

# Omega App Template

# Contents

<b>Omega App Template</b>	<b>1</b>
<b>Initial Steps</b>	<b>1</b>
MS Windows . . . . .	1
WSL . . . . .	1
MSYS2 . . . . .	1
macOS . . . . .	1
Linux . . . . .	1
Fedora . . . . .	1
Debian/Ubuntu . . . . .	1
Arch Linux . . . . .	1
<b>Native/Internal App</b>	<b>2</b>
Getting Started . . . . .	2
<b>Legal</b>	<b>3</b>

# Omega App Template

This is a blank app that can be used as a template or guide to writing an app for NumWorks calculators.

## Initial Steps

### MS Windows

For MS Windows, you will need to install WSL or MSYS2 in order to compile Omega.

#### WSL

For WSL, you will need to follow the same instructions for whatever Linux distribution you choose to install.

#### MSYS2

For MYSYS2, you will need to run this:

```
# pacman -S mingw-w64-x86_64-gcc mingw-w64-x86_64-freetype  
mingw-w64-x86_64-pkg-config mingw-w64-x86_64-libusb git make python
```

```
$ echo "export PATH=/mingw64/bin:$PATH" >> .bashrc
```

### macOS

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

```
# brew install numworks/tap/epsilon-sdk #install NumWorks SDK
```

### Linux

#### Fedora

```
# dnf groupinstall -y "Development Tools"  
# dnf install -y arm-none-eabi-gcc
```

#### Debian/Ubuntu

```
# apt-get install build-essential git imagemagick libx11-dev libxext-dev  
libfreetype6-dev libpng-dev libjpeg-dev pkg-config
```

#### Arch Linux

```
# pacman -S git make python
```

# Native/Internal App

## Getting Started

1. Clone this repo:

```
$ git clone https://github.com/Omega-Numworks/Omega-App-Template.git
```

The template for a native/internal app can be found in `app_native`.

2. Edit the files with a text editor (notepad, notepad++, nano, etc).

Things you should bare in mind:

- Make sure you are consistent with your naming.
- It does not matter what text editor you use.

Here is a brief table of what the files do:

File	Information
<code>app.cpp</code>	The main app file.
<code>app.h</code>	The header for your app file.
<code>base.en.i18n</code>	English translation of your app.
<code>base.de.i18n</code>	German translation of your app.
<code>base.es.i18n</code>	Spanish translation of your app.
<code>base.fr.i18n</code>	French translation of your app.
<code>base.hu.i18n</code>	Hungarian translation of your app.
<code>base.it.i18n</code>	Italian translation of your app.
<code>base.nl.i18n</code>	Dutch translation of your app.
<code>base.pt.i18n</code>	Portuguese translation of your app.

Further information can be found in comments within the files.

3. Add your app to Omega

1. If you have not already, clone the Omega repo and all its submodules:

```
$ git clone --recursive https://github.com/Omega-Numworks/Omega.git
```

to clone the Omega repo with all its submodules.

2. Copy your app's folder to `Omega/apps`

3. In `Omega/build/config.mak`, add the name of your app's folder.

4. Compile your app with Omega/Epsilon

### Model N0110

```
$ make clean
```

```
$ make OMEGA_USERNAME="{Your, max 15 characters}" -j4
```

```
$ make epsilon_flash
```

You can change the number of processes that run in parallel during the build by changing the value of the `-j` flag.

### Model N0100

```
$ make MODEL=n0100 clean
```

```
$ make MODEL=n0100 OMEGA_USERNAME="{Your, max 15 characters}" -j4
$ make MODEL=n0100 epsilon_flash
```

You can change the number of processes that run in parallel during the build by changing the value of the `-j` flag.

---

## Legal

NumWorks is a registered trademark. Omega is not affiliated with NumWorks. Omega-App-Template is released under a CC0 License, because the sample app is based on [boricj/numworks-hello-world](#), also under a CC0 License.