# An Introduction To Programming In Go

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#### Abstract

Describing the basics of the Go programming language. This document is more like a resume, a quick reference to everyone that has programmed for some time and wants to introduce fastly to this language, without reading many links to the docs or a book. Some of the information/examples is directly copied from the book [1].

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### 1 Introduction

Why Go?

### 2 Basic Types

#### 2.1 Numbers

- Integer
  - uint 8  $\rightarrow$  same as byte
  - uint32
  - uint64
  - int8
  - int16
  - $int32 \rightarrow same as rune$
  - $-\inf 64$

Machine dependent  $\rightarrow$  their size is dependent on the type of architecture of the machine -> uint, int, uintptr

Go allows to increment/decrement by a unit using the operator ++/-. The language also enables to increment/decrement using the operator +=/-=.

- $\bullet$  Float
  - float32  $\rightarrow$  single precision
  - float64  $\rightarrow$  double precision
- $\bullet$  Complex
  - complex64
  - complex128

#### 2.2 Strings

Some operations:

- Length  $\rightarrow$  len("Hello world")
- Char. accessing -> "Hello World"[1]  $\rightarrow$  returns 101 instead of e as a character is represented as a byte.
- Concatenation 
  "Hello " + " world!"

### 2.3 Booleans

1 bit integer representing true or false.

 ${\bf Operations:}$ 

- &&
- ||
- !

## 3 Other Types

# References

[1] C. Doxsey. An Introduction to Programming in Go:. CreateSpace Independent Publishing Platform, 2012.