in

Fergus Duniho

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Chapter 1

in

1.1 Rand.guide

                                        Rand v1.00

                        by

        Fergus Duniho
                                7 January 1995

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1.2 Introduction

        Rand is a program that will perform randomly selected actions for
you. For example, it can perform an operation on a randomly selected file,
or it can run a randomly selected program, or it can run a program with
randomly selected arguments. It is quite useful at boot time. It can
select random backdrops, pointers, background patterns, screen blankers,

default icons, etc. And its uses don't end there. It could be used to
display random pictures, to play random modules, to display random quips to
the screen, etc. And don't let my imagination stop you. You might be able
to find other uses for it.

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                Fergus Duniho
                            Rand is freeware. If you feel a need to reward me for ←
                                this useful
gem of a program, just let me know how useful and indispensible it is to
you.

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  <signature of Ty Coon>, 1 April 1989
  Ty Coon, President of Vice

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1.5 Usage

        Rand requires at least two arguments to work. The first should be
the name of a list file, and the second should be a format string. Rand
does three things. First, it selects a line from the list file. Second, it
replaces every occurance of [] in the format string with the line it has
chosen. Finally, it send the modified line to the command parser, which runs
it as though you typed it on the CLI.

        The list file should begin with an integer, which indicates how
many lines are in it. Each line that you want Rand to select from should
appear on a separate line. There should be no blank lines or extraneous text
in the file.

        If you make a list of filenames, it is best to include the full
path. You can quickly generate lists of files with some program, such as
NewList, that will display files with their full paths.

        The format string should give you an expression that you could run
from the CLI, once you have replaced [] with something. It may contain any
number of []'s. These will all be replaced with the same string. You
should enclose the format string in quotation marks. If you want to
include quotation marks in the format string, you should precede a
quotation mark with a backslash.

        If you put semicolons in a format string, rand will parse the
string at the semicolon(s) and perform multiple operation on the same
randomly selected file, text, whatever.

        Rand will accept any number of arguments. Odd numbered arguments
should always be names of list files, and even numbered arguments should
always be format strings. Rand will pair each odd numbered argument with
the argument that immediately follows it.

1.6 Examples

In these examples, I will just make up appropriate file ↩
names. You
would have to create the files yourself. I have included example files,
but odds are they won't match what you have. Many of the examples are files I
use myself. Although each example has only two arguments, you could append
multiple arguments onto the same line. That is what I have done in my
startup-sequence.

    1.   To display random selected quips:

```
rand
            S:Quips
            "echo \"[]\""
```

    2.   To run a randomly selected blanker and record which one it
selected:

```
rand
            S:Blankers
            "runback wbrun [];echo >>T:Blanker \"[]\""
```

WBRun is required to access the tooltypes of the icons. WBStarter won't do
here, because it won't work with GarshneBlanker. Runback, or something
like it, is required here, because BlitzBlank won't detach itself from the
shell WBRun runs it from. If BlitzBlank is run with just WBRun, it will
stop working once you get rid of the shell it was run from.

    3.   To select a random background pattern for windows:

```
rand
            S:Patterns
            "copy [] env:sys/win.pat"
```

    4.   To select a random pointer:

```
rand
            S:Pointers
            "copy [] env:sys/pointer.ilbm"
```

    5.   To select a random busy pointer for NickPrefs:

```
rand
            S:Busypointers
            "copy [] env:sys/busypointer.prefs"
```

    6.   To select a random backdrop:

```
rand
            S:Backdrops
            "c:makelink FROM SYS:Prefs/Presets/Backdrop TO [] SOFT"
```

This use requires Roland Mainz's improved version of makelink, which allows
for soft links to files. These are links across volumes. In this example,
the file SYS:Prefs/Presets/Backdrop is what I have NickPref's WBPicture set

to. Rather than copy over what may sometimes be a large picture, I just
make a link to a backdrop. For this to work right, you should precede it
in your startup-sequence with something like:

```
if exists SYS:Prefs/Presets/Backdrop
    delete >NIL: SYS:Prefs/Presets/Backdrop
endif
```

You should also temporarily put a real backdrop in its place, so that you
can set NickPrefs to it. The requester in its WBPicture program won't
recognize links.

