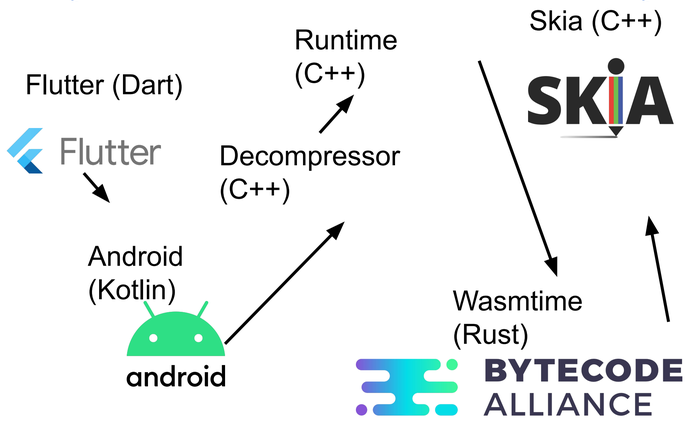
https://mni.codes https://mni.codes/mni.apk https://github.com/TheGreatRambler/mni



mni.codes

A new, small executable format using Webassembly designed for QR codes

QR code issues

- QR codes depend on internet access
- Used to solve tasks sometimes not suited to a website
- Incurs a needless round trip on mobile data
- Provide only the embedded URL and nothing more
- Haven't changed significantly since 1994

mni.codes...

- Are Executable programs based on the Webassembly standard
- Can run on many devices
- Extract to the larger Webassembly format at runtime
- Employ many compression techniques
- Are a form of bitcode
- Provide a comprehensive standard library allowing for graphical applications
- Must be less than 2953 bytes

Mni codes run on:

- Mobile, taking advantage of sensors like rotation
- Web
- Desktop

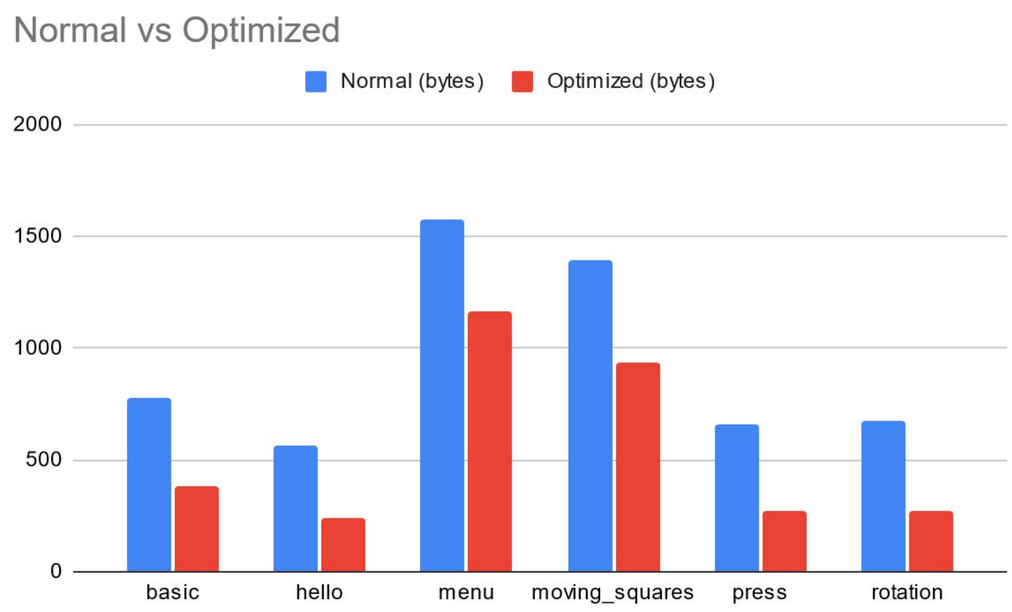
Example usage

- Restaurant menus
- Floor map
- Fun games
- Surveys
- Informational documents

Plans

- Larger standard library
- New multi-color QR codes to store more data
- Multiple QR codes linked together to form one mni code
- Encrypted mni codes
- Usage in other constrained environments like the blockchain

```
#include <mni/wasm/imports.h>

#include <stdint.h>

extern "C" {
__attribute__((used)) const char* mni_name() {
    return "mni.codes Basic";
}

constexpr int width     = 500;
constexpr int height    = 500;
constexpr int font_size = 60;

__attribute__((used)) bool mni_prepare() {
    mni_set_bounds(width, height);
    mni_set_font("Hack");
    mni_set_font_size(font_size);
    mni_set_stroke(0, 0, 0, 255);
    return true;
}

__attribute__((used)) bool mni_render(int64_t frame) {
    // Set fill for clearing the screen
    mni_set_fill(255, 255, 255, 255);
    mni_clear_screen();
    int rect_size = mni_sin(frame / 25.0) * 200 + 200;

    // Draw the box
    mni_set_line_width(10);
    mni_set_fill(0, 0, 255, 255);
    mni_draw_rect(100, height - rect_size, width - 100, height);

    // Draw text centered on top of moving box
    int text_width = mni_get_text_width("Bouncy!");
    mni_set_line_width(1);
    mni_set_fill(0, 0, 0, 255);
    mni_draw_text("Bouncy!", width / 2 - (text_width / 2), height - rect_size - font_size / 2);
    return true;
}
}
```



Hello

Rotation

Press

Moving Squares

Menu

Basic