Getting Started

Let's have a look at what you need to download and install to start writing a game using PunyInform. For this article, I will be using Windows, but you can also use PunyInform on Mac or Linux.

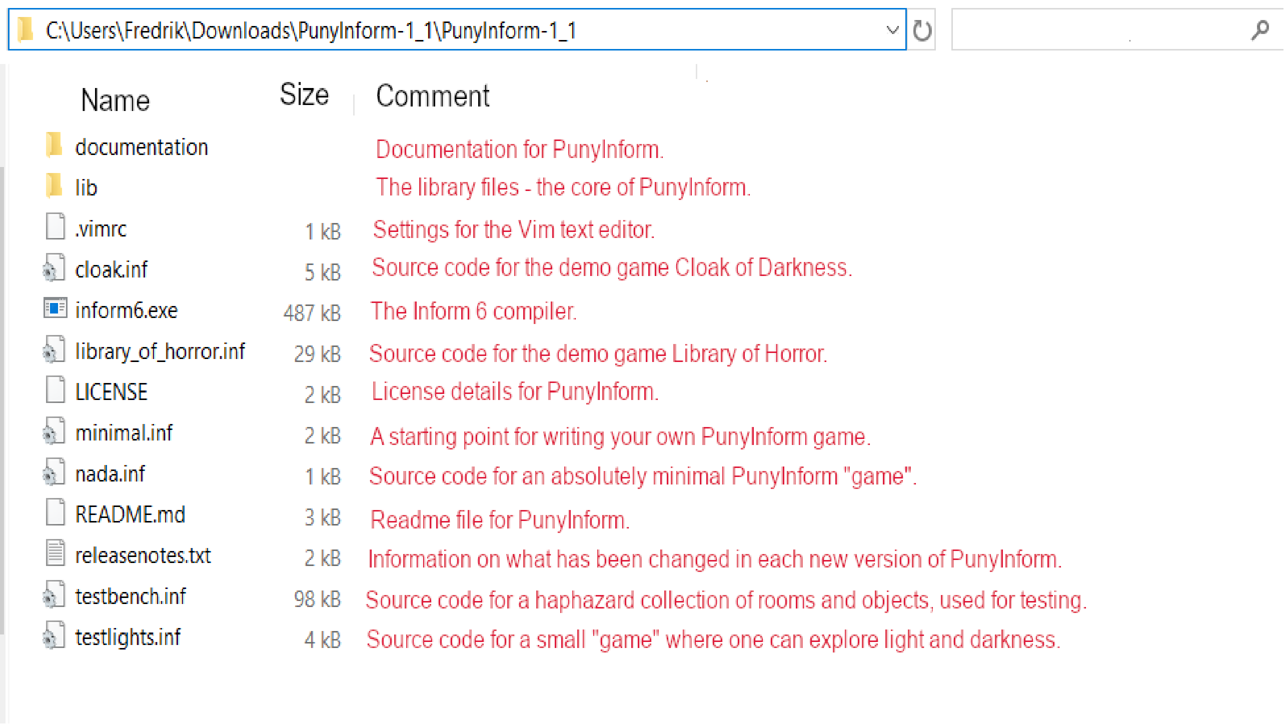
Step 1: Install the PunyInform library

Go to https://github.com/johanberntsson/PunyInform/releases and download the newest version of PunyInform (the version that comes first on the page) by clicking on "Source code (zip)" under Assets. When it has finished downloading, click on the Zip archive in your browser window to open the archive in Windows Explorer, click on "Extract All" near the top of the window, just below the menu bar. Pick a folder where you want to place the PunyInform files. Windows Explorer will probably suggest something like "C:\Users\MyUsername\Downloads\PunyInform-1_2\" and that should work fine. You can always rename and/or move the folder later.

Step 2: Get the compiler

PunyInform is a library for the Inform 6 programming language. To use it, you will need to download the compiler, called "inform" or "inform6". PunyInform requires at least version 6.34 of the compiler. If you use Windows, it's available as a binary executable, so you can just download it and start to use it. Go to http://www.ifarchive.org/indexes/if-archiveXinfocomXcompilersXinform6Xexecutables.html and download inform634_win32.zip . Open the Zip archive and extract the file (there is just one) in the base folder of PunyInform (the folder which has the subfolders "documentation" and "lib" in it).

