

CopyPro

Disc Copy Plus Network

User's Manual

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Users Manual

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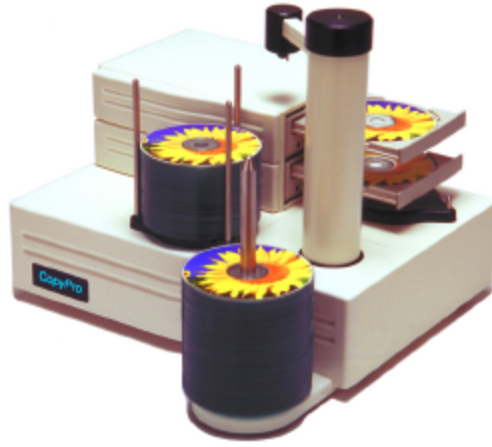
Revision 4B
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Disc Copy Plus Network



CopyPro MiniMax 150 disc duplicator

Overview

The Disc Copy Plus Network software allows a CopyPro disc duplicator to publish CDs over a network. The Disc Copy Plus Network software is controlled by a command file that directs the disc duplication and labeling process. The command file may be submitted to the Disc CopyPlus system via form-based Windows client software that generates and submits the command file to the system for processing. Users on a network with a CopyPro Duplicator will be able to create CDs and disc labels from their workstations, and submit it to the CopyPro for production.

The command file (which is a text file) may also be generated programmatically and submitted in an automated manner. This allows creation of automated disk publishing systems using output from a database or other applications.

A typical minimum system configuration would include a network with a client PC workstation and the PC based CopyPro disc duplicator. Other typical system configurations may include a network with multiple client PC workstations, network server, and the PC based CopyPro disc duplicator

System Components

Hardware:

- Disc duplicator - this is a robotic system that automatically loads discs into recorder drives or disc label printers. The disc duplicator is attached to a PC running the Disk Copy Plus duplication software. Typical disc duplicator configurations are, the CopyPro 5500 disc autoloader with 8 CD-R recorders and disc label printer or the CopyPro MiniMax 150 disc autoloader with up to three recorders and disc label printer

- Disc duplicator computer (connected to disc autoloader and recorder drives)
- Client computer (this is end user desktop system)

Software:

- Disc Copy Plus - this application manages the disc duplicator and controls the duplication and labeling process. This application writes the disc image file to the CD-R disc and prints the label on to the disc.
- DCPmon - this application initial processes command files and handles the ISO formatting of the data files (conversion of data files to a single disc image file)
- DCPclient - this is a windows client software that allows selecting files (and disc labels) for publishing to disc
- CDPainter - this is a disc label creation program that allows generating disc labels that have static text or graphics. In addition, it has capability for dynamically merging text and graphics on to a disc label, allowing unique label for each disc in a duplication job.

The Disc Copy Plus Network system consists of three main areas:

1. A Windows computer running the running DCPclient job submittal software.

Note in automated disc publishing applications, the DCPclient software is typically replaced by a database application or other software, which submitting command files to the system in an automated manner.

2. An optional server or intermediary storage area between the production center and the client. The server runs DCPmon or monitor software. If no server is used the DCPmon runs on the Window's client computer.
3. CopyPro disc duplicator with Windows-based computer running the Disc Copy Plus Software (DCP). Typical configurations are:

Typical disc duplication process using DCP client software

1	User creates request for CD with DCPclient
2	Request gets 'submitted' to Mail folder
3	DCPmon processes job and places in disc duplicator job queue
4	Queued job's image gets imported then produced by duplicator by DCP
5	The disc duplicator picks a blank CD-R disc, places disc in recorder drive, records the data, then moves disc to the label printer and then prints a label on to the disc. The disc is then placed in the disc duplicator's output spindle and a response file is generated by the DCP software.

