Histogram on Recent Runs by EMPv5

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1 Description

This document presents histograms based on the most recent runs of a program under test, called *INC*, over its increasing task lengths.

2 Experiment Notes

Table 1 provides a short description of our experimental runs, on which the following histograms are based.

Machine	Task Length (sec)	Description	Experiment Period
`sodb9`	INC1∼INC1024	Each run with 300 samples	2017-02-09 ∼ 2017-02-10 / 2017-02-12 ∼ 2017-02-19
`sodb10`	INC2048	A run of 300 samples	2017-02-12 ∼ 2017-02-20
`sodb12`	INC4096	A run of 300 samples	2017-02-12 ∼ 2017-02-27
`sodb12`	INC8192	Two runs, each with 40 samples	2017-01-16 ∼ 2017-01-20 / 2017-01-25 ∼ 2017-01-29
`sodb12`	INC16384	Two runs, each with 40 samples	2017-01-05 ∼ 2017-01-13 / 2017-01-29 ∼ 2017-02-06

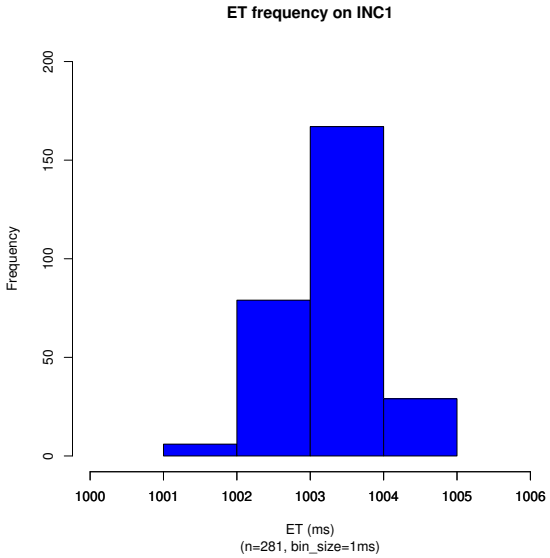
Table 1: Notes on experiment runs used for histograms

Now we show histograms of elapsed time (ET) and process time (PT) of INC.

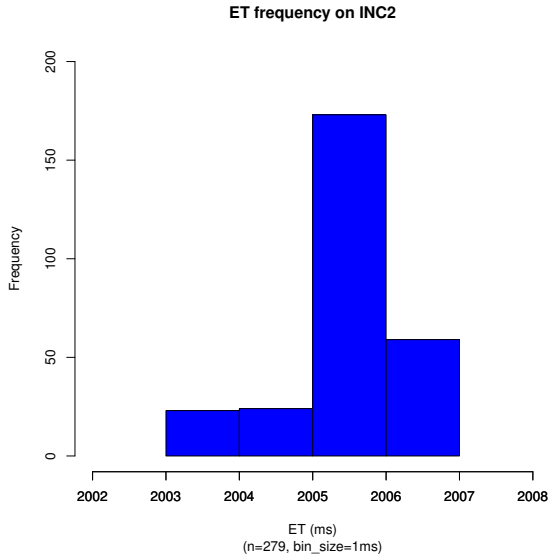
3 Histograms

This section exhibits histograms on the EMPv5 data obtained when the task length of INC increases from 1 second to 2048 seconds. The detailed description of the base data is from Table 1.

