

WonderCube<sup>®</sup>

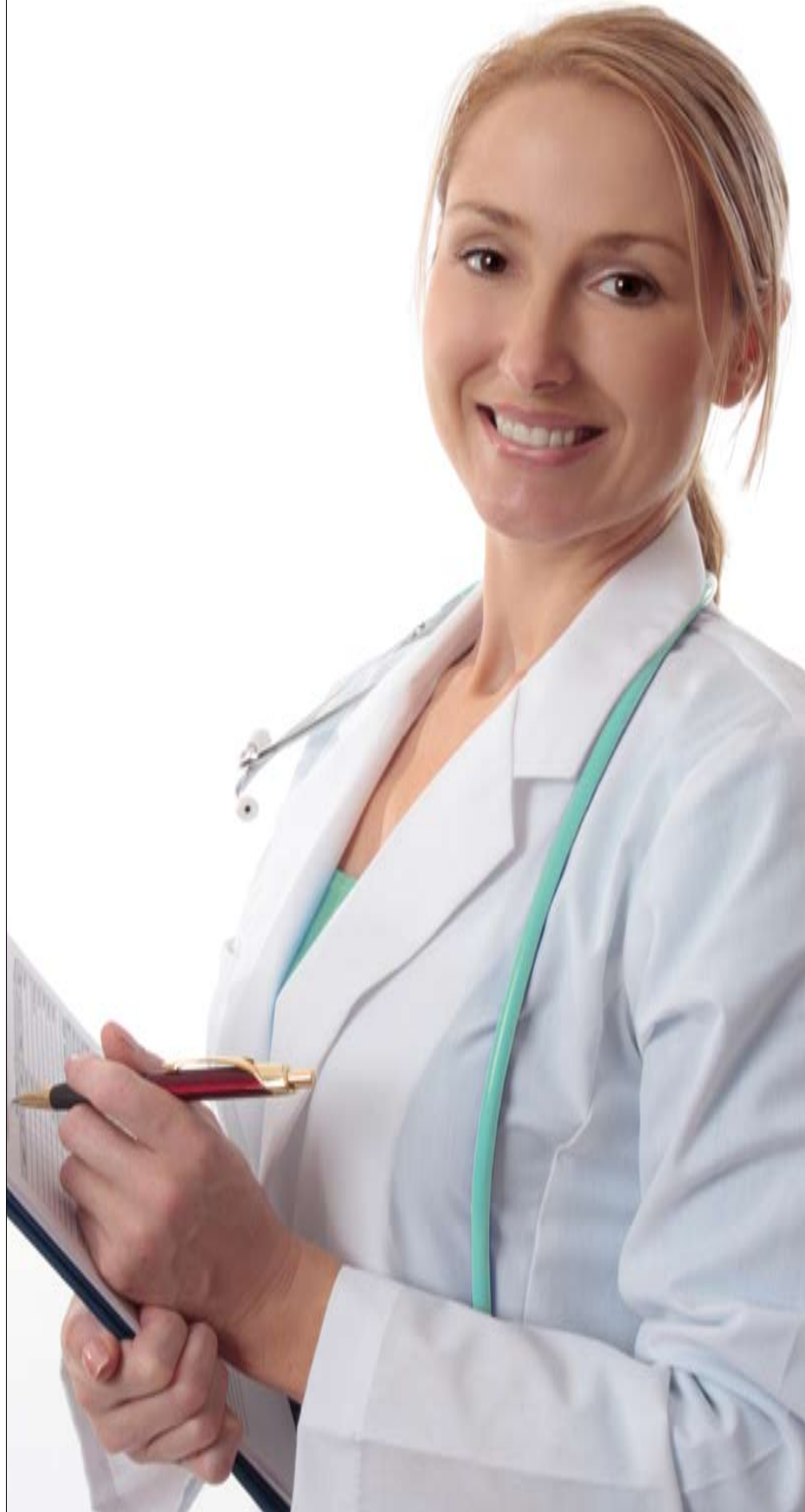
W3 MEDICAL - MEDICAL ARCHIVE



Server and Blu-ray Library archive.  
Quick and safe.  
Unlimited storage.  
File sharing over the network.

**MW-N**

**JVC**  
The Perfect Experience



# WONDERCUBE® MEDICAL

## Medical Digital Archive

WonderCube® Medical is a professional digital archive system for medical information and contents, with advanced user-customizable databases.

WonderCube® Medical has been thought to archive documents, visual files and images such as case history forms, ultrasounds, x-rays or even surgery films, conferences and training courses. WonderCube® Medical is a tool for the I.T. professional development of every firm operating in the medical and health field. A digital archive instantly changes workflow. With intranet and internet access to the System, every archived document or case history form can be consulted in real time, by staff or authorized external users. Remote consultation, reduced running costs, access control and minimum spaces dedicated to the archive are only some of the many, great advantages of WonderCube® Medical.

