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Snake Installation Instructions

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Introduction

The purpose of this document is to provide instructions for the installation of the Snake software program. This document will describe Snake's key files and where they are located relative to the root of the Snake distribution. It will additionally detail how to install Snake using a Windows Installer Database file for certain platforms or via a sequence of manual operations for other platforms. After reading this document, the user should be capable of installing Snake on any supported platform.

Snake is distributed in a way agnostic to the method of distribution; as such, instructions on how to acquire a Snake distribution are out-of-scope for this document and not included.

Portions of this document are adapted from Battleship's Installation Instructions, used with permission from the author (Haskins, 2018).

The Snake Distribution

The Snake distribution is a set of files that contain all program code and data necessary to install Snake on any supported platform. The distribution is agnostic to the delivery method. For example, a Snake distribution may be delivered on a disk, on a networked file share, on an online learning management system dropbox, or even on a set of approximately seventeen 3½-inch floppy disks. Other sections will reference the Snake distribution; prior to installing Snake, it is essential to locate the distribution it will be installed from.

Each Snake distribution contains precisely the following files:

Table 1: Snake Distribution Files

Name	Description
Snake.msi	The Snake installer for the 64-bit version of Windows 7 or a later version of Windows. Packaged as a Windows Installer Database file; this guarantees a clean uninstall.
Snake.jar	The Snake executable Java program. This is used on platforms not supported by the installer.

highresolutiontimer.dll	A support library used by Snake to enable high-resolution timers on 64-bit versions of Windows.
highresolutiontimer-x86.dll	A support library used by Snake to enable high-resolution timers on 32-bit versions of Windows.
THIRD-PARTY.txt	A description of the third-party code and resources used in Snake, including complete licenses.
Snake-Install.pdf	Instructions on how to install Snake. This file is in the industry-standard Portable Document Format; a free reader application is available here .
Snake-Guide.pdf	A guide for users on how to use theSnake program. This file is in the industry-standard Portable Document Format; a free reader application is available here .

Determining the Correct Method of Install for a Platform


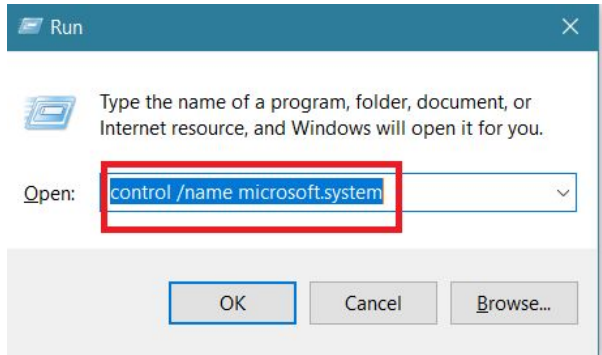
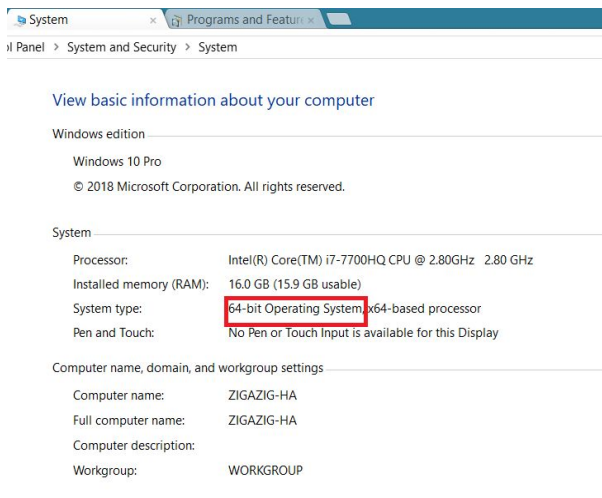
Snake has two methods of install, both of which are described in this document. The first (recommended) method is using the Windows Installer Database file. Regrettably, this is not supported on every platform. The second method is to manually install an appropriate version of Java and copy the Snake files from the distribution. This section of the document contains instructions for determining which method to use.

