



Update on EFL performance

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The plan

- Benchmark memory usage, frame rate and time to first frame
- One week should be enough, right ?
- Use usual tool and experiment with a few new one
 - Expedite
 - Massif
 - Smem
- Walk in a park !

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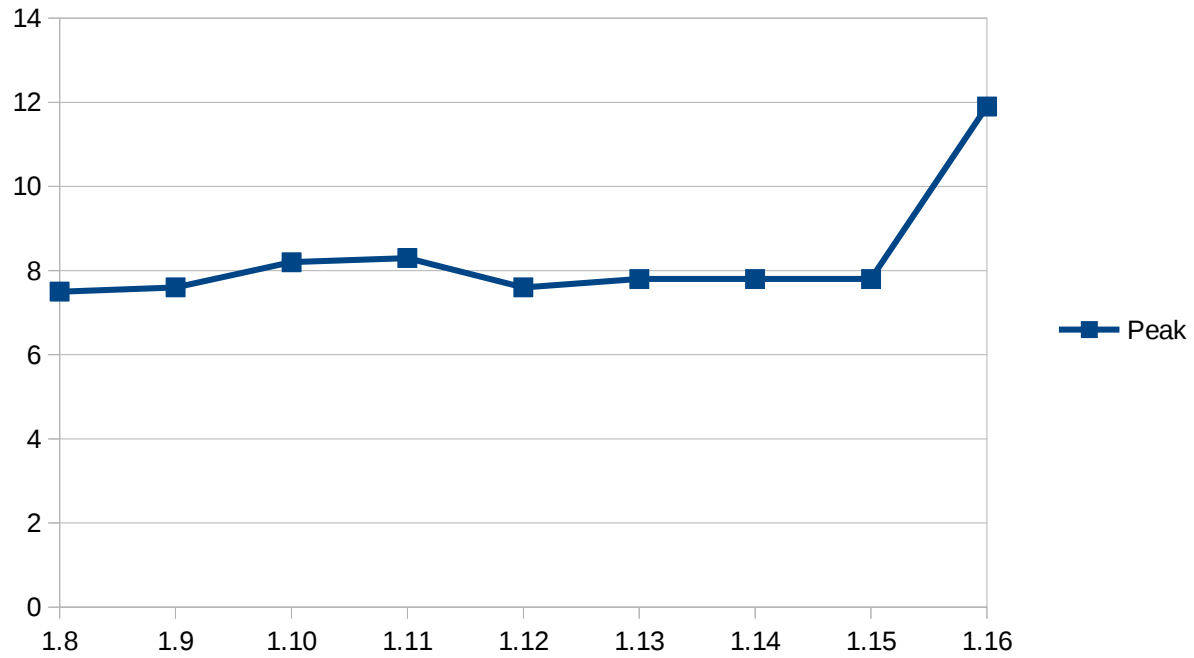
- Not quite...
- Find memory leak
- Find massive memory usage increase
- Find massive performance regression
- Barely enough time to fix them !



Easiest one, the one I create !

- Massive leak of Cairo context in expedite
- 132MB of leaked data at the end of the test
- Kind of make any other peak impossible to see !
- That one is now fixed

Easiest one, the one I create !

