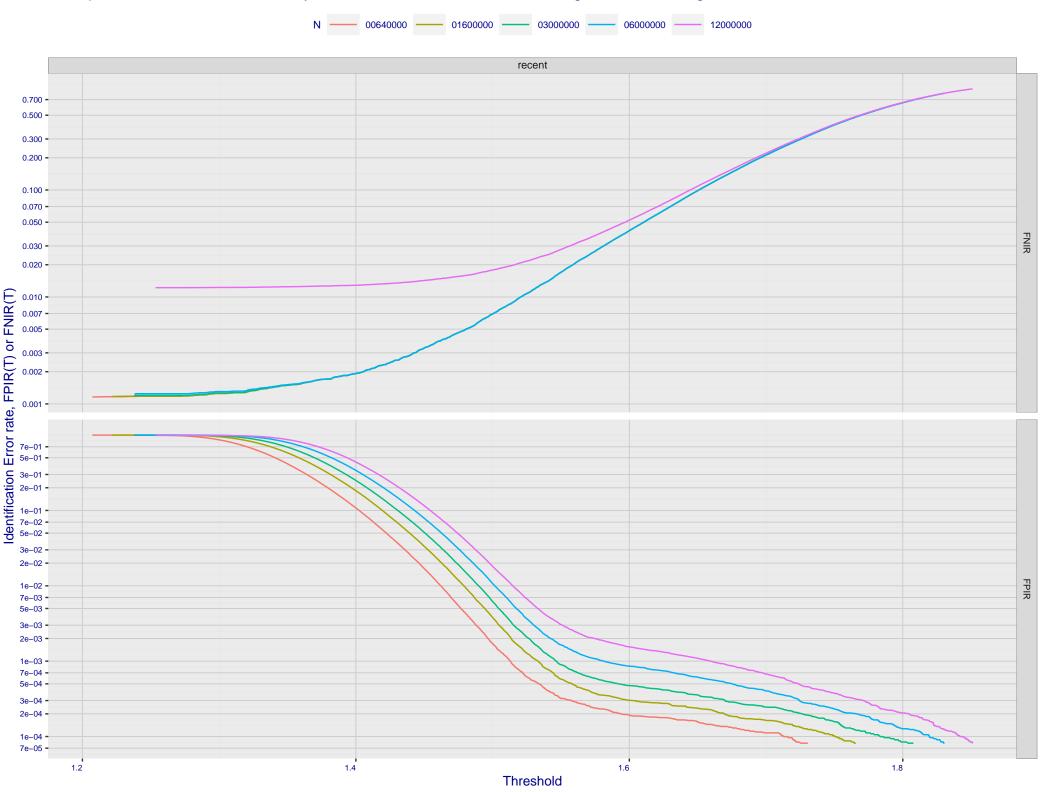
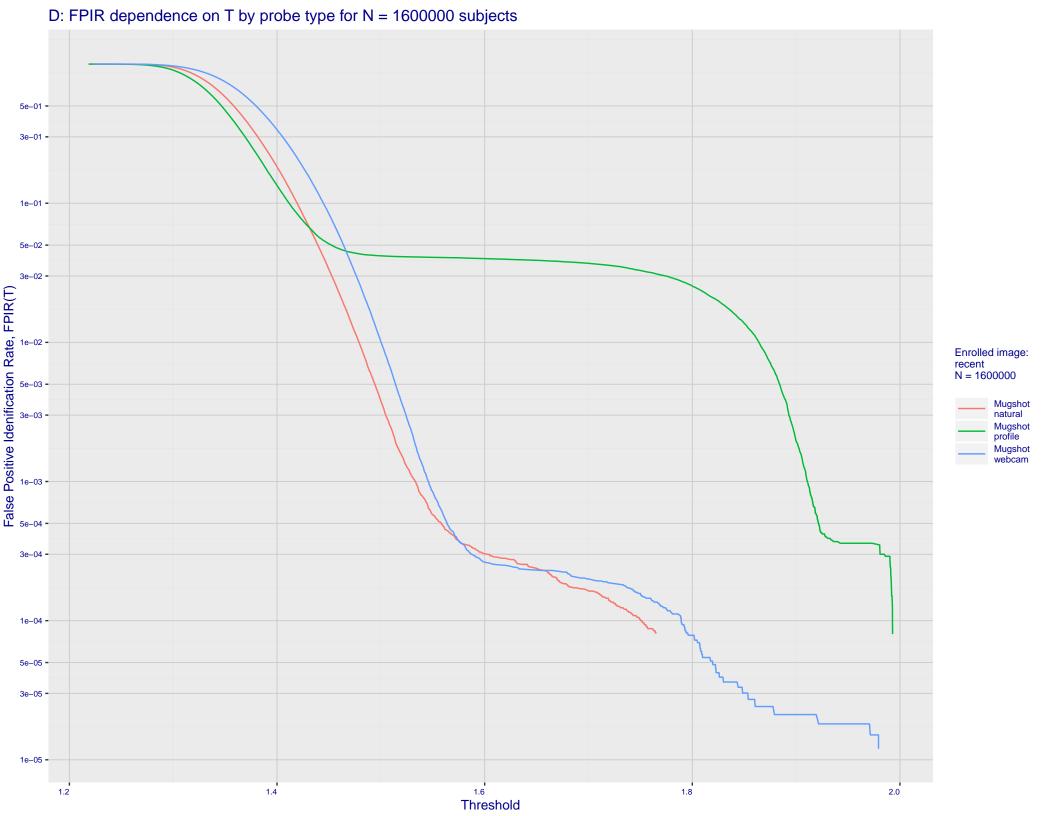
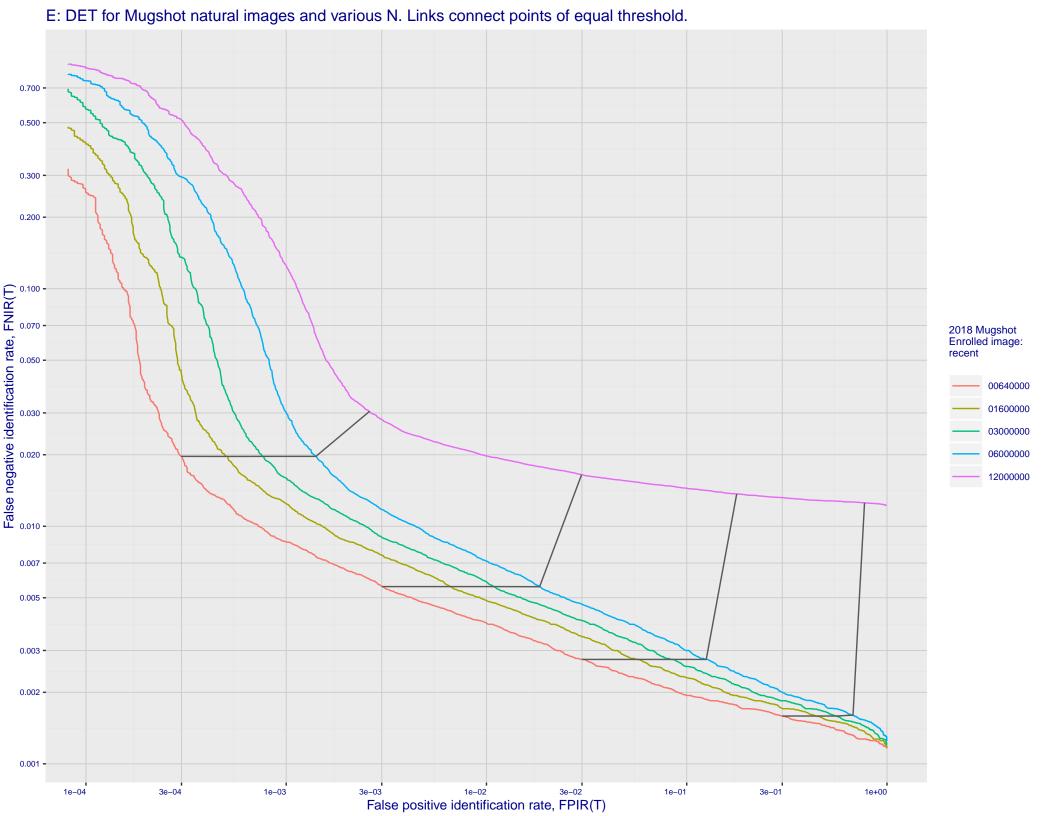
A: 1:N error tradeoff by dataset and enrollment type. N = 1600000 individuals Immigration Immigration Mugshot visa-border visa-kiosk natural 0.700 -0.500 0.300 -0.200 -False negative identification rate, FNIR(T) enrolment_style random-ONE-MATE recent-ONE-MATE 0.007 -0.005 -0.003 -0.002 -0.001 -1e-04 3e-04 1e-03 3e-03 1e-02 3e-02 1e-01 3e-01 1e+00 1e-04 3e-04 1e-03 3e-03 1e-02 3e-02 