Revelation Universal Driver Installation Guide

Version 4.7

REVELATION
S O F T W A R E
A Division of Revelation Technologies, Inc.

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Part No. 109-972

Printed in the United States of America.

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Section I: Introduction

Thank you for purchasing the Revelation Universal Driver 4.7. The Revelation Universal Driver is designed to greatly enhance the network performance of either your OpenInsight application or your Advanced Revelation application. Although the Universal Driver is easy to install, it is strongly encouraged that you familiarize yourself with this guide to ensure that the Universal Driver is optimally configured for your application. This installation guide is broken into four sections: Client Installation, Server Installation, Technical Information, and The Linear Hash Manager Console Application.

What is the Revelation Universal Driver 4.7?

The Revelation Universal Driver is a client/server product designed to operate on Microsoft Windows Network Operating System environments. It provides enhanced performance, reliability, and integrity for OpenInsight and Advanced Revelation applications using linear hash files.

A Word About Licensing

Installation of the Revelation Universal Driver indicates agreement and acceptance of the terms of the license. For details of the licensing agreement, consult the hardcopy that was shipped in the package. If your copy of the Revelation Universal Driver did not include a copy of the license agreement, please call Revelation Software at (800) 262-4747 or (201) 594-1422 to request a copy.

Universal Driver Limitations

The Universal Driver will not work with all Microsoft workstations. The only supported workstations are Windows XP Professional, Windows Vista Business, and Windows 7 Business or better. This is true for OpenInsight 4.1.3 and above. The Universal Driver 4.7 is not supported with 16-bit OpenInsight. The use of the service with Advanced Revelation on Vista and above is not supported. On networks where you have workstations other than those listed, the Universal Driver will not work correctly. These unsupported workstations will not be able to access your Revelation application residing on your server with the Universal Driver installed. To determine if the Universal Driver is compatible with your Network server, please reference the Universal Driver Compatibility Matrix on the Revelation.com website.

Special precaution should be taken when accessing tables created with the linear hash service prior to version 2.1. Tables from linear hash services prior to version 2.1 may have a group calculation error (GCE) if the .LK files are larger than 64MB. The FIXVOL utility is available by request to correct this issue. Please contact Revelation technical support or your VAR if this situation applies to you. Tables created with linear hash service 2.1 and later are not affected.

New Features

The Universal Driver 4.7 provides complete backward compatibility with all previous versions of Linear Hash, as well as forward compatibility with older versions accessing tables created by the Universal Driver.

The Universal Driver also has a Linear Hash Manager console application that allows you to view and manage record locks without having to stop the Linear Hash Service.

Another change is the error messages that appear in the Windows Event Viewer will be easier to interpret for troubleshooting purposes.

Conventions Used in this Document

To facilitate the explanations and instructions used throughout this Installation Guide, certain conventions will be used.

- If a word is **`Monospaced and EMBOLDENED`**, it represents a filename, directory, a keystroke or something that should be typed. If the emboldened word is also within **`<ANGLED-BRACKETS>`**, the user must replace the angled-brackets *and* the word within them with an appropriate word or phrase. Available selections will appear nearby, most often in a tabular format.
- If a word is "enclosed in double-quotation marks", it refers to something on the windows desktop, such as a button or menu choice. In some instances, a quoted word or phrase may be used to indicate a response that was generated by the system.
- 'Single quotation-marks' will be used to indicate industry terms and to distinguish certain keywords.
- If a word is *italicized*, it expresses emphasis or importance.

Pre-installation Requirements

- Make certain that you have administrative privileges for the server onto which you wish to install the Revelation Universal Driver.

Material Checklist

Verify that you have all the materials that are shipped with the Revelation Universal Driver by your side during the installation. At a minimum, the shipped materials consist of:

- This Installation Guide
- The Universal Driver installation CD-Rom
- The Revelation Network Products License Guide
- Network Driver Update for Large Keys Document

Applying Utilities and Updates for Long Keys

If your OpenInsight system is version is prior to 9.1 please refer to the document Network Driver Update for Large Keys before proceeding. The document covers changes to the Universal Driver and Fix_LH routine. Included is an update to Fix_LH and a utility to help identify tables with long keys.

These changes are important if your application uses keys longer than 50 characters.

Section II: Client Side Installation

The client side installation *only needs to be performed on one workstation* that will access the Revelation application. If you are using a copy of OpenInsight that already has the Universal Driver version 4.7.0.0 installed, you **need not** reinstall the client portion of the Universal Driver.

The Revelation Universal Driver 4.7 is only able to communicate with client machines that are using the "Universal Driver 4.7.0.0". Neither OpenInsight 9.2 or below nor any Advanced Revelation ship with this driver installed. *OpenInsight and Advanced Revelation users must read and perform the Client Installation installation instructions below***.**

- OpenInsight users should follow the OpenInsight Client Installation instructions.
- Advanced Revelation users should follow the Advanced Revelation Client Installation instructions.

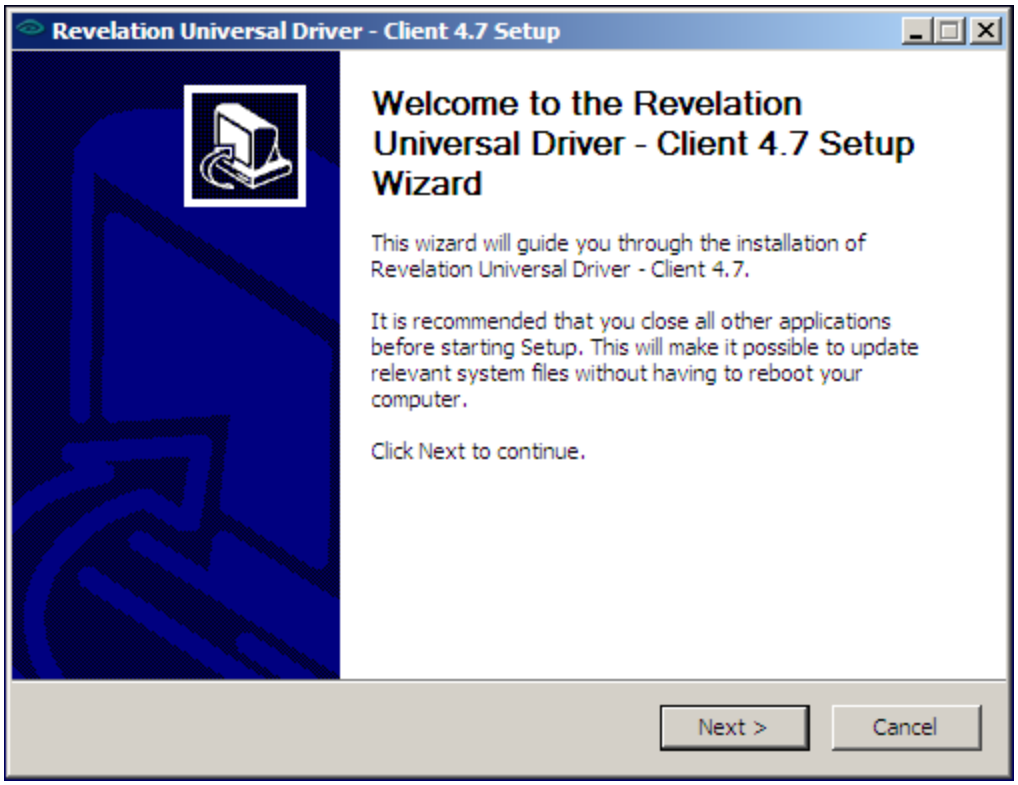
OpenInsight Client Installation

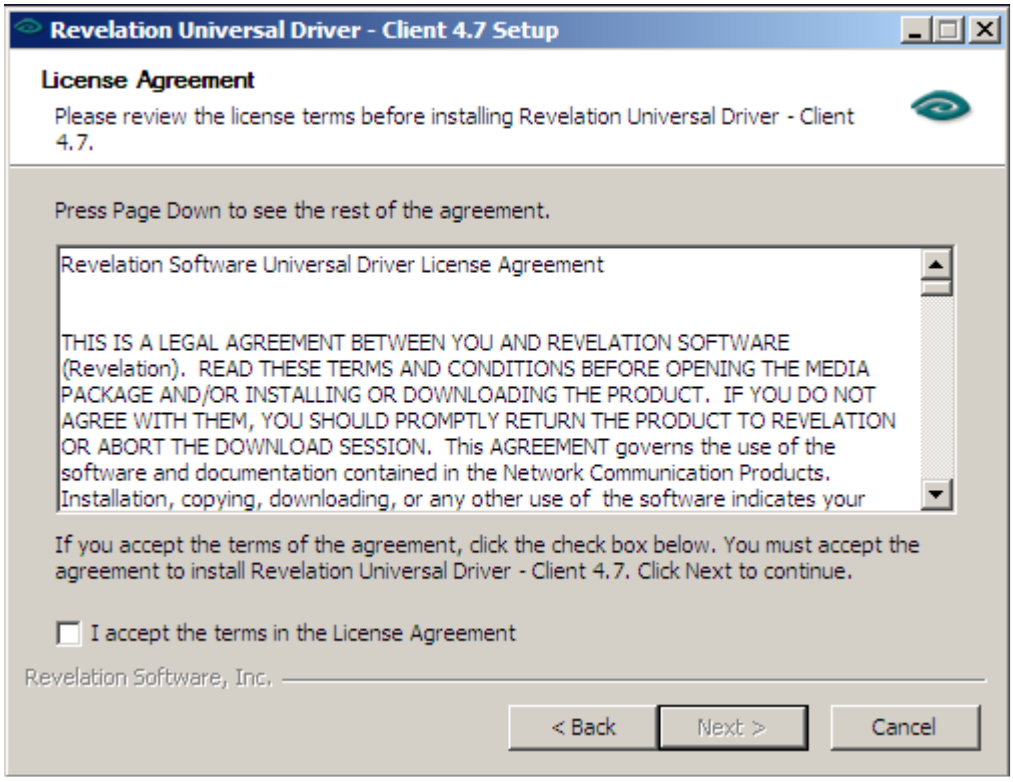
You will need Administrator Permissions to complete the following tasks.

