

Opic Language

Opic Community · 2024

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Opic is a self-hosting language for distributed computation.

Features

- **Self-hosting:** Opic defines itself in .ops files
- **Cryptographic trust:** Each voice is signed with a certificate
- **Field equations:** Programs evolve under field dynamics
- **Compositional:** Voices compose naturally into chains

Architecture

Opic's architecture naturally expresses the duality at the heart of analytic number theory:

- **Left Flank — Category (Discrete):** voices compose into a spectrum of prime morphisms
- **Right Flank — Field (Continuous):** coherence evolves under field equations
- **Bridge — Certificate Operator:** a unitary transformation equating the two halves

Example

Here's a simple opic voice:

```
voice greet / {name -> "Hello " + name -> greeting}  
voice main / {greet "world" -> greet}
```

This demonstrates opic's compositional elegance: voices transform inputs to outputs, and compose naturally.