

**The Jack Compiler** is used for compiling Jack programs into VM code.

A **Jack program** is a set of one or more .jack files, each written in the Jack language. The program files must be stored in one folder, and the name of that folder is taken to be the program's name. To clarify: Even if your Jack program consists of one file only, e.g. Average.jack, you must put this single file in a program folder. The folder can have any name, although in this particular example a sensible name will be Average.

The **editor panel** enables loading a program folder. The Jack files in that folder can then be edited, compiled, and sent for execution. The editor panel also enables creating a new .jack file in the currently opened folder.

### **Loading a Jack program**

When loading a folder from the host file system, the compiler opens all the .jack files in that folder (in no particular order), and puts each file in a separate tab.

### **Files**

To edit a file, select a file tab, and edit its contents. Your changes will be autosaved. For more information about files handling, select the IDE's Settings and read the File System User Guide.

### **Compiling a Jack program**

All the open Jack files are compiled. If there is a syntax error, the compiler makes a best effort to catch and report it.

### **Running a Jack program**

Following successful compilation, the Jack program can be executed. To do so, click 'Run'. This action loads the compiled VM code (from all the files) into the VM emulator, and passes control to the VM emulator. The VM emulator can then be used to execute the compiled code.

### **Creating a Jack program**

Start by creating the program folder outside the IDE, using the host file system. Then use the IDE to open the folder and create/edit .jack files.

### **Bug / issue reports**

To report a bug or propose an improvement, click the *bug* icon. You will be asked to login to your GitHub account (if you have one).

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