      7.   To play russian roulette with your startup-sequence:

```
rand

            S:Commands
             "[] s:startup-sequence"
```

S:Commands could contain "delete" on one line.

      8.   To listen to a random MEDitation, a la some short repetitive
          modules I once released for meditating with:

```
rand

            S:MEDitations
             "octamedplayer []"
```

      9.   To select a random default drawer icon:

```
rand

            S:Drawer_Icons
             "copy [] env:sys/def_drawer"
```

    10.   To append a random tagline to a letter:

```
rand

            S:Taglines
             "echo >>T:BlueEdit \"[]\""
```

    11.   To randomly choose between a random Workbench pattern with
          WBPattern or a random backdrop with NickPref's WBPicture.

```
rand

            S:Actions
             "rand []"
```

    For this to work, you need something in your startup-sequence like:

```
if exists SYS:Prefs/Presets/Backdrop
    delete >NIL: SYS:Prefs/Presets/Backdrop
endif
```

    If rand opts to select a background pattern, it won't select a
backdrop, and there will no default backdrop left around to show up in place
of the pattern. In this way, rand can select between patterns and backdrops.
What I said about backdrops in an earlier example holds for this example
too.

1.7 Quips

```
5
Behind every successful man stands a surprised mother-in-law.
Always borrow from a pessimist--he never expects to get it back.
A rich man is either a scoundrel or heir to a scoundrel.
Kelptomaniacs help themselves because they can't help themselves.
When business interferes with pleasure, give up business.
```

1.8 Blankers

```
9
Work:Blankers/ASwarm3
Work:Blankers/BlitzBlank
Work:Blankers/BServer
Work:Blankers/FracBlank_881
Work:Blankers/Garshneblanker
Work:Blankers/Rotor
Work:Blankers/Spliner
Work:Blankers/StarBlank
Work:Blankers/superdark
```

1.9 Patterns

```
33
Data:Patterns/BerryPatch
Data:Patterns/BioWeave
Data:Patterns/Bricks.pre
Data:Patterns/Crosses.pre
Data:Patterns/DeepBlueField.8c
Data:Patterns/Moebius.pre
Data:Patterns/Pattern.AdobeShingles
Data:Patterns/Pattern.ArtDeco
Data:Patterns/Pattern.ArtDeco10
Data:Patterns/Pattern.ArtDeco11
Data:Patterns/Pattern.ArtDeco12
Data:Patterns/Pattern.ArtDeco2
Data:Patterns/Pattern.ArtDeco3
Data:Patterns/Pattern.ArtDeco4
Data:Patterns/Pattern.ArtDeco5
Data:Patterns/Pattern.ArtDeco6
Data:Patterns/Pattern.ArtDeco7
Data:Patterns/Pattern.ArtDeco7.B
Data:Patterns/Pattern.ArtDeco7.C
Data:Patterns/Pattern.ArtDeco8
Data:Patterns/Pattern.ArtDeco9
Data:Patterns/Pattern.CrossHatch
Data:Patterns/Pattern.CrossHatch2
```

```
Data:Patterns/Pattern.CrossHatch3
Data:Patterns/Pattern.CrossHatch4
Data:Patterns/Pattern.Flower2
Data:Patterns/Pattern.Flowers
Data:Patterns/ShadowDots
Data:Patterns/waves
Data:Patterns/waves2
Data:Patterns/Wriggle
Data:Patterns/Wriggle.8c
Data:Patterns/Ziqqurat
```

