

Vector NTI™ *Express* and *Express* Designer Installation and Licensing Guide

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System settings and requirements

Minimum system requirements

Platform	Hardware			Software	
	CPU	RAM	Hard drive	OS	Internet Browser
Windows®	Intel Core 2 Duo 2.33GHz	3 GB	80 GB	XP SP3 (32bit)	IE 6
Macintosh®	Intel Core i7 2GHz	4 GB	500 GB	Mountain Lion	Safari

Note: Vector NTI® *Express* and *Express Designer* are only supported on single processor machines. The software is not designed to run on multi-processor machines; such configurations cannot be guaranteed to operate successfully.

Windows® operating systems only: Local administrator account

On the Windows® operating system, you must be logged in as a local administrator to install the software.

Dynamic licensing

This document does not address Dynamic Licensing of Vector NTI® *Express*, *Express Designer* or DLS installation. Customers with a DLS License should first install and license the DLS software before installing Vector NTI® *Express* or *Express Designer*.

For information on DLS installation and dynamic licensing of the software, see the **DLS Installation and Licensing Guide**, available by following the link to the software on thermofisher.com/vectornti.

Download the software

1. To download the software, go to thermofisher.com/vectornti and follow the links to the Vector NTI® *Express* or *Express Designer* download pages.
2. Follow the instructions on the page to download the software.
3. When the download is complete, depending on your browser settings, you are prompted to save or run the installer.

Install the software

1. If you are not prompted to automatically run the installer after download, navigate to the download location and double-click the installer (e.g., **Vector_NT_Express_Designer_Install_Win.exe** or **VectorNTIExpressInstall.exe**) to begin installation.
2. If a previous version of the software is installed, you are prompted to uninstall it before proceeding.

Note: During uninstall, you are prompted to save your old database. After uninstall is complete, double-click the installer again to begin the installation.

Note: We recommend installing the software on a computer hard drive, not a network drive.

During installation, a local database is created. This database initially contains a set of standard vectors and other molecules from Thermo Fisher Scientific.

3. (Optional) If you are upgrading from *Express* to *Express Designer*, import your data from within Vector NTI® *Express Designer* by selecting **File > Import**.

Launch the software

Windows® operating systems: A desktop icon and **Start** menu folder (named **Life Technologies**) are created during installation. Double-click the icon or select the application from the Start menu to launch the software.

Mac® OS: To launch the desired software, go to **/Applications/VectorNTIExpressDesigner.app** or **/Applications/VectorNTIExpress.app**.

License the software

New installations will open in **Demo Mode**, which allows you to perform limited operations with the software. You cannot save changes or analysis results in Demo Mode. Any license, whether trial, static, or dynamic will unlock the software from the Demo Mode.

Order a license

Order a license for Vector NTI® *Express* or *Express Designer* on our website at thermofisher.com/vectornti. Follow the links to the software pricing pages.

For a free trial license, click the link on the desired software page, or email your contact information to bioinfotrial@lifetech.com.

Types of licenses

To satisfy the needs of users in different industrial, scientific or educational environments, Thermo Fisher Scientific has designed the following software licenses:

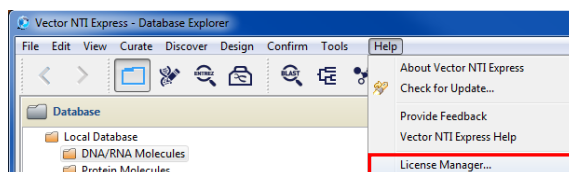
- **Trial License:** Allotted to a potential purchaser of the software for a specified number of days, during which the user can review and use the software within certain limits.
- **Static License:** Purchased by one user for installation on one computer.
- **Corporate Static License:** Static license that is used throughout a corporate organization.
- **Term License:** Static Licenses are also available as 1-year and 3-year fixed-term licenses.
- **Dynamic License (DLS):** A license that is installed on a server and issued by that server to client computers running the software. DLS licenses are shared by a specified number of users or “seats,” with the number of users at any one time being limited to the number of “licenses” specified in the contract.

Enter the license number

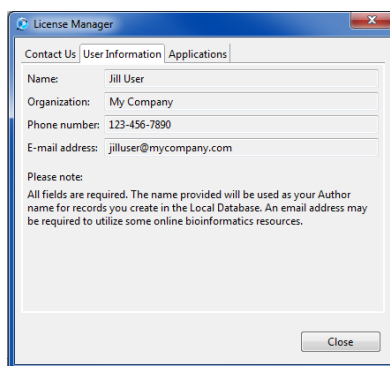
To license the software, you need a new License Number. If you have no connection to the internet, you also need a new Registration Key. The Registration Key is provided by Thermo Fisher Scientific based on your License number and Hardware ID.

Enter the license into the software using the License Manager.

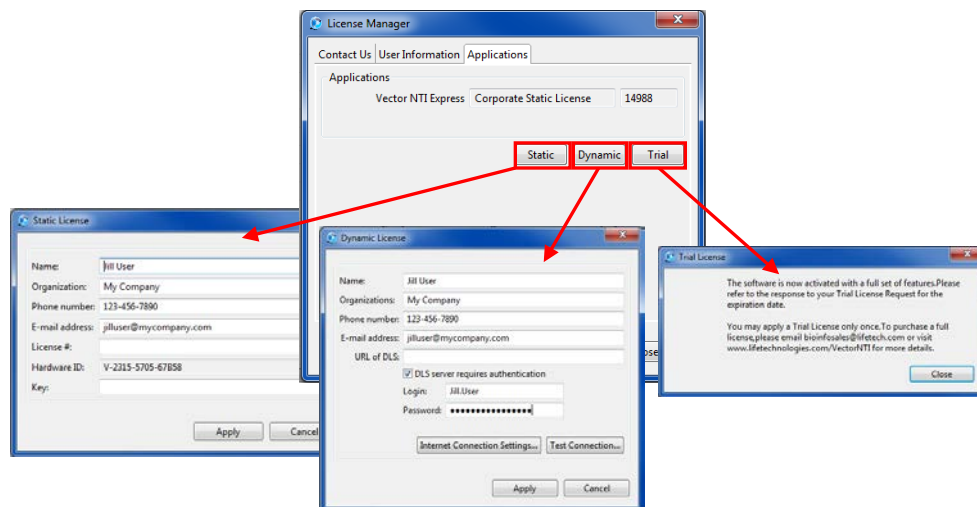
1. Navigate to **Help > License Manager**.