1e-01 3e-01 1e+00 1e-04 3e-04 1e-03 3e-03 1e-02 3e-02 1e-01 3e-01 1e+00 False positive identification rate, FPIR(T)

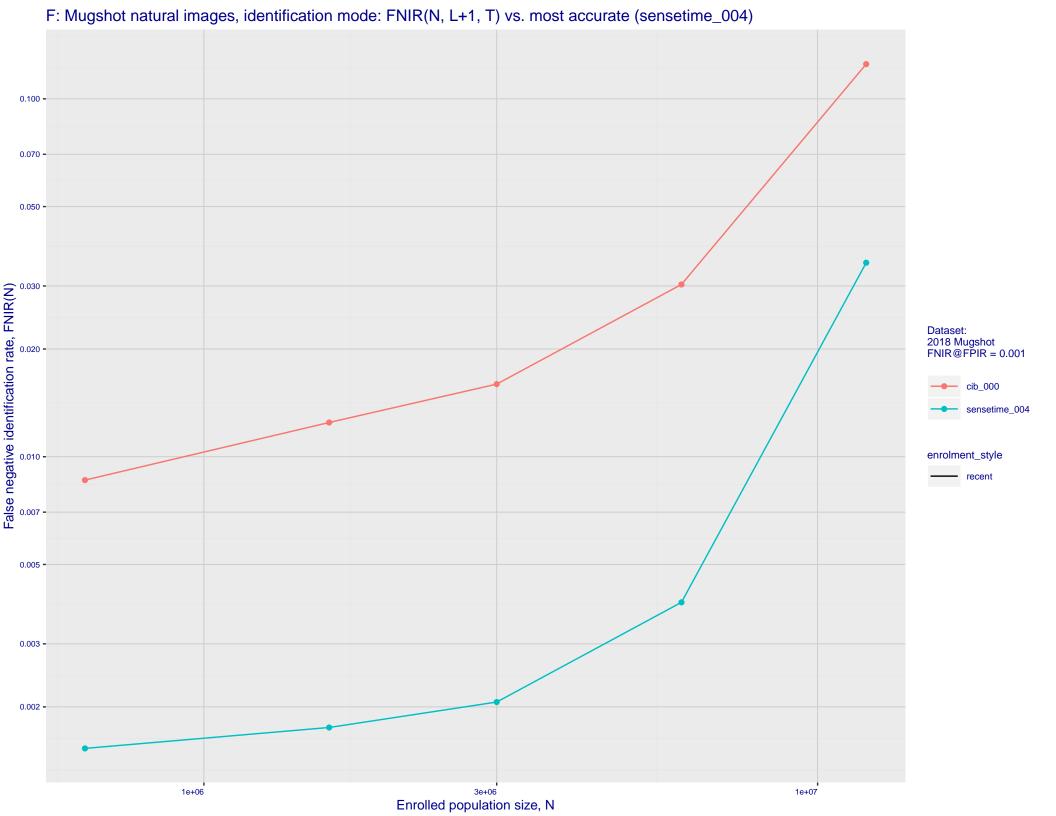
B: Dependence of error rates on T by number enrolled identities, N, for Mugshot natural images



C: FPIR vs. Selectivity for mugshot images, N = 1600000 subjects enrolled with one recent mate 7e+01 5e+01 3e+01 2e+01 -1e+01 -7e+00 -5e+00 -3e+00 -2e+00 -1e+00 -7e-01 -5e-01 -3e-01 -2e-01 -1e-01 -Enrolled images: recent N = 1600000 7e-02 -7e-02 -5e-02 -3e-02 -2e-02 -7e-03 -Mugshot natural Mugshot profile Mugshot webcam 7e-03 5e-03 -3e-03 -2e-03 -1e-03 -7e-04 -5e-04 -3e-04 -2e-04 -1e-04 • 7e-05 -5e-05 -3e-05 -2e-05 -1e-05 -1e-05 3e-05 1e-04 3e-04 1e-01 3e-01 False Positive Idenification Rate, FPIR(T)

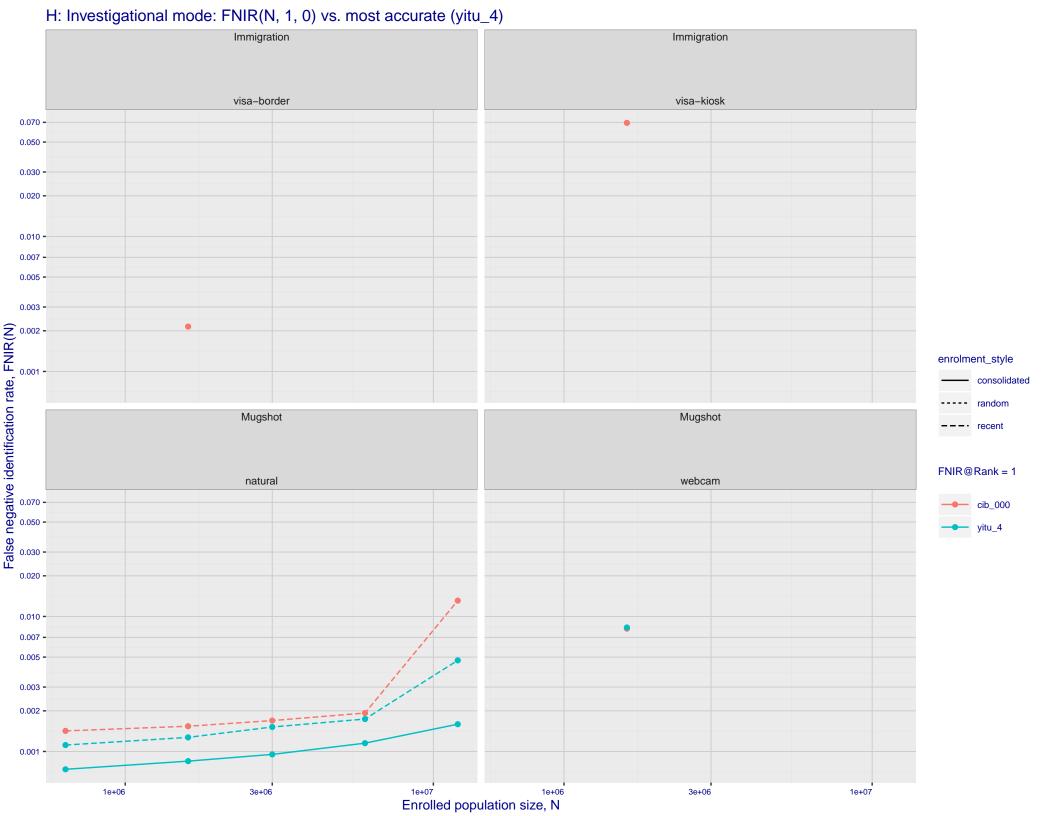


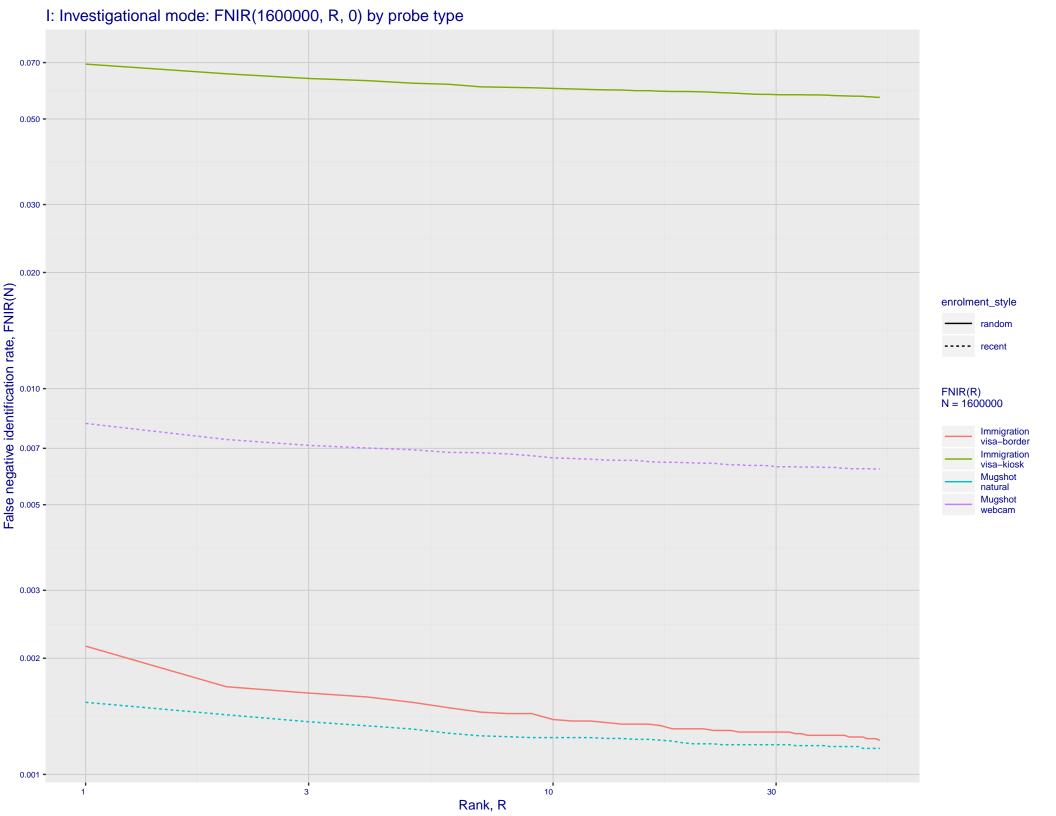




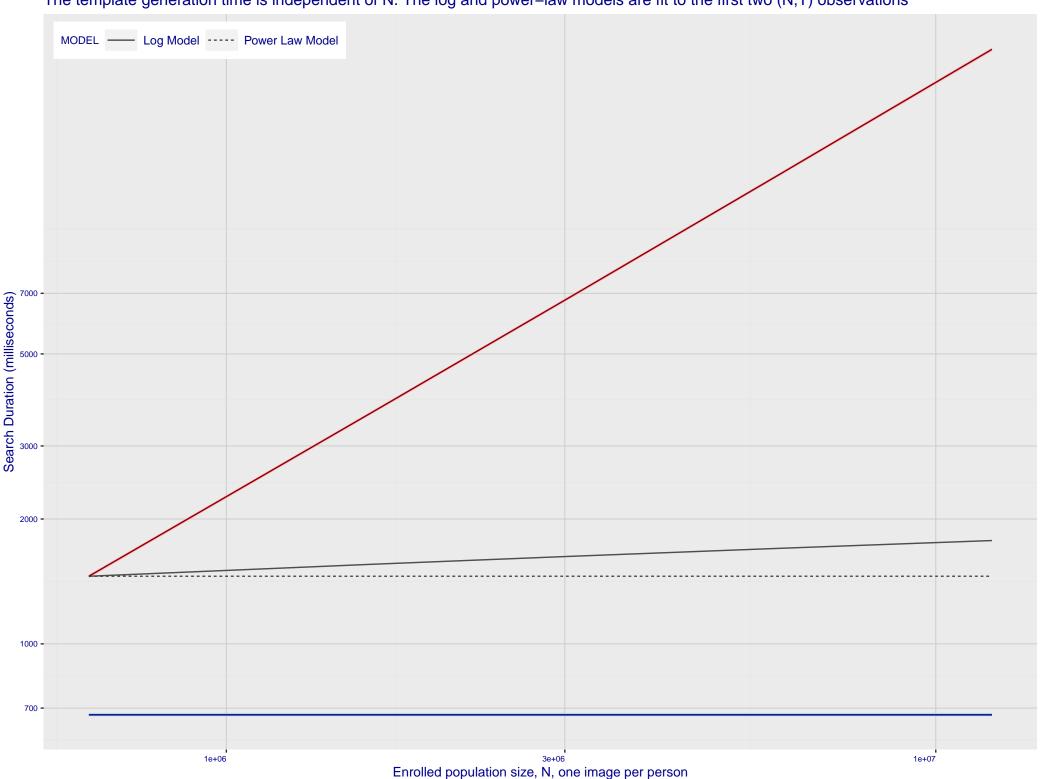
G: Datasheet

```
Algorithm: cib_000
Developer: Canon Inc
Submission Date: 2020_10_19
Template size: 8196 bytes
