For Windows and Mac users, please go to

https://biostat.app.vumc.org/wiki/Main/PowerSampleSize#Windows

Download and Installing the PS Software

The PS program runs on the Microsoft Windows operating systems (Windows XP and later). We have also installed the program on Linux and Macintosh computers using a program called Wine that facilitates running Windows software on other operating systems.

For Windows, please go to

https://biostat.app.vumc.org/wiki/Main/PowerSampleSize#Windows

Download pssetup3.exe. After downloading to your computer, run pssetup3.exe (please read the instructions below for Mac users).

For Mac users, please follow the steps to install WINEHQ to mimic the Windows installation process on your Mac.

PLEASE NOTE
On the PS software website, PlayOnMac is introduced to run pssetup3.exe. However, PlayOnMac may not support your recent or current MacOS version. We strongly recommend installing WINEHQ directly instead of PlayOnMac (and XQuartz).

Step 1 Open the Terminal on your Mac

Do one of the following on your Mac: (a) or (b)

(a) Click the Launchpad icon in the Dock, type Terminal in the search field, then click Terminal.
(b) Open the /Applications/Utilities folder in the Finder, then double-click Terminal.
**Step 1.1** Check if Homebrew is installed. Please type the command line after prompt ($ or %) in Mac Terminal.

```bash
brew --version
```

(a) You can check the brew version if you have installed it. Please go to **Step 2**.

```
SheauChiansMBP:~ sheauchiannchen$ brew --version
Homebrew 4.1.14-37-gde575da
Homebrew/homebrew-core (git revision 15ef748a60; last commit 2021-03-03)
```

(b) Homebrew should be installed if it shows “command not found.” Please finish Step 1.2 to Step 1.4

```
chiann@SheauChiansAir ~ % brew --version
zsh: command not found: brew
```

**Step 1.2** Install Homebrew on Terminal if you see “command not found: brew.” Type the following command line (after prompt). It may take 1 minute to install Homebrew.

```
/bin/bash -c "$(curl -fsSL https://raw.githubusercontent.com/Homebrew/install/HEAD/install.sh)"
```

*Example:*

```
$ chiann@SheauChiansAir ~ /bin/bash -c "$(curl -fsSL https://raw.githubusercontent.com/Homebrew/install/HEAD/install.sh)"
```

Enter your computer password if needed.

**Step 1.3** Instructions on configuring your shell for Homebrew (if you see a warning on the screen). Please find the information marked in red below on your Terminal screen. Copy two commands **from your Terminal** and run it.

```
* [new tag] 4.1.9 → 4.1.9
HEAD is now at f3c3e9950 Merge pull request #16098 from Homebrew/revert-16088-revert-16062-booststrap-relax
Warning: /opt/homebrew/bin is not in your PATH.
Instructions on how to configure your shell for Homebrew can be found in the ‘Next steps’ section below.

>>> run these two commands in your terminal to add Homebrew to your $PATH:
  (echo " eval "$(brew shellenv)" ) >> /Users/chiann/.profile
eval "$(brew shellenv)"
```

Further documentation: [https://docs.brew.sh](https://docs.brew.sh)
Please use your command lines and do not use mine.

```
(echo; echo 'eval "$(/opt/homebrew/bin/brew shellenv)"') > /Users/chiann/.zprofile
exec $(/opt/homebrew/bin/brew shrew)
```

**Step 1.4** Use the command line in **Step 1.1** to check again

```
chiann@SheauChiansAir ~ % echo 'eval "$(/opt/homebrew/bin/brew shellenv)"'
```

If you cannot install Homebrew successfully, please visit [https://docs.brew.sh/Installation](https://docs.brew.sh/Installation) for your macOS or contact Sheau-Chiann Chen (sheau-chiann.chen.1@vumc.org).

**macOS requirements for Homebrew installation** in this instruction

- A 64-bit Intel CPU or Apple Silicon CPU
- macOS Monterey (12) (or higher)
- Command Line Tools (CLT) for Xcode (from xcode-select --install or [https://developer.apple.com/download/all/](https://developer.apple.com/download/all/) or Xcode)
- The Bourne-again shell for installation (i.e. `bash`)

---

**Step 2** Install WINEHQ from the command line on Terminal.

(1) Please type the following command and hit a return.

```
brew tap homebrew/cask-versions
```

Here is what you would see in your Terminal.

```
SheauChiansMBP:-- sheauchiannchen$ brew tap homebrew/cask-versions
    Type your command after $:
```

```
SheauChiansMBP:-- sheauchiannchen$ brew tap homebrew/cask-versions
  ==> Downloading https://ghcr.io/v2/homebrew/portable-ruby/portable-ruby/blobs/sha256:61829ee31c67a
  #------------------------------------------------------
  100.0%
  ==> Pouring portable-ruby-2.6.10_1.el_capitain.bottle.tar.gz
  ==> Tapping homebrew/cask-versions
  Cloning into '/usr/local/Homebrew/Library/Taps/homebrew/homebrew-cask-versions'...
  remote: Enumerating objects: 260919, done.
  remote: Counting objects: 100% (2305/2305), done.
  remote: Compressing objects: 100% (234/234), done.
  remote: Total 260919 (delta 2123), reused 2291 (delta 2871), pack-reused 262714
  Receiving objects: 100% (260919/260919), 66.50 MiB | 30.82 MiB/s, done.
  Resolving deltas: 100% (184099/184099), done.
  Tapped 243 casks (276 files, 74.0MB).
```
Please type the following command and hit a return. You will see the message “wine-devel was successfully installed!

```
brew install --cask --no-quarantine wine-devel
```
**Step 3.2** Select (a) “Wine Devel” or (b) Click “Other….” If you did not see “Wine Devel” on the list. Click “Change All…”

**Step 4** Install PS software

**Step 4.1** Double click pssetup3.exe to install PS software
Step 4.2 Please follow all the steps to finish the installation.

Congratulations! You can click continue to work with PS software.

Step 5 Create a desktop shortcut to avoid redoing Step 4 every time.

Step 5.1 Go to your home folder. To find your home folder, open Finder and use the keyboard shortcut Command-Shift-H.
Step 5.2 Press Command + Shift + . (the period key). This will show hidden files in the folder.

Step 5.3 After hidden files are shown in your home folder, you will see “.wine” folder under your home. Go to .wine/drive_c/Program Files(x86)/PS Power and Sample Size/

Step 5.4 Select the “PS.exe”, then choose File > Make Alias (or right-click). (1) You can create a PS.exe alias for PS.exe, then (2) drag “PS.exe alias” to the desktop. Click “PS.exe alias” for the use of PS software.

Step 5.5 (Importantly) Go back to your home folder. To hide the files again, press Command + Shift + . again, in case we accidentally delete the important stuff.

MacOS Information about the laptop that I tried to install successfully

Laptop 1
MacBook Pro
Processor 2.3 GHz Dual-Core Intel Core i5
macOS Ventura 13.6

Laptop 2
MacBook Air
Chip Apple M1
macOS Ventura 13.4.1