FTPRACER 99

USER REFERENCE

REV.1.11

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TOPIC : mutil ftp mirroring and dumping engine

The key features that makes Ftpracer distinct is the multi ftp mirroring and dumping engine , it enables Ftpracer to mirror or dump with up to 9 different ftp sites at the same time , all ftp mirroring threads not only have their own dupe file database (depending on their local_scan_dir) , but also share a global dupe file database , that makes Ftpracer to download no dupe file at all . here are some features that may only be seen on Ftpracer .

- It can mirror different ftp sites at the same time , without downloading dupe files , even files are located in different directories names on different ftp sites , no empty directories will be made on local directory also .
- it can dump to remote ftp site without uploading files that the remote ftp sites already have , even the file is located in different directory name in local and remote directory , it is achieved by scanning remote directories and files before dumping , no empty directories will be made on remote ftp sites also .
- it can sync with remote ftp site , a dump will be performed automatically after a mirror .

note 1: 'mirror' means download all files and directories from ftp sites as they were stored in ftp sites

note 2: 'dump' means upload all files and directories from local disk to remote ftp sites as they were stored in local disks

Limitation of Ftpracer :

- Ftpracer is able to transfer with at most 9 ftp sites at the same time
- Ftpracer will traverse into remote ftp folders at most for 10 levels when mirroring remote folders to local disk
- Ftpracer will traverse into local folder for unlimited levels and upload them to remote ftp sites when dumping
- Ftpracer's default timeout value for connection , file transfer is 45 seconds , you can not change it

TOPIC : SCHEDULER FOR FTPRACER

To explain about the scheduler for Ftpracer , we first ask our self this question .

Q: Why do we need a scheduler for the Ftpracer ?

A: For a mirroring application , we often need to specify at what time Ftpracer shall transfer files with which site , because that the Ftpracer can do at most 9 mirrorings or dumpings at the same time , so we surely want a scheduler to invoke mirror or dump at the right time for us .

You can change scheduler settings in the menu->configure scheduler
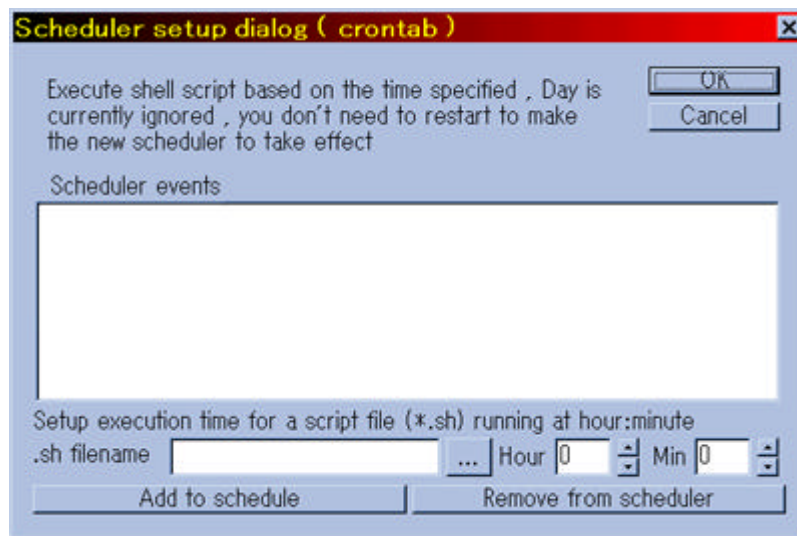
To be able to start to use Ftpracer scheduler , you need to do 2 things first , one is to understand some Ftpracer shell commands , the second thing is to use any external text editor to edit a *.sh file . We will show an example from here .