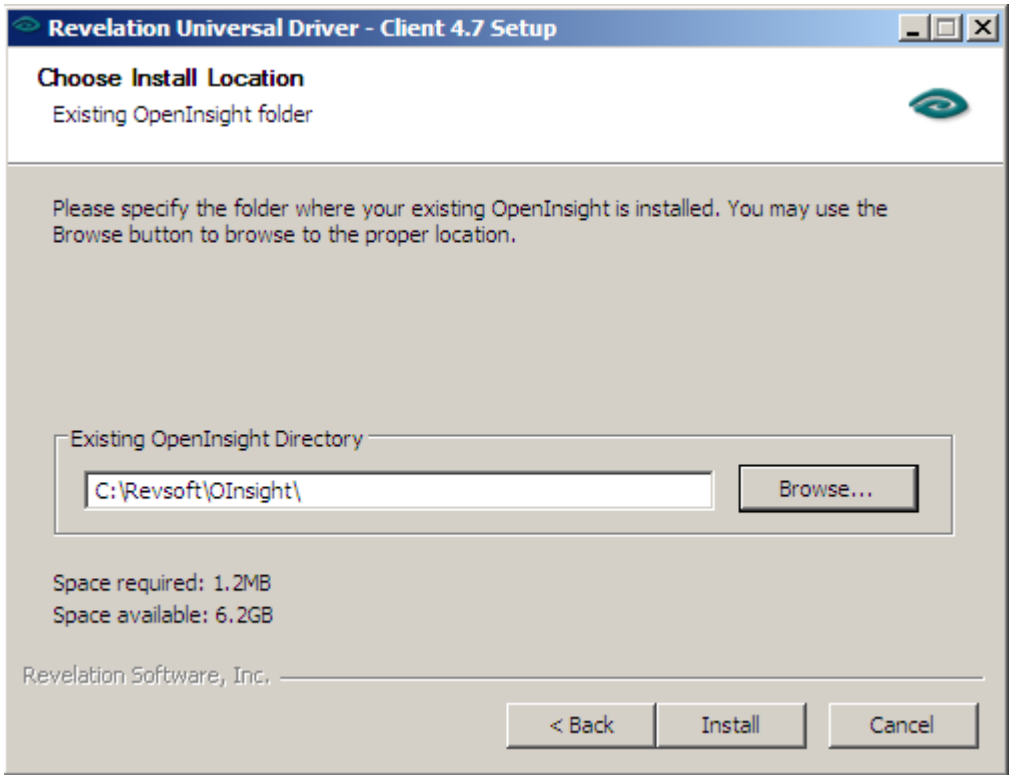
1. Insert the Universal Driver CD in the CD-ROM drive of a workstation that can access the network share where the Revelation application resides.

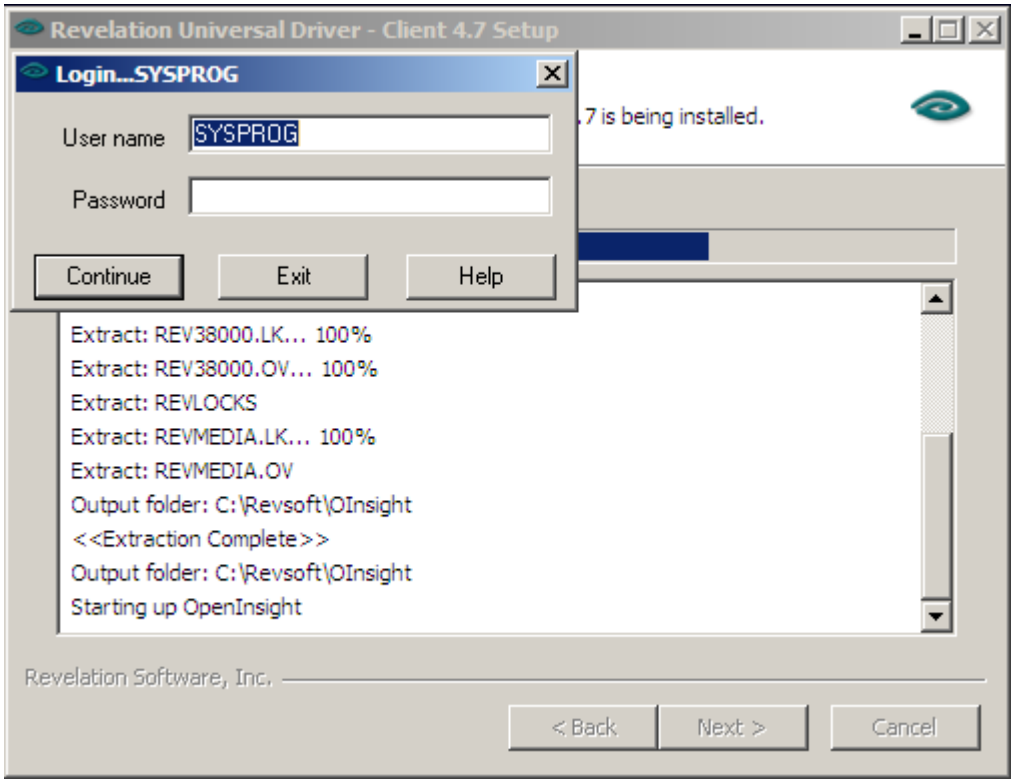
2. Run the client "setup" program on the CD. START → RUN "D:\CLIENT\SETUP" (Or change D to be your CD or DVD drive letter) in the "Run" dialog.

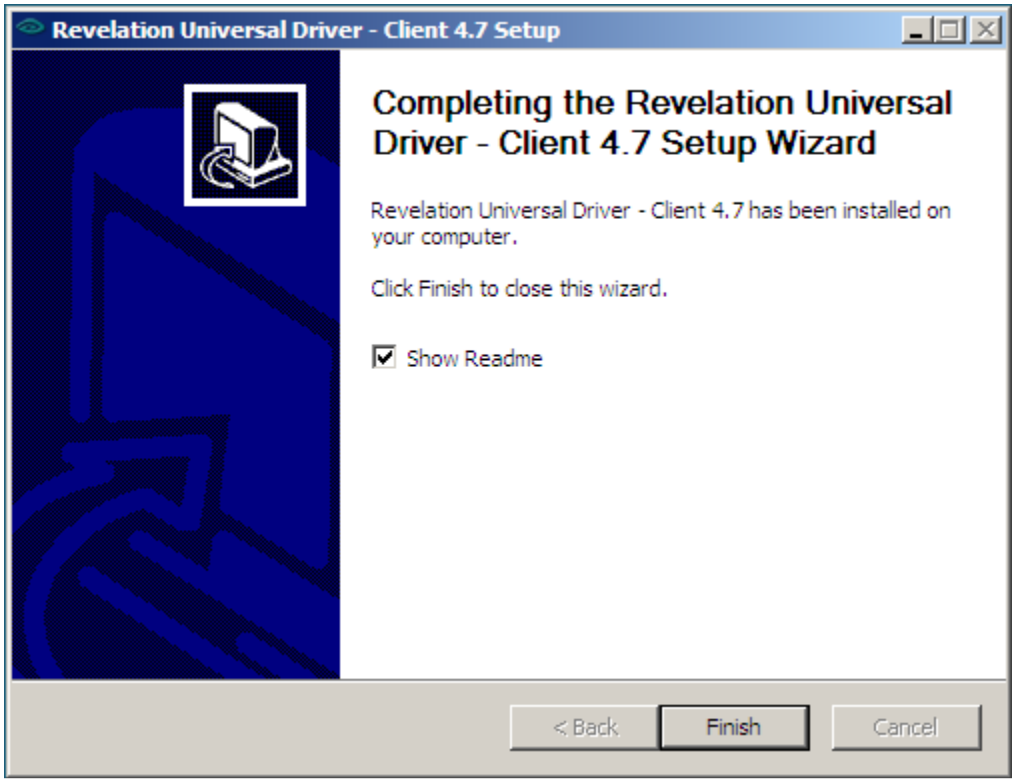
3. Follow the onscreen instructions and point to the location of your OpenInsight Application.


Revelation Universal Driver - Client 4.7 Setup
Welcome to the Revelation Universal Driver - Client 4.7 Setup Wizard
This wizard will guide you through the installation of Revelation Universal Driver - Client 4.7.
It is recommended that you close all other applications before starting Setup. This will make it possible to update relevant system files without having to reboot your computer.
Click Next to continue.
Next >
Cancel


Revelation Universal Driver - Client 4.7 Setup
License Agreement
Please review the license terms before installing Revelation Universal Driver - Client 4.7.
Press Page Down to see the rest of the agreement.
Revelation Software Universal Driver License Agreement
THIS IS A LEGAL AGREEMENT BETWEEN YOU AND REVELATION SOFTWARE (Revelation). READ THESE TERMS AND CONDITIONS BEFORE OPENING THE MEDIA PACKAGE AND/OR INSTALLING OR DOWNLOADING THE PRODUCT. IF YOU DO NOT AGREE WITH THEM, YOU SHOULD PROMPTLY RETURN THE PRODUCT TO REVELATION OR ABORT THE DOWNLOAD SESSION. This AGREEMENT governs the use of the software and documentation contained in the Network Communication Products. Installation, copying, downloading, or any other use of the software indicates your
If you accept the terms of the agreement, click the check box below. You must accept the agreement to install Revelation Universal Driver - Client 4.7. Click Next to continue.
I accept the terms in the License Agreement
Revelation Software, Inc.
< Back
Next >
Cancel


Revelation Universal Driver - Client 4.7 Setup
Choose Install Location
Existing OpenInsight folder
Please specify the folder where your existing OpenInsight is installed. You may use the Browse button to browse to the proper location.
Existing OpenInsight Directory
C:\Revsoft\OInsight\
Browse...
Space required: 1.2MB
Space available: 6.2GB
Revelation Software, Inc.
< Back
Install
Cancel