1.10 Pointers

```
172
Data:Pointers/1988
Data:Pointers/1988a
Data:Pointers/3dArrow
Data:Pointers/AceHearts
Data:Pointers/adisk
Data:Pointers/Amigaball
Data:Pointers/amigachk
Data:Pointers/Arrow
Data:Pointers/arrow-3d
Data:Pointers/arrow01
Data:Pointers/Arrow02
Data:Pointers/Arrow03
Data:Pointers/artbrush
Data:Pointers/Balloon
Data:Pointers/basket
Data:Pointers/bass
Data:Pointers/Beachboy
Data:Pointers/BeachGirl
Data:Pointers/Bev
Data:Pointers/BluePencil
Data:Pointers/boat1
Data:Pointers/book
Data:Pointers/bottle
Data:Pointers/bugel
Data:Pointers/candle
Data:Pointers/candycane
Data:Pointers/captshook
Data:Pointers/cartoon
Data:Pointers/cassette
Data:Pointers/cbm
Data:Pointers/Chest
Data:Pointers/circles
Data:Pointers/clarinet
Data:Pointers/computer
Data:Pointers/Conductor
Data:Pointers/copper
Data:Pointers/cordless
Data:Pointers/corno
Data:Pointers/CryptKeeper.pointer
Data:Pointers/dairy-queen
Data:Pointers/dancer1
```

```
Data:Pointers/dancer2
Data:Pointers/desert
Data:Pointers/Disc
Data:Pointers/disk.pointer
Data:Pointers/exclaim
Data:Pointers/eyeglass
Data:Pointers/face1
Data:Pointers/finger-watch
Data:Pointers/finger1
Data:Pointers/finger2
Data:Pointers/finger3
Data:Pointers/finger4
Data:Pointers/fish
Data:Pointers/flake
Data:Pointers/Flirt
Data:Pointers/floppydisk
Data:Pointers/flower
Data:Pointers/fool1
Data:Pointers/fool2
Data:Pointers/fool3
Data:Pointers/foot
Data:Pointers/fork
Data:Pointers/frog
Data:Pointers/funylady
Data:Pointers/Garfield
Data:Pointers/ghost
Data:Pointers/ghost2
Data:Pointers/greenmtns
Data:Pointers/HallowsCat
Data:Pointers/Hand
Data:Pointers/HandPointer
Data:Pointers/handrill
Data:Pointers/handset
Data:Pointers/happy
Data:Pointers/Heart
Data:Pointers/indian
Data:Pointers/Iris
Data:Pointers/jacko
Data:Pointers/jet_fighter
Data:Pointers/jollyroger
Data:Pointers/joystick1
Data:Pointers/joystick2
Data:Pointers/joystick3
Data:Pointers/joystk
Data:Pointers/key
Data:Pointers/Kitten
Data:Pointers/light-bulb
Data:Pointers/lightbulb
Data:Pointers/Lips
Data:Pointers/Lips2
Data:Pointers/magnify
Data:Pointers/match
Data:Pointers/mickymouse
Data:Pointers/Mouse
Data:Pointers/Mouse1
Data:Pointers/MTV
Data:Pointers/needle01
```

```
Data:Pointers/needle02
Data:Pointers/NibPointer
Data:Pointers/No2_lead
Data:Pointers/NoST
Data:Pointers/Oliver
Data:Pointers/opus
Data:Pointers/OpusFace
Data:Pointers/opusfrnt
Data:Pointers/PalmTree
Data:Pointers/pencil
Data:Pointers/pencil2
Data:Pointers/pilgrim
Data:Pointers/pilgrim2
Data:Pointers/pilgrim3
Data:Pointers/pliers
Data:Pointers/plug
Data:Pointers/Pointer.1.3
Data:Pointers/Pointer.3D
Data:Pointers/Pointer.Arrow
Data:Pointers/Pointer.Arrow1
Data:Pointers/Pointer.Arrow2
Data:Pointers/Pointer.Hand
Data:Pointers/Pointer.LeftArrow
Data:Pointers/pumpkin
Data:Pointers/question
Data:Pointers/quill
Data:Pointers/rabbit1
Data:Pointers/raquet
Data:Pointers/RedBall
Data:Pointers/RedPencil
Data:Pointers/RobinH
Data:Pointers/Robot
Data:Pointers/rocket
Data:Pointers/ruler
Data:Pointers/sailboat
Data:Pointers/Santa
Data:Pointers/Sc3Dpnt
Data:Pointers/Security
Data:Pointers/ShadowPointer
Data:Pointers/silver-ware
Data:Pointers/Skull.pointer
Data:Pointers/skull2
Data:Pointers/Snowman
Data:Pointers/snowman2
Data:Pointers/snowmtns
Data:Pointers/spaceship
Data:Pointers/spoon&fork
Data:Pointers/spraycan
Data:Pointers/SteveD
Data:Pointers/stop
Data:Pointers/superman
Data:Pointers/sword
Data:Pointers/SystemArrow
Data:Pointers/TanChest
Data:Pointers/tank
Data:Pointers/TanLines
Data:Pointers/tbolt
```

```
Data:Pointers/television
Data:Pointers/tetons
Data:Pointers/thrifty-cone
Data:Pointers/Tree
Data:Pointers/trump
Data:Pointers/turkey
Data:Pointers/ufo
Data:Pointers/UKFlag
Data:Pointers/USFlag
Data:Pointers/vader
Data:Pointers/wand
Data:Pointers/wface
Data:Pointers/window
Data:Pointers/Witch
Data:Pointers/xmastree
Data:Pointers/Yield
Data:Pointers/yingyang
```

