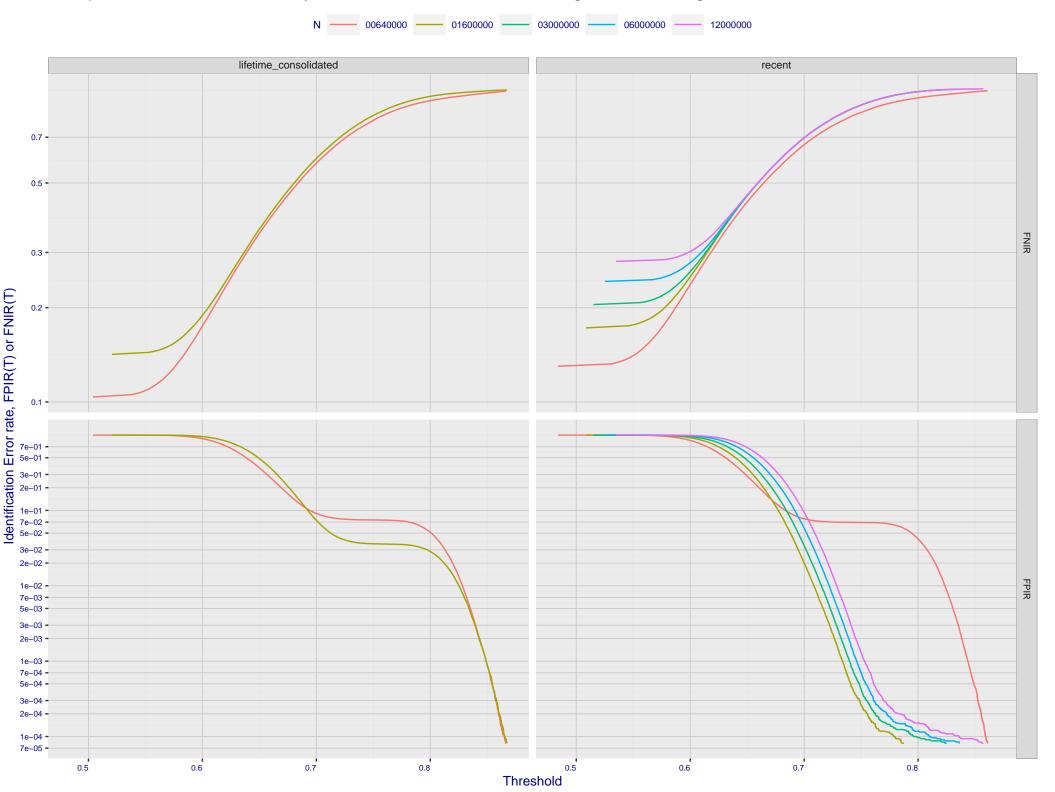
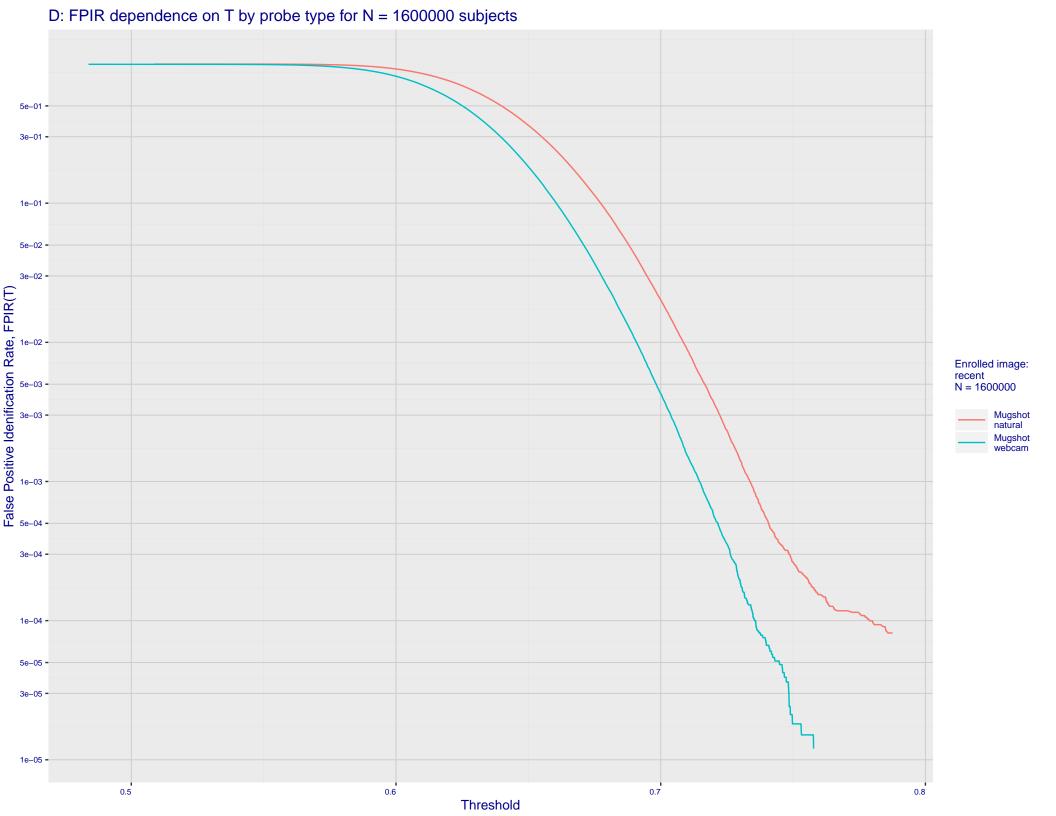
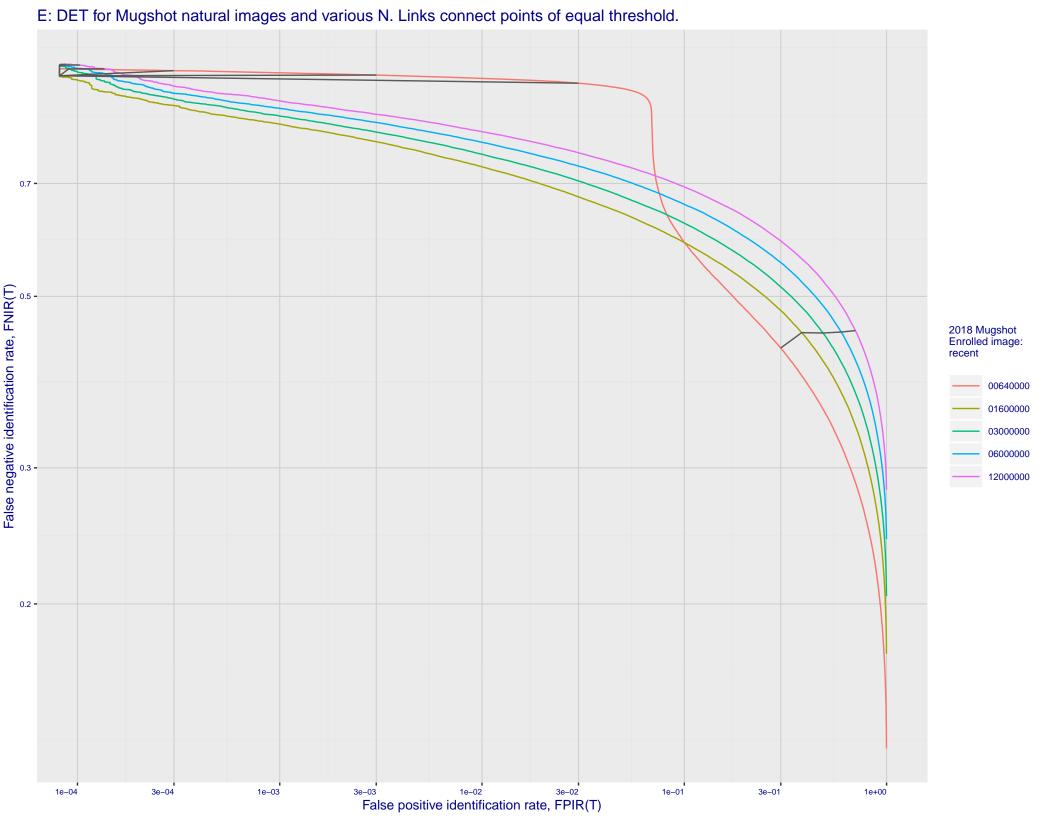
A: 1:N error tradeoff by dataset and enrollment type. N = 1600000 individuals Immigration Immigration Mugshot visa-border visa-kiosk natural 0.7 -False negative identification rate, FNIR(T) enrolment_style consolidated-ONE-MATE random-ONE-MATE recent-ONE-MATE unconsolidated-ALL-MATES unconsolidated-ANY-MATE 0.2 -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)

