# Running the virtual machine

We have used Google Code as our repository and the source code along with a precompiled set of binaries can be checked out from <http://dovmfool-vm.googlecode.com/svn/trunk/>.

This repository contains several folders:

* **VM**  
  Contains the source code for the entire project including support libraries. The project is made in Visual Studio 2008.
* **VMILTests**The test programs we have used to make sure the VM worked correctly. Obviously not comprehensive enough. A simple PowerShell script adding a few aliases is also included.
* **vmshl**Binaries for a release build of the project. The binaries are automatically copied to this location on compilation (both debug and release). The debug build contains several assertions to ensure integrity of the heap. The main executable is VMShell.exe. See next sub-section for usage.

The project is built on and requires .NET 3.5 which will likely already be installed on an updated Windows machine. The parser for our homemade language was implemented using the Garden Point parser and lexer generator found at <http://plas.fit.qut.edu.au/projects/>. The version we built against is included in **VM\** **GPPG\_GPLex\_Bin**, and it appears that our grammars are incompatible with the newer version available at the website.

## Executing VMShell.exe

Executing the program with no parameters will print the usage but for reference here is the syntax:

VMShell.exe [-InputFile] <filePath> [-Pauser] [-Swapper]

The InputFile parameter can be given by position where as the Pauser and Swapper parameters must be given by name. Specifying either Pauser or Swapper activates one of two different test modes. The Pauser mode will pause and resume all interpreters periodically; this mode was created to test functionality needed for garbage collection. The Swapper mode is the one shown at the presentation and will simulate attaching a debugger, stepping 20 times on each thread and detaching the debugger again; this mode was to test that the preparation build for debugging functioned[[1]](#footnote-2).

1. Debugging funtionality has not been completed unfortunately. [↑](#footnote-ref-2)