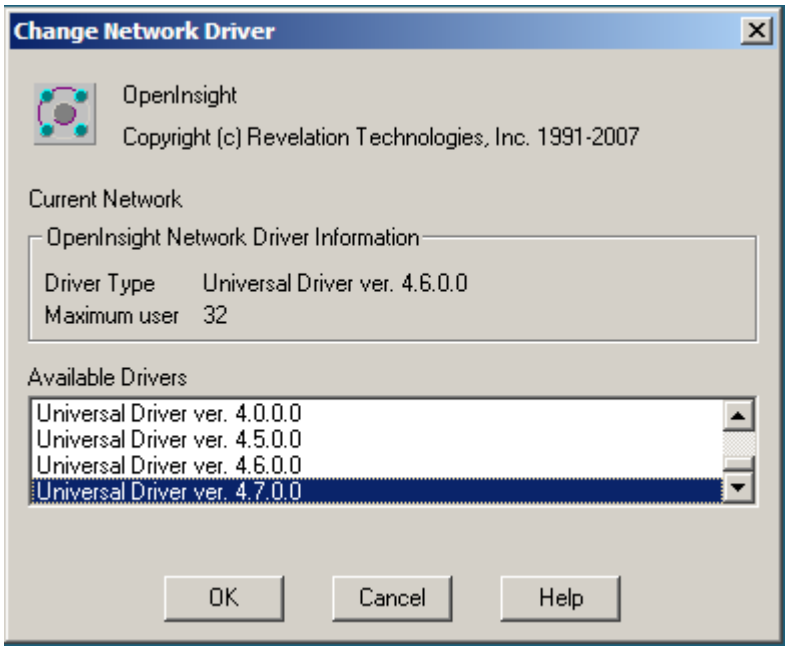

Revelation Universal Driver - Client 4.7 Setup
Login...SYSPROG
User name
SYSPROG
Password
Continue
Exit
Help
.7 is being installed.
Extract: REV38000.LK... 100%
Extract: REV38000.OV... 100%
Extract: REVLOCKS
Extract: REVMEDIA.LK... 100%
Extract: REVMEDIA.OV
Output folder: C:\Revsoft\OInsight
<<Extraction Complete>>
Output folder: C:\Revsoft\OInsight
Starting up OpenInsight
Revelation Software, Inc.
< Back
Next >
Cancel

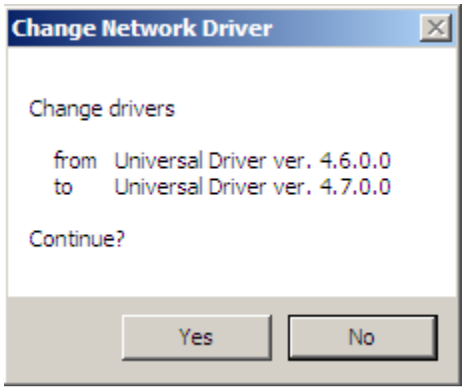


To verify that the new internal network driver has been installed, type the following command from a Windows command line:

```
<C:\REVSOFT\OINSIGHT\>NETDRV.EXE
```

where **C:\REVSOFT\OINSIGHT** indicates the full path to the location of OpenInsight. If this is not the location of OpenInsight, replace this with the appropriate path. The following figure is displayed showing that the new driver has been installed.





The current driver is listed for *Driver Type*. The new driver, "Universal Driver ver. 4.7.0.0", is displayed in the *Available Drivers* list.

Important: If the "Driver Type" does not say "Universal Driver 4.7.0.0", you must select it in the "Available Drivers" window and then click "OK". This will select the appropriate driver and make it active.

Advanced Revelation Client Installation

The Advanced Revelation workstation setup assumes that Advanced Revelation is configured for multiple users and is loaded from the network. Installing the client driver requires two steps:

1. Adding the new driver to the Network Types list.
2. Selecting the new driver once it is a valid driver type option.

If a previous version of the Universal Driver is installed and you already have the UNIVERSAL network driver you do not need to install the Advanced Revelation client driver. The 4.5 Universal Driver (and higher) Advanced Revelation client driver is forward compatible with the Universal Driver 4.7.

Before performing these procedures, make sure that all users are logged out of Advanced Revelation applications. These procedures were written for 3.x versions of Advanced Revelation. All of these commands must be performed from one of the workstations that run Advanced Revelation. They only need to be performed once per copy of Advanced Revelation, not once per workstation. If you are running Advanced Revelation from a Windows operating system, these procedures must be run from a DOS window.

Procedure 1 adds the new driver to the Advanced Revelation 3.x list of internal Network Types.

1. Locate the Client.zip file on the root of the CD. This file contains the AREV client drivers.
2. Extract the Client.zip file to a temporary location. Use a short path name for best results. For example extract to c:\temp.
3. Start the Advanced Revelation Install/Upgrade program. From the DOS command line in the `AREV` directory type: `AREV install /x` then press the ENTER key.
   The Install/Upgrade window is displayed.
4. Choose *Install/Upgrade* from the menu. You are instructed to insert Disk #1 into the A: drive. As the Universal Driver does not come on a floppy disk, disregard this onscreen prompt and type the location to the folder where you extracted the files. In step 2 we used the example location C:\temp. Press ENTER key when finished.
5. When the files have been copied into AREV a reminder window is displayed prompting you to change the network driver before finishing the installation. Press ENTER key to continue and return to the main menu.
6. Choose *Exit* from the menu.

Procedure 2 lists the steps to activate the new Advanced Revelation internal network driver so that it is used the next time Advanced Revelation is started.

1. Start Advanced Revelation with the LanPack user: `AREV LANPACK`.
2. Choose *Network* from the menu to display the current internal network driver type.
3. Press F2 to display a list of all valid Network Types/Drivers.
4. Select the new internal network driver, UNIVERSAL, then press the ENTER key.
5. A window listing the new driver is displayed; press the ENTER key again.
6. Click <Save> or press F9
7. This displays a message indicating that the REVBOOT file has been renamed and that the new driver will be available the next time you log on to Advanced Revelation. Click <OK> or press the ENTER key to close the message window.
8. Choose *Exit* from the menu to logout.
9. Restart Advanced Revelation to use the new internal network driver.

Section III: Server Installation

Note: This is only for Windows 2008 Server, Windows 2003 Server, and Windows XP Professional.

The installation of the Revelation Universal Driver is straightforward and consists of only a few steps. In short, these include:

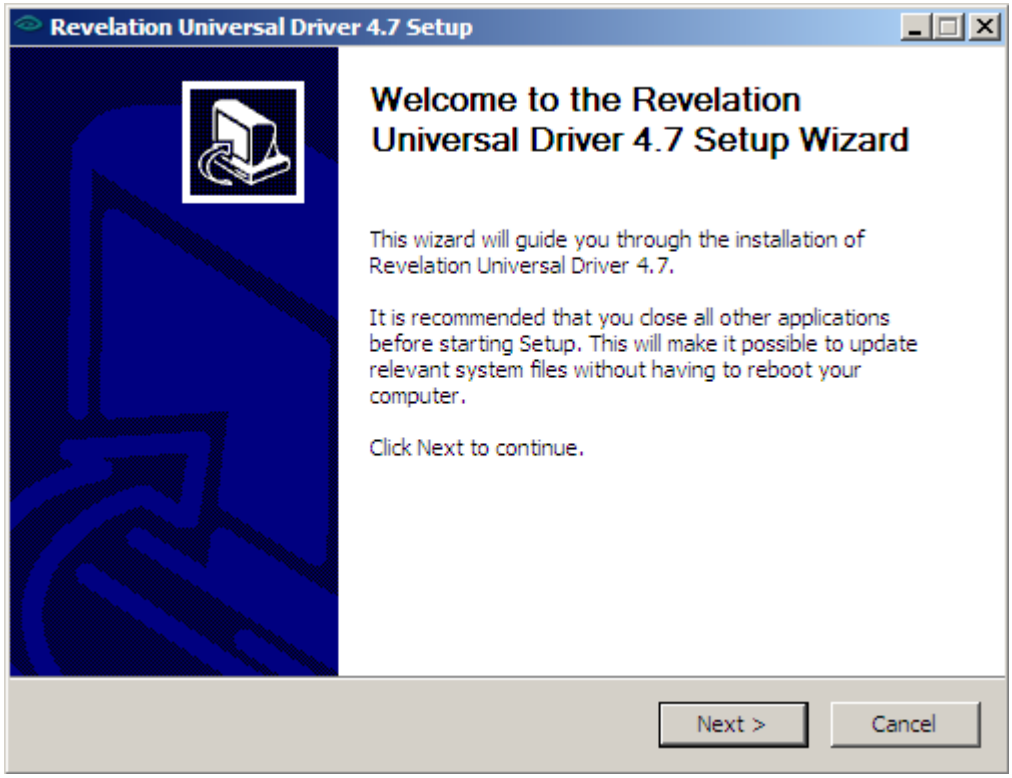
- Performing the Server Side Installation
- Creating the SYSTEM user/group on the server

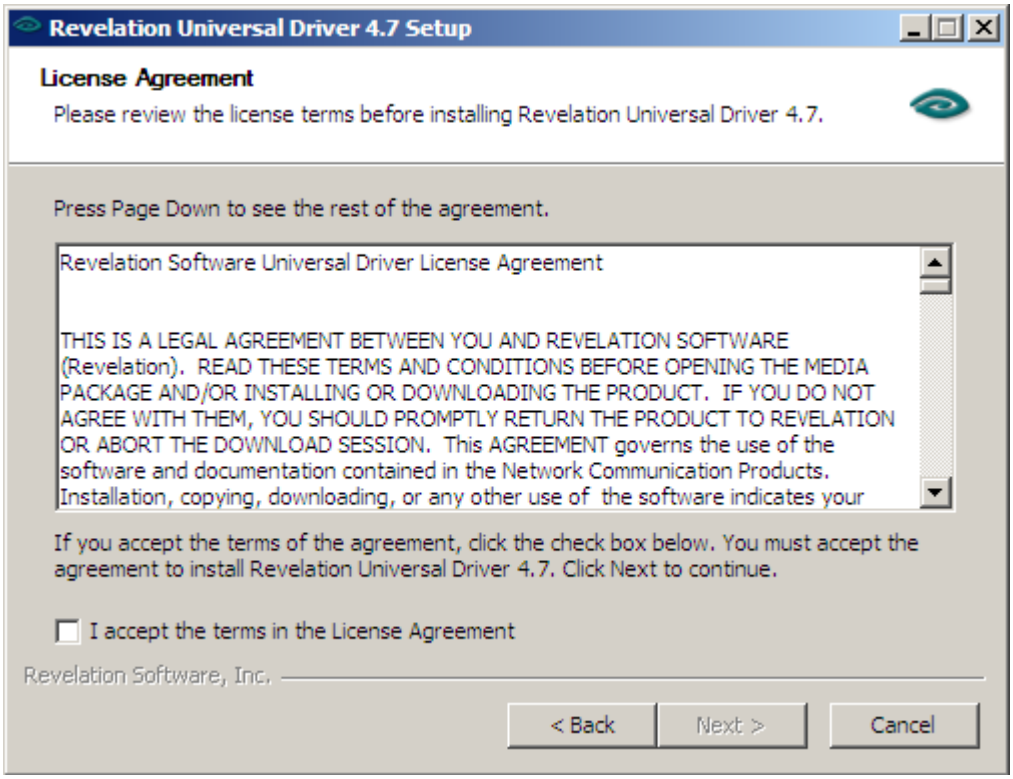
With the Windows Installation you have the choice of using either Named Pipes, TCP/IP, or a combination of the two. The default installation is TCP/IP. If you wish to use a different configuration, refer to "Changing How the Service Connects" later in this section.

