

How to create an EXE installation file

Sometimes to install certain software on your computer, you must use the .exe file, but have you ever wondered what the purpose of this file is and how it was created? In this article, TipsMake.com will answer that question and guide you to create an EXE installation file.

A good tool for creating Windows installation packages (in other words, an EXE installation file) is always a must. Each program, such as script, DLL, security settings, etc., will have different needs, so having a tool that can handle complex sets of requirements is extremely necessary.

If you're willing to withdraw your wallet or need more help, choose InstallShield. This is a reliable choice that many companies are using. Many businesses use InstallShield because it comes with Visual Studio and Visual Foxpro.

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However, this is not the only software available to create Windows installers. This article will cover a few free and paid utilities to create EXE files, including self-extracting packages, a simple installer that uses IExpress integration and an advanced installer that uses Inno. Setup custom, etc.

1. Troubleshoot problems that cannot run the .exe file
2. How to remove the root virus ExtTag.exe / ExtTags.exe

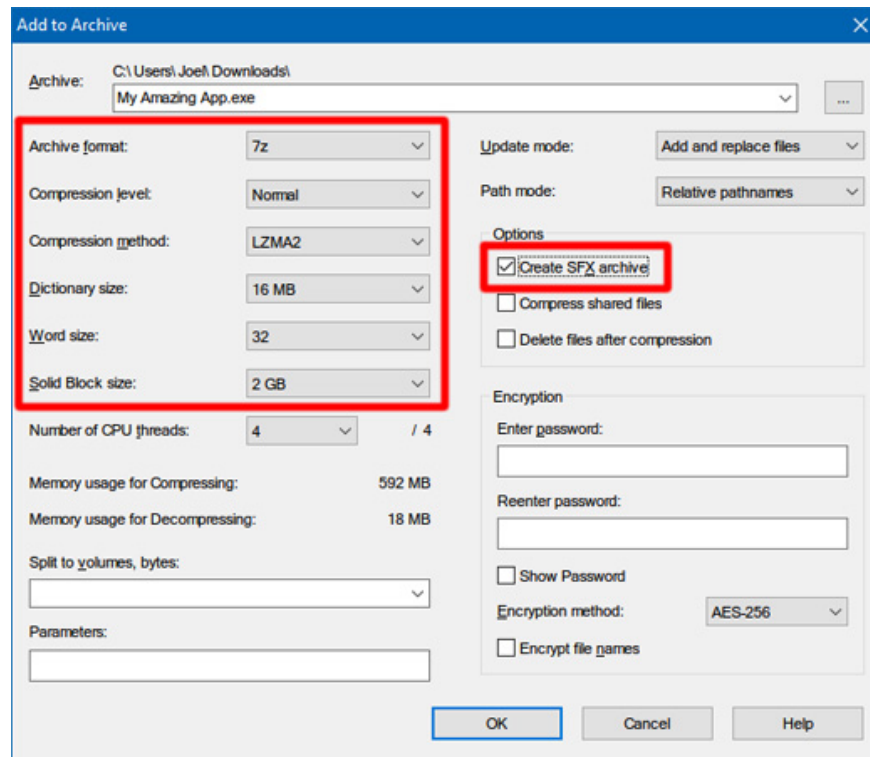
Windows installer tools

1. Quick method: Use 7-Zip
2. Simple method: Use IExpress
3. Recommended method: Use Inno Setup
4. Nullsoft Scriptable Install System (NSIS)
5. Advanced Installer
6. WIX Toolset

Quick method: Use 7-Zip

You can use 7-Zip to extract archived files. You probably know that 7-Zip can create archives, but did you know that you can also use this tool to create EXE files that act as an installer?

7-Zip is called SFX (self-extracting) archive and works by compressing all the final files together, then embedding a special EXE file inside the archive can extract all stuff. In other words, the recipient can decompress the SFX archive (appearing as an EXE file) even if they do not have the appropriate software, which can be done in formats like 7Z, RAR, TAR and ZIP.



