

Making a Roguelike in 7 Days in Rust

Sydney Rust Meetup 2023-04-13

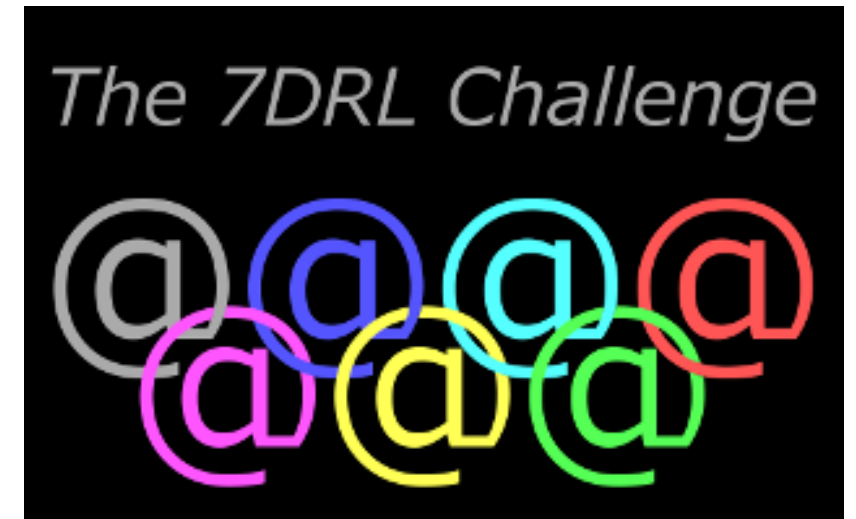
Stephen Sherratt (@gridbugs)

