Lua on Steroids
What is Lua all about?
http://www.lua.org/about.html

“Lua is a powerful, fast, lightweight, embeddable scripting language.”
Rationale

Extending C/C++ applications with a configuration / scripting engine
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Extending C/C++ applications with a configuration / scripting engine

- Based on a virtual machine
- Can load source code / read char streams
- And compile it into portable bytecode
Rationale

Extending C/C++ applications with a configuration / scripting engine

- Tiny core (150kB)
- Pure ANSI C
- Simple C API
Rationale

Extending C/C++ applications with a configuration / scripting engine

- DSL building kit
- Provides only basic features
- And a powerful runtime
A language gaining momentum

- **Video games**
  - World of Warcraft
  - Havoc physics engine
  - AI scripting

- **Mobile**
  - Corona SDK
  - Moai
  - LÖVE

- **App scripting**
  - Adobe Lightroom
  - Redis (key-value store)

- **Embedded**
  - Brew MP (Qualcomm)
  - eLua (Petrobras)
  - AAF (Sierra Wireless)
What is missing
Rationale

A tool that follows Lua’s philosophy

Providing lots of modern features while remaining easily embeddable in larger systems.
However...

**Lua strengths**
- Dynamic
- Embeddable

are **double-edged swords**

that make tooling support **tedious**.
Editor vs. Dynamic code
Debugger vs. Embedded application
LDT

for m2m development
m2m.eclipse.org  MQTT broker

Wireless gateway  Mobile phone

Wireless (Zigbee) sensors
Two Lua applications

- **Embedded**
  - Aleos Application Framework
  - Collects Zigbee data on device’s serial port
  - Publishes MQTT messages

- **Mobile**
  - Corona SDK
  - Subscribes to MQTT messages
  - Displays sensor data with a fancy UI
What’s Next
LDT Roadmap

- LDT 0.8 will be in Juno
- Content-assist (pending CQ)
  - Beta product here: [http://goo.gl/NZgCc](http://goo.gl/NZgCc)
- Execution environments

Next...
- Launch configurations (w/ embedded interpreter)
- Pre-bundled execution environments
Big thanks to

**Eclipse**

**Lua**
Useful links

Lua

- Main site http://lua.org
- Kepler project http://www.keplerproject.org/

LDT

- Koneki http://www.eclipse.org/koneki/
- Installation http://download.eclipse.org/koneki/updates
- Wiki http://wiki.eclipse.org/Koneki
- Forum http://www.eclipse.org/forums/eclipse.koneki
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