Example :

- Operation goal 1 : mirror from site A (profile is saved in a.site already) at 03:55 everyday
- Operation goal 2 : dupe to site A (profile is saved in a.site already) at 04:00 everyday
- Operation goal 3 : sync with site A (profile is saved in a.site already) at 05:00 everyday

Solution :

Use notepad.exe to edit a text file and save it as 35.sh , the content of it is simply

LOAD a.site

new mirror

Use notepad.exe to edit a text file and save it as 04.sh , the content of it is simply

LOAD a.site
new dump

Use notepad.exe to edit a text file and save it as 05.sh , the content of it is simply

LOAD a.site
new sync

Be sure to save *.sh files under Ftpracer program directory , and then browse for 35.sh by clicking the '...' button , and then change the 'hour' and 'min' to the time you want Ftpracer to execute the script , in this case the hour should be set to add it to 03 and the min should be set to 55 , finally click add to scheduler , repeat the same steps to add the rest 2 *.sh files to the scheduler . After you add these *.sh to scheduler and specify a time for them , the Ftpracer will execute the *.sh file at right time , hence the Ftp racer will meet the 3 goals we require here .

note 1: *.sh files are regarded as Ftpracer shell script files
note 2: *.site are regarded as Ftpracer site profile files (generated automatically when you do menu->file->save)
note 3: 'LOAD a.site' 'new mirror' 'new dump' 'new sync' , are shell commands of Ftpracer , where a.site is site profile , the complete reference of Ftpracer shell commands can be seen here .

TOPIC : SKIP DUPE FILE SETTINGS

The Ftpracer has a built in dupe checker (filename only) , it is used to stay away from downloading or uploading the files that the your site or other site already have . You can disable it when you don't want this feature , or enable it and configure it
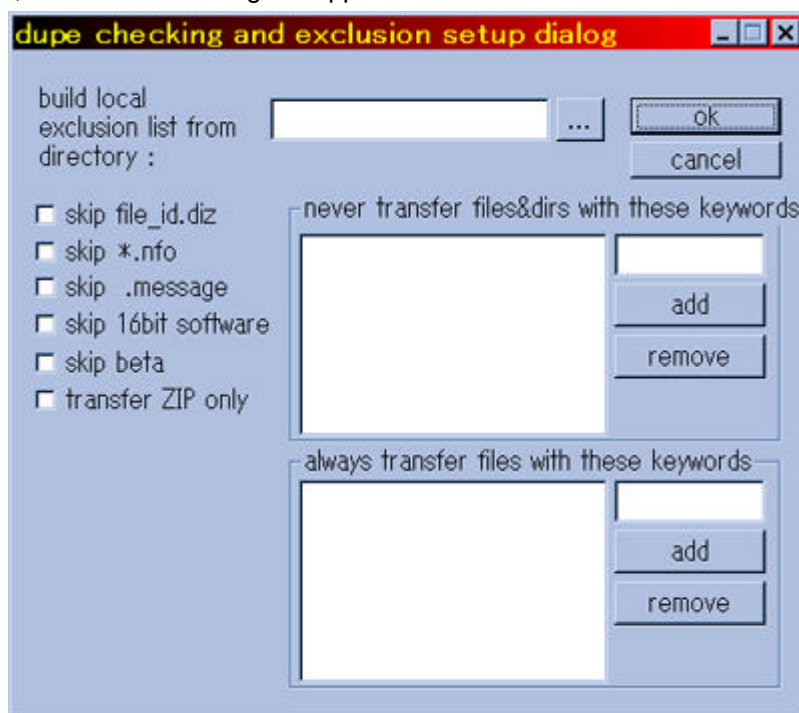
You can change this option in the menu->option dialog

When you decide to enable skip dupe file , you simply need to check the check box , and click configure button , and then this dialog will appear .

Build local files exclusion list from : specify (you can use the browse button) a local directory where you want the Ftpracer to scan (scan all files under that directory , and build a dupe file database) everytime it mirrors

- Skip file_id.diz : if you have this check box checked , the Ftpracer will not download file_id.diz files from remote ftp sites
- Skip *.nfo : if you have this check box checked , the Ftpracer will not download *.nfo files (mostly advertisement text files) from remote ftp sites
- Skip .message : if you have this check box checked , the Ftpracer will not download .message (mostly information files generated by some ftp daemons) files from remote ftp sites
- Skip 16 bit stuff : if you have this check box checked , the Ftpracer will not download 16bit operating systems programs from remote ftp sites , 16 bit operatings system are DOS , Windows 3.x
- Skip beta : if you have this check box checked , the Ftpracer will not download will not download directories with beta or release candidate keywords from remote ftp sites
- Skip non zip : if you have this check box checked , the Ftpracer will only download *.zip files from remote ftp sites , most sharewares are compressed in the zip format in the internet sites

