

# A Duplication Dilemma:

## Is It Time to Switch to Discs?

by Amie Hoffner



**A**s a church leader, it's difficult to stay at the forefront of technology. While parishioners make requests and the resident IT guru presents proposals, you're often left to sift through the vast wealth of information and make the best decision for your church.

When it comes to CD and DVD duplication and printing, having a specialist in the field can help. "It's really important to know the industry," says John Krainock, president of Colorado-based Summation Technology. "We specialize in helping churches move from tape to CD and DVD duplication and printing systems. We call about three churches a week and find that most don't even know CD and DVD duplicators and printers exist!"

That, he says, is a problem: "Church leaders should know that CD and DVD duplication systems are quickly surpassing tape as the best solution for archiving and distributing audio and video. In fact, duplicating CDs and DVDs is often less expensive than duplicating cassette and VHS tapes."

Indeed, price was one of the reasons Dave Clouse, production supervisor at Heritage Christian Center in Denver, Colo., says he switched from tape to CDs and DVDs. He says DVDs cost the church 78 cents each — far less expensive than the cost of a VHS tape. "We produce 12,000 CDs every month, and for that volume we can put them out the door far cheaper than cassettes," Clouse explains. "Not only that, but the quality is much better."

Krainock says that while price and quality are a concern with finished discs, it's also important to reach the largest number of people. "Since most cars only have CD players — and with many people switching from VHS to DVD — churches can reach more potential members

and existing followers by switching from tape to CDs and DVDs." While some churches sell discs, others ask for donations. "Either way, most of the churches we move from tape to CDs and DVDs double their volume in no time," Krainock says.

Clouse adds that when his church moved from tape to CDs and DVDs, it increased its volume and was able to pay back the initial hardware cost in six weeks.

### Price Points

CD and DVD duplicators, printers and publishers aren't exactly inexpensive — they can range from \$1,500 to \$10,000, depending on the model.

Krainock says church leaders usually choose one of two types of duplication and printing systems: a tower duplicator with a CD/DVD auto-printer or a CD/DVD publisher. If discs are needed right after an event or service, church leaders usually choose a tower duplicator with a CD/DVD auto-printer, he says. "Churches that require a fast turn-around often preprint their discs with an auto-printer and then use a tower duplicator for burning," he says. "With a 10-drive tower system, churches can produce nine 750-megabyte CDs in three minutes!"

For church leaders not crunched for time, CD and DVD publishers are a simple solution. Publishers use a robotic arm to automatically burn and print discs. "The idea here is that the church starts a job and walks away," Krainock says. "The CD/DVD publisher does the work for you; you can literally start a job at the end of the day and come back in the morning to find 50 finished discs."

### Speaking to a Generation

While price and quality are concerns for some church leaders, CD and DVD duplicators can

certainly help get youth interested in a Christian lifestyle. "The younger generation just doesn't listen to tapes — I'm not even sure they know what they are!" jokes Brian McLaughlin, youth pastor at Hillcrest Baptist Church in Logansport, Ind. "We moved to CDs to reach our youth through music ministry and to help promote a Christian-college experience."

But presenting CDs and DVDs to young people is only one way to reach them. "Most young people enjoy music, so we plan to have several students create their own Christian music CDs," McLaughlin explains. "For those youth interested in graphic design, we'll have them create the graphic images to be printed on each disc. We expect that some of these teens will even make their own music videos that we can duplicate on DVDs."


Many other church departments can use CD and DVD publishers as well. Since complete systems can record audio, video, photos,

music, data and images, almost any content can be archived and distributed on a CD or DVD.

Many churches use CD and DVD duplication-and-printing systems to present Bible-study classes and special speakers to home-bound members, or to those who can't attend an event.

Church leaders can also present a disc to couples getting married, distribute syndicated television and radio programs or record video of mission trips and sell the DVDs as a fundraiser.

Heading up a company that sells CD and DVD duplication and printing equipment, Krainock sees firsthand how churches are using their CD and DVD duplicators and the issues associated with their purchase and use. Overall, he says, when leaders of large churches discover that bringing CD and DVD duplication in-house is less expensive than duplicating tapes — and that the quality is superior and they can reach a greater number of potential members and members — it's "really a no-brainer."

For smaller churches, justifying the hardware cost can be more difficult, he says, but using it in multiple departments can help. "If all else fails, we've had smaller churches ask for donations to recruit new members by giving away CDs and DVDs," Krainock says. "And they've been successful." 

Amie Hoffner represents Primera Technology, Inc., in Plymouth, Minn. To learn more, log on to [www.primeratechnology.com](http://www.primeratechnology.com).



# ON THE SPOT

use Taiyo Yuden brand discs. If you use a disc-duplicating house, make sure the media it uses for your project is Taiyo Yuden, Verbatim or MAM-A (Mitsui).

## A Quick Guide to Ministry CD Recording and Production

Most ministries see the need to record and archive events, especially when a special guest is presenting or a unique subject is being covered. After all, it's a strong marketing tool, not to mention a potential revenue source.