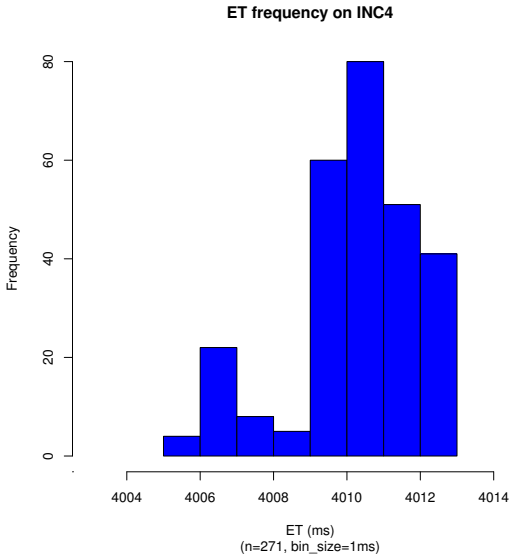
3.1 ET



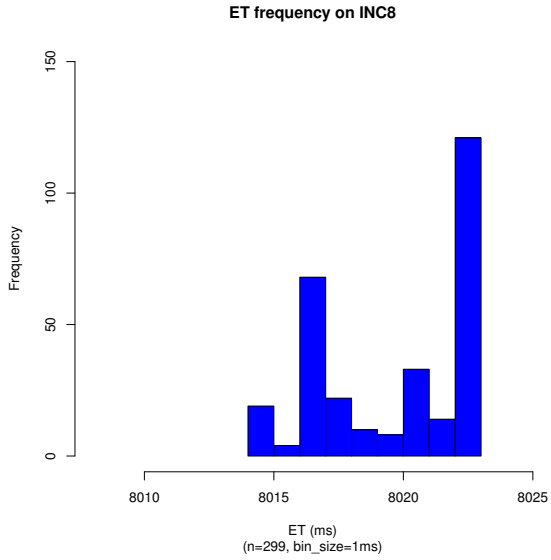
(a) ET frequency on INC1



(b) ET frequency on INC2

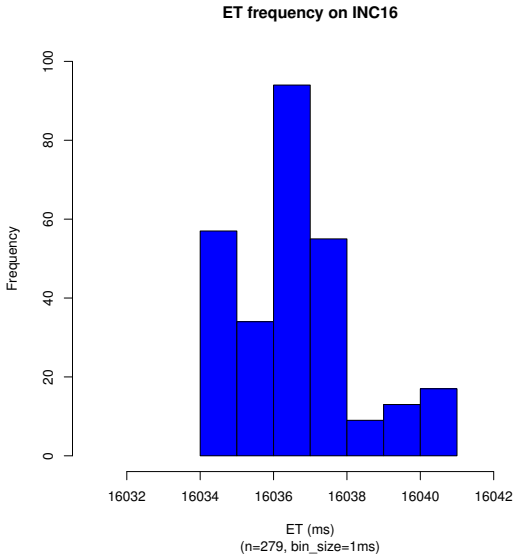


(c) ET frequency on INC4

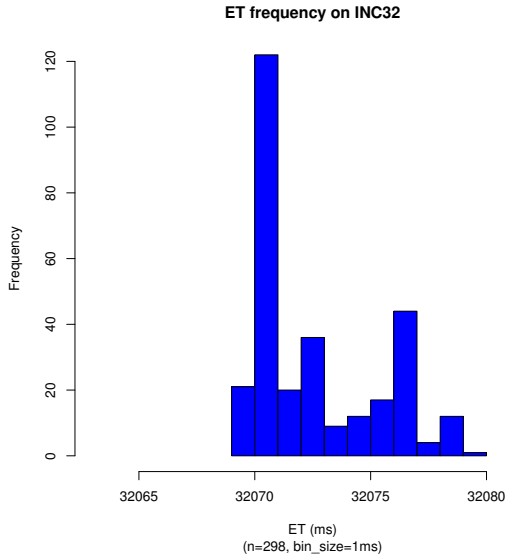


(d) ET frequency on INC8

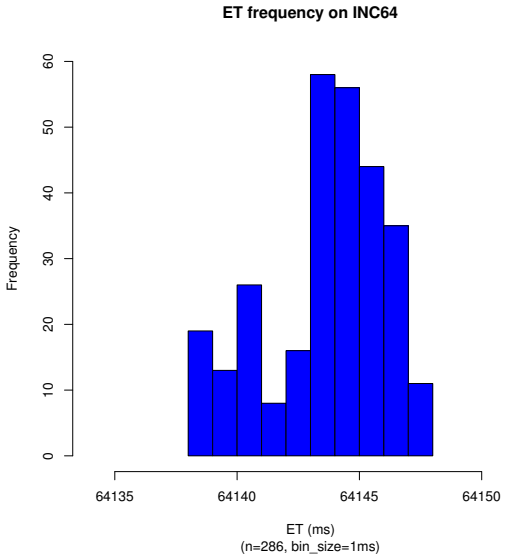
Figure 1: ET Histograms of INC1 ... INC8