Server Side Installation (To be done on the Server)

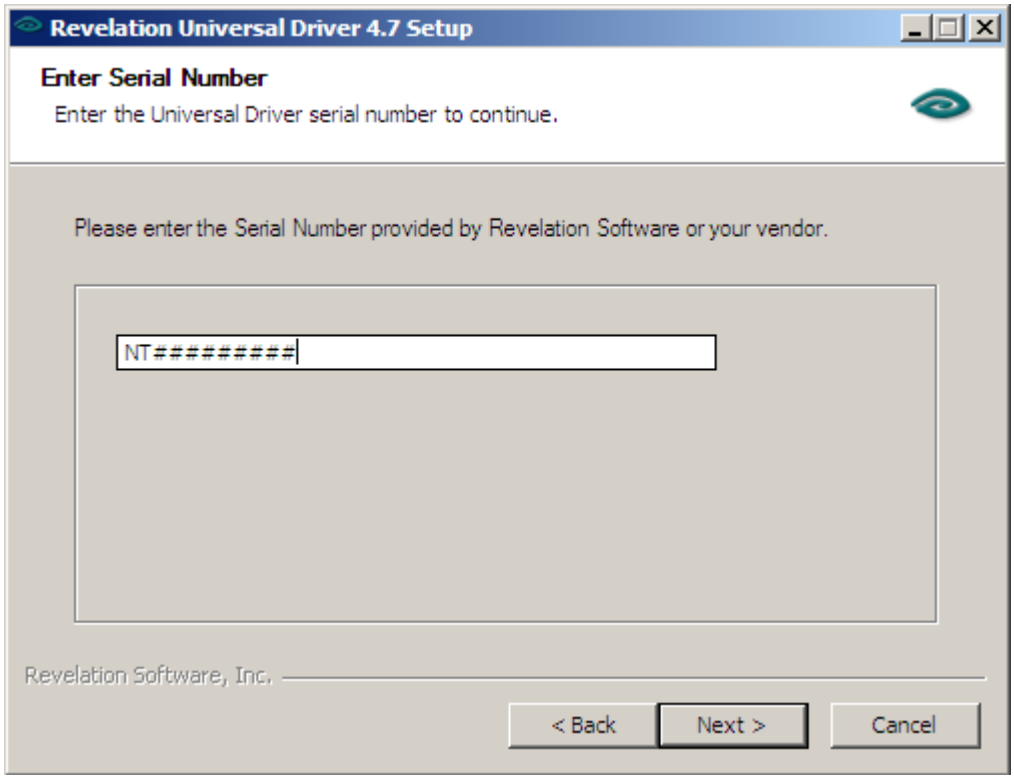
1. First, check the "Services" dialog to make sure there is not an earlier version of the Revelation NT Service, Revelation Windows 2000 Service or Revelation Universal Driver 3.0 or Universal Driver 4.x Service running. Then insert the Universal Driver CD into the CD-ROM or DVD drive.
2. Run the "setup" program on the CD. It is easiest to do this by typing **`D:\SERVER\SETUP`** (Change D to be the CD or DVD drive letter) in the "Run" dialog.
3. Read the information presented on the Welcome screen, choose "Next", and click "Yes" to accept the terms of the software license agreement.

   If the installation program detects a previous version of the Linear Hash service you will be prompted to upgrade. Please refer to the Revelation Universal Driver Upgrade Guide for upgrade directions. Otherwise, exit the setup and uninstall the existing version and restart this setup.

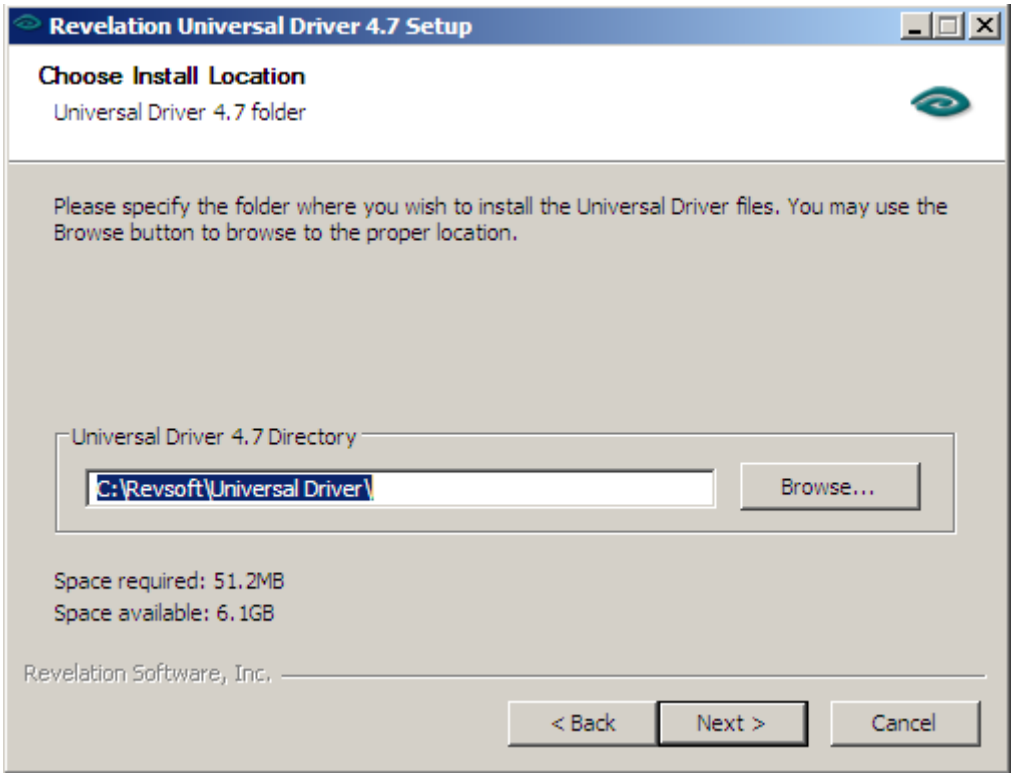




4. Enter the serial number from the Revelation Universal Driver 4.6 registration card. If you have received this product from Revelation Software electronically, you will have received your serial number via email. The serial number must be valid, or you will not be able to progress past this point. When you have finished, click “Next”.



5. You are informed that the Revelation Universal Driver will be installed into the **\REVSOFT\UNIVERSAL DRIVER** directory. If you would prefer a different destination directory, you can make the change at this screen. Confirm your choice by clicking "Next".

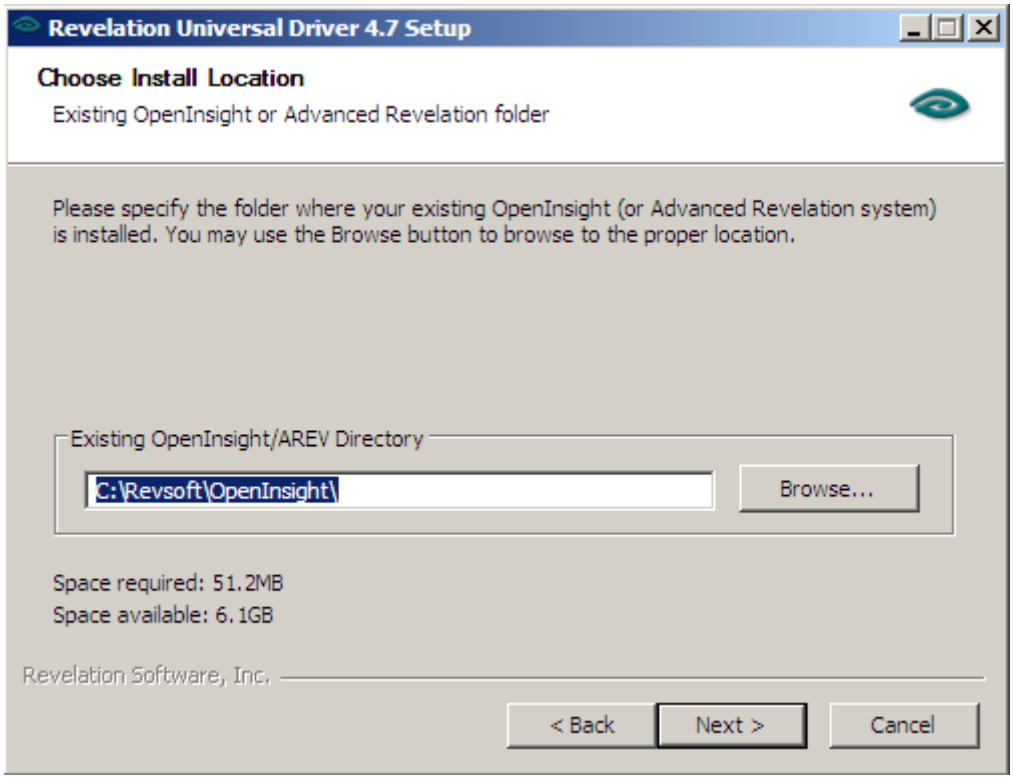


If the installation process cannot find the valid Universal Driver directory from a prior install an error will be reported. Cancel the installation process and remove your prior Universal Driver registry settings. The registry settings will be in a folder located under one of the following locations depending on the server edition:

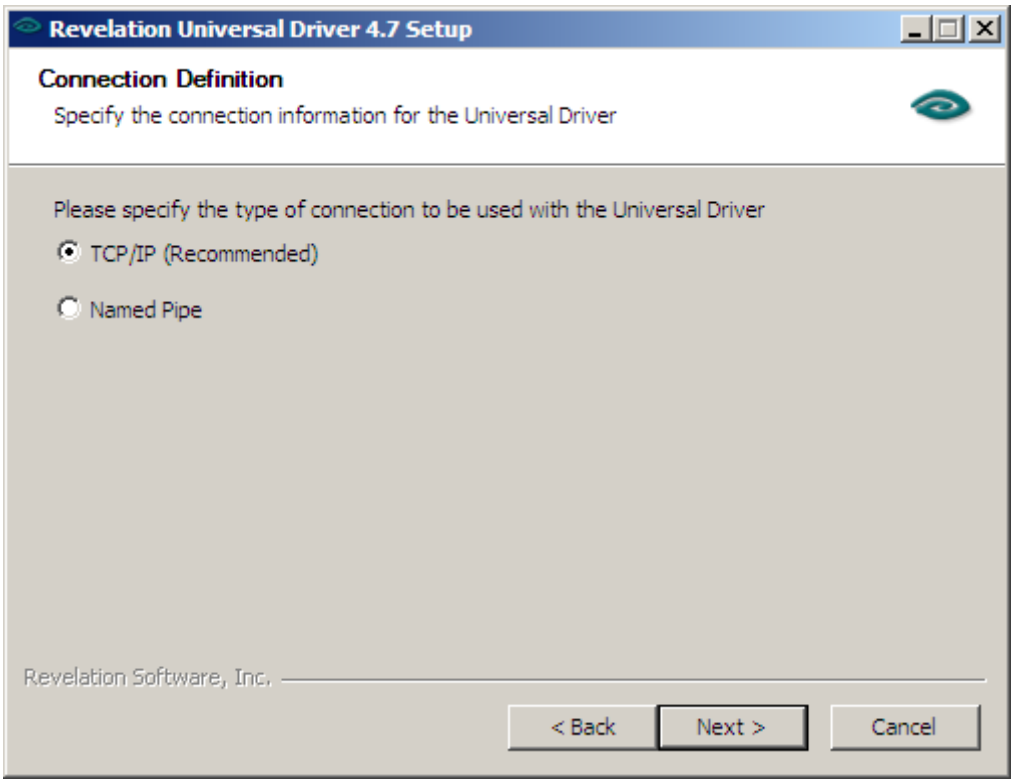
64bit server: HKEY_LOCAL_MACHINE\SOFTWARE\Wow6432Node\RevSoft
32bit server: HKEY_LOCAL_MACHINE\SOFTWARE\RevSoft

Remove any folders named "Revelation Universal Driver" or "NT Service". Restart the installation to continue.

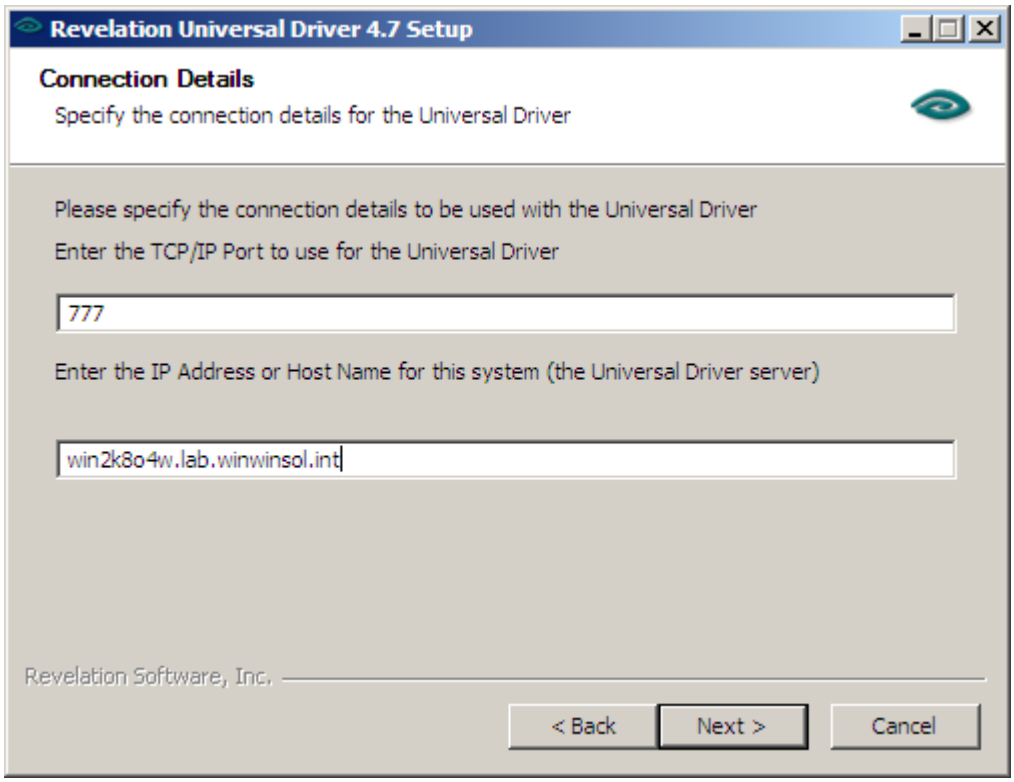
6. The next screen asks you for the location of your existing OpenInsight application. If you are using Advanced Revelation, point to your Advanced Revelation application. This is because the setup will install a Revparam file in the specified location with the necessary settings to run Advanced Revelation or OpenInsight. Once you enter the path to your application, click “Next”.



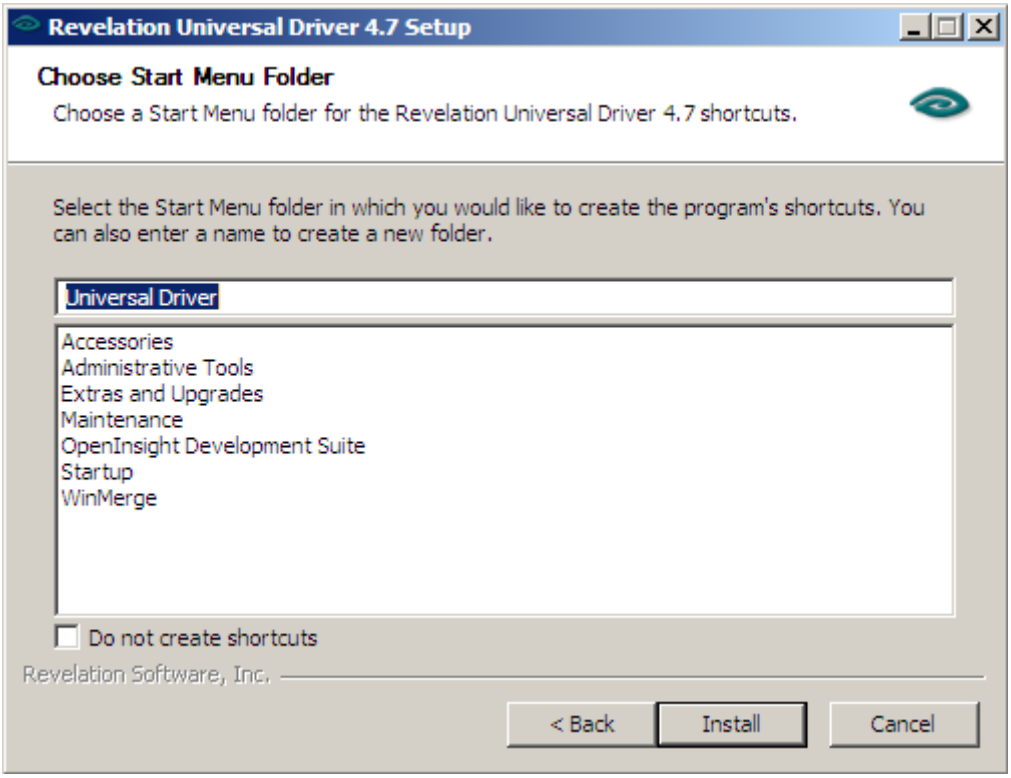
7. You are asked if you wish the Service to run using TcpIp. If you click “Yes”, you are asked for a port to use. This is an internally routed port, but you will need to allow it to pass through any internal firewalls. If you wish to use another port aside from the default, enter it on the screen and choose “Next”. If you choose not to run TcpIp, you are asked for a Named Pipe to use. You can choose the default, or click “Next”.



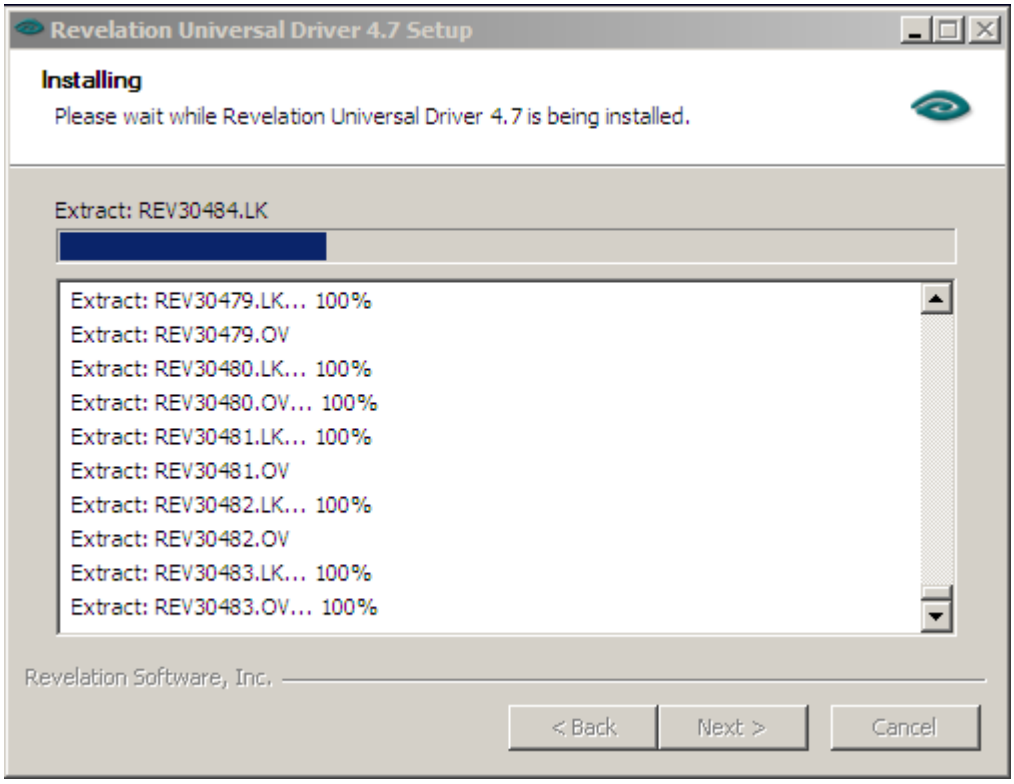
8. This screen asks you for the TCP/IP Port to use for the Universal Driver and the Host name or IP Address of the Server you are installing the Universal Driver on. Enter the information and click "Next".