This is what your PunyInform folder may look like now:



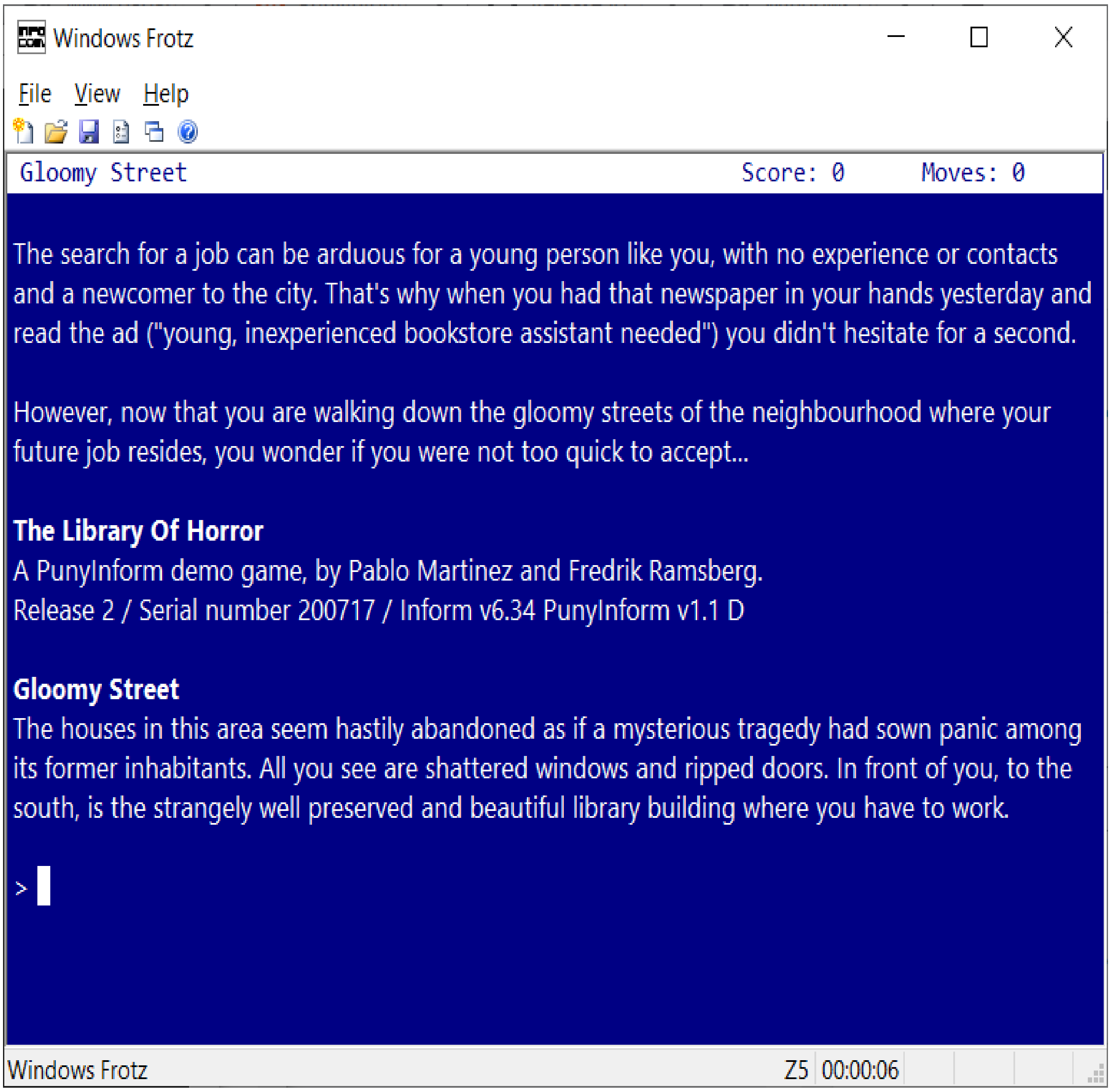
C:\Users\Fredrik\Downloads\PunyInform-1_1\PunyInform-1_1

