

Perfect Original Quarterly

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The 3.5" Disk Shortage: Is It Real?

In the summer of 1987, DisCopyLabs did 10% of its diskette reproduction orders on 3.5" diskettes. Now 40% of the orders are on 3.5" media. By the end of this summer, I anticipate that half of the orders will be for 3.5" diskettes.

A number of developments have contributed to the dramatic increase of 3.5" format use:

1. Success of the Apple Macintosh in the corporate world
2. Success of the Apple IIs in education
3. Acceptance of lap top computers
4. IBM endorsement of the 3.5" format with the PS/2 computer
5. Success of third party software companies selling specifically to the Macintosh market.

Software developers are also including both 3.5" and 5.25" formats in each retail package shipped in order to accommodate personal computer users with either type of drive.

The exploding demand for "micro-floppy" disks caught many media manufacturers by surprise, with the demand for 3.5" disks outstripping supply by more than 30%. All of the major media manufacturers are adding capacity: Sony in Texas and Mexico, Fuji in Japan and KAO in Canada. Disk shortages may last until new factories are on-line late in 1988.

Most large computer companies, software companies and software-related companies have not been hurt, partly because of long-standing supply arrangements. However, small retail stores and small software duplicators may be scrambling for media supplies.



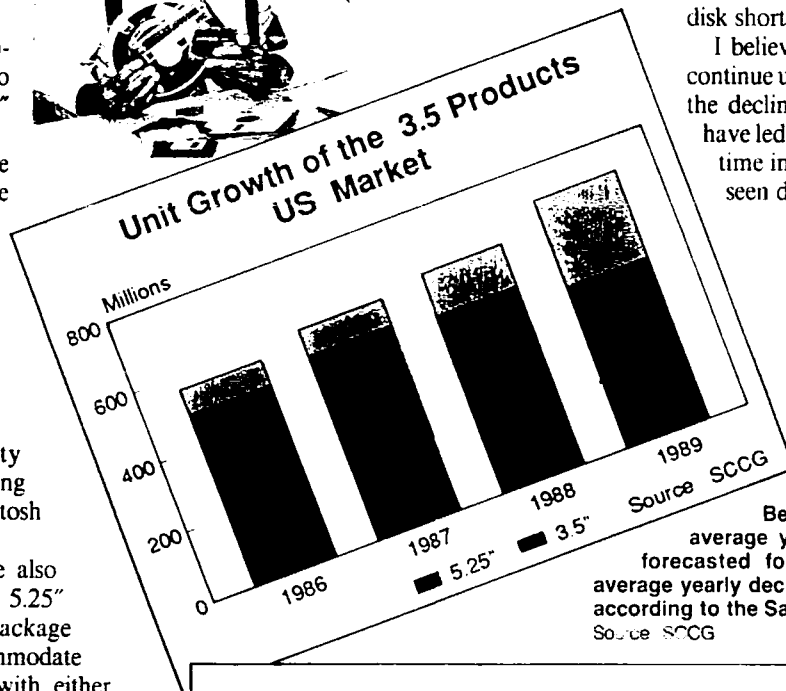
Norman Tu shows magnetic tapes, data cartridges and disks, representing DisCopyLabs' versatile reproduction services.

Photo by Hemming & Morse Inc

DisCopyLabs anticipated the increase in demand back in August 1987. In October, I went to Japan to visit with Japanese suppliers and discussed their capacities along with DisCopyLabs' anticipated needs. Consequently, in the busy months of November, December and January, DisCopyLabs did not have to turn away orders because of disk shortages.

I believe that the demand for 3.5" will continue unabated. Shortages, coupled with the decline of the dollar against the yen, have led to price increases. This is the first time in six years of business that I have seen disk prices increase.

Norman K. Tu, President



Between 1986 and 1991, an average yearly growth rate of 28% is forecasted for 3.5" products, versus an average yearly decline of 1% for 5.25" products, according to the Santa Clara Consulting Group.
Source: SCCG Photo: F.M. USA Inc

Magnetic Tape Replication Initiated

DisCopyLabs welcomes mainframe users to its production services with the introduction of 1/2" magnetic tape duplication. DisCopyLabs replicates 1/2" tapes on 600-foot, 1200-foot and 2400-foot reels (800 BPI, 1600 BPI, 6250 BPI).

DisCopyLabs offers an error-free, cost-effective means of reproducing reels. DisCopyLabs uses its consistent quality control procedures to deliver guaranteed copies. DisCopyLabs can also offer magnetic tape customers other production services, including labeling, package assembly and order fulfillment.

