

# **Frotz**

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**COLLABORATORS**

	<i>TITLE :</i> Frotz		
<i>ACTION</i>	<i>NAME</i>	<i>DATE</i>	<i>SIGNATURE</i>
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# Chapter 1

## Frotz

### 1.1 Frotz 1.01 Amiga Release 3

Frotz 1.01 Standard 0.2 Infocom Interpreter  
Written by Stefan Jokisch in 1995  
Amiga Version (Release 3) by David Kinder

Introduction  
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### 1.2 Introduction

Frotz is an interpreter for the games produced by Infocom, Inc., which were released in a machine-independent format. On all platforms the games were released as a data file plus an interpreter, so this program can be used to play Infocom games released for any platform. Frotz is the fastest and most accurate Infocom interpreter currently available for the Amiga. Kickstart 2.04 or higher is required.

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Infocom's games can be grouped into several basic formats, each descended from the previous one. Those that Frotz can interpret are:

v1 and v2 The earliest games, released in 1979-80.

v3 Most Infocom games were in this format, from "Zork 1" to "Stationfall".

v4 Designed for the (then) new 16 bit micros, v4 games were much larger than v3 games. "Trinity", "A Mind Forever Voyaging", "Bureaucracy" and "Nord and Bert" were released in this format.

v5 The format was extended again for "Beyond Zork", "Border Zone" and "Sherlock".

Frotz cannot interpret the v6 "graphical" adventures which Infocom released ("Arthur", "Journey", "Shogun" and "Zork Zero"). Since Infocom ceased to exist there has been much effort put into understanding the Infocom format, and the compiler "Inform" has been written by Graham Nelson which can produce adventure games in this format. Later releases of Inform have introduced two new formats, allowing for even larger games. These are v7 and v8, and such games can also be interpreted by Frotz. For more information, see the

I-F Archive

. Frotz conforms to the Z-Machine Standard 0.2, which defines exactly the required behaviour of an Infocom interpreter.

## 1.3 Installation

Frotz needs the following standard libraries:

asl.library Used for file, font and screen mode requesters.

amigaguide.library Optional, used to provide access to this document from within Frotz.

The following non-standard libraries are also used by Frotz, but are not essential:

bgui.library Layout library used for the preferences window. At least v40 is required. The library can be in either LIBS: or a "libs" sub-directory of the directory containing Frotz.

reqtools.library Used in preferences for its palette requester.

## 1.4 Starting Frotz

From Workbench:

Frotz can be started with a game file by clicking on the Frotz icon and then shift double clicking on the game file icon. Alternatively, if the game file's default tool has been set to where Frotz is, double clicking on the game file icon will load Frotz and run the game.

If Frotz is started without a game file, it will search directories chosen by the user in the

preferences

window for valid Infocom games. To speed up

searching, files are ignored unless their name matches the AmigaDOS pattern (~(#?.#?)|#?.(dat#?|z?)). This means that only files with no extension, or files ending with .data (Amiga story files) or .dat (IBM PC story files) or .z3,.z4,.z5,.z7 or .z8 (files produced by the Infocom format compiler Inform) are scanned. If Frotz cannot find one of the directories specified, the directory will not be searched and no "Please Insert Volume..." requester will appear.

After searching is complete, a list of all the games found will appear. Click on the game you want to play and it will load and run. If you click on a game while holding down the shift key a requester will appear indicating the name of the game, its release and serial numbers, and the full path to the game file. At the bottom of this list is a "Select with File Requester" gadget. Clicking on this gadget opens a file requester with which you can select the game to play. This file requester will also appear if no directories have been chosen in preferences, or no games were found.

If Frotz finds the icon "Icon.Data", it will give all saved games this icon.

From the Shell:

The simplest use is to just pass the full filename of the game file to Frotz, i.e.

```
Frotz <game file>
```

From the shell the following switches can also be used:

```
-c # Set the number of context lines to keep when scrolling.
-r # Set the right margin.
-u # Set the number of undo slots for multiple undo
    (see
      using Frotz
    ).
-o Monitor object movement.
-O Monitor object locating.
-a Monitor attribute assignment.
-A Monitor attribute testing.
-t Set the
    Tandy
    flag.
```

## 1.5 The Tandy Flag

Some early Infocom games were licensed to the Tandy Corp. Turning on this flag causes slight changes to the text in some early games. (Most obviously, an extra line appears in the version information.)

