

A decorative graphic on the left side of the slide. It consists of a blue parallelogram and a light green parallelogram, both tilted at an angle. The blue shape is in the foreground, and the green shape is partially behind it. They are set against a dark blue background with subtle diagonal lines.

Releases: Part 1

The Basics



Setup

```
$ git clone git@github.com:piisalie/simple_api.git
```

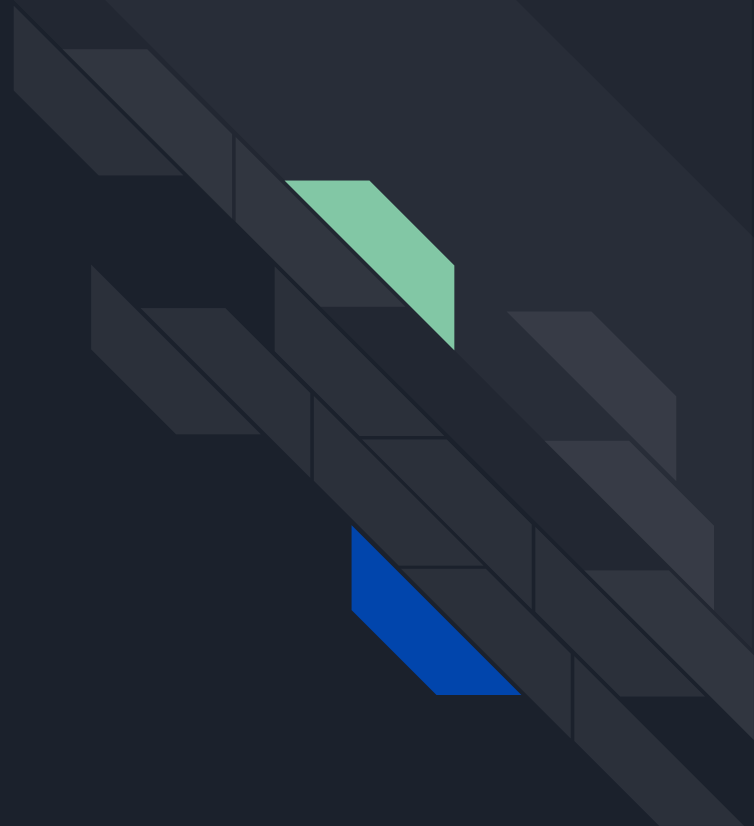
```
$ cd simple_api
```

```
$ ./setup 0.1.0
```

```
$ cd playground
```

Where are we going?

1. The Basics [you are here]
 - A. Overview of Releases / Erlang execution
 - B. Explore the unpackaged release
 - C. Checkout the documentation / hints
 - D. Run some code
2. The Application
3. The Environment
4. Distillery



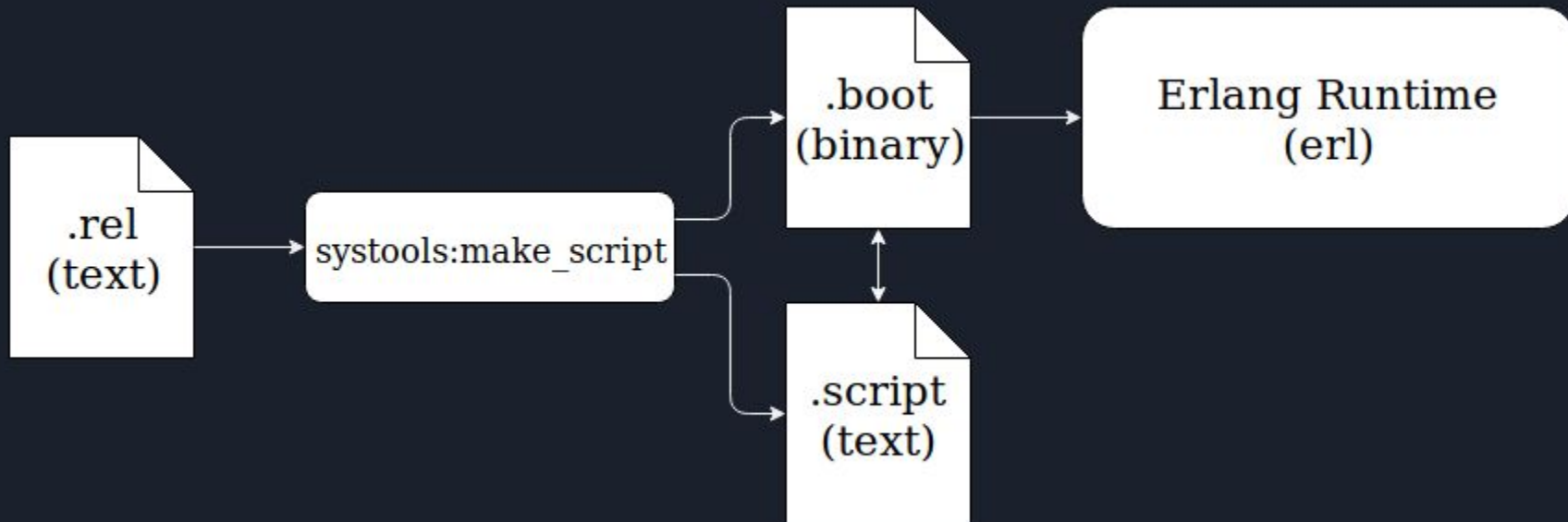
What is a release?