1.11   Busypointers

```
10
Data:Busy/BOING.pre
Data:Busy/D-Harp
Data:Busy/Elevator
Data:Busy/Piston.pre
Data:Busy/RedHourGlass
Data:Busy/Ricochet
Data:Busy/Shade
Data:Busy/SpinBall
Data:Busy/TwoPiston.pre
Data:Busy/WatchaMaCallit
```

1.12   Backdrops

```
23
Data:Backdrops/cobblestone
Data:Backdrops/cobblestone-1
Data:Backdrops/Fancy_Stone
Data:Backdrops/HangOnArkaden
Data:Backdrops/HangOnBlätter2
Data:Backdrops/HangOnEscher
Data:Backdrops/HangOnEscher1
Data:Backdrops/HangOnRelief3
Data:Backdrops/HangOnStruktur1
Data:Backdrops/HangOnStukko
Data:Backdrops/HerringBone
Data:Backdrops/Lyapunov3
Data:Backdrops/Lyapunov4
Data:Backdrops/Lyapunov5
Data:Backdrops/Mandelbrot1
Data:Backdrops/Mandelbrot2
Data:Backdrops/Mandelbrot3
```

```
Data:Backdrops/Mandelbrot4
Data:Backdrops/nagel-01.bru
Data:Backdrops/nagel-06.bru
Data:Backdrops/nagel-12.bru
Data:Backdrops/Nagel-47.bru
Data:Backdrops/Stonewall
```

1.13 Commands

```
6
list
list
list
delete
list
list
```

1.14 MEDitations

```
8
Music:MEDitations/MEDitation1
Music:MEDitations/MEDitation2
Music:MEDitations/MEDitation3
Music:MEDitations/MEDitation4
Music:MEDitations/MEDitation5
Music:MEDitations/MEDitation6
Music:MEDitations/MEDitation7
Music:MEDitations/MEDitation8
```

1.15 Drawers_Icons

```
2
ICONS:Drawer1.info
ICONS:Drawer2.info
```

1.16 4.10.

```
44
"Suck gas, evil doer!" -- Darkwing Duck
"Don't worry; I'm in total control." -- Bonkers
"It never hurts to help." -- Eek! the Cat
"For you, anything my Fawn Deer." -- Bonkers
"We should talk, dear; something supernatural is going on."
"Meow." -- Eek! the Cat
"My very own Squishy Bearz inflatable termite farm!" -- Wendy Elizabeth
"I've always wanted to learn Spangalese--in case I'm in Spanga."
"Kumbuyah!" -- Eek! the Cat
```

