

08384c78-0

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Chapter 1

08384c78-0

1.1 NetPar Lpr Client

NetPar Lpr Client (RFC-1179 Compliant)

~~~~~Disclaimer~~~~~

~~~~~Description~~~~~

~~~~Upgrading~Notes~~~~~

~~~Installation~Notes~~~

~~~~~Requirements~~~~~

~~~~~Using~~~~~

~~~~Troubleshooting~~~~~

~~~~~Bugs~~~~~

~~~~Software~Tested~on~~~

~~~~Hardware~Tested~on~~~

~~~~Users~Contributions~~

- Hints and Tips

~~~~Support~Software~~~~~

- Windows and others

~~~~~History~~~~~

~~~~~Future~~~~~

~~~~~Author~~~~~

Dedicated to my Testers. Who put up with endless  
Bugs, multiple GURU's and no documentation.

---

## Tester Hall of Fame

|                  |                  |
|------------------|------------------|
| Brett Beebe      | Solon Luigi Lutz |
| Michael Birchler | Bob Monaghan     |
| John Conant      | Francois Prowse  |
| Matthew Hunter   | Pertti Snellman  |
| Dobes Vandermeer |                  |

\*

## 1.2 Sorry about this.....

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whatsoever ↵  
resulting from loss of use, data, or profits, whether in an action of contract,  
negligence, or other tortious action, arising out of or in connection with the use ↵  
or ↵  
performance of this software.

(I am glad thats over. In a world were everybody is ready to blame  
someone else for their own stupidity...I had to do it. Use this  
at your own risk.)

\*

### 1.3 NetPar Lpr Description

"My Amiga doesn't play well with others."

NetPar Lpr Client will allow you to print to any  
RFC-1179 compliant network server (Unix and  
Windows) or network ready printer (A printer  
with it's own IP).

This client will also thread out printing  
requests when used with prt42\_50.lha by  
Brian Gontowski (Available on Aminet) or  
using TurboPrint by IrseeSoft. Using  
prt42\_50.lha is the suggested installation  
method.

This Lpr Client also:

---

- \* Supports Simple Spooling
- \* Offline printing to a network printer
- \* Supports multiple network printers
- \* Network problems are reported through system messages.
- \* Supports 68000-68060 CPU's

Note: This release is NOT compatible with the previous released NetPar Server and TestPar programs. See

~Upgrade~  
for details.

\*

## 1.4 Upgrading from NetPar

This release of the NetPar Lpr Client will NOT work with the previous versions of the NetPar Server and TestPar programs.

I am working on an update to the server but have decided to release this client as a standalone product. There appeared to be a great need for the functionality that the Lpr client provides.

If you need this Lpr client AND still need to be able to print to another Amiga, I would suggest that you use the lpd,lha package written by Juergen Schubert (available on Aminet) to replace the NetPar Server. It is a very simple line printer daemon that works fine with this client.

Don't be fooled by the words "line printer" ... Line printer daemons can also print graphics. They get their name from a time when only line printers existed. They evolved as printing technology changed.

\*

## 1.5 Installation of NetPar Lpr Client

---



## "Teaching my Amiga to play with others"

The installer script will get you up and running in no time at all. But you will need to get some information ready before you start.

There are four options in the installer

```
*
    ~Change~Installed~Settings~~
        *
    ~Install~Normal~NetPar~~~~~
    (parallel.device)
*
    ~Install~PRT42_50~NetPar~~~~
    (netpar.device)
*
    ~Install~TurboPrint~NetPar~~
    Follow PRT42_50 Instructions
*
    ~Remove~NetPar~Installation~
    Install Normal NetPar
```

Normal NetPar replaces your parallel.device, This installation renames your original parallel.device to orig\_parallel.device so that it is easy to remove the Netpar installation if needed. The Remove function is compatible with ALL previous NetPar installations. The

```
    ~Remove~
    can
safely/quickly return your computer to it's
original settings.
```

You will need to select a directory to spool outgoing prints. I would suggest you use a directory that only NetPar would access.

See

```
    ~Change~Installed~settings~
    for information
about Unit number settings.
```

Reboot your machine when installation is complete.

### Install PRT42\_50 NetPar

This is the preferred installation method for the NetPar Lpr Client. Make sure that PRT42\_50 is correctly installed and running on your system before running the install script. A netpar.device will be placed in your DEVS: directory. For each printer Unit you create, a NetPar unit icon will be placed

in the DEVS:PrinterPorts directory for use  
by the PRT42\_50 system. The

~Remove~  
option

will detect and remove all the pieces of  
NetPar quickly/safely.

See

~Change~Installed~settings~  
for information

about Unit number settings.

You will need to select a directory to spool  
outgoing prints. I would suggest you use a  
directory that only NetPar would access.

Reboot your machine when installation is complete.

### Change Installed Settings

NetPar Lpr Client supports multiple network  
printer locations and settings. The information  
is separated by assigning a Unit number to each  
entry. If you have many printers on your  
network, you will want to write down:

- \* The Unit number you are configuring
- \* It's Printer Hostname (or IP address  
of a Network ready printer).
- \* The assigned printer name

For example on my system:

```
Unit 0 is
  192.168.1.10
  lpr
```

```
Unit 1 is
  mikey.at.home
  lp
```

There is no easy method of removing old settings.  
You could manually go into your ENV:NetPar and  
ENVARC:NetPar directories and remove the Unit's  
directory if needed. Using this install script  
you can however, easily change/add to the  
installed settings. See

~Using~  
on how to select

these different settings. The

~Remove~  
option

will detect and remove all these pieces of  
NetPar quickly/safely.

---

## Remove NetPar Installation

This is the most extensively tested part of the script. I have made it compatible with ALL NetPar Client releases, even the Testers Beta versions. I have always hated programs that would not easily allow you to remove them from your system, so I have taken extra pains to make this work. But just in case, Here's what it does:

- #1) Renames orig\_parallel.device back to parallel.device (Original NetPar Installation)
- #2) Removes netpar.device (PRT\_42.50 Installation)
- #3) Removes ENV:NetPar environment settings (All Lpr Installations)
- #4) Removes ENVARC:NetPar backup settings (All Lpr Installations)
- #5) Removes ENV:PrintHOST (Original NetPar Installation - No longer used)
- #6) Removes ENVARC:PrintHOST (Original NetPar Installation - No Longer used)
- #7) Removes ENV:HOSTPrinter (Original NetPar Installation - No longer used)
- #8) Removes ENVARC:HOSTPrinter (Original NetPar Installation - No longer used)
- #9) Removes all NetPar icons from DEVS:PrinterHost (PRT\_42.50 Installations)
- #10) Removes DEVS:NetParSpool (Lpr Beta 4 to present)

The program will always check to see if these programs and settings exist BEFORE it tries to remove them. So there are no warning messages if things are missing. Although I make no promises, I can tell you that the Remove function has been extensively tested.

\*

## 1.6 NetPar Lpr System Requirements

I have tried to stay WB 2.0 friendly. One of my machines still uses WB 2.1

OS Requirements: Workbench 2.0+

---

Kickstart 2.04+

Software Requirements:

TCP/IP Protocol Stack  
(Tested with Miami 2.1+ and Amitcp 4.0+)

However the Suggested installation is using the prt42\_50.lha software. Depending on your installation,prt42\_50 can require WB/KS 3.0 or better.

That's it....

\*

## 1.7 Using the Lpr NetPar Client

"Now what am I going to do with it?"

```
~Environment~Variables~
~Spooling~~~~~~
~Normal~NetPar~Use~~~~~
~PRT_42.50~NetPar~Use~~
Environment Variables
```

ENV:NetPar/SpoolDir - Holds the location of the spool directory used by the NetPar Lpr client. If the directory doesn't exist or NetPar is unable to obtain a READ lock on the directory, it will default to T: instead. For each file that is printed, two files will be placed into the spool directory. The control file (cfA???NetPar) holds netpar.device Unit for the printout. The Data file (dfA???NetPar) holds the printer raw image data. Also in this directory is a .seq file. The .seq holds a three digit number that is used to separate the individual printouts. It also ties each data file to a control file. Should you decide to delete these files, make sure you delete each data-file, control-file pair. Files are removed from the spool as soon as they are shipped across the network.

Each Setting is saved by a Unit number. In each Unit directory is a:

- \* ENV:NetPar/\$Unit/PrinterHOST - Holds the Name or IP Address of the Print Server, or the IP address of the network ready printer. This setting can easily be changed using the
  - ~Change~Installed~Settings~ option in the install script. If not properly installed, the NetPar client will set the Printer name to "UNKNOWN" in the control file.
  
- \* ENV:NetPar/\$Unit/PrinterNAME - Holds the name of the printer identified on your print server. For network ready printers, consult the printer documentation, however most of them use "lp" for a PrinterNAME. This setting can easily be changed using the
  - ~Change~Installed~Settings~ option in the install script. If not properly installed, the NetPar client will use "lp" when creating the control file.
  
- \* ENV:NetPar/\$Unit/JobNAME - Holds the name of the print job. This is normally applied to the banner page. If you decide to NOT use the Job name, NetPar Lpr will use your host name instead. This setting can easily be changed using the
  - ~Change~Installed~Settings~ option in the install script.
 (31 Characters long).
  
- \* ENV:NetPar/\$Unit/QueryNAME - Holds the name of your printout query. This information is returned to you when you query the server (i.e. using a "lpq" command) for status. If you decide to NOT use this variable, NetPar Lpr will use "NetPar" instead. This setting can easily be changed using the
  - ~Change~Installed~Settings~ option in the install script.
 (131 Characters long)

Finally there are three special purpose variables...

- \* ENV:NetPar/ActiveUnit - This ties NetPar into using a single Unit configuration. See information on
  - ~Normal~NetPar~Use~ on how to use this variable. This variable must be manually set and deleted.

- \* ENV:NetPar/\$Unit/ServerSocket - Changes the socket used for the server connection. Must be manually set and deleted. Only use this setting if you are sure that your server needs a different socket connection. Defaults to 515.
- \* ENV:NetPar/\$Unit/ClassName - Changes the default print Class for the printout. Must be manually set and deleted. Defaults to your host name if not set.  
(31 Characters long)

## Spooling

The Spooling directory is set by the SpoolDir variable. The NetPar device will read this information and attempt a READ lock on the directory. If the lock is not successful, NetPar will use T: for spooling. The NetPar device will start the NetParSpool program. This is the program that controls the actual file transfer across the network. The program will continue to run until it encounters a fatal error. The NetParSool also produces all the system messages used to help users with network problems.

NetPar does not need to have an active TCP/IP stack (Miami or AmiTCP) in order to print. A message will warn the user that the network is not active and give them a chance to start the network or put NetPar to sleep until the network is active. All of the printouts are then spooled until the network becomes available. If your Amiga is shut off before the prints have been sent out, you will need to start the NetParSpool program by printing again. This bug will be fixed at a later time when the NetParSpool becomes a commodity. The NetParSpool will check the spooling directory once every minute, looking for new files. See the

~SpoolDir~  
variable for the make up of the  
spooling directory.

## Normal NetPar Use: (parallel.device)

The normal installation of NetPar replaces your parallel.device with the NetPar Lpr client. Most programs expect only one unit setting when they open the parallel.device (the printer.device included). So I have created an environment

variable to force the NetPar client to use other available unit designations. The name of this variable is ENV:NetPar/ActiveUnit. Let's look at my setup for an example on how to use ActiveUnit:

```
Unit 0 :
  PrinterHOST 192.168.1.10
  PrinterNAME lp
```

```
Unit 1 :
  PrinterHOST mikey.at.home
  PrinterNAME lpr
```

By default, 99% of the programs will open up parallel.device unit 0 for printing. NetPar will use the 192.168.1.10 host to send the output to. But say I need to use Unit #1? Well then I can force NetPar by issuing a "setenv NetPar/ActiveUnit 1" from cli/shell. All prints will use unit #1 from now on. (Note: You will also need to change your printer driver in preferences to match the new printer.) ActiveUnit is not set during installation since it forces all parallel.device accesses to use the ActiveUnit entry. Even programs that open the proper unit...

PRT\_42.50 NetPar Use: (netpar.device)

Very simple, just follow the Amigaguide docs that are part of the prt42\_50.lha archive. You will find all of the NetPar Unit settings placed in the PrinterPorts directory. Just use the prt42\_50.lha preference program to select a printer driver for use with each port. Just don't forget to save before you try to use them.

The PRT\_42.50 NetPar Lpr Client is also affected by the

```
~ActiveUnit~
environment setting. I would
suggest that you not use ActiveUnit when using
PRT_42.50 Client. The prt42_50.lha archive offers
better control over the printer settings.
```

\*

## 1.8 Troubleshooting NetPar Lpr Client

"It don't workey right!"

---

Most of the NetPar errors are covered by a System message. There are a few Configuration errors that can occur and cause NetPar to not work.

#### NetParSpool Messages

~Message~#1~~

~Message~#2~~

~Message~#3~~

~Message~#4~~

~Message~#5~~

~Message~#6~~

~Message~#7~~

~Message~#8~~

~Message~#9~~

~Message~#10~

~Message~#11~

~Message~#12~

NetPar Printer Spool Message #1

Network is down!

(bsdsocket.library not found)

Printing cannot take place  
until network is available

Not really an error, but rather a warning. NetPar is letting you know that the network is unavailable. Start your TCP/IP stack and hit Retry, or put NetPar to sleep until the network is available by hitting Wait.

#### NetPar Printer Spool Message #2

Printer Network Error

Unable to bind to reserved port  
See documentation for details

NetParSpool will restart connection or

be forced to abort

---



In reference to RFC-1179, a lpr client must attach to a local socket between 721 and 731. For some reason, all of these socket connections are already in use on your system.

NetPar Printer Spool Message #3

Printer Network Error

"Some" function call has returned a "number" value

Please note this error and consult documentation

NetParSpool will restart connection or

be forced to abort.

Look up the Network number value here:

~1~~

~21~

~41~

~61~

~2~~

~22~

~42~

~62~

~3~~

~23~

~43~

~63~

~4~~

~24~

~44~

~64~

~5~~

~25~

~45~

~65~

~6~~

~26~

~46~

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~7~~

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~69~

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~71~

~12~

~32~

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~52~

~72~

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~76~

~17~

~37~

~57~

~77~

~18~

~38~

~58~

~78~

~19~

~39~

~59~

---

~79~

~20~

~40~

~60~

NetPar Printer Spool Message #4

Fatal Network Error

Unable to find usergroup.library

Please consult documentation

NetParSpool will restart connection

or be forced to abort

This library is part of AmiTCP and  
Miami installations. It is used to lookup  
the user name of the user logged into  
the network.

NetPar Printer Spool Message #5

Fatal Network Printer Error

Line Printer Daemon returned an

Acknowledgment error. Transfer is

Aborted and Spooler is terminated.

The server failed to send a required  
acknowledgement or send an incorrect  
signal. The problem is probably with  
the server.

NetPar Printer Spool Message #6

Fatal Network Error

Spooler was unable to find your

Computer's Hostname (localhost)

Please consult your TCP/IP stack

documentation on how to add your

host machine name to the network

---

Spooler will be aborted

A GetHostName() function has failed.  
In Miami, you can add the hostname in  
the Database/Hosts area and in the  
TCP/IP Host Name area.  
In AmiTCP, you can add your hostname  
to the AmiTCP:db/hosts area.

NetPar Printer Spool Message #7

Fatal Network Error

Spooler was unable to find your  
user login id. Please consult your  
TCP/IP stack documentation on how to  
add a default user login id to the  
network. Spooler will be aborted

In Miami, you need to add the user  
login in the Database/Users area AND  
in the TCP/IP - Real User name area.

In AmiTCP, add your login to the  
AmiTCP:db/passwd file and also to  
the startnet script.

NetPar Printer Spool Message #8

Fatal Printer Spool Error

Unable to lock or examine your spool  
directory.

(NetPar/SpoolDir = "SpoolDir" )

The most probable cause is from a  
non-existent directory or a lingering  
dos lock. Spooler will be aborted

This error is pretty much, self explanatory.  
The only option may be to reboot your computer  
in order to clear out the lingering dos lock.

NetPar Printer Spool Message #9

---

Fatal Network Printer Error

Authentication or Printer error.

User login, or Host machine not allowed

to print. Or selected Printer name does

not exist. Spooler will be aborted

The printer you selected does not exist on the server, or else your machine does not have permission to use the server resources. Verify your settings and network permissions and try again. You may want to clear out the spool directory if you find the error is on your settings.

NetPar Printer Spool Message #10

Spooler was able to connect to

printer server. Previous error

condition has been corrected.

Spooling will now continue

NetPar will attempt to connect to the server twice before it exits with an error. This message is telling you that the previous error has been cleared up and NetPar will proceed as normal. You will also get this message if you tell NetPar to Wait on the network (See

~Message~#1~

for details.) and the network then becomes available.

NetPar Printer Spool Message #11

Spooler has been unable to connect

to the printer server. The

connection has failed twice. Spooler

will now be aborted.

Two attempt to connect to the server have failed. You should have gotten two error messages telling you what the problem is.

---

Use those messages to troubleshoot your system.

#### NetPar Printer Spool Message #12