## 1.6 Using Frotz

The text being input to the game can be edited using backspace, ← delete, and the left and right cursor keys. The shifted cursor keys move the cursor to the beginning and end of the current line, respectively. A history buffer stores the last twenty input lines; use cursor up and down to scroll through the history, and shift cursor up and down go to the top and bottom of the history, respectively.

The interpreter correctly passes function keys, numeric keypad keys, mouse clicks and the escape key to the game. The functions keys are used in "Beyond Zork" to select pre-defined commands; in the same game the keypad and the mouse are used to enter directions. The escape key is used by Inform compiled games to step back through the help menus.

The following keys have a specific function:

- Help Brings up this document, provided that the amigaguide.library is available.
- Alt r Toggle recording of the input to a file.
- Alt p Play back the input recorded with Alt r.
- Alt s Seed the random number generator. Useful for debugging.
- Alt u Undo the last turn (even for old V1 to V4 games). The number of times that undo can be consecutively performed can be set with the -u option (see starting Frotz ).

The following menus are also available:

- Project Menu
  - Prefs Opens the preferences window.
  - Help Brings up this document, provided that the amigaguide.library is available.
  - About Opens the help requester, with information about both the interpreter and the game (if Frotz has

recognised the game). Frotz knows of all the released Infocom games, and others can be added.

Quit Immediately exits Frotz.

Game Menu Provides shortcuts for typing in often used file commands in the game, e.g. "Save". This menu also includes an option change the state of the Tandy flag.

Commands Menu Provides shortcuts for typing in often used game commands, e.g. "Look".

## 1.7 Preferences

The preferences window contains three panels, each with a related set of options. The tab gadget at the top of the window shows the active panel and allows switching between them. The panels are:

Display  
Screen and window settings.

Startup  
Workbench startup options.

Games  
Additional games recognised by Frotz.

Below the panels are gadgets which change the preferences and close the window. These are:

Save

Saves the preferences to the file "Frotz.prefs", in both the ENV: and ENVARC: directories. The preferences are stored permanently in the latter directory. After saving, Frotz will try to reset the game, in order to put the new preferences into effect. However, this is not always possible. If Frotz cannot reset automatically, enter the standard game command "restart" as soon as is possible.

Use

This button is similar to Save, except that the preferences are only written to ENV:, so that the preferences are temporary and will be lost when the computer is reset.

Cancel

This ignores any changes made and reverts back to the previous preferences.

---



## 1.8 Preferences - Display

### Custom Screen

If this check box is selected, Frotz will open a custom screen. If it is not selected, Frotz will open a window on the Workbench screen.

### Save Window

If this is selected and Frotz is running on the Workbench screen, then when preferences are saved Frotz will save the current window size and use that size in future.

### Screen Mode

Clicking on the arrow to the right of this gadget will bring up a screen mode requester, allowing the screen mode that Frotz will use for its custom screen to be changed. This requires that asl.library v38 or higher (i.e. Workbench 2.1 or higher) be installed.

### Screen Font

This determines the default font of Frotz's custom screen.

### Text Font

This determines the font which Frotz uses for most of the game text. It may be either a fixed width or a proportional font.

### Fixed Font

This determines the font which Frotz uses when the game requests a fixed width font.

Note that both fonts must have the same height.

### Left and Right Margins

These two gadgets set the size of the margins used for the game text. The margins are measured in terms of one fixed font character width.

### Right Jusification

If this check box is selected, then proportional text will be justified so that it is flush with both the left and right margins. Note that on slower machines this will cause a significant performance loss.

### Colour

This pop-up gadget determines how colour is handled when Frotz is running on a custom screen. Colour can be disabled for all games, enabled for "Beyond Zork" only, or enabled for all V5 or higher games.

### Choose

If Frotz is running on its own screen, this button opens the palette

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requester in reqtools.library (if available). This allows the default screen colours (i.e. the first four) to be altered.

Also associated with this page is the "Reset" menu. This allows the above items to be reset back to the default.

## 1.9 Preferences - Startup

This panel controls which directories are searched for Infocom ←  
games when

Frotz is started from the Workbench. The cycle gadget at the top of the panel determines whether what is displayed below relates to the directories to be searched or those to be excluded.

### Search Directories

At startup, these directories and any sub-directories they contain are searched for games which Frotz recognises (see the  
games  
panel for adding  
games to those which Frotz recognises). The directories are searched in the order they are shown in the list view gadget. To change the order, click and hold down the mouse button over an entry in the list view, and drag it to where it should go (a dashed line will appear in the list view to indicate where the entry will be dropped).

