

# PSEC - Windows Sandbox & Windows Installation

The following steps are required to install **PSEC** into a Windows sandbox.

Section (A) may not be required if the Windows Sandbox is already enabled.

## (A) - Instructions to Enable Windows 10 Sandbox

1. **Enable Virtualization Technology (VT-x/AMD-V) in BIOS/UEFI:** Make sure virtualization technology is enabled in your computer's BIOS or UEFI settings.
2. **Check for Requirements:** Ensure your system meets the requirements for running Windows Sandbox:
  - Windows 10 Pro or Enterprise edition.
  - AMD64 architecture.
  - At least 4GB of RAM (8GB recommended).
  - At least 1 GB of free disk space.
  - CPU with at least 2 cores, with support for virtualization enabled in the BIOS/UEFI settings.
3. **Enable Windows Sandbox Feature:**
  - Open the Start menu and type "Windows Features" and select "Turn Windows features on or off" from the search results.
  - Scroll down and find "Windows Sandbox" in the list.
  - Check the box next to "Windows Sandbox" to enable it.
  - Click OK and let Windows apply the changes. You may need to restart your computer.
4. **Test Run Windows Sandbox:**
  - After enabling the feature, you can run Windows Sandbox by:
    - Opening the Start menu and typing "Windows Sandbox."
    - Click on the "Windows Sandbox" app to launch it.
5. **Using Windows Sandbox:**
  - Once launched, Windows Sandbox will appear in a separate window, which is essentially a lightweight virtual machine.
  - You can install and run applications within this isolated environment without affecting your main Windows installation.
  - Any changes made inside the sandbox, such as installing applications or browsing the web, will be discarded when you close the Sandbox window.
6. **Close Windows Sandbox:**
  - When you're finished using Windows Sandbox, simply close the Sandbox window.
  - Any changes made within the sandbox will be discarded upon closing, ensuring a clean and isolated environment for each use.

## (B) - Windows Sandbox Installation

1. Download `psec-sandbox.zip`
  - This is obtained from a Google Drive link due to its size. [https://drive.google.com/file/d/1VCBg7sPVorRAzWbfzUuyngjJp4h2hUdK/view?usp=drive\\_link](https://drive.google.com/file/d/1VCBg7sPVorRAzWbfzUuyngjJp4h2hUdK/view?usp=drive_link)
2. Unzip into `C:\psec-sandbox`
  - **Note** The values inside the `install-psec.wsb` file are hardcoded. The sandbox facility provides no mechanism to allow for symbolic references. If you must change the location you will have to change all hardcoded references.
3. Double-click on `C:\psec-sandbox\install-psec.wsb`
  - This will start the Windows Sandbox and start the installers referenced by the logon command. This includes **PSEC** runtime code the Java JDK-17. It is permissible to install them concurrently.
  - The **PSEC** installer will also ask for default locations so it can set the required environment variables. It is suggested the default values are retained.
4. Follow the instructions and run the various demonstrations
  - click on the green Icon created on the desktop. **PSEC** will be started.
  - `hh` will show extra commands
  - `flows` will list built in WorkFlows
  - `flow c psec-demo` will start an extensive demonstration flow that reveals most WorkFlow features of **PSEC**
  - `flow c psec-hello` will start a simple 3 step demonstration

## (C) - Windows Installation

The **PSEC** examples provided and installed assume you have a Java runtime installed of Version 17 or later. A Java JDK installer is provided in the `sand-install` folder shown below.

1. Download `psec-sandbox.zip`
  - This is obtained from a Google Drive link due to its size. [https://drive.google.com/file/d/1VCBg7sPVorRAzWbfzUuyngjJp4h2hUdK/view?usp=drive\\_link](https://drive.google.com/file/d/1VCBg7sPVorRAzWbfzUuyngjJp4h2hUdK/view?usp=drive_link)
2. Unzip into a location of your choice.
  - For this document, assume it to be `E:\temp\psec-sandbox`.
  - Adjust these instructions according to your actual location.
3. Double-click on `E:\temp\psec-sandbox\sand-install\psec-installer-v4.exe`
  - This will start the **PSEC** installer.
  - The **PSEC** installer will also ask for default locations of the various components. It will install the components to that location and set the required environment variables.
4. A shortcut is installed on the desktop that starts the installed **PSEC** system.