Typical disc duplication process using command files submitted by host application software

Step 1	Host application software creates request for files to be published to CD-R disc
Step 2	Request gets 'submitted' to Mail folder
Step 3	DCPmon processes job and places in disc duplicator job queue
Step 4	Queued job's image gets imported then produced by duplicator by DCP
5	The disc duplicator picks a blank CD-R disc, places disc in recorder drive, records the data, then moves disc to the label printer and then prints a label on to the disc. The disc is then placed in the disc duplicator's output spindle and a response file is generated by the DCP software.

DCPclient

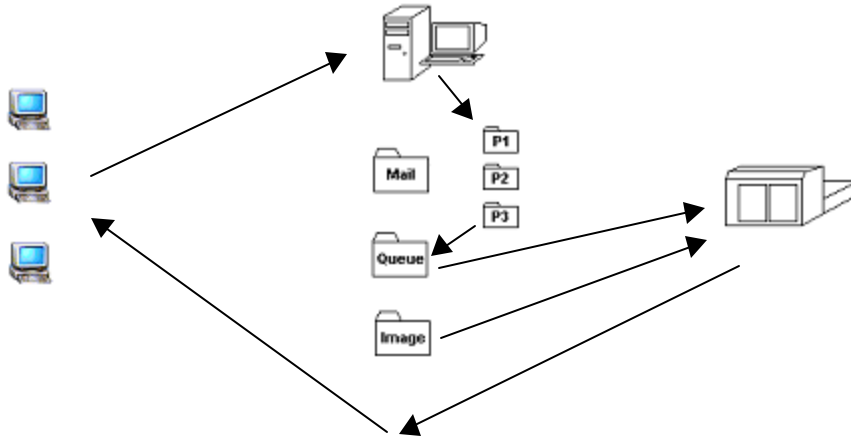
Network user computers

DCPmon

Monitor computer

Disc Copy Plus

Computer with disc duplicator



Network CD production environment

The three DCP software applications work together to create a network CD production environment. The end users (or users) use the DCPclient at their desktop to specify the content of the disc, number of copies, priority of the 'job', etc. The 'job' can be a preformatted ISO disc image, or a user can create a custom CD from files or folders on the network. The user may design labels with CopyPro's CdPainter program, or any other graphics program, and specify to have them printed on their discs with optional CD printer.

A user authors a CD with the DCPclient software. When a user is satisfied with a given job's parameters it is submitted to a 'mail' folder (step 1). The submittal file is the parameters of the job and a text file containing the path of the files to be put on the CD. The submittal files are relatively small because they don't actually pass the data, just the location. DCPmon reassigns the file (step 2) to P1, P2, or P3 based on the user specified priority (P1 being High). From there the ISO is created in the Image folder. Data is extracted from the source and formatted into the ISO that will be recorded. When ISO formatting completes, the command file is transferred into the Queue folder (step 3). DCP monitors this folder for new jobs (step 4). When the autoloader is ready, it starts the next job by importing the disc image from the network folder 'image' to the DCP local hard drive (or RAM) (step 5). Once the disc image is on the hard drive of the production center it is placed directly into the RAM where it is then recorded onto a CD and printing is done. When that job is completes, a response file is sent (step 6) and the next queued job begins.

Understanding the network setup

The three pieces of software communicate with each other through network folders. These network folders must correspond on all systems using DCP software suite. The software monitors these folders for changes and uses them for temporary storage data before data is imported and recorded. The three main folders are

- 1) A 'Mail' folder where command files created with DCPclients is submitted. Within this folder are three subfolders P1, P2, P3 that correspond to the three priority levels.
- 2) An 'Image' folder where ISO files are created to and stored prior to recording. Up to 8 ISO can be stored there at any given time so allow at least 6GB free space on that hard disc at all times.
- 3) A 'Queue' folder that the duplicator monitors for command files of new jobs.