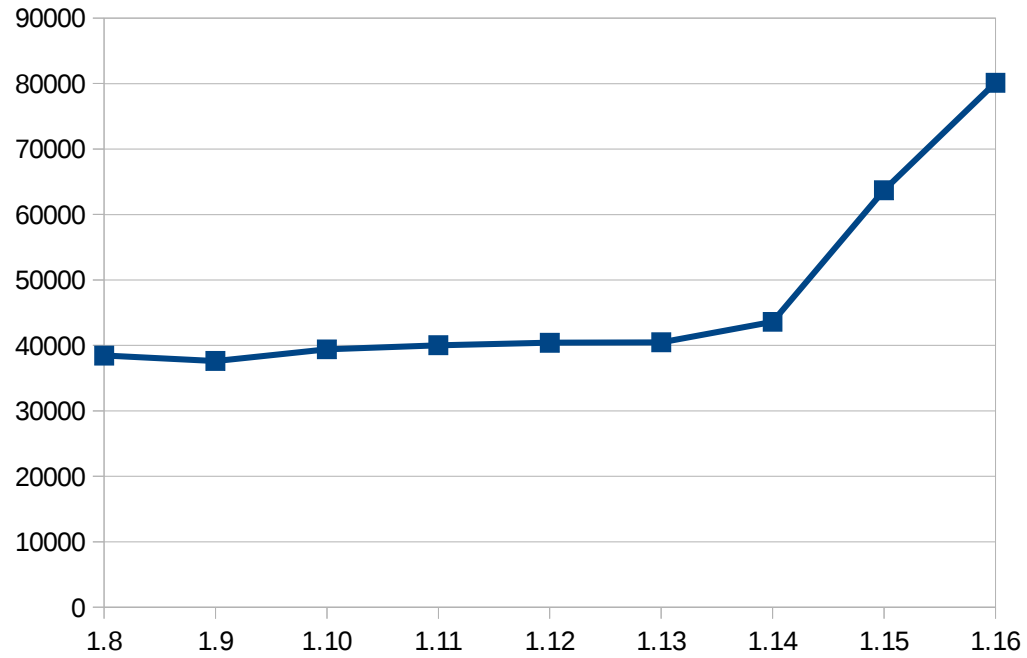




Weird increase in PSS

- Write a script to measure PSS
- Gathered the data
- Look at it in the plane
- 8-O
- Need to review the script first ...
- That's not a fixed problem !

Weird increase in PSS

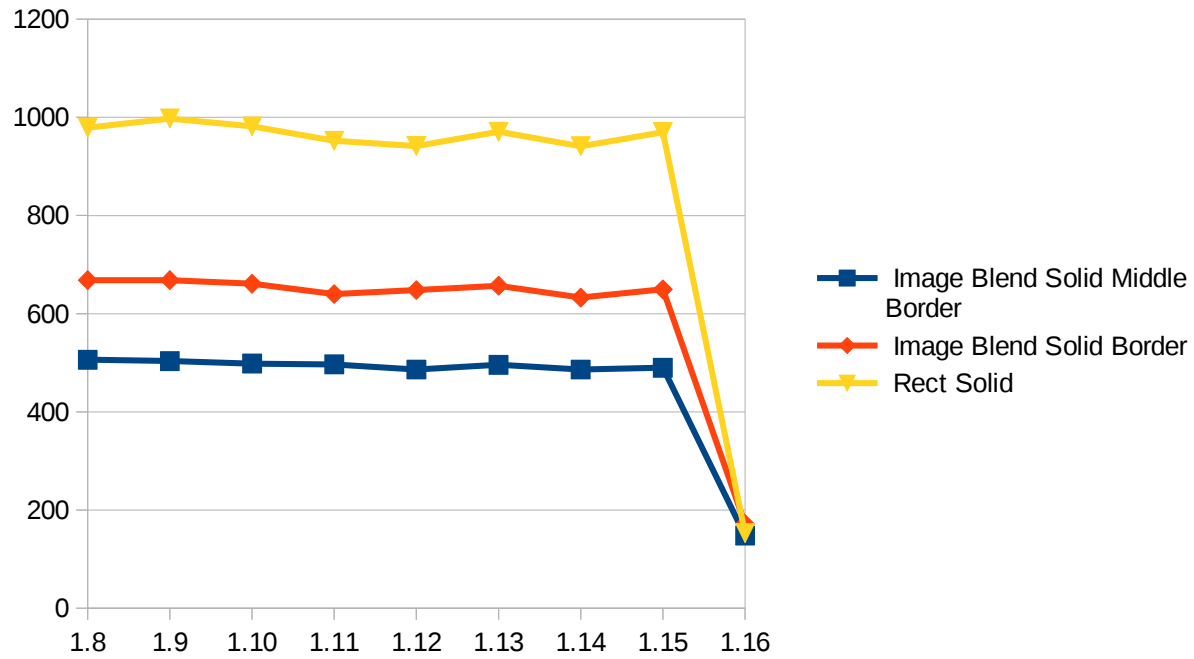




Run expedite

- Instead of the usual raw benchmark, try to find the reliable test
- Run all expedite test twice on every version since 1.8
- That's 18 runs ! More than 2000 tests...
- Start process them in the plane...
- 8-O
- See major slow down !

Run expedite





Run expedite

- Let's blame Tom, because he is not here ! :-) Is he ?
- Then run expedite under callgrind with 1.8 and git
- Issue seems to be related to raster change in region_add
 - 1.8: 40% of the benchmark, while drawing was 20%
 - 1.16: 80% of the benchmark, while drawing is 5%
- Going to be fun to fix...



So what about the rest ?

- No time for time to first frame benchmarking !
- No time for power consumption benchmarking !
- Memory testing still need fixing



What did I learn

- Automating expedite benchmark is doable if we focus only on a subset
- Expedite does catch regression if we use it...
- How to integrate it with Jenkins and our infrastructure ?
- Maybe put more logic in it to benchmark memory by processing `/proc/$PID/maps`
- Still no test of elementary/edje at all

- If we don't see the issue when we have tools, then what about when we don't !

Opinions ? Questions ?



Thank you.