Of course, live recording and distribution require the ability to make fast copies onsite. Recording equipment must be selected for ease of use in a live (but controlled) environment. Also, the printing of labels, inserts and packaging must be done in advance.

### Prep Time!

There are three common solutions for labeling your discs:

**Direct-to-disc thermal printing:** Thermal printing is the highest-quality option for do-it-yourselfers, but it might require a greater investment in equipment. Using ribbons and heat, thermal printers print quickly, need no drying time, won't smudge, and are water-resistant. Use thermal printing when you want a professional look and don't mind being limited to one color. There are some good, quality thermal printers available for as little as \$135; however, these print one at a time and must be manually loaded.

**Direct-to-disc inkjet printing:** Inkjet printers are economical, printing directly to the disk with a high-resolution, quick-drying ink. Use inkjet printing when you want to use detailed graphics or photos. There are cost-effective, automated inkjet disc-printing choices offered by several manufacturers that will quickly print your discs with high-resolution, detailed graphics. The ink, however, is water-soluble and might smudge when exposed to moisture. New-to-market smudge-resistant inkjet media is becoming available, but at a premium price.

**Preprinted paper labels:** These are the least expensive solution, but don't use them if you plan to archive your discs or to use them in high-speed drives. Paper labels will break down in dry environments, causing the adhesive to pull at the lacquer surface and making the disc unreadable. High-speed drives can cause labels applied off-center to spin poorly in the reader. Paper labels can delaminate with the heat of your CD player and get stuck.

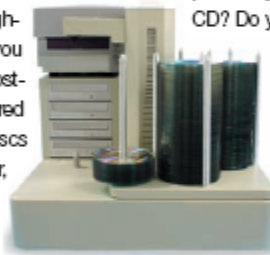
When choosing your packaging, consider less brittle options than a jewel case, such as a "clam shell" or DVD case. Jewel cases are easily broken and scratched.

Print and add any inserts beforehand rather than at the time of production. You'll produce a higher-quality finished product if you aren't rushed.

### CD-R vs. CD-RW

CD-R media is preferable to CD-RW and less expensive. CD-Rs are "write-once" discs that can be recorded, but not erased. High-quality CD-R discs can be read on most every type of CD drive, including older units. CD-RW discs are erasable and allow data to be added until the disc is full. Old car players and Walkmans might not be able to play certain CD-RW media, and laptop drives are traditionally finicky. High-quality blank discs will result in high-quality recorded discs that will be recognized by most CD players.

Because of their economy and performance, many recording professionals



### A Controlled Environment

Considering live event recording takes place outside the studio, there will be challenges with acoustics and microphone placement. Background noises will be present. Going directly from recorder to copier leaves no time for enhancements, multiple takes aren't possible, and there's no time to go back and edit content.

Is your presenter staying at the pulpit or walking around? Is he or she constantly changing voice volume? Experiment with microphone placement and discuss requirements with those you'll be recording. Test before you record to check for any background noises, echoes or presenter idiosyncrasies. You want your recorded content to be understandable.

As such, it's recommended that your recording be limited to spoken word, as recording music requires a professional understanding of recording, mixing, editing and production.

### The Equipment

Surprisingly affordable equipment is available today to simplify the process. Automated disc printers will preprint your discs, a live recorder will record the event to a master disc, and a duplicating tower will generate copies from your live master.

First, find a live audio recorder that suits your needs. Do you need portability? Are you planning to convert your archives from audiotape to CD? Do you need digital inputs?

If your services typically won't fit on standard 60-minute audio discs, you'll want to purchase a recorder with a disc-spanning feature that will continually record by seamlessly using the second recorder when the first recorder becomes full.

Next, choose a manual-load duplicating tower with superior drives. Manual towers offer fast turnaround, producing up to 10 copies in one two- to three-minute run. Automated solutions simply can't meet those speed requirements.

Manual towers are offered in many configurations, ranging from one to 10 drives. The number of drives signifies how many discs can be duplicated at once. Today's CD drives burn at 52x, which means if you use 52x media, your burner will burn your discs at up to 7.62 megabytes of data per second.

A tower with Plextor brand drives is recommended. Plextor has the reputation of burning incredibly fast and accurately, and being virtually trouble-free to operate, producing discs that are compatible with most players.

Consider your needs and the optimum speed of your tower and media when planning your tower purchase. The more drives a tower has, the more it will cost. Buy a tower that will fill your present needs with additional drives to accommodate the increasing demand for your message. As with any project, the equipment you choose must have the right combination of price, quality and time required to accomplish the task. There are many cost-effective equipment choices available designed to quickly produce professional-looking, high-quality disc copies.

By buying equipment favored by knowledgeable professionals in the field of recording and duplication, you'll significantly reduce your learning curve — and be using your precious financial resources wisely.

Frank Quinlik is the vice president of Media Supply Inc., and has developed CD and DVD mastering procedures for various corporate and independent service bureaus. Quinlik has also written guides on CD audio mastering, disc shelf life and disc archiving.