2. In the **User Information** tab of the License Manager, enter your information.



3. Select the **Applications** tab. If you have a license, it displays along with the contract number.



4. Click the type of license you have, or **Trial** if you do not have one. Enter the license information as described in the following sections.

Note: After you enter the new license, you will need to close and restart the software to apply the new license to it.

Enter a Static License

1. In the Applications tab, click **Static**.
2. Enter your information in the appropriate fields.
3. In the **License #** field, enter the software static license number provided in the email you received from Thermo Fisher Scientific. The hardware ID is pre-loaded in its text box.
 - **Personal Static License:** You must have an internet connection for this type of static license. Click **Apply**. The license is submitted via the internet and a registration key is returned and applied automatically.
 - **Corporate Static License:** You must have an internet connection for this type of static license. Click **Apply**. The license is submitted via the internet and a registration key is returned and applied automatically.



Note

If registration of your personal static license fails because of a problem with the internet connection, contact Thermo Fisher Scientific Technical Support and provide them with your computer's hardware ID and your license number. Once you receive the registration key, enter the key in the **Key** text box of the Static License dialog box and click **Apply**. If the Key matches your license number and computer hardware ID, the license is registered.

Enter a Trial License

1. In the Applications tab, click **Trial**.
2. Enter the trial license you received in the field, then click **Apply**.

Enter a Dynamic License from a DLS Server

To configure a Dynamic License for the software, see the **Installation and Licensing Guide for Vector DLS 3.0** available at thermofisher.com/vectornti.

1. In the Applications tab, click **Dynamic**.
2. Enter your information in the appropriate fields.
3. Select the **DLS server requires authentication checkbox**, and enter your name and password for the server.
4. If you have trouble connecting to the server, click **Internet Connection Settings** to try new connection settings, then click **Test Connection** to test the settings.

Software Updates

Automatically or manually update software

Each software has a software update server that can be checked automatically or manually:

1. Go to **Tools > Preferences**.
2. In the Preferences dialog, the update site URL is specified as follows:
 - For *Express Designer* updates:
 - For Windows®:
http://downloads.thermofisher.com/Analysis_Software/MCB/VNTI/UpdateSitePlugin/Designer.Updates.win32/1.0
 - For Macintosh®:
http://downloads.thermofisher.com/Analysis_Software/MCB/VNTI/UpdateSitePlugin/Designer.Updates.mac/1.0
 - For *Express* updates:
 - For Windows®:
http://downloads.thermofisher.com/Analysis_Software/MCB/VNTI/UpdateSitePlugin/Updates.win32/1.0
 - For Macintosh®:
http://downloads.thermofisher.com/Analysis_Software/MCB/VNTI/UpdateSitePlugin/Updates.mac/1.0
3. To automatically check for updates each time the software is launched, select **Automatically find new updates and notify me**. To manually check for updates, go to **Help > Check for Update** after you have launched the software.

Install a previous version of the software

To go back to an older version of the software, you must first uninstall the newer version and then re-install the older version.

Windows® operating systems: Multiple users on the same computer

The software can run from different user accounts on the same computer. (See your Windows® operating system documentation for information about setting up multiple user accounts.)

Note the following:

- With this type of installation, a single local database is shared among users on the same computer.
 - A local Windows® Administrator account is required to install the software, but more restricted accounts (e.g., Restricted User, Standard User) can run the software.
1. From an Administrator account, install the software on the computer.



Important

Make sure that the local database is installed in an unrestricted root directory (e.g., the default **C:\vectorntiexpressdesigner_database** or **C:\vectorntiexpress_database** directory) that can be accessed by all users.

2. After installation, launch the software in the Administrator account, open License Manager (**Help > License Manager**), and enter the license as described in the licensing section of this installation guide (see page 5).
3. Log in to each Windows® user account and run the software as usual.

Transfer software to a new computer or operating system

The license number and Hardware ID of your computer are closely linked. Changes to the computer operating system can result in a change to the Hardware ID, which will revoke the existing license.

If the operating system changes or the software is to be moved to a different computer, you must unregister the license **before** the software is uninstalled from the current computer. An internet connection is required.

1. Type **unregister** in License# field.
2. Click **Apply**.
3. On the destination computer, install the software, and apply the existing license.

Using shared databases

Databases are repositories of DNA, RNA, protein molecules, enzymes, oligonucleotides, and gel markers that can be shared between Vector NTI users on a network. Shared databases are not a replacement for local databases. The local database is used for construction, design, creation of viewers, and for storing private and temporary data. The purpose of the shared database is to store common data.

The only operations you can perform on shared databases are:

1. Copying data to or from the local database.
2. Database management operations such as creating and deleting subsets.
3. Database searches.

In addition to biological data, each database contains information about its creator and registered users. Only the creator and registered users can have access to database data. The database creator can also change database properties, remove registered users, and define the password required to become a register user.

Note: Vector NTI shared databases does not support Macintosh users.

