USB Key Installation & User Guide

Installation, Operation, Management, and Troubleshooting

Last Updated: 31 January 2024

This guide covers USB Key rights management. Included are installation instructions for all products that can be used with a USB Key, as well as detailed information on USB license operation and management. Also available is a troubleshooting guide covering the most common issues affecting USB Key installations.

USB Keys are no longer for sale and are considered Legacy type licenses.

Applies To

- Applications and Modules
    - AFT Fathom – Version 6, Release 2006.02.08 or newer
    - AFT Arrow – Version 4, Release 2006.03.30 or newer
    - AFT Impulse – Version 3, Release 2006.03.16 or newer
    - AFT xStream – Version 1, Release 2021.04.12 or newer
- Utilities
    - Chempak Property Database
- Retired Utilities
    - AFT Chempak Viewer with Excel Add-in (32-bit version 3)
    - AFT SteamCalc with Excel Add-in (32-bit version 3)

Requirements

- **License Number**
    - 9-digit or 10-digit number of the form **XXXX-XXXXX (XXXXX-XXXXX)**
- **Physical USB Key**
    - **Green Standalone Key** or **Red Network Key**
    - The USB Key must have the correct Licenses
- **AFT Copy Protection Installation**
    - Downloaded from our website and run as admin: AFTCopyProtectionSetup.exe
    - Installed on any PC/server that will host the USB Key
- **Firewall Rules for Red Network Keys**
    - Created automatically by the AFTCopyProtectionSetup.exe so long as no other rules conflict
    - Allow **Inbound/Outbound connections via UDP Port 475** (on server hosting USB and client machines)
    - Allow **Inbound/Outbound connections via TCP Port 1947** (used for AKS Monitor / License Manager)
- Utility Excel Add-ins have additional requirements

Contents

Application Installation

1) Navigate to https://www.aft.com/
   a. **Log in**
   b. Click the relevant Application in the **Downloads > Current Versions** dropdown menu
   c. Download the installer under **Current Full Version**

Register at https://www.aft.com/register if you do not have an account. Give the verification email an hour to arrive and check your spam folders. If you do not receive the email, please contact us.

The Applications can also be installed from an AFT DVD. **It is highly recommended to use the latest releases when possible.**

2) Right-click on the installer and select **Run as administrator**
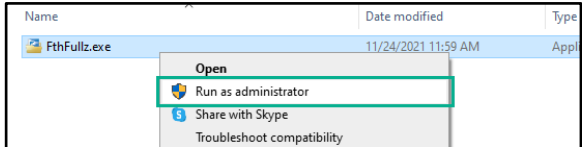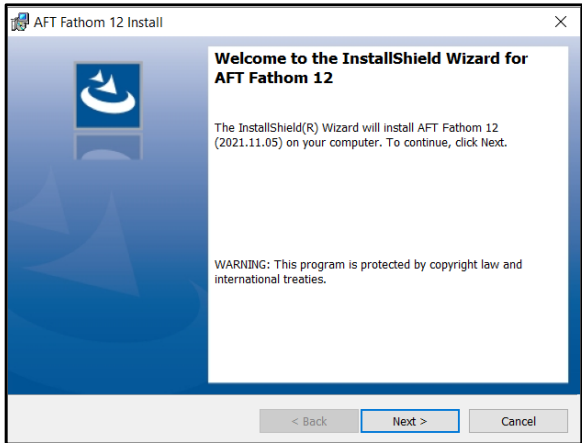
3) Click Next

4) Read and accept the License Agreement

Email support@aft.com or Call (719) 686-1000 for Technical Support

5) Enter your Customer Information

With a valid License Number, an AFT Application can be installed on an unlimited number of Client Machines.

However, only the number of Seats on the License can be Checked Out at any given time.
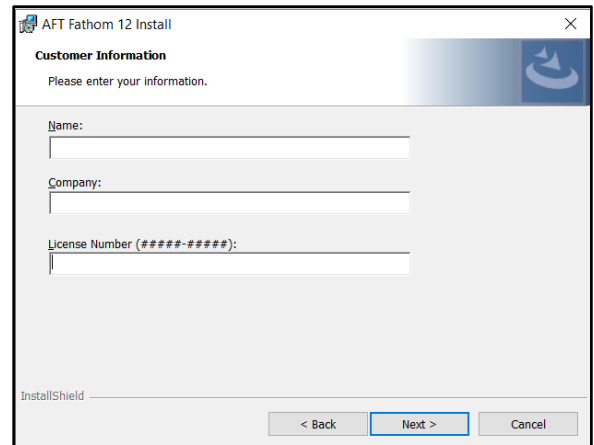
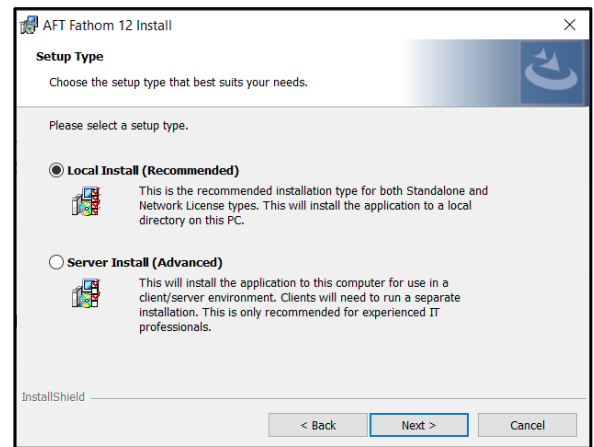6) Select **Local/Server Install**