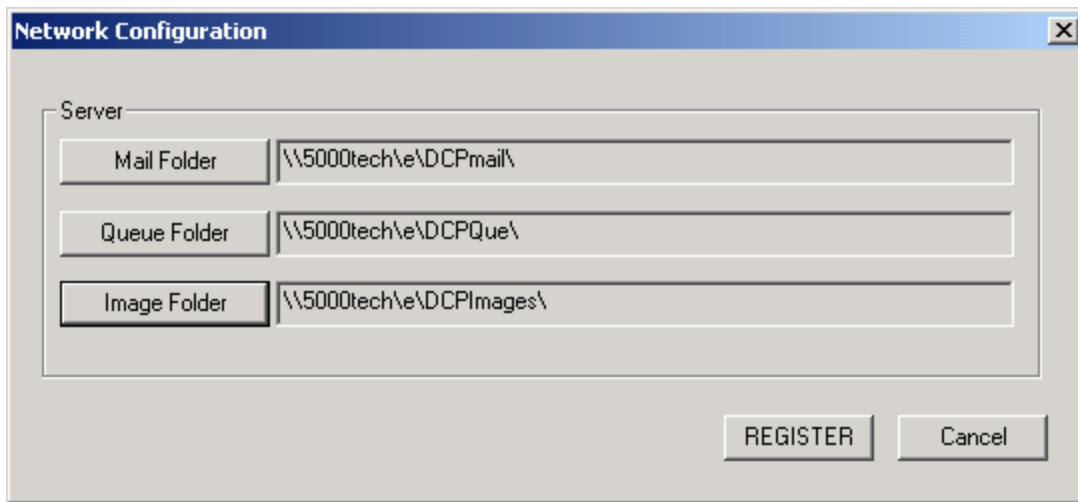
Configuring computer for the disc duplicator

Listed below is a summary of the installation process. In general, the three DCP applications are installed and then common directories are selected to allow communication between the DCP applications.

- Launch Disc Copy Plus software and select network job after startup screens.
- Select and then start a copy job
- Select Configure Network Duplication from the settings menu.
- Click enable network check box. (program may prompt for a password, contact CopyPro for a valid password)
- Select the que and the temp folders
- Click register
- Exit out of copy job screen then select network job. Disc Copy Plus production center is ready to accept network jobs. Any Previously Queued jobs will be automatically started.

Configuring DCPmon server software

Install DCPmon on DCP computer make sure that when in the settings menu specify the same folders specified as the other programs



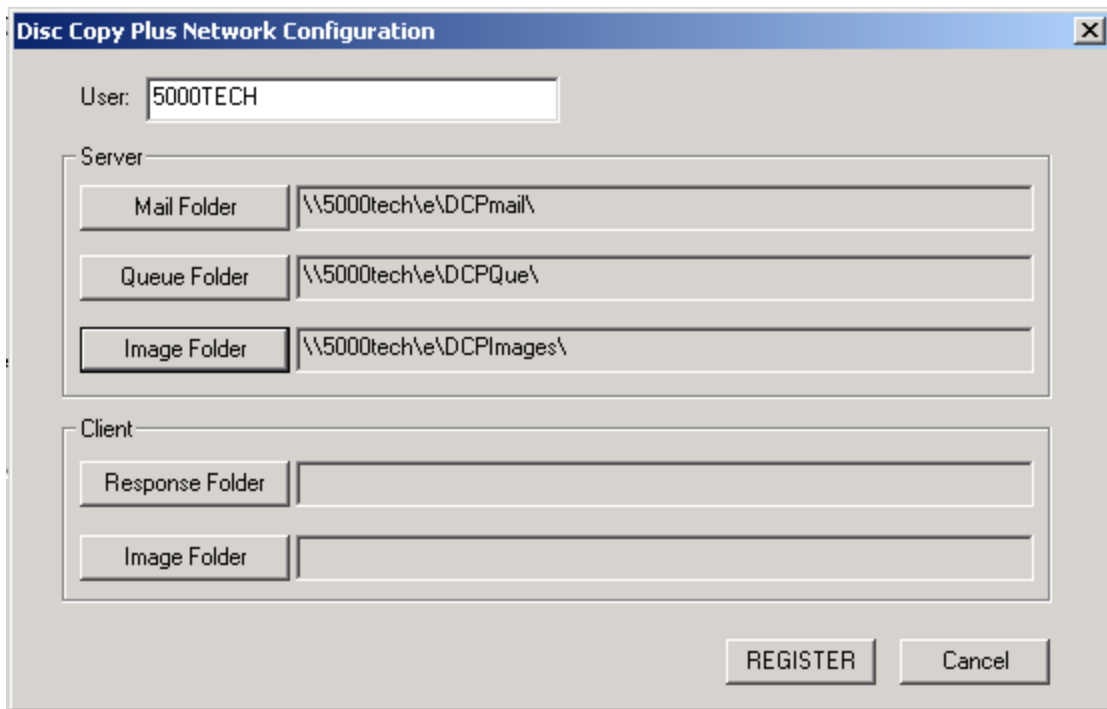
DCPmon serves as an intermediary between the End Users workstations and the DCP Production Center. It can be running on a computer that is also running DCPclient. Notice the directories specified are the UNC names rather than the local drive name (ie-> C:\folder). This will avoid potential data loss caused by local paths being issued for a task performed on a network machine. Select these folders carefully to avoid sharing issues.

