

Cronus-

A fully automated cold storage backup system



» ONE STOP SOLUTION

A single Cronus is all you need to complete the entire disc storage backup operation

» APPOINTMENT SCHEDULING

Easily automate your backup cycle frequency, the Cronus will automatically burn the selected data content on to backup disc(s) on your schedule

» NETWORK PROTOCOL

The built-in computer allows the Cronus to be connected directly to your server or NAS system. Thus, enabling the 3-2-1 backup principle, by storing the cold data onto optical discs for a more complete preservation.

The Cronus automatic cold storage backup system uses an exclusive proprietary software to regularly back up files stored on a Linux or Windows OS from personal computers or networked systems connected via physical or virtual hosts onto optical discs in the form of image files.

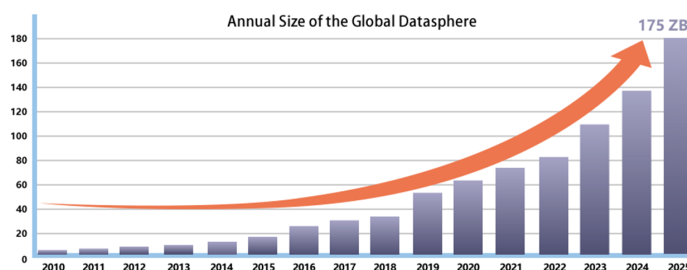
Supports backup of files on to CD, DVD, BD, and even BDXL Blu-ray Discs, including BDXL BD that offer a single disc capacity up to 128GB. That way, those backup discs can be stored in alternative locations from the host, which not only avoids possible hacker attacks, but also prevents total loss due to natural and manmade disasters. In addition, discs do not require storage in any modified environment, nor does it consume energy to be maintained, which achieves greater energy savings and overall carbon reduction. Plus, those backup files on the discs can be restored to the host with one click at any time through the Cronus' proprietary software. You only need one Cronus to operate and complete your data backup system!

» Facts you must know

THE GLOBAL VOLUME OF DIGITAL CONTENT DATA KEEPS RISING



Figure1-Annual Size of the Global Datasphere



According to the International Data Corporation (IDC) forecast, the global data volume will soar from 33 Zettabytes (ZB) in 2018 to 175 Zettabytes (ZB) in 2025. With advancements in technology, the huge amount of data created during this time will far exceed the storage device's capacity that are currently in use.

GLOBAL INFORMATION SECURITY CRISIS

"Trend Micro commissioned Sapio Research to conduct a survey among 2,958 IT decision makers in 26 countries around the world between May and June 2022. According to the results of the study, a whopping 87% of IT leaders in Taiwan believe that their business, because of the relationship between partners and customers, makes it easier to become the target of ransomware viruses. More than 60% of the supply chains of enterprises are mostly composed of small and medium-sized businesses with weak information security protection, making this challenge even tougher."

» What is the best method for archiving?

FOLLOW THE 3-2-1 BACKUP PRINCIPLE TO COMPLETELY AND EFFECTIVELY PRESERVE VALUABLE INFORMATION

**STEP.
01**



All IMPORTANT digital data should be backed up onto at least three separate copies. Maintain one main file and two backups

**STEP.
02**







The backup files should be stored on two different forms of media to prevent various types of accidental mishaps

**STEP.
03**



Always keep at least one of the backups offsite (outside the home or business).

Common Data Storage Media Comparison Table

				
Type	Magnetic Tape	Optical Storage	Local Disk System	Cloud Storage Service
Storage cost per unit	Very low	Low	Higher	Very low
Storage media lifespan	10-30years	>50years	10-30years	---
Storage media environmental tolerance	Medium	High	Low	---
Scalability	High	High	Medium	Very High
Transmission speed	Medium	Low	Very High	Low
Random access capability	None	Medium	Very High	Low
Security	High	High	Depending on individual product	High
Data Retrieval Delays	Medium	Low	Very low	Depending on the service

Typical enterprises and many consumers usually store data on their Server, NAS, or even in a commercial cloud service (which stores the content in hard drives in cloud farms). The question is, even though they are common storage apparatuses, are these commonly used storage systems safe?

Because storage facilities, such as a Server, NAS, or the Cloud do not use W.O.R.M (Write Once Read Many) technology, once a hacker invades, your data can still be corrupted and compromised. Backup copies can also be infected with ransomware as well, rendering them unusable and costly in exchange for your valued data. In the unfortunate event of a hacker invasion, how to back up important data in the safest and most effective method to prevent further damage? There is a solution and this is an issue that global enterprises and individual users should pay attention to!

BENEFITS OF USING DISC BACKUP



Information security is guaranteed

Optical disc storage uses W.O.R.M (Write Once Read Many) technology, which has the characteristic that data cannot be tampered with or deleted.

There is no need to worry about hackers' intrusion when using optical disc backup, because the data is incorruptible, so it's always safe and secure from hackers embedding ransomware.



Off-site backup

For even greater protection, it's best to save at least one copy of important data on a disc and move it to another place for storage. This action not only avoids hacker attacks, but also prevents natural and manmade disasters from destroying everything on the host side. By implementing the 3-2-1 backup principle you can save your data effectively and completely.



Long-term preservation

Under normal circumstances, if the disc is stored properly, the shelf life can reach 50 to 100 years*.

