# What is a Windows Application?

Windows Application (WinApp for short) is a program that is written to run under Microsoft Windows OS. All 32-bit applications run in the 32-bit and 64-bit versions of Windows. All 64-bit applications require 64-bit Windows.

The WinApp has a graphical user interface (GUI) that is provided by Windows Form. Windows Form provides a variety of controls including Button, TextBox, Radio Button, CheckBox, other data and connection controls.

# Which application development framework to use?

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| **Platform** | **Supported Windows versions** | **Languages** |
| Win32 | Windows NT + | C++ |
| WinForms (Windows Forms) | Windows 7 + | C#, C++, F#, VB |
| WPF (Windows Presentation Foundation) | Windows 7 + | C#, C++, F#, VB |
| UWP (Universal Windows Platform) | Windows 10 + | C#, C++, VB, JavaScript |
| Electron | Cross platform | HTML, CSS, and JavaScript |

# What automation framework can be used to automate on Windows Applications?

Many tools and frameworks from free to licensed can be used to automate a WinApp.

* Licensed:
  + Unified Functional Testing (UFT) software, formerly known QuickTest Professional (QTP) from HP.
  + TestComplete from SmartBear.
  + Rational Functional Tester (RFT) from IBM.
  + Ranorex.
* Free:
  + AutoIT.
  + Sikuli.
  + TestStack.White framework based on Microsoft UI Automation framework.
  + Windows Application Driver with Appium.
  + Winium.
  + Pywinauto.
  + FlaUI.

Some reference source:

<https://www.future-processing.pl/blog/automation-of-desktop-applications/>