⚠ **This is not related to license type.**

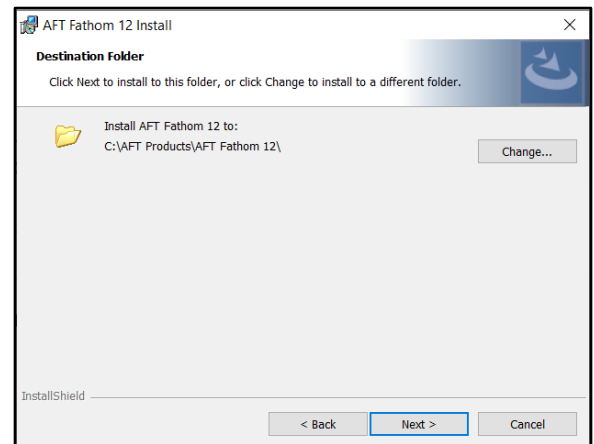Local Install is recommended for most users and works for both standalone and network type USB Keys.

Server installs should only be completed by experienced IT professionals.
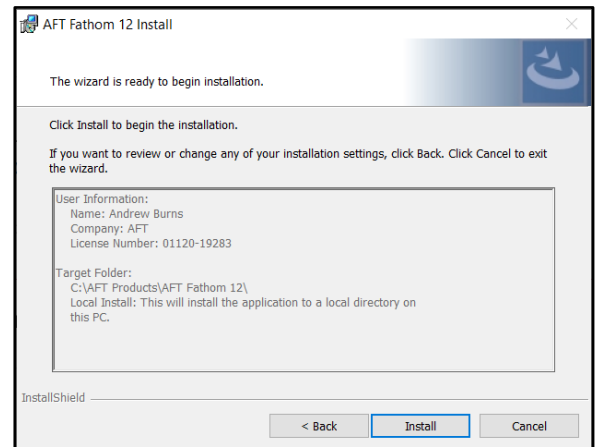
Appendix C - Installation on a Server

7) Click Next

Changing the installation location is not recommended and may require additional configuration.

8) Review and click Install

9) Click Finish
10) To run the AFT software application, the AFT Copy Protection must be installed.
    a. For **Green Standalone USB Keys**: AFT Copy Protection must be installed on every client computer which has the software installed that will be accessing the standalone license.
    b. For **Red Network USB Keys**: AFT Copy Protection must be installed on a computer or server that will host the network USB Key and License Manager. Client computers will need to be able to see this machine over the network.
        i. If the AFT Copy Protection for a red network USB Key has already been installed on a computer or server, and the red network USB Key is plugged into that server with the License Manager active, then the client machine only needs the nethasp.ini file with the correct server IP address if applicable to exist in the AFT application folder (C:\AFT Products\AFT Application).
11) Proceed to the Copy Protection Installation section for instructions on how to install the AFT Copy Protection.

Email support@aft.com or Call (719) 686-1000 for Technical Support
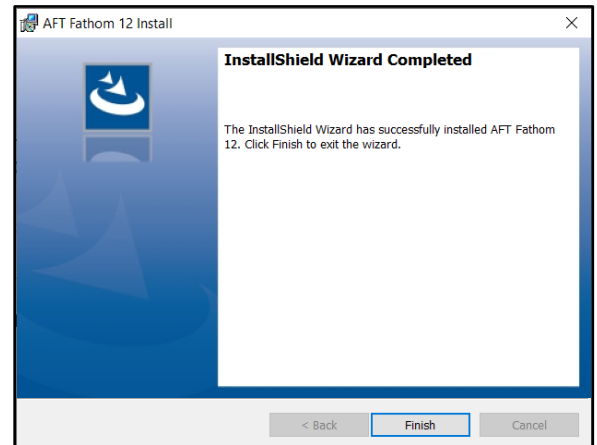
Activated and Blank USB Keys

In most cases, USB Keys are shipped already active. However, sometimes a "blank" USB Key may be shipped. This means the USB Key needs to be activated before the licenses on the key can be recognized. For example, USB Keys that are shipped internationally will arrive "blank". Or if you are upgrading from a standalone to a network license, the network USB Key will arrive "blank". If your USB Key is "blank", AFT will specifically advise that it is. Otherwise it will be already activated.

If your USB Key is already activated, proceed to the following Copy Protection Installation instructions. If you have a "blank" USB Key, follow the Activating a Blank USB Key instructions in Appendix B *after you have finished the Copy Protection Installation*.

Copy Protection Installation

1) Navigate to https://www.aft.com/support/usb-key-support
    a. Click **Download AFTCopyProtectionSetup.exe** near the middle of the page to download **AFTCopyProtectionSetup.exe**

> This is only necessary for the first Application installed. If there is an active USB Key, these steps can be skipped.

> The Copy Protection for a **Green Standalone USB Key** needs to be installed on any computer that intends to use the AFT application(s) and requires access to the standalone license on the green standalone USB Key.
>
> The Copy Protection for a **Red Network USB Key** needs to be installed on a single computer or server machine that will host the network License Manager. Client Machines need to point to this machine with the Network USB Key and the License Manager to access the license.

