Elite and ElitePro

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NETWORKING THE ELITE WITH DISCJUGGLER.NET

THIS DOCUMENT CONTAINS THE NETWORK SECTION OF THE DISCJUGGLER USER'S GUIDE.

USE THIS GUIDE TO CONFIGURE THE ELITE AS A SHARED RESOURCE SERVER FOR USE ON A NETWORK

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Networking

Networking technologies allow drives attached to systems across networks to be used as destination devices in DiscJuggler Professional Edition and DiscJuggler.NET. This chapter will follow through the process of using and configuring a server, along with a reference to each important section of the Padus Network Console:

- Creating a Server
- Using a Server
- Menus



Features discussed in this section relating to network writing are only available in DiscJuggler Professional Edition and DiscJuggler.NET. See "Feature Limitations" for more information.

Creating a Server

Creating a server using the networking technologies in DiscJuggler Professional Edition and DiscJuggler.NET is very straight-forward. Not all configuration details will be available in all licenses, so please keep that in mind while reading the following sections:

- Starting a Server
- Configuring a Server

Starting a Server

To start a server, you must load the Padus Remote Console. This can be done in DiscJuggler by clicking on the Network Console icon ($\stackrel{4}{\longrightarrow}$) in DiscJuggler or by clicking on the Network Console shortcut in the Start menu (default location: *Start -> Programs -> Padus DiscJuggler -> Network Console*).

5	
Login	Ctrl+L
Always on top	
Send image file	Ctrl+I
Share network writer(s)	1
Stop shared network write (s)	+
Show log	
Configure server	
Close window	F10
Exit	

After the Padus Remote Console has started, you need to start the Network Server service. This can be done by going to *File -> Share network writer(s)*... (shown above). This will open the primary configuration window for the Network Server service.

hare network v	writer(s)
Parameters:		
WEB port	8080	(Default: 80)
Service port:	3700	(Default: 3700)
Web root (if not :	pecified	the default location will be used):
I		
Share only SI	CSI drive	\$
Server startup mi	ode:	
O Start automat	ically at e	every system startup
 Start only in the 	his sessio	m
		Start . Cancel

The parameters listed here will determine how the service will start, and these settings cannot be changed while the service is running:

Web port

DiscJuggler.NET contains a simple web interface for administrative functions and monitoring. The port that the web runs on can be changed to not interfere with other web services that could be running on the host system.

Service port

All licenses have the ability to change the default service port that the Network Server service runs on. This is useful if another service needs to use this port on the host system, as unlikely as that might be.

Web root

The location where the web interface binaries are contained. The default location is located in the *web* directory of the root DiscJuggler program files directory.

Share only SCSI drives

This option can be selected if the host system only needs to make SCSI drives available. The SCSI bus is the first bus scanned when our architecture scans for drives, so you can speed up the start time by selecting this option.

Server startup mode

• Start automatically at every system startup

This option is beneficial if the host system has long-term plans as a server.

• Start only in this session

This option will make sure the service does not start when Windows loads.

Pressing the *Start* button on this window will begin the service. For additional configuration options, please read the "Configuring a Server" section.



Features discussed in this section might not be available in the DiscJuggler license you purchased. The advanced networking technologies are available in DiscJuggler.NET. See "Feature Limitations" for more information.

Configuring a Server

Once the Network Server service has been started, there are multiple configuration options in DiscJuggler.NET:

- Configure Server
- Print Options
- Disk Options
- User Management
- Job Management
- Writer Management



Features discussed in this section might not be available in the DiscJuggler license you purchased. The advanced networking technologies are available in DiscJuggler.NET. See "Feature Limitations" for more information.