"I've never met a real live ghost before." -- Eek! the Cat
"Maybe he's lost termite farmers of his own once." -- Eek! the Cat
"All little creatures should live in harmony." -- Eek! the Cat
"Gee, it's best when people help others in difficult times." -- Eek!
"Aaaaaaaaahhhhhhhhhhh!" Eek! the Cat
"I obey." -- A Dalek
My sister's name is ELIZA.
"A lobster for me, and for the lady too." "That's 3 lobsters."
Sing Ho! for a Bear! Sing Ho! for a Pooh!
The world didn't turn color until sometime in the 1930s.
A clear plastic binder! Pretty professional looking, eh?
Bats: The Big Bug Scourge of the Skies
"Miserable miscreant! Question my integrity, will you?" -- Calvin
"I'm writing a fictional autobiography." -- Calvin
Calvin? I'm not Calvin. I'm his duplicate. Calvin's in his room.
"Another day, another mind-boggling adventure!" -- Spaceman Spiff
Your "parents" are really bug-eyed aliens from Neptune!
A bolt of fiery crimson streaks across the sky! It's Stupendous Man!
I'll show 'em! I REFUSE to learn a lesson! -- Calvin
Another planet, another sweeping panorama of indescribable grandeur!
"Great moons of Neptune! A fool mortal female!" -- Stupendous Man
Blessed are the assimilated, for they shall be Borg.
For the Borg so loved the world, they assimilated it.
A pox on your first born, you ugly wart on a salamander's tongue!
My math minute is up! Set the clock for my spelling assignment, ok?
THANK YOU FOR NOT SMOKING!! -- Opus the penguin with a fire hose.
I OBJECT! I OBJECT! I OBJECT! I OBJECT! BY GOLLY, I OBJECT! -- Opus
Bill, here, is a former missionary. I am studying to be the Pope.
Libel!! Pphfft! Take that! PPPFPT! -- Opus.
NO! I'M NOT LISTENING! PHPTFPH! PPHTPH! -- Opus
Everything and everyone serves history's single purpose. -- Calvin
I'm the end result of history. -- Calvin
Now I'm here, and history is vindicated. -- Calvin
I'm glad I'm a man. The tampon I probably use was made by one.
Mea culpa, mea culpa, Mia Sara, oops, mea culpa, mea culpa.

1.17 Actions

```
            2

            S:Patterns
             "copy [] env:sys/wb.pat"

            S:Backdrops
             "c:makelink FROM SYS:Prefs/Presets/Backdrop TO [] SOFT"
```

1.18 Source code

Rand is a C program compiled with GNU CC. During ←
                    compilation, I
linked it with a function library that I am currently developing. It is

