ftpd

	COLLABORATORS		

	TITLE : ftpd		
ACTION	*NAME*	*DATE*	*SIGNATURE*
WRITTEN BY		January 13, 2023	

	REVISION HISTORY		

NUMBER	DATE	DESCRIPTION	NAME

Contents

Chapter 1

ftpd

1.1   FTPd.guide

```
              RC-FTPd 2.x Guide - Table of Contents
-----------------------------------
```

Welcome to rc-ftpd, the best AmigaOS FTP server.

Hopefully this manual will help you get the most of this program, if
you have any problems understanding it, or how to do things within the
program itself do not hesitate to email me and I'll try to improve it
in future.

This guide is a work in progress and will have a lot added...

1.2 FTPd.guide/About RC-FTPd

What is this program all about?

FTP stands for File Transfer Protocol. Basically it is a way
for users to access files on your hard drive, but with your permission
only. ;-)

This program originally came about because of the lack of decent ftp
servers on the amiga, on the one hand you had difficult to configure
unix convertions, and on the other you had unsupported and somewhat
lacking (also norally unstable) amiga based clients (that often seem
to contain a lot of unix code ;-P)

I decided to write my own after hearing the thousandth complaint about
the competition.

This is entirely written from scratch, with no code taken from any
other program on the amiga or any other platform.

1.3 FTPd.guide/Requirements

What is needed to run RC-FTPd?

Hardware

Should be able to run on practically any Amiga computer.

Software

Workbench 2.1 or later.
(AppIcon requires 3.5 or later)

MUI 3.8 or later.
NList.mcc
Lamp.mcc
Textinput.mcc

Miami (tested) or any other TCP/IP stack (untested ;-)

2 megabytes of RAM (more recommended)

1.4 FTPd.Guide/Usage

How do I run RC-FTPd?

RC-FTPd is designed as a stand-alone program, this means that you should
run it from the shell/workbench. Although it may be possible to start it
from your TCP/IP stack, that is not recommended, and I won't say here how
to do it - do so at your own risk, and only if you are sure of what you
are doing.

There are currently no Tooltypes/Arguments, however I will get round to
adding some soon, not least for choosing different Prefs...

The config file is currently saved to both ENV and ENVARC, and is only
loaded from ENV - so using something like HappyENV might be a good idea.

1.5 FTPd.guide/MUI

This application uses

MUI - MagicUserInterface

(c) Copyright 1992-97 by Stefan Stuntz

MUI is a system to generate and maintain graphical user interfaces. With
the aid of a preferences program, the user of an application has the
ability to customize the outfit according to his personal taste.

MUI is distributed as shareware. To obtain a complete package containing
lots of examples and more information about registration please look for

a file called "muiXXusr.lha" (XX means the latest version number) on
your local bulletin boards or on public domain disks.

        If you want to register directly, feel free to send

                        DM 30.- or US$ 20.-

                              to

                        Stefan Stuntz
                    Eduard-Spranger-Straße 7
                        80935 München
                          GERMANY

            Support and online registration is available at

                      http://www.sasg.com/

1.6 FTPd.guide/Editing Users

How do I edit users?

The first 16 columns are the groups this user has access to, doubleclick
on them to toggle On/Off.

Next comees the USERname and PASSword, both used during the login process.
If you leave the password blank then the user is treated as being anonymous
and doesn't need a password to login (although they are still asked for
one).

In order to Remove a user you need to clear the Username, and to use a
random password you need to clear the password.

You can also set the Maximum number of people allowed to use this account
at one time. (the small buttons are \ensuremath{\pm}1)

Finally you can set the log level once they have finished logging on.
NOTE: The log level is only for display purposes, "snoop" may be a better
word, but in a future version logging to file (registered only) will be
possible.

Example

Screenshot

```
0 1 2 3 4 5 6 7 8 9 A B C D E F Username  Password Max Log
x x x x x x x x x x x x x x x x RobinC    (hidden) 0   No log
x                               anon      anon     3   Log all
x                               anonymous anon     3   Log all
x                               ftp       anon     3   Log all
```

This allows me (RobinC) full access to everything I setup on my ftp, with
no logging and no limit on how many times I can be on. The three anon
users (all anon as used by different clients) are all logged fully, and
have a limit of 3 connections *each*, a later version will allow the
limiting of anon users as a seperate group.