For an evaluation copy of master tapes at no charge, simply send a copy of your master and a blank tape, and DisCopyLabs will return the copy for your inspection.

For pricing, call Patty Doherty, DisCopyLabs' Accounts Manager, at (408) 433-0900.

PACKAGING COORDINATION COMES WITH THE ORDER

For the software writer with a master program and many production concerns, DisCopyLabs' staff can provide not only technical information, but also information about labels and packaging. With this information, a customer can choose the way a software package is presented from label placement to package component design and mailing boxes.

Packaging Advice

What kind of packaging advice can a customer expect to receive from DisCopyLabs? DisCopyLabs will consider such issues as package weight, disk protection and finished appearance in advising customers on how to save production costs with their package design. Since DisCopyLabs does not represent any manufacturer, designer or vendor, customers receive objective product packaging advice.

Once a customer decides on the packaging components, DisCopyLabs then provides in-house assistance to be sure packaging specifications are met. DisCopyLabs' customer contact is Laurie Butler, Packaging Coordinator.

Packaging Coordinator

For over a year, Laurie has used her business management degree from Oregon State University and office management

experience to assist customers in simplifying and implementing packaging choices.

"My job is to make sure that the customer gets what he wants within our resources," said Laurie. "As the packaging information center for the customer, I am as specific as a customer wants regarding a package assembly."

Laurie works with the customer to be sure packaging specifications are complete. She documents sample builds and component lists, translates assemblies into instructions, verifies sufficient inventory materials by order and checks for accuracy of assembled products.

Package Planning

Before working through a package concept, Laurie suggests that a customer have information about the final desired package. This includes the number of diskettes or other media, package components, the market the package is intended for, its channel of distribution, package quality standards and the number of packages to be assembled.

These considerations help to determine the selection of packaging materials, assembly complexity and production cost.

Part Numbers

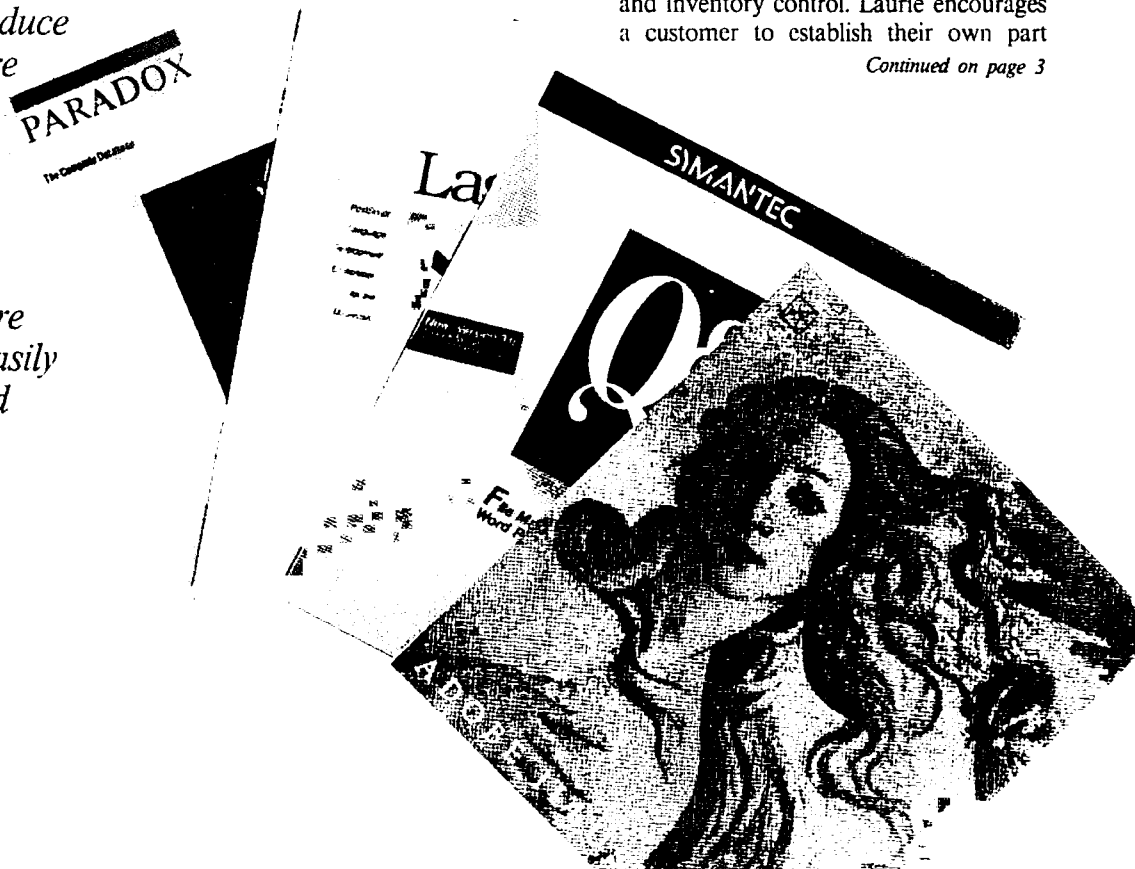
Once final package characteristics are agreed on, Laurie emphasizes the importance of establishing part numbers for each individual component in the package. The part number is the identification code for the entire system, from the customer's ordering to DisCopyLabs' warehousing and inventory control. Laurie encourages a customer to establish their own part