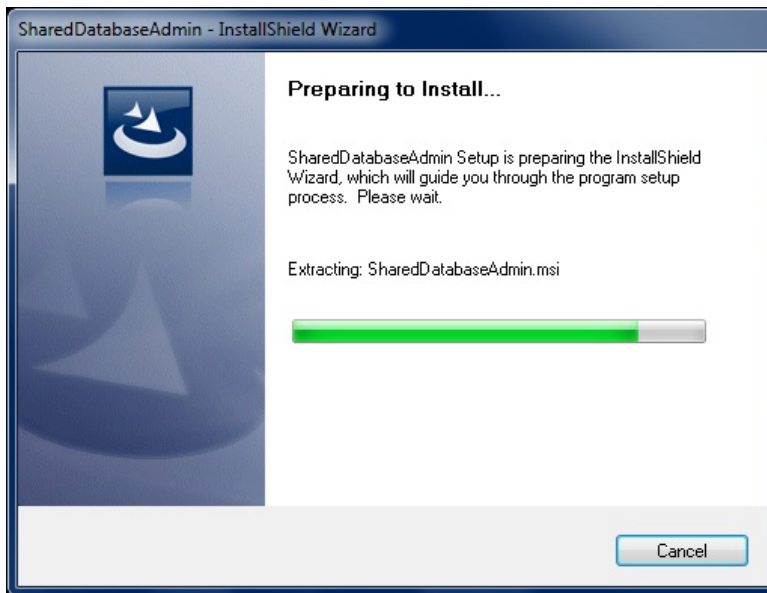
Shared databases can be located on a wide range of file servers—Vector NTI can work using not only services native to each system, (Microsoft Network or AppleTalk) but also various Unix (NFS or Samba) and NetWare services.

Install the shared database

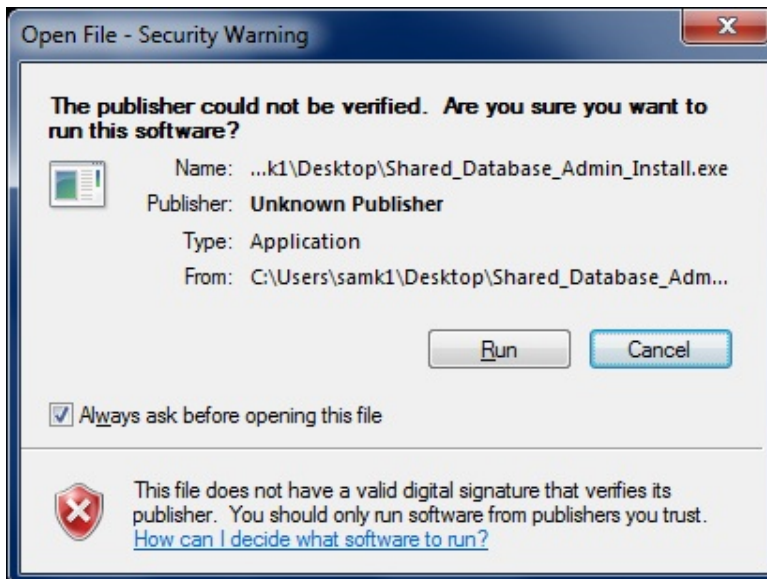
Install the database on machine within a network that client machines can access. One client machine can connect to more than one shared database. When a client machine is configured to connect to multiple databases, it can connect a particular shared database by entering the appropriate Host Name, User Name, and Password.

1. Click [here](#) to download the shared database executable installation file.
2. Double-click **Shared_Database_Admin_Install.exe** to begin installation.

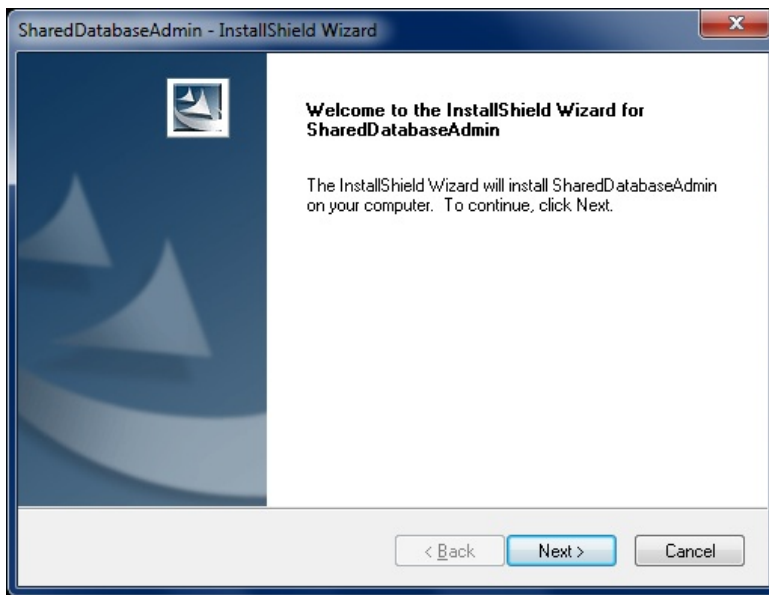
The InstallShield Wizard launches.



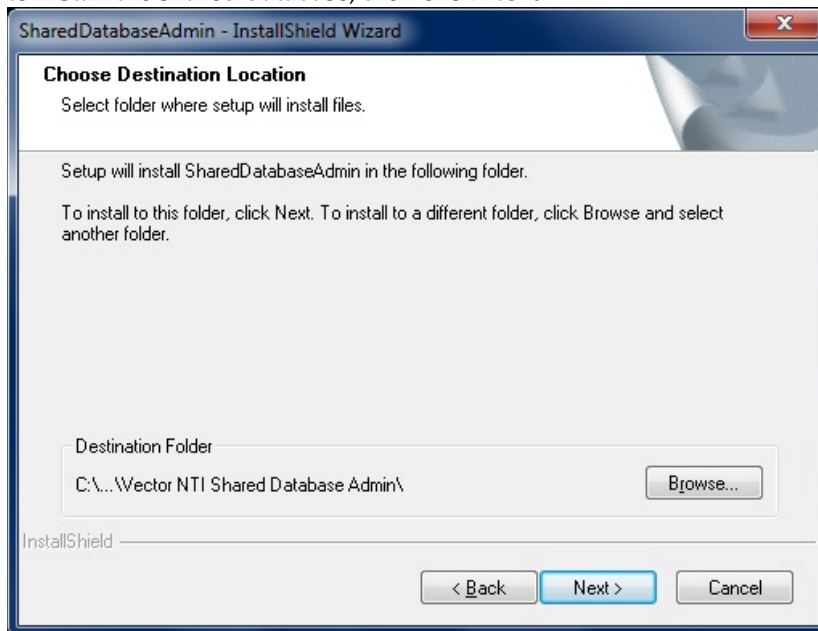
3. In the instance of a Security Warning, click **Run** to continue.