The DCPmon has a formatter application that runs in parallel with it. This formatter program extracts files and folders from the network as specified by the user and formats them into a CD recordable image (ISO). This ISO is passed to the DCP Production center from the Image folder when the command file is detected in the queue folder by DCP Production Center. Put the Image folder on a drive local to the computer running DCPmon.

To select, specify the network folder to use click the button. (ie-> 'Image Folder' button). Browse to the folder then select it and hit OK. After the process has been repeated for all the folders, click the register button.

Configuring Client software DCPnet

Install DCPnet on end user workstation. Under settings menu specify the exact same folders specified on the duplicator and DCPmon setup



The screenshot shows a dialog box titled "Disc Copy Plus Network Configuration". It has a "User:" field with the text "5000TECH". Below this is a "Server" section with three rows: "Mail Folder" with the path "\\5000tech\ve\DCPmail\", "Queue Folder" with the path "\\5000tech\ve\DCPQue\", and "Image Folder" with the path "\\5000tech\ve\DCPIimages\". Below the server section is a "Client" section with two rows: "Response Folder" and "Image Folder", both of which are empty text boxes. At the bottom right of the dialog are two buttons: "REGISTER" and "Cancel".

There are additional folders listed on client configuration. The Response Folder is the directory a user wants a confirmation file sent to when his or her job completes. Be certain the response file assigned is visible to both the DCPmon computer and the Duplicator computer.

The Client Image Folder is the directory where images created by the DCPclient user rather than DCPmon are stored. The formatting or image creation will have taken place prior to job submittal. The Disc Copy Plus software extracts the image directly from this folder prior to recording.

