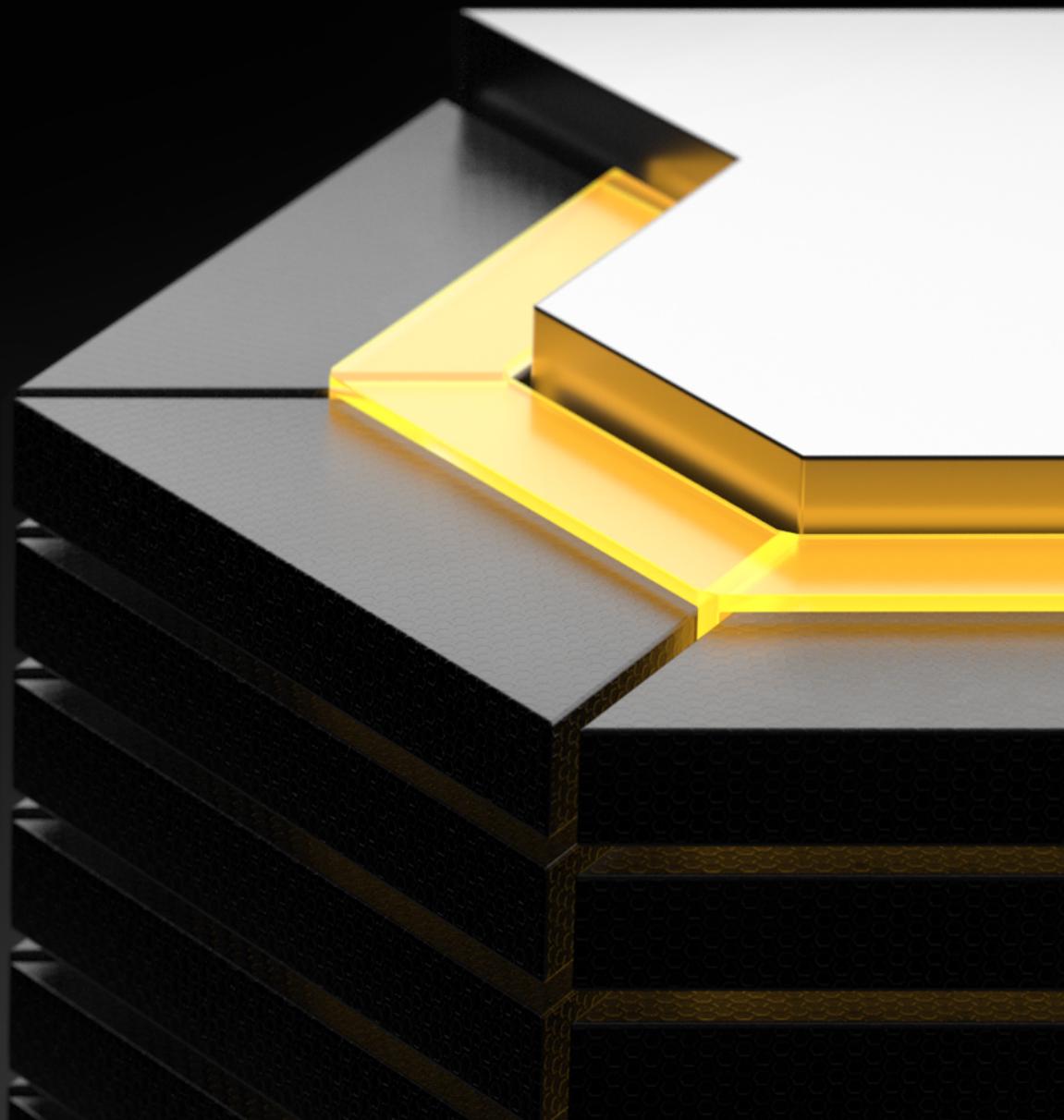


***Altium***<sup>®</sup>

# Altium Vault Implementation Guide





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## FIRST-TIME SETUP FOR ALTIUM VAULT

### SOFTWARE INSTALLATION

**Altium Vault** is installed through use of an efficient, intuitive installer - an installer that not only expedites the initial installation process, but lets you update to a later version with ease, at any time in the future. In addition, tools are available to monitor the health of **Altium Vault**, and to **Backup** and **Restore** your valuable design data.