How to create your own EXE file with 7-Zip:

1. Prepare all files and folders in a main folder and name the folder.
2. Right-click on the folder and select **7-Zip> Add to archive** .
3. In the *Options* section, activate **Create SFX Archive** and select the settings below .
 1. Archive Format: **7z**
 2. Compression Level: **Normal**
 3. Compression Method: **LZMA2**
 4. Dictionary Size: **16 MB**
 5. Word Size: **32**
 6. Solid Block Size: **2 GB**
4. Click **OK** . It is done!

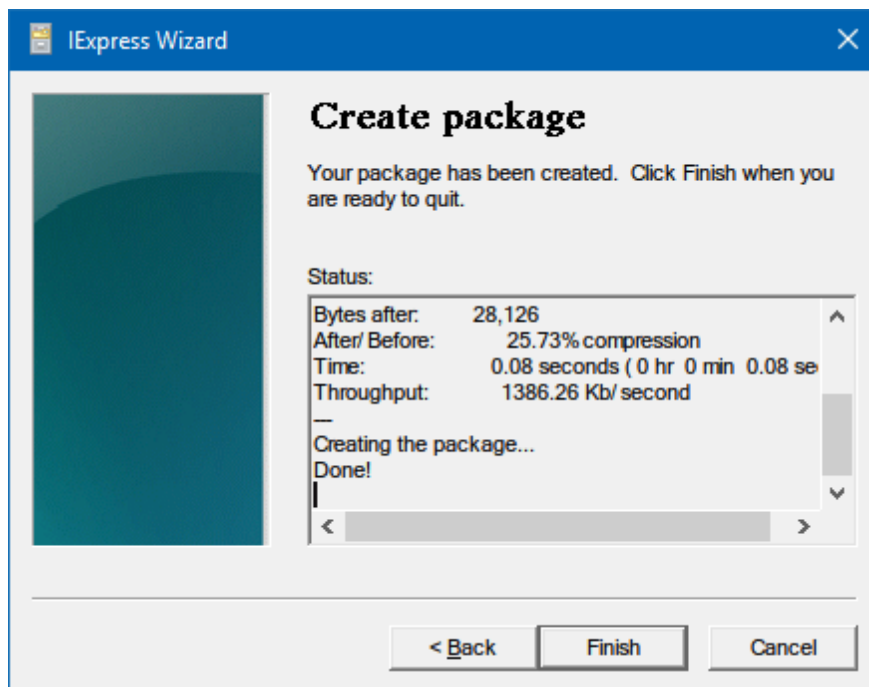
Note: SFX archives are not actual installation files. They do not place the extracted files in a designated destination directory. They also do not edit the Windows Registry, do not create installation logs and do not display as "installed software" in the Uninstall app. In fact, they are archived files presented as EXE files.

Download 7-Zip here.

Simple method: Use IExpress

IExpress is a utility that comes with versions of Windows. This utility is designed with a graphical interface and a step-by-step implementation wizard called IExpress Wizard), but you can also create installation files using Self Extraction Directive (SED) files. Here we recommend the Wizard.

Like 7-Zip above, this method also creates a self-extracting repository but there are two main differences: First, the end user will be made through the Installation Wizard. Secondly, the end user can specify the destination folder where the tool will extract the file.



