Frotz

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COLLABORATORS

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Contents

Chapter 1

Frotz

1.1   Frotz 1.01 Amiga Release 3

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                  Frotz 1.01 Standard 0.2 Infocom Interpreter
      Written by Stefan Jokisch in 1995

      Amiga Version (Release 3) by David Kinder


                  Introduction

                  Installation

                  Starting Frotz

                  Using Frotz

                  Preferences

                  Special Features

                  FrotzStdIO

                  History

                  Contacting the Authors

                  The I-F Archive
```

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.

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

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".

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

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
  david.kinder@physics.ox.ac.uk

  David Kinder,
  2, Clwtt Cottages,
  Bangor Road,
  Gyfelia, Nr. Wrexham,
  Clywd. LL13 0YL
  GREAT BRITAIN

```
Frotz was written by Stefan Jokisch

  jokisch@ls7.informatik.uni-dortmund.de

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 are discussed in the Usenet groups
rec.games.int-fiction and rec.arts.int-fiction.
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1.15   The Interactive Fiction Archive

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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.
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