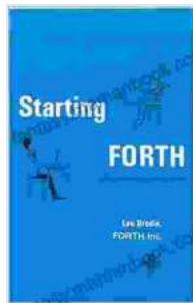


# Starting Forth



## Starting Forth by Juergen Pintaske

★★★★☆ 4.8 out of 5

Language	: English
File size	: 5236 KB
Text-to-Speech	: Enabled
Screen Reader	: Supported
Enhanced typesetting	: Enabled
Word Wise	: Enabled
Print length	: 288 pages
Lending	: Enabled



## An to the Forth Programming Language and Development Environment for Beginners

Forth is a stack-based, interpreted programming language that has been used for a wide variety of applications, from embedded systems to desktop applications. It is known for its simplicity, efficiency, and extensibility.

This article will provide an to the Forth programming language and development environment. We will cover the basics of the language, including data types, operators, and control flow. We will also show you how to set up a development environment and write your first Forth program.

### Setting Up a Development Environment

The first step to learning Forth is to set up a development environment. There are several different Forth implementations available, but we will be

using the **Gforth** implementation in this tutorial.

To install Gforth, visit the Gforth website and download the latest version for your operating system. Once you have installed Gforth, you can open a terminal window and type the following command to start the Forth interpreter:

```
gforth
```

This will start the Forth interpreter and display a prompt. You can now enter Forth code at the prompt and press **Enter** to execute it.

## Hello, World!

The traditional first program in any programming language is the "Hello, world!" program. Here is how to write "Hello, world!" in Forth:

```
. ." Hello, world!\n" cr
```

This program uses the `.` (dot) operator to print a string to the console, and the `cr` (carriage return) operator to move the cursor to the beginning of the next line.

## Data Types and Operators

Forth has a simple data model. The basic data types are:

- **Integer:** A 32-bit signed integer.
- **Character:** An 8-bit character.

- **String**: A sequence of characters.
- **Array**: A collection of elements of the same type.

Forth also has a variety of operators that can be used to manipulate data.

The most common operators are:

- **+**: Adds two numbers.
- **-**: Subtracts two numbers.
- **\***: Multiplies two numbers.
- **/**: Divides two numbers.
- **=**: Compares two numbers for equality.
- **!=**: Compares two numbers for inequality.
- **>**: Compares two numbers for greater than.
- **<**: **Compares two numbers for less than.**
- **>=**: Compares two numbers for greater than or equal to.
- **<=**: **Compares two numbers for less than or equal to.**

## Control Flow

Forth has a variety of control flow statements that can be used to control the flow of execution. The most common control flow statements are:

- **if**: Executes a block of code if a condition is true.
- **else**: Executes a block of code if a condition is false.
- **while**: Executes a block of code while a condition is true.

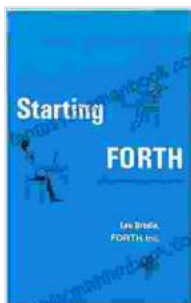
- **repeat**: Executes a block of code a specified number of times.
- **until**: Executes a block of code until a condition is true.
- **for**: Executes a block of code for each element in a collection.

This article has provided a brief to the Forth programming language and development environment. We have covered the basics of the language, including data types, operators, and control flow. We have also shown you how to set up a development environment and write your first Forth program.

To learn more about Forth, I encourage you to consult the following resources:

- [The Forth Language Page](#)
- [The Gforth Website](#)
- [The Gforth GitHub Repository](#)

I hope this article has been helpful. Happy coding!



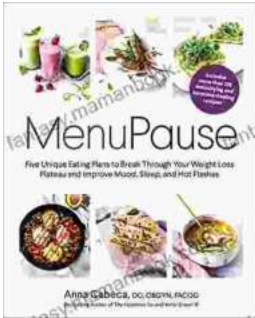
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