### Exclude Directories

When Frotz is searching directories, there may be certain sub-directories which Frotz does not need to enter (for example, those containing sound data files). If the name of a directory Frotz is about to search appears in this list, it will not be searched. Note that the entries should be full path names, e.g.

Work:Games/Infocom/Sound  
and not DH1:Games/Infocom/Sound

New entries can be added to either the search or the exclude lists, either by entering the directory name in the string gadget beneath the list view, or by clicking on the Get Path gadget immediately to the right of the string gadget. This opens a directory requester from which a directory can be selected. Entries can be deleted from either list by selecting the entry then clicking on the Del gadget.

## 1.10 Preferences - Games

Frotz contains a list of all the released Infocom games, allowing it to recognise them for the startup list and to display information about them in the "About" requester. This panel allows Frotz to recognise new games, the information for which is stored in the file "Infocom.games", which is kept in the same directory as Frotz. This is a text file, the format of which is given by the following example:

```
[Theatre]      <- The name of the game, enclosed in [].
Author=Brendon Wyber    <- The game's author, optional.
1 / 950721          <- A list of the release and serial numbers
2 / 951203 / $A9FD      for each version of the game, and also
                        the checksum (optional).
```

In this panel, the list view on the left shows all the games found in the current "Infocom.games" file. Clicking on a game causes the name and author to appear in the string gadgets to the right. Below these gadgets are three buttons, with the following functions:

#### Add

Adds the game currently loaded to the "Infocom.games" file, by appending a string (in the format shown above) containing the release number, serial number and checksum to the entry for the currently selected list view. Thus, to add a new version of a game which already has an entry in the list view, select the game, then click on this button. A request will appear indicating the action that has been performed.

#### New

Adds a new game to the list view, using the game name and author in the string gadgets on the right of the panel, i.e. to add a new game, enter its name and author in the string gadgets, then click this button. This will write an entry in "Infocom.games", e.g.:

```
[Theatre]
Author=Brendon Wyber
```

The Add button must still be used to add the details of each version into "Infocom.games".

The easiest way to add a new game is to start Frotz with the game, enter the name and author in the string gadgets, select New, and then (since the new entry is automatically selected in the list view) select Add.

#### Del

Deletes the game selected in the list view, if any.

Note that unlike the other panels, this panel does not contain any settings stored in "Frotz.prefs". When any of the three buttons described above are selected, the changes are immediately written out to "Infocom.games".

## 1.11 Special Features

### Graphics

The graphics characters used in "Beyond Zork" are built into Frotz, so no extra files are required to play. To ensure that the graphics appear correctly, Frotz always uses a non-proportional 8 point font to play "Beyond Zork".

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## Colour

If Frotz is running on a custom screen, colour in games is supported. This requires Frotz to open a 16 colour screen (as opposed to the usual 4 colour screen), which may result in a slowing down of Frotz, depending on your system. Due to this, colour is disabled by default, and must be enabled from within

```
preferences
```

```
. "Beyond Zork" is supported as a special case, since  
this game forces changes to the background colour of the entire screen.
```

Note that in non-colour mode, Frotz represents "reversed" text as white on blue, as this is more readable, but in colour mode the text really is reversed.

## Sound

The sound files which were released with both the Amiga version of "The Lurking Horror" and the Amiga and Macintosh versions of "Sherlock" are supported by Frotz. Also supported are versions of these sound files which were prepared by Stefan Jokisch for use with IBM PC sound cards. This last set of files can be downloaded from the

```
I-F Archive
```

```
.
```

As distributed by Infocom, the sound files were stored in a sub-directory "Sound" of the directory where the game file was kept. However, some of the sound files from the two different games have the same name. For this reason, Frotz looks first for the sound files in the sub-directories "LurkingHorrorSound" or "SherlockSound" (depending on the game), and then in "Sound".

Note that some game files (particularly those released for the PC) do not contain the required instructions for playing the sound files, so to get the sound effects a suitable (i.e. Amiga or Macintosh) game file is required, as well as the sound files. "The Lurking Horror" releases 219 and 221 contain the sound instructions, as does "Sherlock" release 26 (see the release and serial numbers displayed when the game is first started).