(a) ET frequency on INC16

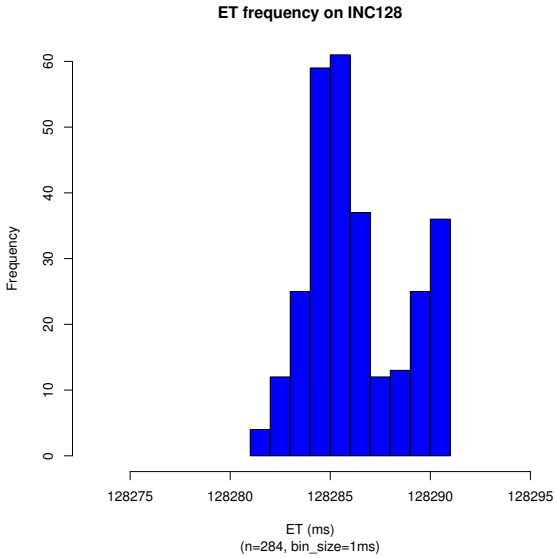


(b) ET frequency on INC32

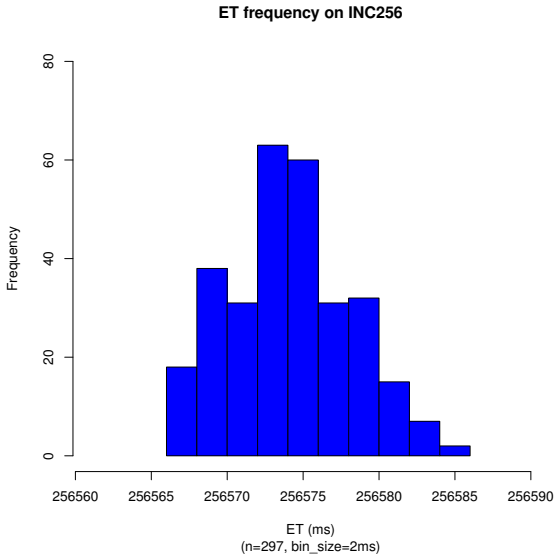


(c) ET frequency on INC64

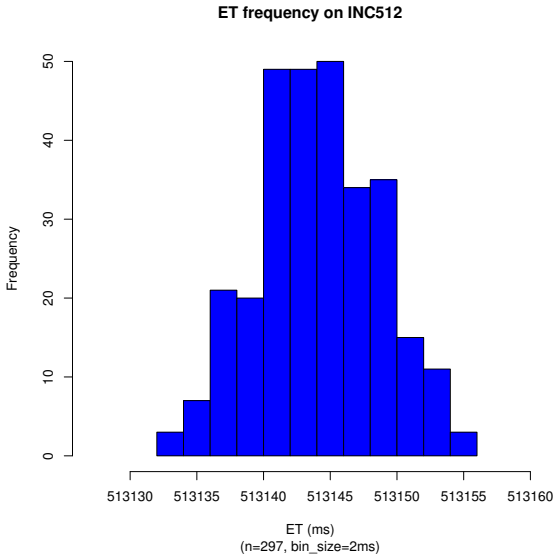
Figure 2: ET Histograms of INC16 ... INC64