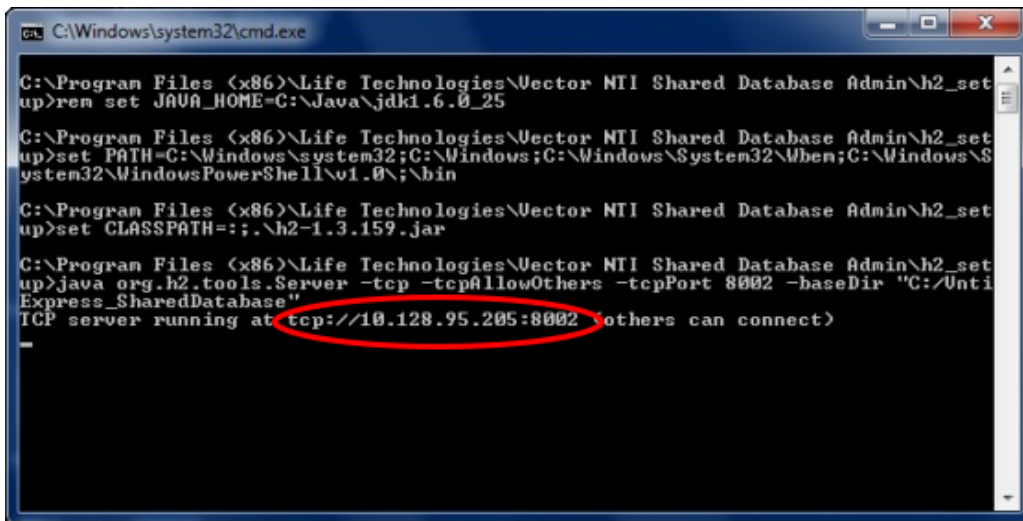
4. Clicked **Next** to continue.



5. When the Choose Destination Location window displays, browse to and select the location you want to install the shared database, then click **Next**.



The following command prompt launches to indicate that the shared database is ready to accept a connection. The IP address used to connect is displayed. **DO NOT** close this command prompt. Closing the window disconnects the shared database.



```
C:\Windows\system32\cmd.exe

C:\Program Files (x86)\Life Technologies\Vector NTI Shared Database Admin\h2_set
up>rem set JAVA_HOME=C:\Java\jdk1.6.0_25

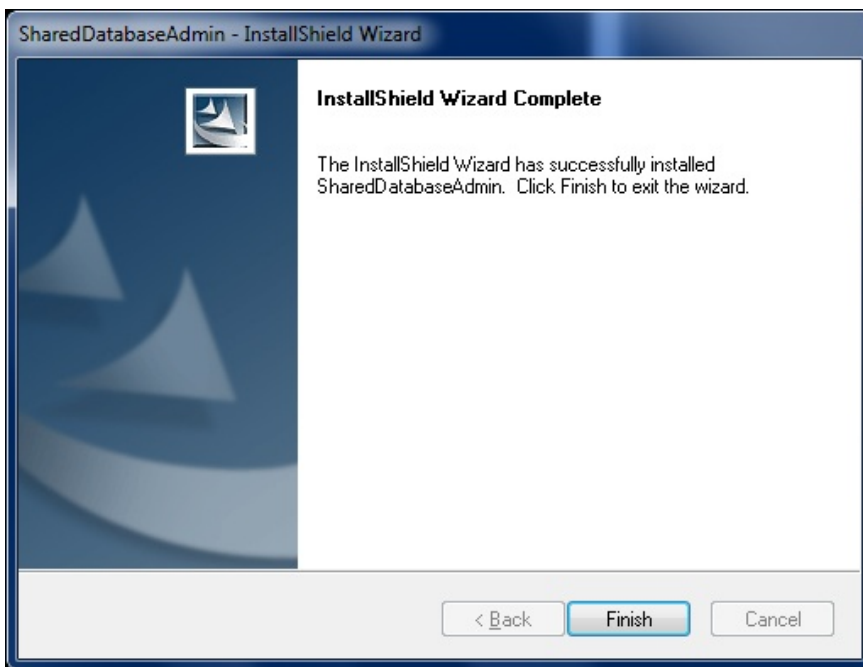
C:\Program Files (x86)\Life Technologies\Vector NTI Shared Database Admin\h2_set
up>set PATH=C:\Windows\system32;C:\Windows;C:\Windows\System32\Wbem;C:\Windows\S
ystem32\WindowsPowerShell\v1.0\;bin

C:\Program Files (x86)\Life Technologies\Vector NTI Shared Database Admin\h2_set
up>set CLASSPATH=.;.h2-1.3.159.jar

C:\Program Files (x86)\Life Technologies\Vector NTI Shared Database Admin\h2_set
up>java org.h2.tools.Server -tcp -tcpAllowOthers -tcpPort 8002 -baseDir "C:\Until
Express_SharedDatabase"

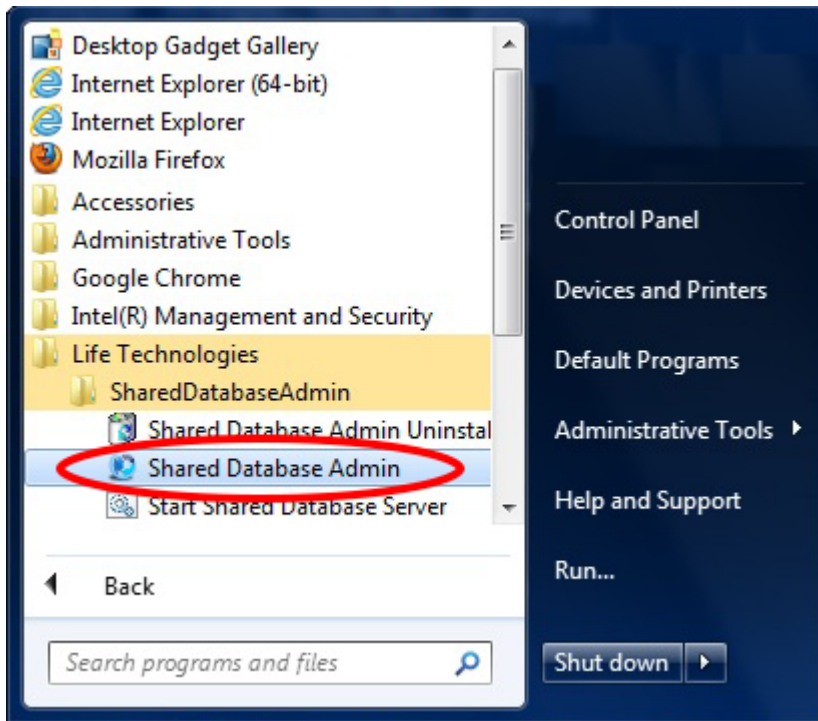
TCP server running at tcp://10.128.95.205:8002 others can connect>
```