In order to be eligible to use the Windows Installer Database file method of installation, a platform must meet the following criteria:

- 1) Windows 7 or a later version of Windows
- 2) Administrator privileges are available
- 3) A processor supporting the amd64 instruction set
- 4) A 64-bit version of Windows

In order to determine whether a candidate platform fulfills requirements 3) and 4), the following procedure may be used:

Procedure 1: Determining Platform Support

Text Instructions	Visual Instructions
<p>1) Key in “Windows” and “R” to open up the Run dialog.</p>	 <p>(TP-Link, 2016)</p>
<p>2) Enter “control /name microsoft.system” in the Run dialog.</p> <p>Click OK or press Enter.</p>	
<p>3) Look for the text “64-bit Operating System”.</p> <p>If this text is present, the platform may be eligible for the Windows Installer Database file method to install Snake.</p>	

If a platform is not eligible to use the Windows Installer Database file method of installation, the alternative, manual, method should be employed instead.

Installing using the Windows Installer

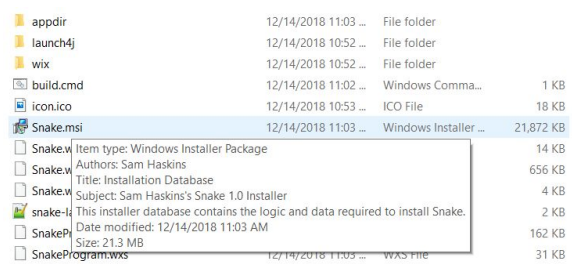
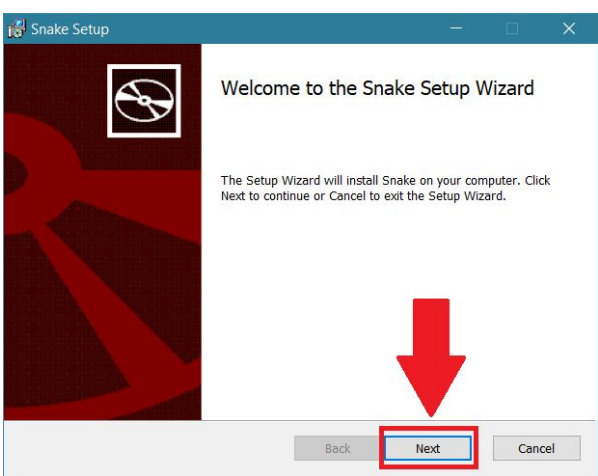
This section details the procedure for installing Snake using the Windows Installer Database file, "Snake.msi".

Prior to Beginning the Install

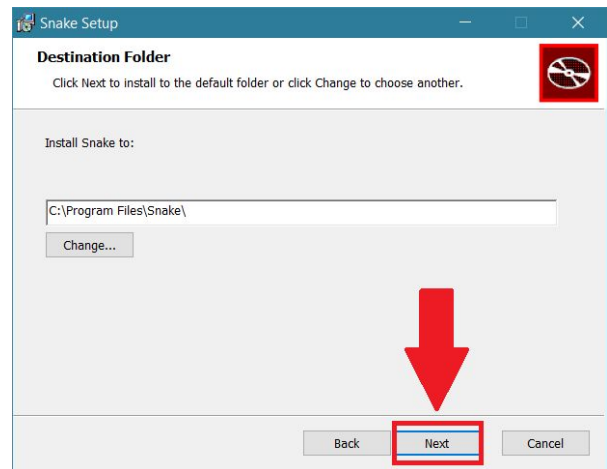
Prior to installing Snake using the Windows Installer Database file, first ensure that:

- a) The platform is eligible to use this installation method, as per the previous section.
- b) The file "Snake.msi" has been retrieved from the Snake distribution and is available locally.

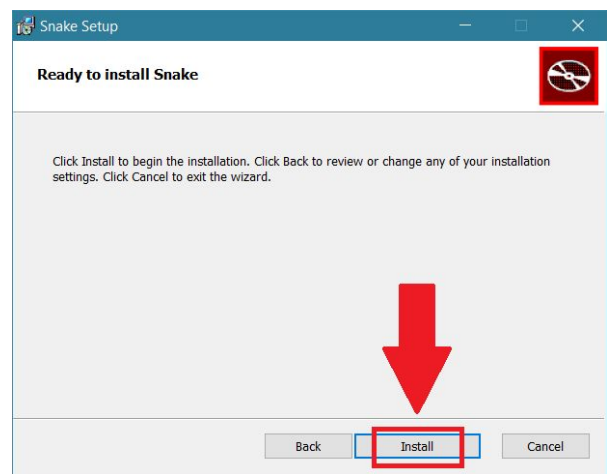
Procedure 2: Install Procedure

Text Instructions	Visual Instructions
1) Invoke the "Snake.msi" file. This will start the installation wizard.	
2) Click "Next" when presented with the Welcome page.	