* * *

Configure Server

To configure the server that has is now running (please see "Starting a Server" if the Network Server service is not running), you will have to log in to the server with Operator privileges. If the service has been started for the first time, the username and password will be blank.

onfigure shared netw	vork writer(5)	2
General Description: Disc Server #1]
Location: Engineering Lab]
Accept job request	cess		
Max values:		Default recording parameters:	
Max job in queue:	60		
Max connections:	10	Write speed audio (CD):	Max 🛩
Max fails per job":	2	Write speed data (CD):	Max 🛩
Max fails per record*:	2	Write speed DVD:	Max 🕶
* 0 = ignore failure		Enable test mode (nseud	-unite)
Web parameters		Frase rewritable media if r	vot blank
Timeout* (min):	0	Quick mode	
* 0 = ignore timeout		Lies huffer under nm nech	antina
Login mode		technology (when availab	le)
Enable user identifica	tion		

Description

Optional label for the name of the host system. This will be displayed throughout DiscJuggler and the Padus Network Console.

Location

Optional label for the location of the host system. This will also be displayed in DiscJuggler and the Padus Network Console.

Accept incoming jobs

Select this option if the server should queue jobs sent in from clients. Disable this feature if server configuration changes need to be made while clients should not be able to send in new jobs.

Process jobs in queue

Select this option if the server should being writing queued jobs sent in from clients. Disable this feature if the server needs to accept incoming jobs, but not process them immediately. This can be put to good use if the server is temporarily out of media.

Max jobs in queue

Maximum jobs allowed to be queued at one time. The only physical limitation to this value is the amount of available storage space that can be used by the Network Server service.

Max connections

Maximum number of jobs that can be transferred by clients at one time.

Max fails per job

Maximum attempts to write a job before the job is deleted.

Max fails per writer

Maximum attempts to write a job in one writer before that writer is deactivated.

Write speed for Audio CDs

Maximum CD write speed clients can select for CD-DA discs.

Write speed for Data CDs

Maximum write speed clients can select for writing CD-ROM or CD-XA discs.

Write speed for DVDs

Maximum write speed clients can select for writing DVD discs.

Enable test mode (pseudo-write)

Write process uses the read power level for the laser of the writing drives, which can be used to test the full process without writing to the blank disc.

Erase re-writable media if not blank

If re-writable media is not blank, Network Server service will erase disc before writing job.

Quick mode

Re-writable disc erasure only erases table of contents, which speeds up the erase process.

Use buffer under-run prevention technology (when available)

Many drives feature buffer under-run prevention technology, to limit the possibility of the data buffer losing data that it must have for the writing process to succeed. The technology can pause the write process until the buffer has the amount of data necessary to complete the process, and begin again where the process was paused. This procedure, while saving the write process, will slow the process down. Common names for the technology include "BURN-Proof" or "JustLink" to name a few.

Timeout (min)

After this many minutes of inactivity in the web interface, the current session will expire.

Enable user security

Only users with proper security clearance can log in to the server.



Features discussed in this section might not be available in the DiscJuggler license you purchased. The advanced networking technologies are available in DiscJuggler.NET. See "Feature Limitations" for more information.

Print Options

The networking technologies available in DiscJuggler Professional Edition and DiscJuggler.NET can be put to good use with the addition of a disc label printer. The following options can be found by pressing the "Print options" button of the "Configure server" window, when a printer is attached to the host system.

Enable CD labeling printer support	
Printer.	
CD Color Printer IV	×
Print default options:	
Print default label:	
Background image:	
(No image)	~
Print job number	
Print username / IP address	
Note: rewritable media will be not printed.	OK Cancel

Enable disc label printer support

This will enable use of a support disc label printer by clients using the Padus Remote Console, connected to the service running on the host system.

Printer

Choose the supported disc label printer for use with the Padus Remote Console.

Print default label

A default label file can be selected to be printed on each disc sent through the Network Server service.

Background image

Any image file in the DiscJuggler program files root directory can be set as the disc label background on each disc sent through the Network Server service.

Print job number

Select this option to print job number on each disc sent through the Network Server service.

Print username/IP address

Select this option to print the user who submitted the job and the client system they were using on each disc sent through the Network Server service.

Disk Options

Multiple hard disks can be used for queuing jobs for the writing process. This feature is important when a high volume of jobs are being sent to the server and there are multiple writing drives to handle the writing process of multiple tasks.

