

A Shell in (G)Forth

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Overview

Overview

- ▶ Introduction
- ▶ Features
- ▶ Basic Operation
- ▶ Code
- ▶ Live Demo

Introduction

Introduction

- ▶ few features
- ▶ leverage existing programs
- ▶ simple prompt
 - ▶ fixed size
 - ▶ shows last return code

Features

Features

- ▶ builtin *exit*
- ▶ programs in PATH (e.g. *ls*)
- ▶ pipes (|)
- ▶ && and ||
- ▶ braces supported

Features

- ▶ execution done in background (`&`, *fork*)
- ▶ basic variable support
- ▶ readline support

Basic Operation

Basic Operation

- ▶ display prompt
- ▶ read line
- ▶ split on spaces (tokenize)
- ▶ parse and build AST
- ▶ execute AST and retrieve return value
- ▶ rinse and repeat

Code

Live Demo