MAKING A STAND-ALONE GUI APP WITH GO

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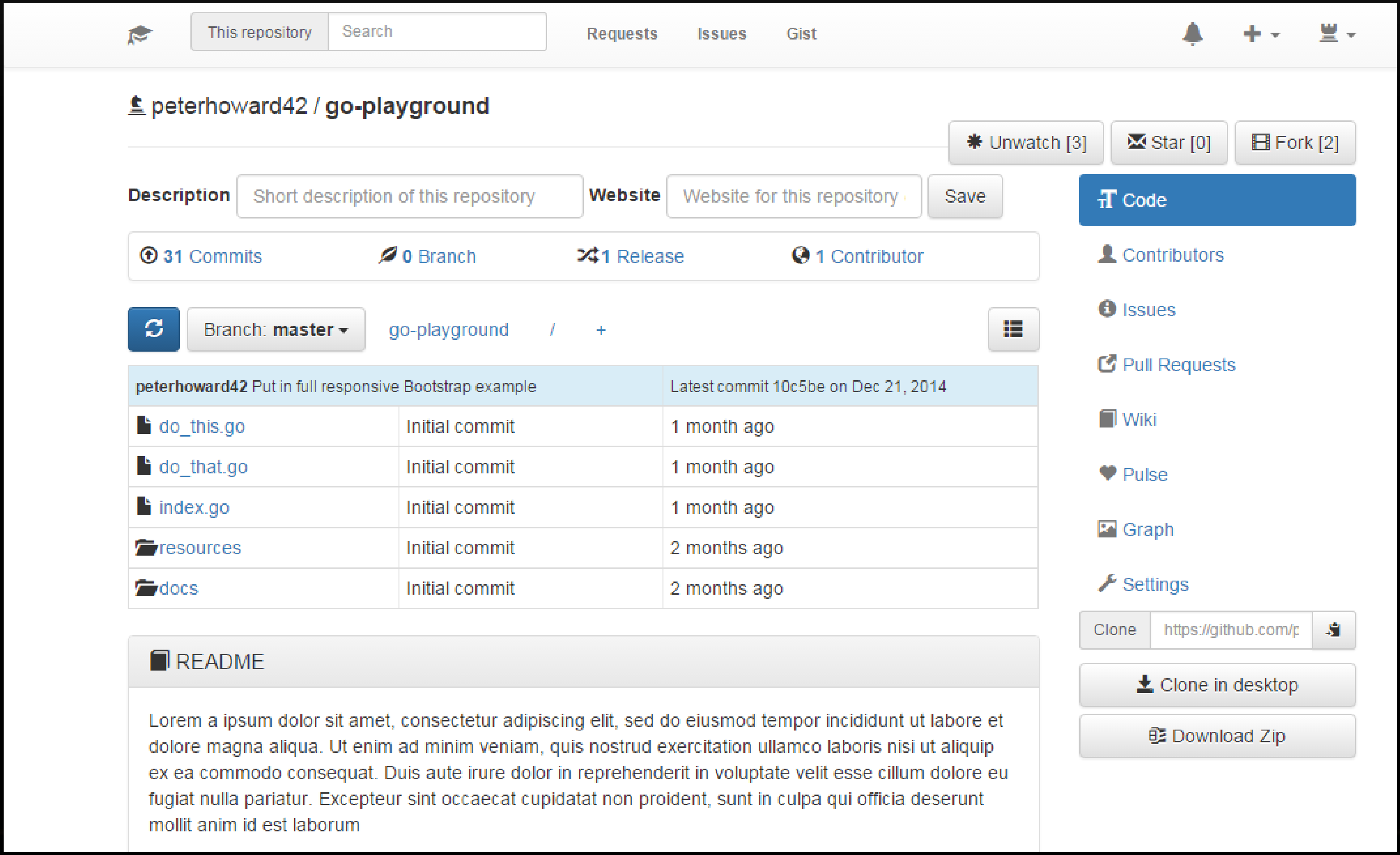
LIKE THIS GUI [1]