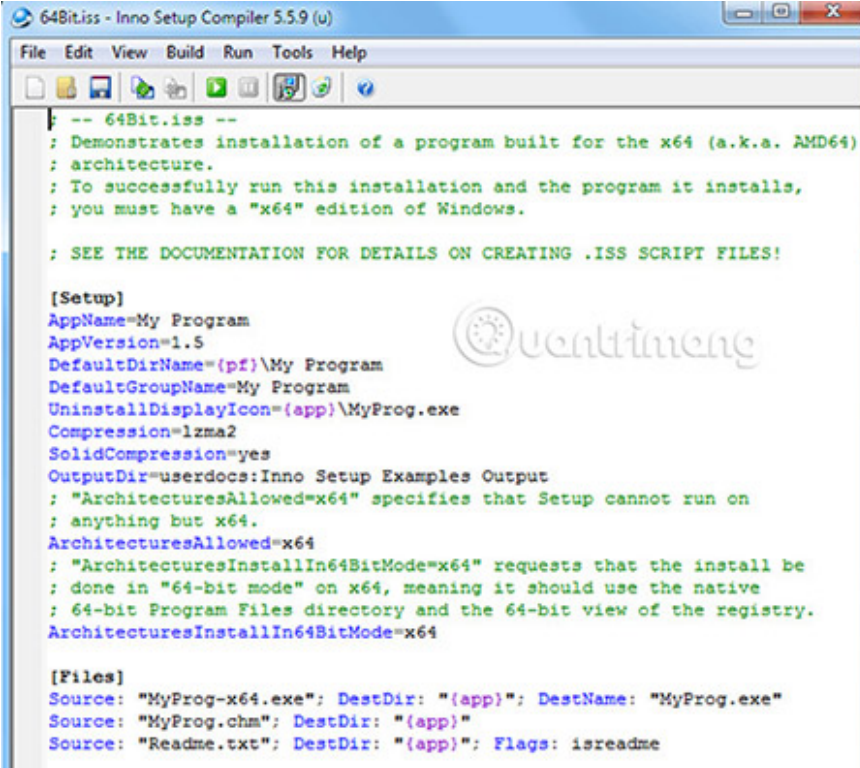
How to create EXE file using IExpress:

1. Open the Run command window (**Windows + R** key) and type **iexpress.exe** to start the IExpress Wizard.
2. Select **Create new Self Extraction Directive file** and click **Next** .
3. Select **Extract files only** and select **Next** .
4. For package names, the application name is a safe option.
5. For *confirmation prompt* , select **No prompt** or **Prompt user with** , whatever.
6. For *license agreement* , select **Display a license** if you want the end user to agree to some types of End User License Agreement (EULA). If not, choose **Do not display a license** .
7. Add all the files you want to view the installation by clicking **Add** , browsing where the files are and selecting all.
8. Continue through the IExpress Wizard and click on your preferred options for the *Show Windows* and *Finished Message* window .
9. For the package name, click **Browse** , navigate to where you want to create the EXE installation file and create a name for it. This is the EXE file that you will distribute to the end user. Click **Next** .
10. Finally, select **Save Self Extraction Directive (SED) file** if you want to create the modified installer later, such as when you patch the software and need an updated installer. If you choose **Don't save** , you will have to run the entire process from the beginning.
11. On the *Create Package* page, click **Next** . Wait a minute and finish!

Note: IExpress has some disadvantages. It does not allow to contain empty directories. If your installation contains subfolders, they will not be included. If you have multiple files with the same name, even in separate folders, creating the installer will fail.

