

Getting Started With Go

Slides

Slides can be found at:

<http://nyt.ngrok.io>

The final slides, and source code, will be packaged and distributed later.

The \$GOPATH

The \$GOPATH is where all Go files *must* live.

Go 1.8

In Go 1.8, the \$GOPATH defaults to \$HOME/go if not set explicitly. All earlier versions of Go require this environment variable to be set.

ALWAYS EXPLICITLY SET THE GOPATH

Many tools, especially third party tooling, still depend on an explicit \$GOPATH being set.

Setting Up The \$GOPATH

Unix/Mac OS

In your `.bash_profile`, or equivalent file:

```
export GOPATH="/path/set/here"
```

Windows

<http://www.computerhope.com/issues/ch000549.htm>

Setting Up Your \$PATH

When Go files are installed they are placed into the `$GOPATH/bin` folder. This should be added to your `$PATH` so that these executable files are available to you.

Unix/Mac OS

In your `.bash_profile`, or equivalent file:

```
export PATH="$GOPATH/bin:$PATH"
```

Windows

<http://www.computerhope.com/issues/ch000549.htm>

Go Workspaces

Under the `$GOPATH` there are three folders:

```
.  
├── bin  
├── pkg  
└── src
```

bin

This is where compiled Go programs will be installed.

pkg

Compiled package objects. You can safely ignore this directory.

src

This is where all of your source code for Go projects *has* to live.

Common Layout

It is common to layout out your Go project in the following directory structure:

```
$GOPATH/src/github.com/username/project
```

This will make projects available with the `go get` tool. It will also help readability later.

Exercise: System Check

```
package main

import (
    "log"
    "os"
    "path/filepath"
    "strings"
)

func main() {
    gopath := os.Getenv("GOPATH")
    if gopath == "" {
        log.Fatal("Your GOPATH has not been set!")
    }

    path := os.Getenv("PATH")
    gobin := filepath.Join(gopath, "bin")
    if !strings.Contains(path, gobin) {
        log.Fatalf("Your PATH does not contain %s", gobin)
    }

    log.Println("Success!")
}
```

```
$ go run main.go
```

Further Reading: <https://golang.org/doc/code.html#Workspaces>

Exercise: Success

If you see anything other than `Success`, your `GOPATH` is not correctly set up.