JerryScript 6LoWPAN Demo
Tilmann Scheller & Stefan Schmidt

What is demonstrated

- Classic games written in JavaScript
- Your JavaScript IoT Application
- Your Embedded OS
- Your Hardware

Hardware Information

- **Particle Photon**
  - 120 MHz ARM Cortex-M3, 128 KB RAM, 1 MB Flash, AT86RF233

- **Raspberry Pi 2**
  - 900 MHz ARM Cortex-A7, 1 GB RAM, MRF24J40MA

What was improved

- **JerryScript** - Brings JavaScript to low-end microcontrollers!
  - Minimum requirements: 32KB of RAM (base footprint ~3-4KB of RAM)
  - 200KB of Flash (160KB binary size on ARM Thumb-2 devices)
  - Heavily optimized for low memory consumption
  - Implements the full ECMAScript 5.1 standard
  - Extremely portable
  - Mature C API, easy to embed in applications
  - Liberal license: Apache License 2.0
  - OS Support: NuttX, RIOT, Zephyr and mbed OS
  - Supported boards: Photon, STM32F4, Arduino 101, FRDM-K64F

- **6LoWPAN** - Low-power wireless connectivity!
  - Adaptation layer for various low-power wireless link layers (encapsulation, fragmentation and compression)
  - Known IPv6 end-to-end semantics from sensor to cloud
  - Supported by Linux mainline
  - Drivers for various transceivers: at86rf2xx, mrf24j40, cc2520, atusb and adf7242

Source code or detail technical information availability

- [www.jerryscript.net / wpan.cakelab.org](http://www.jerryscript.net / wpan.cakelab.org)
- [github.com/Samsung/jerryscript](https://github.com/Samsung/jerryscript)