Recommended method: Use Inno Setup

Inno Setup is an actively developed open source utility since 1997. It was created in part to meet the InstallShield Express tool of the time. From now on, it becomes an installer utility for those who are not interested in exploring proprietary options.



```
64Bit.iss - Inno Setup Compiler 5.5.9 (u)
File Edit View Build Run Tools Help
|-- 64Bit.iss --
; Demonstrates installation of a program built for the x64 (a.k.a. AMD64)
; architecture.
; To successfully run this installation and the program it installs,
; you must have a "x64" edition of Windows.
; SEE THE DOCUMENTATION FOR DETAILS ON CREATING .ISS SCRIPT FILES!

[Setup]
AppName=My Program
AppVersion=1.5
DefaultDirName={pf}\My Program
DefaultGroupName=My Program
UninstallDisplayIcon={app}\MyProg.exe
Compression=lzma2
SolidCompression=yes
OutputDir=userdocs:Inno Setup Examples Output
; "ArchitecturesAllowed=x64" specifies that Setup cannot run on
; anything but x64.
ArchitecturesAllowed=x64
; "ArchitecturesInstallIn64BitMode=x64" requests that the install be
; done in "64-bit mode" on x64, meaning it should use the native
; 64-bit Program Files directory and the 64-bit view of the registry.
ArchitecturesInstallIn64BitMode=x64

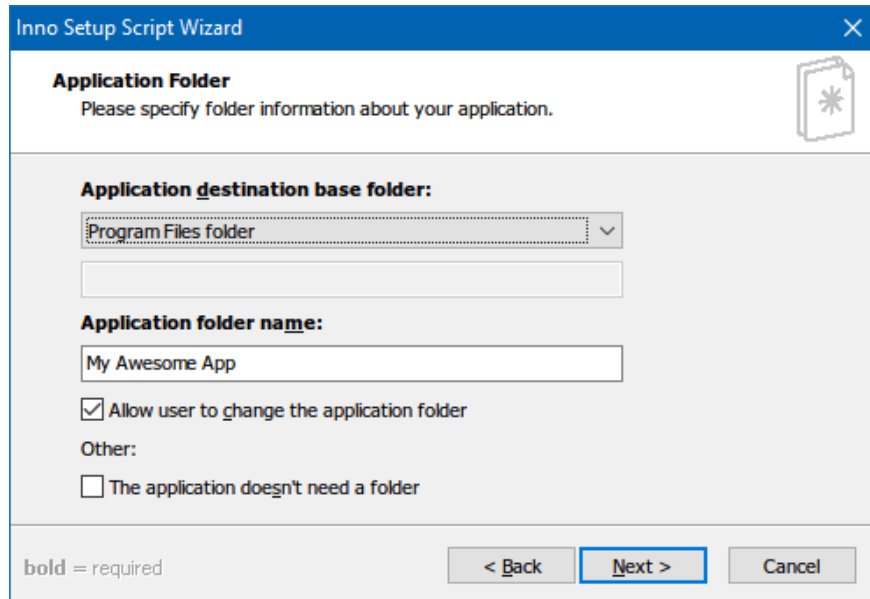
[Files]
Source: "MyProg-x64.exe"; DestDir: "{app}"; DestName: "MyProg.exe"
Source: "MyProg.chm"; DestDir: "{app}"
Source: "Readme.txt"; DestDir: "{app}"; Flags: isreadme
```

Inno Setup has a lot of good features and activities for small businesses with requirements that are not too complicated.

Here is a list of some of the best features of Inno Setup:

1. Support all Windows versions from Windows 2000 to Windows 10
2. Support installing 64-bit applications on Windows 64-bit
3. Support creating EXE files for easier distribution
4. The types of settings are customizable and fully support for uninstalling applications
5. Create shortcuts, registry entries and INI files
6. Support installation feature in Silent Mode and Pascal script tool for more advanced settings.
7. Third-party extensions enhance Inno Setup's features

The biggest attraction of this utility is flexibility. Inno Setup uses script files (script files) with ISS (Inno Setup Script) to customize different aspects of the installer: combined files, where installation takes place, creates keys off, . ISS file uses the same format as the INI file and can be created using the Inno Setup Wizard.



How to create EXE installation file using Inno Setup:

1. Launch the Inno Setup Compiler application.
2. In the Welcome window, select **Create a file new script using the Script Wizard** .
3. Enter the name and app version. Optionally, you can also include Application Publisher details and Application Website (application website). Click **Next** .
4. Select **Destination base folder** , default to Program Files. Enter **Application folder name** - is the name of the main directory that your installation files will run. Click **Next** .
5. For *Application main executable file* , browse and select the main EXE file to start your application. If you do not install the application, activate **The application does not have a main executable file** . Then add the files and folders to the installer with the **Add files** and **Add folders button** . Select **Next** .
6. On the *Application Shortcuts* page, set the default or change them to your liking and click **Next** .
7. On the *Application Documentation* page, you can specify up to 3 TXT files that will be displayed during the end user installation process. Typically LICENSE.TXT, INSTALL.TXT and README.TXT files . Click **Next** .
8. On the *Setup Languages* page, you should leave the language **English** , but you can freely add the language you want. Then, click **Next** .
9. On the *Compiler Settings* page, you can customize the EXE installation file:
 1. **The Custom compiler output folder** - is where the EXE file is created.
 2. **Compiler output base file name** - is the name of the EXE file. The default setting is setup.exe.
 3. **Custom Setup icon file** - is the icon used for EXE file. This must be an ICO file that you can download or convert from PNG.
10. **Setup password** will protect unauthorized users in using the installer. Leave the password blank to disable this feature.
11. Click **Finish** . When prompted to compile a new script, click **Yes** . When prompted to save the script, select **No** if this is a one-time installation file and select **Yes** if you plan to modify or update later. It is done!