Note that Ftpracer can not only skip dupe files while downloading or uploading , but also can also skip unwanted files and directories , most ftp sites store their files by tree structure with directory names and filenames , the Ftpracer will automatically look at the directory names and will not download the whole sub directory if you check the skip something check box . for example , there is a directory called Ftpracer.1.0.Beta2 , the Ftpracer will not download the whole directory of Ftpracer.1.0.Beta2 if you have skip beta files checked . If there is a directory called Ftpracer.1.0.For.Windows.3.1 , it will also not be downloaded if you have skip 16 bit stuff . We already build some logics in the Ftpracer to process the default skip something options , If you would like to skip more directories , you can enter a keyword and click the Add button .

These settings are actually kept in *.site files and ftpracer.include and ftpracer.exclude in the ftpracer program directory , you can also edit them by any text editor (ex: notepad.exe) easily

TOPIC : ZIP FILE CHECKER SETTINGS

The Ftpracer has a built in zip checker , it is used to verify zip integrity of files downloaded by Ftpracer , there are some options you can change , simply change those values in the option dialog

You can change this option in the menu->option dialog

You can do something else on zip files downloaded by Ftpracer , simplay change them in the option dialog

You can change this option in the menu->option dialog

Note that *.nfo files are mostly advertisement files , you can edit some of them by any text editor , and place them into Ftpracer program directory , the Ftpracer will automatically add *.nfo to every zip file transfered by it , if you have this check box checked.

TOPIC : NETWORK QUALITY ASSURANCE SYSTEM

The Ftpracer's network quality assurance system enables network administrators to limit the bandwidth usage of mirroring or dumping processes , you can reset currently available in / out byte credits in the the menu->option dialog .

To make this feature more flexible , the network quality assurance system can be incorporated with the Ftpracer scheduler and shell commands . The user can add a quantity of credits for in or out byte credits , the following content can be edited and saved into addcred.sh , and you can add this addcred.sh to the scheduler events .

SAMPLE CONTENT IN ADDCRED.SH
addcredin 500000
addcredout 500000
THE ABOVE 2 COMMAND LINES WILL ADD 500 MEGABYTES OF CREDITS TO BOTH INCOMMING AND OUTGOING TRAFFIC .

TOPIC : FTPRACER UTILITIES

Ftpracer provides some useful utilities to help owner of Ftpracer to manage their ftp collections. The Ftpracer has some zip utilities , it can verify all zip files recursively and find out bad zip file and move them into another folder for you automatically . It has another experimental utility that can analysis file_id.diz in shareware zip files , and try to find out the application name of this shareware and then move the shareware zip files to the correct folder , this feature is not guarenteed to work correctly but in our own tests it does work pretty fine .

You can use these 2 utilities by clicking menu->utilities

- verify all zip files under a specified directory (recursively)
- sort all zip files under a directory , and put them to where they should be (not guaranteed to work correctly)

You can also see other 3 utilities provided by Ftpracer , they are

- check disk usage under a specified directory (available as 'du' in Ftpracer shell command)
- clear empty directories under a specified directory (available as 'CLEAREMPTY' in Ftpracer shell command)
- clear dupe files under a specified directory (available as 'CLEARDUPE' in Ftpracer shell command)

TOPIC : TERMINAL SERVER FOR REMOTE CONTROL

Ftpracer has a built in terminal server , it has the following features

- It allows at most 7 users to use CRT or Unix shell to telnet to it at the same time
- It has complete user management and security facilities
- It has many available Unix C shell style commands , see also for complete reference
- The shell commands cover commands for the following usages system information
- mirror / dump threads control
- file / directory manipulation
- zip files manipulation
- tcp routing service control

Here are something you surely want to know now , so we will tell you the answer directly now

Q: How can I setup and start the Ftpracer terminal server ?

A: Once you start the ftpracer.exe , the terminal server should be started also , it would be running on the daemon_port (see also) , if it is the first time you run the ftpracer.exe , you may want to set the port to your favorite port and restart the shell daemon .

Q: How can I connect and login the Ftpracer terminal server ?