called libfpd.a, and I plan to eventually release it under the GNU LIBRARY
GENERAL PUBLIC LICENSE. But I am not ready to release it yet. Here is the
main source code.

```c
/*
    rand.c - A program that sends random system commands.
    Copyright (C) 1995 Fergus Duniho

    This program is free software; you can redistribute it and/or modify
    it under the terms of the GNU General Public License as published by
    the Free Software Foundation; version 2 of the License.

    This program is distributed in the hope that it will be useful,
    but WITHOUT ANY WARRANTY; without even the implied warranty of
    MERCHANTABILITY or FITNESS FOR A PARTICULAR PURPOSE.  See the
    GNU General Public License for more details.

    You should have received a copy of the GNU General Public License
    along with this program; if not, write to the Free Software
    Foundation, Inc., 675 Mass Ave, Cambridge, MA 02139, USA.
*/

#include <stdlib.h>
#include <stdio.h>
#include <string.h>
#include
                <fpd/fpdio.h>
                #include
                <fpd/fpdstrm.h>
                void setseed ();

int main (int argc, char **argv) {
    unsigned int i, j, which, maximum;
    char lines[256], line[256], fname[256];
    FILE *fptr;

    if (argc < 2)
        fprintf (stderr,
        "Usage: rand <file> <format_string> [<file> <format> ...]\n"
        "$VER: rand v1.00 (7 Jan 1995)\n"
        "Copyright 1995 Fergus Duniho\n");

    setseed();
    for (i = 1; i < argc; i+=2) {
        if ((fptr = fopen(argv[i], "r")) == NULL) {
            fprintf (stderr, "Couldn't find %s.\n", argv[i]);
            continue;
        }
        maximum =
                fgetp
                (fptr);
        which = rand() % maximum;
        for (j = 0; j < which; j++)

                next
                 (fptr, '\n');
```

```
                getline
                  (fptr, fname, 256);
            fclose (fptr);

                repstr
                  (lines, argv[i+1], "[]", fname, -1);
            while ((j = strcspn(lines, ";")) != 0) {

                restring
                  (line, lines, lines, "", 0, j, 1);
                system (line);
            }
        }
    }
}

void setseed () {
    FILE *fptr;
    int seed;

    if ((fptr = fopen("SYS:Prefs/randseed", "r")) != NULL) {
        seed = fgetp(fptr);
        fclose (fptr);
    }
    else
        seed = 1;
    srand (seed);
    if ((fptr = fopen("SYS:Prefs/randseed", "w")) != NULL) {
        fprintf (fptr, "%d", rand());
        fclose (fptr);
    }
}
```

1.19 fgetp()

Fgetp() reads and returns the next positive base 10 integer in ↵
a file.

```
#include
                <fpd/fpdio.h>
                int fgetp (FILE *fptr) {
    int c, tot = 0;

    while (!isdigit(c = getc(fptr)))
        if (c == EOF)
            return EOF;
    do {
        tot *= 10;
        tot += (c - '0');
    } while (isdigit(c = getc(fptr)));
    if (c != '\n')
        ungetc (c, fptr);
    return tot;
}
```

1.20   5.2.

                         Getline() is an improvement on fgets().

```
#include
                 <fpd/fpdio.h>
                 int getline (FILE *fptr, char *line, long max) {
    short int flag;

    while (max--) {
        *line = fgetc(fptr);
        if (*line == '\n' || *line == '\f' || *line == EOF)
            break;
        line++;
    }
    flag = (*line != EOF) ? *line : 0;
    if (flag && (*line != '\n') && (*line != '\f'))
        ungetc (*line, fptr);
    *line = '\0';
    return flag;
}
```

1.21   repstr()

```
                 #include
                 <fpd/fpdstrm.h>
                 /* This function, whose name is an abbreviation of REPlace STRing, ↩
                     sends
* to dest a copy of str with the first n occurrances of srch replaced by
* rplc. If (n < 0), repstr replaces every occurrance of srch with rplc.
* If (n == 0), repstr merely does a string copy. */

int repstr (char *dest, char *str, char *srch, char *rplc, int n) {
    char *srchloc, *original_rplc;
    int i;
    size_t srchlen;

    original_rplc = rplc;
    srchlen = strlen(srch);

    for (i = 0; i != n; i++) {
        if ((srchloc = strstr(str, srch)) == 0)
            break;
        while (str < srchloc)
            *dest++ = *str++;
        while ((*dest++ = *rplc++) != 0);
        --dest;
        str += srchlen;
        rplc = original_rplc;
```

```
    }
    while ((*dest++ = *str++) != 0);
    return (i);
}
```