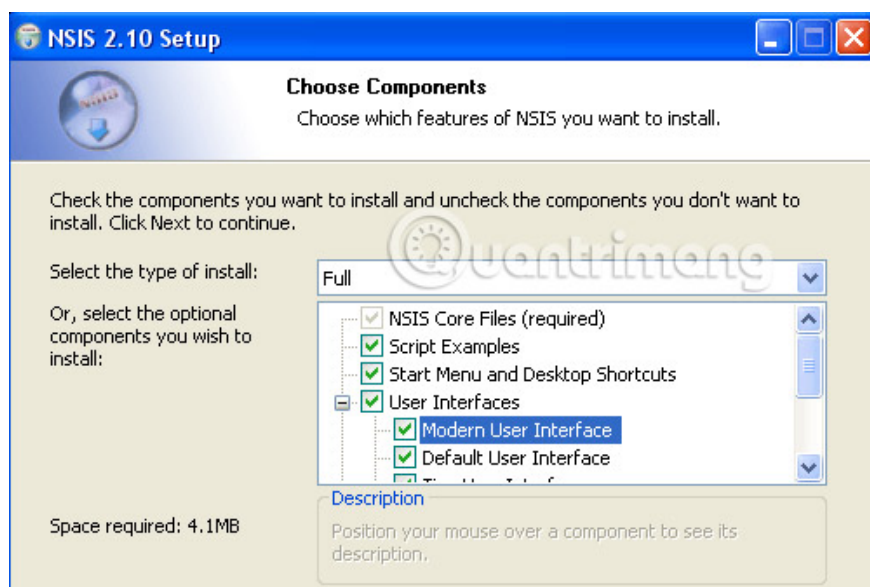
Download Inno Setup 5.5.5 [here](#).

Overall, this is a really good option because it is completely free and very easy to use. It cannot perform functions like those of InstallShield or even Advanced Installer, but in return this tool has almost all the basic utilities.

Nullsoft Scriptable Install System (NSIS)

If you love open source software, consider Nullsoft Scriptable Install System (NSIS). NSIS is a professional system that you can use to create all Windows installers, from simple to complex. NSIS is a very compact tool, but has a huge set of features.

As its name suggests, NSIS is based on scripts, allowing you to create complex logic needed to handle every situation. Fortunately, for beginners, this tool also includes a series of predefined plug-ins and scripts to make getting started easier.



Below is a short list of some of the favorite features of this MSI package generator:

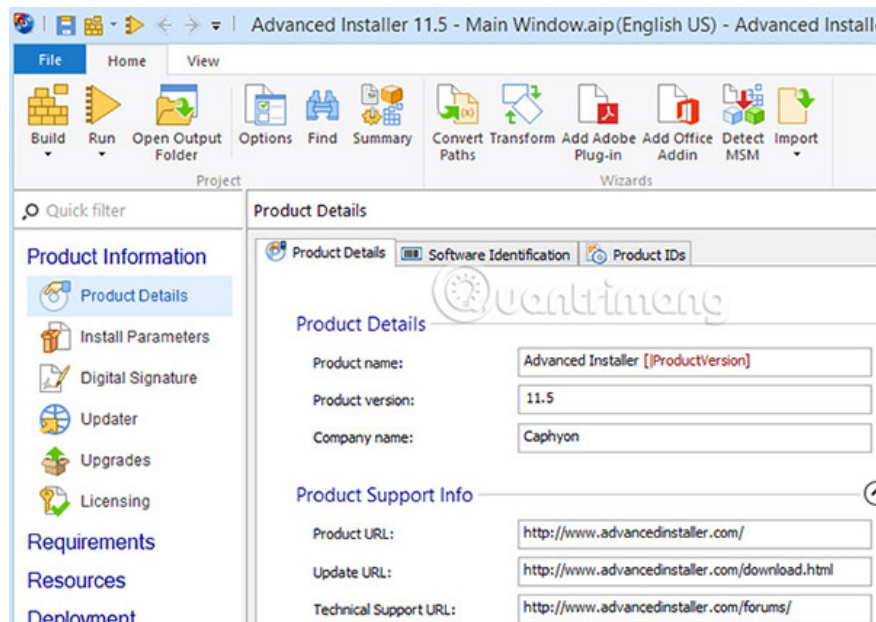
1. The ability to create Windows installers can install, uninstall, set up the system, extract files and more.
2. NSIS only has 34KB capacity! This is a much smaller Windows installer than InstallShield and Wise.
3. An installer is compatible with all major versions of Windows, from Windows 95 to Windows 10.
4. Three compression methods (ZLib, BZip2, LZMA) to ensure the best compression for installation packages.
5. This script-based installer is better than programs that just list other files and registry keys. Using programming languages, users can perform many different installation tasks, such as upgrading, version checking, system restart, modifying environment variables, accessing Windows APIs and more. That's it.
6. Create custom dialog boxes and interfaces for user input, configuration options and even a custom wizard interface.
7. Expand NSIS's capabilities with plug-ins that can 'communicate' with the installer.
8. Support web installation and file repair via the Internet.

The program supports many other features, including self-verifying the installer by using component checksum, list and tree to select components, Silent Mode for automatic installation, full-featured code editor to write scripts, etc.

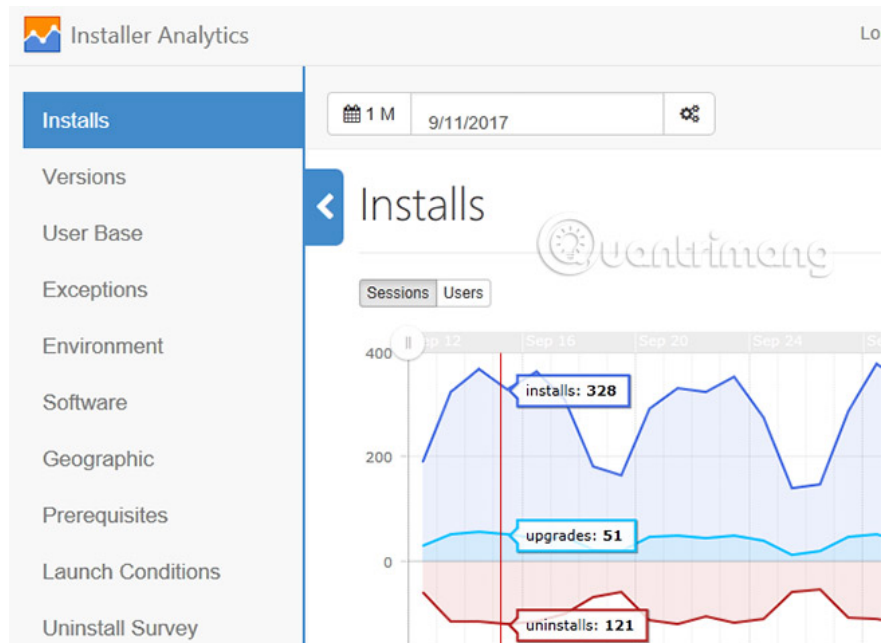
Advanced Installer

Advanced Installer has a free version and several other versions with different prices depending on the complexity of the installer. This tool is updated very often and works very well.