A: You can use the terminal emulation client 'CRT' or simply use unix shell to telnet to the Ftpracer ip address on the daemon_port you set earlier . If you connect to it successfully , you will need to enter your username and password in order to login the shell , see this for more information about adding a new shell user .

TOPIC : FTPRACER SHELL COMMANDS REFERENCE

Ftpracer shell commands can be entered in Ftpracer shell , or written in *.sh files (commands can be used in *.sh files are subset of all Ftpracer shell commands) , in the first case , you need to login Ftpracer terminal server before you can enter any shell command , to login a Ftpracer terminal server , you need to have a valid shell account , an account can be added in this dialog You can add your own shell account and password in the menu->system->add or remove shell user dialog
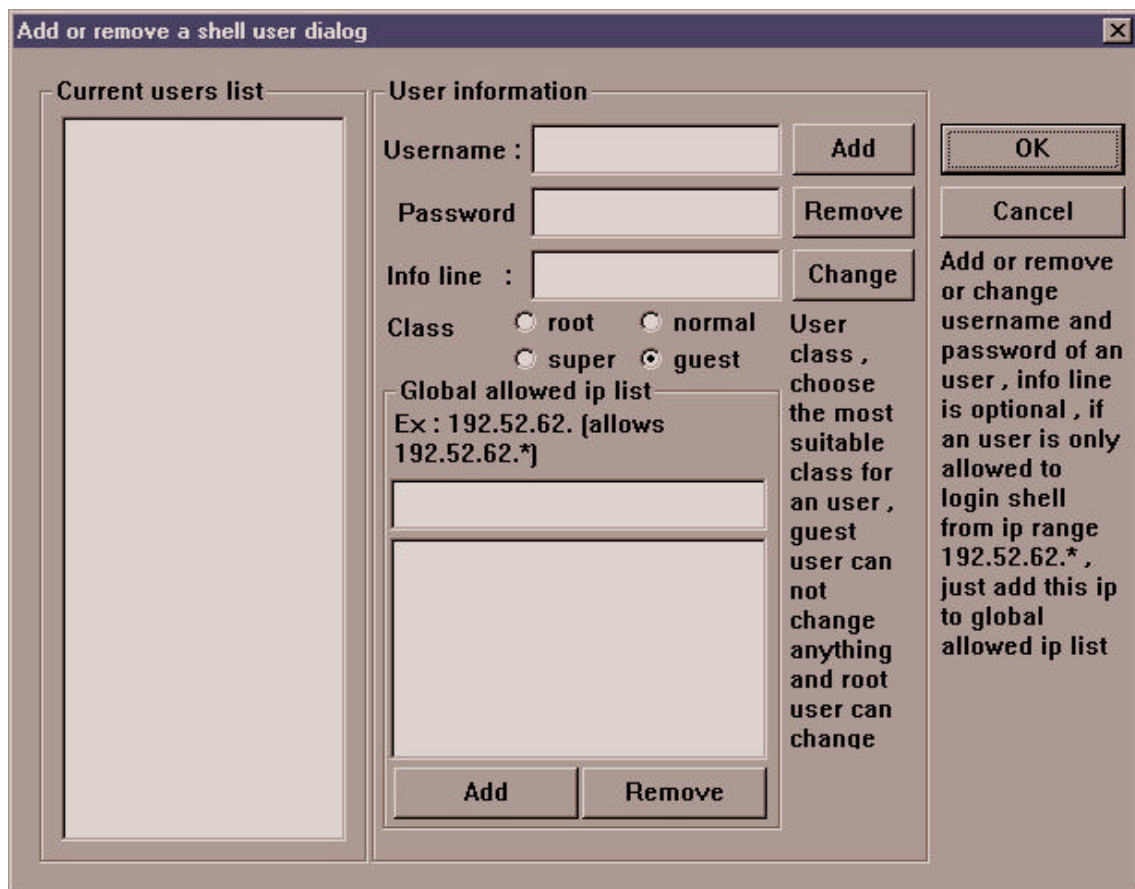
After you create yourself an account , you can login Ftpracer terminal server by telnet to the ip of Ftpracer at the daemon port , the daemon port of Ftpracer terminal server can be set here : goto menu->option->general option
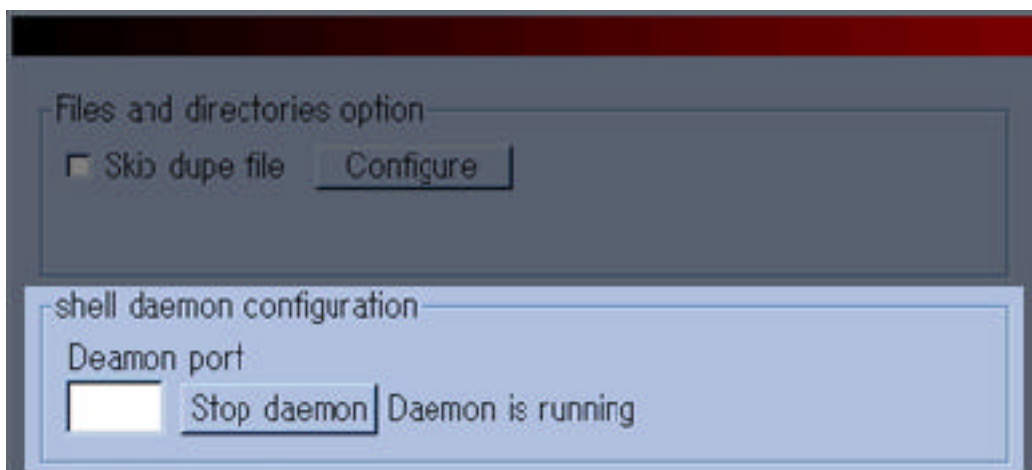
Supposing that the shell daemon (Ftpracer terminal server) is started on port 911 and Ftpracer is running on localhost (ip:127.0.0.1) , now we can try to login it by using terminal emulation client such as 'CRT' or we can even login from an unix shell . Because the Ftpracer terminal server is not really telnet compliant , you can only use CRT or unix shell to login it at this moment . When you connect to 127.0.0.1 port 911 , you will be prompted for username and password , just enter the username and password you just added for yourself and you can login .