```
Spooler has been unable to connect
to the printer server. The Host's
Network address is unknown.
Printer Host = ->"PrinterHOST"<-
NetParSpooler will restart connection
or be forced to abort.
```

Your computer attempted to look up the IP address of the print server you want to print to, but was unable to find it. This points to some type of network problem. In Miami, you can normally fix this problem by adding your printer host to the Database/Hosts area. In AmiTCP, you can fix this by adding the printer host to the AmiTCP:db/hosts file.

If your Printer Host is "UNKNOWN", then NetPar was unable to find the PrinterHOST variable on your selected unit. Check to see which port you were using and then use the install script to verify you have a printer host name set for that unit.

\*

## 1.9 TCP/IP System Errors

This information is taken directly from the NetInclude:sys/errno.h

|    |                           |
|----|---------------------------|
| 1  | Operation not permitted   |
| 2  | No such file or directory |
| 3  | No such process           |
| 4  | Interrupted system call   |
| 5  | Input/output error        |
| 6  | Device not configured     |
| 7  | Argument list too long    |
| 8  | Exec format error         |
| 9  | Bad file descriptor       |
| 10 | No child processes        |

---

|    |                                                 |
|----|-------------------------------------------------|
| 11 | Resource deadlock avoided                       |
| 12 | Cannot allocate memory                          |
| 13 | Permission denied                               |
| 14 | Bad address                                     |
| 15 | Block device required                           |
| 16 | Device busy                                     |
| 17 | File exists                                     |
| 18 | Cross-device link                               |
| 19 | Operation not supported by device               |
| 20 | Not a directory                                 |
| 21 | Is a directory                                  |
| 22 | Invalid argument                                |
| 23 | Too many open files in system                   |
| 24 | Too many open files                             |
| 25 | Inappropriate ioctl for device                  |
| 26 | Text file busy                                  |
| 27 | File too large                                  |
| 28 | No space left on device                         |
| 29 | Illegal seek                                    |
| 30 | Read-only file system                           |
| 31 | Too many links                                  |
| 32 | Broken pipe                                     |
| 33 | Numerical argument out of domain                |
| 34 | Result too large                                |
| 35 | Resource temporarily unavailable                |
| 36 | Operation now in progress                       |
| 37 | Operation already in progress                   |
| 38 | Socket operation on non-socket                  |
| 39 | Destination address required                    |
| 40 | Message too long                                |
| 41 | Protocol wrong type for socket                  |
| 42 | Protocol not available                          |
| 43 | Protocol not supported                          |
| 44 | Socket type not supported                       |
| 45 | Operation not supported on socket               |
| 46 | Protocol family not supported                   |
| 47 | Address family not supported by protocol family |
| 48 | Address already in use                          |
| 49 | Can't assign requested address                  |
| 50 | Network is down                                 |
| 51 | Network is unreachable                          |
| 52 | Network dropped connection on reset             |
| 53 | Software caused connection abort                |
| 54 | Connection reset by peer                        |
| 55 | No buffer space available                       |
| 56 | Socket is already connected                     |
| 57 | Socket is not connected                         |
| 58 | Can't send after socket shutdown                |
| 59 | Too many references: can't splice               |
| 60 | Connection timed out                            |
| 61 | Connection refused by server                    |
| 62 | Too many levels of symbolic links               |
| 63 | File name too long                              |
| 64 | Host is down                                    |
| 65 | No route to host                                |
| 66 | Directory not empty                             |
| 67 | Too many processes                              |

---



|    |                                   |
|----|-----------------------------------|
| 68 | Too many users                    |
| 69 | Disc quota exceeded               |
| 70 | Stale NFS file handle             |
| 71 | Too many levels of remote in path |
| 72 | RPC struct is bad                 |
| 73 | RPC version wrong                 |
| 74 | RPC prog. not avail               |
| 75 | Program version wrong             |
| 76 | Bad procedure for program         |
| 77 | No locks available                |
| 78 | Function not implemented          |
| 79 | Inappropriate file type or format |

\*

## 1.10 Known Bugs

"Where's the Raid?"

1. There is a PRT: error that intermittantly appears. Some programs that write to the PRT: device will sometimes get a -1 error returned. I know where the bug lies and a fix is in the works. I have found that printing to the normal NetPar device will sometime fix this bug. Why? It appears that Netpar is affecting the PRT: filesystem opening the device clears out the memory....
  2. The only way to restart the NetParSpool program after it has died (or after you turn off your machine) is by doing another print job. Starting the NetParSpool from cli/shell may not work because the NetPar device needs to create some system semaphores and a message port that the spooler needs in order to work properly. This bug will be fixed when the NetParSpool becomes a commodity.
-

\*

## 1.11 Software NetPar has worked on

"The Real Test"

We have had success with the following software:

[Note: So far ... The only Amiga program that has not worked  
is Print Manager, from Aminet.]

AdPro 2.5  
Brilliance  
Deluxe Photo  
DPaint IV  
Directory Opus (4.0+)  
Final Writer (3+)  
Gold Ed 2+ (using prt42\_50.lha)

~ImageFX~  
MaxiPlan

~PageStream~ (2.0+) ~  
PenPal

Phasar (3+)  
ProCalc  
ProDraw  
ProPage (4.1)  
SuperBase Pro

~TurboPrint~ (5.0+) ~  
TV Paint

TypeSmith  
Wordsworth (3+)

and many others.... If you are successful with  
another software package, let me know.....

## 1.12 Hardware NetPar has been tested on...

"Now My Amiga Plays with others!"

Please send me information about your setup so  
I can continue to expand this list.

Amigas

A1200  
A1200/060

---

A2000  
 A2000/030  
 A2000/040  
 A2000/060  
 A3000  
 A3000T  
 A3000T/040  
 A3000T/060  
 A4000  
 A4000/060  
 A4000T

#### Networks

AIX 4.1  
 AmiTCP (4.0+)  
 Miami (2.1+)  
 Caldera OpenLinux Lite  
 RedHat Linux 4.2  
 RedHat Linux 5.0  
 IRIX 5.3  
 IRIX 6.x  
 Sun OS 4.1.3  
 Solaris 2.4+

~Windows~3.x~~~~

~Windows~95/98~~

~Windows~NT~4.0~  
 Printers

Apple LaserWriter 600  
 Apple LaserWriter 12/640  
 Axis Print Server (connected to a Compaq Postscript Printer)  
 EFI ColorPASS Colour RIP (connected to a High-End Cannon Printer)  
 Epson EPL-N2000 Laser Printer  
 Epson LQ-1050+ (via RedHat 4.2 Server)  
 Fujitsu Printpartner 14 (via RedHat 5.0 Server)  
 HP DesignJet 755CM (Postscript Injet Plotter, Network)  
 HP Laserjet 4M+ (network ready)  
 HP Laserjet 5M (color - network ready)  
 HP LaserJet 6MP (via JetDirect EX Plus 3 Print Server)  
 Lexmark Optra R+ (Network)

\*

## 1.13 Users Contributions

Pagestream Contributions

=====

