

# Fog

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for version 1.1

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This manual is for the Console Form Designer - Fog (version 1.1).

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# 1 Overview of the GnuDOS library

## About the GnuDOS library

GnuDOS package is a GNU software. It is a library designed to help new users of the GNU system, who are coming from a DOS background, fit into the picture and start using the GNU system with ease. It also addresses the console programmers of such programs that have the look and feel of old DOS system. The library is composed of core utilities and software applications:

- The core library (corelib) contains five utilities: Kbd (for keyboard handling), UKbd (includes unicode support), Screen (for screen drawing), Dialogs (for dialog boxes/window drawing), and Strings (for strings functions).
- The software applications are three: Prime (console file manager), Mino (console text editor), and Fog (console form designer).

## 2 Fog: The console Form Designer

Using the utilities of the GnuDOS library will ease the life of console programmers very much, but still though, putting it all together to design a complete user interface (or a form) can be a tedious job.

The FOG (Form Designer) helps with this aspect of programming. It provides a development environment that will make it easy to design an application interface for a program using the GnuDOS library under the console.

Fog is installed as part of the GnuDOS library package. It can be invoked by running:

```
$ fog
```

from the command line. The user interface is very simple:

- Toolbox: Contains the set of 'tools' that can be added to a form, such as option items and bulleted items
- Form design: Displays the form under design
- Menu bar: Contains the menus File, Edit, Options and Help

Fog saves the form design typically in the same working directory from which it was invoked. This can be changed by specifying another path and file name in the Save dialog box.

Fog design files have the extension '.fog', to be distinct from other programs' files. These files should not be edited by hand. Instead, open Fog and edit the form design and re-save the form.

After finishing the form design, Fog can create a skeleton project that has most components pre-written for the programmer, mainly the parts that deal with the user interface and getting input from the user.

Select 'Write Project' from the File menu, or just press CTRL+W. Fog will write three files in the same project directory:

- main.c: Contains the main() program function. If the form contains any buttons, it will contain a function event handler which is called whenever a button is clicked (or the user presses ENTER or SPACE on it).
- fog\_header.h: Contains global variable declarations and function prototypes.
- form\_design.c: Contains the following function definitions:
  - void init\_form(): Initializes the form and fills global variables
  - void refresh\_form(): Redraws the form into the screen
  - void input\_loop(): Catches user input on the form
  - void close\_form(): Restores the terminal and clears the screen before exiting

A program designed with Fog can be compiled as following (if using gcc compiler):

```
$ gcc -o myprog main.c form_design.c -lgnudos
```

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