note 1: If not even 1 ip is added to 'global allowed ip list' , ip checking is disabled , if ip checking is enabled , no one can even connect to your Ftpracer terminal server unless his ip is added to the allowed ip list , of course he has to enter a valid username and password if he wants to login .

note 2: There are 4 classes for a shell account . root can execute all shell commands and guest can not execute anything . in the commands reference chart we will have the user class allowed to execute this command in the chart .

Normal shell commands

COMMAND SYNTAX	DESCRIPTION	CLASS
SET R_PORT = PORT	set remote ftp site's port to PORT	R,S,N
SET DAEMON_PORT = PORT(1-65535)	set terminal server's port (can't change dynamically)	R,S,N
SET LOCAL_DIR = VALID_PATH	set local dir to VALID_PATH (ex: c:¥temp)	R,S,N
SET REMOTE_DIR = VALID_PATH	set remote dir to VALID_PATH (ex: /pub)	R,S,N
SET REMOTE_IP = VALID_IP or VALID_DOMAIN	set remote ftp site's ip or domain name	R,S,N
SET USER = USERNAME ON FTP SITE	set username to USERNAME on ftp site	R,S,N
SET PASS = PASSWORD ON FTP SITE	set password to PASSWORD on ftp site	R,S,N
SET TELNET_DEBUG = TRUE or FALSE	set to true if you want to see more detailed msgs	R,S,N
SET SKIP_DUPE = 0(DONT SKIP) or 1(SKIP)	set skip dupe files flag to true or false	R,S,N
SET PAUSE = TRUE OR FALSE	set to true to pause the scheduler	R,S,N
SET L_SCAN_DIR = PATH	set to local scan directory	R,S,N
SET SKIP16BIT = 0(DONT SKIP) or 1(SKIP)	set to 1 if you want to skip 16 bit stuff	R,S,N
SET SKIPBETA = 0(DONT SKIP) or 1(SKIP)	set to 1 if you want to skip beta stuff	R,S,N
SET HIDE = 0	Ftpracer window appearance flag , 0 = normal , 1 = hide with tray icon , 2 = hide completely , after your change this flag you need to execute 'saveini' and restart Ftpracer or execute a 'loadini'	R,S
loadini	load settings from Ftpracer.ini	R,S
saveini	save settings that should be saved into Ftpracer.ini into Ftpracer.ini	R,S
SET SKIPNONZIP = 0(DONT SKIP) or 1(SKIP)	set to 1 if you don't want to download or upload non zip files	R,S,N
CLEARDYNDB	Clear dynamic dupe-db , this database is shared by all mirroring threads , so thread-1 will know what files are downloaded by thread-2 dynamically , you can empty this database by executing CLEARDYNDB	R,S
new mirror	Execute mirror right away , up to 9 connections , required resources will be allocated and freed automatically	R,S,N,SH
new dump	Execute dump right away , up to 9 connections , required resources will be allocated and freed automatically	R,S,N,SH