## Input and Output

Frotz supports the timed input of "Border Zone", which has an internal clock that runs in real-time, i.e. events take place even if you do not type in any instructions. Frotz also supports the accented characters used in the unreleased German version of "Zork 1".

In "Beyond Zork", some location descriptions can occasionally be longer than the upper window will allow. In this case Alt Cursor Up and Alt Cursor Down can be used to scroll the description.

## 1.12 FrotzStdIO

Accompanying Frotz is "FrotzStdIO", a version of Frotz which uses only standard input and output (i.e. a shell window). This allows Frotz to take input from a file, or to be used over a network. In the latter case, the

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output terminal must support ANSI 3.64 character sequences.

FrotzStdIO can only be run from the shell, and its operation controlled only by command line switches. In addition to the switches available in Frotz, the following extra switches are available:

- f Sets the foreground pen to be used for all text. The default is 1 (which is usually what the shell uses, and is usually black).
- w Sets the screen width in characters. FrotzStdIO cannot determine the screen dimensions for any given output (Indeed, if the output stream is a file, there is no concept of a screen.), so this and the following switch must be used to obtain the required display size. The default is 77.
- h Sets the screen height in characters. The default is 21.
- C Normally CTRL-C will exit FrotzStdIO. If this switch is used, the CTRL-C signal is ignored.
- S This switch can be used to limit the input and output capabilities of FrotzStdIO. Whatever text follows the switch will be used for saving and restoring games, e.g.  
  
    -Susername.save  
  
and all other file operations will be disabled.
- T This switch limits the length of time for a game session. If specified it must be followed by the maximum number of minutes the session may last.

## 1.13 History

Amiga Release 3 (Frotz 1.01)

- o Added FrotzStdIO, a version of Frotz which uses only standard input and output.
  - o Improved display preferences:
    - o Frotz can save the size of its Workbench window.
    - o The screen font can be selected independently of the other fonts.
    - o Left and right text margins can be selected, and the game text can be right justified.
    - o The default screen colours can be changed with a palette requester.
    - o A "Reset" menu has been added, to allow the items in the display section of preferences to be reset back to the default.
  - o Corrected an error which meant that sometimes Frotz did not properly declare its supported features to the game.
  - o Reverse mode text really is reversed in colour mode, rather than being white on blue.
-

- o The hotkeys (Alt p for playback, etc.) now work with any keyboard.
- o New icons (courtesy of Erskin Cherry).

#### Amiga Release 2 (Frotz 1.01)

- o Proportional font support. The game text can now be in any font, with a fixed width font being used for the status line and anything which the game considers suitable for a fixed width font, e.g. maps.
- o Colour support. If Frotz is using a custom screen, games which include colour information (Beyond Zork, Jigsaw) are handled correctly.
- o Better Workbench startup. When started from Workbench, Frotz will now search directories (specified in the preferences window) for Infocom games, and will display a list from which a game can be selected. In addition to the released Infocom games which Frotz knows about, an additional file "Infocom.games" is used to allow Frotz to recognise new Inform games.
- o Better window handling. As well as using a custom screen, Frotz can run in a resizeable Workbench window.
- o Better sound support. Stefan Jokisch's versions of the "Lurking Horror" and "Sherlock" sound files, done for IBM PCs equipped with sound cards, are supported.
- o Comprehensive preferences. A preferences window has been added, allowing selection of the screen mode, fonts used, games recognised and directories searched at startup.
- o Alt Cursor Up and Alt Cursor Down can be used to scroll location descriptions in "Beyond Zork" if the description is too long for the upper window.

#### Amiga Release 1 (Frotz 1.01)

- o First Amiga release.

## 1.14 Contacting the Authors

If you wish to contact me, the author of this Amiga version of ←  
Frotz, write

to:

kinder@teaching.physics.ox.ac.uk  
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2, Clwtt Cottages,  
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Clywd. LL13 0YL  
GREAT BRITAIN

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Frotz was written by Stefan Jokisch

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More information and programs relating to Infocom games and text adventures generally can be found at the

I-F Archive

. The subjects of both playing and writing text adventures are also discussed in the Usenet groups `rec.games.int-fiction` and `rec.arts.int-fiction`.

## 1.15 The Interactive Fiction Archive

If you have access to the Internet and are interested in text adventures, then you can find all sorts of programs and information at The Interactive Fiction Archive, at the ftp site `ftp.gmd.de`, in the `/if-archive` directory. In particular, there is a large section purely for Infocom related material, in which the latest version of this interpreter can always be found.