### Server and Library (DVD and Blu-Ray) archiving.

WonderCube® Medical combines the flexibility of a server with the unique, innovative technology of the Library.

Archiving to DVD and Blu-ray Library guarantees:

- 1.reduced storage costs;
- 2.unlimited storage space;
- 3.simultaneous multi-user access;
- 4.customizable databases;
- 5.archive management as a local drive;
- 6.archive sharing over intranet o internet;
- 7.automatic copies and archiving;
- 8.anti break-in system logic;
- 9.unaltered quality of archived files even after several consultations and/or downloads.



### 1. Reduction in storage costs.

The limited cost of each optic support (DVD or Blu-Ray) brings about a significant reduction in storage costs. A minimum investment allows to create back-up copies of the entire archives to be stored off-line, immediately available should need be.

The use of DVD or Blu-Ray as storage support also reduces the space necessary to contain the archives and consequently the whole System running costs. Each Library takes up a minimum amount of space: the 600 media model (30 TB with Blu-ray 50 GB media) takes up just over 34 x 64 cm base and 1,60 m height.

Network access to all archived material reduces consultation times with an immediate saving in staff costs.

Moreover, the Library operates only upon user's request of a file copy, meaning important savings both in energy and money.

### 2. Unlimited storage space.

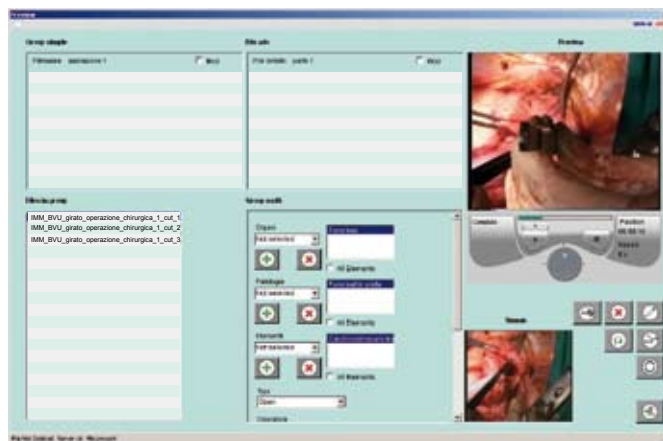
The standard version of WonderCube® Medical is the result of linking a server, for short-term storage, to the 600 media Blu-Ray – Library, for permanent storage. Total capacity is over 30 TB high resolution images. Each archive is expandible by simply adding a new Library, today available in the following versions:

- 100 media;
- 200 media;
- 600 media.

DVD or Blu-Ray discs are the digital storage support. 4,7 GB and 9,4 GB DVDs are available today, as well as 25 GB and 50 GB Blu-Ray discs. A 100 GB and 200 GB Blu-ray is scheduled for release in 2008, which will then increase the Library capacity to 120 TB.

### 3. Simultaneous multi-user access.

The flexibility of the databases combined to the system allow remote consultation of the archive by many users simultaneously, each with their own specific access privilege. Advanced cryptography identifies the accesses and allows the company to customize priority and means of display of the archived data. The number of readers and burners in each Library can be increased in order to optimize file copy times, as well as reading times. The central server allows for the routing of the files required.



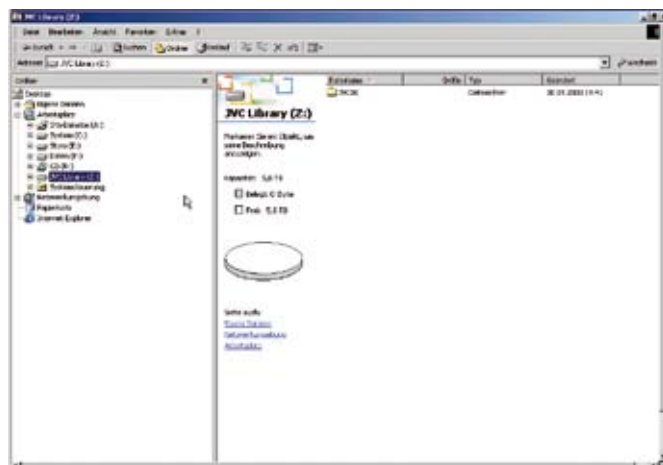
### 4. Customizable databases.

WonderCube® Medical offers each company the possibility to customize their own database. The system administrator can add, remove or modify the fields provided for inserting files, and choose among the many options offered by the System: writable fields, multiple choice, drop-down menu...

### 5. Archive management as a local drive.

WonderCube® Medical can be used as a local drive, with the following benefits:

The Library is seen by the operating system as a local drive or LAN; One can maintain Windows functions as "drag&drop" and "cut&paste"; The Library can be used from any application with no change in workflow and no further software.



