Managing Your Organization's Data and Multimedia Disc Burning Strategy

Roxio's enterprise software delivers a cost effective and convenient way to deploy and manage data and multimedia disc burning for businesses and institutions

Introduction

Optical storage devices including CD and DVD drives have become essential and ubiquitous on desktop and laptop PCs in organizations from small businesses to large enterprises. With the expanded capacity and increasing popularity of Blu-ray, the use of optical media as a way to backup, archive and share data and digital media will continue into the foreseeable future.

There are many reasons for the popularity of optical media, including:

- The huge installed base of CD and DVD drives including both computer based readers and devices built into CE devices.
- The low cost and easy portability of optical media.
- The technology is mature and stable
- The technology is flexible and multi-purpose – it can store not only data, but also multimedia content such as video presentations.

However, the very prevalence of optical storage devices within organizations presents special challenges to system administrators and IT departments. A device is only as useful as the software that controls the device. To remain efficient and to save time and money, software solutions for disc burning are required that have scalable features and are convenient to deploy, meet legal and licensing requirements, are reliable, secure, and will work with different operating systems, PCs, disc formats and network configurations.

This paper shows how Roxio's Enterprise solutions can be used by organizations for reliable and secure disc burning of data and multimedia.

Beyond the OS

Both Windows and Mac OS offer burning capabilities, but these are limited and not robust enough to meet organizational requirements. In fact, even some basic burning functions are lacking in the operating system. An important aspect of a comprehensive disc burning strategy is to provide burning capabilities that are missing in the operating system.

Roxio conducted research to find out what end users do most often with disc burning software. Disc copying is one of the most frequent user activities. Burning more data than can fit on a single disc and making multiple burns of the same data set are also common burning tasks. None of these can be accomplished using the burning tools in the operating system.

The default disc burning format in Windows is only suitable for CD/DVD-RW (rewriteable disks) and not to CD/DVD-R (write once) discs, but this is not made clear to end users. Discs burned using default settings are only readable on Windows computers, and will probably not be readable on non-Windows systems such as Mac. Although the default settings can be changed, it is not obvious, requires several additional steps, and can result in wasted time and discs.

Furthermore, users in different departments or teams within an organization have special requirements. For example, marketing and creative professionals require the ability to archive large graphic and video files to disc, and the ability create multimedia projects, whereas operations and finance are typically concerned with ensuring that data is secure. The burning

capabilities of the operating system are simply too limited to handle such tasks. A solution is required to meet the needs of these users.

Here are examples of burning tasks that are lacking or difficult to accomplish in the operating system, but are highly useful and even necessary for virtually every user in an organization:

- Disc copying
- Incremental and scheduled backup
- Compiling data and audio from various sources onto a single disc
- Disc labeling
- Data spanning across multiple discs when files are too large to fit on a single disc
- Encrypting and compressing data when burning

The following features are of special interest for creative, sales and marketing professionals, and also require a robust burning solution.

- Creating multiple burns of the same data set
- Creating multimedia slideshow and video presentations to distribute on disc
- Creating and editing voice-overs for video and DVD presentations
- Managing and archiving large multimedia files
- Saving burn projects for later use
- Disc image creation and burning

Later in this document, we will give examples of how Roxio software can enable users to accomplish these tasks.

Usability

Features and functionality are not the only considerations when developing a plan to deploy disc burning software. Usability is also important.

End users require software that clearly presents and explains the various available tasks, and guides them through the steps clearly.

Ease of use requires careful planning of a number of factors including:

- Logical Workflow, with the ability to accomplish the most frequent tasks with just a few steps even if the underlying technology is complex
- Meaningful visual cues, including icons and other graphics
- Attractive design, so the experience is pleasing
- Well organized help files and documentation
- Tutorials

Let's consider a typical user scenario to see how functionality and usability can work together to help a user to accomplish tasks.