1.7 FTPd.guide/Editing Groups

```
How do I edit groups?
---------------------
```

The first 16 columns indicate what access this path provides, whether it
is Read, Write or Delete (r for read, w for write, x for read/write and
uppercase for delete)

Different groups can get different Read/Write/Delete/+(subdir) access to
the same path. The + (with other flags they go bold) means you can access
all subdirs for that path providing they don't have their own access.

```
Display -
r = R    R = RD   r = R+   R = RD+
w = W    W = WD   w = W+   W = WD+
x = RW   X = RWD  x = RW+  X = RWD+
+ = S    D = D    D = D+
```

The next two are the alias and the path. If an alias has no path then it
will make a list from the aliases under it. This currently means you
cannot have any file aliases. (Though it is possible to hide files with it)

```
Example
-------
```

```
Screenshot
```

```
0 1 2 3 4 5 6 7 8 9 A B C D E F Alias        Path
r r r r                       X /            Internet:HTTP
r                             X /-Software-  Internet:HTTP/-Software-
      r                       X /cd0         cd0:
                                /downloads   fake
    r                         X /muds        Unix:muds
    r                         X /muds/mud+   Unix:mud+
      x                       X /upload      Internet:HTTP/Upload
```

Ok, root (/) only has subdir access for people *not* in group 0 - ie
 not anon users.
The only dir anon ppl get access to is "/-Software-", where they can find
 this server strangely enough...
My cd drive is there in case I want ppl to be able to access it. If there's
 no disk in the drive then it won't complain if anyone does try to access
 it.
Next up is my /downloads dir - usually full of stuff I haven't cleared up,
 since I've downloaded it from the net, I don't want ppl grabbing over
 my slow modem ;-)
The next two are due to me coding muds - sometimes I want people to grab
 my source code. This way seems the easiest to me.

Finally is my /upload dir – this is for anyone sending me stuff, but as
 I don't use it very often I don't want people to send stuff unless I
 specifically allow it.

For all of these I keep group F with all flags – for me to remotely
 access and play ;-)

Important Notes

All the access flags will be changing some time in the near(?) future
to comply with the latest ftp protocols, this should not effect your
current settings, but will allow a *lot* more configuration in the
future :-)

1.8 FTPd.guide/Messages

Different message types?

There are three types of messages:

1. Banners
On the prefs window these are shown in the shine pen.
They can contain certain control codes, so the user can get automatic
information about the state of the server.
Closed – sent when someone tries to connect and they can't, either due
 to the server being full, or you having closed it.
Greeting – sent when someone first connects – bad practice to use it
but some ppl may want to.
Welcome – sent as soon as they are recognised after a valid USER/PASS.
Goodbye – sent after they issue a QUIT command... not often seen ;-)

2. Console messages
The second type of messages are sent by the server on your command. To
use these just highlight the user who is connected, type something into
the string gadget, and next time they perform any command they will be
sent the text. Please note that not all ftp clients allow the user to
see the messages though.

3. ".messgae" files
The third type of message is only available to registered users. With
this you can have a file called ".message" in *every* directory they can
CWD/CDUP into, which will be sent automatically whenever they do so. It
is advisable to keep these to only a few lines. They are most useful in
explaining what a directory is used for.

Advanced

As said earlier not every client allows you to see the messages. There
is also another way to hide messages if you want to (and you know your
client doesn't show them) which you could mention in the Welcome banner.
Instead of sending a normal password, they send the password with a "-"
as the first character, so –

```
...
PASS blah
230-This is the banner...
230-...
230 User logged in, proceed
...


...
PASS -blah
230 User logged in, proceed
...
```

1.9 FTPd.guide/Editing General

```
How do I edit general settings?
-------------------------------
```

Hopefully these are pretty self-explanitory, but use the bubble help if
you are unsure of anything.

Screenshot

(Sorry, but this gets new things so often, the source is the most up-to-date
 help available).

1.10 FTPd.guide/ARexx

```
The AREXX port
--------------
```

The AREXX port is only available in the registered version.

A quick note, there are 3 types of handle, FTP, USER and ACCESS.
The program checks that the handle you supply is valid, so you cannot
cause a crash or anything by using the wrong type, however you will also
not get a result. use the corrent type of handle for each command and
you should have no problems.

Results can be either a string <""> or a number <>.