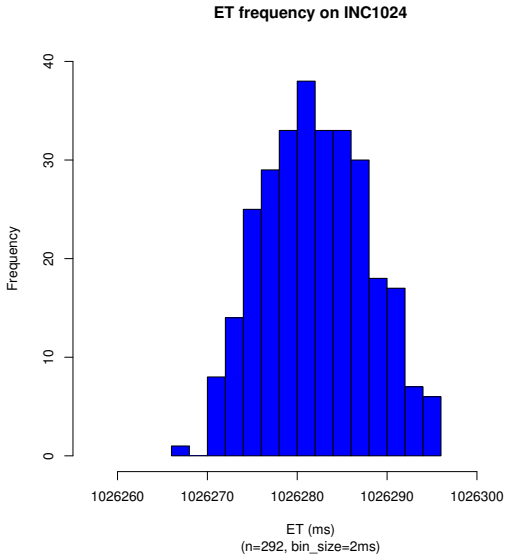
(a) ET frequency on INC128



(b) ET frequency on INC256

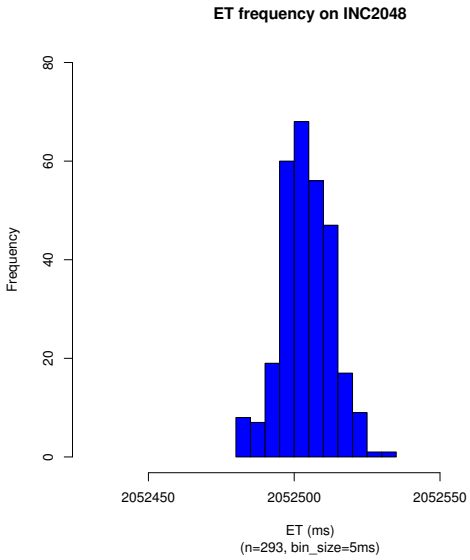


(c) ET frequency on INC512

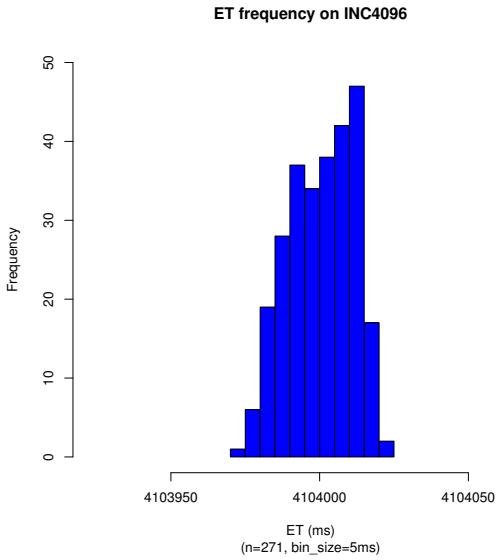


(d) ET frequency on INC1024

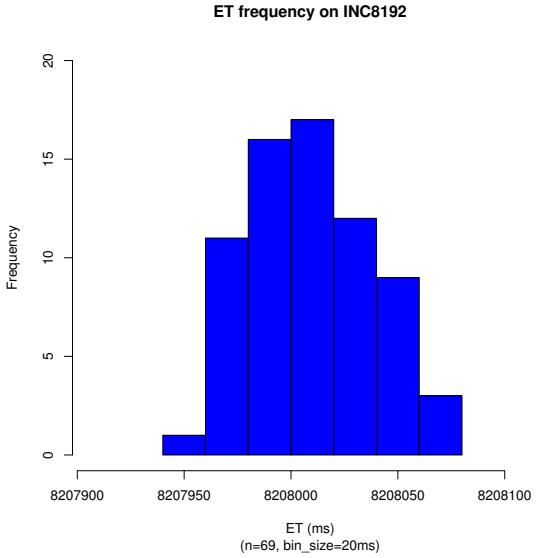
Figure 3: ET Histograms of INC128 ... INC1024