```

/* SetNetparPrinter.rexx                               */
/*                                                     */
/* Set Netpar to print to a specific unit # (default 0) */
/* by setting the ActiveUnit environment variable      */
/*                                                     */
parse arg Unit

if Unit = '' then Unit = 0

address command 'setenv NetPar/ActiveUnit 'Unit
=====

```

### Setting up PageStream3 with Netpar for Multiple Printers

If you have several different printers set up to work with NetPar, then changing printers with PageStream requires two things:

- Set the proper printer driver,
- Set the 'ActiveUnit' environment variable for Netpar.

This can be done automatically via PageStream ("PgS") scripts, plus a tiny Arexx script (supplied). I'll assume here that NetPar is already installed, and that you have two printers, called "MyPrinter1" and "MyPrinter2".

The steps are:

1) Copy the supplied Arexx script "SetNetparPrinter.rexx" into the directory "PageStream3:Scripts". If you prefer another location, just change Step 3 accordingly. This script does nothing but issue a setenv command to AmigaDos for the ActiveUnit variable.

2) For each printer, set up a preferences file within PgS. This is done from the Print Setup menu - after defining your printer preferences, click on "Save As", and save to a file such as:

```
Softlogik:Printers/Styles/MyPrinter1.printer
```

Again, if you use a different directory and/or name, change Step 3 accordingly.

3) Create separate scripts for each printer, within PgS. To do this, access the "Windows" menu item "Show Scripts Palette" within PgS. In the palette window that opens, click on the black arrow on the right, and access the menu item "new". A window opens to define a new script. Give a title that makes sense to you, such as "Use MyPrinter1". Type the following in the Script dialog box:

```
loadprintprefs file 'Softlogik:Printers/Styles/MyPrinter1.printer'
rx 'PageStream3:Scripts/SetNetparPrinter.rexx #'
```

where "#" must be replaced by the Netpar unit number you defined for that printer. ↵  
I  
suggest you also click to toggle on the box "Display in Menu". If you wish, set ↵  
up a  
keyboard shortcut via the "Shortcut" box. Click on "OK". That script should now ↵  
show  
up in the Scripts Palette window. To save, be sure to click on the Palette black  
arrow again, accessing menu item "Save". Repeat step 3 for each other printer, ↵  
just  
giving the script a different name, and different Netpar unit number.

You are now ready. To use this, just activate the appropriate PgS menu (through ↵  
the  
Scripts menu, the Scripts palette window, and/or a keyboard shortcut).

Please note that this has been tested only by myself, on one machine, using three  
network-ready PostScript printers. Kindly send suggestions and corrections to me ↵  
at  
:

jconant@aerodyne.com  
John Conant

#### ImageFX Contributions

Only problem I've encountered was with ImageFX 2.6 and it's "SuperPrefs" ↵  
printing  
module. I expect the problem is with the 42.43 version of printer prefs not  
netpar.device. The SuperPrefs module will let the user change preference for the  
print job without having to run the regular preference program. The original  
installation would tell ImageFX what printer was set in preferences. With ↵  
prt42\_50  
ImageFX hangs with the printer field blank. The PrintMgr program shows ImageFX ↵  
job  
"waiting". Only way out is to reboot. The other printer modules in ImageFX  
(postscript and Primera) work fine.

[Mikey Note: I am looking into this ... ]

The only other minor problem is that since prt: acts like a file, I get a "PRT: ↵  
file  
exist, do you want to over write?" requester when printing. I just click "yes" ↵  
and  
it works.

Dennis Griffin

#### TurboPrint Contributions

I tried to use "netpar.device" together with TurboPrint (version 5.0). It works. I

---

configures TurboPrint to use the Workbench-printer-driver for postscript-printers ←  
 and  
 send the output to "netpar.device". I can configure different printers and chose ←  
 between them (because TurboPrint lets you chose the device-number or port-number ←  
 or  
 how this number is called). And I can still use the parallel.device for my local ←  
 printer. That's exactly what I want. I only realised one problem: I can chose ←  
 between  
 different printer-settings. But after I have chosen any network- printer ←  
 TurboPrint is  
 unable to use the normal printer connected to the parralel.device any more until ←  
 the  
 next reboot. ("Device PAR: is unknown.") I do not know if this problem is caused ←  
 by  
 NetParLpr or by TurboPrint or by the postscript-printer-driver. I do not use the  
 newest version of TurboPrint. I do not know if this problem occures in the newest  
 version, either.

Martin Kluge

[Mikey Note: I am looking into this one also.....]

#

## 1.14 Support Software

Amiga Software

PRT42\_50.lha can be found on Aminet in text/print

Allows user so select different ports and printers  
 from preferences.

Package is no longer supported by author

TurboPrint IrseeSoft  
<http://www.irseesoft.com>

Allows users to select different ports and printers  
 from preferences. Also comes with optimized printer  
 drivers. Actively supported!

Windows 98/95/3.1 Servers (All of hese have been tested with NetPar)

WinLPD <http://www.rabox.com> Cost: \$35.00 (US Dollars)

RPM <http://www.brooksnet.com> Cost: \$99.00 (US Dollars)

OmniPrint <http://www.xlink.com> Cost: \$59.00 (US Dollars)

Chameleon <http://?????????> Cost: ?? (Is also a NFS Server)

[Why does everyone in the Windows world need to get rich writing software?]

In addition, I have had one user tell me of a FREEWARE package called "Print Server 1.2", but he failed to give me a web URL location for this program. I tried to find it but have been unsuccessful so far. If you know where this program can be obtained, please get in contact with me.

Windows NT - Already built in....

When using Windows NT, go into the control panel/networks. Under the services tab add the option for Microsoft TCP/IP printing. Ensure this service runs all the time.

Once this is done, you will have to share your printer as normal. ie right click on the printer and select sharing. You are asked to give the printer a share name, this share name becomes the netpar printer name when printing from the network.

Information on NT supplied by Francois Prowse

#

## 1.15 History of NetPar Lpr Changes

This Client started from the shell of the Original NetPar Releases. It has since gained it's own life.