A marketing manager is working on a video project. Sales has asked for a DVD-Video for a sales training that consists of video excerpts from a keynote speech given by the company's president, combined with photo slideshows and videos showing off the company's products. The product scenes require text overlays and voiceover.

The workflow for creating DVDs is simple using Roxio software: Capture, Edit, Burn.

Capture:

The manager connects a camcorder that contains the video of the keynote speech to the PC using a FireWire connection. In the video tab of Roxio Creator, the manager will choose 'Capture Videos', and will be presented with a screen that makes it easy to capture individual segments (including automatic scene detection) or the entire movie.

Edit:

Roxio VideoWave, which is included in Roxio Creator, includes timeline and storyline views. Adding photos and videos to a project is as easy as clicking the 'Add photo / video' button.

Storyline view consists of a sequence of thumbnails, each of which can hold an item (a photo, video clip, or color panel). These can easily be re-arranged by drag and drop, to create the desired sequence of events.

Timeline view allows for fine tune control over the timing of text effects, voiceover and audio, transition effects between scenes, and photo and video overlay effects.

The marketing manager creates a professional quality video and photo slideshow using VideoWave for a truly dynamic presentation.

Burn:

MyDVD is the DVD-video authoring software that is included in Roxio Creator. The marketing manager typically wants to create a menu with links to the main video presentation, to a product overview, to individual products, and to a photo slideshow of members of the team.

MyDVD makes it easy to create a menu using a professionally designed animated menu themes for easy navigation to the different links.

After the menu has been created, the manager clicks the Burn button to burn the production to a DVD-Video disc. Roxio's DVD playback software, Cineplayer, is then used to preview the disc. If the manager is Creator MyDVD to create a disc image file on hard disk, and then burning the file to multiple discs to distribute to the team-

There are many other user scenarios for burning discs. The above example shows how even complex tasks can be made easy.

Data Security

Security of data stored on portable and removable storage media has become a major concern in today's world. Organizations continue to lose data stored on portable media through theft and carelessness. There are frequent reports of so-called 'data breach' and the associated costs.

Security is an important consideration when developing an organization's burning strategy. CDs and DVDs are easy to transport, and easy to steal. Data breach can be extremely costly.

Poneman Institute conducted a Cost of Data Breach Study, published Jan. 09, and their research indicated that:

- The average organizational cost of data breach was $6.65 million in 2008, rising annually
- Costs include lawsuits, process costs and lost business opportunity costs
- While conditions vary across states, the organization may not be required to notify individuals when the breached data is encrypted.

Compliance is a major factor driving organizations to adopt encryption policies for data stored on removable media. For example:

- According to a DoD Policy Memorandum, the Department of Defense requires encryption of data stored on CD and DVD. Data must be encrypted using a FIPS 140-2 encryption module. (The Federal Information Processing Standard (FIPS) Publication 140-2, FIPS PUB 140-2, is a U.S. government computer security standard used to accredit cryptographic modules.)
- State and federal regulators have created new privacy laws and are strictly enforcing previous requirements, e.g, privacy protection in healthcare (HIPAA), banking (GLBA) and credit card processing (PCI-DSS), etc.

Roxio offers a range of secure burning solutions that enable data to be encrypted as it is written to optical disc. Roxio secure burning software uses a FIPS 140-2 certified encryption module, ensuring compliance with government standards. Depending on the organization's policies and requirements, the encryption can be optional or mandatory, and can be controlled either by the end user or by the system administrator. Discs can be set to be readable on PCs within permitted groups within the organization, but restricted outside of the groups.

Here is a typical example of how an organization might use one of Roxio's secure burning solutions.

A company of around 500 employees has 7 departments – Sales, Marketing, Finance, Engineering, Operations, Information Technology and Contractor. The company policy is to encrypt all data stored on disc, and to compartmentalize it so that users in different departments have restricted read permissions for discs created by other departments. For example, Information Technology can read discs created by any department, whereas Marketing Contractors can only read discs created by the Marketing department.