1.22 restring()

```
                    /* Restring.c by Fergus Duniho */

#include
                    <fpd/fpdstrm.h>
                    /* This function copies an initial segment of s1 to d1, and it  ↩
                        copies a
 * later segment of s1 to d2. It appends s2 to d1 after it copies the
 * first segment of s1 to it.  If NULL is passed to d2, the text that
 * would be copied to d2 gets appended to d1 instead.

 * The text which it copies from s1 to d1 starts at n0 and continues for
 * n1 characters.  The text which it copies from s1 to d2 starts with
 * (n0 + n2) and continues for the remainder of s1.

 * This function is awfully versatile, and many different string
 * operations are defined as macros based on this single function.
 * Read fpdstrm.h for details.

 * d1 = the first destination string
 * d2 = the second destination string
 * s1 = the first source string
 * s2 = the second source string
 * n0 = the location in s1 to begin copying to d1
 * n1 = how much of s1 to initally copy to d1
 * n2 = how much of s1 to skip before copying the rest to d2

 * if n0 < 0, none of s1 gets copied.
 * if n1 < 0, all of s1 gets copied before s2 gets copied.
 * if n1 == 0, s2 gets copied before any of s1 does.
 * if n2 < 0, restring neglects to copy the remainder of s1.
 * if (n0 == 0) and (n2 == 0), all of s1 gets copied.
 * if (d2 == NULL), everything gets copied to d1.

 * The string passed to d2 may safely be the same as the string passed
 * to either s1 or to s2.  The same string may be safely passed to both
 * s1 and s2.  Generally, the same string should not be passed to both
 * d1 and s2.  The same string should not be passed to both d1 and s1.
 * This would cause the text in s1 to change before it gets copied. */

void restring (char *d1, char *d2, char *s1, char *s2, size_t n0, size_t n1,  ↩
    size_t n2) {

    /* Skips over initial part of s1. */
    while (n0--)
        if (*s1++ == 0) {
            s1--;
            break;
```

```
        }

    /* Begins to copy s1 to d1. */
    while (n1--)
        if ((*d1++ = *s1++) == 0) {
            d1--;
            s1--;
            break;
        }

    /* Appends s2 to d1. */
    while ((*d1++ = *s2++) != '\0');

    /* Skips text in s1. */
    while (n2--)
        if (*s1++ == 0) {
            s1--;
            break;
        }

    if (d2 == NULL)
        d2 = d1 - 1;

    /* Copies remainder of s1 to d2. */
    while ((*d2++ = *s1++) != 0);
}
```

1.23 fpdio.h

```
                /* FPDIO.H Copyright (C) 1994 Fergus Patrick Duniho */

#ifndef _FPDIO_H
#define _FPDIO_H

#include <ctype.h>
#include <stdio.h>
#include <stdlib.h>
#include <string.h>
#include <stdarg.h>

#define RdOpen(X,Y) X=FDOpen(Y, "r")
#define WrOpen(X,Y) X=FDOpen(Y, "w")
#define ApOpen(X,Y) X=FDOpen(Y, "a")
#define nextline(X) next(X, '\n')

void wrapwrite (FILE *fptr, int ind, int lm, int rm, char *s, ...);
int
                fgetp
                 (FILE *fptr);
unsigned int getp (unsigned int min, unsigned int max);
FILE *FDOpen (const char *fn, const char *mode);
int HowMany (char *fname, char c0);
char *clone_line (FILE *fptr);
int
```

```
                     getline
                       (FILE *fptr, char *line, long max);
int yes ();
int find (FILE *fptr, char *str);
long flinelen (FILE *fptr);
int
                 next
                   (FILE *fptr, char c0);
int nextnon (FILE *fptr, char c0);

#endif /* _FPDIO_H */
```