Creating a data CD from DCPclient

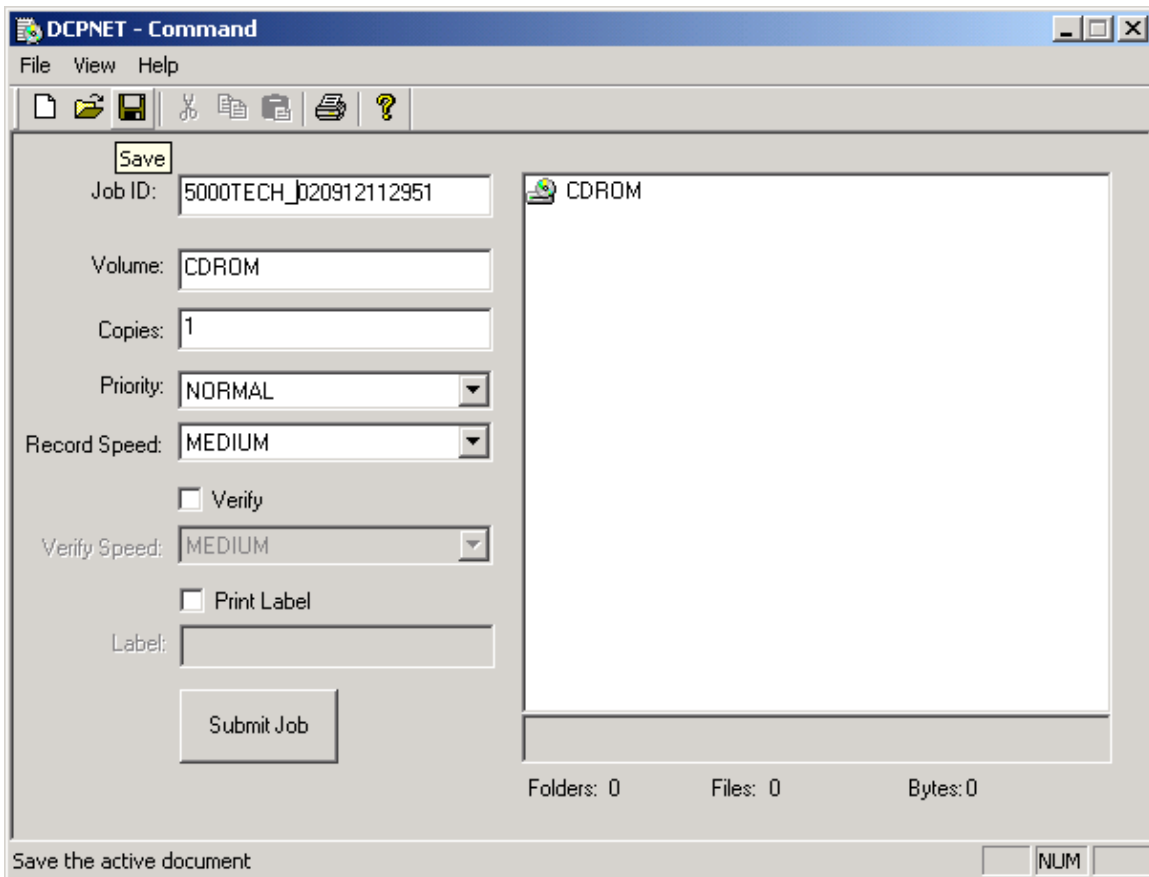
Select New from the file menu

Add files and folders in white space under CDROM by right clicking in white space. (Or a previously created ISO or DIM file can be specified.)

Specify other parameters

- Job ID:** Is used as the filename for a command file. Default is a mixture of the creation computer's name and a time stamp.
- Volume:** Will change the name, as it appears when put into a CDROM drive
- Copies:** The number of CDs to be produced by that job.
- Priority:** Order that jobs submitted get formatted by DCPmon. Will not supercede jobs already in Queue.
- Record Speed:** When burning the disk the speed that the data is put on the disk. 16x is faster than 8X etc.
- Verify:** After recording if the user wants the data re-read by the drive and checked against the master image. Takes longer to finish the disc with this additional step.
- Print Label:** If graphics and text are to be printed on the disc after recording. Create the label file with CdPainter and specify this CdPainter file or create a PRN with the appropriate disc printer driver.

Click Submit Job: when job is ready for production. Jobs parameters are sent to 'Mail' folder. The Job parameter can be saved for future submittal.



Creating a label file with CdPainter software

Please see the CdPainter Manual.

