Creating a Sender/Receiver HTTP Server

DIETMAR KÜHL

Objective

- Create a basic HTTP server.
- Allow a single-threaded server handling multiple clients.
- Use the sender/receiver asynchronous framework.
- Use a minimalistic sender/receiver networking interface

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Basic Design

- main() runs an event loop for network and timer events.
  - It uses an async_scope for outstanding work.
- Initial work consist of accepting incoming client connections.
- Each client processes requests until an error is received.

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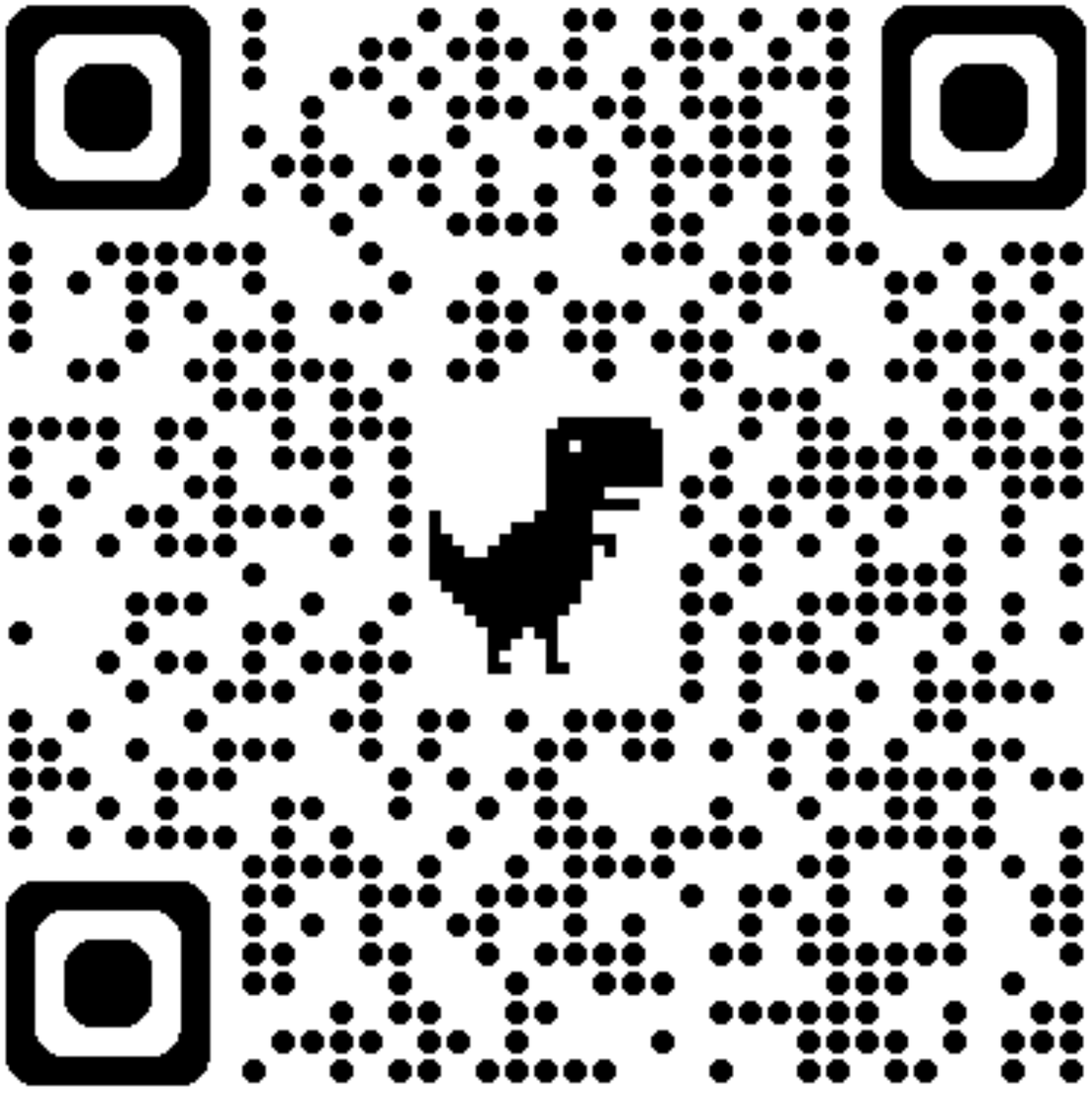
Beman Project

Implement proposals according to the spec

https://github.com/beman-project/execution26

https://github.com/beman-project/net29

(implementation is still in progress/incomplete)



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Resources

- std::execution (sender/receiver): http://wg21.link/p2300
  - https://github.com/NVIDIA/stdexec.git
  - https://github.com/beman-project/execution26
- Sender/receiver networking: http://wg21.link/p2762
  - Implementation: https://github.com/beman-project/net29
- Async scope: http://wg21.link/p3149