Making a Mod

File system

Vavoom is now using a filesystem similar to the one of Quake.

The "game directory" is the first tree on the search path and directory that all generated files (savegames, screenshots, demos, config files) will be saved to. This can be overridden with the "-game" or "-devgame" command line parameter. "-devgame" option is used to put Vavoom into game development mode. This means that for some wad lumps Vavoom first tries to load them from files. In current version they are *levels*, *progs*, *scripts* and *textures*.

- maps/<level-name>.wad
- progs/<name>.dat
- scripts/<name>.txt
- textures/walls <- Hi-Res Textures for walls
- textures/flats <- Hi-Res Textures for flats
- textures/skies <- Skybox Textures
- textures/pics <- Hi-Res Textures for patches (menus, fonts, HUD, etc.)

For each game directory Vavoom searches for **base.txt** script file. It is used to setup the game directory on which this game is based on. It consists of a list of entries with the following format:

```
game <gamedir>
[iwad <iwad-file>]
[param <option>]
end
```

where

- *gamedir* – game directory of this game.
- *iwad-file* – main wad file needed for this game.
- *option* – when multiple iwad files are present this command line option can be used to force selection this game.

The entries are processed in backwards order.

If the "-game" and "-devgame" options are not used, the **basev/games.txt** script is used instead to detect the game. The format is the same as the **base.txt** script.

The game directory can never be changed while Vavoom is being executed. This is a precaution against having a malicious server instructing the clients to write files over areas they shouldn't.

WAD files are added in the following order:

1. main wad file;
2. for each game directory all the wad files in form *wad0.wad*, *wad1.wad* ... until one is missing;
3. files specified with "-file" option.

Progs

Terminology

VavoomC – this is the scripting language used for making progs.

progs – the code written in VavoomC sripting language, which is compiled inside virtual machine files that are executed

by Vavoom.

Getting the sources

The Progs sources are included in the following archives:

- v113_prog.zip – This archive contains both the progs sources and the compiler binaries. Mod makers working in DOS or Windows most likely will choose this package.
- v113_src.zip – Full Vavoom source code with progs as part of it. In Linux progs are compiled as a part of the build process.

The latest prog sources can be found in Vavoom SVN/Git repository.

Compiling Progs

Progs are compiled with vcc (VavoomC Compiler). It's located in *utils/bin*. vcc must be available on path. Add a directory called *utils/bin* to the path or put vcc in any other directory which is included in path or put it in the directory, where you will use it (it possibly will not work in Linux).

For each PROGS there is a Makefile. Simply run make.

Since version 1.29, Vavoom engine can compile progs inside the game, so compiling progs isn't required now, you can place the progs source inside a PK3 file in the 'progs' subfolder.

Mod setup

Follow these steps whenever you are creating a new mod:

1) Create a subdirectory in the Vavoom directory. This will be your game directory. For example:

```
mkdir mygame
```

2) From the *basev* directory copy **games.txt** into your game directory and rename it to **base.txt**. For example:

```
cp basev/games.txt mygame/base.txt
```

3) Edit **base.txt** and remove the detection of the games with which your mod will not work.

4) In your game directory create a progs directory. For example:

```
mkdir mygame/progs
```

5) For all the games but Doom2 copy the sources of that game's progs into this directory. For example:

```
cp -r progs/heretic/* mygame/progs
```

For Doom2 copy the sources of the Doom progs, then edit **doomdefs.vc** and at the top of the file add the following line:

```
#define DOOM2
```

You also need to copy the contents of the **common** directory into *<gamedir>/progs*:

```
cp -r progs/common/* mygame/progs
```