# Installation Instructions

**Important**: SwiftForth is a 32-bit program and requires 32-bit library support. On most Linux systems, this means adding arch i386 libraries. On macOS, systems up to Mojave are supported.

SwiftForth for Linux and MacOS is distributed as a tarball and installation is a manual procedure. But don't worry, it's easy.

In the text below, the tag <version> is replaced by the current SwiftForth version number (e.g. "3.2.0"). The tag <os> is one of "osx" or "linux" (without the quotes).

Download **SwiftForth-linux-macos-<version>.tgz** from the download link provided by FORTH, Inc. Extract the file into the installation directory with:

```
$ tar xzf .../SwiftForth-linux-macos-<version>.tgz
```

where "$" represents the shell command prompt and "..." is the directory in which you saved the SwiftForth tarball. This will the directory "SwiftForth" along with its subdirectories in your current working directory.

In order to run SwiftForth, you can either add **.../SwiftForth/bin/linux** (for Linux systems) or **.../SwiftForth/bin/osx** (for MacOS systems) to your **PATH,** or make symbolic links to the executable files "**sf**" (SwiftForth) and "**sfk**" (SwiftForth kernel) in a directory that's on your **PATH**.

Most Linux distributions include **$HOME/bin** in **$PATH** if it exists, so if this is the case in your system and you have unpacked SwiftForth in your home directory, you can simply do the following:

```
$ cd $HOME/bin
$ ln -s ../SwiftForth/bin/linux/sf
$ ln -s ../SwiftForth/bin/linux/sfk[1]
```

If your MacOS installation does not have **$HOME/bin**, you can create one:

```
cd ~
mkdir bin
```

Then add the symlinks as above:

```
$ cd $HOME/bin
$ ln -s ../SwiftForth/bin/osx/sf
$ ln -s ../SwiftForth/bin/osx/sfk
```

For both Linux and MacOS, make sure **$HOME/bin** is in your **PATH** (in **$HOME/.profile**). If you have to add it, log out and back in with a new terminal session and check it:

```
echo $PATH
```

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[1].The SwiftForth kernel binary is not included in the evaluation version.

If you installed SwiftForth in **/usr/local**, you may choose to perform the same proce-dure shown above, but with the symlinks in **/usr/local/bin** (which is normally in all users' paths).

Now you should be able to run SwiftForth:

```
$ sf
SwiftForth i386-<OS> <rel> <date>
```

Where <OS> is the operating system (Linux or MacOS), <rel> is the release version and <date> is the date the release was built.

Type **BYE** to exit SwiftForth.

After installation, PDF copies of the *SwiftForth Reference Manual*, *Forth Program-mer's Handbook*, and the ANS Forth Standard can be found in the **SwiftForth/doc** directory.