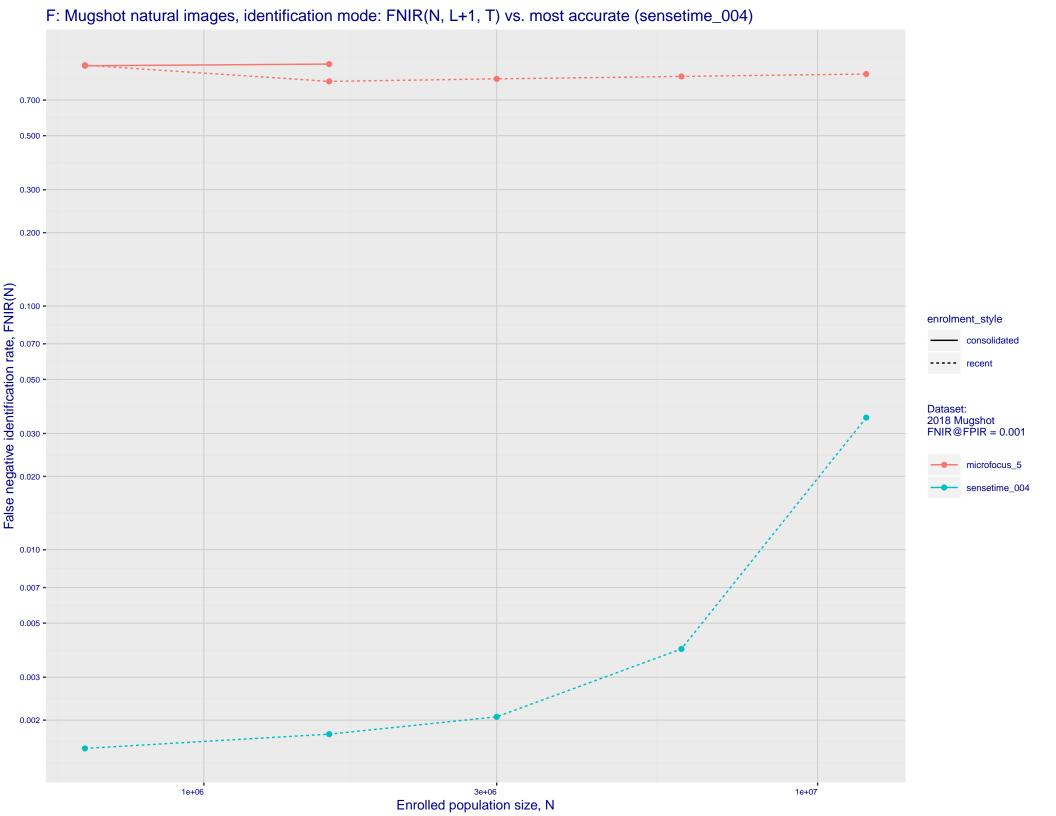
B: Dependence of error rates on T by number enrolled identities, N, for Mugshot natural images