If you are looking for something more professional including some options to support, Advanced Installer is a worth consideration. The free version really has a lot of features and can be used for simple installers.



Another unique feature of Advanced Installer is **Installer Analytics**. Basically, it is a set of tools to see how users install, use, and uninstall applications. You can easily track how large your user base is, load the survey when users uninstall the program, and get information about the user system and geographic location. All of these are on a beautiful and modern web interface.



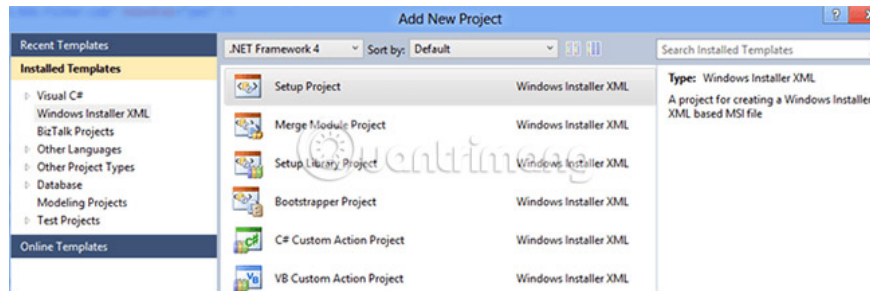
It also allows users to easily repack their applications into a new AppX format, used for Universal Windows Platform. It does not require any code changes and even comes with a free AppX converter. Besides the unique features mentioned above, Advanced Installer also has all the basic features. Readers can check the full list of features for each version at: <https://www.advancedinstaller.com/top-freeware-features.html>

The image displays a grid of feature cards for Advanced Installer. Each card includes an icon, a title, and a brief description of the feature. The features listed are:

- MSI**: Create valid MSI setups for your applications respecting all written and unwritten Windows Installer rules.
- UAC**: Build installers that run flawlessly on Windows 10/8.1/8/7/Vista supporting their security model.
- Upgrades**: Detect and upgrade older version of your product installed on the user's machine. Prevent installs over newer ones.
- Side-by-Side**: Create packages for different versions of your application that can be installed simultaneously and run side by side.
- Imports**: Import from Visual Studio, InstallShield LE, WiX, Eclipse, Inno Setup, NSIS and regular MSI/MSM packages.
- Fonts**: Register fonts in the Windows OS. Specify registration names for non-TrueType fonts.
- Environment Variables**: Create, append or prepend user or system environment variables.
- Autoregister**: Auto registration, for files that support it, can be scheduled at install time.
- Files and Folders**: Install and uninstall files and folders. Set attributes, create shortcuts.
- Registry**: Install and uninstall registry keys and entries.
- 64-bit**: Build setups that run and install on 32-bit processors or on the latest 64-bit Intel and AMD CPUs.
- Template projects**: Create templates based on your current project and ready-to-use for your future projects.

WIX Toolset

WIX Toolset is a free toolkit for creating Windows installers, operating from Visual Studio 2012 and above. This option is last on the list today because it requires users to learn the most. You can create some very complicated installers with this tool, but you'll have to program a lot and use the command line regularly.



WIX Toolset is built based on the model XML authoring model. Without Visual Studio, users can use Wix or MSBuild tools. It supports the construction of MSI, MSP, MSM and MST installation files as well as a large number of Windows Installer features.

So which method is right for you?

If your software is extremely simple or if you specify distribution for a limited number of users, use 7-Zip. This is a simple, easy method and almost no technical expertise required.

If your software is quite simple and you want to display an actual installer for end users, use the IExpress method.

If your software is complicated and you have a lot of technical experience, use Inno Setup because this is the most powerful and flexible method.

What method will you use to create the EXE file? What method we have not mentioned in the lesson? Let us know your opinion by commenting below!

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3. How to create a separate data partition in Windows?

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