6. When prompted, click **Finish**.



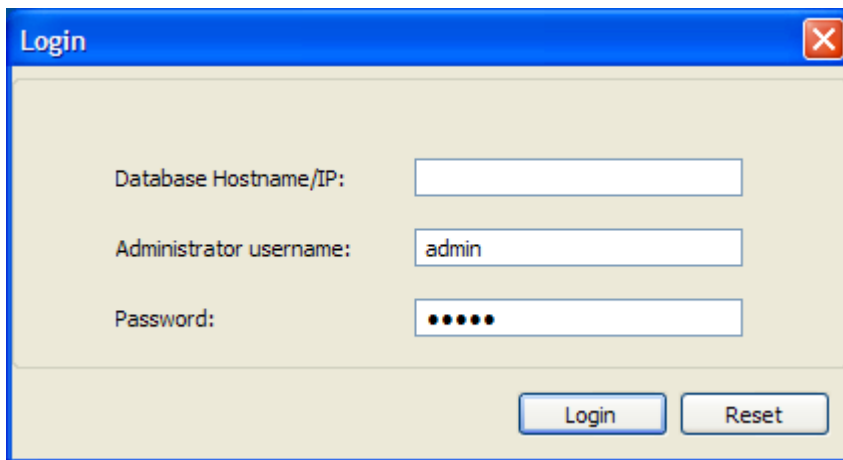
Shared Database Administration

1. Launch **Shared Database Admin** through the **Start** menu as shown below.



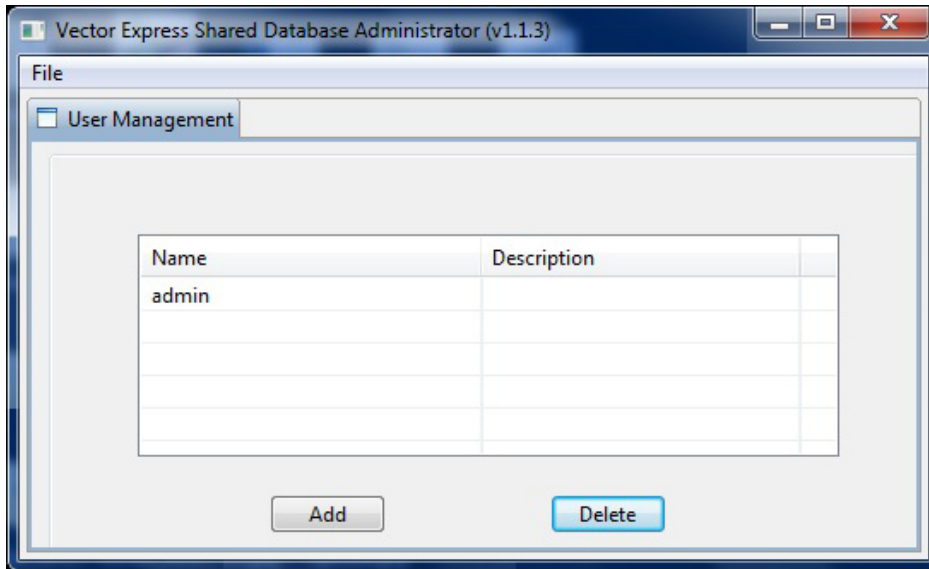
The Login dialog box opens.

2. Enter the IP address of the shared database (indicated in step 4). Enter **admin** as both the username and password, then click **Login**.

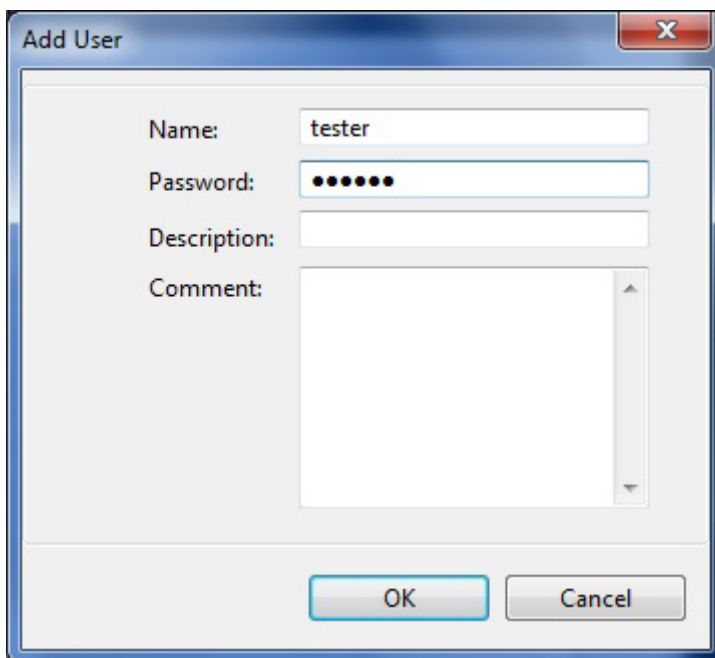


The User Management dialog box opens.