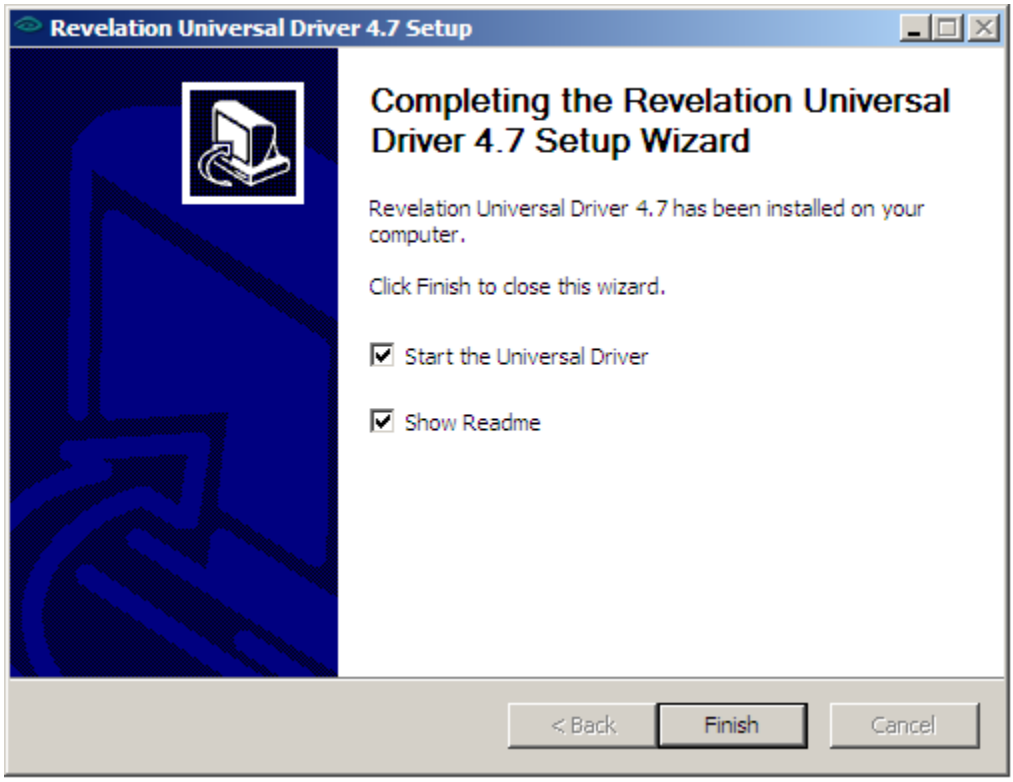
9. At this point please select the Program Group you want the Linear Hash Manager listed under.



10. Click the Install button to start the installation process.



11. The last screen allows you to automatically view the README document and to start the Linear Hash service, via checkboxes. It is strongly recommended that you leave both boxes checked. Click “Next” to complete the installation



The System User/Group

In addition to the steps above, you need to ensure that the Universal Driver's LinearHash service will have appropriate access to your files. By default, the LinearHash service logs into your server as the "System" user/group. This is a predefined user/group on the server. It is important that the System user/group be granted "Full" access to the shared data in the "Permissions" window (located in the "Security" tab of a shared drive's properties). Furthermore, you should configure the security settings of the shared volume to both "Replace Permissions on Subdirectories" and "Replace Permissions on Existing Files". For instructions on how to do this, consult your Microsoft Windows 2008/2003 documentation.

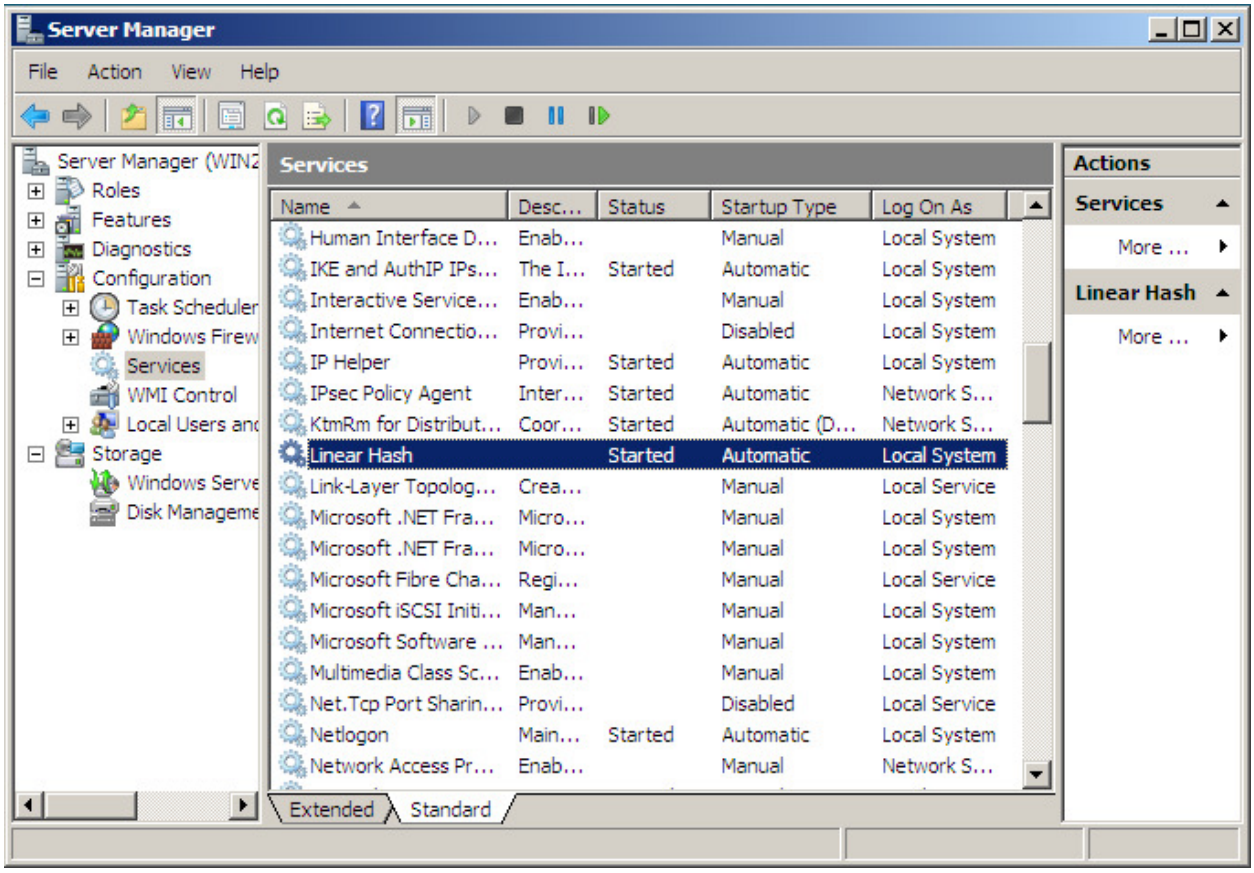
Verifying the Revelation Universal Driver Installation

After completing the installation procedure, you should verify that the software has been installed properly and is functioning. There are two ways to accomplish this, either through the services dialog or the command line.

Services Dialog

There are a number of ways to check the services running on your server, depending on the operating system. Please consult your Windows documentation for details. You can access the services list by right clicking "Computer" and choosing "Manage". Navigate to "Configuration -> Services" and locate "LinearHash" in the list of services names. This service is what the Revelation Universal Driver registers itself to the operating system as. The status should read "Started". You can try stopping, starting, and restarting the service with the start and stop buttons on the top button bar.

Your dialog should look similar to this:



Command Line

The Universal Driver's LinearHash service status can also be checked using the command line. The command line is less intuitive, but quicker for those who are more comfortable with text interfaces. If you are not one of these people, use the Services dialog to verify the installation—it's equally valid. The command line steps follow below:

1. Change to the **\REVSOFT\UNIVERSAL DRIVER** directory
   (assuming you accepted the defaults; use the directory name you installed to)
2. Type **LH47SRVC STATUS**

The service should respond with the message "Running". If you have stopped the service yourself, it should read "Created". If you would like to know other command line parameters for the LH47SRVC executable, see "Using the Universal Driver" later in this section.

The Revparam File

The **REVPARAM** file (with no extension) is a file that is automatically created in the directory where your Revelation application executable resides. It will allow certain behaviors of the client driver to be customized. This file is a text file that can be created in any text editor, such as the Notepad program in Windows (**NotePad.EXE**).

The **REVPARAM** file consists of a series of parameters followed by an equal sign and a value. Below are the contents of a sample **REVPARAM** file for a Windows network:

```
ServerOnly=True
TcpIpPort=777
ServerName=192.168.1.2
```

Although there are several configuration settings available to be used in the **REVPARAM** file, not all of them need to be explicitly present in the file itself. For any variable that you do not put in the **REVPARAM** file, it uses system defaults. This means that you only need to enter the configuration settings that you wish to *change*.

If you have multiple Revelation Software applications installed on your server, you will need to create a **REVPARAM** file for each application.

The ServerOnly flag

This **REVPARAM** file flag controls access to your data. If the ServerOnly flag is set to False, then any user with OpenInsight or Advanced Revelation can read information from your data directories, whether or not they have been configured to use the Revelation Universal Driver. Although having this flag set to the value of False will allow every user to use your data, *it is a recommended security precaution that you change this flag to True*. This ensures that all user requests are making use of the LinearHash service – which is the purpose of the Universal Driver.

If the ServerOnly flag is set to True, then all copies of OpenInsight or Advanced Revelation will refuse to read the files in your data directories, *unless* they can communicate with the LinearHash service on the server. This means that the individual client machines will not attempt to manipulate the data themselves, and will instead perform all their data I/O via requests to the server.