**Altium Vault** can **ONLY** be installed and run on a PC running one of the following **Operating Systems**:

- Windows 10 (32-bit or 64-bit)
- Windows 8.1 (32-bit or 64-bit)
- Windows 8 (32-bit or 64-bit)
- Windows 7 (32-bit or 64-bit)
- Windows Server 2016 Standard Edition
- Windows Server 2008/2012 R2 (32-bit or 64-bit, where applicable)

It cannot be installed on a PC running **Windows XP**. In addition, it cannot be installed on a PC running basic versions of the OS (**Core, Home, Starter, Base**). For additional **System Requirements**, see [System Requirements](#).

You will be working with **Firebird database** installation of **Altium Vault**. If you would like to work with an **Oracle database** installation of **Altium Vault**, it is recommended you learn the concepts of **Altium Vault** with this guide and supplement your knowledge with our online documentation at [altium.com/documentation](http://altium.com/documentation).

To access the **Altium Vault Setup Wizard**, you need to first download and run an executable – **Altium Vault** <VersionNumber>.exe. This executable is downloaded from the [Downloads](#) page of the Altium website and can be saved anywhere on your hard disk.

**Note:** Due to the observed unpredictable behavior of antivirus software, it is recommended to disable such software during the installation of **Altium Vault**.

### RUNNING THE SETUP WIZARD

1. **Double-click** **Altium Vault** <Version Number>.exe file.
2. Click **Next** to continue.

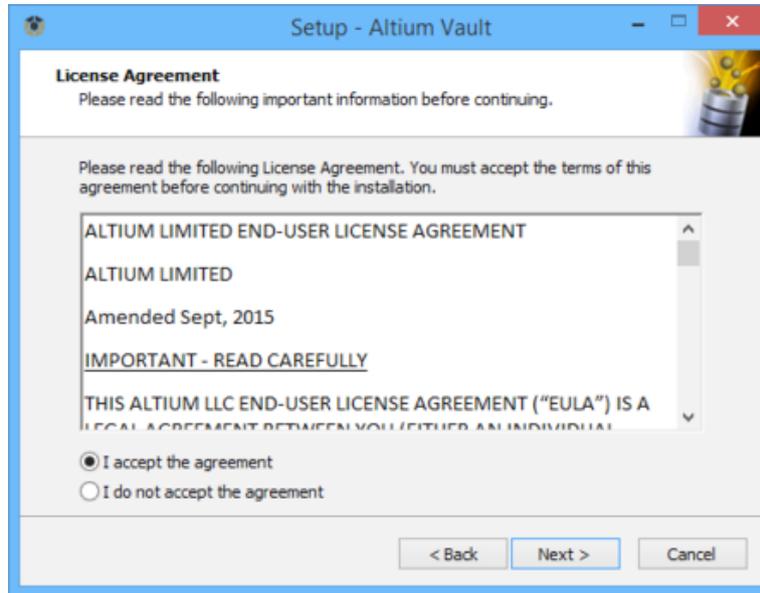


*Initial Welcome Page for the Altium Vault Setup Wizard.*



## LICENSE AGREEMENT

This page of the wizard presents you with the **Altium End-User License Agreement (EULA)**.

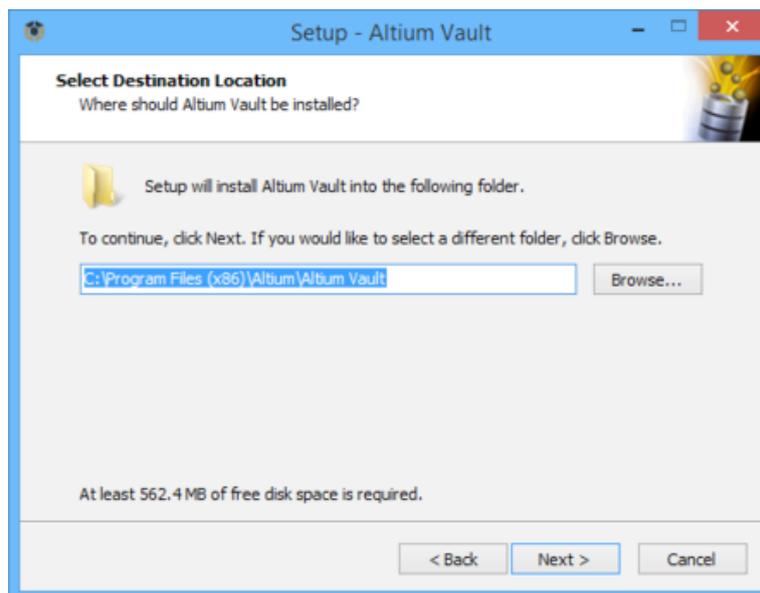


*Read and Accept the Altium Vault End-User License Agreement*

3. With the **EULA read**, continue with the install by enabling the **I accept the agreement** option and **clicking** the **Next** button.