Tips, FAQ, Troubleshooting

- What is 'Print Process Creation failure' when printing a CD on the production center of CdPainter.exe file not found. The CdPainter application is run from a command line when disc printing occurs. Either the label need to be saved in the same folder as the CdPainter application or ;c:\program files\copypro\cdpainter needs to be added to the path statement under environmental variables so the label file can reside anywhere.
- The ISO formatter is extremely processor intensive. Users might want to put this load on their desktop computer rather than the DCPmon computer.
- Make sure to use network names UNC ie->
 - \\ computername\sharename\folder\file.ext is see by all computers to avoid various missing file issues.
- People often confuse disc 'image' with disc 'label.' A .dim file or an .ISO file is the actual data content of the disc or 'image.' A label file is what you want printed on the face of the disc by the printer.
- Preformatted disc images can be used rather than have DCPmon format them. When creating a job specify a DIM file previously created with Disk Copy Plus or a Mode1 ISO created with Any CDR software. The advantage is the preformatted image data gets passed only once across the network and requires minimal processing by DCPmon.
- Have the Network Image folder reside locally to the machine running DCPmon for faster image formatting.
- Do not run DCPmon on the same machine as Disc Copy Plus because recording will fail when ISO formatting and recording are happening simultaneously.
- DCPMON stalls on receiving file. Make sure the P1, P2, P3, subfolders are present.

Glossary

- Autoloader** The robotic mechanism that loads and unloads the recorders and print from input spindle holding CDs.
- DCP** Abbreviation for 'Disc Copy Plus.' Also referred to application running on Duplicator.
- DCPmon:** Software that monitors the que for incoming jobs from the client. Formats unformatted ISOs, and assigns the order for the next job on the workstation.
- DCPclient:** Name of application end users use to create jobs for the duplicator.
- DIM** Extension for a 'disc image' file. This is all the data content of a CD. The CD can be audio, data, mixed. When a DIM is created all of the content of a CD is stored as a single file.
- Duplicator:** The entire computer dedicated to CD production with autoloader, CD printer and CD recorders. Sometimes just called the 'CopyPro'.
- Image** Data contents of a CD extracted as a single file. See DIM and ISO.
- ISO** Extension for ISO9660 the standard format a data disc is structured on the CD.
- Job** The specifications of the CD to be produced. Number of copies, content, label file, etc.
- Label** The words and graphics that the user wants printed on the disc as designed by CdPainter software.
- Production Center:** See Duplicator
- UNC:** Universal Naming Convention. Full Windows2000 name of a resource on a network. Conforms to \\ computer name \ sharename \ folder \ file.ext syntax, rather than c:\folder\file.ext. This is the file name as it appears under 'My Network Places' or 'Network Neighborhood'. It is used by disc copy plus because the c: drive on one computer will not have the same content as a c: drive on another computer. Use UNC file names for all DCP tasks to avoid potential file error, loss of data etc.

Disc CopyPlus Network Command File

Overview

The client system (or host computer) submits the Disc CopyPlus Network Command file to a directory available to the CopyPro disc duplicator system. The disc duplicator system detects and then processes the command file. The command file contains the information needed to create the CD-R disc image that is recorded on the disc and to print the disc label.

Command file example

Command examples	Notes
IDENT = CPRO	Job Label
JOBID = CPRO_030528172017	JOBID is generated by client software using job label and date.
PRIORITY = 2	Set for 1 (high), 2 (standard), 3 (low)
RESPONSE = \\Cpro\NET88\RESPONSE\	Directory where systems responses are stored
VOLUME = MYLABEL	Disc volume name
DATAMODE = 1	Setting is MODE 1
ISOTYPE = JOLIET	Setting is Joliet
COPIES = 10	Number of copiers
WSPEED = 12 X	Record speed may be number syntax or MIN, MED, or MAX
VERIFY = YES	Enable disc verification
VSPEED = MAX	Record speed may be number syntax or MIN, MED, or MAX
LABEL = \\Yin1\Labels\NetEverything.Cdp	Location of label file
ADDCONTENT \\Yin1\EVIDENCE	Command to add contents of folder (files and directories) to the root directory of the CD-R disc image.
ADDFOlder \\Yin1\ISOROOT\Downloaded Utilities	Adds a folder to the CD-R disc image.
ADDfile \\Yin1\ISOROOT\Pictures\Bitmaps\Dinosaurs\Edmontonia.bmp	Adds a file to the CD-R disc image.