3. Click **Add** to add a user.



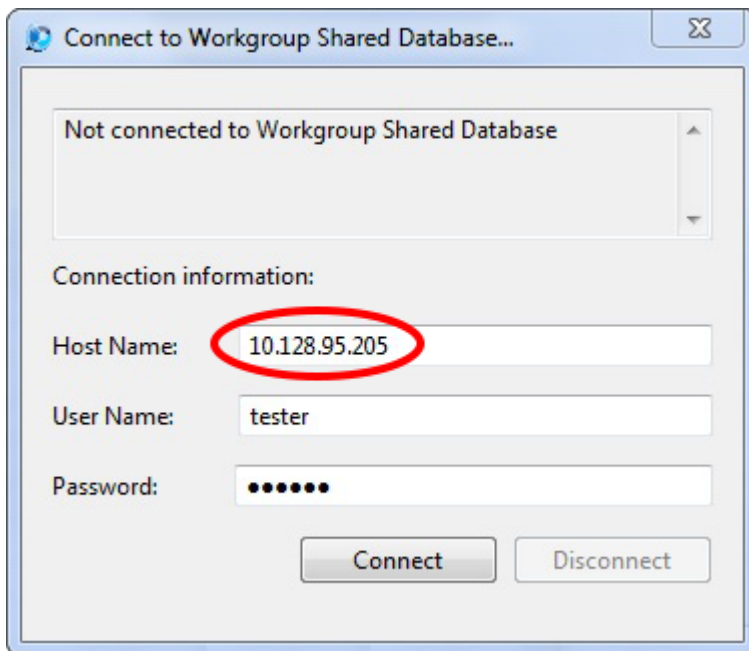
4. Enter a Name and Password, then click **OK**.



The new user appears in the User Management table.

Connect to a shared database from client software

1. In Vector NTI *Express* or *Express Designer*, Select **Tools> Connect to workgroup shared database....**
2. Enter the Host Name (IP Address displayed in the command prompt), User Name, and Password, then click **Connect**. The fields are automatically populated with the last Host Name, User Name and Password entered.



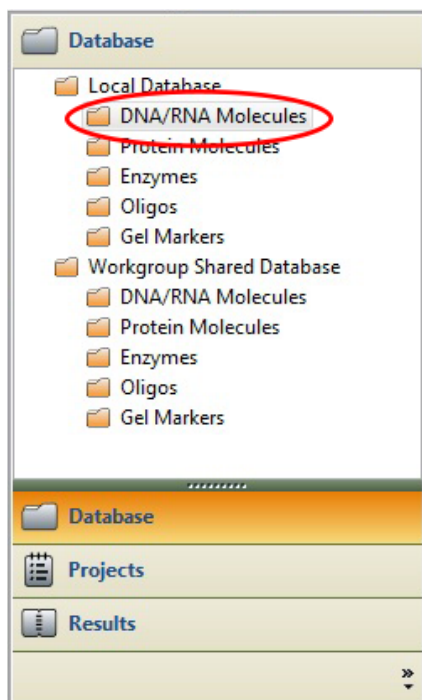
A dialog displays to indicate a connection has been established with the shared database. You can only connect to one shared database at a time. The connection is lost when you close *Express* or *Express Designer*.

3. Click **OK** to continue.

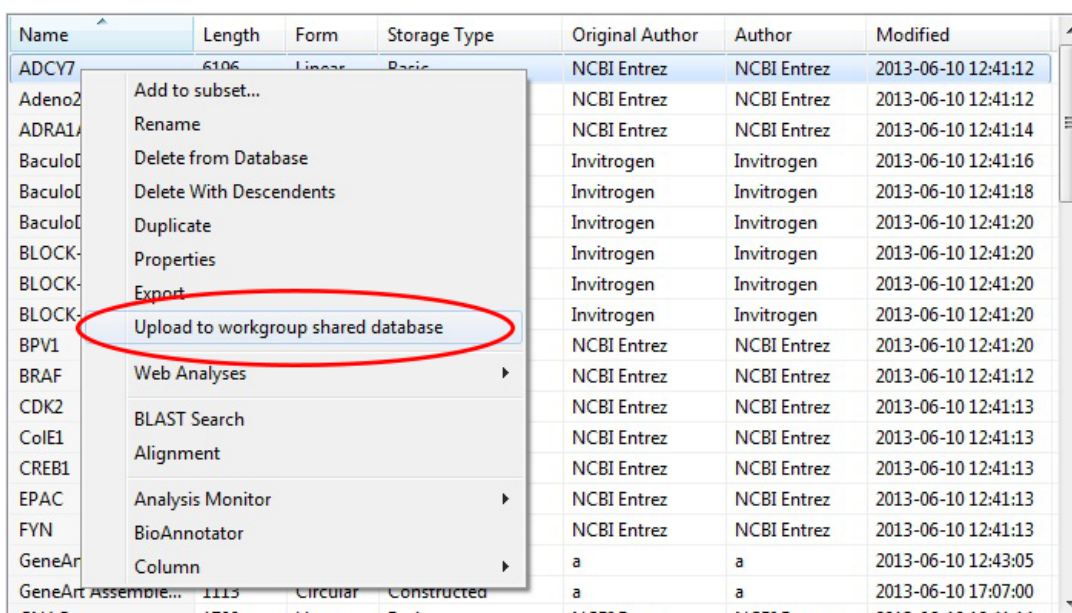
Upload data to the Shared Database

Note: The workgroup shared database panel (below) does not display unless you have established a connection.

1. From the Local Database in the Database panel on the left, select a data type.

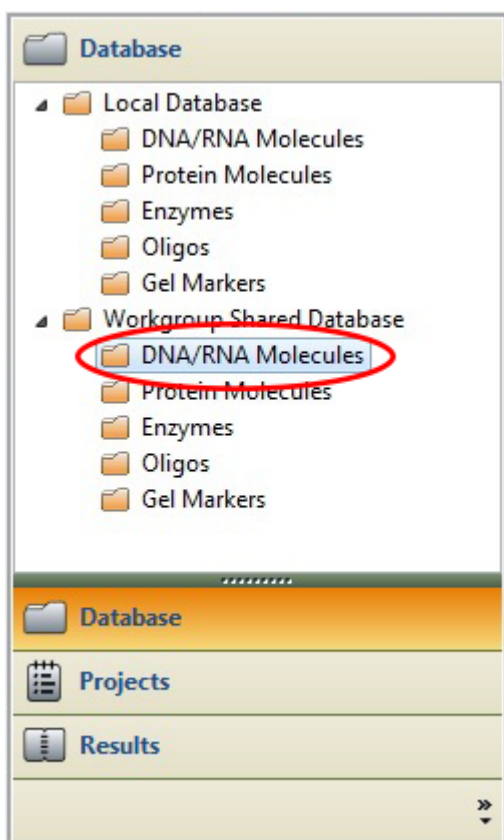


2. Select one or more record(s) in the table, right-click, then select **Upload to workgroup shared database**. This option only appears if you are connected to shared database.