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 - 7e-02 Enrolled images: recent N = 1600000Mugshot natural 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: microfocus_5

Developer: MicroFocus

Submission Date: 2018_10_29

Template size: 256 bytes

Template time (2.5 percentile): 225 msec

Template time (median): 263 msec

Template time (97.5 percentile): 312 msec

Frontal mugshot investigation rank 241 — FNIR(1600000, 0, 1) = 0.4242 vs. lowest 0.0010 from sensetime_004

natural investigation rank 206 — FNIR(1600000, 0, 1) = 0.6010 vs. lowest 0.0067 from sensetime_003

natural investigation rank 92 — FNIR(1600000, 0, 1) = 0.4943 vs. lowest 0.0014 from visionlabs_009

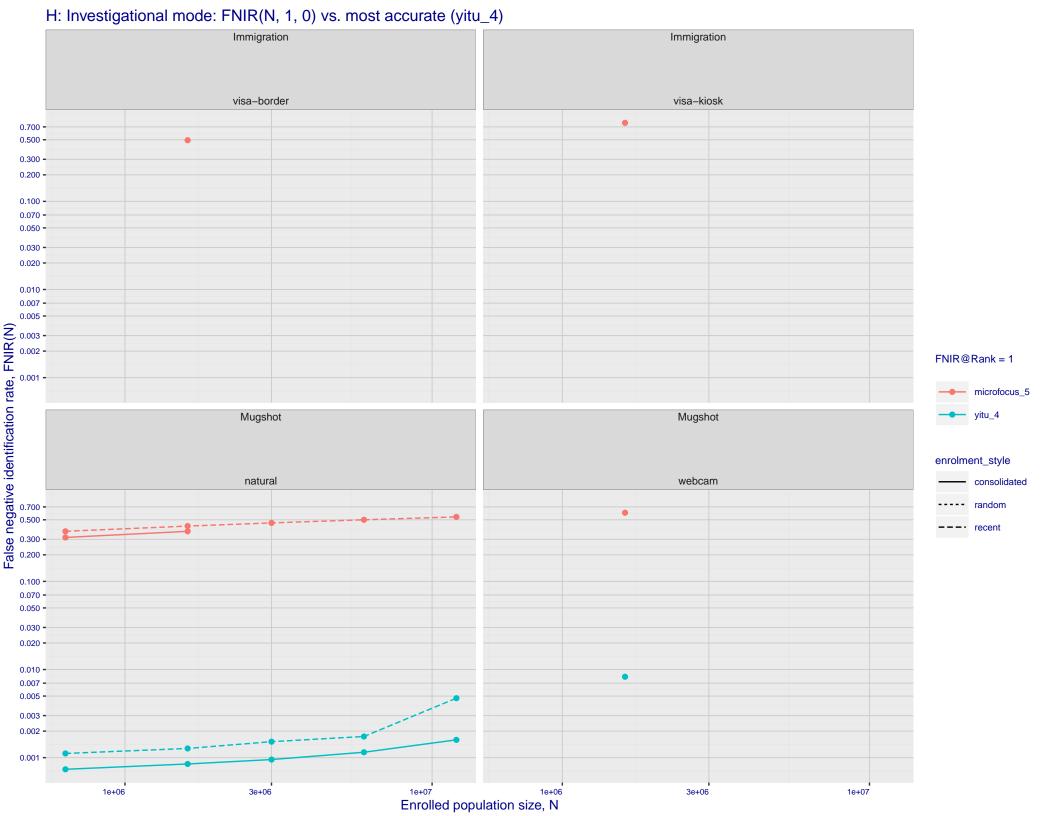
natural investigation rank 93 — FNIR(1600000, 0, 1) = 0.7774 vs. lowest 0.0694 from cib_000

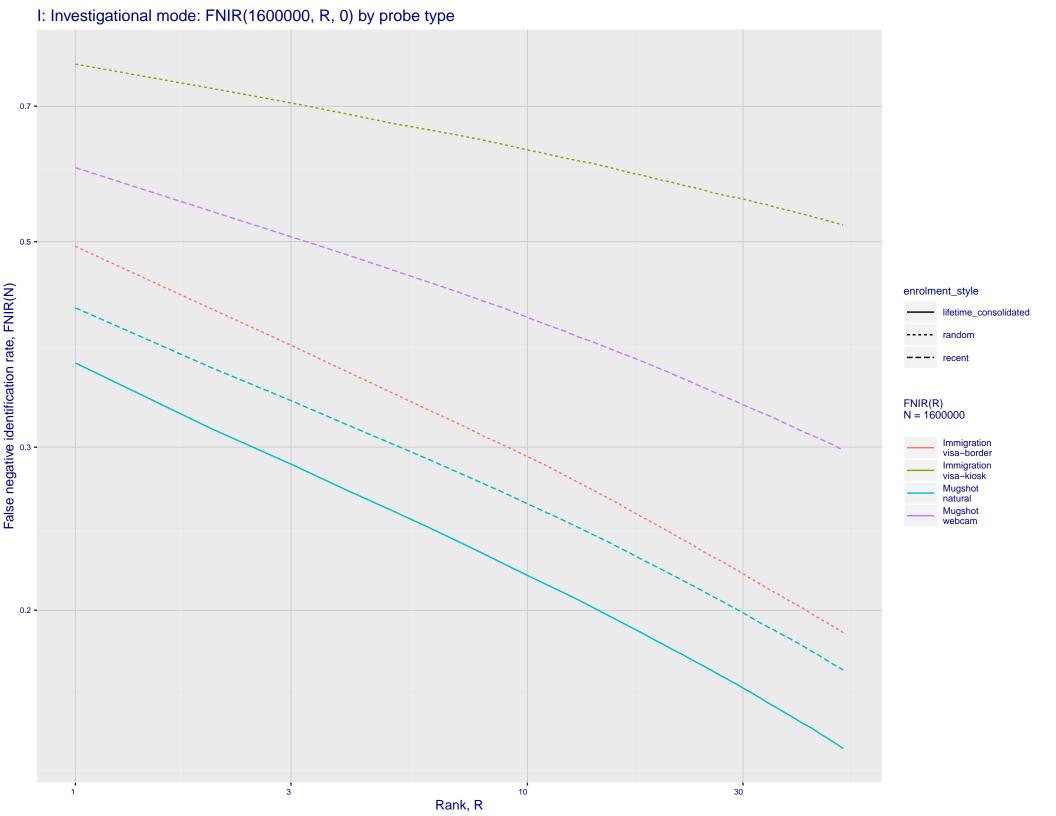
Frontal mugshot identification rank 234 — FNIR(1600000, T, L+1) = 0.8352 vs. lowest 0.0018 from sensetime_004