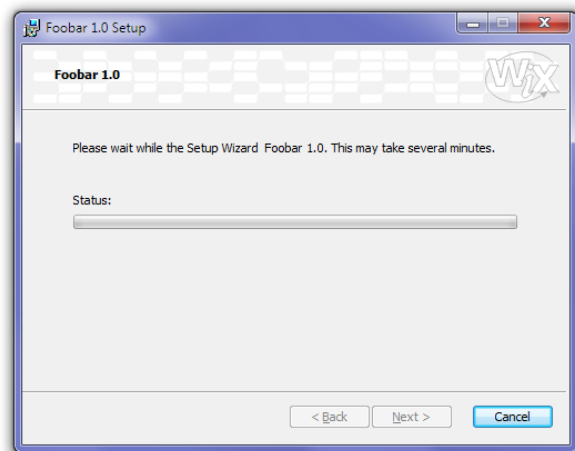
3) Make any desired changes to the install directory then click "Next".



4) Click "Install".



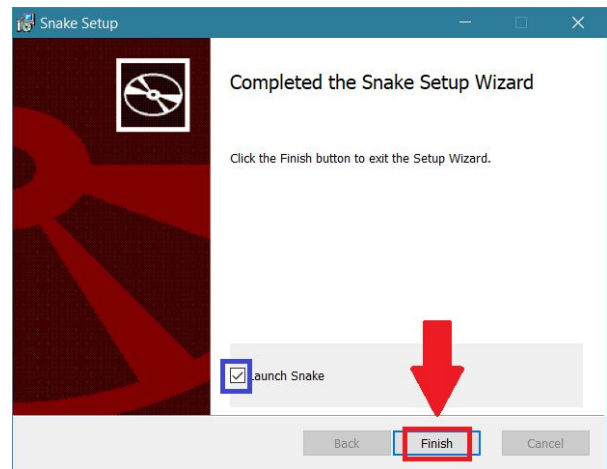
5) Allow the installer to run. If presented with a User Account Control dialog, approve it using Administrator credentials.



(FireGiant)

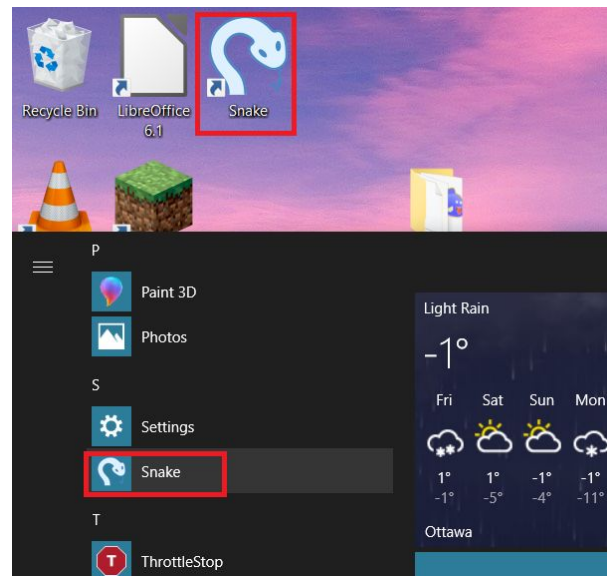
6) If the installer should run Snake prior to completion, check the “Launch Snake” box.

Click “Finish”.



7) The procedure is complete; Snake has now been installed.

Shortcuts have been placed on the start menu and on the user’s desktop.



Installing Manually

The section contains the required procedures to install all required dependencies, followed by Snake, manually. These procedures are not recommended on platforms eligible for use of the Windows Installer Database file.

Installing Java 10.0.2 Runtime Environment

Snake requires a Java 10.0.2 or equivalent runtime environment to operate. Releases of Java with a major version of 10 and a revision greater than or equal to

0.2 will also function. However, previous or future major releases are not guaranteed to be compatible with Snake.