## SELECT DESTINATION LOCATION

This next page of the wizard allows you to specify the destination in which to install the **Altium Vault**. The default installation path is **C:\Program Files (x86)\Altium\Altium Vault**. **Altium Vault** requires at least 563MB of free disk space for installation. To specify an **Alternate Location**, simply type the location directly into the field, or click the **Browse** button at the right of the field, and browse for the required **destination folder**.



*Determine Install Location for Altium Vault*



**Altium Vault** provides the base platform from which additional services are ‘plugged in’ and served. These services include the **Altium Vault Service** (**Altium Vault** itself), **Identification Service**, **Search Service**, **Comments Service**, **Data Acquisition Service**, **Part Catalog Service**, and **Projects Service**.

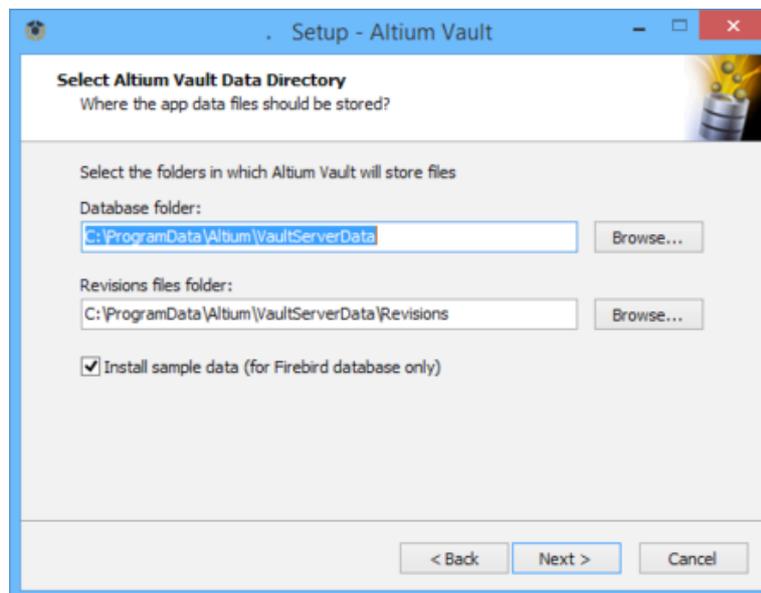
4. **Specify** the **install location** and **click Next** to continue.

## SELECT ALTIUM VAULT DATA DIRECTORY

Use this page of the wizard to specify the destination folders in which to store the database and revision files respectively. The **default installation paths** are:

- **Database Folder** – C:\ProgramData\Altium\VaultServerData
- **Revision Files Folder** – C:\ProgramData\Altium\VaultServerData\Revisions

To specify an alternate location, simply type the location directly into a field, or click the **Browse** button at the right of a field, and browse for the required destination folder. When installing **Altium Vault** and using **Firebird** for the database, you also have the option to install a sample data structure.



*Determine Install Locations for Altium Vault Data*

5. Once the **Database Folder** and **Revision Files Folder** location is specified.
6. **Ensure** the **Install sample data option** is **enabled**. This will give you a useful set of high quality components and template content as an immediate starting point for designing.
7. **Click Next** to continue.

## ALTIUM VAULT CONFIGURATION

Use this next page of the wizard to specify the port numbers to be used by **Altium Vault** for network connections. When choosing a port, note that it must not clash with any **ports used by other applications** - if a port is currently in use, you will be notified by the installer.