Name	Size	Comment
documentation		Documentation for PunyInform.
lib		The library files - the core of PunyInform.
.vimrc	1 kB	Settings for the Vim text editor.
cloak.inf	5 kB	Source code for the demo game Cloak of Darkness.
inform6.exe	487 kB	The Inform 6 compiler.
library_of_horror.inf	29 kB	Source code for the demo game Library of Horror.
LICENSE	2 kB	License details for PunyInform.
minimal.inf	2 kB	A starting point for writing your own PunyInform game.
nada.inf	1 kB	Source code for an absolutely minimal PunyInform "game".
README.md	3 kB	Readme file for PunyInform.
releasenotes.txt	2 kB	Information on what has been changed in each new version of PunyInform.
testbench.inf	98 kB	Source code for a haphazard collection of rooms and objects, used for testing.
testlights.inf	4 kB	Source code for a small "game" where one can explore light and darkness.

Step 3: Install a Z-code interpreter

While the real selling point for PunyInform is that it allows you to write games that are fast enough and small enough to be played on 8-bits, the games produced will be equally playable on pretty much any computer, and you will soon find that you can do most of the testing on your modern PC. To do this you will need a *Z-code interpreter*.

PunyInform compiles Inform 6 source code to Z-code, a game format invented by the text adventure wizards at Infocom. A Z-code file is in fact a memory image for a virtual/imaginary computer called the Z-machine. While the Z-machine doesn't exist, it can be *emulated* on a wide array of platforms, including the 8-bit computers of the eighties, but also 16-bit computers like Commodore Amiga and Atari ST, as well as computers running MS-DOS, any flavour of Windows, Mac OS, Unix, Linux, Android – you name it. It just takes a Z-code interpreter (an emulator for the Z-machine) for that platform. There is a very popular interpreter called Frotz, which has been ported to many different platforms. For Windows, I recommend you get Windows Frotz.



```
Gloomy Street                              Score: 0      Moves: 0
```

The search for a job can be arduous for a young person like you, with no experience or contacts and a newcomer to the city. That's why when you had that newspaper in your hands yesterday and read the ad ("young, inexperienced bookstore assistant needed") you didn't hesitate for a second.

However, now that you are walking down the gloomy streets of the neighbourhood where your future job resides, you wonder if you were not too quick to accept...

The Library Of Horror
A PunyInform demo game, by Pablo Martinez and Fredrik Ramsberg.
Release 2 / Serial number 200717 / Inform v6.34 PunyInform v1.1 D

Gloomy Street
The houses in this area seem hastily abandoned as if a mysterious tragedy had sown panic among its former inhabitants. All you see are shattered windows and ripped doors. In front of you, to the south, is the strangely well preserved and beautiful library building where you have to work.