Template time (2.5 percentile): 669 msec
Template time (median): 674 msec
Template time (97.5 percentile): 681 msec
Frontal mugshot investigation rank 10 -- FNIR(1600000, 0, 1) = 0.0015 vs. lowest 0.0010 from sensetime_004
natural investigation rank 5 -- FNIR(1600000, 0, 1) = 0.0081 vs. lowest 0.0067 from sensetime_003
natural investigation rank 5 — FNIR(1600000, 0, 1) = 0.0555 vs. lowest 0.0492 from paravision_005
natural investigation rank 5 — FNIR(1600000, 0, 1) = 0.0555 vs. lowest 0.0492 from paravision_005
natural investigation rank 3 — FNIR(1600000, 0, 1) = 0.0021 vs. lowest 0.0014 from visionlabs_009
natural investigation rank 1 -- FNIR(1600000, 0, 1) = 0.0694
Frontal mugshot identification rank 12 -- FNIR(1600000, T, L+1) = 0.0125 vs. lowest 0.0018 from sensetime_004
natural identification rank 14 -- FNIR(1600000, T, L+1) = 0.0445 vs. lowest 0.0122 from sensetime_003
natural identification rank 152 -- FNIR(1600000, T, L+1) = 0.9998 vs. lowest 0.1020 from sensetime_004
natural identification rank 11 -- FNIR(1600000, T, L+1) = 0.0174 vs. lowest 0.0059 from sensetime_004
natural identification rank 73 -- FNIR(1600000, T, L+1) = 0.8983 vs. lowest 0.1129 from visionlabs_009
```





Template duration; search duration vs. N. The blue and pink ribbon covers 95 percent of observed measurements. The template generation time is independent of N. The log and power–law models are fit to the first two (N,T) observations



M: Identification FNIR(N, T, L+1) and Investigational FNIR(N, 0, R) under ageing