A confirmation displays the number of records uploaded.

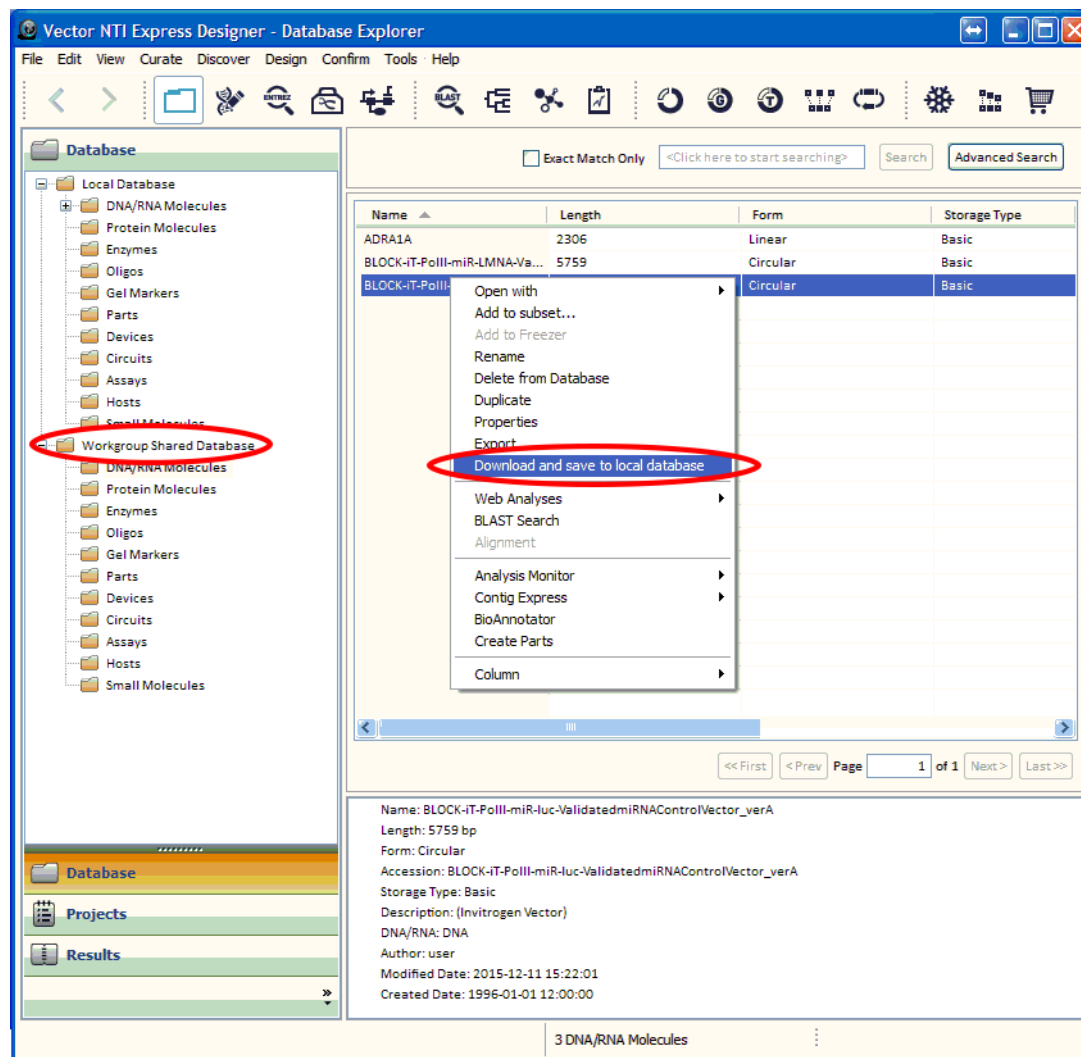
3. Click **OK** to continue.
4. Select the corresponding **Workgroup Shared Database** folder to view the uploaded record.



Download data from the Shared Database

Once in a shared database, you may download data and save it to your local database.

1. Select the folder within the Workgroup Shared Database that contains your data of interest.
2. Select the data, and right-click on it.
3. Select **Download and save to local database**.



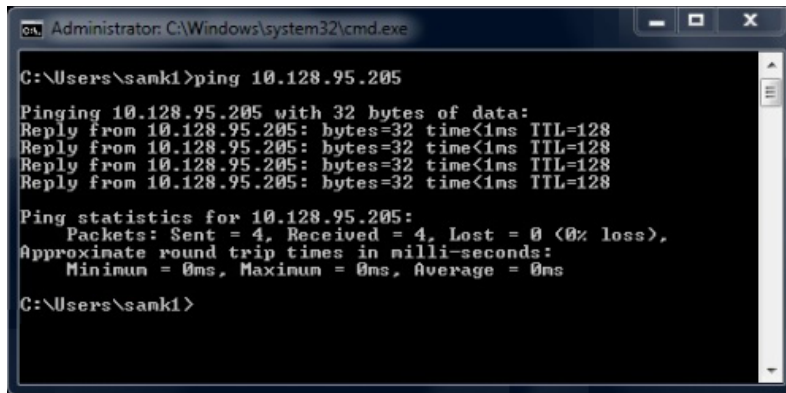
Shared database connection troubleshooting

Disconnection from the shared database

If the shared database server command prompt is closed, the software will indicate that there is no connection to the workgroup shared database. Reconnect to the shared database.

