

## listing.go

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golist is a Go utility for producing readable Go source listings using markdown. There are two rules it uses in producing these markdown listings:

1. lines beginning with a double slash are treated as markdown text.
2. all other lines are indented with a tab; according to markdown's syntax, this should produce a code listing.

Currently, the only output formats supported are writing to standard out or a markdown file.

```
package main

import (
    "bufio"
    "flag"
    "fmt"
    "io"
    "io/ioutil"
    "os"
    "regexp"
    "time"
)

const DefaultDateFormat = "2006-01-02 15:04:05 MST"

var (
    CommentLine    = regexp.MustCompile("^\\s*/\\s*")
    DateFormat     = DefaultDateFormat
    OutputFormats  map[string]OutputWriter
)
```

An output writer takes markdown source and an output file name, and handles its output, whether writing to a file or displaying to screen.

```
type OutputWriter func(string, string) error

func init() {
    OutputFormats = make(map[string]OutputWriter, 0)
    OutputFormats["-"] = ScreenWriter
    OutputFormats["html"] = HtmlWriter
}
```

```

    OutputFormats["md"] = MarkdownWriter
    OutputFormats["pdf"] = PdfWriter
}

```

SourceToMarkdown takes a file and returns a string containing the source converted to markdown.

```

func SourceToMarkdown(filename string) (markdown string, err error) {
    file, err := os.Open(filename)
    if err != nil {
        return
    }
    defer file.Close()
    buf := bufio.NewReader(file)

    var (
        line      string
        longLine   bool
        lineBytes []byte
        isPrefix   bool
        comment    bool
    )

    markdown += "## " + filename + "\n"
    printDate := time.Now().Format(DateFormat)
    markdown += "### " + printDate + "\n\n"

    for {
        err = nil
        lineBytes, isPrefix, err = buf.ReadLine()
        if io.EOF == err {
            err = nil
            break
        } else if err != nil {
            break
        } else if isPrefix {
            line += string(lineBytes)

            longLine = true
            continue
        } else if longLine {
            line += string(lineBytes)
            longLine = false
        } else {
            line = string(lineBytes)

```

```

    }

    if CommentLine.MatchString(line) {
        if !comment {
            markdown += "\n"
        }
        markdown += CommentLine.ReplaceAllString(line, "")
        comment = true
    } else {

```

The comment flag is used to trigger a newline before a codeblock; in some markdown implementations, not doing this will cause the code block to not be displayed properly.

```

        if comment {
            markdown += " \n"
            comment = false
        }
        markdown += "\t"
        markdown += line
    }
    markdown += "\n"
}
return
}

func main() {
    fDateFormat := flag.String("t", DefaultDateFormat,
        "specify a format for the listing date")
    fOutputFormat := flag.String("o", "-", "output format")
    flag.Parse()

    DateFormat = *fDateFormat
    outHandler, ok := OutputFormats[*fOutputFormat]
    if !ok {
        fmt.Printf("[!] %s is not a supported output format.\n",
            *fOutputFormat)
        fmt.Println("Supported formats:")
        fmt.Println("\t-      write markdown to standard output")
        fmt.Println("\thtml   produce an HTML listing")
        fmt.Println("\tmd     write markdown to file")
        os.Exit(1)
    }

    for _, sourceFile := range flag.Args() {

```

```

md, err := SourceToMarkdown(sourceFile)
if err != nil {
    fmt.Fprintf(os.Stderr,
        "[!] couldn't convert %s to markdown: %s\n",
        sourceFile, err.Error())
    continue
}
if err := outHandler(md, sourceFile); err != nil {
    fmt.Fprintf(os.Stderr,
        "[!] couldn't convert %s to markdown: %s\n",
        sourceFile, err.Error())
}
}
}

```

ScreenWriter prints the markdown to standard output.

```

func ScreenWriter(markdown string, filename string) (err error) {
    _, err = fmt.Println(markdown)
    return
}

```

MarkdownWriter writes the markdown listing to a file.

```

func MarkdownWriter(markdown string, filename string) (err error) {
    err = ioutil.WriteFile(filename+".md", []byte(markdown), 0644)
    return
}

```