Samsung @ ECMA-TC39 meeting

2014.04.08
Wearables devices

Products from Samsung, Pebble, Google, Qualcomm, Nike and Fitbit
JS in embedded controllers

TESSEL

32 MB RAM

Espruino

48 KB RAM
Why?

• **We are interested in small footprint JavaScript engine**
  – For wearables and WoT (web of things) devices
    • E.g. smartwatches, fitness-oriented wearables, and others
    • compliant with ECMA-262 full specification?
    • compliant with only *subset profile* of ECMA-262?
  – Possibly created as an open-source project
    • reference engine implementation
    • applications using this engine

• **We are here to ask your opinion about our approach**
  – *a (multi-level) subset profile* of ECMAScript,
    • *Multi-level*: to cater to devices of various memory footprints (100kb ... 512 Mb)
    • is it reasonable?
    • can be covered in this group?
    • ...
  – and other more valuable approach you have?
What?

• **How to define a subset profile?**
  – background research for identifying the subset
  – **criteria** for subset definition
    • cost of implementation
    • frequency of use
    • etc ...
  – definition of **compatibility** with ECMA-262

• **How to balance between size and performance?**
  – is there any common requirement?

• **Handling footprint is possible, but how to handle (bound) runtime resource usage by the application?**

• Any other issues?