2) Right-click AFTCopyProtectionSetup.exe and select **Run as administrator**
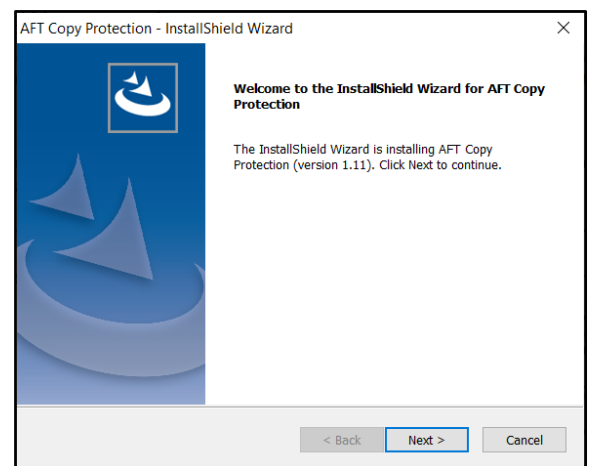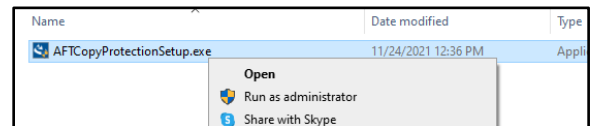
3) Click Next

4) Select the type of USB Key you have
5) Click Next
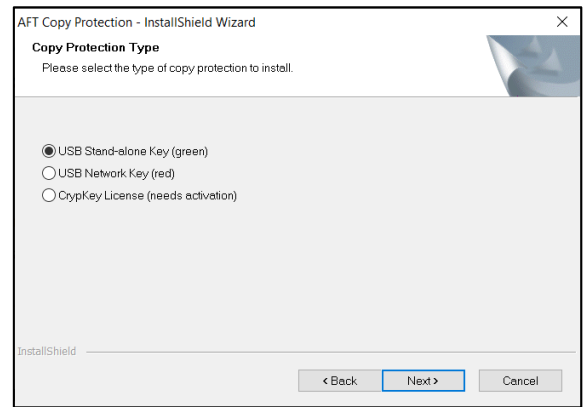
6) Several separate installations will be run for each component required
   a. Click **Yes** to start the installations and follow the prompts, accepting the default values.
7) For **Red Network Keys** only: When the HASP LICENSE MANAGER is installed choose the option to install it as a service (nhservice.exe).
   a. After the HASP LICENSE MANAGER has been successfully installed, it will ask if you want to start it now. Click yes.
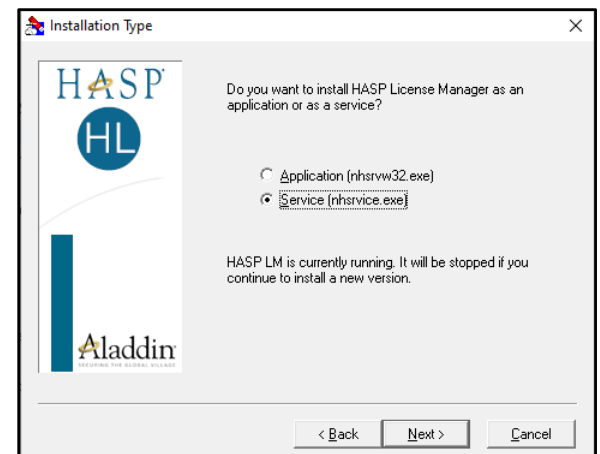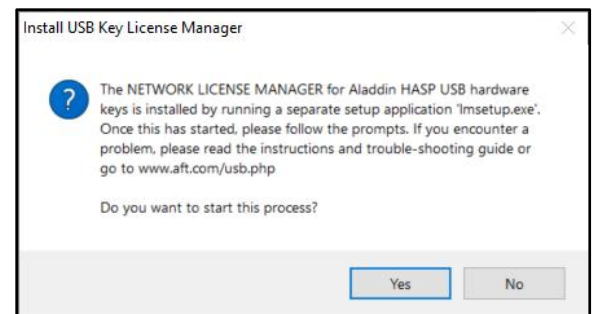
8) When the final installation is finished, the Copy Protection installation is complete. Plug the key into the machine with the Copy Protection Setup installed.
   a) For **Green Standalone Keys** the installation process is complete. Run the AFT software when desired.
   b) For **Red Network Keys**, configure the nethasp.ini as described below to point the client machines to the computer/server with the License Manager installed.

Configuring the nethasp.ini file

9) Determine the Server IP address
10) Modify nethasp.ini with a text editor
    a) Located in C:\AFT Products\
        i. If not found here, it can be downloaded from http://www.aft.com/support/usb-key-support
        ii. *You must be registered and logged into www.aft.com to download the file*.
    b) In the [NH_TCPIP] section, change the line:
        i. ;;NH_SERVER_ADDR = <Addr1>, <Addr2>
        ii. To:
        iii. NH_SERVER_ADDR = *Server IP*
        iv. Be sure to remove the leading semicolons
11) Copy the modified nethasp.ini file from the License Server into each Client Machine's Application Folder (C:\AFT Products*AFT Application*\)
12) The installation for AFT software applications and Copy Protection is now complete
13) Client machines can now run the AFT Software Applications

Utility Installation

Chempak Data

1) Navigate to http://www.aft.com/
   a. **Log in**
   b. Click on **Downloads > Current Versions > Chempak**
   c. Download the installer under **Chempak Property Database**

