# USER MANUAL

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Chapter 1

Introduction

- Welcome to OmniArchive
- How to Use this Manual
- Key Features
- Hardware Requirements
Introduction of OmniArchive

Welcome to OmniArchive

OmniArchive is PACS Server software, which can be installed by Users or Engineers. It enables Omni-Vue users to share patient’s exam and primary diagnostic interpretations (Diagnostic Workstation) and Physicians to practice patient care (Clinical Workstation).

In addition, OmniArchive provides a compression setup for the outstanding image. Users can also directly access to OmniArchive as a client using direct access of ODBC and retrieve the image data within 2~4 seconds.

OmniArchive is DICOM compatible including DICOM Storage and DICOM Query and Retrieve for easy networking with third vendors’ PACS or modalities.

How to Use this Manual

The Next chapter offers a walkthrough for typical usage of OmniArchive, which includes how to install and setup.

Appendix and FAQ’s section should further assist or guide while working on OmniArchive.

Key Features

1) Multi-Thread for incoming and outgoing DICOM service, and archiving service.
2) Client workstation of OmniArchive supporting direct DB access.
3) JPEG Lossless Compression
4) DICOM Query and Retrieve SCP
5) DICOM Storage SCU and SCP
Hardware Requirements

1) CPU: Pentium 4 or AMD equivalent.
2) Memory: 1 GB or higher.
3) HDD: 40G HDD or higher.
4) Ethernet network card: 10/100Mb NIC.
5) OS: Window XP Pro.
Chapter 2

How to Install OmniArchive

• Installation of OmniArchive
• Directory and Files
• How to setup
• Modality Interface (M/I) and Testing
How to Install OmniArchive

1. Insert the OMNIARCHIVE Installation CD.
2. To begin installation, open My Computer.

3. Click on the CD drive labeled GenesisDigital.
4. Click on the Setup icon to initiate the InstallShield Setup Launcher.

5. There will pop-up a “Preparing Setup” dialog for few seconds, then will go to next step. **No user action is required in this step.**
6. Click **Next**.

7. Click **“I accept the terms of the license agreement”** , and then click **Next**.

8. Enter the principal owner's name and the name of your company in the indicated areas. Click **Next**.
9. Click **Next**.

10. Click **Install**. This will start OmniArchive installation.

**Note:**

*OmniArchive require Microsoft® .Net Framework v2.0, Windows Installer v3.1 and Microsoft® SQL Server 2005, and OmniArchive installer will start prerequisites installer in next step. If these programs have been installed, then you can skip 11 ~ 23, or you can cancel it during 11 ~23.*
11. There will pop-up an “Extracting Files” dialog for few seconds, then will go to next step. **No user action is required in this step.**

![Extracting Files dialog]

12. Click **Next**.

![Software Update Installation Wizard]

13. Click **"I Agree"** and **Next**.

![License Agreement]

DMR: QA-OA-005  
Genesis Digital Imaging, Inc.  
www.genesisdigital.com  
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14. There will pop-up a “Software Update Installation Wizard” dialog for a few seconds, then will go to next step. **No user action is required in this step.**

15. Click **Finish**.

16. There will pop-up a “Microsoft .Net Framework 2.0” dialog for a few seconds, and then will go to next step. **No user action is required in this step.**
17. Click **Next**.

18. Click **“I accept the term of the License Agreement”** and **Install**.

19. There will pop-up a “Microsoft .Net Framework 2.0 Setup” dialog for a few minutes, and then will go to next step. **No user action is required in this step.**
20. Click **Finish**.

21. There will pop-up a “Extracting Files” dialog for a few minutes, and then will go to next step. **No user action is required in this step.**

22. There will pop-up a “Microsoft SQL Server 2005 Setup” dialog for a few minutes, then will go to next step. **No user action is required in this step.**
23. Microsoft SQL Server 2005 Setup will start automatically and it will take a few minutes to finish installation. **No user action is required in this step.**

24. **DO NOT CHANGE ANYTHING FROM FOLLOWING DIALOG** and Click Next.

25. Now the installer will start installing OmniArchive. **No user action is required in this step.**
**DIR and Files**

Directory Info

OmniArchive creates the following directories (Logo, ARCHIVE, DICOM_IN, DICOM_OUT, DICOM_SEND_FAIL and DICOM_SENT) at C:\Program Files\Genesis Digital Imaging\OmniArchive. These directories are prerequisite and shall not be deleted or renamed or modified. Multiple program files will be created as well as described below. Upon start of OmniArchive for the first time, these directories (ARCHIVE, DICOM_IN, DICOM_OUT, DICOM_SEND_FAIL and DICOM_SENT) will be created automatically.

**Mandatory Files**

Logo.bmp

This file is necessary to operate OmniArchive.

