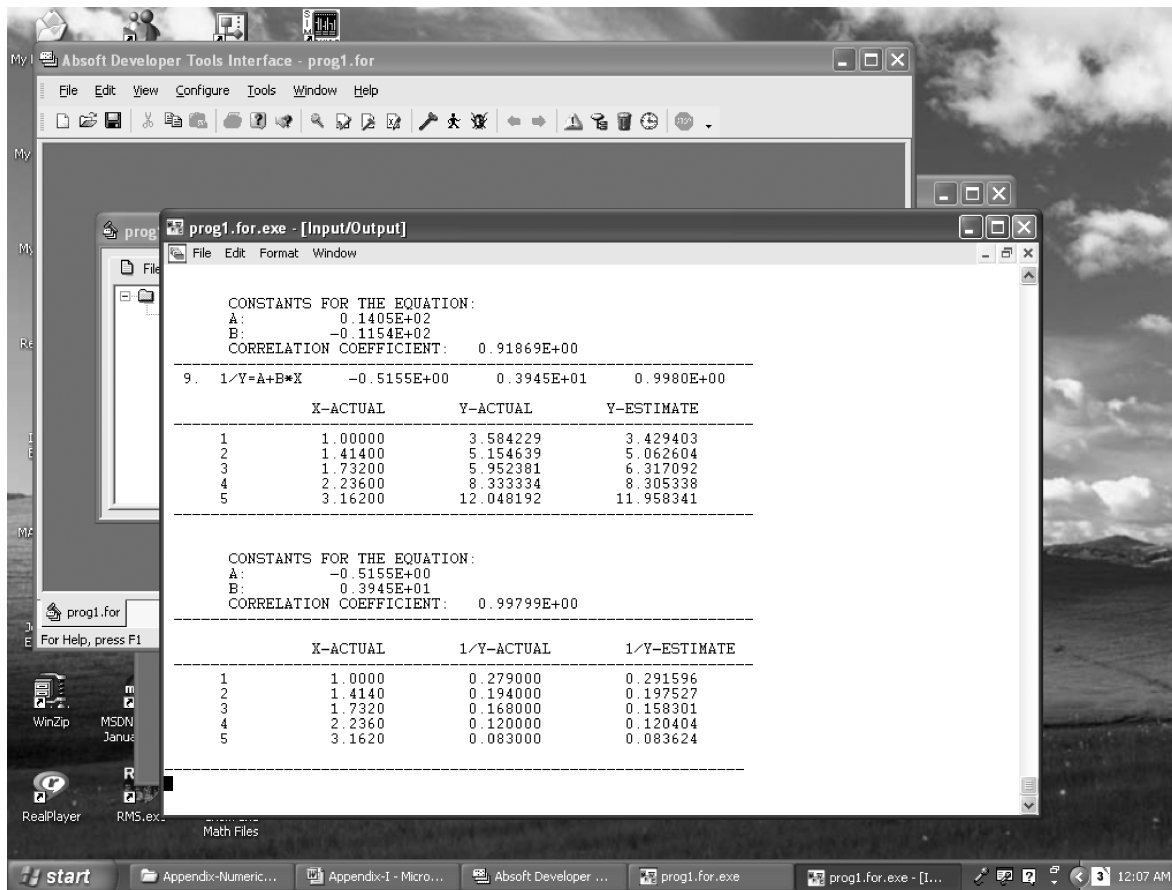


Figure I-12 Results of the compiled program.

What to do	How to perform task
1. Start up the interface to the compiler: Invoke the Absoft Developer Tools interface.	Select Programs from the Start menu, then select Compiler Interface from the Absoft Pro Fortran submenu. A windows appears entitled New Project windows, select a program file name (e.g. PROG1).
2. Set the options to create an MRWE application (a Windows program).	In the target type box, click on the MRWE application button; in the Options box, click the MRWE Events box. Then click on OK box.
3. Select the source file (e.g. PROG1.For) to compile	Click on Configure menu and select Add/Remove File(s) from the pull-down menu. Select the application source file from its folder (e.g. c:\absoft60), then add it to the Source File(s) Added box by clicking on the Add button. Click on the close box.
4. Select F77 compiler options	Click on Configure menu and select Set Options from the pull-down menu.
The options fall into five categories: General, Control, Compatibility, Miscellaneous, and Format.	Using General options subset, click on check Array Boundaries. Using Compatibility subset, click on Static storage and Fold to Upper Case boxes. Click on OK.
5. Invoke the Absoft compilers with all selected options and source files	Click on the Tools menu and Select Build from the pull-down menu. The Absoft compiler successfully compiles the source file and gives a message: "Build completed".

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| 6. Execute the compiled application. | Click on the Tools menu and select Execute from the pull-down menu. |
| 7. View/Print the result from Notepad, if the result file is created in the application | Click on Start menu, select programs, Accessories, Notepad in sequence. Click on file, select open from the pull-down menu. Select the absoft60 folder from the C directory. Select All files (*.*) from the File of type dialogue box. Double click on the result file (e.g. RES1). Click on Print menu to obtain a hard copy of the result. |
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The source codes and executable files of the various programs in the text are on the CD-ROM.

The Absoft Compiler can be purchased from

Absoft Corporation (www.absoft.com)