2) Right-click on the installer and select **Run as administrator**
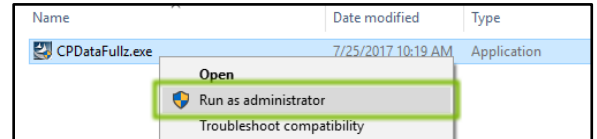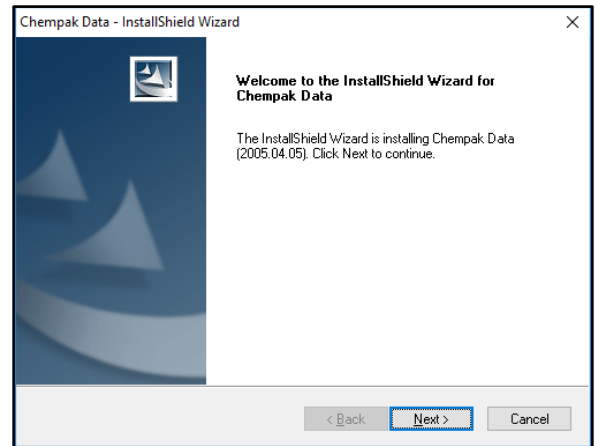
3) Click Next

4) Read and accept the License Agreement
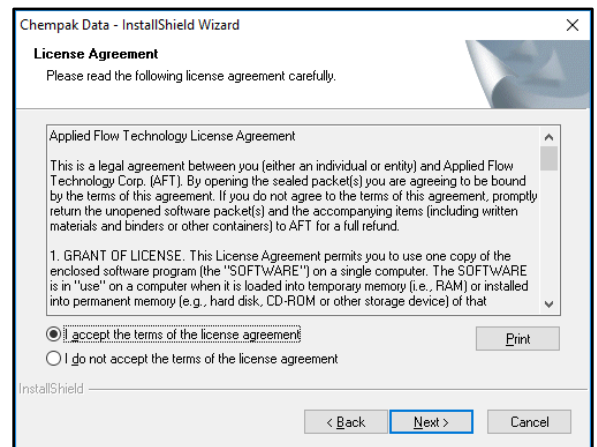
5) Select **Standalone Installation**

> ⚠ **This is not related to license type.**
>
> Network Setup Type installs the Database itself on a Server:
>
> Appendix C - Installation on a Server – Chempak Property Data
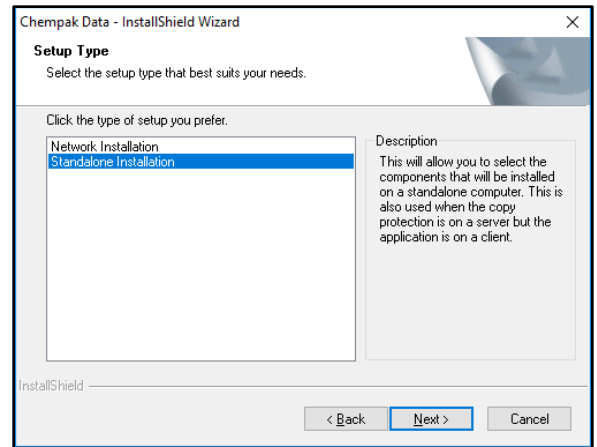
6) Click Next

> Changing the installation location is not recommended and may require additional configuration.
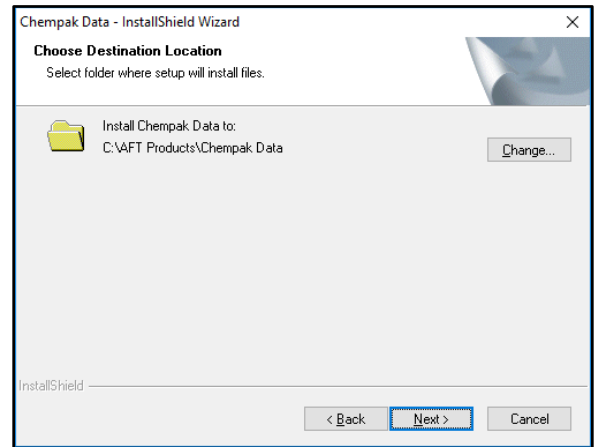
7) Click Next
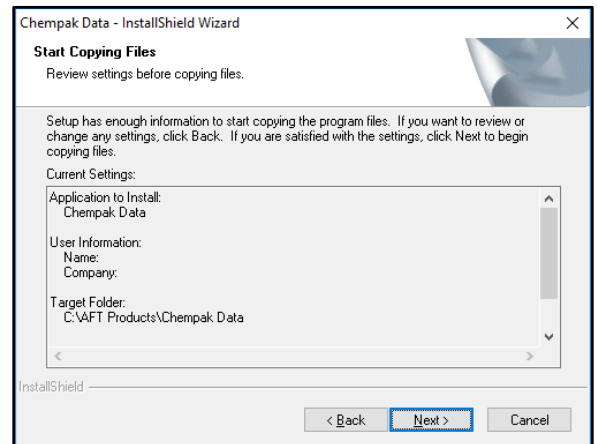
8) Click Yes

> These files can also be manually updated with a text editor. The file should include:
>
> **[SEARCH PATHS]**
> **ChempakDataPath = <*Path*>**
>
> Where <*Path*> is the database installation location.