AmiNET Release 2.2  
NetPar.device 37.29 (16.5.98)  
parallel.device  
NetParSpool 37.7 (19.6.98)

- \* Installer script would sometimes introduce characters on the end of a environment entry. Sometimes the characters were unprintable and caused very wierd side effects. One person was able to connect to their server but received an Authentication Error when the printer was selected. Error was traced back to errors in the ENV/NetPar/0/PrinterHOST variable. NetParSpool now looks for these characters and NULL's them out.
  - \* Expanded documentation to include new lists of software and hardware. Added a section on Windows 3.x/95/NT printing setups.
-

## AminET Release 2.1

NetPar.device 37.29 (16.5.98)  
parallel.device  
NetParSpool 37.6 (16.5.98)

- \* Reversed Day.Month field in the \$VER: string.
- \* User can now configure Class, Job, Query and Server Socket.
- \* Socket variables are dynamically allocated. Was not causing any known errors, but will eliminate the possibility in the future.

## AminET Release 2.0

NetPar.device 37.28 (5.3.98)  
parallel.device  
NetParSpool 37.5 (5.3.98)

- \* Found which optimize flag was causing problems for Beta 7. Turned Optimization for speed back on. Noticed better Disk IO and Network IO because of it.
- \* Touch up on AmigaGuide Docs.

## Beta 8

NetPar.device 37.26 (4.27.98)  
parallel.device  
NetParSpool 37.4 (4.27.98)

- \* Programmer Stupid - Left a piece of test code in Beta 7. Caused graphics mode to not work.
- \* Had one nested Forbid() without a Permit()
- \* Found 68040-68060 Data Cache error (very intermittant)
- \* Spooler now waits for a Do IO message before trying to send files accross network. Spooler will also Wait() for 1 minute if asked to Wait on network.
- \* AmigaGuide docs are FINALLY included.

## Beta 7

NetPar.device 37.26 (4.19.98)  
parallel.device  
NetParSpool 37.3 (4.20.98)

- \* One bug with the NetParSpool would have
-



reported a Connect() 61 error after the first printout was sent to the server. This is actually a bug with the compiler and it's OPTIMIZE routines. Spooler is 200 bytes bigger, but works better so ..... I can live with it.

- \* No memory leaks. No Enforcer hits.
- \* Added Unit Support. Again moved the environment variables around to compensate.
- \* Added prt42\_50.lha support.

#### Beta 6

|               |       |           |
|---------------|-------|-----------|
| NetPar.device | 37.25 | (4.1.98)  |
| NetParSpool   | 37.2  | (3.29.98) |

- \* cli/shell copies to PAR: now work!

Known Bug: Still having intermittant PRT: copy problems.

#### Beta 5

|               |       |           |
|---------------|-------|-----------|
| NetPar.device | 37.24 | (3.24.98) |
| NetParSpool   | 37.2  | (3.29.98) |

- \* Did a intelligent truncation of long servernames. RedHat return E-Mail should work...
- \* Message would get printed whenever you copied anything to the parallel port from cli/shell. No longer does this.
- \* NetPar will still report if network is down. If user decides to "Wait", no error message will be reported when Network is brought up (Used to get a "connect() 49" error message). NetPar will just report that the error condition has been fixed and printing is resumed..
- \* Installation script will not overwrite Beta 4 settings.

#### Beta 4

|               |       |           |
|---------------|-------|-----------|
| NetPar.device | 37.24 | (3.24.98) |
| NetParSpool   | 37.1  | (3.27.98) |

- \* Environment variables have been moved and renamed. One new variable has been added.

Env:NetPar/PrinterHOST -- Holds the Server name or the IP address of the network ready printer.

---

Env:NetPar/PrinterNAME -- Holds the printer name.

Env:NetPar/SpoolDir -- Holds the print spool directory. If the Spool directory set here does NOT exist, NetPar will use the T: directory.....

- \* DEBUG version no longer exists.
- \* Errors are now reported through System Messages.
- \* NetPar now has a Spooler program to send the printer files over the Network. The Spooler is triggered by a print request and will run until your machine is shut off. It checks for new files once every minute.
- \* You can now print off-line and your prints will be sent when the network is available.
- \* Network transfers are now BUFFERED! I did not plan on this, but the redesign just made buffering fall into place. You should see a 200x speed increase on large files with NO freezing of your machine!
- \* The reserved socket problem that caused an "Authentication Error" is now fixed...

### Beta 3

NetPar.device 37.22 (2.26.98)  
NetParDebug.device