AREXX commands -

```
VERSION
RESULT        = <ver>.<rev>

FTP QUERY ALL
RESULT        = [<handle> ...]

FTP QUERY ALL STEM stem
stem.COUNT    = <total>
stem.0        = <handle>
```

```
...
stem.total   = <handle>

FTP QUERY handle STEM stem
stem.IP      = <"0.0.0.0">
stem.ALIAS   = <"alias">
stem.PATH    = <"path">
stem.USER    = <user handle>
stem.ACCESS  = <access handle>
stem.LOG     = <current loglevel>
stem.FILE    = <"filename">
stem.CPS     = <cps>
stem.SIZE    = <size for SEND only>
stem.CURRENT = <current amount transfered>

FTP KICK handle

FTP ABORT handle

FTP LOG handle [1-4]
RESULT       = <loglevel>

FTP MESSAGE handle message

USER QUERY ALL
RESULT       = [<handle> ...]

USER QUERY ALL STEM stem
stem.COUNT   = <total>
stem.0       = <handle>
...
stem.total   = <handle>

USER QUERY handle STEM stem
stem.NAME    = <"name">
stem.PASS    = <"pass">
stem.ACCESS  = <access groups>
stem.MAX     = <max sessions>
stem.LOG     = <default loglevel>

ACCESS QUERY ALL
RESULT       = [<handle> ...]

ACCESS QUERY ALL STEM stem
stem.COUNT   = <total>
stem.0       = <handle>
...
stem.total   = <handle>

ACCESS QUERY handle STEM stem
stem.ALIAS   = <"alias">
stem.PATH    = <"path">
stem.READ    = <read groups>
stem.WRITE   = <write groups>
stem.DELETE  = <delete groups>
stem.SUBDIRS = <subdirs groups>
```

1.11 FTPd.guide/Bugs

```
Known bugs
----------
```

Any bugs in rc-ftpd that are reported are fixed within 24 hours. (Hopefully)

```
Clients
-------
```

Quite a few other clients have bugss which are not mentioned here because
either I have coded around them, they are not serious enough to matter, or
they also do the right things if they can't do the wrong things.

```
DopusFTP
```

This client (although my use by choice) has a couple of minor bugs, mainly
that you cannot abort a transfer from it properly, it just closes the link
entirely. An annoyance only.

```
AmiFTP
```

No bugs known. One strange thing is that immediately after starting a xfer
it often sends a NOOP, I'm not sure if this is to test wether the server
supports ABOR or not (any server that replies immediately probably does).
If so then good on the coder, if not then "erm...?" ;-)

```
ATC
```

This client has the *very* bad habit of somtimes requesting ports outside
the service range (it's already been reported, so there should be a fix
soon/already). The service range is 1024-5000, and any ports outside this
range are often blocked (if you don't, why not?). I *may* put a check in
to refuse to accept these ports, but if it refuses to accept such a port
then will ATC go into a loop or simply start crying? The current solution
is to get the user to disconnect and reconnect using PASV (I believe it's
a menu item)

```
Voyager
```

This one is a pain - it doesn't seem to know even the most basic fact -
you CWD to a dir, and RETR a file... Not very clever as that is not
something that *any* of the RFC's allow...

```
mFTP
```

This one doesn't know the CDUP command, and seems to think that every
server understands "CWD .." as being the parent - something that is not
guaranteed, in fact, I had to specifically code that in... :-/
A little note here - CDUP shouldn't be used too much because of symbolic
links - where there is eg - "/current/" = "/pub/01012000/" where
the server changes the path automatically for you, instead you should use
the absolute path (unix style) of the parent that *you* as a client
believe you have...

```
Internet Explod<rer
```

Erm... Probably so many bugs it'd take a ten meg guide ;-P

1.12 FTPd.Guide/History

What has gone before

+ Added
- Removed
! Changed
* Bugfix

0.x

+ First versions, I finally got fed up with crap servers out there.

1.x

! This was fully working, and had the MUI gui added.

2.x

! This is where it went shareware, also lots more features added.

2.15 (23.7.2000)

+ If you tick "Messages:" in the General page then it will look for a
  file called ".message" (case unimportant) and send that, nothing will
  be sent if not found.

! The keyfile can be kept in any of 3 locations now - PROGDIR: S: and
  $KEYFILES, it will look in that order.

+ If anyone sends their password starting with a "-" character (minus)
  then it will strip that and will not send any multi-line responses.