Description: Short description of this repository | Website: Website for this repository | Save

31 Commits | 0 Branch | 1 Release | 1 Contributor

peterhoward42 Put in full responsive Bootstrap example		Latest commit 10c5be on Dec 21, 2014
do_this.go	Initial commit	1 month ago
do_that.go	Initial commit	1 month ago
index.go	Initial commit	1 month ago
resources	Initial commit	2 months ago
docs	Initial commit	2 months ago

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1. A ROUGH COPY OF GITHUB'S GUI

WHY I LIKE GO

- Extraordinary combination of Simplicity with Power
- Inspired set of language design trade-off decisions [1, 2]

1. HTTPS://GOLANG.ORG/DOC/FAQ
2. HTTPS://TALKS.GOLANG.ORG/2012/SPLASH.ARTICLE

BUT GO DOESN'T HAVE A GUI ☹

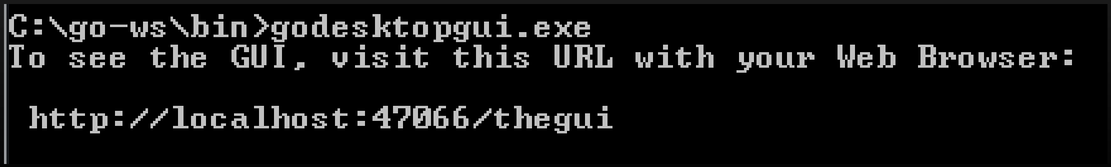
- However, HTML5 + CSS + Bootstrap[1] makes great in-browser GUIs
- And it's real simple to make a local web server in Go
- And to deploy them together as a single executable

- What follows shows you how,
  - and provides the source code
  - and shows a little of Go

1. POPULAR CSS LIBRARY

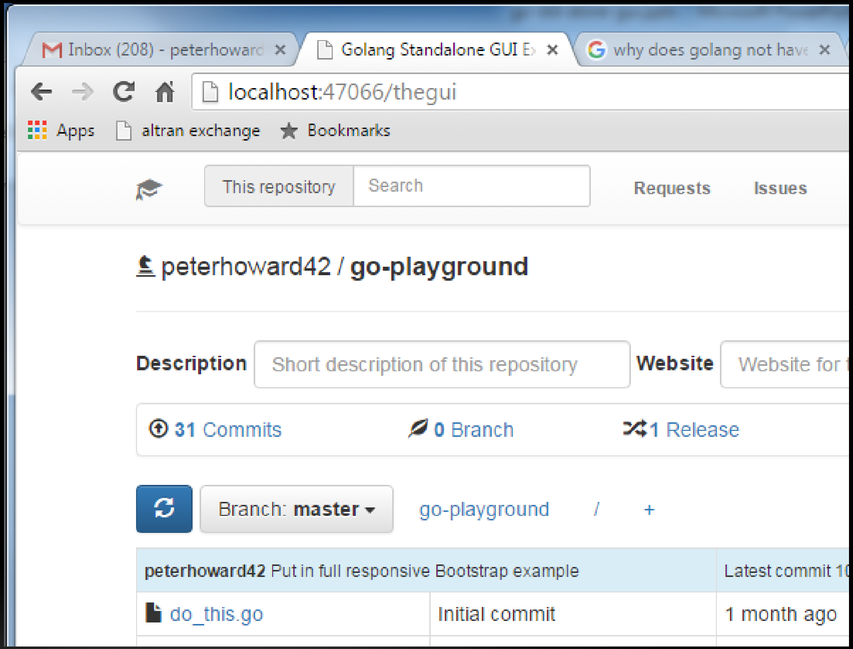
WHAT YOU SEE

Deploy and run just the single executable



```
C:\go-ws\bin>godesktopgui.exe
To see the GUI, visit this URL with your Web Browser:

 http://localhost:47066/thegui
```