- \* Found a formatting error in the Control file creation. Might have caused an error on the lpr server. Control files is definately RFC compliant now.
- \* Changed the banner to print your hostname instead of "NetPar".
- \* Really slowed down the debug version. Sometimes the device will outrun the drive I/O and wierd things happen. You will definately feel the difference, but now a bad drive crashed from a over-run log should be a thing of the past.

### Known Bugs:

Unable to Copy to PRT: and PAR: from cli/shell

### Beta 2

NetPar.device 37.21 (2.22.98)  
NetParDebug.device

- \* Changed to correct printer request.
-

- \* Fixed ALL enforcer hits on debug client. Stable now...
- \* My I/O bufferring was causing a "Broken Socket" error, file sends are no longer buffered.
- \* Found several conditions that would cause NetPar to freeze.
- \* Fixed the "Unable to cancel" error - The only time you will be unable to cancel a print request is when NetPar is moving the file to the server.
- \* I have tested this version on Miami. Works fine for my setup.
- \* Upon any errors, NetPar will keep the datafile in the T: directory.

#### Known Bug:

Since bufferring is removed, file transfers of large files will make your machine appear to freeze. Be patient, the file is being transferred 1 byte at a time....On a 200K file, my 25Mhz 030 (A2065) was only getting about 3000 CPS transfer rates to the server and took about 30 seconds. This will be fixed as soon as I know that I am connecting to the lpd/printers correctly.

#### Beta 1

NetPar.device 37.20 (2.15.98)  
NetParDebug.device

- \* Spooled single file to T: then tried to connect to server. Still had Enforcer hits to find. Only 50% of testers could use it.

\*

## 1.16 Future of the NetPar Lpr Client

"It's full of stars...."

- \* - Get the NetPar Server to be LPD compliant. Then you could use your Amiga as a print server on a Unix-Novell-Windows-OS/2 (-Mac?) network..
- \* - Rewrite the printer.device to take over all the functionality that the prt42\_50.lha package provides. I could then integrate the spooling function between

the printer.device and the printer port.

- \* - Turn the NetParSpool program into a commodity.
- \* - Do some things that the ICOA printer group has discussed, maybe create a demo version of this setup.
- \* - Still thinking about SMB/CIFS (Samba-Windows-OS/2 type of printer sharing)
- \* - Locale and multiple language support. I have lived/visited several countries and have first hand knowledge of the frustration you get while trying to communicate with someone who doesn't speak your primary language. I have not forgotten the non-english speaking Amiga users.....

\*

## 1.17 Who I Be? And others....

NetPar was written at the request of my father. He had a ParNet network of two computers, one for himself and one for my sister. Sharing printers was never very easy. They would have to CMD to redirect the printer output and then get the other person to copy the file to PRT: There were other problems with ParNet that made it hard to recover from crashes. One side crashing made you reset the entire network. ←

I convince him to move over to a AmiTCP network using MagPLIP. Then I wrote NetPar ← to let them share the printer. He suggested that other Amiga users might be in need ← of the same program ... so here it is.

One other person needs to be thanked in reference to the Lpr NetPar Client and ← adding prt42\_50.lha support. I was having problems with saving the unit information from within my code. When I finally got it to work, a nasty Enforcer hit was produced. After pulling my hair out for a few days on my own, I asked the Question about ← this Enforcer hit and posted it on the internet. Tim Corringham pointed me to the right location the very next day.....Thanks again Tim.....

I am a Computer Programmer employed by the US Air Force. I have been programming ← on the Amiga since 1987 when I purchased my first Amiga. I have since owned every ← model except for the A4000 and the A1200. I am currently running a A3000T. In the Air ← Force I have been lucky enough to program on a myriad of machines .... SGI's (Indi II's, Onyx, and Reality Monsters), Alpha's, IBM MainFrames (360/370), VAX Mainframes, ← Sun's (SunOS 4.1.X through 5.X) and Windows NT (3.51 and 4.0) boxes....

Amiga still rules....

When you consider that I have a job with 60 hour weeks, four kids, one wife, one ↔  
dog,  
two cats, and five gold-fish, it's a miracle there is a NetPar at all.

You can send bug reports, comments or just e-mail to me at:

Michael M Brockman, <mailto:mikeb@skylink.net>  
<http://www.skylink.net/~mikeb>

PGP Key Available upon request

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