Phases:

[Main focus, Features, Diagrams, Decisions, Tests, Notes]

What it is:

Better optimized geogebra and matplot in normal lang

For whoe:

- People want fast graphing tool
- People that hate python
- C++ lovers
- Mathematicians

Libs:

- Cwindow

What I want:

- 2D/3D
- Camera movement
- Script hot swap ✓
- Update base on changes
- Flags
- Run from path ✓
- Auto init ✓
- load templates [Examples]
- Acces to window
- Simple UI
- Config
- Easy install ✓
- Install and write ✓
- Error handling
- Compute code SSBO
- Swaping
- Stability
- Modularity
- Plug in system for comunity
- Window system
- View ports/multiple canvas [plots]
- timming
- save output
- User I/O
- Loging/debug/Profiling
- Test/docs
- Architecture
- Live edition ✓
- Math lib
- Points
- Lines
- Surfaces
- Plot
- Polynomials
- equations
- trigonometry
- function
- integral/derivitive etc
- exp/log
- parametric functions
- Matrices/vectors
- Gradients

✓ 0.0.0 (Prototype)

Main focus:

Not optimisation just minimal workin project with no errors

Tests: None.

Notes:

- Points Render is extreamly unefficient.
- No edge cases.
- No Tests
- No CI/CD

- Weak Shader
- Weak modularity
- Just simple slow cause and testing
- Waste of mem
- Points uses Heap to much

- Good option could be SSBO
- No architecture and future plan.
- Script seg foult
- SVG like render system

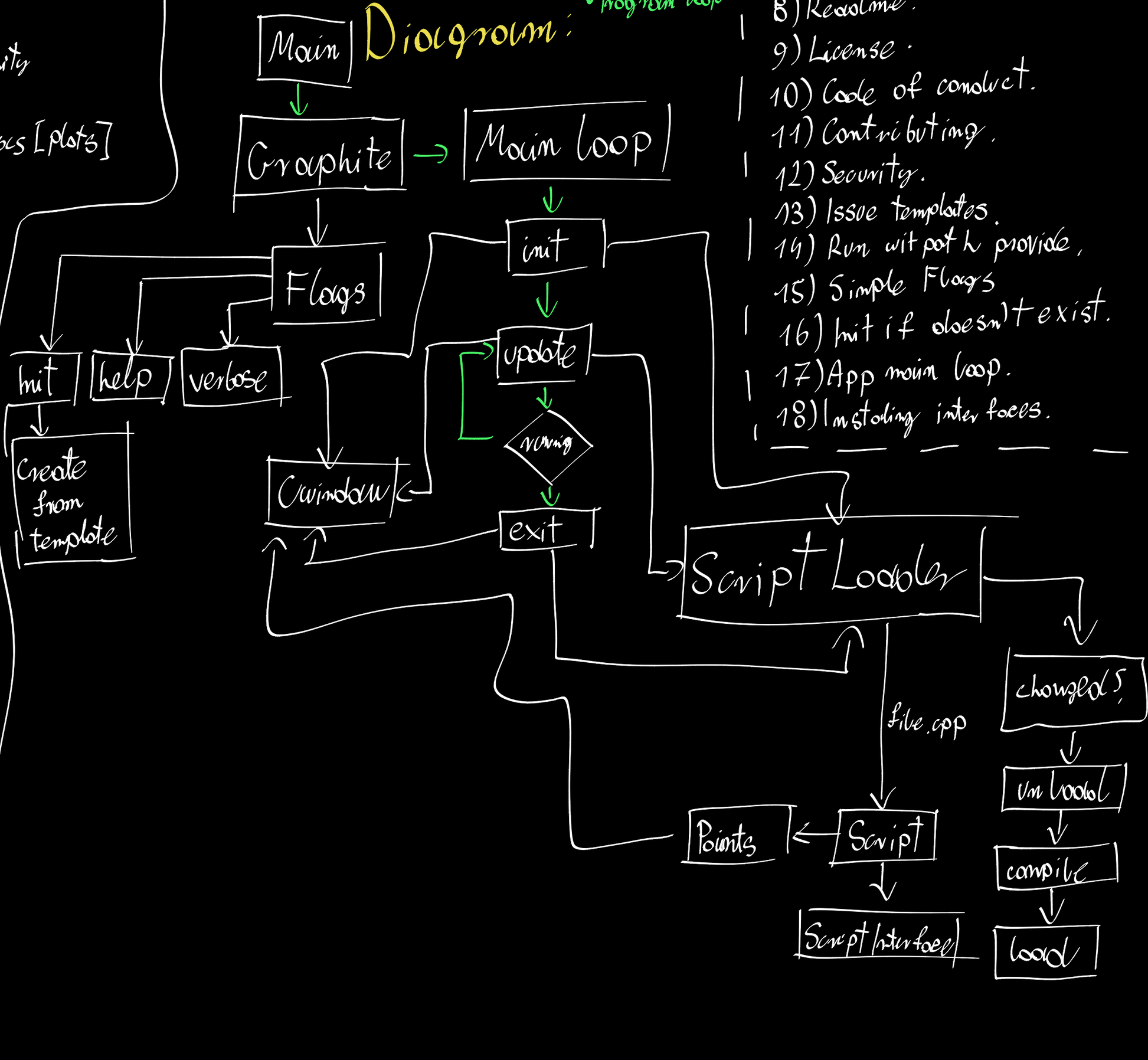
Decisions:

- Multiple points render each one creates his own uniform! shader, mesh uses void* because dll's need to alloc mem. And rendering issues will be chosed for using plot system and probably SSBO for prototype is ok.
- Dynamic script loading for easy editability we one checking last write time and compile → Swap.
- Instals include interfaces for compilation and vs code snipset.

Features:

1) Window initialization.
2) Script run-time compile.
3) Simple script interface.
4) Point class with render.
5) Multiple points render.
6) Simple sin example.
7) Simple instalation via cmake.
8) Readme.
9) License.
10) Code of conduct.
11) Contributing.
12) Security.
13) Issue templates.
14) Run with path provide.
15) Simple Flags
16) Init if doesn't exist.
17) App main loop.
18) Instaling interfaces.

Diagram:



v1.0.0 - Stability, Modularity, Points optimization