And point your browser at localhost



peterhoward42 / go-playground

Description: Short description of this repository
Website: Website for

31 Commits | 0 Branch | 1 Release

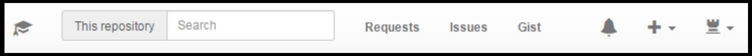
Branch: master go-playground / +

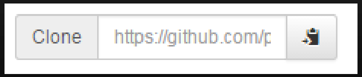
peterhoward42 Put in full responsive Bootstrap example | Latest commit 1

do_this.go | Initial commit | 1 month ago

HTML WITH BOOTSTRAP CSS

Very high-level components

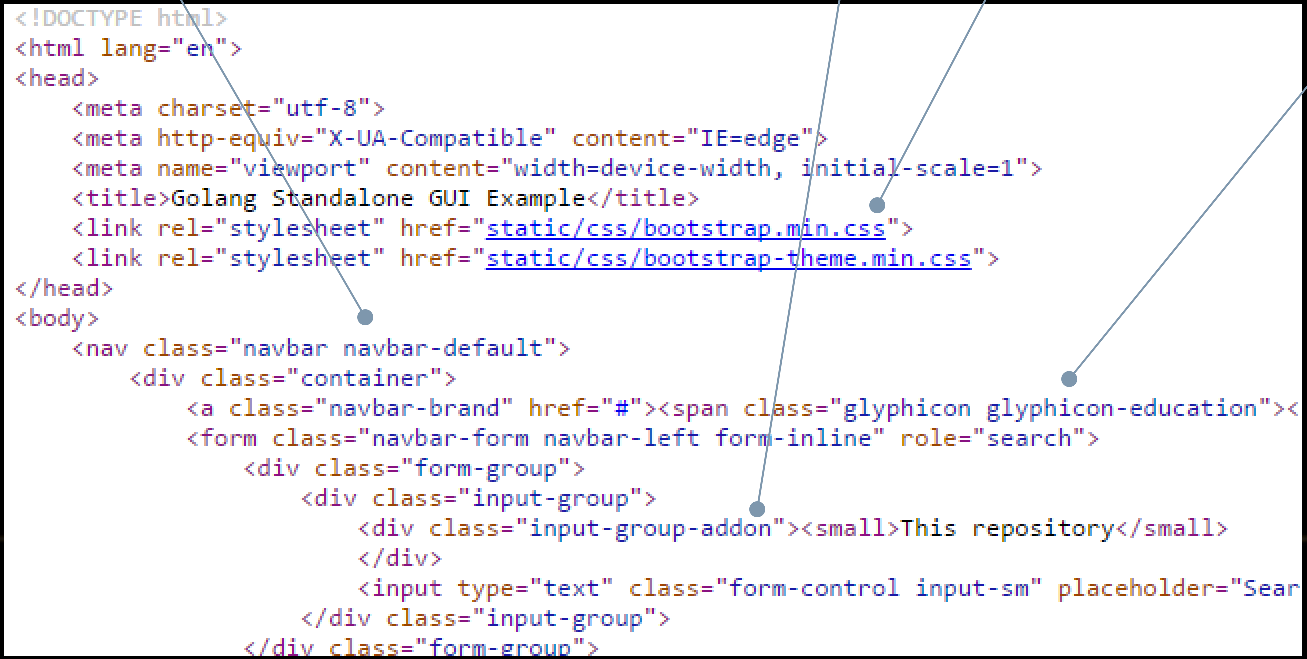




Finely-grained elements

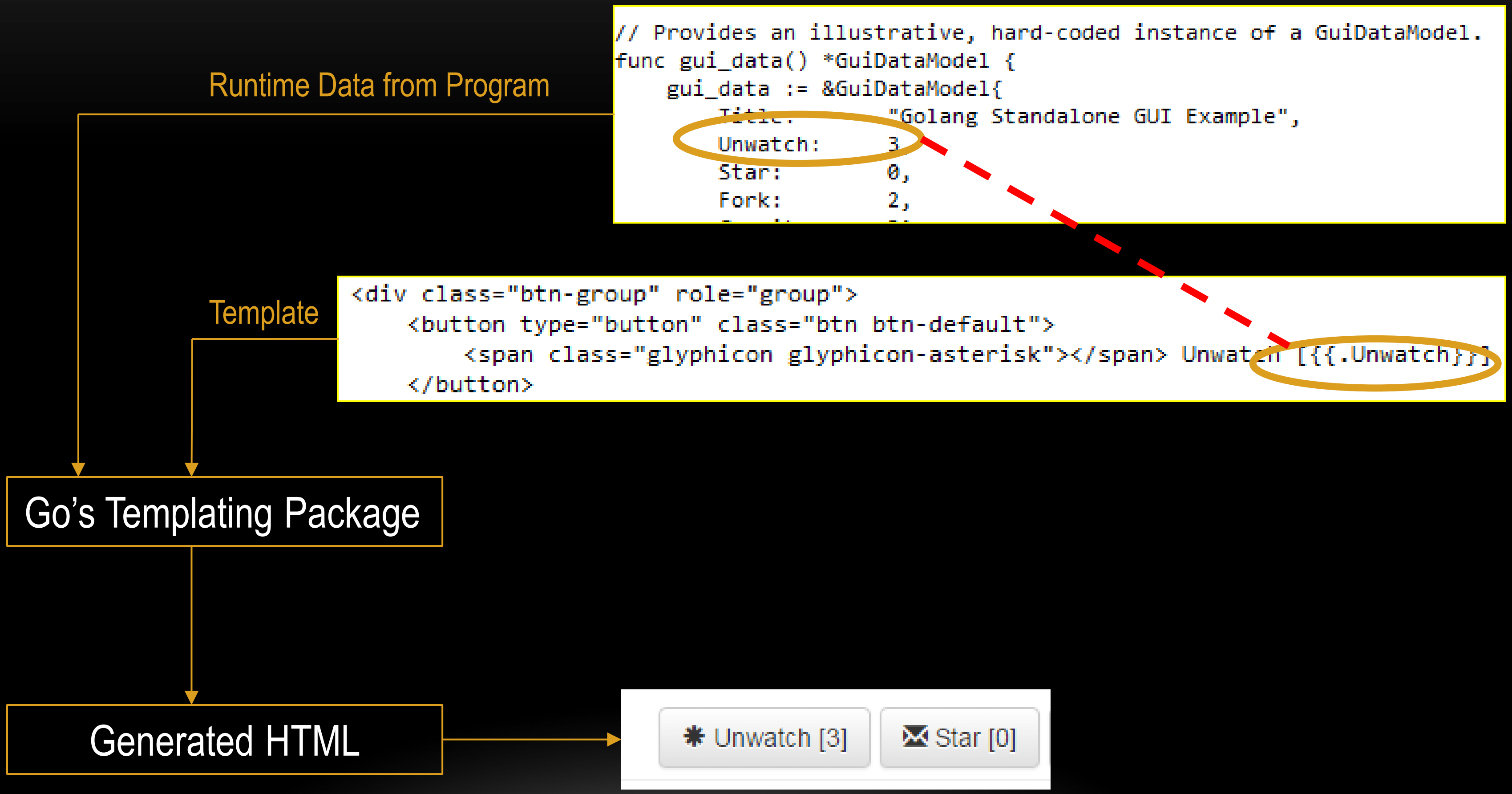
CSS library

Bundled icon graphics



```
<!DOCTYPE html>
<html lang="en">
<head>
    <meta charset="utf-8">
    <meta http-equiv="X-UA-Compatible" content="IE=edge">
    <meta name="viewport" content="width=device-width, initial-scale=1">
    <title>Golang Standalone GUI Example</title>
    <link rel="stylesheet" href="static/css/bootstrap.min.css">
    <link rel="stylesheet" href="static/css/bootstrap-theme.min.css">
</head>
<body>
    <nav class="navbar navbar-default">
