

Compiler Program #2

This time, you are to further extend the Pascal0 compiler by imparting it with the ability to generate the low-level p-Code for the following constructs:

- IF-THEN-ELSE
- REPEAT-UNTIL
- FOR-DO
- CASE
- WRITE
- WRITELN

A new compiler *shell* is located on the Web site, along with several test files to run your compiler against. There are four test cases and a “pre-modification” test case that should work correctly prior to making your modifications.

You may choose to extend any of the versions of the compiler provided. All versions work on the “pre-modification” test case. I recommend extending the Pascal version, but you may choose any currently available: Pascal, C, C++, C#, Java, Visual Basic, Bash, and PHP.

You must use the given test data to test your compiler and to show that it can catch the errors exploited by the error cases. Please, please, please **comment your modifications to the code**. It would be nice to see some comments before your additions or modifications such as “begin added/modified” followed by your additions or modifications followed by “end added/modified.”

Upload your modified compiler **source code** only (I do not need any of the test cases or compiler output) using the upload facility on the Web site.

NOTE: If you are extending a compiler that you’ve written in some language other than the ones provided above, please make sure that it includes an interpreter that executes the p-Code after compilation and prints the p-Code for a block immediately following its source (take a look at any existing version for examples). Also, do not turn in a compiler that does not compile! You will receive **NO CREDIT!** Do not turn in a compiler that does not work properly! Instead, see me during office hours **prior to the day the assignment is due** so that we may discuss any problems you are having.