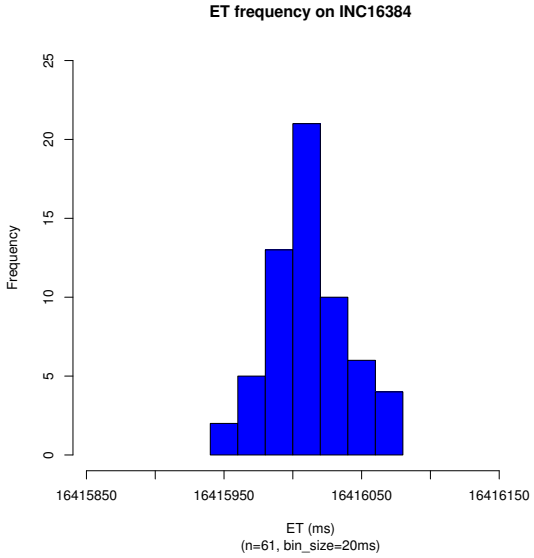
(a) ET frequency on INC2048



(b) ET frequency on INC4096



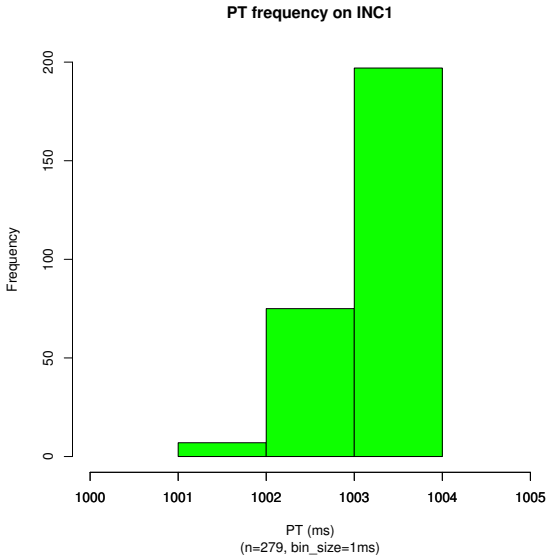
(c) ET frequency on INC8192



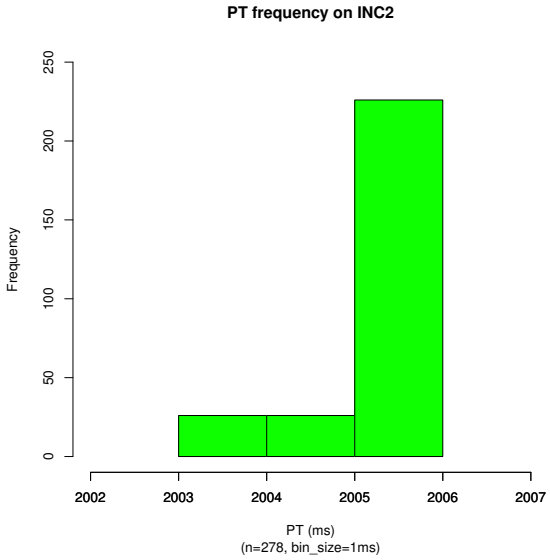
(d) ET frequency on INC16384

Figure 4: ET Histograms of INC2048 ... INC16384

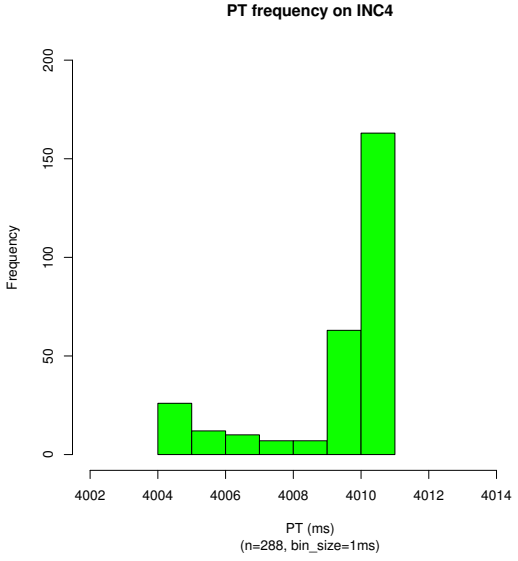