        <div class="container">
            <a class="navbar-brand" href="#"><span class="glyphicon glyphicon-education"><
            <form class="navbar-form navbar-left form-inline" role="search">
                <div class="form-group">
                    <div class="input-group">
                        <div class="input-group-addon"><small>This repository</small>
                        </div>
                        <input type="text" class="form-control input-sm" placeholder="Sear
                    </div class="input-group">
                </div class="form-group">
```

GENERATING HTML FROM GO PROGRAM



```
// Provides an illustrative, hard-coded instance of a GuiDataModel.
func gui_data() *GuiDataModel {
    gui_data := &GuiDataModel{
        Title:         "Golang Standalone GUI Example",
        Unwatch:       3,
        Star:          0,
        Fork:          2,
```

```
<div class="btn-group" role="group">
    <button type="button" class="btn btn-default">
        <span class="glyphicon glyphicon-asterisk"></span> Unwatch [{{.Unwatch}}]
    </button>
```

STARTING POINT FOR A GO WEB SERVER [1]

I'm going to react to http requests on port 12345 on localhost

If the URL is /hello, then…

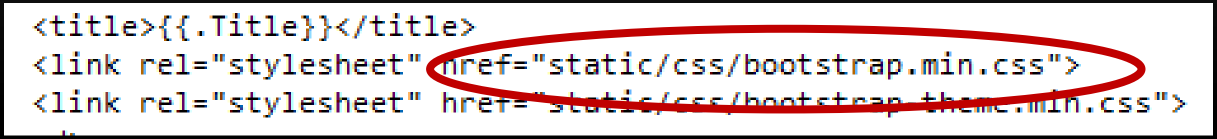
I will send back the old favourite plain text hello world string

```go
package main

import (
        "io"
        "net/http"
        "log"
)

// hello world, the web server
func HelloServer(w http.ResponseWriter, req *http.Request) {
        io.WriteString(w, "hello, world!\n")
}

func main() {
        http.HandleFunc("/hello", HelloServer)
        err := http.ListenAndServe(":12345", nil)
        if err != nil {
                log.Fatal("ListenAndServe: ", err)
        }
}
```

1. THIS IS FROM GO DOCS - AND WILL RUN AS IT STANDS

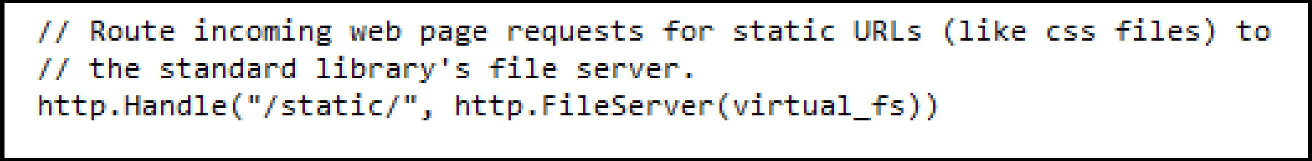
SERVING STATIC FILES

When the HTML page refers to a static link…



```
<title>{{.Title}}</title>
<link rel="stylesheet" href="static/css/bootstrap.min.css">
<link rel="stylesheet" href="static/css/bootstrap-theme.min.css">
```