Cache disk Disk unit: C: 💌 Changes are	not permitted if there are jobs in queue.
Disk array List available	/used disks:
Unit	State
🗹 🧼 D:	Free

Cache disk

This hard disk is used for caching incoming jobs before all job data has been transferred to the host system.

Disk array

Multiple hard disks can be added to balance the load of data transferring between the source hard disks and destination writing drives.

Please visit the "Multi-tasking to Multiple Drives" section of the "Advanced Concepts" chapter for additional information on the requirements for multi-task writing.

User Management

DiscJuggler.NET features increased security through multiple user management options. Client access to the Network Server service can be limited by IP addresses or by user accounts. Users can be limited by the drives, amount of discs, and types of discs they can use. User class templates are provided for fast configuration of a user's privileges.

Iser table			
Username		Class	Usemane:
& SallySales		User	SallySales
A HarryHacker		SuperUser	Password:
🙎 JohnSmith		Operator	••••
			Class:
			User 💌 Add user
ost table			
IP Address	Class	Derw	IP:
192.168.2.16	User	No	192.168.2.16
8 192.168.2.13		Yes	Class:
			User 🗸
			Deny:
			No 🛩 Add host
l o insert a subnet mask u	se a final dot (Es: "19	2.168.1." include all I	P from 192.168.1.0 to 192.168.1.255)
uperuser/Operator	Use	8	
Accept max 'n. copies'*:	0 Ar	cept max 'n. copies'*	: 3
Max writers use":	0 M	ax writers use":	2
Maxjobs in queue":	0 M	axjobs in queue":	1
CD Jobs accept		CD Jobs accept	
	C	DVD jobs accept	
DVD jobs accept			
DVD jobs accept Write speed' accept		Write speed' accept	t

User table

This section is used to display the users currently configured to use the Network Server service on the host system and provide a method to add and remove users. To remove a user, right-click on a username and select the "Remove user" option.

• Username

Login name for the user to be added to the user table.

• Password

Password for the user name to be added to the user table.

• Class

Privilege template for the user to be added to the user table. The Operator class allows for

complete configuration control of the host system. The *Superuser* class has all of the privileges to the system as the *Operator* class does, but cannot change the configuration. The *User* class can be completely limited depending on the level that an *Operator* chooses, but does not have any ability to change the configuration.

Client table

This section is used to display the client systems currently allowed or denied from using the Network Server service on the host system and provide a method to block client systems from having access to the host system. To remove a block, right-click on a client and select the "Remove client" option.

• IP address

Address of the client system to be added to the client table.

• Class

Class setting for the client system to be added to the client table.

• Deny

Access setting for the client system to be added to the client table. Choosing "Yes" will prevent the client system from accessing the host system's Network Server service, while "No" will allow the client system to access the host system's Network Server service.

Operator/Superuser/User

• Max copies per job

Maximum number of copies per job that can be selected by this class template.

• Max writers in use

Maximum number of writing drives that can be used by this class template.

• Max jobs in queue

Maximum number of queued jobs that can be used by this class template.

• Accept CD jobs

Class template can send jobs of the Compact Disc variety.

• Accept DVD jobs

Class template can send jobs of the Digital Versatile Disc variety.

• Accept write speed

Class template can select the writing speed of a job.



Features discussed in this section might not be available in the DiscJuggler license you purchased. The advanced networking technologies are available in DiscJuggler.NET. See "Feature Limitations" for more information.

Job Management

When a job is in the process of being sent to the Network Server service, the *Operator* class can delete jobs, increase job priority, or decrease job priority.

📴 Padus I File View	Network Con Action Help	sole									- • ×
Server: N Host: 19 Version: 4	etwork Masterin 32.168.1.29 01	g Server									
Job #	Status	Text overlay	Туре	Support	Copies	Copied	Speed	Image size	Picture size	Username	IP
<u> [</u> 2768]	Transferring	Sales Q3 2002 Report	?	CD-R	1	0	Default	291 MB	41 KB Del Inc Dec	ete job rease priority rease priority	192.168.1.12
🖲 🛃 Ne	twork writer sta	tus: ready	Jobs in	n queue: 1							

To manage the jobs, either control the functions in the "Action" menu or right-click on the job to use the functions. The ability to manage jobs can depend on the user class assigned to the current login.