Windows Server Installation Summary

Please take a moment to make sure that you have installed the Universal Driver correctly. Here is a brief summary of the installation steps used to install the Revelation Universal Driver on the server.

OpenInsight or Advanced Revelation

- Install the client software

OpenInsight

- Install the Server Side of the Service
- Create the SYSTEM user/group
- Verify Proper Service Installation

Advanced Revelation

- Install the Server Side of the Service
- Create the SYSTEM User
- Verify Proper Server Installation

Technical Details

The Revelation Universal Driver

The Revelation Universal Driver is a Windows 2008 and Windows 2003 operating system service that was designed to reduce network traffic and increase application speed by processing Linear Hash file activity on the server. This eliminates the bottleneck caused by multiple computers simultaneously requesting data from individual Linear Hash files. The result of transferring this task from the client to the server is an increase in application speed and data integrity, as well as a reduction in network traffic.

The Revelation Universal Driver by default, communicates via TCP/IP but can be configured to use Named Pipes, a high level application programming interface (API) used for passing data between two processes, regardless of whether the processes are local or remote. The underlying network transport used in establishing a connection between client and server can be any protocol that is common between the two. The client uses the highest priority transport that both the client and server support.

The default communication is via TCP/IP. When establishing the TCP/IP connection, you can choose the specific port number you wish to use, or allow the Service to allocate a port itself. How to configure these settings will be covered further in “Changing How the Service Connects” later in this chapter. Before you change from the default settings, please be sure to consult the compatibility table that is located in this Linear Hash Manager.

Ideally, the Revelation Universal Driver should be installed on every file server containing OpenInsight or Advanced Revelation linear hash files in order to provide maximum performance benefits. In situations where application files are stored on a different server from the data, and only one Universal Driver is available, it is necessary that the Universal Driver be installed on the file server on which the data resides.

Changing how the Service Connects

By Default, the Universal Driver installs in TcpIp mode, but you can change to Named Pipes, or a combination of Named Pipes and TcpIp if you are so inclined. TcpIp is the recommended connection method.

The next sections discuss making changes to the registry. These instructions are written for 64bit versions of Windows. If you are using a 32bit version exclude the "Wow6432Node" branch from the registry path.

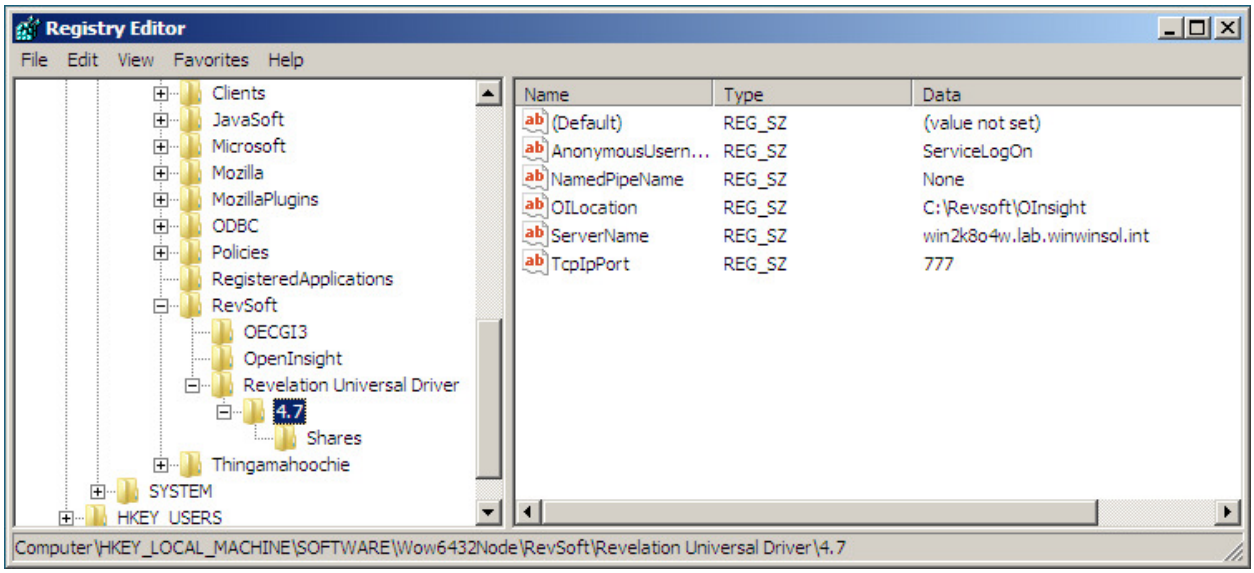
For example, on a 64bit server the root registry path is:
HKLM\SOFTWARE\Wow6432Node\RevSoft\Revelation Universal Driver\4.7

On 32bit editions the root registry path is:
HKLM\SOFTWARE\RevSoft\Revelation Universal Driver\4.7

To run Named Pipes and TCP/IP:

In this configuration, the Service will use Named Pipes to establish the connection between the workstation and the application on the server, but then once the TCP/IP connection is established Named Pipes is no longer used. You will need to run the following on the Server.

Start -> Run -> REGEDIT



A screen shot of the Registry Settings for the Universal Driver using TcpIp

HKEY_LOCAL_MACHINE → SOFTWARE → WOW6432NODE → REVSOFT → REVELATION UNIVERSAL DRIVER → 4.7

Change	To
AnonymousUserName	ServiceLogOn
NamedPipeName	LH47SRVC
TcpIpPort	Allocate

You will need to make additional changes to the **REVPARAM** file. You will need to confirm that it does contain the line:

ServerOnly=true

And add the line:

NamedPipeName=LH47SRVC

Important: After you are done making changes to the Registry, you will need to stop and then restart the Linear Hash Service on the Server.

To run Named Pipes Only:

In this configuration, you only need to specify the Named Pipe you will use. We will use LH47SRVC as an example.

Start -> Run -> REGEDIT

HKEY_LOCAL_MACHINE → SOFTWARE → WOW6432NODE → REVSOFT → REVELATION UNIVERSAL DRIVER → 4.7

Change	To
AnonymousUserName	None
NamedPipeName	LH47SRVC
TcpIpPort	None

You will need to add the following line to your revparam:

NamedPipeName=LH47SRVC

If there is a line mentioning a TcpIpPort, you will need to remove it.

Uninstalling the Universal Driver

From the Universal Driver Program Group choose "Uninstall Universal Driver."

Revelation Universal Driver Files

The following files are installed when you install the Revelation Universal Driver. The default install directory for all the files listed below is the **\REVSOFT\UNIVERSAL DRIVER** directory.

Windows File	Contents
LH47SRVC.exe	The Universal Driver executable

Windows File	Contents
RCL4.dll	Contains the named pipes communication API used by LH47SRVC.EXE. It passes data to LH47SRVC.EXE via the Revelation Communication Layer (RCL). The RCL provides a modular interface between the Universal Driver and the Inter-Process Communications (IPC) mechanisms used in the RCL4.DLL.

Command Line Parameters for LH47SRVC.EXE

LH47SRVC.EXE, the file used to control the Revelation Universal Driver, can accept parameters when used from the command line. The format for using these parameters is as follows:

```
LH47SRVC.EXE <parameter>
```

These parameters are described in the following table.

LH47SRVC Command Parameters

Parameter	Effect	
Create	**Creates the Service and adds it to the list in the Server Management Services dialog box.** **Note: The default registry entries created with this method default to named pipes but the recommended connection method is Tcplp**	
Start	**Starts the Revelation Universal Driver. This command requires that the service already be created.**	
Install	**Creates and starts the Revelation Universal Driver.**	
Stop	**Stops the Revelation Universal Driver.**	
Delete	**Removes the Revelation Universal Driver from the operating system and the Services dialog box.**	
Remove	**Stops the Revelation Universal Driver and removes it from the operating system and the Services dialog box.**	
Pause	**Temporarily pauses the execution of the Revelation Universal Driver.**	
Continue	**Continues the execution of the Revelation Universal Driver after it has been paused.**	
Status	**Reports the operational state of the Revelation Universal Driver. The states can be:**	
	Not created	**The Revelation Universal Driver has not been created and isn't recognized by the operating system.**

Parameter	Effect	
	Created	**The Revelation Universal Driver has been created and is listed in the Server Management Services dialog box.**
	Running	**The Revelation Universal Driver has been started and is running.**
	Paused	**The Revelation Universal Driver has been paused.**
Debug	**Starts the Revelation Universal Driver server console application that displays a log of the work performed by the service. If the Revelation Universal Driver is already running, all users must log out of their OpenInsight/Advanced Revelation applications, then the service must be stopped before starting it using the debug parameter. The following keystrokes are used to control the service while in console mode:**	
	p	**Pauses the Revelation Universal Driver 4.6.**
	c	**Continues the service.**
	ESC	**Stops the Revelation Universal Driver 4.6.**

LH47SRVC.LOG

For debugging purposes, you can create the LH46SRVC.log file in the subdirectory where the LH47SRVC.exe is located. This will log all the calls to the Universal Driver with no noticeable speed penalty. After you create the LH47SRVC.LOG file, you will need to stop and restart the LH47SRVC.EXE.

Revparam File

The **REVPARAM** file controls whether or not OpenInsight and Advanced Revelation use the Service to coordinate locking. The contents of this file should be created with an ASCII editor. Each line of the file contains the following format:

```
<parameter> = <value>
```

Depending on the **parameter** the **value** will be one of the following:

Boolean:	**1** or **0**; **True** or **False**; **Yes** or **No**
Unsigned decimal integer:	Any number between 1 and approximately 4 million
Hexadecimal value:	**0x** followed by a hexadecimal number

The following table describes available parameters and their default values. Keep in mind that these drivers are client-side settings, and the Universal Driver overrides many of them when the Linear Hash service is running. Normally there is no reason to change the values that are installed with the Linear Hash Service.