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Laurie Butler
Packaging Coordinator

In the challenge to produce packages from software to finished product, DisCopyLabs provides its customers an important edge with free packaging advice, helping to insure that products can be easily produced and delivered at reasonable costs.



Data Cartridges Increase Program Efficiency

Software developers are choosing 1/4" data cartridges as a media storage alternative. Widely used in the Unix market, data cartridges store more data, are more durable and quicker to install than floppy diskettes. Data cartridges store 45-60 megabytes of information, versus 1.2 megabytes on a high density disk, providing a clear alternative to both developer and user.

Data & Scientific Uses

Quarter-inch data cartridge tapes are often used to store databases and scientific information using CAD/CAM/CAE programs. Historically used to back-up data on personal computers, 1/4" data cartridges are now used in work stations and super-microcomputer systems and for installing programs on local area networks.

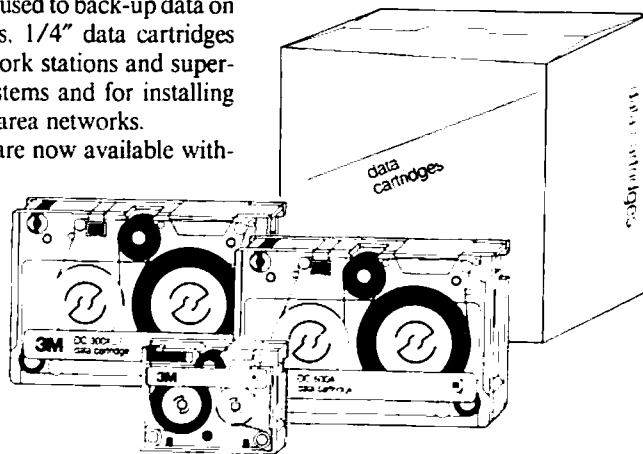
Data cartridges are now available with-

out the manufacturer's label and can be labeled with a customer's corporate identity.

DisCopyLabs uses state-of-the-art technology to reproduce 1/4" data cartridges in the DC300XL/P and DC600A sizes for QIC-11 and QIC-24 formats.

Mini Data Cartridges

DisCopyLabs plans to offer reproduction services for DC1000 and DC2000 sizes in QIC-100 (Apple) and QIC-40 formats by this summer.



Computers Create New Media Trends

With the introduction of a new generation of personal computers and creation of new families of computerized systems, DisCopyLabs has observed a significant increase in the use of high density media as well as data cartridges and 3.5" diskettes. DisCopyLabs' customers are also taking advantage of new media features and packaging trends.

High Density

With the availability of high density disks and more 286 and 386 machines with high density drives, software developers are requesting high density media. This decreases the number of diskettes required and saves 20-40% in media costs.

High density 3.5" media stores 1.4 megabytes of data versus 720K, doubling the storage capacity on one diskette. High density 5.25" media stores 1.2 megabytes of data versus 360K, providing three times the storage capacity.

Colored 3.5" Media

One year ago media manufacturers made 3.5" diskettes only in grey, blue, white and beige colors. Today these colors are considered standard, with no additional media charge. Manufacturers like Sony, KAO, Fuji and Sentinel also offer a rainbow of colored diskettes for a nominal surcharge.

Write-Protected Diskettes

For programs that do not need alteration, notchless 5.25" diskettes are available. Producing a program on notchless diskettes saves on the cost of applying a write-protect tab.