• Delete job

Job is removed from the queue or terminated if it is in the writing process.

• Increase priority

Job is moved to a higher position in the order of when the queued jobs will be written.

• Decrease priority

Job is moved to a lower position in the order of when the queued jobs will be written.



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Writer Management

Any writing drive associated with the Network Server service can be managed by the Operator class.

聲 Padus Network Console				
File View Action Help				
Server: Network CD/DVD Mastering Server Host: 192.168.1.12 Version: 4.01				
Description	Job % Spee	d Tot. discs	Tot. discs failed	Tot. recording time
PIONEER DVD-RW DVR-103 (H: Bus 0,ID 0) PLEXTOR CD-R PX-W2410A (J: Bus 0,ID 1) SONY CD-RW CRX160E (E: Bus 1,ID 0)	Enable writer Disable writer Properties	0 0	0 0 0	0:00 0:00 0:00
🛎 🎩 Network writer status: ready	Jobs in queue	: 0		đ

To manage the writers, either control the functions in the "Action" menu or right-click on the job to use the functions.

• Enable writer

Writing drive is currently active for use by any client to transfer jobs to use the drive.

• Disable writer

Writing drive is currently inactive for use by any client through the Network Server service.

• Properties

Writer properties	1	×
Properties: Description:	PIONEER DVD-RW DV	/R-103 (H: Bus 0,ID 0)
Max speed read: Max speed write:	CD: 24X DVD: 0X CD: 8X DVD: 0X	✓ CD-R ✓ CD-RW
Tot discs: Tot discs failed: Time record:	0 0 0:00	DVD-RAM DVD-R DVD-RW DVD-RW DVD+R
Firmware version:	1.55	DVD+RW

Displays the writing drive information. This can be viewed by any user class.

Using a Server

Sending jobs to a host system running the Network Server service can be accomplished through DiscJuggler Network Edition, DiscJuggler Professional Edition, or DiscJuggler.NET because each of these licenses include the ability to select shared network drive(s) as the Destination device in each task and come bundled with the Padus Network Console.

To use a server, you must load the Padus Remote Console. This can be done in DiscJuggler by clicking on the Network Console icon ($\stackrel{\clubsuit}{=}$) in DiscJuggler or by clicking on the *Network Console* shortcut in the Start menu (default location: *Start -> Programs -> Padus DiscJuggler -> Network Console*).



Explanations on the ways to use a Network Server are covered in the following sections:

- Login to Server
- Send Jobs with DiscJuggler
- Send Jobs with Console

Login to Server

After loading the Padus Network Console, you must login to a server to utilize all of the functions.

Car	num i	Location	Varian	Had	Wab	Canica
36	Sales Server	Padus Inc	4.01	192 168 1 16	80	3700
ř.	Network Mastering Server	Padus, Inc.	4.01	192.168.1.29	8080	3700
Ă.	Network CD/DVD Mast	Unknown locati	4.01	192.168.1.12	8080	3700

Each server is listed with the server name, location, service version, host IP address, web port, and service port. To obtain a list of available servers, you must click the "Update list" button.

Login

Connect to selected server.

Add

Manually add a server to the server list. This is useful is the server is not available through the local network, but a global network. Use the TCP/IP address of the desired host system to connect.

Update list

The client service will use UDP port 3700 to scan for host systems running the Network Server service on the local network.

Once the server has been selected, you are presented with a prompt for the username and password information before being able to use the server. Username and password authentication will only be required on DiscJuggler.NET servers that require this level of security.

Login to server	8
D	iscJuggler.NET
-Server informatio	π
Server name:	Network CD/DVD Mastering Server
Host:	MIRAGE
Service port:	3700
Usemame:	
Password:	
Force user iden	tification
Automatic login	Login Cancel

Username

This is the name of the account created in DiscJuggler.NET, which has access to the Network Server service.

Password

This is the password, or login security of the above account.