- **Specify** following **port numbers**:

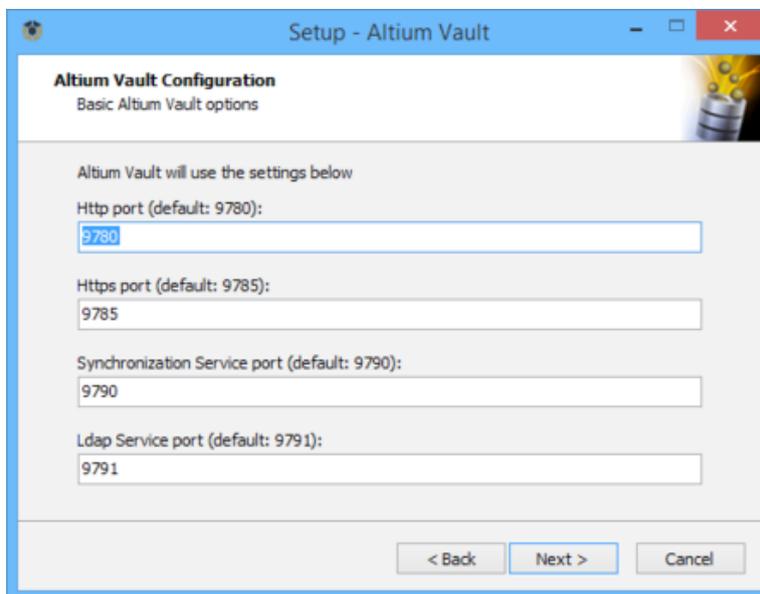
**HTTP** Port (default **9780**)

**HTTPS** Port (default **9785**)

**Synchronization Service** Port (default **9791**)

**LDAP Service** Port (default **9790**)

- **Click Next** to continue.



*Set the Port Numbers for Server Communications*

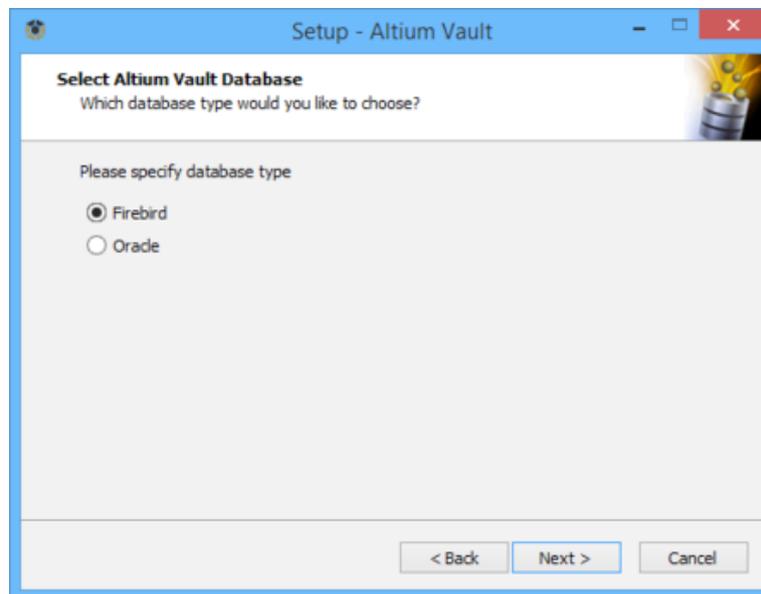
**Note:** With respect to the **HTTP** communications port, if you have a previous flavor of **Altium Vault** running on the same PC, ensure that the communication ports are unique. **Altium Vault** uses the port **9780**, a legacy **Altium Personal Vault** uses the port **9680**, while a legacy **Altium Satellite Vault** uses port **9880**.

## SELECT ALTIUM VAULT DATABASE

Use this page of the wizard to specify the type of database used for **Altium Vault**. Two database types are available:

- **Firebird**
- **Oracle**

**Firebird** is the default **database** option and the required **database** for this guide. The **Firebird 2.5** engine is used on **port 3050**, creating a new database for **Altium Vault** with native support and no additional options. The **Oracle database** type facilitates streamlined installation of **Altium Vault** within organizations already utilizing this type of database as the back-end for their existing systems. Hosting **Altium Vault** on their existing infrastructure reduces installation and management complexity.