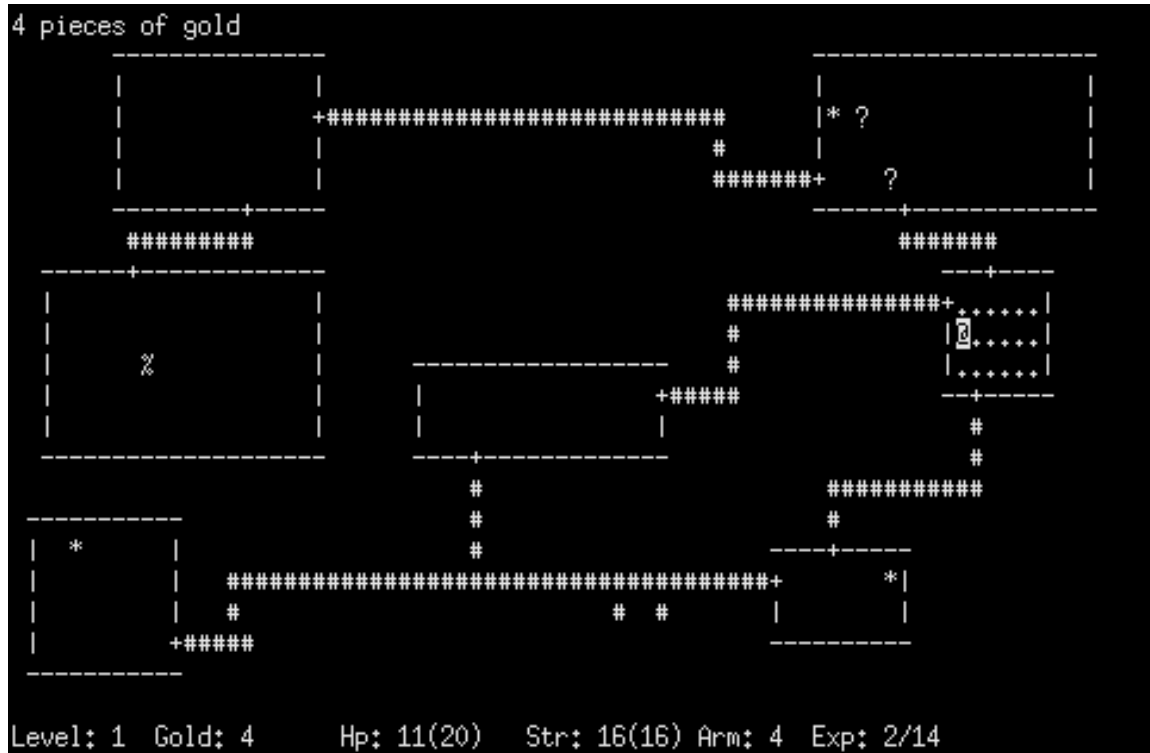
gridbugs.org

github.com/gridbugs

hachyderm.io/@gridbugs

gridbugs.itch.io

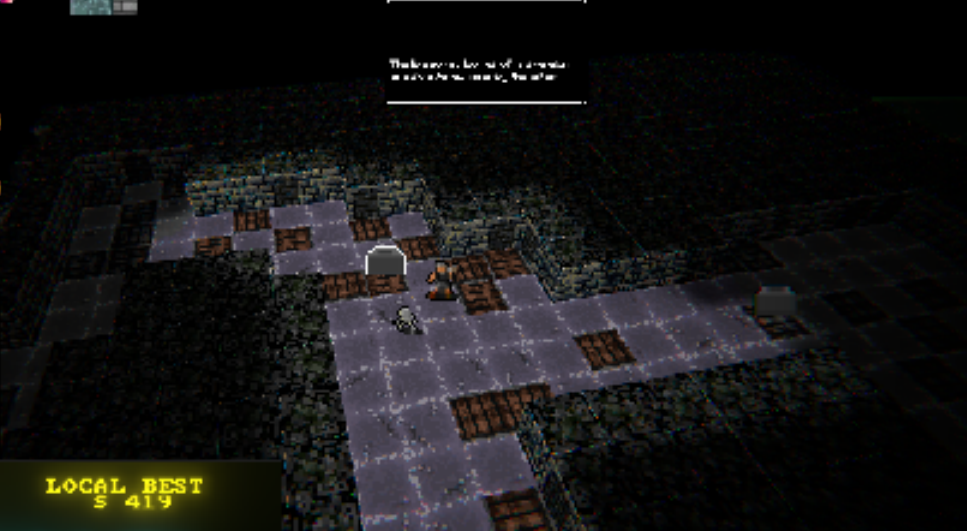
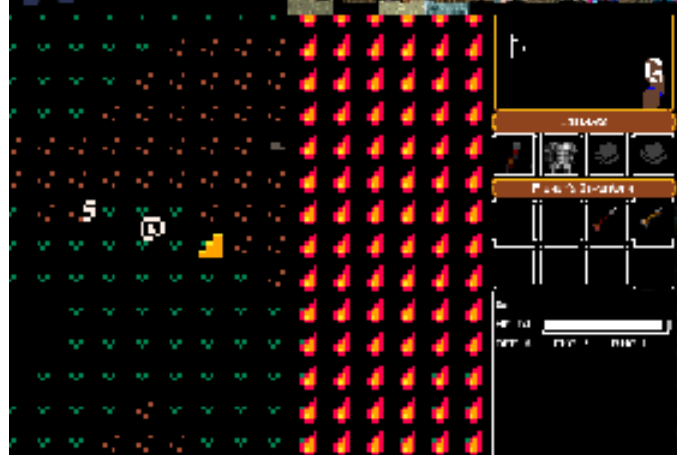




What are roguelikes?

Games resembling the 1980 computer game Rogue

- procedurally-generated levels
- turn-based gameplay
- permadeath
- grid-based world
- RPG elements
- ASCII graphics