Update Control.aft File

In order for other AFT products (e.g. Arrow.exe, Fathom.exe, etc.) to access the Chempak Fluid Database they must be told where the data is located. This is done using the file named CONTROL.AFT in the folder were the application is located.

Would you like to update the control.aft files now?

Yes   No

9) Browse to the folder of an installed Application and click Next

Chempak Data - InstallShield Wizard
Choose Destination Location
Select folder where setup will install files.

Please enter the folder where an AFT product (e.g. Arrow.exe, Fathom.exe, etc.) is located.

C:\AFT Products\AFT Fathom 12

Browse...

InstallShield
< Back   Next >   Cancel

a. The file is updated - if you have additional Applications click Yes to update them as well. Continue until all Application **control.aft** files are updated.

Update Control.aft File

File updated.
Would you like to update another CONTROL.AFT file?

Yes   No

10) Click Finish

Chempak Data - InstallShield Wizard

InstallShield Wizard Complete

This application requires a license. If you haven't done so already, you will need install a license either using the AFT Master Setup on the CD or downloaded from www.aft.com.

< Back   Finish   Cancel
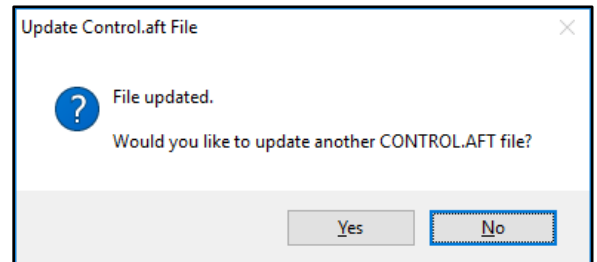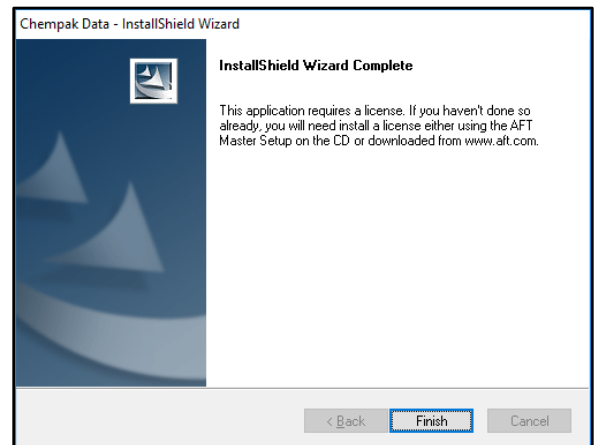
AFT Chempak Viewer and AFT SteamCalc

The Utility Applications and their Microsoft Excel Add-ins **require the 32-bit version** for use with USB Key Copy Protection.

Excel Add-ins

AFT Chempak Viewer 3 and AFT SteamCalc 3 include Microsoft Excel Add-ins.

These Add-ins have additional requirements:

- **Microsoft Excel 2010 or later**
  - **32-bit version of Microsoft Excel**
- Previous versions of the Add-ins **must be uninstalled** prior to installation

Installation

1) Navigate to http://www.aft.com/
   a. **Log in**
   b. Click the relevant Utility in the **Downloads > Previous Versions** dropdown menu
   c. Download the **32-bit version** under **Full Versions**

2) Right-click the installer and select **Run as administrator**

3) Click Next

> ⚠ **32-bit versions required for USB Keys**

> ⚠ Microsoft Excel Add-in bit-versions must match the bit-version of Microsoft Excel.
>
> The currently installed bit-version of Microsoft Excel can be found by opening **File > Account > About** (2013, 2016) or **File > Help** (2010)
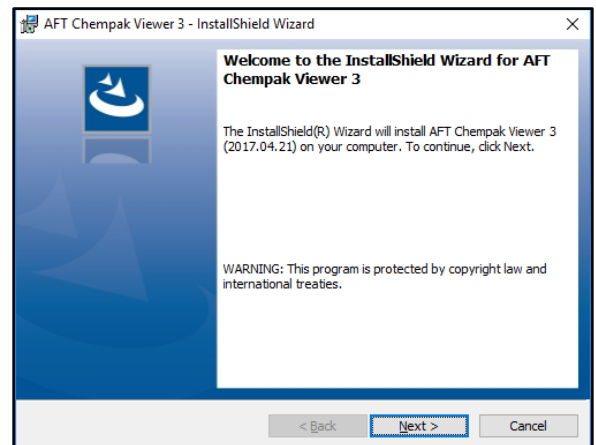
4) Read and accept the License Agreement
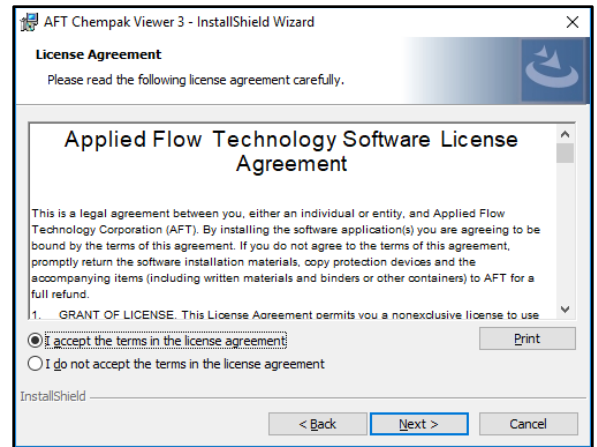
5) Enter your Customer Information