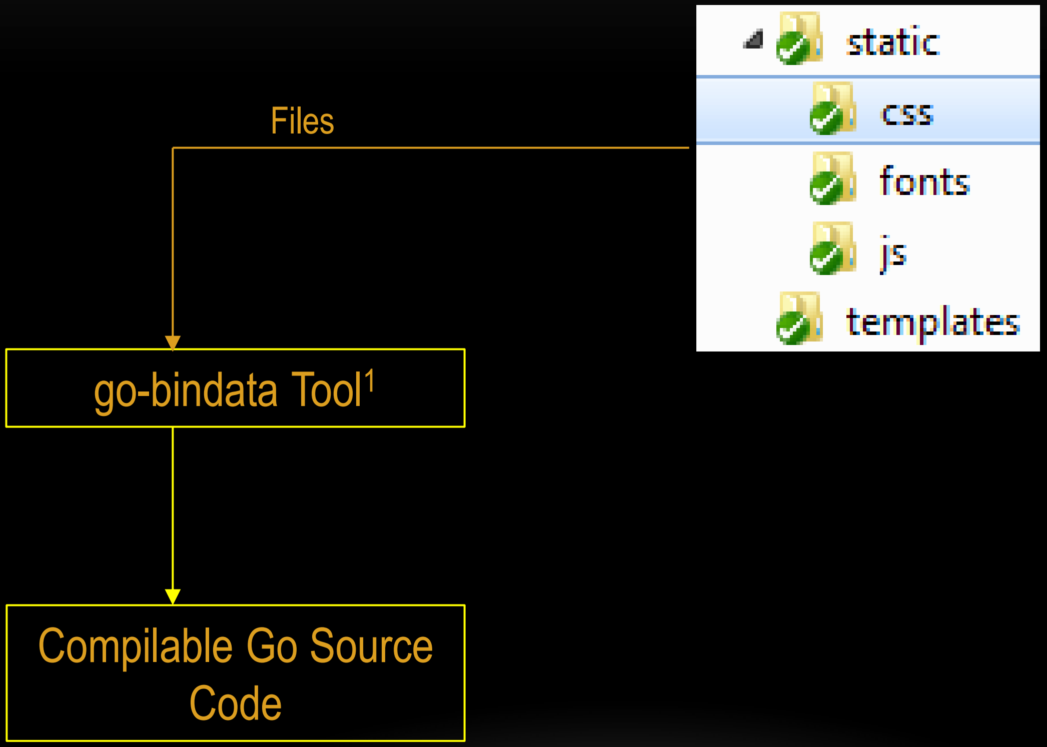
Our server handles it with Go’s http.FileServer



```
// Route incoming web page requests for static URLs (like css files) to
// the standard library's file server.
http.Handle("/static/", http.FileServer(virtual_fs))
```

BUT WE DIDN'T SHIP ANY CSS FILES?

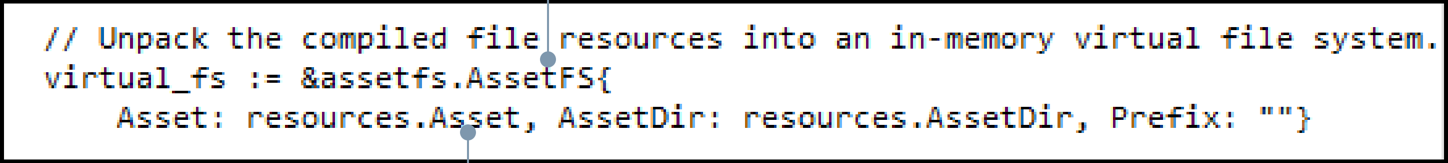
Instead, we compiled them into the app as resources



1. HTTPS://GITHUB.COM/JTEEUWEN/GO-BINDATA

AND UN-MARSHALED THEM BACK INTO A VIRTUAL FILE SYSTEM

https://github.com/elazarl/go-bindata-assetfs



```
// Unpack the compiled file resources into an in-memory virtual file system.
virtual_fs := &assetfs.AssetFS{
    Asset: resources.Asset, AssetDir: resources.AssetDir, Prefix: ""}
```

The compiled resource files

CODE AVAILABLE

Less than 200 lines of code

Get it here: https://github.com/peterhoward42/godesktopgui

(You don't need Git – there is a zip file download button)

Pre-compiled demo binary also available in repository (for Windows)

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