Force user identification

Enables password authentication to Network Server service.

Automatic login next time

Saves username and password for automatic login next time the Padus Network Console is used.



Features discussed in this section might not be available in the DiscJuggler license you purchased. The advanced networking technologies are available in DiscJuggler.NET. See "Feature Limitations" for more information.

Send Jobs with Console

Jobs can be sent in the form of disc image files to the Network Server service with the Padus Network Console. The console supports drag-and-drop capabilities for supported file types.

C:\label.jpg	I (BMP, JPG, PR	N):		
Copies:	Speed: Default	Support CD-R 💌		
Sales 2002 Q	3 Reports			
Image file in Path file: Size:	o: D:\CDs\e-msr. 346,767,360	cđi		
Path file: Size:	D:\CDs\e-msr. 346,767,360	cdi	Send	Cance

Once a disc image has been dropped onto the console (or File -> Send image file), you will be prompted for other options.

CD/DVD label

The disc label file to be printed by an available disc printer. This file can be a .BMP (Windows bitmap), .JPG, or .PRN (raw printer data) file.

Copies

The number of disc copies desired for this job. A messaged will be displayed if your account privileges do not allow for certain values.

Speed

The write speed for this job. A messaged will be displayed if your account privileges do not allow for certain values.

Support

Disc type for this job. A messaged will be displayed if your account privileges do not allow for certain values.

Text overlay

The text label to be printed by an available disc printer.

Send Jobs with DiscJuggler

Jobs can be sent through the DiscJuggler front-end and the various tasks it contains. To make sure DiscJuggler has proper authentication on servers that require a username and password, you must first login to the server, but make sure you use the "Show next time" feature, as indicated below.

			DiscJug	gler	NE
Server	Location	Version	Host	We	Ser
🛃 Network CD/DVD Mas	Unknown location	4.01	192.168.1.12 (MIR	8080	3700
Provide Mastering Ser	Parkie Inc. Show next time	4.01	192.168.1.29 (walter)	8080	3700

Once that has been done, you can use DiscJuggler to use the server as an available destination device.



If the destination server has specific privileges by user class, all options in the task might not be available.



Features discussed in this section might not be available in the DiscJuggler license you purchased. The advanced networking technologies are available in DiscJuggler.NET. See "Feature Limitations" for more information.

Menus

The following is the complete list of menus and commands available in the Padus Remote Console. Where applicable, each command is listed with its correspondent shortcut and icon:

- File
- View
- Action
- Help

File

Use the File menu to login, send image files, share a network writer, view a detailed log, quit the program, or perform additional functions:

Login

Displays "Server list" window for viewing or adding servers. Shortcut: $\mbox{Ctrl} + \mbox{L}$

Always on top

Forces Padus Remote Console window to always float above all other windows.

Send image file

Displays "Send image file" window for sending disc images to current server. Shortcut: $\mbox{Ctrl}+\mbox{I}$

Share network writer(s)

Displays "Share network writer(s)" window for configuration before starting network service on local system.

Stop shared network writer(s)

Stops network service on local system.

Show log

Displays log for network service on local system.

Configure server

Displays configuration options for current server.

Close window

Minimizes window to system tray. Shortcut: F10

Exit

Exits the program.

View

Use the View menu load windows listing current jobs on the server, writers on the server, or the server log:

Jobs

Displays current jobs on the server and functions to control these jobs. Shortcut: F1 $\,$

Writers

Displays writers on the server and functions to control these writers. Shortcut: F2

Log Messages

Displays log messages from the server. Shortcut: F3

Refresh

Updates the current window information. Shortcut: F5

Action

Use the Action menu to perform actions on jobs and writers associated with the server:

Delete job

Deletes the selected job from queue.

Increase priority

Increases the priority of the selected job.

Decrease priority

Decreases the priority of the selected job.

Enable writer

Changes status of writing drive to available over the network server.

Disable writer

Changes status of writing drive to unavailable over the network server.

Help

Use the Help menu to view the information about the Padus Remote Console:

About

Displays the program information, version number and copyright.