>

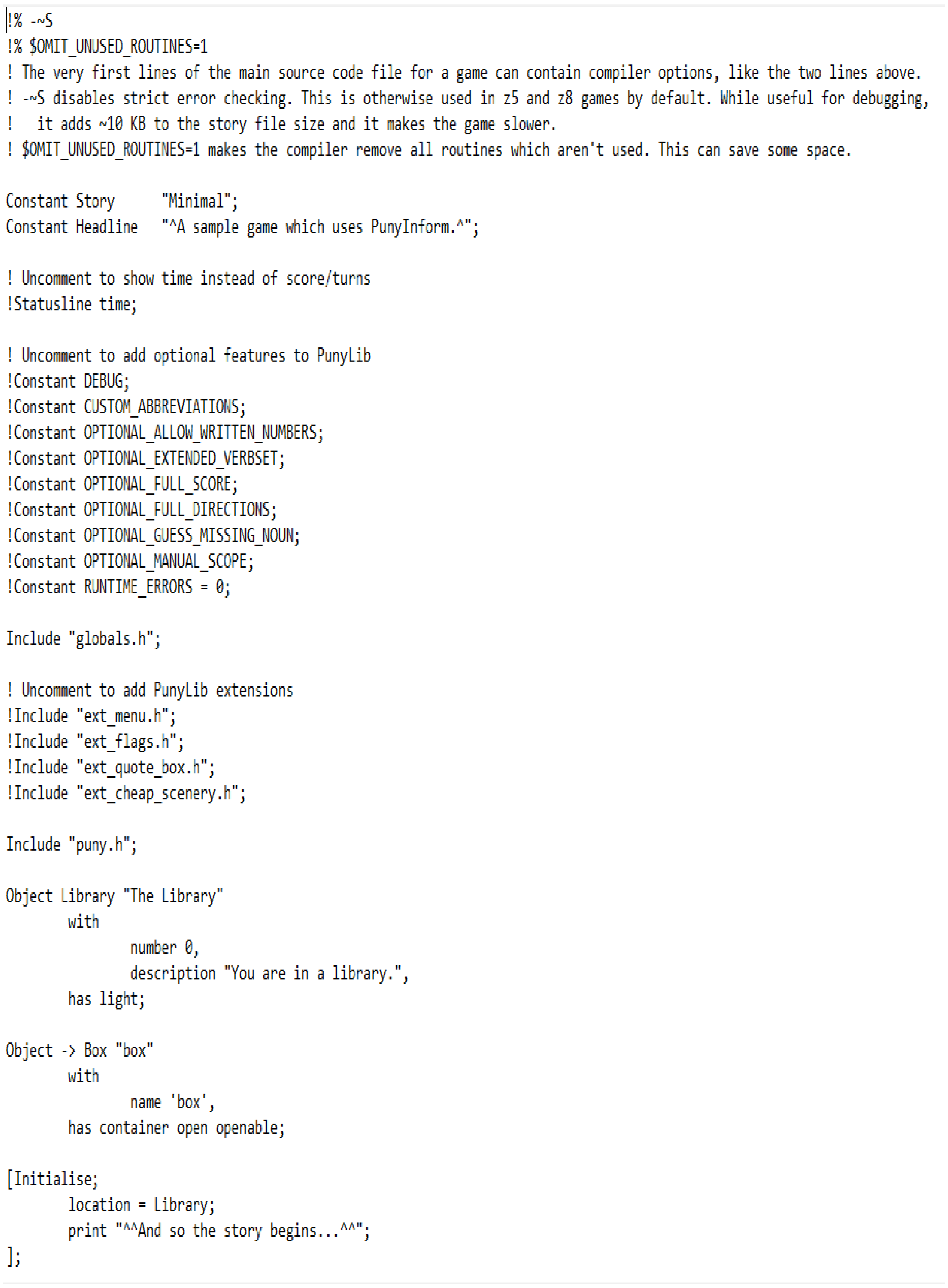
Go to http://www.davidkinder.co.uk/frotz.html , download Windows Frotz and run the installer. Then start Windows Frotz once, to make sure it has set file type associations properly.

Step 4: Start writing your first game

In Windows Explorer, make a copy of the file minimal.inf and call it mygame.inf .

Then open mygame.inf in Notepad (or some text editor you prefer – if you want something really nice, you can get the Atom text editor and install the package “language-inform6” under File -> Settings).

The file mygame.inf should now look something like this:



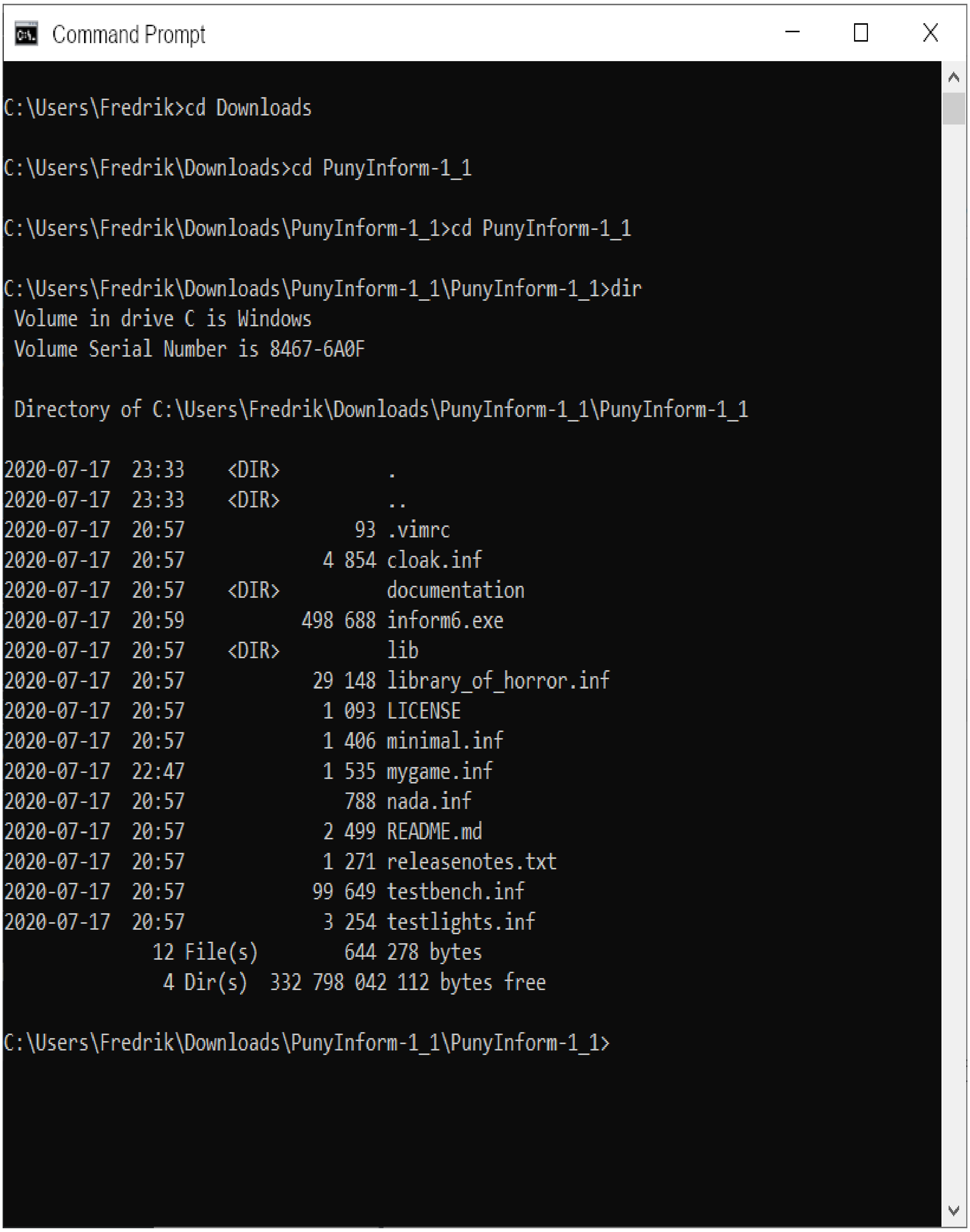
```
!% -~S
!% $OMIT_UNUSED_ROUTINES=1
! The very first lines of the main source code file for a game can contain compiler options, like the two lines above.
! -~S disables strict error checking. This is otherwise used in z5 and z8 games by default. While useful for debugging,
!   it adds ~10 KB to the story file size and it makes the game slower.
! $OMIT_UNUSED_ROUTINES=1 makes the compiler remove all routines which aren't used. This can save some space.

Constant Story      "Minimal";
Constant Headline   "^A sample game which uses PunyInform.^";

! Uncomment to show time instead of score/turns
!Statusline time;

! Uncomment to add optional features to PunyLib
!Constant DEBUG;
!Constant CUSTOM_ABBREVIATIONS;
!Constant OPTIONAL_ALLOW_WRITTEN_NUMBERS;
!Constant OPTIONAL_EXTENDED_VERBSET;
!Constant OPTIONAL_FULL_SCORE;
!Constant OPTIONAL_FULL_DIRECTIONS;
!Constant OPTIONAL_GUESS_MISSING_NOUN;
!Constant OPTIONAL_MANUAL_SCOPE;
!Constant RUNTIME_ERRORS = 0;

Include "globals.h";

! Uncomment to add PunyLib extensions
!Include "ext_menu.h";
!Include "ext_flags.h";
!Include "ext_quote_box.h";
!Include "ext_cheap_scenery.h";

Include "puny.h";

Object Library "The Library"
        with
                number 0,
                description "You are in a library.",
        has light;

Object -> Box "box"
        with
                name 'box',
        has container open openable;

[Initialise;
        location = Library;
        print "^^And so the story begins...^^";
];
```

Now change the text in the line which starts with *Constant Headline* (Line 9 from the top). Change *A sample game* to *This is my first game* or something else you find amusing. Save the file.

