

# Three.js end-to-end testing

## Motivation

Simplify code reviews with quick pixel testing inside CI. The same screenshots are used for thumbnails.

## Local usage

If you get an error in e2e test after PR and you sure that all is correct, just make a new screenshot to example. As a last resort increase timeouts or add it to exception list.

```
# generate new screenshots for exact examples
npm run make-screenshot <example1_name> ... <exampleN_name>

# check exact examples
npm run test-e2e <example1_name> ... <exampleN_name>

# check all examples
npm run test-e2e
```

Merge only those commits that pass the tests, otherwise all next commits will also fail.

## How it works

- ci configs with parallelism
- deterministic random/timer/rAF/video for screenshots
- increased robustness with hided text, datgui, different flags and timeouts.
- pipeline: turn off rAF -> 'networkidle0' -> networkTax -> turn on rAF -> render promise
- added 3 progressive attempts for robustness

## Development progress

Travis	Attempts
61 from 362 failed, time=21:14	networkidle0 timeout
26 from 362 failed, time=16:22	with rAF hook
13=1+1+7+4 failed, time=4:26	with render promise and parallelism
4=0+0+2+2 failed, time=5:13	with network tax and other settings
4=0+0+2+2 failed, time=3:26	with progressive attempts

## Status

97% examples are covered with tests. Check exception list for more information.