1. From the Start menu of your computer, navigate to Life Technologies > SharedDatabaseAdmin > Start Shared Database Server, and launch Start Shared Database Server.
Note: If you still cannot establish a connection, continue with steps 2 and 3.
2. From the Start menu on your computer, navigate to and right-click on **Command Prompt**, then select **Run as administrator**.
The pathway is **All Programs > Accessories > Command Prompt**.

3. Enter `ping <Shared DB IP address>`, inserting your actual IP address.
See **Install a shared database server** for instructions to find your IP address.
A properly functioning network will return a reply from the server as shown below.
If you encounter a request timeout, check if the shared database server started and is running properly. If the problem persists, see [Firewall preventing connection](#).



```
Administrator: C:\Windows\system32\cmd.exe

C:\Users\sank1>ping 10.128.95.205

Pinging 10.128.95.205 with 32 bytes of data:
Reply from 10.128.95.205: bytes=32 time<1ms TTL=128
Reply from 10.128.95.205: bytes=32 time<1ms TTL=128
Reply from 10.128.95.205: bytes=32 time<1ms TTL=128
Reply from 10.128.95.205: bytes=32 time<1ms TTL=128

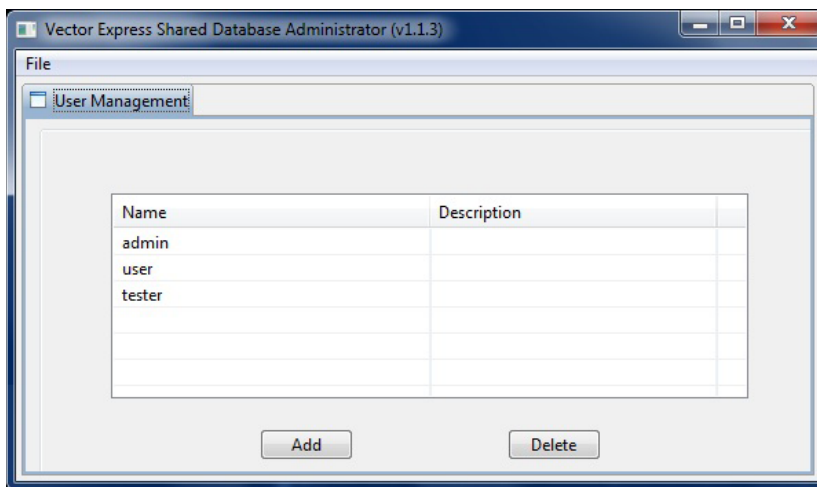
Ping statistics for 10.128.95.205:
    Packets: Sent = 4, Received = 4, Lost = 0 (0% loss),
    Approximate round trip times in milli-seconds:
        Minimum = 0ms, Maximum = 0ms, Average = 0ms

C:\Users\sank1>
```

Unable to log in to the shared database

If you cannot log in to the shared database, check that the user account was registered properly.

1. From the Start menu on your computer, navigate to **All Programs > Life Technologies > SharedDatabaseAdmin > Shared Database Admin**. Launch the **Shared Database Admin**.
2. Confirm that appropriate user accounts are registered in the User Management list.



If the user account you are using is missing, **Add** it and retry logging in through Vector NTI *Express* or *Express Designer* client software.

Firewall preventing connection

Check if a firewall is turned on the computer running either the client software or the shared database server. Turn off the firewalls and reattempt to log in and connect. If you determine that the firewall was preventing connection, request your local IT administrator to enable access to the shared database server.

Appendix A. Technical support

Technical resources on the web

Technical resources for the software are available online at: thermofisher.com/vectornti.

Annual support contract

For personalized technical support by telephone or email, you must have a paid annual software maintenance and support contract. To purchase an annual support contract, email bioinfosales@lifetech.com or contact Thermo Fisher Scientific customer support at thermofisher.com/support.

If you have a paid annual support contract, contact us by email or phone:

- Email: bioinfosupport@lifetech.com
- Phone:
 - 800 955 6288 x68990 (North America)
 - +44 (0) 141 814 6318 (Europe, Middle East, Africa)

Other Thermo Fisher Scientific technical support

For additional Thermo Fisher Scientific technical support, visit thermofisher.com/support.

Product warranty

Thermo Fisher Scientific Corporation and/or its affiliate(s) warrant their products as set forth in the Thermo Fisher Scientific's General Terms and Conditions of Sale found on Thermo Fisher Scientific's website at thermofisher.com/termsandconditions. If you have any questions, please contact Thermo Fisher Scientific at thermofisher.com/support.

Appendix B. Reinstallation policy

Effective January 1, 2012, depending on the status of the Advanced Support Contract you may or may not have with us, the service coverage is different:

1. If you *do* have a current, paid Advanced Support Contract with Thermo Fisher Scientific, then you are entitled to an unlimited number of license support incidents for your Vector NTI® *Express* or *Express* Designer software license. However, if you *do not* have a current, paid Advanced Support Contract with Thermo Fisher Scientific, then you are only entitled to one courtesy (no charge) license support incident for your software license.
2. For Vector NTI® *Express* Designer and Vector NTI® *Express*, if you do not have a current, paid Advanced Support Contract, Thermo Fisher Scientific grants a one-time only license support incident for the number of computers registered per your original purchase order. For example, if you purchased license(s) for 10 computers, you are entitled to a one-time courtesy (no charge) reinstallation for up to 10 computers. After that, no more courtesy (no charge) reinstallations are granted.
3. As we introduce new major version releases, only the most current and one prior version is eligible for license support, regardless of the type of licensing (i.e., Static, Dynamic, Network). This is a standard industry practice.

To request Reinstallation Service, please visit our website and submit out a **Reinstallation Request Form**, available on the web at:

<https://www.thermofisher.com/site/us/en/home/Products-and-Services/Applications/Cloning/vector-nti-software/vector-nti-advance-software/Support/Re-Install-Request-Form.html>

A valid license number and hardware ID is required.

For support visit thermofisher.com/support or email techsupport@lifetech.com
thermofisher.com

11 January 2016

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S C I E N T I F I C