

# How to Use Evolvix 0.1

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This document will cover:

- Installing Evolvix
- Running Evolvix
- Navigating Evolvix Results

## Installing Evolvix

Installing Evolvix is really easy! All we need to do is download the Evolvix.zip package. Unzipping the package will create a directory named **Evolvix** which contains everything needed for Evolvix. Evolvix does not access anything outside of this folder.

## Running Evolvix

To run Evolvix, we need to execute the following steps, which are explained below:

1. Open a command line interface (CLI)
2. Change directory to **Evolvix**
3. Check for a Quest file
4. Run Evolvix

### 1. Open a CLI

The first step is to open a CLI application on your computer. These are called by different names depending on the operating system you are using: terminal on OS X, shell on linux, and command prompt on Windows. Regardless of the name, they all do the same thing. A CLI allows for text-based communication between the user and the computer.

- On Mac OS X, the application *Terminal* is included in the Applications/Utilities folder.
- On Windows, the command prompt can be opened by typing *cmd* into the Start Menu search box and pressing enter. You can also open it from Start Menu->Accessories->Command Prompt.
- On a Unix like OS, there are many shells, and we will assume if you are using Unix that you know how to access the CLI or open your favorite shell. (If not, google it)

### 2. Change Directory to Evolvix

After opening a CLI, we need to make sure we're working within the **Evolvix** directory. This directory

was created when we installed Evolvix and contains everything needed for Evolvix to run inside. To change to this directory, we type a 'change of directory' command into the terminal:

- MacOSX and Unix:

```
cd {file path}/Evolvix
```

- Windows:

```
cd {file path}\Evolvix
```

Where `cd` is the "change of directory command" and `{file path}` is the file path of your **Evolvix** directory. Depending on where you installed Evolvix, this path can be pretty long.

- *OS X Hint* A useful shortcut is to drag the **Evolvix** directory directly into the terminal window after typing "`cd`". Make sure to type the 'space' after `cd`. In *Terminal*, this will fill in the file path for you.
- *Windows hint* You can right-click the Evolvix folder that you unzipped and select properties. The Location says the file path to the Evolvix folder

### 3. Check for a Quest File

For Evolvix to run, we need to have a Quest file in the working directory. This means that we need a Quest in the **Evolvix** directory that we just `cd`'d into. If you just installed Evolvix, there should be a default Quest file named **Quest.Evolvix.txt** already there. If we want to run a different Quest file, you'll need to drag or copy it into the **Evolvix** directory.

### 4. Run Evolvix

The CLI is working in the **Evolvix** directory and we have a Quest file: now we're ready to run Evolvix! To simulate the model in the default Quest file, we simply type:

- OS X and Unix variants:

```
./Evolvix
```

- Windows:

```
Evolvix
```

Typing the command above runs **Quest.Evolvix.txt** within the **Evolvix** directory. If we want to run a different Quest within the **Evolvix** directory, we use the following command:

```
./Evolvix YourQuestFileName.txt
```

\* Windows:

```
Evolvix YourQuestFileName.txt
```

Where `YourQuestFileName.txt` is the Quest file that we added to the **Evolvix** directory.

## Navigating Evolvix

Running a Quest will automatically open the **TSC\_Overview**, which contains the following (TSC stands for TimeSeriesController, which is the code that compiles all the time series):

- A TimeSeries with every Part together
- A TimeSeries for each Part individually

But this is just the overview of the results. The actual results are stored in the **Results** directory, which has three subdirectories:

- Most\_Recent
- Temporary
- Saved

### 1. Most\_Recent

The **Most\_Recent** directory contains all of the results of the most recent Quest run. The **PDFs** subdirectory contains the **TSC\_Overview** as well as all individual TimeSeries that were defined within the Quest. The **Quest** subdirectory contains a copy of the Quest file. The **Raw\_Time\_Series** subdirectory contains .txt files of each of the defined TimeSeries. These .txt files are used to create the defined TimeSeries.

### 2. Temporary

The **Temporary** directory contains a separate subdirectory for all Quest runs. Like **Most\_Recent**, each of these subdirectories contain **PDFs**, **Quest**, and **Raw\_Time\_Series** folders. Each Quest run subdirectory has a timestamp in its name to indicate when it was created.

### 3. Saved

When using a git repository, results within the **Temporary** directory will not be included in any commits. Thus, we have the **Saved** directory. Files within the **Saved** directory will be included in git repository commits. However, the user must manually drag desired results from the **Temporary** directory to the **Saved** directory. Running Evolvix will never produce results in **Saved**.