

Required and optional software for the shortcourse



- <https://julialang.org/downloads/>
 - Allow to install and use MAGEMinApp and MAGEMin_C



- Visual Studio Code – Code editor <https://code.visualstudio.com/>
 - Excellent programming environment for any language
 - Perfect to program MAGEMin_C.jl scripts!



- <https://inkscape.org/fr/>
 - Allow to open MAGEMinApp figure vector format (svg)

Free/Open source



- <https://www.adobe.com/products/illustrator.html>
 - Allow to open MAGEMinApp figure vector format (svg)
 - Vectors need clean-up!

Licensed

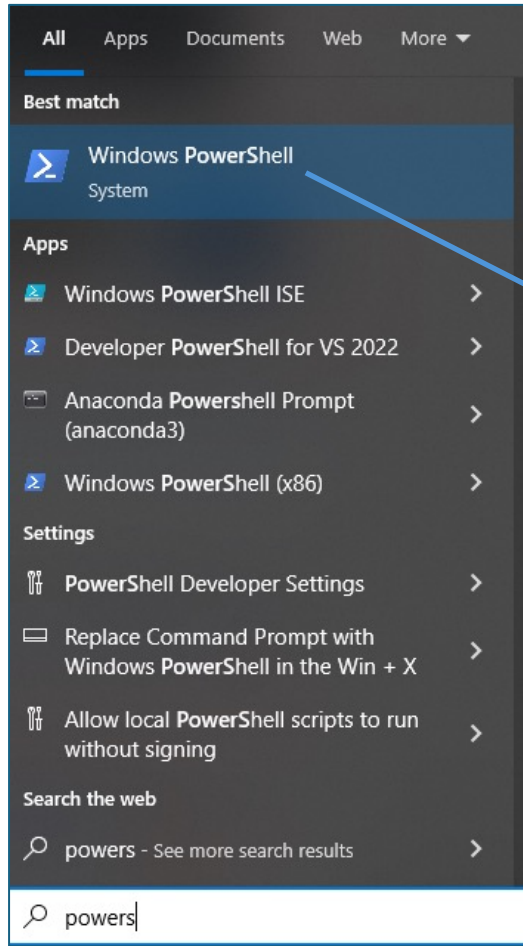
Julia installation

**Windows,
Mac and Linux**

Julia installation – Launch terminal



Windows



→ Right click
→ Run as administrator



PowerShell

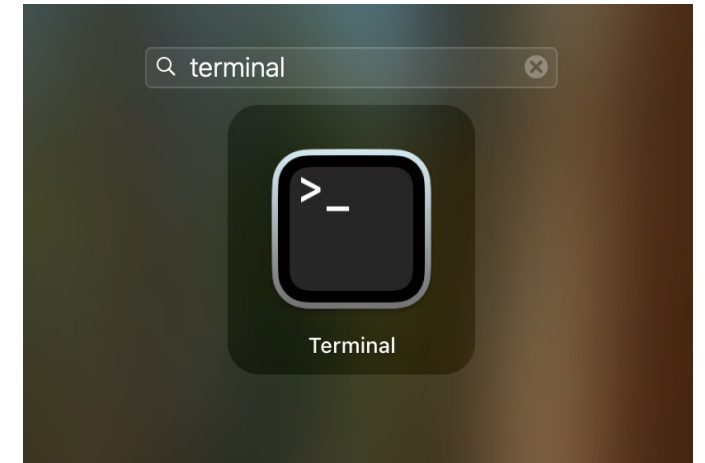
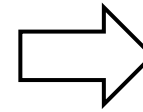
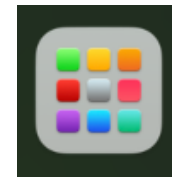


Mac



Terminal

Launchpad



Julia installation - <https://julialang.org/install/>



Windows

Install juliaup from the [Microsoft Store](https://microsoft.com/store) by running this in the command prompt:

```
winget install --name Julia --id 9NJNWW8PVKMN -e -s msstore
```



PowerShell



If Winget is not installed/activated, first paste the following command in the PowerShell:

```
Add-AppxPackage -RegisterByFamilyName -MainPackage  
Microsoft.DesktopAppInstaller_8wekyb3d8bbwe
```