new sync	Execute sync site right away , up to 9 connections , required resources will be allocated and freed automatically	R,S,N,SH
ps	Show all current ftp threads information	R,S,N
exec executable_filename	execute *.exe file	R,S
PS	Show child process handle (if you start any)	R,S
kill n	Kill ftp thread n softly , where n = 1-9	R,S,N
KILL n	Kill ftp thread n (immediatelly) , where n = 1-9	R,S,N
who	show who is online (Ftpracer terminal server)	R,S,N
write n msg_body	n = tty# (0-6) , send msg to ttyn (0 for GUI)	R,S,N
wall msg	send msg to all online users (Ftpacer terminal server)	R,S,N
LOAD filename	Load settings from filename (*.site)	R,S,N,SH
SAVE filename	Save settings to filename (*.site)	R,S,N,SH
exit	this will disconnect you from the terminal server	R,S,N,G
info	this will display current basic site info (ex:ip port)	R,S,N,G
addcredin num_of_kb	this will add num_of_kb k bytes to credit for in traffic	R,S,SH
addcredout num_of_kb	this will add num_of_kb k bytes to credit for out traffic	R,S,SH
help	this will display help for all commands	R,S,N,G
setenv	this will display environment variables	R,S,N,G

Note 1 : in the class cell , R=ROOT S=SUPER USER N=NORMAL USER G=GUEST USER

SH=Allowed to be exeuted by *.sh

File management shell commands

cat FILENAME	display the content of a text file called FILENAME	R,S
cp FILENAME DIRNAME	copy FILENAME TO DIRNAME	R,S
cp FILENAME1 FILENAME2	copy FILENAME1 TO FILENAME2	R,S
cd DIRNAME	change to another directory , .. means parent directory	R,S
cp FILENAME DIRNAME	copy FILENAME TO DIRNAME	R,S
cp FILENAME1 FILENAME2	copy FILENAME1 TO FILENAME2	R,S
df	display all harddisk space in the system	R,S
du	display disk usage under Local Directory	R,S
ls	list files in the current directory	R,S

mv FILENAME1 FILENAME2	move (rename) FILENAME1 TO FILENAME2	R,S
mv DIRNAME1 DIRNAME2	move (rename) DIRNAME1 TO DIRNAME2	R,S
mkdir DIR_NAME	create a directory called DIR_NAME under current directory	R,S
pwd	display dirname of current directory	R,S
rm -r DIRNAME	delete a sub-directory	R,S
rm FILENAME	delete a file FILENAME , wildcard can be used	R,S

Note 2 : All classes of users can only move around in these 2 directories , #1 Ftpracer program directory , #2 Local Directory , there is no need to worry about unauthorized accesses to the other contents in the harddisks from Ftpracer shell users .

Shell user management shell commands

iplist allow	list all allowed ip	R,S
iplist add IP	add new IP to allowed ip list	R
iplist del IP	del an IP from allowed ip list	R
userlist list	list all shell users (without password visible)	R,S
userlist deluser USERNAME	delete a shell user	R
userlist adduser	add a shell user ,but fill 'userstructure' first	R
info userstructure	display to be added user info	R,S
SET UNFOUSER = USERNAME	set to be added user's USERNAME	R
SET UNFOPASS = PASSWORD	set to be added user's PASSWORD	R
SET UNFOCLASS = NUM	NUM = (root=0,super=1,normal=2,guest=3) , set to be added user's class	R
SET UNFOINFO = information line	set to be added user's info line (description only)	R