Parameter	Default	Description
ReadOnly	False	When True, limits access of all files in this directory to read and select requests. If you are using a volume in a reference/read-only capacity (i.e. CD-ROM format), you may want to set this value to True.
Locks	True	When True, forces byte range locks to be used on all files in this directory. If byte range locking is not available from the operating system, an error message is returned. If byte range locking is available, and the Locks parameter is set to False, locking is disabled for this directory.
TcpIpPort	Allocate	Sets the TCP/IP port used by the client if not strictly Named Pipes. Only set in Application main directory.
NamedPipeName	LH47SRVC	Only set in Application main directory.
FlushFileSizeUpdates	False	When True, updates causing a change in file size changes are immediately saved to disk.
FlushAllUpdates	False	When True, any file changes are immediately committed to disk.
SelectCache	True	When True, caching is implemented. This improves performance for ReadNext/ReadOnly loops.
FillCharacter	0x00	If you are running on a network that has problems with sparse files, you may want to change the fill character value to another setting (i.e. 0xFF). This causes your system to fill empty space in frames within a file with char(255) instead of char(0).
GroupLockTimeOut	60 seconds	Decimal value in seconds limiting the amount of time a workstation tries to place a group lock. If the value is reached and a group lock is not set, an error message is displayed, thus preventing a system hang.
ServerOnly	False	When True, prevents workstations from accessing Linear Hash files in local mode. True is recommended.

Parameter	Default	Description
MaximumUsers	1024	Decimal value for the maximum number of users that can concurrently access all files in this directory. In most circumstances, this number should not be changed. It is used to calculate the number of lock values available to place on a file.
CacheFlushLocks	True	Certain operating environments cache network files at the workstation. In these environments, when this parameter is True, a lock is implemented that forces the workstation cache to flush or write to disk.

Network Performance Pack Files

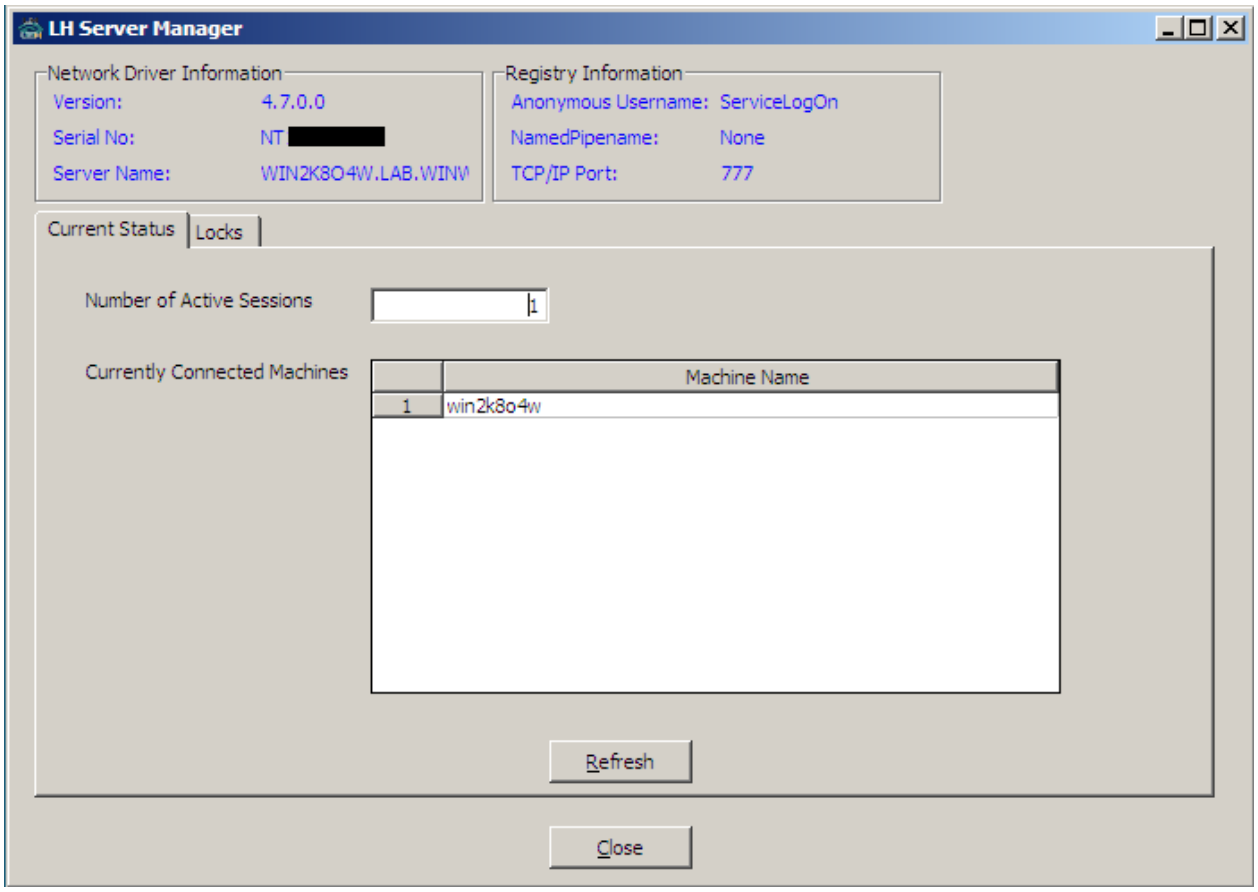
The following files are added to your system after installing the client driver.

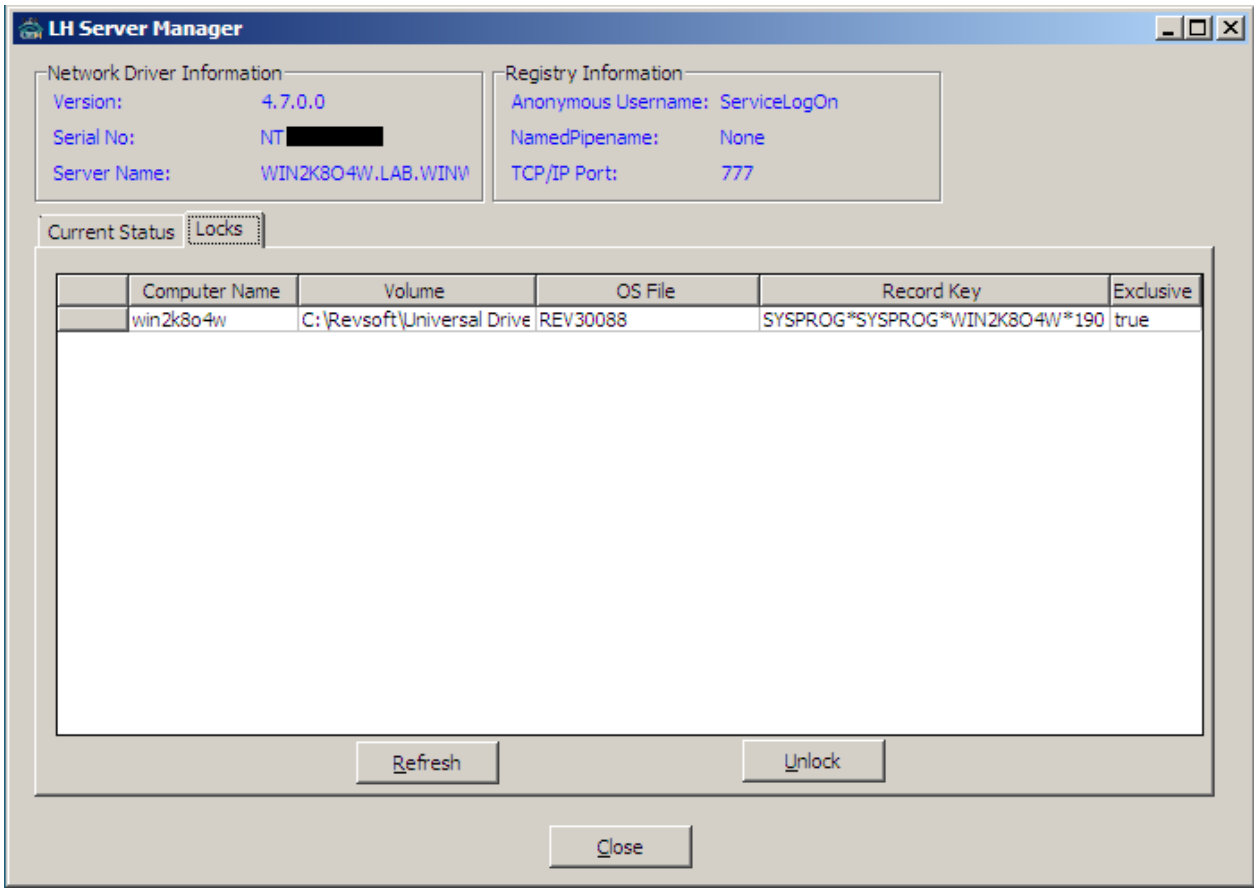
Advanced Revelation	RPT57A.LH3	The Advanced Revelation internal network driver; loads LH4.OVL.
	LH4.OVL	Loads LH4VDD.DLL
	LH4VDD.DLL	Loads the RCL4.DLL
OpenInsight	LH46.DLL	The OpenInsight internal network driver loads the LH46CLNT (32-bit OI).
	LH47CLNT.DLL	Loads the RCL4.DLL
	RCL4.DLL	The communication API used by LH47.DLL. It passes data to the Revelation communication level (RCL).
	REVERROR.DAT	File containing error messages.

Section IV: The UD 4.7 Linear Hash Console Application

The Revelation Universal Driver contains a console application to help you manage system record locks. To start the console application, click the following:

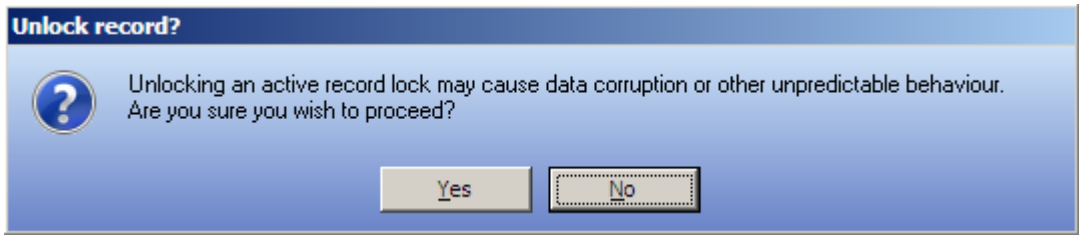
Start -> Programs -> Universal Driver -> Universal Driver Manager





To manage record locks, click on the Locks Tab, then click Refresh to display the current record locks:

To release a record lock, highlight the lock you want to release and click Unlock. The following warning message will display:



A response of Yes will display a message confirming the lock has been released.

REVELATION
SOFTWARE

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Part No. 109-972