3.2 PT



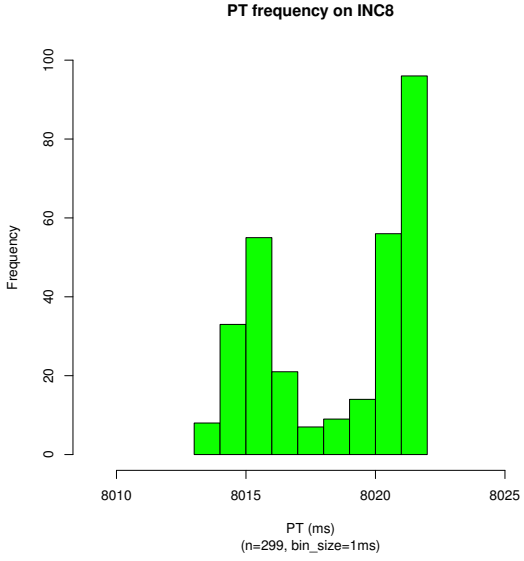
(a) PT frequency on INC1



(b) PT frequency on INC2

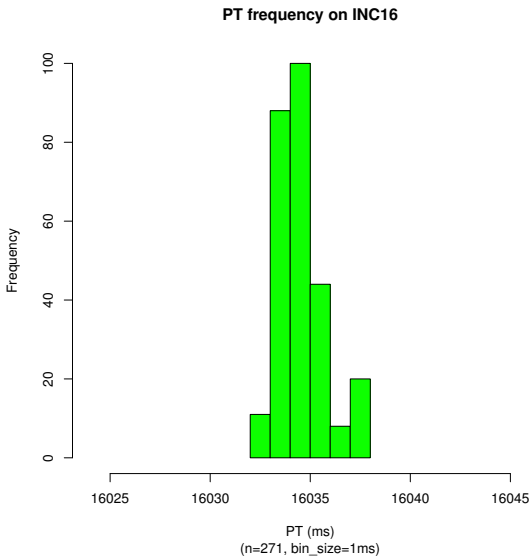


(c) PT frequency on INC4

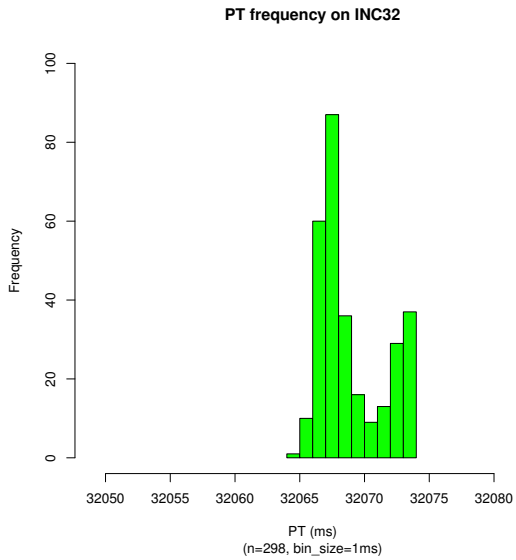


(d) PT frequency on INC8

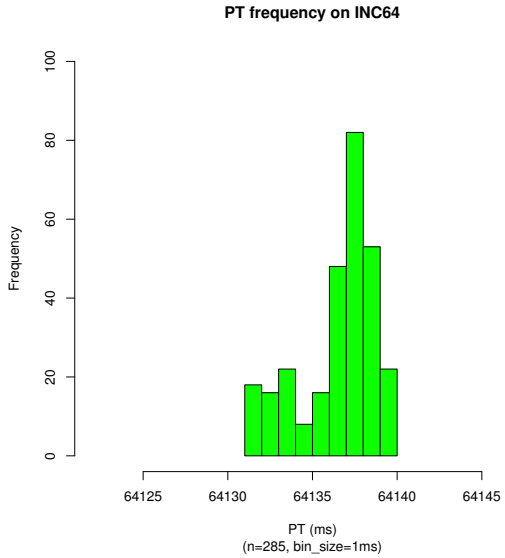
Figure 5: PT Histograms of INC1 ... INC8