*Select the Type of Database for Altium Vault Back-end*

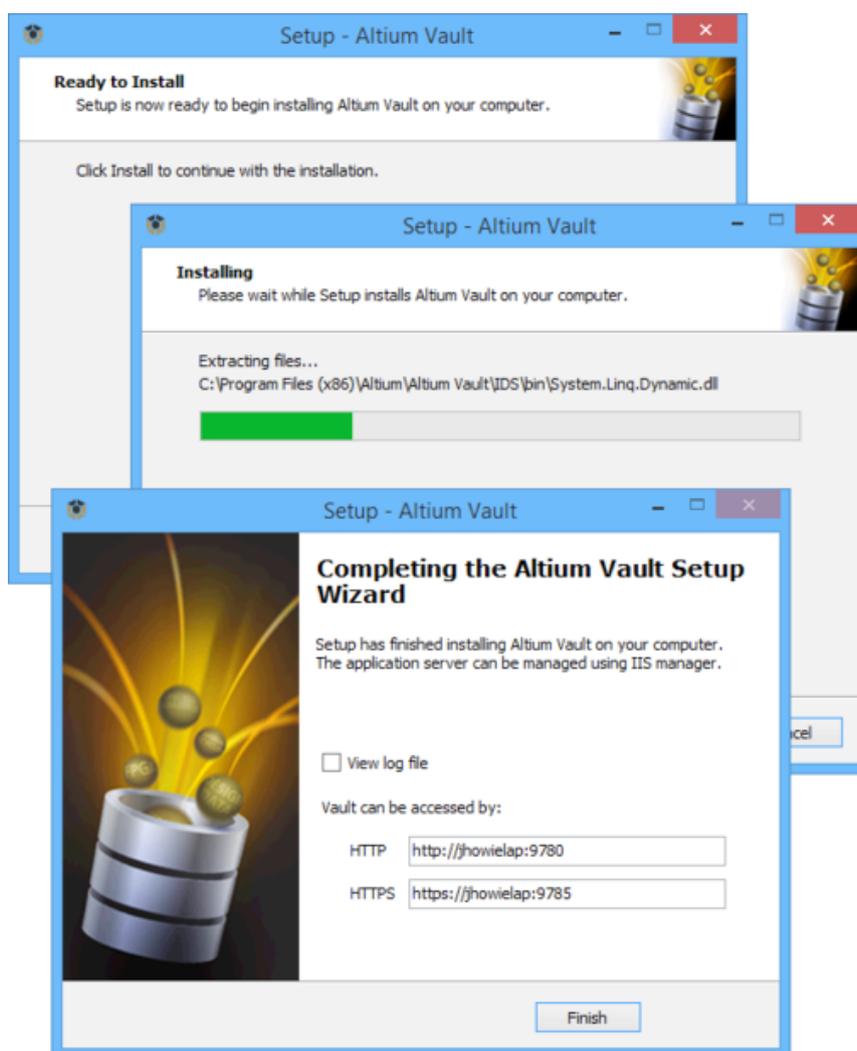
10. **Select** the **Firebird database** and **click Next** to continue.

## READY TO INSTALL

The **Installer** now has all the information it requires to proceed with the installation. If you need to change anything, click the **Back** button. If you want to cancel the install, click **Cancel**. The page will change from “Ready to Install” to “Installing” and the installation will proceed.

11. **Click Install** to proceed with the installation.
12. **Click Finish** to exit the wizard.

**Altium Vault** runs on top of the Microsoft **Internet Information Services** package (**IIS**). If this is not installed on the PC, you will be prompted to install it after the installation process begins.



For your convenience, the final page of the Installer also presents **URLs (HTTP and HTTPS)** for accessing **Altium Vault** - either when signing into the **Altium Vault** through your design software, or when accessing **Altium Vault** through its **browser-based interface**.



## MAINTENANCE AND UPGRADES

Once the **Altium Vault** is installed and backed up, the next step is performing regular maintenance. As long as backups are scheduled automatically, the only thing you have to worry about is updating the CAL License file with each upgrade. This is done once a year.

### UPDATING TO A NEWER VERSION

The installation wizard recognizes the previously installed version and will offer to perform a backup, followed by an upgrade. The upgrade will remove the previous version of **Altium Vault**, and then install the new one, while preserving your settings from the old version. As part of the installation process, the **Installer** will make a backup of the current **Altium Vault** data, using the **Backup & Restore** tool. The **default backup folder** is `\ProgramData\Altium\VaultServerData`, but can be changed as required. The backup data is stored in a file with the format **AltiumVault<Version>\_backup.zip**.

## ALTIUM VAULT ACCESS: LICENSES, USERS, AND ROLES

### LOGIN FROM BROWSER INTERFACE

Basic **user** and **roles** setup of the **Altium Vault** can be performed with the **browser interface**. This will usually be done by the IT department, as they generally maintain user databases, and are therefore the best qualified to provide access to specific users as part of the installation. Since the basic setup is done through a web interface, you don't even need access to **Altium Designer**, only to the **Altium Vault**.

1. Input the address **ServerName:9780** into your web browser.
2. Login with the **default username: admin** and **password: admin**

After you login, you can see the interface with the menu at the top. Menu item access depends on **license type** and **user permissions**, so each user can only access the functions specifically made available to them.