> With a valid License Number, an AFT Application can be installed on an unlimited number of Client Machines.
>
> However, only the number of Seats on the License can be Checked Out at any given time.
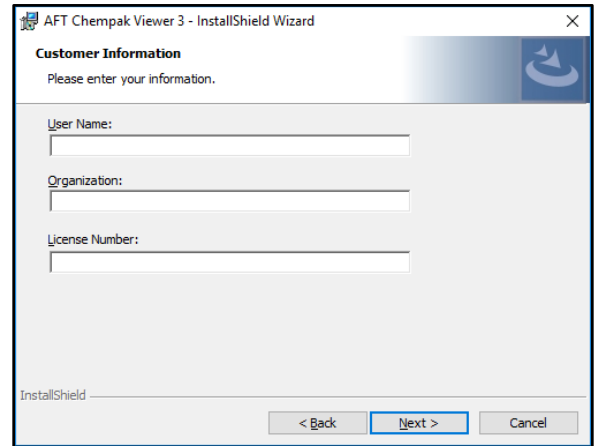
6) Click Next

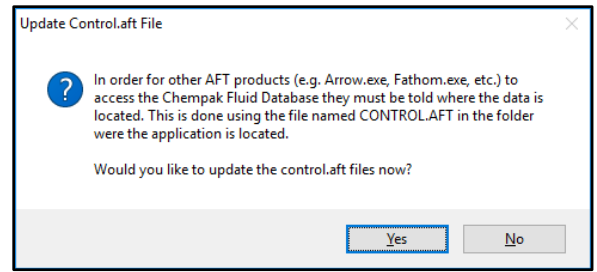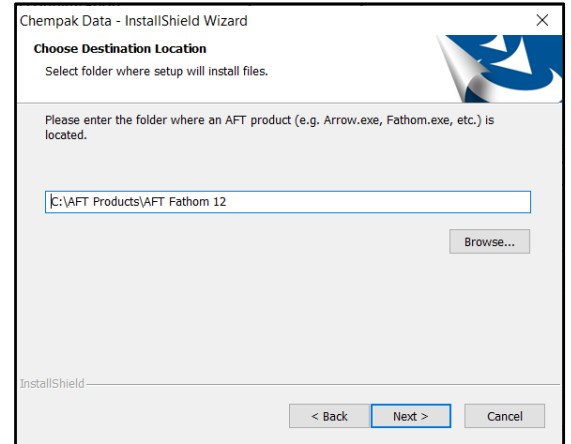> Changing the installation location is not recommended and may require additional configuration.
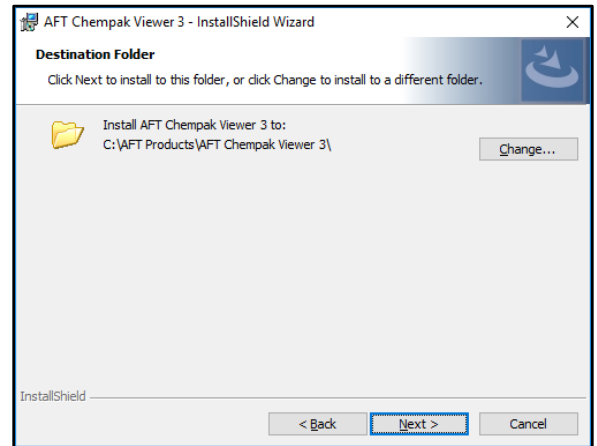
7) Review your User Information and click Install
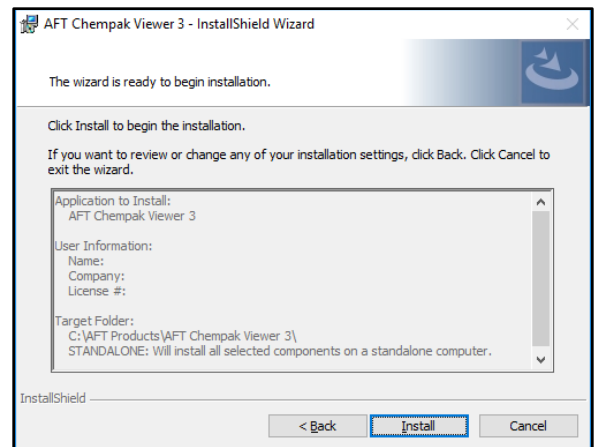
8) Click Finish
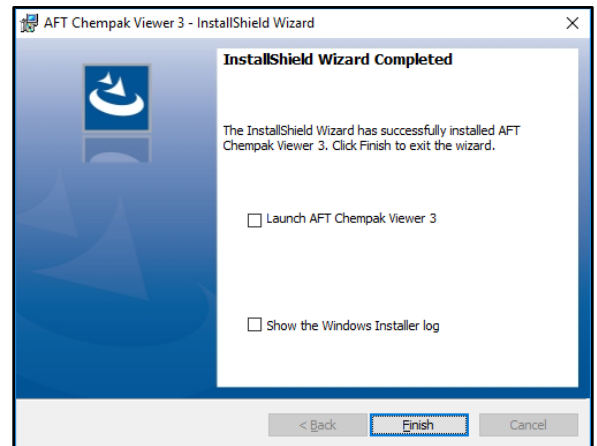
9) Follow the Copy Protection Installation Instructions if they have not yet been completed for another Application.