OmniArchive.ini

This file contains options and setting value.
Located at C:\Windows

Dongle.ini
This file contains dongle options.

DLLs

To launch OmniArchive, these files are required.
How to setup

Following steps are based on “first time start of OmniArchive”. Please refer to “Chapter 3. How to use” to find configuration changes.

Before starting OmniArchive setup, USB dongle must be plugged-in and the driver installation is required.

1. Run OmniArchive.

2. There will pop-up a “Loading...” dialog for few seconds, then will go to next step. **No user action is required.**

3. There will pop-up a “OmniArchive” dialog, then click “OK”.

4. There will pop-up a “Loading...” dialog for a few seconds, then will go to next step. **No user action is required.**
5. On OmniArchive main window, click **Configuration** tab.

6. Click **ODBC** button.
7. Click **New**.

8. Scroll down and select **SQL Server**, and click **Next**.
9. Type **OmniArchive** and click **Next**.

10. Click **Finish**.

11. Click **Next**.
12. Select “With SQL Server authentication using a login ID and password entered by user” and click **Client Configuration**.

13. Type “**Server IP address\Genesis**” in Server name. For example server IP address is **192.168.0.38**, then type “**192.168.0.38\Genesis**” in Server name, and then click **OK**. You need to get a server IP address from network administrator or PACS administrator.
14. Type “Genesis” in Login ID and “gdi” in Password. And click **Next**.

15. Check “Change the default database to:” and make sure “Genesis” is selected in combo box. And click **Next**.

16. Click **Finish**.
17. Click **Test Data Source**.

![ODBC Microsoft SQL Server Setup]

18. Make sure, you can see "**TESTS COMPLETED SUCCESSFULLY!**" in the window. And click **OK**.

![SQL Server ODBC Data Source Test]
19. Click **OK**.

20. Type “**gdi**” in password and click **OK**.

21. Select local computer IP address in the FTP Address and type “**genesis**” in the password, and then click “**Brower**”
22. Select “C:\Program Files\OmniArchive” and click OK.

23. Select local computer IP address in the host name. If you need auto-routing service, then check “Enable DICOM Router”. If you need DICOM Query/Retrieve service, then type C-MOVE destination’s AE-Title, Port, Host Name and Description, after then click Add.
24. Click **Save and Start**.

25. Click each tabs and make sure each service is running.
Note:

DICOM Router Service is not mandatory service, so PACS administrator can decide to disable it.
Modality Interface (M/I) and Testing

Modalities must be in compliance with DICOM protocol. AE Title, Port Number and IP Address must be assigned in both modality and OmniArchive. Contact the modality provider to obtain more information. - Please review DICOM conformance statement of modality. - Some modalities can support limited DICOM standard functions. - Some modalities can support multiple destinations for DICOM sending but some cannot.

Modality Types

Modality with DICOM interface
Modality should be supported DICOM Storage SCU and/or SCP

How to Configure Modality
(DICOM Network Association)

Modality DICOM Network Association
- AE Title, Port Number and IP Address must be assigned at the modality or its consoles or workstations.
- Modality must provide AE (Application Entity) Title
- Modality must provide Port Number
- Network administrator must provide IP Address for modality and OmniArchive

OmniArchive Network Association
- Check IP Address of OmniArchive
- AE title and Port Number are necessary at OmniArchive

Modality Interface Test

Network

Perform ping test to verify that network is operating properly. If ping test fails, check network equipment and cables for hardware failure. If ping test is successful but images are not transferred from modality to OmniArchive, check DICOM configuration of the modality and OmniArchive. Verify IP address, AE title and Port number. 100Mbps (or faster) networking is strongly recommended.
Chapter 3
How to use OmniArchive

- How to change DICOM Server Network
- How to enable DICOM Router
- How to add Query/Retrieve C-MOVE destination
How to change DICOM Server Network

1. Click **Configuration** tab and click **Modify**.

2. DICOM Storage Service frame is a place to have DICOM Server Network Information. You can change AE-Title, port and compression option from here. After changes, click “**Save and Start**”.
How to enable DICOM Router

1. Click **Configuration** tab and click **Modify**.

2. Click “Enable DICOM Router” and fill out rest of DICOM network information and click **Save and Start**. To verify DICOM Router service, click “DICOM Router” tab and see “Routing Service is running” on the window.
How to add Query/Retrieve C-MOVE destination

1. Click **Configuration** tab and click **Modify**.
2. Fill out the destination’s **AE-Title**, **pot** and **IP address** in **DICOM Q/R Server** frame, and then click **Add**.

3. Click **Save and Start**. To verify DICOM service, click **Query/Retrieve Server** tab and see “**Listening Server!!!**” in the log view.