

**Name:** mcp-411-cswg-workshop-interfaces-in-go

**Title:** Interfaces in Go

**Status:** Draft -- anyone can edit.

See the [MCP index](#) to create or find documents, or [mcp-0-readme](#) for an overview.

*The headers above are machine-readable; please preserve format.*

---

## Text checkins

- Steve
  - o3-mini supports 100k output tokens!!!
    - Integrated into grokker this morning, testing/using today, should push tonight or tomorrow morning
  - Brand new distraction – house-hunting
  - Used shared-notes doc in a video call with flight instructor yesterday – basically ran the call the same way we do; worked great, he said it was “nice to be able to relax” and let me host. ;-)
  - Continuing to make progress on grid-poc
- Donaldo
  - Already 80 degF in Houston this week, not excited for extreme heat this summer
  - Tested a print I licensed from a creator on Thangs
    - Cutting it close to Valentines, questioning worth putting online sales
  - Maker business things, bracing tariffs as I buy materials
  - Applied to the makerspace technician role at community college, will see how it goes, ask how flexible the role is regarding time / etc.
  - Continued the Go tutorial up to interfaces for today
- Richard
  -
- JJ
  - LOTS of snow
  - Colleges and other schools canceled.
  - Packaging food.
  - Trying to update my home to make it more comfortable
  - Gaming blog. Thinking of putting ad in the local science fiction conference
  - Visited Library Maker Space in my city
- Rebecca
  - Makerspace reopening continues

## Plan lineup for following weeks

- 11 Feb: Steve: tentative: blue sky and the AT protocol

- <https://bsky.app/profile/stevegt.infrastructures.org>
  - Possibly useful article <https://anderegg.ca/2024/11/15/maybe-bluesky-has-won>
  - Increased popularity of BlueSky is raising the awareness of the importance and utility of open source decentralized protocols
  - Likely will talk about some of the things we'll be using that atproto also uses (CBOR, DIDs, etc.)
- 18 Feb: we need a Tuesday meeting for nailing down:
  - discord new member flow
  - CSWG new member experience
  - video event outreach sessions
    - probably not Tuesday, probably approx monthly
  - what to do with the existing cswg Google group
  - what to do with NoM (slack, etc.)
- 25 Feb: Steve: grid-poc progress
- 04 Mar: Rebecca/Steve: Optical encoder decoder board
  - Concepts
    - slides
  - Kicad design
    - Schematic
    - PCB
  - Rebecca: look for screenshots from solder process
  - Steve:
    - OSHpark
    - OSHstencils
    - Reflow soldering
- TBD: Donaldo: Blockchain Basics
- TBD: Richard: LMS demo
  - Backup plan: debrief Decentralize AI Roundtable presentations
- TBD: JJ: gdocstools
  - Concepts
    - slides
  - Use cases
  - Architecture
  - Code
  - demo
- Note: we also want to keep an eye on the MIT roundtable events, nothing more scheduled for events but this page has all their past events  
<https://www.media.mit.edu/projects/decentralized-ai/events/>
- Other User Stories
  - Virtual Desktops for collaboration
  - Education Platform for spaces
  - IoT for Makerspace management
    - Incentives to keep space/machines clean

- Accounting software for a small business
  - This is essentially a GAAP, reporting, shipping, inventory, time tracking and scheduling, etc. layer on top of the low-level accounting bits. (including payroll is probably harder since it involves tax codes)
- Lean implementation
- An e-commerce website
  - Product pages are promises
    - Dynamic pricing matrix; qty, 10% for expedited shipping, etc.
  - Managing server load across 'good' and 'bad' client requests
- The kv store, IPC, accounting, exchange rates, promise fulfillment chain of how the entire stack works as mentioned on 16 Jan in [https://docs.google.com/document/d/1IQHU\\_rXrMLsclxIF\\_n77Lvym3k9C\\_c-mOS5ZLB7XtM/edit?tab=t.0](https://docs.google.com/document/d/1IQHU_rXrMLsclxIF_n77Lvym3k9C_c-mOS5ZLB7XtM/edit?tab=t.0)
- What features do our primary users (makerspaces/SMB owners) need?
  - Related to Makerspace Business Models from IoP

## Interfaces in Go

- JJ: Interfaces, Embedding, and Mocking in Go
  - Code and slides are <https://github.com/ciwig/workshop-2025-01-28-go-interfaces>
    - You can render the slides by cloning and view Interfaces.html locally in your browser
    - UPDATE: Here is GitHub pages: <https://ciwig.github.io/workshop-2025-01-28-go-interfaces/Interfaces.html>
- Structures, Embedding, Interface
  - Structure used to create your own data type
  - Embedding. Go allows you embed a structure within another structure, helpful for reusing code
  - Interfaces
    - Define functions that can be used by different types
- Duck typing
  - "If it looks like a duck..."
  - Unlike Python, compiled languages require explicitly defining methods used
    - Compiled languages tend to "strongly typed" – types of variables, structs, etc. need to be defined before use in the code
    - Interpreted languages tend to be "dynamically typed" or "weakly typed" – don't need to define types of things before use. Just use them, and hope the interpreter figures it out correctly later (possibly months later) during use.
- GoImplements in Vim
- Grid-POC & Interfaces

- Interface for storing hashes is really helpful for swapping in different storage backends
- Mocking
  - 'Mocking' (ie. imitating) an external service that you're interfacing with using an API, allows you to run tests without pinging that server constantly (wasting money & time)