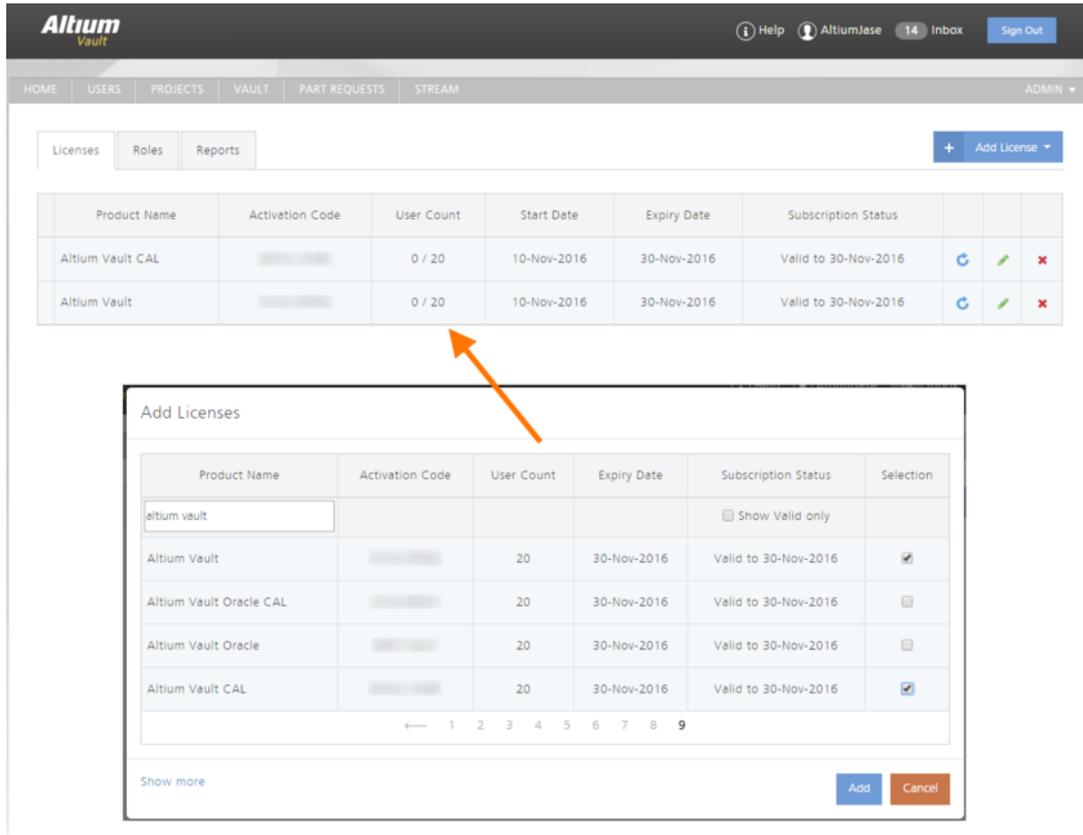
### LICENSING ALTIUM VAULT

**Altium Vault Licensing** essentially consists of the following two components, that together comprise a two-tiered licensing system:

- **Server License** - this license makes the features and services of the **Altium Vault** installation available to the organization.
- **Client Access License (CAL)** - this license enables users within an organization to access and sign-in to the organization's **Altium Vault**.

Licensing for the **Altium Vault** can be handled through the cloud, or locally through license files (\*.alf).

Two licensing pairs are available, depending on whether you are using an **Altium Vault** with the standard Firebird database (**Altium Vault** and **Altium Vault CAL**), or your own Oracle database (**Altium Vault Oracle** and **Altium Vault Oracle CAL**).



Getting your **Altium Vault** licensed is a breeze, thanks to self-serve licensing from those licenses available to you through your account.

Both **Server** and **Client Access Licenses** are timed licenses, lasting 12 months. Subscription must be renewed on an annual basis in order to provide continued access to the **Altium Vault** for the users in an organization, as well as to access new features and functionality developed by **Altium** as part of **Altium Vault**. If this annual subscription renewal lapses, a single **Server** and **CAL license** will be provided to access your data for backup and configuration purposes.

## SETTING UP USERS

Once the **browser interface** setup is complete, the first thing you'll want to do is change the **default admin user** to whomever you want to be the **admin** for the program. This can be accomplished in the **Users** menu. It provides a simple list of users that can be modified in a standard way. You will select a **User Role** in the next section.

