

Cross Compiling Go Apps

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Bio

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GoWestConf



What is Cross Compilation?

Compiling a go binary for a different OS than you are currently running on

3 Methods

1. Go compiler
2. Docker builds
3. Zig compiler

Go Compiler

```
$ GOOS=windows GOARCH=amd64 go build main.go
```

Go Compiler

```
$ GOOS=js GOARCH=wasm go build main.go
```

Docker Builds

```
FROM golang:1.18-alpine
```

```
RUN apk update
```

```
RUN apk add git
```

```
WORKDIR /app
```

```
COPY go.* ./
```

```
RUN go mod download
```

```
COPY . ./
```

```
RUN go build -v -o main.go
```

```
CMD ["/app/main"]
```


Zig Compiler

For when your hardware doesn't quite align

```
$ CGO_ENABLED=1 GOOS=linux GOARCH=amd64  
CC="zig cc -target x86_64-linux"  
CXX="zig c++ -target x86_64-linux"  
go build --tags extended
```

[Compilation Just Works](#)

Take away

Dev environment does not limit where you deploy your apps.

Thanks

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