*This data is a test result, not an absolute value.



Cut costs

Optical discs have a long storage life and do not consume power, and are not affected by natural disasters and manmade disasters. In the long run, the overall storage and maintenance costs are lower than any other storage media.

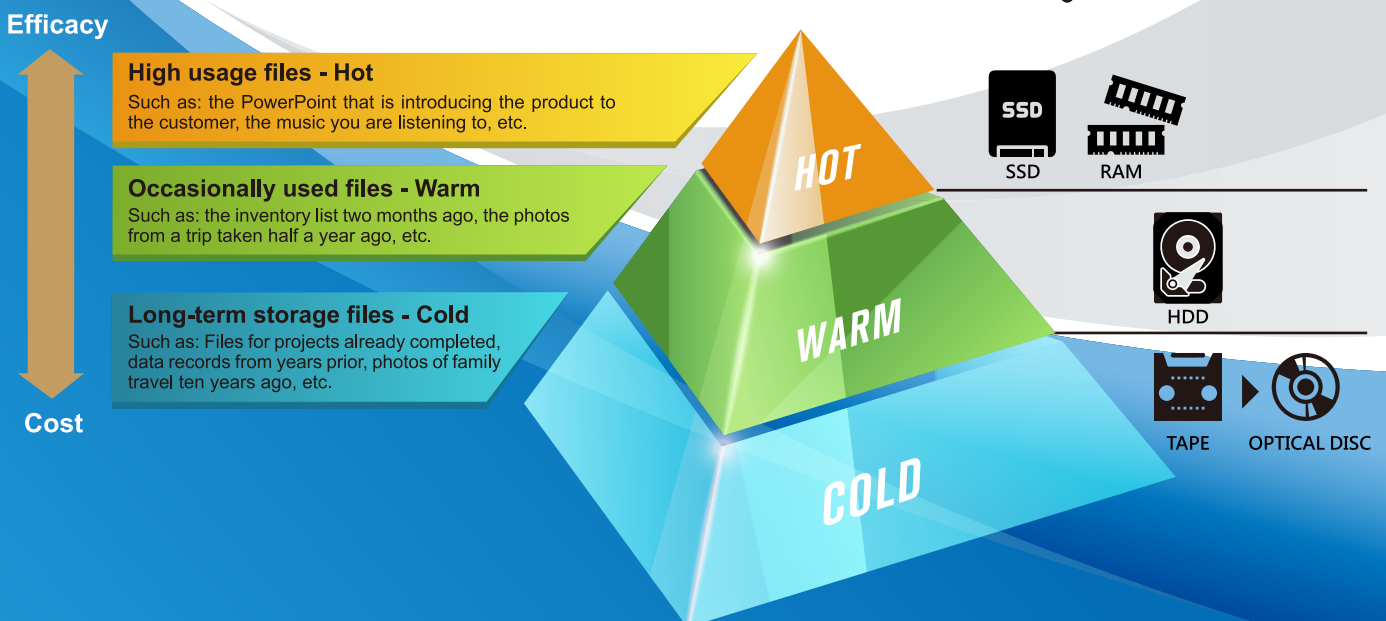


ESG

The storage of optical discs does not need to consume any electricity. In this way, the goal of energy saving and carbon reduction can be achieved, and sustainable operation with the goal of ESG can be achieved.

WHAT KIND OF DATA IS SUITABLE FOR STORAGE ON CD?

» Hot Topic vs Cold Storage



These examples represent "Cold" storage, as opposed to "Warm" storage or "Hot" storage. Using temperature to describe storage or data originates from the concept of Information Lifecycle Management (ILM): 90% of data is rarely accessed, used or shared after 90 days of its generation, and will very likely never be read again or changed. In these instances where the data is seldom read, the data "cools" and can be moved to a "cooler" location for storage. High-efficiency cold data storage can provide enterprises with long-term storage of important data. For these cold data, it is suitable to use optical discs as storage media.

FACEBOOK IS ALSO DOING COLD STORAGE

In 2016, a cold-storage CD-ROM data archiving system launched by a major Japanese manufacturer is now widely used by Facebook.

The diagram illustrates the system's components and features. On the left, a server rack is shown with labels for 'Disc carrier', 'Drive system', 'Magazine carrier', and 'Data Archiver Magazine (optional)'. On the right, a 'Base module' is shown with labels for 'External power supply*2' and 'Server*2 [Data Archiver control software installation necessary]'. A callout box highlights the 'Archival Disc' features: 'Double-sided disc structure', 'Increased recording density', and 'Recording layer with higher reliability'. A note states: '* The Archival Disc is a professional-use optical disc standard developed jointly with Sony Corporation.' A large '3.6TB' disc is shown with the text 'Contains 12 300-GB Archival Discs'.

*2 Sold separately (rack installation also possible).



BUILD YOUR OWN COLD STORAGE DATABASE



As an expert in storage systems, WayTech Media has launched a complete set of safe storage solutions. By matching with your server, NAS and personal computer, it automatically backs up important data on a regular basis and saves them with cold storage technology, helping you create a more complete and exclusive cold storage database system. Paired with a 128GB BDXL disc specially designed for long-term storage of large amounts of digital content, the storage life is long and the data cannot be tampered with or deleted. It is the most suitable as a storage media for long-term archiving.