Step 5: Compile the game

Start a command prompt (In Windows 10, click the Windows Start icon on the Windows menu bar and type *cmd* , then click on Command Prompt.)

Now use the command CD to go to the base folder of PunyInform. If it’s on a different device, you can type the device letter and “:” to switch to that device first, like *D:* and then CD to go to the right folder. *CD ..* goes up one level and *CD * (that’s a backslash character) goes to the root folder on the current device. If you start writing a folder name, you can press the TAB key multiple times to see all files and folders with a matching name. Use DIR to list the files in the current folder.



```
C:\Users\Fredrik>cd Downloads

C:\Users\Fredrik\Downloads>cd PunyInform-1_1

C:\Users\Fredrik\Downloads\PunyInform-1_1>cd PunyInform-1_1

C:\Users\Fredrik\Downloads\PunyInform-1_1\PunyInform-1_1>dir
 Volume in drive C is Windows
 Volume Serial Number is 8467-6A0F

 Directory of C:\Users\Fredrik\Downloads\PunyInform-1_1\PunyInform-1_1

2020-07-17  23:33    <DIR>          .
2020-07-17  23:33    <DIR>          ..
2020-07-17  20:57                93 .vimrc
2020-07-17  20:57             4 854 cloak.inf
2020-07-17  20:57    <DIR>          documentation
2020-07-17  20:59           498 688 inform6.exe
2020-07-17  20:57    <DIR>          lib
2020-07-17  20:57            29 148 library_of_horror.inf
2020-07-17  20:57             1 093 LICENSE
2020-07-17  20:57             1 406 minimal.inf
2020-07-17  22:47             1 535 mygame.inf
2020-07-17  20:57               788 nada.inf
2020-07-17  20:57             2 499 README.md
2020-07-17  20:57             1 271 releasenotes.txt
2020-07-17  20:57            99 649 testbench.inf
2020-07-17  20:57             3 254 testlights.inf
              12 File(s)        644 278 bytes
               4 Dir(s)  332 798 042 112 bytes free

C:\Users\Fredrik\Downloads\PunyInform-1_1\PunyInform-1_1>
```