! The prefs file has moved to ENVARC/ENV, if you are upgrading from an
  earlier version then move it from the old PROGDIR:

* Fixed a recent bug where I tried to cut down the size of the LIST
  response - this broke some clients.

2.16 (25.7.2000)

+ Added Auto-Comment, so now you can see who sent you those files...

+ Started to add the Help system, for now it'll only open the guide
  but sometime in the future it will send you to the right node.

2.17 (28.7.2000)
----

* Changed all multi-line replies to start "###-" instead of just the
  first line.

+ Added some bubble-help lines to the prefs, most will have to wait
  for the prefs to be split off into another program though.

2.18 (8.8.2000)

! Changed some internals, should make it quite a bit easier to change
  all the other replies later. I'll probably make it use locale for
  user-specified replies, it's not important though ;-)

* Finally got NOOP to be ignored properly (didn't realise it wasn't -
  doh!)

* Forgotten exactly which version, but the timing routines should
  be a lot more accurate now - CPS is worked out for the last couple
  of seconds (email me if you think it's too long/short, or should be
  customisable) and the timeout will work right now to :-)

2.19 (13.8.2000)

- Removed the preferences "Systen type" setting.

+ Added support for Identify.library to find your system type. It only
  opens the library when needed (but most clients ask for SYST anyway)

- Removed the preferences "DefPath" setting.

+ Made it automatically find the default path.

2.20 (21.8.2000)

+ Started to add the locale support. Will make it easy to improve the
  replies later.

2.21 (31.8.2000)
----

* Doh! pirate check forgot to check if it was registered - so unreg
  suddenly became pirates (as there's already a pirate key out there
  I see this as a necessary thing unfortunately) :-(

! Changed a lot of stuff in the LIST/NLST stuff, now it should show
  dirs that point somewhere else as links (I might make that prefs
  if people ask) - this means no more fake dirs ;-P

* Stupidly had "Save" and "Use" mixed up in the code, so they did each
  others jobs - oops ;-P

2.22 (2.9.2000)

- Removed link stuff - it breaks too many clients :-(

* Fixed the locale stuff and rewrote the error reporting a little.

- Removed the identify.library from SYST - it wasn't needed as the
  official spec only recognises "AmigaOS" as being needed...

+ Added proper support for some more commands (so they return the
  correct responses to different things, even if they do nothing...)

* Changed a lot of stuff in *all* the commands so logging can go in.

+ Added EPLF format (LIST), client needs to support it though (I'm
  relying on the fact that if a client supports the CLNT command
  then it does - probably wrong though)

+ Added FEAT command, but not OPTS *bad boy* ;-P

2.23 (28.10.2001)
----

* Fixed a long-standing bug in closing the prefs page (Save/Use/Cancel).

* Changed the LIST output slightly - should work with more clients.

2.24 (28.10.2001)
----

* Fixed 3 enforcer hits that could happen by accident - non serious.

+ Added a new AppIcon, now shows the number of users online. (3.5+)

+ Added NoPASV option - disables the PASV command, useful for firewalls.

2.25 (29.10.2001)
----

* Changed the LIST output slightly again - should be even more compatable.

2.26 (29.10.2001)

+ Added the ability to give some extra info in all messages, currently
  max_cps, max_users and current_users.

2.27 (31.10.2001)

+ Log to file. Either all to "PROGDIR:ftpd.log" or seperately to
  "PROGDIR:logs/<user>.log"

2.28 (03.11.2001)
----

* Now forces unix style of ftp.

+ Doesn't show requester for non-existant drives (removeable etc)

* Fixed output of a few commands - hope there aren't any left to fix.

+ Totally localised, just need translations now.

* Fixed Group prefs page to disable string gadgets on startup.

2.29 (04.11.2001)
----

* Fixed a security bug that's been there since the start - hard to find
  which is why nobody reported it before now.

+ Now removes trailing "/" in all alias+paths.

* Minor speedups in various bits of code.

* Fixed installer - no longer overwrites your real keyfile (if you're
  registered)... I hope... ;-)

* Finally updated the guide and added screenshots ;-)

* Fixed a couple of Help nodes in the MUI stuff. (pointing to guide)

2.31 (07.11.2001)
----

* Fixed a bug in the log to file stuff.

+ First translation (Sprski... whatever that is, thanks Djole ;-)

* Some small bugfixes, optomisations.