## STORAGE



### STORAGE AND CATALOGUING OF ITEMS ARCHIVED.

1. Compilation of archive form with meta-data relating to the document to be archived.
2. Digitalization of document (audio, video or text) in high resolution.
3. Association of archive form to file/s.
4. Generation of low resolution for immediate network consultation.

### TEMPORARY STORAGE TO RAID SERVER.



1. Hierarchical organization of folders depending on users and applications.
2. Management of data flow
3. Storage and sharing of documents.

### PERMANENT STORAGE ON DVD OR BLU-RAY LIBRARY.

1. Automatic copy of media.
2. Automatic placement of media in the Library.
3. Storage and sharing of documents.



## SEARCH



### SIMULTANEOUS SEARCH AND CONSULTATION BY SEVERAL USERS VIA INTRANET OR INTERNET.

1. Identification through user name and password.
2. Search by field and key words.
3. Low resolution preview of documents archived.
4. Request for high resolution files.
5. Automatic file transfer over the network.

### 6. Archive sharing over intranet and/or internet.

The database search is structured to facilitate remote consultation of the archives in low resolution, via intranet and internet. The chosen material is then downloaded on demand in high resolution.

### 7. Automatic copies and archiving.

WonderCube® Medical has been designed to provide complete automatic digital storage. Among its many functions, for example, the software automatically recognizes characteristic features of each video, saving time in the archiving phase.

The MW-N developed software allows for managing the copying to discs within the Library. The user can therefore never come into contact with the media, but can easily access its contents on the net.

### 8. Anti break-in system logic.

A fundamental feature of each archive is the safety and impenetrability of the system. WonderCube® Medical has been designed to be impenetrable to both deliberate and accidental attack and alteration. It combines the flexibility of a server storage system with the reliability and safety of Library archives. Secretiveness of sensible data, in accordance with privacy laws, is always guaranteed.

### A. Protection from deliberate alteration.

Each archived file is digitalized in high resolution on optic DVD or Blu-ray media. The disc is then read-only and cannot be deleted or overwritten, as it is a passive version of the source. The attacker can therefore act on the file only once it has been copied to a local source, and can never attack the 'master copy' on the disc.

The Library is also equipped with an anti break-in system. Each access is subjected to a security system, and even the simple manual removal of media is made impossible. Given the extremely low cost of recording media (DVD and Blu-Ray), a second, redundant archive can be created and, for even greater security, placed and protected at an alternative place.

### B. Protection from accidental alteration connected to support handling.

Archived media safety is guaranteed by the innovative 'cluster' system organization. 'Clusters' are 'bins' each containing 50 discs. Each archive has a memory of all the system clusters, both those within the machine and outside it. When a cluster is replaced, the Library recognizes the change and automatically updates with the data contained within the 50 discs of the new cluster.

Each disc is also placed on a specific 'data tray'. This small tray supports the media through every robotic movement, so as to ensure that the surface can never be damaged.

### 9. Unaltered quality of archived documents and videos.

Archiving to optical disc guarantees unaltered digital quality for an unlimited number of file consultations and copies of each patient's case history forms. The low cost of media and automatic management of archiving makes WonderCube® Medical the ideal solution for all types of medical digital storage.



## FEATURES AND FUNCTIONS OF THE WONDERCUBE® STORAGE SYSTEM

Features of digital storage:
Access through identification code and password
Simultaneous multi-user access
Differentiation between user profiles/application
Automatic management of transfer priorities
Automatic file transfer over the network
Copy and MD5 correspondence control
Viewing of Library contents
Automatic management of media placement within Library
Direct, user-controlled copy
Timed, programmed, automatic copy
Automatic file splitting/merging
Anti break-in system
User operation reports
Automatic recognition of clusters and media
Automatic check of media integrity
Generation of preview of archived files for easy access
Free choice of storage to server or Library

RAID server:
1.5 TB RAID server
(Expandable according to configuration)

Library configurations and options:
100 media version
200 media version
600 media version
Library version with integrated NAS unit
Flip support for use of dual face media

Library connectivity:
SCSI connection
1 Gbps (1000 Mbps) Gigabit Ethernet
Optic fiber

Supported drives (read + write):
CD-DVD drives
Blu-Ray-DVD drives
Support up to 6 drives

Supported media:
650 MB CD-R
700 MB CD-R
700 MB CD-RW
4.7 GB DVD-R
4.7 GB DVD+R
9.4 GB DVD-R
4.7 GB DVD-RW
4.7 GB DVD+RW
25 GB SL BD-R
25 GB SL BD-RE
50 GB DL BD-R
50 GB DL BD-RE



# MW-N

via Francesco Scipione Orologio, 2 - 35129 Padua - Italy  
 tel. +39.049.8077755 fax +39.049.8074636  
 info@mw-n.com www.mw-n.com www.wondercube.tv



JVC Professional Europe Ltd  
 European Headquarters  
 JVC House, JVC Business Park, 12 Priestley Way,  
 London NW2 7BA  
 U.K.