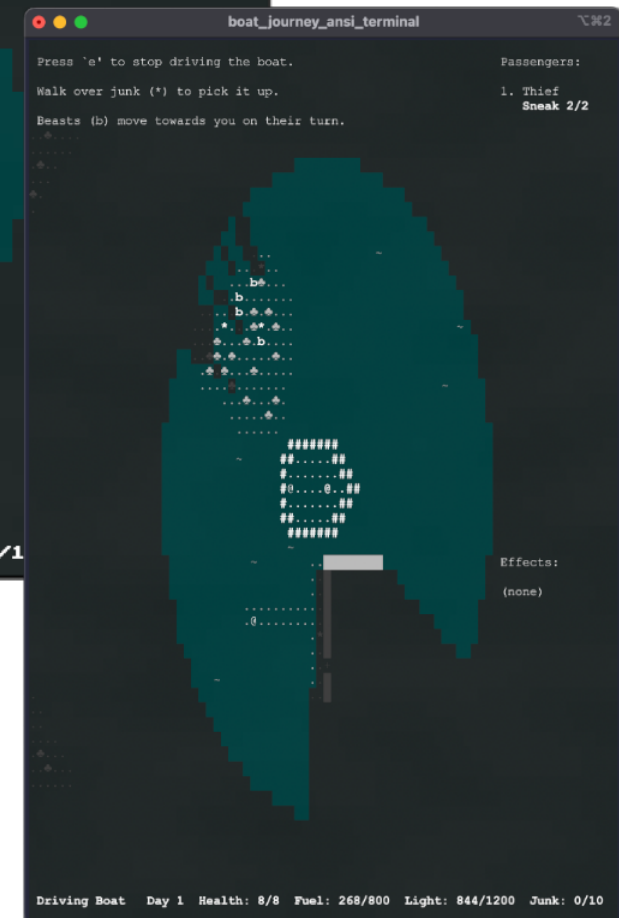
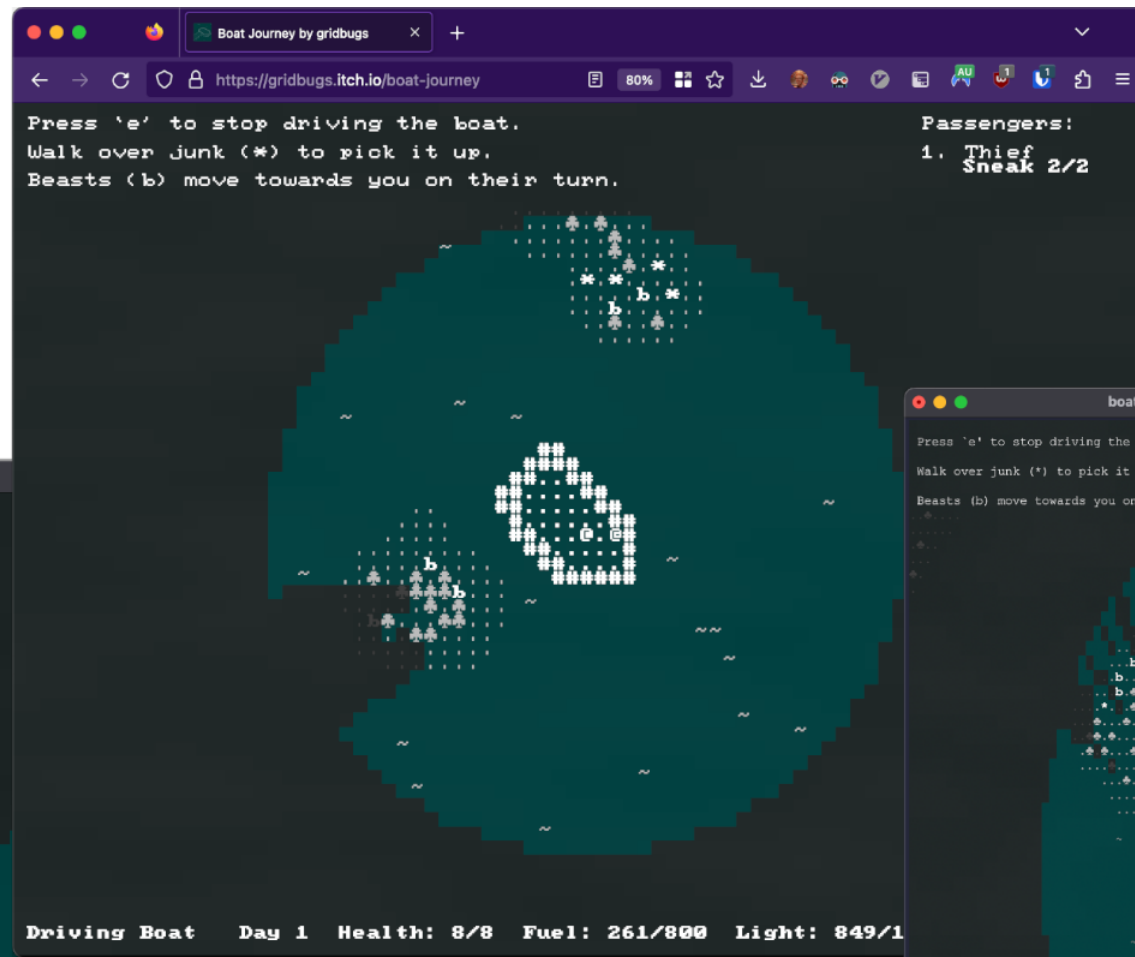


Rust for game jams?

- types save you from yourself
- library support and gamedev community
- long build times
- fast executables
- easy web assembly (wasm-bindgen and wasm-pack)

Rest of the talk

- easy cross-platform support and faster dev builds with `chargrid`
- ad hoc state machines with linear witnesses



**Graphical Executable
(WGPU)**

Terminal Executable

**Web Frontend
(WebAssembly)**

Game (library crate)

Building WGPU exe after small change

```
$ cargo build --manifest-path wgpu/Cargo.toml
  Compiling boat_journey_game v0.1.0 (/home/s/src/boat-journey/game)
  Compiling boat_journey_app v0.1.0 (/home/s/src/boat-journey/app)
  Compiling boat_journey_native v0.1.0 (/home/s/src/boat-journey/native)
  Compiling boat_journey_wgpu v0.1.0 (/home/s/src/boat-journey/wgpu)
  Finished dev [unoptimized + debuginfo] target(s) in 6.29s
```

- 6 second rebuild time is annoying when playtesting
- the WGPU exe has 255 dependencies (at time of writing)


```
$ cargo build --manifest-path sdl2/Cargo.toml
  Compiling boat_journey_game v0.1.0 (/home/s/src/boat-journey/game)
  Compiling boat_journey_app v0.1.0 (/home/s/src/boat-journey/app)
  Compiling boat_journey_native v0.1.0 (/home/s/src/boat-journey/native)
  Compiling boat_journey_sdl2 v0.1.0 (/home/s/src/boat-journey/sdl2)
  Finished dev [unoptimized + debuginfo] target(s) in 2.40s
```