Good news, it's not magic!

It's (mostly) human readable text files!

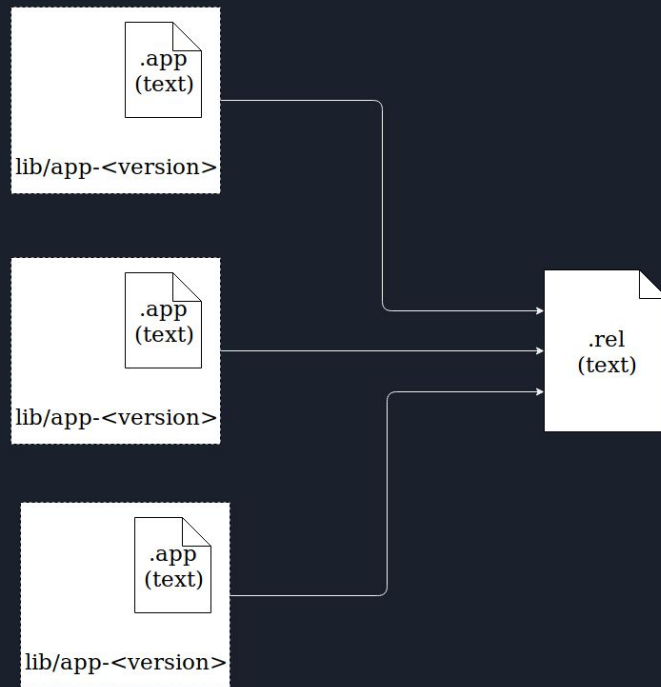




It's just a specifically organized package.

The ERTS way: all hail \$ROOT/lib

- /bin - some scripts/executables and start_clean.boot
- /erts-*. * - The Erlang runtime system
- /lib - App files and dependencies
- /releases - Important application bits





The bin/ directory

```
bin/  
├─ nodetool  
├─ release_utils.escript  
├─ simple_api  
├─ simple_api.bat  
├─ simple_api_loader.sh  
└─ start_clean.boot
```



The ERTS directory

erts-9.0/

```
|— bin
|   |— beam.smp
|   |— ct_run
|   |— dialyzer
|   |— dyn_erl
|   |— epmd
|   |— erl
|   |— erlc
|   |— erl_child_setup
|   |— erlexec
|   |— erl.src
|   |— escript
|   |— heart
|   |— inet_gethost
|   |— nodetool
|   |— run_erl
|   |— start
|   |— start_erl.src
|   |— start.src
|   |— to_erl
|   |— typer
```



The lib/ directory

lib

- |— asn1-5.0
- |— compiler-7.1
- |— cowboy-1.0.4
- |— cowlib-1.0.2
- |— crypto-4.0
- |— **elixir-1.5.2**
- |— iex-1.5.2
- |— kernel-5.3
- |— logger-1.5.2
- |— mime-1.2.0
- |— plug-1.4.3
- |— poison-3.1.0
- |— public_key-1.4.1
- |— ranch-1.4.0
- |— runtime_tools-1.12
- |— sasl-3.0.4
- |— **simple_api-0.1.0**
- |— ssl-8.2
- |— stdlib-3.4

lib/simple_api-0.1.0/

- |— consolidated
- |— ebin
 - |— Elixir.SimpleApi.Application.beam
 - |— Elixir.SimpleApi.beam
 - |— Elixir.SimpleApi.Counter.beam
 - |— Elixir.SimpleApi.Endpoint.beam
 - |— **simple_api.app**
- |— priv
 - |— **hello.erl**



The releases/ directory

releases/0.1.0

- |— commands
- |— hooks
- |— libexec
- |— simple_api.bat
- |— simple_api.boot
- |— simple_api.rel
- |— simple_api.script
- |— simple_api.sh
- |— start.boot
- |— start_clean.boot
- |— sys.config
- |— vm.args



Helpful erl flags

- `-noshell` (don't start the erlang prompt)
- `-pa` (path add)
- `-boot` (specify a boot file; ****without**** the `.boot` suffix)
- `-compile` (compile `.erl` to `.beam`)
- `-s` (tell the runtime which module and function to run, eg: ``-s hello hello_world``)
- `-extra` (pass additional arguments that are ****not**** interpreted by `init`, but are stored to be used later)



Objectives:

Using only the tools found in the release package:

- Compile and Execute an Erlang script (included: `./lib/simple_api-0.1.0/priv/hello_world.erl`)
- Run some Elixir code on the command line
- Start the API by hand (not using the the `/bin` scripts)