"Roxio Burn – Secure Plus" is a solution that enables IT managers to modify departmental permissions. Even though discs burned with Secure Plus are encrypted, they can be read on PCs within permitted groups without a password. So, for example, if a disc is burned on a Finance PC, no password is required to read the disc back on another Finance PC.

However, a Finance manager wants to read the same disc on his or her home PC, a password is required. So, if a disc with sensitive data leaves the office and gets stolen, the data on the disc is still secure.

Standardization, Platform Independence, Scalability

Optical storage includes a wide spectrum of capabilities from basic storage of data files to advanced authoring of DVD and Blu-ray discs and other multimedia disc types. The complexity

of logical and physical disc formats can be daunting and difficult to manage across multiple PCs. A hodgepodge approach to disc burning will result in increased support tickets, inadequate staff training to handle all cases, and additional costs for the IT department.

Furthermore, typical organizations have complex environments including various versions of Windows (XP, Vista and Windows 7) and even Mac OS; PCs from a variety of manufacturers; and internal and external CD, DVD, dual layer DVD and even Blu-ray drives.

System administrators require a solution that works on all of these platforms transparently. Furthermore, the software UI should be consistent across platforms and devices.

The first step toward an effective strategy is to standardize the software across the organization. Standardized software reduces the burden of support.

Even though an ideal solution is standardized, different users within the organization may have different requirements. It can be difficult to offer a standard solution to meet all needs.

As such, a well planned disc burning offering requires a software solution that is scalable. Scalability means that the solution can be adapted to the unique needs of individuals and groups within the organization.

Roxio's Windows solutions are standardized and scalable.

The user interface for Roxio burning solutions is consistent across all 3 versions of Windows OS in terms of workflow and functionality. Likewise, Roxio software behaves consistently on CD, DVD, dual layer DVD, Blu-ray and dual layer Blu-ray drives, so the user does not need to learn a new workflow or set of operations.

Furthermore, Roxio software has been installed and tested on millions of systems worldwide from a wide range of PC manufacturers and using a wide range of internal and external optical drives, which ensures that the products will work on virtually any standard configuration of Windows hardware within an organization.

Although Roxio's burning solutions are customizable and scalable, they draw from a common burn engine and set of component libraries to ensure a consistent user experience regardless of individual variations.

Reliability and Error Correction

When data is transferred to optical media, it is essential that the data has been copied reliably and without errors.

In some cases, errors are unavoidable, especially when an organization is using older systems from a variety of manufacturers. For example, errors can occur because of mechanical failure, or because the data bus in the PC which transfers data to the device cannot maintain a sufficient transfer rate, resulting in a buffer underrun.

In case of errors, the software should automatically correct them when possible (for example, by lowering the data transfer rate to prevent buffer underruns). When automatic correction is not

possible, proper error reporting is required so that problems can be recognized, diagnosed and corrected.

It goes without saying that part of a successful burning strategy for organizations is to ensure that CD/DVD recording software is reliable.

Perhaps the strongest indication that a software product is reliable is positive feedback from demanding customers.

Roxio's burn engine and related technologies have been tested by the most demanding customers including major PC OEMs and enterprise customers with rigorous QA labs and standards. Roxio software is licensed for use by all major PC OEMs, and by large and small organizations worldwide, including businesses, government and military organizations, schools, etc.

Roxio's disc validation, error correction and reporting mechanisms have been developed over several years to handle virtually every case on the widest array of systems.

Convenient Deployment and Customizable Licensing

For the IT professional, deployment is a critical aspect of software products for the organization. Whether an organization consists of just a few PCs in a small business, or a worldwide enterprise with thousands of PCs connected and managed by servers, the administrator wants to be able to install software transparently and without hassles.