natural identification rank 198 — FNIR(1600000, T, L+1) = 0.9281 vs. lowest 0.0122 from sensetime_003

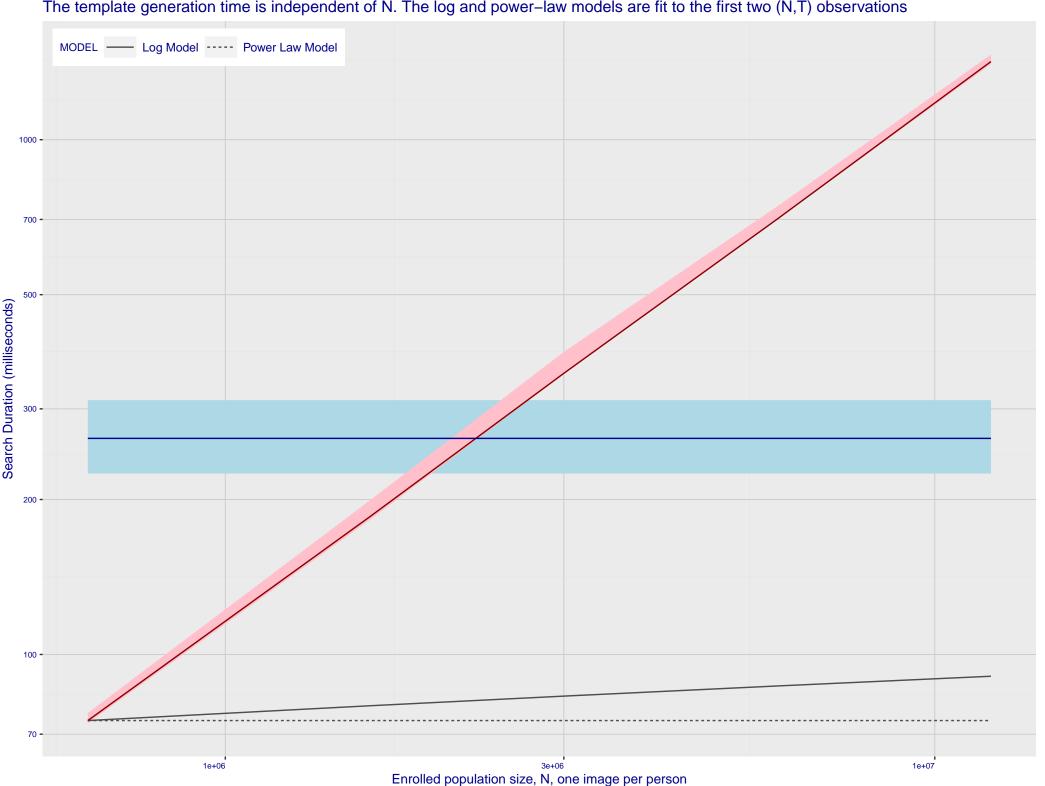
natural identification rank 87 — FNIR(1600000, T, L+1) = 0.9348 vs. lowest 0.0059 from sensetime_004

natural identification rank 82 -- FNIR(1600000, T, L+1) = 0.9848 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