1.24 fpdstrm.h

```
                  /* FPDSTRM.H Copyright (C) 1995 Fergus Patrick Duniho */

#ifndef __fpdstrm_h_
#define __fpdstrm_h_

#include <ctype.h>
#include <string.h>
#include <stdlib.h>

#define delphrase(d, X, Y, Z) rephrase (d, X, "", Y, Z)
#define insphrase(d, X, Y, Z) rephrase (d, X, Y, Z, 0)
#define lefphrase(d, Y, Z) rephrase (d, Y, "", 0, Z)

#define catstr(d, s1, s2) restring (d, NULL, s1, s2, 0, -1, 0)
#define delstr(d, s, n, len) restring (d, NULL, s, "", 0, n, len)
#define insstr(d, s1, s2, n) restring (d, NULL, s1, s2, 0, n, 0)
#define overlay(d, s1, s2, n) restring (d, NULL, s1, s2, 0, n, strlen(s2))
#define lefstr(d, s, n) restring (d, NULL, s, "", 0, n, -1)
#define rgtstr(d, s, n) restring (d, NULL, s, "", strlen(s)-n, -1, 0)
#define substr(d, s, n, len) restring (d, NULL, s, "", n, len, -1)
#define divstr(d1, d2, s, n) restring (d1, d2, s, "", 0, n, 0)

#define trim(d, Z) strip (d, Z, " ", 'T')

void cparse (char *source, char *dest1, char *dest2, char c, int flag);
void delsubstr (char *dest, char *source, char c0, char c1, int flag);
int extract (char *dest, char *source, char l, char r, int flag);
void rephrase (char *dest, char *source, char *nstr, size_t n, size_t len);
int
                 repstr
                   (char *dest, char *str, char *srch, char *rplc, int n);
void
                 restring
                   (char *d1, char *d2, char *s1, char *s2, size_t n0, size_t n1,  ↩
                      size_t n2);
void revstr (char *dst, char *src);
void strip (char *dst, char *src, char *bad, char mode);
void subphrase (char *s0, char *s1, size_t n, size_t w, int flag);
void translate (char *dst, char *src, char *output, char *input, char pad);
void wparse (char *first, char *rest, char *source, int wrdnum);
```

```
#endif /* __fpdstrm_h_ */
```

1.25 next ()

```
            #include
            <fpd/fpdio.h>
            int next (FILE *fptr, char c0) {
    int c1;
    while ((c1 = fgetc(fptr)) != c0)
        if (c1 == EOF)
            return 0;
    return 1;
}
```

1.26 Requirements

Rand requires "at least version 40 of ixemul.library." That is a direct quotation from the binary. I compiled it with GNU CC, and it takes advantage of the Unix-like facilities of ixemul.library for parsing arguments. I also tried libnix and DICE, but they didn't recognize something in quotation marks as a single argument. This made the libnix and DICE compiled versions of rand misfunction.

IxEmul.library is freely available on the Aminet, and it is distributed under the GNU LIBRARY GENERAL PUBLIC LICENSE Version 2.

Rand requires other programs to do anything useful. Rand is powerful because it knows how to delegate. See the examples for programs you can use with Rand.

1.27 About the Author

```
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Other things I've done include:

ddli341.lha  - The Duniho and Duniho Life Pattern Indicator.
               A computerized personality questionaire.
MEDitate.lha - Short repetitive MED modules for meditating.
harmonix.lha - An Amigaguide file on creating realisitic sounding
               synthsounds in MED or OctaMED.
RNDBlank.lha - An ARexx script for selecting a random blanker.
```

```
            Rand supercedes this.
ShowPics.lha - An ARexx script for using PicBoot to display random pictures
               for use with GarshneBlanker's Executor blanker.
XES131.lha   - ARexx scripts and other stuff for use with XDME.
Paginate.lha - A program for paginating text files.  Similar to GNU's nl,
               but it offers more versatile headers and footers.
AlphaSpell   - A fast spelling checker with a large dictionary.
```

Search for these in the Aminet INDEX, or seek them out elsewhere.

1.28   History

```
        v1.00
```

1.29   Rand v1.00

```
    Released 7 January 1995.  First release.  The history begins here.
```