Zip command line and other utilities (zip related features are not available in demo version)

target.zip src1 src2 ..	create target.zip and add src1 src2 into it , src can contain wildcard	R,S
unzip target.zip fname1 fname2 ..	extract fname1 fname2 .. from target.zip , fname can contain wildcard	R,S
CLEARDUPE FULL_VALID_PATH	clear all dupe files under FULL_VALID_PATH (ex c:¥temp) , it can work recursively	R,S
CLEAREMPTY FULL_VALID_PATH	clear empty directories under FULL_VALID_PATH , it works non-recursively	R,S

Note 3 : Only root and super users can execute these commands around and under these 2 directories , #1 Ftpracer program directory , #2 Local Directory , there is no need to worry about unauthorized accesses to the other contents in the harddisks from Ftpracer shell users .

Tcp / udp routing service commands

udpprdstart localport remote_ip remote_port	See next section	R,S,SH
tcprdstart localport remote_ip remote_port	See next section	R,S,SH
rdlist	See next section	R,S
tcprddelete id_num	See next section	R,S

Topic : dynamic tcp / udp routing service in the ftpracer

Tcp packet routing (redirection) is essential features of most of the pupular proxy server or firewalls , the ftpracer also provides this functionality . With the built in shell daemon of ftpracer , users of ftpracer can start , stop or query status of tcp routing daemon dynamically , with very simple shell commands . We will dicuss about 4 available commands in the next sectionfor managing the tcp routing daemon .

Why use tcp routing ?

- Choose your own fast routes , bypassing the default hardware internet routes . This can be useful when your default routers don't route some kind of packets for you .
- Accessing other internet servers from the internet address (ip) of ftpracer , this can be useful when other internet servers perform ip checkings .

Why do we build this service in the Ftpracer ?

- Instead of making command line mode ftp client in the ftpracer shell , we include this feature in the ftpracer , with this service , owner of ftpracer can browse ftp sites from ftpracer's IP address , to pass the IP checking that may be performed by the ftp servers that ftpracer will mirror from or dump to .
- Special features of the tcp routing daemon of ftpracer
- Supporting all one tcp connection only internet applications .
- Supporting both ftp-command and ftp-data tcp connections (not included in free demo version) , ftp clients can work with tcp routing daemon of ftpracer directly without any modification or firewall supports .
- Start / stop routings dynamically without limitation . Simply by few commands of the ftpracer shell daemon .

start a new routing

syntax : tcprdstart localport remote_ip remote_port

syntax : udprdstart localport remote_ip remote_port

example : tcprdstart 1080 www.microsoft.com 80

after you type this command in the ftpracer shell , you can use your web browser to connect to the address of the ftpracer (ex:127.0.0.1) at port 1080 , like this http://127.0.0.1:1080 , and then your request will be routed to www.microsoft.com:80 , and all the responses from www.microsoft.com:80 will be sent to the mirromen ftpracer , and ftp racer will route all packets back to your web-browser .

list all running routings on the ftpracer

syntax : rdlist

example : rdlist

(responses from shell)

ftpracer:>%rdlist

id:08383100 listens on 1080 , target is 127.0.0.1:911

id:08387972 listens on 1082 , target is 127.0.0.1:913

id:08385536 listens on 1081 , target is 127.0.0.1:912

ftpracer:>%

If you already started some tcp routings , then you can use this command to see what routings on running on the system , note that the id is the object id of the tcp routing thread , you can stop the routing service by deleting this object id , and that can be done by the command we will introduce in the next section .

delete a running routing on the ftpracer

syntax : tcprddelete id_num

example : tcprddelete 08383100

ftpracer:>%rdlist

id:08383100 listens on 1080 , target is 127.0.0.1:911

id:08387972 listens on 1082 , target is 127.0.0.1:913

id:08385536 listens on 1081 , target is 127.0.0.1:912

ftpracer:>%tcprddelete 08385536

deleted routing-d object 007ff400 (08385536)

ftpracer:>

If you want to delete (stop) a running tcp routing , just execute this command in the ftpracer shell , and the routing will be stopped .