1. **Click** the **Users** tab in the **browser interface**.
2. **Select** the **Users** tab.
3. **Click** on **Add User**.
4. **Fill** in **First Name** and **Last Name** of **User**.
5. **Select authentication** type.



## BUILT-IN AUTHENTICATION

6. **Fill in User Name** and **Password** to complete the process.
7. **Set New Roles** to **Engineer** and **Librarian**.
8. **Click Save**.

### Add User

*First Name	<input type="text" value="First Name"/>
*Last Name	<input type="text" value="Last Name"/>
Authentication	<input type="text" value="Built In"/>
*User Name	<input type="text" value="User Name"/>
*Password	<input type="text" value="Password"/>
Email	<input type="text" value="Email"/>
Phone	<input type="text" value="Phone"/>
New Roles	<input type="text"/>



## WINDOWS AUTHENTICATION

9. Fill in **User Name** and **Domain** to complete the process.
10. Set **New Roles** to **Engineer** and **Librarian**.
11. Click **Save**.

From there, **Altium Vault** will connect to the **Network Domain** and passwords will be synchronized. As a result, **Altium Vault** will accept the same password as the one you use to log into the **Windows** on your workstation.

However, as an **Administrator**, you'll want to keep at least one **backup user account** for yourself, which is not linked to a **Windows** account. That way, if there are ever issues with **Windows**, or your **User Accounts**, you'll still be able to log into **Altium Vault** and change settings when you need.

### Add User

*First Name	<input type="text" value="First Name"/>
*Last Name	<input type="text" value="Last Name"/>
Authentication	<input type="text" value="Windows"/>
*User Name	<input type="text" value="User Name"/>
*Domain	<input type="text" value="Domain"/>
Email	<input type="text" value="Email"/>
Phone	<input type="text" value="Phone"/>
New Roles	<input type="text"/>



## USER ROLES

**Users** in **Altium Vault** are organized into **Roles**. One of the most important **Roles** is that of **Administrator**. Making a **User** an **Administrator** provides them with access to all settings and data in the **Altium Vault**. Aside from administration, you can also define your own **Roles** based on your team and projects—e.g. **Designers, Layout, Librarians, Supervisors**, etc. You can determine how much **Access** and what kind to grant each **Role**, and adjust this based on the project or the size of the team.

No matter how you choose to set up **Roles** and **Access**, you need to make sure your processes and standards are clearly defined to keep all data compatible and valid. Defining your workflow according to your current needs, without regard to the future, can cause problems down the road as data is used for different projects. You can assign multiple **Roles** to each **User** if needed and change their **Roles** at any time based on the project. Taking on multiple roles is particularly common in smaller teams, wherein certain roles can be underutilized. It's also helpful to assign multiple people to the same role. One can serve as backup and the two can keep each other on task throughout the process.

You can assign whatever **Roles** to whichever team members you feel are best suited to them. However, as a general rule, the **Admin Role** should be kept separate from the others. Whatever **Role** the **Administrator** plays in the project aside from administration should be done with a separate user account. That way, they can't inadvertently make major changes to the system while under stress.

1. **Click** the **Users** tab in the **browser interface**.
2. **Select** the **Roles** tab.
3. **Click** on **Add Role**.
4. **Fill** in **Role Name**.
5. **Type** in and **Select** your **Name** under **New Members**.

**Note:** The field will autocomplete with existing **User Names**.

## VAULT BACKUP AND RESTORE

Once everything is installed, you'll likely want to upload a test component or project to see how it works. Before doing anything else though, you need to set up the **backup**. Especially for your first tests, you may appreciate the option of going back to a clean installation.

Over time, **Altium Vault** will accommodate a growing and impressive amount of data. The value of this data cannot be overstated, for it is a mixture of source data that can be reused in future design projects, as well as data from which past, current, and future products are fabricated and assembled. It is data that has been released and ratified under the highest scrutiny, and stored securely with the utmost integrity. As with all valuable data, longevity of its integrity is ensured by being able to perform a backup.

The **Altium Vault** installation caters for the archival of **Altium Vault** data through the provision of a command-line-driven **Backup & Restore** tool. The tool's executable - **avbackup.exe** - is located in the **\Program Files (x86)\Altium\Altium Vault\Tools\BackupTool** folder, for a default installation of **Altium Vault**.