Appendix A – Glossary

Application	AFT Fathom, AFT Arrow, AFT Impulse, AFT xStream
Utility Application	AFT Chempak Property Database, AFT Chempak Viewer & Add-in, AFT SteamCalc & Add-in
Client Machine	The machine the user operates the Application on
License	The access right to the Application
License Number	9-digit number for installation
USB Key	The physical USB device that contains the Licenses
Key ID	A unique 8 to 10-digit numeric code identifying a USB Key
Seat	A single activation of the USB Key
License Server	A machine with a Network USB Key attached and running the License Manager
License Manager	The service running on the License Server that allocates and releases Seats
Checked Out	The Seat has been allocated to the Client Machine
Checked In	The Seat is released from a Client Machine and returned to the License Manager
Checkout Period	How long a Seat can be Checked Out before being automatically returned

Appendix B – USB Key Information and Management

General Information

Standalone and Network USB Keys

	Standalone	Network
Color:	Green	Red
Number of Seats:	One, shared among all Applications	Multiple independent Seats can Exist
Access:	Applications must be opened directly from Client Machine with USB Key attached	Applications can connect to the USB Key across a network connection
Checkout Period:	N/A	12 Hours
Seat(s) Checked Out:	By starting an Application	By starting an Application
Seat(s) Checked In:	By closing the Application	By closing the Application
		When the Checkout Period is reached
		By restarting the License Manager

Standard Operation

The following assumes that the Client Machine has continuous access to the USB Key.

Seats are Checked Out when the Application is opened and are retained by the Client Machine until they are Checked In.

A Network Seat will be Checked In automatically if the Checkout Period has elapsed. The Client Machine using the Seat will lose access to the Application and the Seat will be available for Checkout. The Checkout Period is refreshed when the Application is opened or when a model is run.

All Seats can be forcibly returned to the License Manager by restarting the HASP Loader Service on the server with the network USB key.

HASP Key Find

Included in the AFT Copy Protection for USB Keys is a utility called HASP Key Find. This utility allows users to view what Licenses are currently available on a USB Key, create Key ID files and apply update files from AFT. In order to use HASP Key Find, it must be ran on the physical machine that has the USB key physically plugged in.
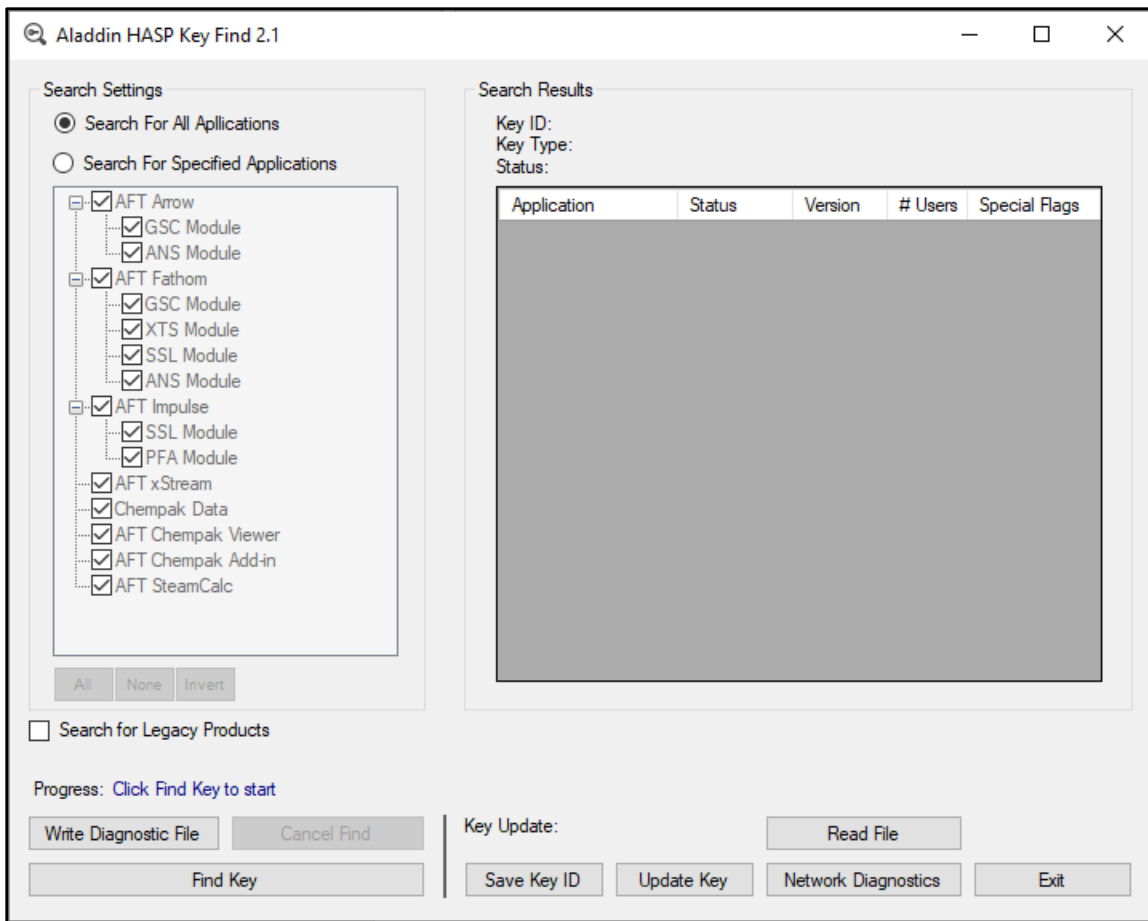
Viewing a USB Key Licenses

First, decide whether to:

- Search For All Applications or
- Search For Specified Applications

in the Search Settings section at the top-left. This will specify whether to scan the USB Key for every AFT Application or only ones that you have specified in the Application tree on the left. As searching for all Applications can potentially take a few minutes, the alternative of searching only for some Applications is provided.