2.32 (08.11.2001)
----

* Fixed a possible security bug in it, to handle MUI.

2.33 (01.12.2001)
----

* Improved transfer speed dramatically... now over twice as fast for less CPU.

2.34 (02.12.2001)
----

* Fixed the message options ($.)

2.35 (02.12.2001)
----

* Fixed a bug in the ABORt handling.

* Fixed bugs in STOR and RECV with file permissions.

* Fixed a bug in the fast transfer code.

2.36 & 2.37 (23.12.2001)
----

* Minor bugfixes

+ Portuguese catalog

2.38 (05.02.2002)
----

* Finally fixed a long standing freezing bug.

2.39 (06.02.2002)
----

* Improved the network speed somewhat, optomised for 16k tcp buffers (most
  systems) - seems to give a 60% speedup for some ppl, feedback please ;-)

+ Now anon users are limited to "Max Users" PER IP!! - This means if someone
  logs in under more than one anon username they get the Max of the one
  they are attempting to log on under, not min/max calculations...

2.40 (12.02.2002)

+ Now uses internal async file access for transfers - should use less cpu
  and may even be slightly faster ;-)

+ Internal SFV support - a form of CRC32 checking, if you get a *.sfv file
  before the main file, then it will check the file on completion, and
  set the comment to "OK ..." or "BAD ..." depending on if it matches ;-)

2.41 (27.02.2002)

+ Now uses async connect() - so deals with stealth firewalls better ;-)

+ Can use ENV:IP for PASV - so if you are behind a router it should help.

1.13 FTPd.guide/Future

What I'm wanting to do

Banlist
Individual accounts able to override MaxCPS
Rewrite the reply messages to be more informative
Give more multi-line replies, like "Full", "Banned" etc
Make little pictures for the prefs pages ;-)
Seperate the prefs and main program
Write a "Bitfield.mcc"
Rewrite the network stuff to reduce the CPU load (about 3% on my 060)

```
Get all the ftpd stuff into an external library
Make the relevent sliders use "Unlimited"/"None" instead of "0"
Allow commands to be turned on/off individually
Change port in prefs to take effect immediately
Make ANON connections automatic
Put more possible things to watch in the main window, but let client choose what  ←
    to show
Possibly make prefs use seperate windows for editing each user/group
Notify needed to get done soon (per command?)
Helpfile in printable form (ps?)
```

1.14   FTPd.guide/Thanks

```
Who helped?
-----------


Firstly I'd like to thank Stefan Stuntz for his *excellent* MUI, without
which this program wouldn't be, well, here. Yeah, thats right, without a
decent GUI this wouldn't have been coded, and I'm not going back to the
old gadtools, or the even worse "Artist Formalarly Known As ClassAct".

And the betatesters and other people who helped find literally thousands
of bugs for me to fix... (Thanking them? After all the work they gave me
to do?? ;-)
 SnorsleX
 Purple
 g0d00d
 dUn3cHiLd
 Crab
 spr0g
 Djole
 Fred
 Songonco
```

1.15   FTPd.guide/Contact

```
How can I contact the coder?
----------------------------

Email: Robin Cloutman <rycochet2@yahoo.com>
ICQ:   13463163 (Rycochet) - rarely checked
IRC:   RobinC on uk1.arcnet.vapor.com #diehard
Phone: (+44) [0]1865 310106 - my only phone, so usually engaged on net ;-)
Post:  Robin Cloutman
       5, Meadow View
       Water Eaton Road
       Summertown
       Oxford
       ENGLAND
       OX2 7QS
```

Please note - ChaoZer is now my co-coder for 3.x - but can't help with
anything in 2.x, so keep contacting me ;-)

1.16 FTPd.guide/Registration

What are the unregistered limits?

Limit of three connections at any time.
MaxCPS is always at 3k cps.
AREXX interface disabled.
Auto send ".message" files disabled.
Auto-comment disabled.

How do I register?

Registration costs $20 (USD) - this will increase when 3.x is released!

Please use Reg.net
 https://secure.reg.net/product.asp?ID=10092
for credit card orders, or send me a cheque for £20 (UKP) - as I hate
handling them ;-).

When you register you will be sent a keyfile, this will contain your name,
email, and full postal address (they are under instructions not to accept
registrations without all three). This means your keyfile will be
traceable back to you, so do not spread it unless you wish to spend time
visiting your local prison...