(a) PT frequency on INC16

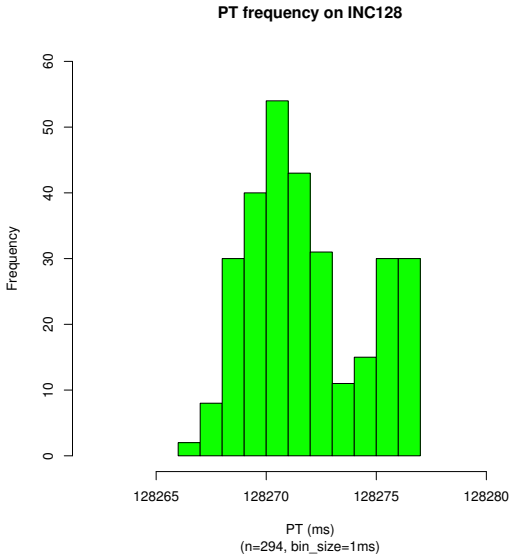


(b) PT frequency on INC32

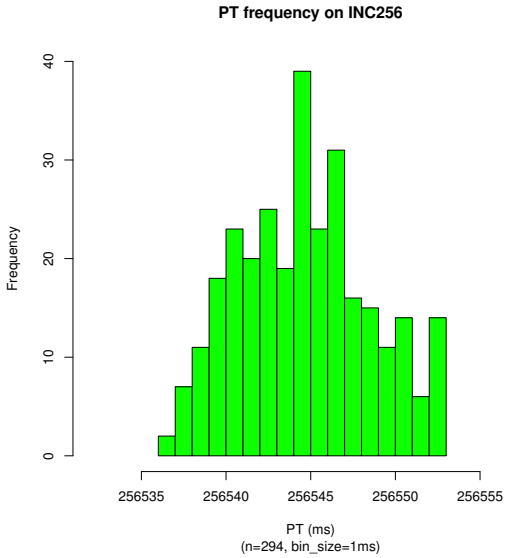


(c) PT frequency on INC64

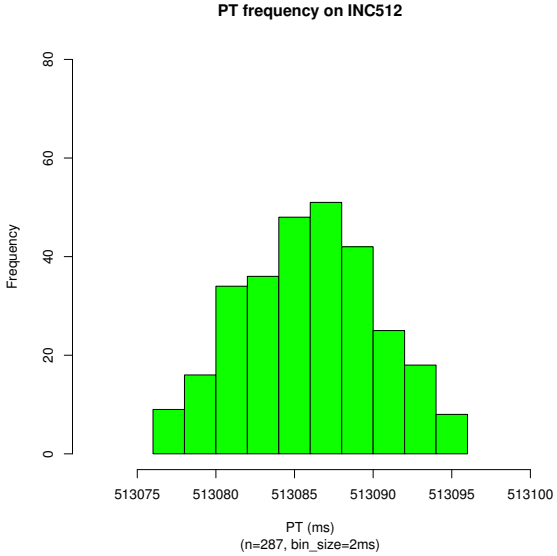
Figure 6: PT Histograms of INC16 ... INC64



