

Reproducible Dev & Test Environments With Fugue

Fugue is a system for programming and automating your full cloud infrastructure service stack at scale to unlock the promises of the cloud.

Why Reproducible Dev & Test Environments Matter

Whether it's a new developer joining your team, or a fresh slate for a new sprint, you'll often want to have fresh "blank slate" developer environments. Time spent building these is undifferentiated heavy lifting, which you'll naturally want to minimize. Fugue will help you do this.

Why it's hard today

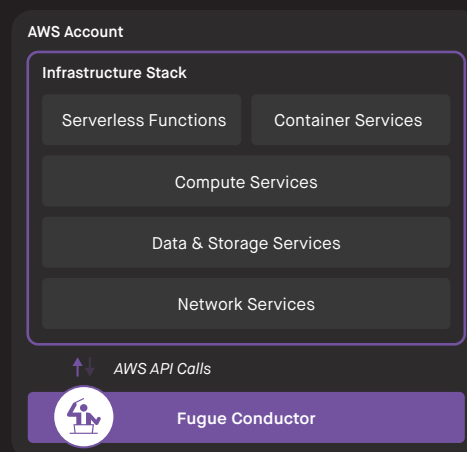
There are lots of ways to solve parts of the problem today, but they usually involve unpleasant tradeoffs.

What is quick usually ends up dirty. Shell scripts or build tool manifests can quickly deploy development environments. However, it's hard to know that developers are using acceptable components or stacks if there's not any real control of

development environments, leading to faulty assumptions about what will work in production and wasted time.

Conversely, well-controlled provisioning for developers tends to be slow, and sometimes not automated at all. In organizations where control and safety are more important than speed, this is a sensible trade-off to make.

But with Fugue, that tradeoff isn't necessary anymore.



Fugue

Interested in learning more?
Contact us at hello@fugue.co or visit
www.fugue.co/free to download Fugue.

Radically Simplify Cloud Operations

Functional Composition Makes Patterns Repeatable

Ludwig is a minimalist language that brings static typing and functions to configurations in the cloud. Functions can be composed of other functions, allowing you to create libraries of desirable configuration patterns, reusing them and varying them in controlled ways. This way, you can launch new, personalized environments with a single composition.

Application Definition

```
fun application {  
  network: Network,  
  storage: Storage,  
  compute: Compute,  
} -> Application:
```

Component Definitions

```
fun newVPC {  
  region: Region,  
  cidr: String,  
  subnets: List<Subnet>  
} -> Network:
```

```
fun newDDB {  
  throughput: (Int, Int),  
  scheme: DDBScheme  
} -> Storage:
```

```
fun newEC2 {  
  image: String,  
  size: InstanceType  
} -> Compute:
```

Environment Variables

```
$> env  
DEV_NAME=GHopper  
DEV_REG=Us-east-2
```

Validations and Enforcement Give Peace of Mind

Built around a Hindley-Milner type system, Ludwig performs strong validation at compile time. In addition to catching API errors before they happen, you can also constrain acceptable configurations with your own definitions, such as limiting instance launches to certain types. Also, the Conductor supports custom internal validations that are checked at runtime.

Additionally, the Conductor continually enforces real-world configuration to ensure that it matches the declared configuration in your validated compositions. Key configuration items in your development environments can be tightly controlled, while developer creativity can run unconstrained.

Positive Control From a Real Runtime

Each running process (a live instantiation of a composition) can be independently managed and monitored. Easily list and filter running processes, and check history or detailed status information for each. No more forgotten infrastructure running the meter.

About Fugue

Fugue is available now. You can build, enforce, and terminate your cloud workloads at scale, continuously and automatically with it. Our engineers and representatives will work with you to implement Fugue patterns that make spin up and tear down of dev and test environments truly quick and painless.