## VAULT BACKUP

1. **Launch** a **Windows Command Prompt** as **Administrator**.
2. **Navigate** to the **correct folder**: **cd C:\Program Files (x86)\Altium\Altium Vault\BackupTool\**
3. Run the tool and list the available options, at the Command Prompt, type: **avbackup ?**

**Note:** The **?**, including this displays help on the functions available in the backup tool, the functions include:

**backup** — Backup data to ZIP archive

**restore** — Restore data from ZIP archive, the Restore point is automatically created

**help** — display this help screen (? can be used instead of the string help)

The format for the **backup command** is: **avbackup [backup] [-z] [-i]**

### **Note:**

**-z** filename for the zip file, can include a path. Enclose in quotes if there are spaces in the string.

**-i** path and location of the **LocalVault.ini** file, the INI file details the current location of the **Altium Vault** to be backed up. Default location of the INI file is **C:\Program Files (x86)\Altium\Altium Vault\**.

4. **Execute in command prompt:** **avbackup backup -z "C:\Backups\Altium Vault\UG\_Backup.zip" -i "C:\Program Files (x86)\Altium\Altium Vault\LocalVault.ini"**

This will backup the Altium Vault into the file named UG\_Backup.zip, writing the file to the folder C:\Backups\Altium Vault\

**Note:** Any folders specified must already exist. Also, existing files are overwritten if the new file has the same name as an existing file.

## VAULT RESTORE

The format for the **restore command** is: **avbackup [restore] [-z] [-i]**

### **Note:**

**-z** path and filename of the backup zip file. Enclose in quotes if there are spaces in the string.

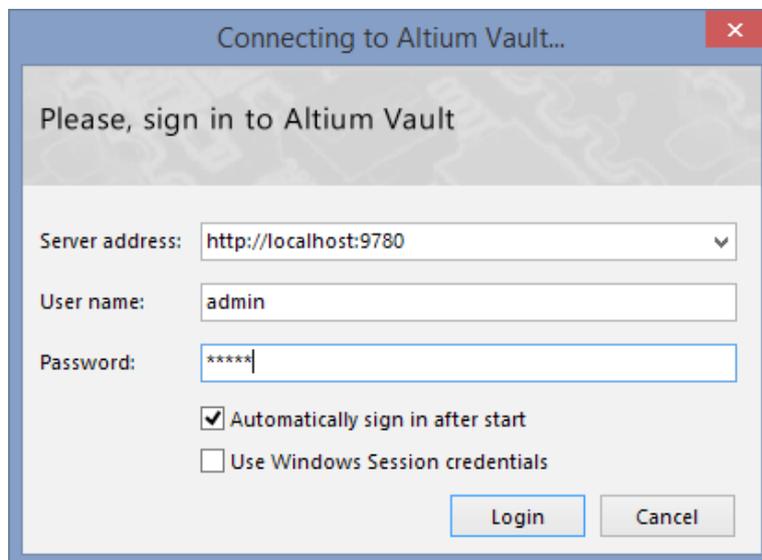
**-i** path and location of the **LocalVault.ini** file, the Vault location specified in the INI file is where the Altium Vault will be restored to. Default location of the INI file is **C:\Program Files (x86)\Altium\Altium Vault\**

**Execute in command prompt:** **avbackup restore -z "C:\Backups\Altium Vault\UG\_Backup.zip" -i "C:\Program Files (x86)\Altium\Altium Vault\LocalVault.ini"**

**Note:** **Backup** and **Restore** using this tool is currently only supported for an **Altium Vault** installation using a **Firebird** database as its back-end.virtual server as well as its settings.

## CONNECTING ALTIUM VAULT TO ALTIUM DESIGNER

1. Open **Altium Designer**.
2. Go to **DXP >> Sign into Altium Vault**.



3. Fill in your **Server Address, Username, Password**.

**Note:** If your **Altium Vault** login credentials have been linked to Windows credentials, check the **Use Windows Session credentials** box.

4. Click **Login**.

## CONCLUSION

The **Altium Vault Implementation Guide** provides all the details you need for initial installation and configuration of **Altium Vault**. The **Altium Vault User Guide** discusses an overview of the key concepts that affect the majority of the **Altium Vault** users. Visit [Altium.com/documentation](https://www.altium.com/documentation) for more in-depth information on all **Altium Vault** features. Please refer to the **Altium Vault Design and Library Migration Guide** to learn more about bringing **YOUR** ECAD data into **Altium Vault**.