

Tinygo

The first step was to add placeholders for functions not implemented in the following files:

```
modified: loader/goroot.go
modified: src/net/ipsock.go
modified: src/net/net.go
modified: src/net/tcpsock.go
modified: src/os/errors.go
modified: src/os/file_unix.go
modified: src/os/file_windows.go
modified: src/reflect/type.go
modified: src/reflect/value.go
modified: src/runtime/extern.go
modified: src/runtime/symtab.go
```

And add a new package "user" for with the following content:

```
package user

func lookupUser(username string) (*User, error) {
    panic("unimplemented: User.lookupUser()")
}

type User struct {
    // Uid is the user ID.
    // On POSIX systems, this is a decimal number representing the uid.
    // On Windows, this is a security identifier (SID) in a string format.
    // On Plan 9, this is the contents of /dev/user.
    Uid string
    // Gid is the primary group ID.
    // On POSIX systems, this is a decimal number representing the gid.
    // On Windows, this is a SID in a string format.
    // On Plan 9, this is the contents of /dev/user.
    Gid string
    // Username is the login name.
    Username string
    // Name is the user's real or display name.
    // It might be blank.
    // On POSIX systems, this is the first (or only) entry in the GECOS field
    // list.
    // On Windows, this is the user's display name.
    // On Plan 9, this is the contents of /dev/user.
    Name string
    // HomeDir is the path to the user's home directory (if they have one).
    HomeDir string
}

func Current() (*User, error) {
```

```
panic("unimplemented: user.Current()")
}
```

I had to change a readonly file just to avoid having the issue of a int conversion error and the file is:

Changes in [../..../go/pkg/mod/github.com/google/tink/go@v1.6.1-0.20210519071714-58be99b3c4d0/aead/subtle/aes_gcm.go](https://github.com/google/tink/go@v1.6.1-0.20210519071714-58be99b3c4d0/aead/subtle/aes_gcm.go)

And had some issues with os/user that were bypassed by changing the following content in tinygo/loader/goroot.go

```
// The boolean indicates whether to merge the subdirs. True means merge, false
// means use the TinyGo version.
func pathsToOverride(needsSyscallPackage bool) map[string]bool {
    paths := map[string]bool{
        "": true,
        "crypto/": true,
        "crypto/rand/": false,
        "device/": false,
        "examples/": false,
        "internal/": true,
        "internal/bytealg/": false,
        "internal/reflectlite/": false,
        "internal/task/": false,
        "machine/": false,
        "net/": true,
        "os/": true,
        "os/user/": true,
        "reflect/": false,
        "runtime/": false,
        "sync/": true,
        "testing/": true,
    }
    if needsSyscallPackage {
        paths["syscall/"] = true // include syscall/js
    }
    return paths
}
```

After that make again and the final operation I am working on right now is passing the following issue:

```
../../../../../../../../go/pkg/mod/github.com/golang/glog@v0.0.0-20160126235308-23def4e6c14b/glog_file.go:118:7: Symlink not declared by package os
```

This is being called from `tinygo/loader/goroot.go`

GCCGO

Run all the following commands inside of a linux container in docker to have all the dependencies installed:

```
apt install -y software-properties-common wget git gcc-11
```

```
add-apt-repository -y ppa:ubuntu-toolchain-r/test
```

```
add-apt-repository -y ppa:ubuntu-toolchain-r/test
```

```
update-alternatives --remove-all gcc
```

```
update-alternatives --remove-all g++
```

```
update-alternatives --install /usr/bin/gcc gcc /usr/bin/gcc-11 10
```

```
update-alternatives --install /usr/bin/gccgo gccgo /usr/bin/gccgo-11 10
```

```
update-alternatives --install /usr/bin/gccgo gccgo /usr/bin/gccgo-9 20
```

```
update-alternatives --set cc /usr/bin/gcc
```

```
wget https://go.dev/dl/go1.17.6.linux-amd64.tar.gz
```

```
rm -rf /usr/local/go && tar -C /usr/local -xzf go1.17.6.linux-amd64.tar.gz
```

```
export PATH=$PATH:/usr/local/go/bin
```

The current error at the moment is:

```
/root/go/pkg/mod/github.com/hyperledger/aries-framework-go/component/storage/indexeddb@v0.0.0-20220202170435-bb5bedb39f36/indexeddb.go:19:2: package syscall/js is not in GOROOT (/usr/local/go/src/syscall/js)
```