On 3.5" diskettes, the write-protect function is controlled by tabs. Now 3.5" tabless diskettes can be used for programs not requiring alteration by the user. Requiring less production handling, these tabless 3.5" diskettes provide greater media protection and faster production throughput.

Multiple-Disk Packages

Business software frequently requires multiple disks for each product package. Because of program complexity, it is not unusual for a package to have 10 or more disks.

To facilitate package assembly and increase capacity, DisCopyLabs recently installed automated disk collation equipment. The collation machine can collate 13 masters in a package at an output rate of 1000 packages per hour.

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Packaging Coordination Comes With The Order

number system, although DisCopyLabs can assign numbers if a customer desires.

"Part numbers greatly facilitate the entire operation," Laurie points out. For example, materials pulled for package assembly lines require part numbers. A customer can easily initiate a change in packaging specifications by referencing part numbers.

Bill of Materials

An important part of placing orders is the Bill of Material (BOM) that lists the part numbers, description and quantity of each component and finished goods part number. A customer should also provide DisCopyLabs with assembly instructions and a sample package. DisCopyLabs will gladly assist a customer in preparing the BOM and assembly instructions.

Laurie encourages customers to consider warehousing their packaging materials with DisCopyLabs to minimize handling and

facilitate turnaround time. DisCopyLabs keeps inventory records and alerts customers of material shortages. This helps coordinate the availability of packaging materials with reproduced software.

Quality Control

As with other DisCopyLabs services, accuracy of assembled packages is of utmost importance. Laurie and her staff begin the quality control process by taking apart the first completed package. Packages are then checked throughout the assembly process.

Package Trends

In her time as DisCopyLabs' Packaging Coordinator, Laurie has seen a trend towards lighter, smaller packages using simpler and less expensive materials.

New packaging considerations include the "how to" of collating and wrapping multiple disk sets, packaging both 3.5" and 5.25" in one package, packaging the heavier 3.5" disk and using simple folders and sleeves for diskettes.

Tryin' To Keep The Customer Satisfied

By Marge Veraguth, Quality Control Technician

*I think that I shall never see
A software company like DisCopy,
Where everyone from near and far
Can work together, and they are
A team that gets the package done
And still has time for lots of fun.*

*From duplication, labeling, packaging and R & D,
Fulfillment, receiving and shipping, don't forget lil' ol' QC,
From sales and purchasing, hardware and customer support,
It's amazing! Someone's always ready to hold down the fort.
Each department carries the ball as it travels along its route,
Always ready, willing and able to help get the product out.*

*When customers call, and all they can say is "we needed
it yesterday",
Someone's at hand to start it all out and send it along its way.
Some days we work from dawn to dusk, and then from dusk
to dawn.
It seems that everything is a rush. Is there never a chance to
feel calm?
But even when there is no time, and it seems the whole
world's crazed,
Someone rushes by with a word of encouragement, or stops to
offer praise.*

*The office staff is so well known for the many things they do,
From handling insurance to invoicing and issuing checks, too.
They handle customers with finesse. They know just what to say,
And when you have a question, they're there to save the day.
From management on down through the ranks, you'll never fail
to find
A smiling face, a helping hand, each one willing to take the time.*

*Norman and Antonia started it all, and you can always give them
a call.
They stand behind their company, known for its "perfect originals".
From a little company that grew and grew, they sure didn't do
it wrong.
Everyone here can take a bow, for we now are mighty strong.
In the software game there are a few who claim to be the best,
But take a look and you can see who's ahead of all the rest.*

*The opportunities to learn new things, the challenges are a way
To give the crew the variety that carries them through each day.
And when a problem does arise, for tech support, etc., we only have
to shout.
A phone call here, a phone call there, it's nice to have such clout.
From receiving orders to "out the door", each one can say they tried.
Day and swing, co-workers all, just tryin' to keep the
customer satisfied.*



DISCOPYLABS

The Complete Software Production Company

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San Jose, CA 95134

Service Directory

For information call: (408) 433-0900
FAX: (408) 943-1209

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|---|--|
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Sandra Woodrow |
| • Order placement—Diskettes | Mildred Low
Cindy Guerrero
Mary Hand |
| • Order placement—Tape & Data Cartridge | Tony Bandith |
| • Packaging specifications | Laurie Butler |
| • Conversion/downloading orders | Vincent Wan |
| • Copy protection and master evaluation | Raman Marwha |
| • Shipping and delivery status | Feix Tabora
Don Scott |