Enable or disable tcp routing service of ftpracer :

If you don't want to enable the tcp routing service , edit ftpracer.ini by a text editor , ex: notepad.exe , change from

[TURD]

trd=1

to

[TURD]

trd=0

If trd is set to 1 , the tcp routing service will be available after the ftpracer is started , If it is set to 0 , this service will not be available . If you don't want to enable the udp routing service , also modify these in the ftpracer.ini

[TURD]

urd=1

to

[TURD]

urd=0

TOPIC : REPORTING ON IRC VIA AN EGGDROP BOT

Ftpracer is not only capable of reporting events via telnet session , but also capable of reporting on IRC(Internet Relay Chat) channel , to report on an IRC channel , you need an EGGDROP bot   , because that Ftpracer can not connect to an IRC server directly , it needs to connect to an EGGDROP bot and use it to report events on an IRC channel .

Before you can use this handy feature , you need to setup an EGGDROP bot , if you don't know how to setup it , please read the EGGDROP documents . After you have an EGGDROP bot set , you may need to edit its config file and make sure it has this line added "listen all xxxx" where xxxx is a port number that the EGGDROP will be listening on . If there is no such line in your EGGDROP config file , you need to add this line to it and restart your EGGDROP bot .

After you have an EGGDROP bot hanging on IRC , you need to add an user to the bot , and set a password for this account . so the Ftpracer can user this username / password to connect to the EGGDROP bot later on .

If the above things are all set , you can start to setup the bot connection options , goto menu->System->Report on irc , and fillup the following edit boxes with correct values .

Ip : fill the ip of the server where the EGGDROP is running on

Port : fill the value xxxx in "listen all xxxx" , that is a port number

User : user name for logining in the EGGDROP bot

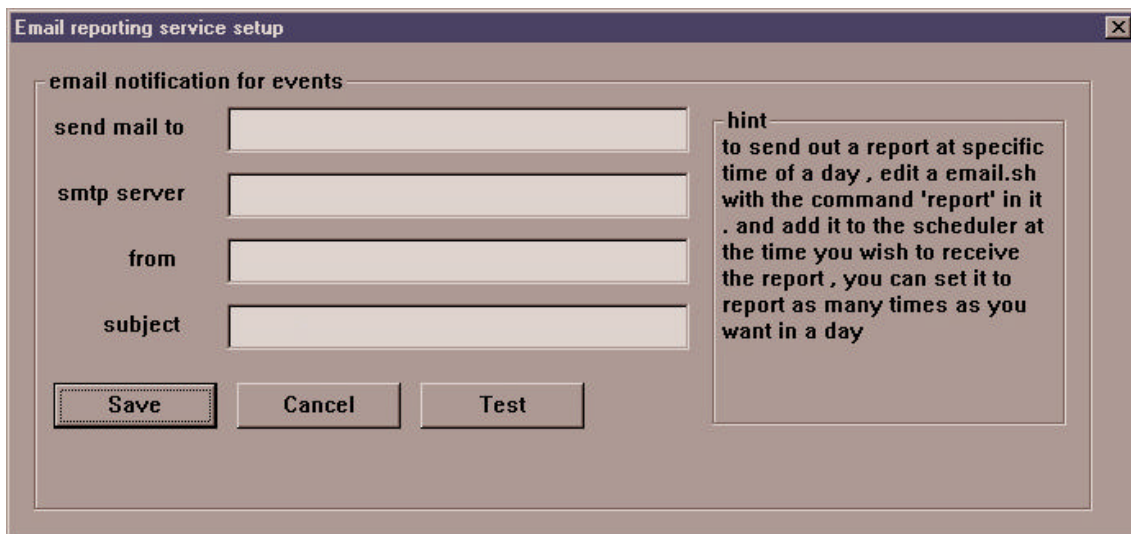Pass : password for the account on the EGGDROP bot

Var#1 : prefix value for reporting events

Var#2 : surfix value for reporting events

Special note : currently the Ftpracer will only report for new directories names and bad zip files requests in the IRC channel

E-Mail Notification

Ftpracer can sendout notification email about current system status , and important system log , to use this feature , you need to to edit a text file called report.sh , which contains only one line of ftpracer shell command , that is report , add just add this report.sh to the scheduler . and then you will get the notification email on the time you specified everyday . before you can use this feature , you also need to setup email address , smtp address , etc in menu->system->email notification .