Prior to installing Snake, an appropriate Java Runtime Environment must first be installed. Java is developed primarily by Oracle, a third-party who is responsible for the distribution of Java. To download the Java 10.0.2 Runtime Environment, use the following links (links may require the creation of a free Oracle account):

Table 2: Java 10.0.2 Runtime Environment Download Links

Platform	Link
Windows x64	Oracle Tech Network
macOS x64	Oracle Tech Network
Linux x64 (RPM)	Oracle Tech Network
Linux x64 (DEB)	OpenJDK build from Azul
Solaris SPARC	Oracle Tech Network
Windows x86	OpenJDK build from Azul
Linux x86	OpenJDK build from Azul

For assistance installing the downloaded package, consult the installation instructions prepared by the vendors:


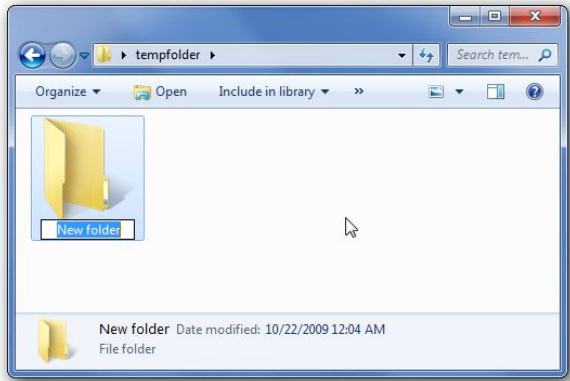
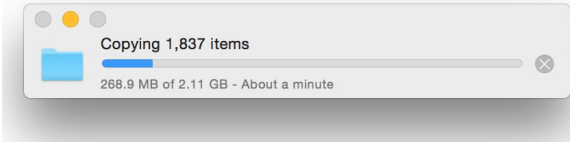
Table 3: Java 10.0.2 Runtime Environment Installation Instructions

Vendor	Instructions
Oracle	Windows Install Instructions macOS Install Instructions Linux Install Instructions Solaris Install Instructions
Azul	Install Instructions Additionally, after installing the Zulu package using the referenced instructions, it may be necessary to associate “.jar” files with “javaw.exe”. Consult Azul’s Install Instructions for more details.

Prior to Beginning the Install

Prior to installing Snake manually, ensure that all files have been retrieved from the Snake distribution and are available locally.

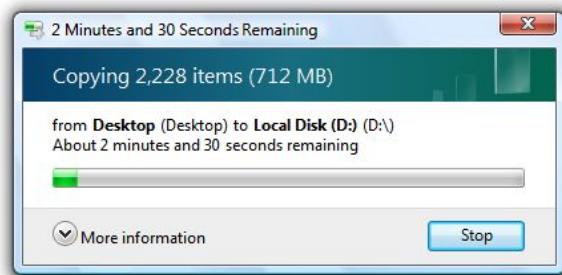
Procedure 3: Manual Install Procedure

Text Instructions	Visual Instructions
1) Determine which directory Snake should be installed to.	 <p>(Johnson, 2016)</p>
2) Ensure that this directory exists; if it does not, create it.	 <p>(Heddings, 2007)</p>
3) Copy "Snake.jar", "THIRD-PARTY.txt", "Snake-Install.pdf", and "Snake-Guide.pdf" from the Snake distribution to the chosen directory.	 <p>(Maldre, 2017)</p>

4) If the platform Snake is being installed on is 64-bit Windows, copy "highresolutiontimer.dll" from the Snake distribution to the chosen directory.

If the platform Snake is being installed on is 32-bit Windows, copy "highresolutiontimer-x86.dll" from the Snake distribution to the chosen directory and rename it to "highresolutiontimer.dll".

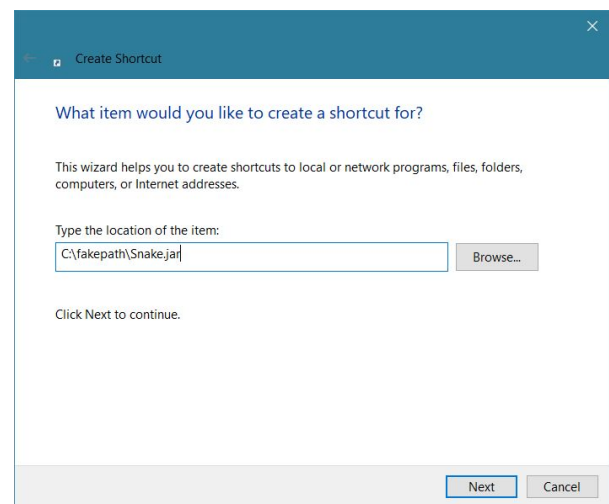
To determine whether a particular Windows platform is 32- or 64-bit, consult Procedure 1: Determining Platform Support.



(Microsoft, 2018)

5) If desired, create a shortcut to "Snake.jar" in any other directory/directories.

[Windows Instructions](#)
[macOS Instructions](#)
[Linux Instructions](#)
[Solaris Instructions](#)



6) Snake has now been installed on the target platform.



(Beckett, 2015)

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