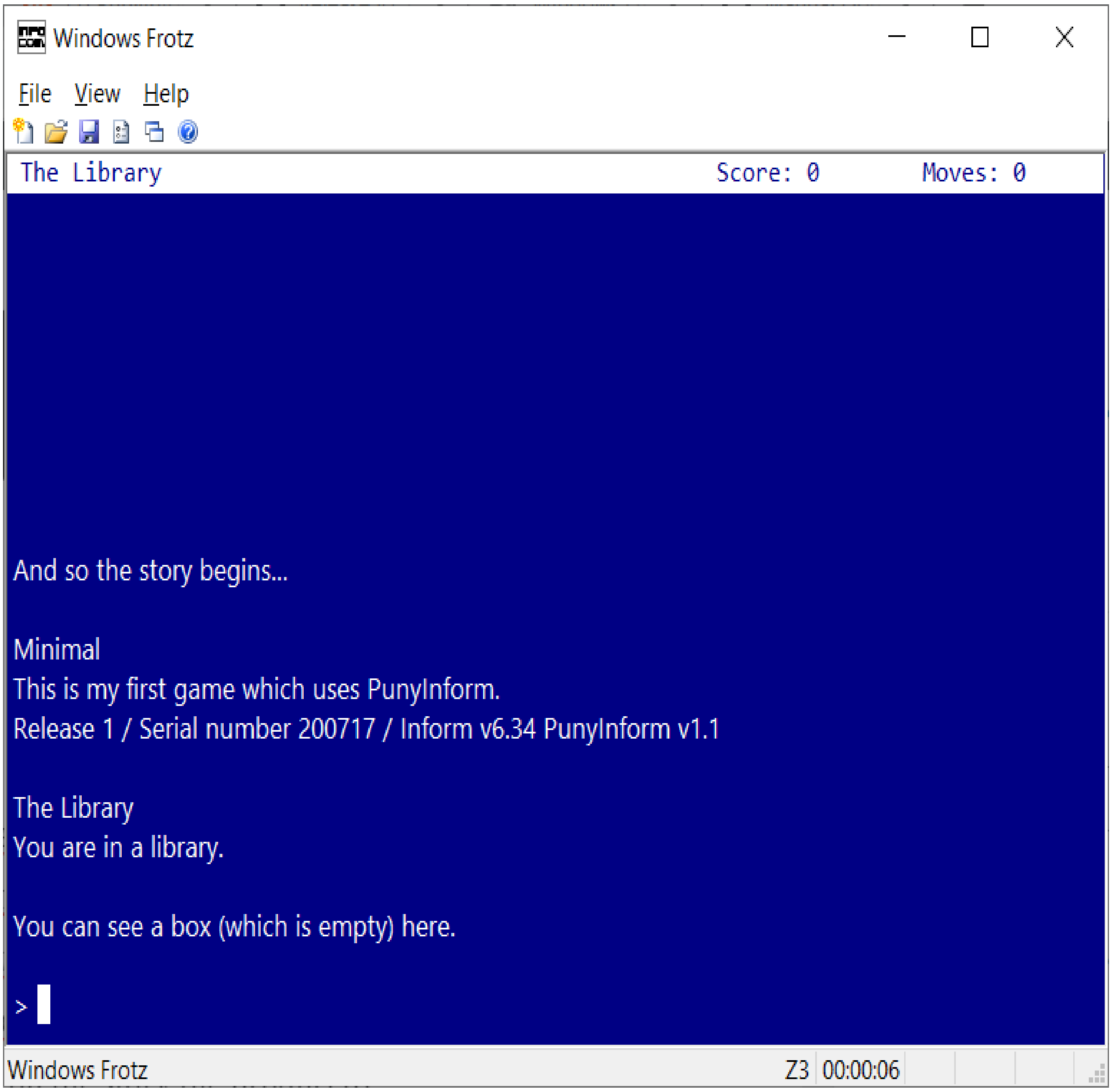
Now, to compile your source code, type:

inform6 -v3 +lib mygame

This tells the Inform 6 compiler to read the source code in mygame.inf and compile it into a Z-code version 3 file (a so-called “story file”) called mygame.z3, and to look for library files in the folder *lib*. There are many more commandline switches available for the Inform 6 compiler. To list them all, type *inform6 -h2* . Most of the time, when using PunyInform, I find myself using the commandline switches -e (to use string abbreviations, making the story file smaller) and -s (to print some statistics on the story file produced).

Step 6: Start your game in Windows Frotz

Now use Windows Explorer to go to the PunyInform base folder. You should see mygame.z3 there. Double-click it. The game should now launch in Windows Frotz.



```
The Library                                     Score: 0           Moves: 0
```

```
And so the story begins...

Minimal
This is my first game which uses PunyInform.
Release 1 / Serial number 200717 / Inform v6.34 PunyInform v1.1

The Library
You are in a library.

You can see a box (which is empty) here.

>
```