Easy deployment means:

- Clearly documented deployment commands using standard deployment methodologies
- The ability to install software by running a setup.exe installer program included in the installer software. The setup.exe application should have a graphical user interface, and should provide all of the instructions necessary for normal installation. It should also be possible to run setup.exe silently, without the graphical user interface.
- Software should also be installable by calling the setup.exe application. The command line should allow parameters to be added to customize the installation.
- Setup.exe should be designed to be capable of network deployment using system management tools such as SCCM 2007.
- It should be possible to generate a log file in case of problems that require assistance.

Whether software is to be installed on just a few PCs, or across a huge enterprise, buyers and IT administers want to ensure that the software is legally licensed from the supplier. Furthermore, even if an organization licenses several different software products to be installed on multiple PC systems and platforms to meet the requirement for flexible solutions, licensing should be convenient and manageable.

A good volume licensing program includes the following:

- A single license agreement pertains throughout the organization, no matter how small or large. There is no need to agree to separate license agreements for separate software products or PC systems and platforms.

- Licensing options are flexible. A license can pertain to the entire organization or enterprise, or can pertain to just specific departments within the organization.
- Licensing can conveniently grow as the organization grows. It should not be necessary to sign a new agreement every time more licenses are required.
- There should be no need for end users to click through the End User License Agreement when they first run the software. The IT administrator should be able to accept the license agreement for the whole organization.
- Organizations should be able to easily license software support and ongoing maintenance as part of the agreement.

Roxio has developed a line of enterprise products that conform to organizational deployment requirements, including network installation, command line installation, silent install, etc.. Roxio's volume licensing program is based on constant customer feedback, and is designed to meet the special licensing needs of organizations.

Roxio's Enterprise Products

Following is an overview of Roxio's burning solutions available for volume licensing.

Roxio is perhaps best known as the developer of the world's best selling digital media suite.

- Roxio Creator Enterprise Silver is especially targeted for users whose primary need is data burning and disc copying, and who do not require more advanced multimedia capabilities. With Creator Silver, it is possible to burn data discs and audio CDs, to encrypt and compress data on discs, to copy discs, to label discs, to backup files to disc and to perform essential disc operations such as erasing an finalizing discs.
- Roxio Creator Enterprise Gold includes all of the features and functionality of Creator Silver, but adds tools for photo and video editing and projects including DVD-Video authoring. It also includes a media manager to help organize digital media for presentations and projects.
- Roxio Creator Platinum contains all the features of Creator Silver and Gold, but adds even more multimedia capabilities for the professional content designers within your organization, such as the ability to work with AVCHD high-definition content, and additional advanced photo and audio projects and tools.

Data security is a huge concern for organizations today, and Roxio offers a range of secure burning solutions to encrypt and protect data on discs.

- 'Roxio Burn – Secure' provides encrypted burning using Microsoft's FIPS 140-2 certified encryption module.
- 'Roxio Burn – Secure Plus' adds group read permissions to encrypted burning, so that discs can be easily read within selected departments, but are protected outside of the group.
- 'Roxio Burn – Managed' provides server level control of policies and permissions.

Roxio offers two additional solutions to support an organization's burning strategy.

- BackOnTrack provides both file and image backup. It can backup not only to discs, but also to hard drive or network. It includes an Instant Restore feature that can restore a failing system within a few seconds.

- Roxio Toast is the best known and highly awarded burning and multimedia solution for Mac OS.

Summary

Storage, archiving and sharing of data on optical discs is an essential requirement for today's organizations, large and small. Buyers and IT Administrators need burning solutions that are:

- Reliable
- Secure
- Standardized, yet flexible and scalable
- Easy to use
- Easy and customizable to deploy
- Able to work independent of OS version, PC manufacturer or optical device
- Convenient to license

Roxio offers a comprehensive burning solution that meets all of these requirements. Roxio's enterprise product line is an essential component for today's organizations.

For More Information

For more information about Roxio's Volume Licensing Program:

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