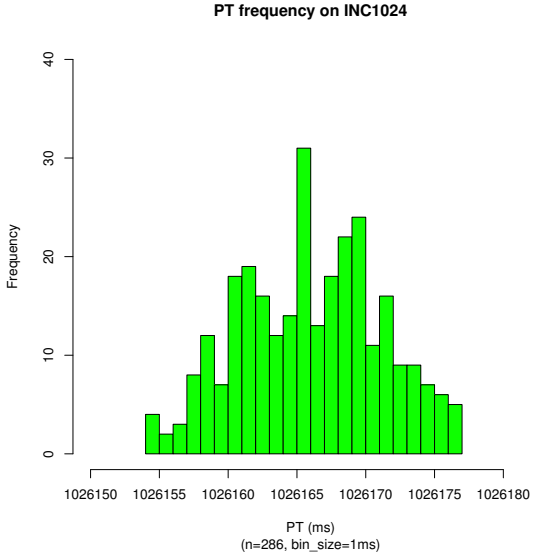
(a) PT frequency on INC128



(b) PT frequency on INC256

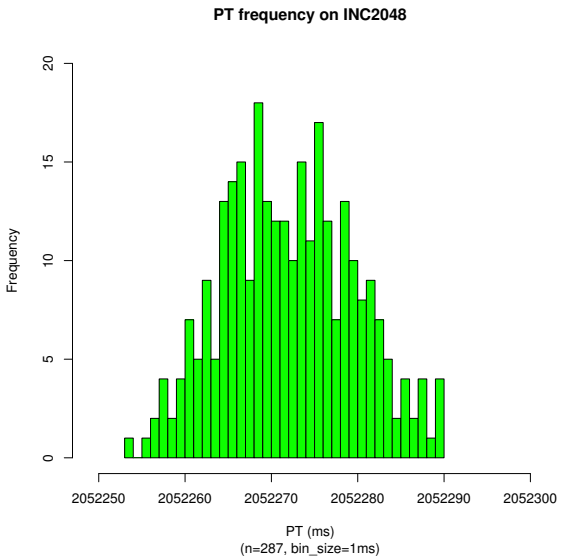


(c) PT frequency on INC512

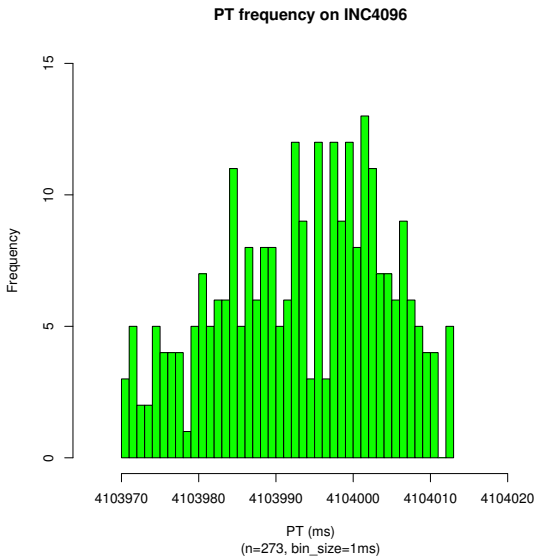


(d) PT frequency on INC1024

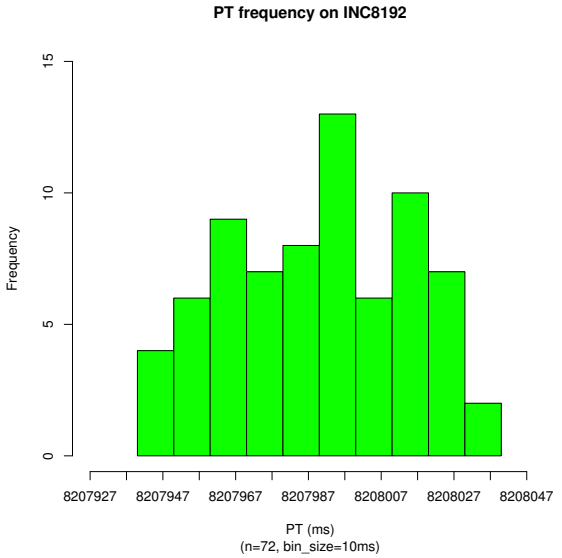
Figure 7: PT Histograms of INC256 ... INC1024



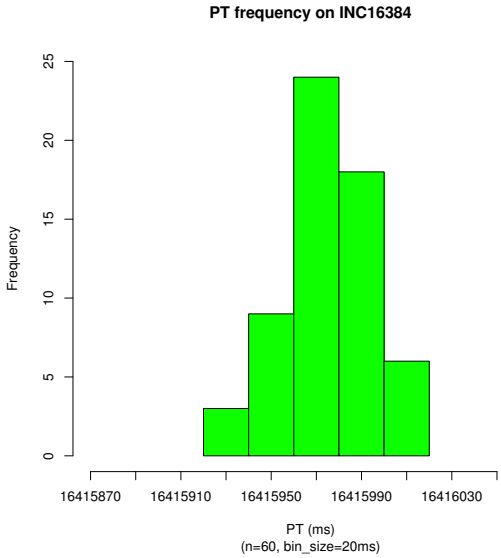
(a) PT frequency on INC2048



(b) PT frequency on INC4096



(c) PT frequency on INC8192



(d) PT frequency on INC16384

Figure 8: PT Histograms of INC2048 and INC16384