Step 7: Turn your game into a C64 disk image

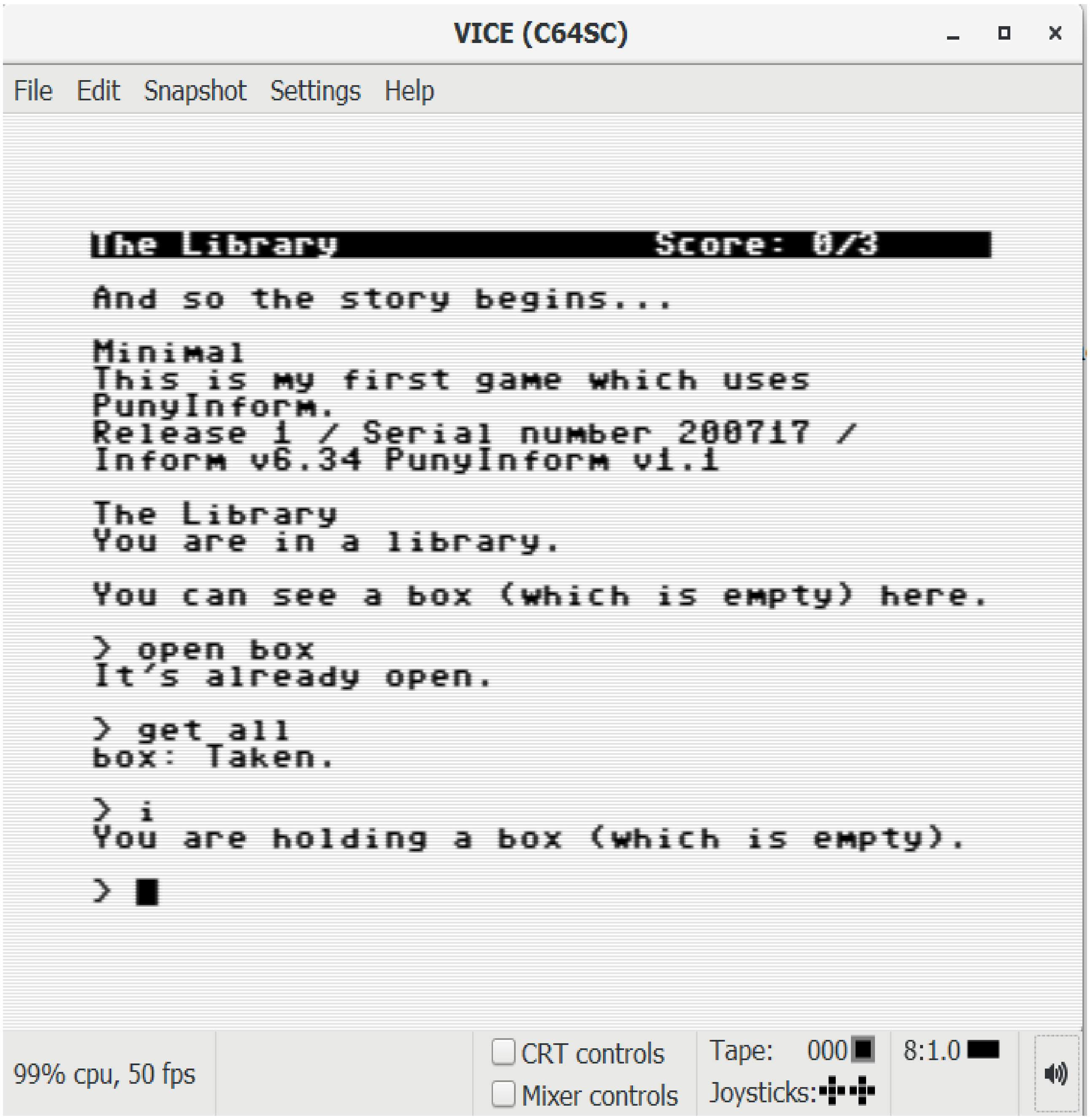
Now let's make a Commodore 64 version of your game. To do this, we will bundle the story file with a Z-code interpreter called Ozmoo. Go to http://microheaven.com/ozmooonline/ . Under "Upload Z-code file", pick the file mygame.z3 and click "Upload".

Then, under Build game, make sure the story file mygame.z3 is selected, then scroll to the bottom of the page and click "Build". If all goes well, you get a message that the game was successfully built, and under Files you can see mygame.d64. Click on the filename to download the file.

Step 8: Test your game on an (emulated) C64

If you don’t have a Commodore 64 emulator installed already, this should get you going.

Download WinVICE from https://vice-emu.sourceforge.io/index.html#download and unzip it in a folder of your choice. You may need to install 7-Zip to unzip WinVICE. Then go to this folder in Windows Explorer and double-click *x64sc.exe* . Click File -> Attach disk image -> Drive #8 and point to mygame.d64. Then type *load”*”,8* and press enter. If you get tired of the (realistic) loading time, you can press Alt-W to toggle warp mode (maximum speed). When the game has finished loading, make sure warp mode is turned off, type *run* and press enter. The game now decompresses and then it starts.



```
The Library                    Score: 0/3

And so the story begins...

Minimal
This is my first game which uses
PunyInform.
Release 1 / Serial number 200717 /
Inform v6.34 PunyInform v1.1

The Library
You are in a library.

You can see a box (which is empty) here.

> open box
It's already open.

> get all
box: Taken.

> i
You are holding a box (which is empty).

> █
```