After this selection is made, click **Find Key**. The fields near the top of Search Results will be populated if the USB Key is found, and the main window area will be populated with the Applications searched for and the results of the search.

Completing this process indicates:

Key ID
Key Type
Status
License Seats Available

Activating a Blank USB key

If your USB key is blank, AFT will specifically advise you that it is blank. Otherwise, your USB key will arrive already active and the below steps will not need to be followed. These instructions will only apply for first time activations where a USB key was provided blank without any licenses activated.

1) Follow the Copy Protection Installation Instructions if they have not already been completed.
2) The USB key activation file will be supplied via email with the extension "*.aku". Save the file to your hard drive.
3) Plug in the USB key and run HASPKeyFind.exe found in the AFT Products folder.
   a. For a red Network USB key, ***HASPKeyFind.exe*** must be run from the server where the USB key is plugged in to be activated or updated.
4) Click on "Find Key"
   a. Note: When multiple USB keys are supplied, one activation (*.aku) file will be supplied for each key. The activation file names will include the Key ID number for the corresponding USB key as in the following example (Key ID number in **bold**).
       i. AFT Customer #**123456789**.aku
   b. The Key ID number of the connected USB key will be displayed when you click "Find Key". The activation file will only activate the key with the same Key ID number.
5) Click "Update Key" and when the "Read Key Update Information" window appears, browse to and select the USB key activation file provided by AFT, then click "Open". A message will be displayed confirming your USB key has been activated.
   a. You can confirm the key activated by clicking "Find Key" again, noting the licenses on the key and the "Active" status.
6) Exit "Key Find".

Updating a USB Key

To modify Licenses on a USB Key, the use of HASP Key Find is required.

Process:

1) User sends AFT Support Key ID File (.aki). This allows AFT Support to verify the USB Key and generate an Update File (.aku).
   a. Open HASP Key Find and click Find Key.
   b. Ensure that the Key ID field is correct – especially if you have multiple USB Keys.
   c. Click Save Key ID.
   d. Save the Key ID file with a descriptive name, including your company name and the Key ID.
       i. *Company-123456789.aki*
   e. Send this file to AFT Support (support@aft.com).
2) AFT Support verifies the USB Key and generates an Update File (.aku) which is sent to the User.
3) User applies the Update File.
   a. Save the *.aku file that AFT Support sent back.
   b. Open HASP Key Find and click Find Key.
   c. Click on "Update Key".
   d. Browse to the *.aku file, select the file, and click Update.
   e. You can click "Find Key" again afterwards to verify the updates were applied.

Automatic Updates

When a new version of AFT software is released, USB keys will be automatically upgraded to the new version if the Support, Upgrade, and Maintenance (SUM) agreement for the license is current. No action is necessary other than to install the new version of the software with your new license number. Running the software will then allow the AFT application to find the new version on the USB key accordingly.

Appendix C – Application Installation on a Server

AFT Applications can be installed on a network Server. **This refers to the Application itself, not the License Manager**. For the vast majority of users, we recommend installing the Application directly on the Client Machine. Large workgroups with many Seats across many Client Machines may want to consider this option.

Follow the standard instructions **on the Server** with the following change:

6) Select **Server Install (Advanced)** for **Setup Type**

During installation, you will receive a message that the Client Machines must run a separate setup.

An additional step must be taken **on the Server**:

10) **Share** the server AFT Products folder and subfolders
    a. Client Machines need both read and write permissions

On the Client Machines:

1) Navigate to the **\AFT Products*AFT Application*\Network Client Setup** folder **on the Server**
2) Run *App***ClientSetup.exe** to install the necessary files on the Client Machine
3) The **first time** the Application is launched, **Run as an administrator**

Chempak Property Data

Follow the standard instructions on the Server with the following change:

5) Select **Network Installation**

An additional step must be taken **on the Server**:

11) Share the Chempak Property Database folder and subfolders
    a. Client Machines need both read and write permissions

The Client Machine **control.aft** files will need to point to the location of the Chempak Property Data **on the Server.** The Application will walk you through updating these, or you can update the **control.aft** files manually with a text editor as specified in the Standard Chempak Data instructions.

Appendix D – Troubleshooting

If you receive a licensing error after following the above instructions, the first step is to gather more information about what may be happening.

To do so, **when the License Error window appears, select "View USB Key Information" and click OK**. This is one of the first items AFT Support will request when diagnosing Licensing issues. Information on common USB license error messages can be found on the USB Key FAQs.

Additionally, the existing HASP Key User Guide contains useful information including manual copy protection setup procedures, how to use the copy protection utilities, and troubleshooting techniques. The HASP USB Key Guide can be found here: https://www.aft.com/documents/HASP_USB_KEY_GUIDE.pdf.