Linux/Mac

Install juliaup by running this in your terminal:

```
curl -fsSL https://install.julialang.org | sh
```



Terminal



Once installed close and relaunch the PowerShell/Terminal
(this updates user's environment)

MAGEMinApp & MAGEMin_C installation

Windows

Install MAGEMinApp



Windows

- Open a new terminal (**PowerShell**)



PowerShell



Install MAGEMinApp

```
$env:JULIA_NUM_THREADS=4 # Sets the number of "workers"
julia                    # launches Julia in parallel

julia> ]                # opens the package manager
pkg> add MAGEMinApp      # MAGEMin_C
```

```
(@v1.10) pkg> add MAGEMinApp
```

Documentation: <https://docs.julialang.org>
Type "?" for help, "]"? for Pkg help.
Version 1.10.0 (2023-12-25)
Official <https://julialang.org/> release

- In the terminal type **]** this will open the package manager
- Then type **add MAGEMinApp** this will download and install MAGEMinApp
- Once installed, quite the package manager by typing BACKSPACE/delete key

MAGEMinApp & MAGEMin_C installation

Mac and Linux



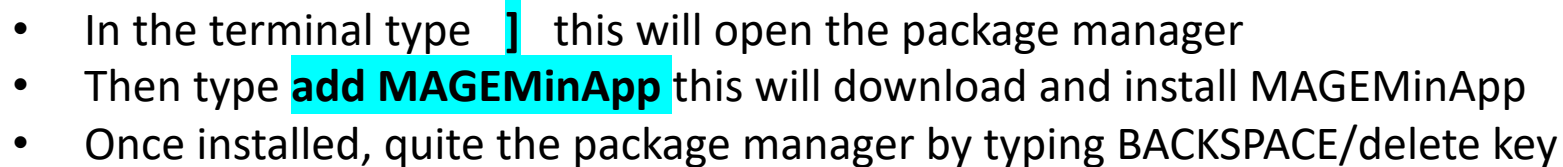
Mac



- 

```
julia -t 6                                # launches Julia in parallel

julia> ]                                  # opens the package manager
pkg> add MAGEMinApp                        # MAGEMin_C
```



MAGEMinApp & MAGEMin_C
launch app (GUI)

Windows
Mac and Linux

Launch MAGEMinApp



Load MAGEMinApp

```
julia> using MAGEMinApp    # load MAGEMinApp
julia> App()
```

- The following text will be displayed in the terminal:

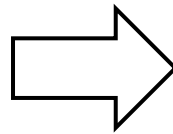
```
PROBLEMS OUTPUT DEBUG CONSOLE TERMINAL PORTS
seph42@DESKTOP-2V82075:~$ julia -t 6

Documentation: https://docs.julialang.org
Type "?" for help, "]" for Pkg help.
Version 1.10.0 (2023-12-25)
Official https://julialang.org/ release

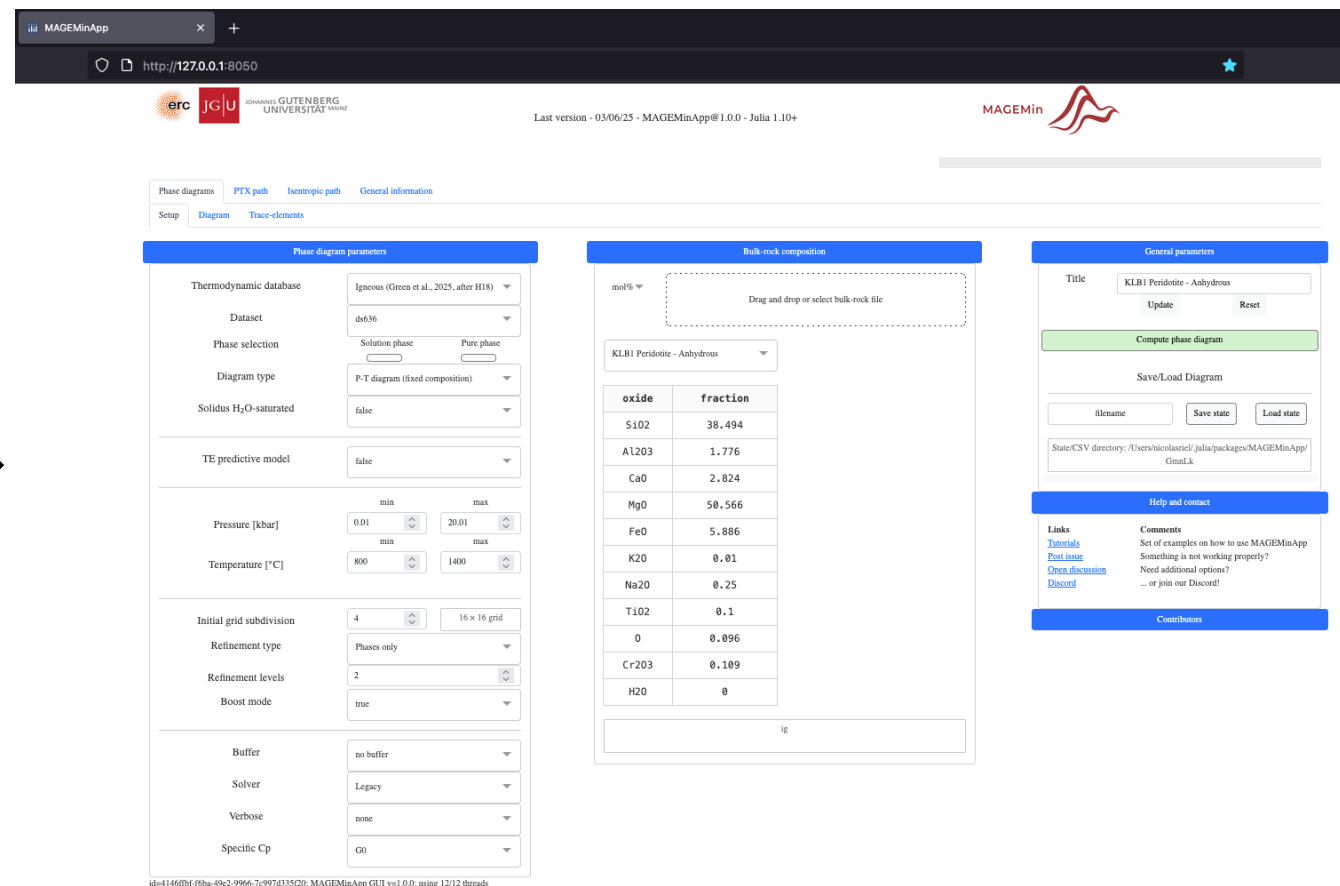
(@v1.10) pkg> add MAGEMinApp
Resolving package versions...
No Changes to `~/julia/environments/v1.10/Project.toml`
No Changes to `~/julia/environments/v1.10/Manifest.toml`

julia> using MAGEMinApp
Using libMAGEMin.dylib from MAGEMin_jll

julia> App()
[ Info: Listening on: 127.0.0.1:8050, thread id: 1
└─┘
```



- Copy and paste the address in your web-browser:



MAGEMin_C, the julia interface: installation



https://github.com/ComputationalThermodynamics/MAGEMin_C.jl



Install MAGEMin_C

```
julia> ]                # opens the package manager
pkg> add MAGEMin_C      # MAGEMin_C
```

Load MAGEMin_C

```
julia> using MAGEMin_C    # load MAGEMin_C
```

```
seph42@DESKTOP-2V82075:~$ julia

Documentation: https://docs.julialang.org
Type "?" for help, "]" for Pkg help.
Version 1.10.0 (2023-12-25)
Official https://julialang.org/ release

(@v1.10) pkg> add MAGEMin_C
Resolving package versions...
Updating `~/.julia/environments/v1.10/Project.toml`
[e5d170eb] + MAGEMin_C v1.5.5
No Changes to `~/.julia/environments/v1.10/Manifest.toml`

julia> using MAGEMin_C
Using libMAGEMin.dylib from MAGEMin_jll
```