A: 1:N error tradeoff by dataset and enrollment type. N = 1600000 individuals Mugshot natural 0.500 -0.300 -0.200 -False negative identification rate, FNIR(T) enrolment_style consolidated-ONE-MATE recent-ONE-MATE 0.020 -0.010 -0.007 -

False positive identification rate, FPIR(T)

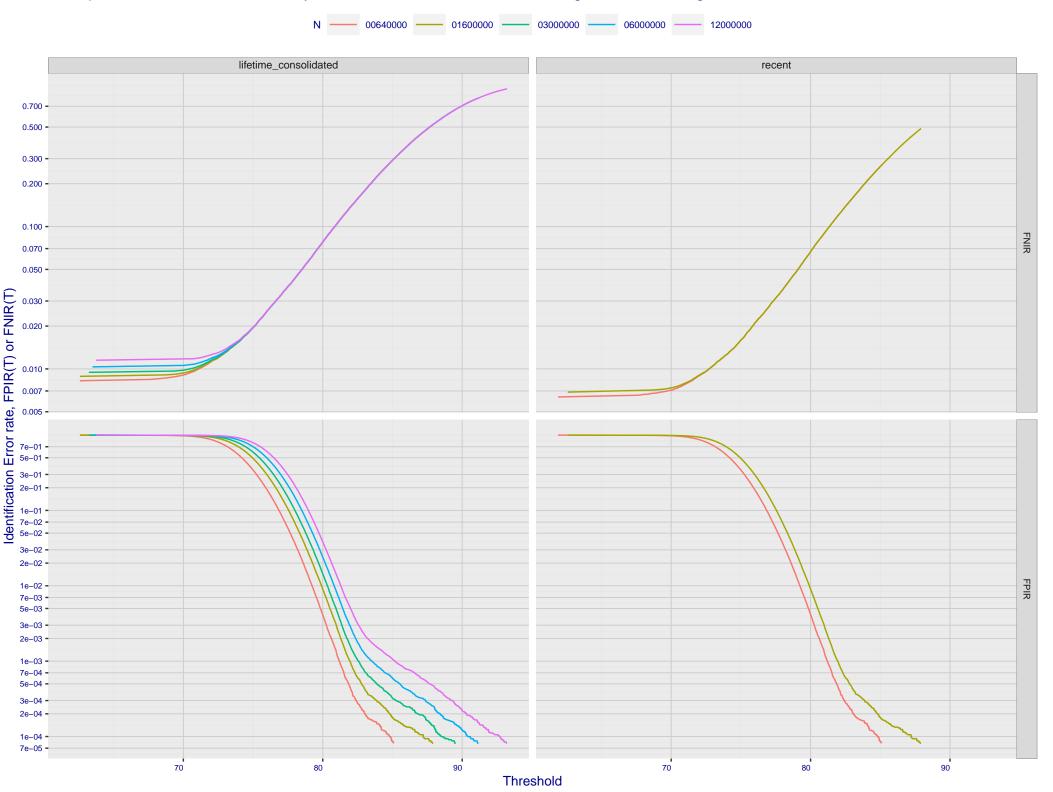
3e-01

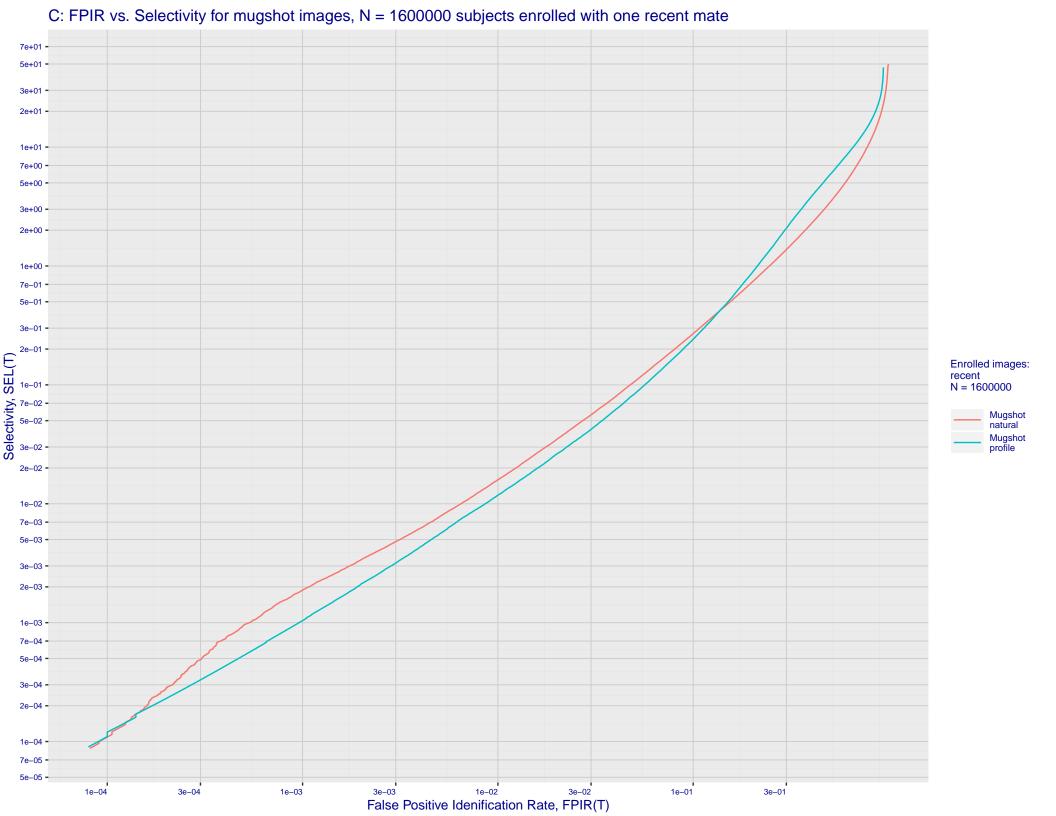
1e+00

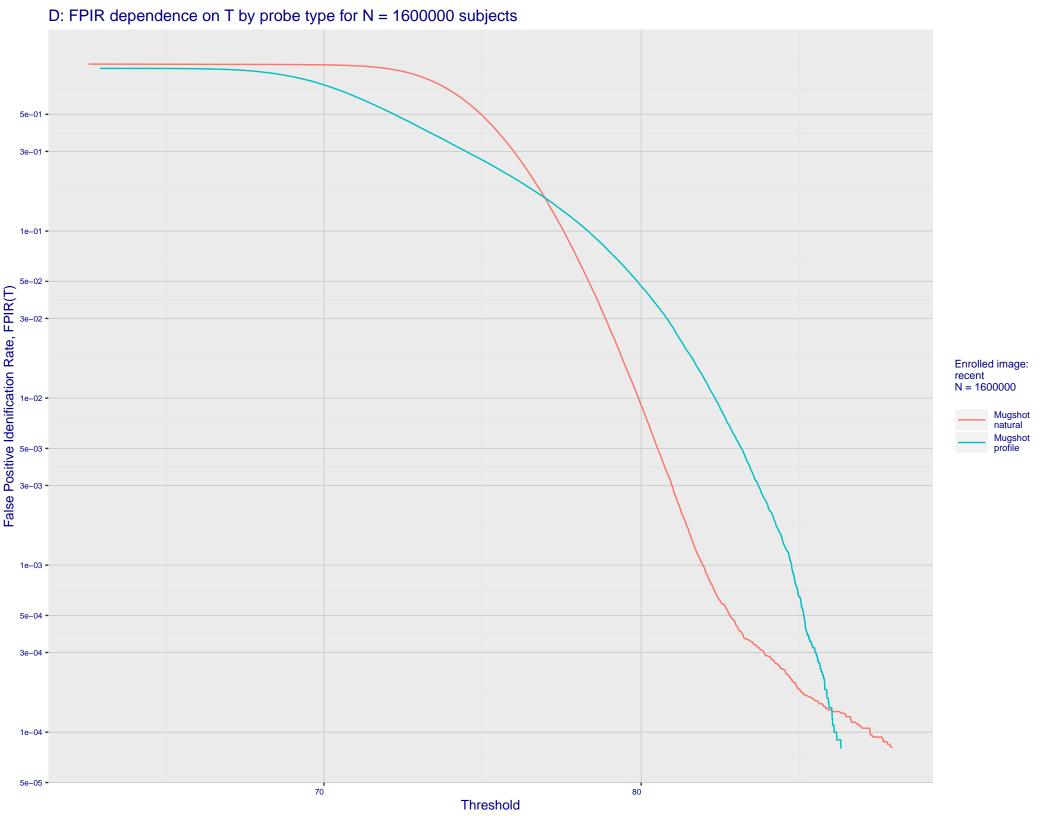
1e-03

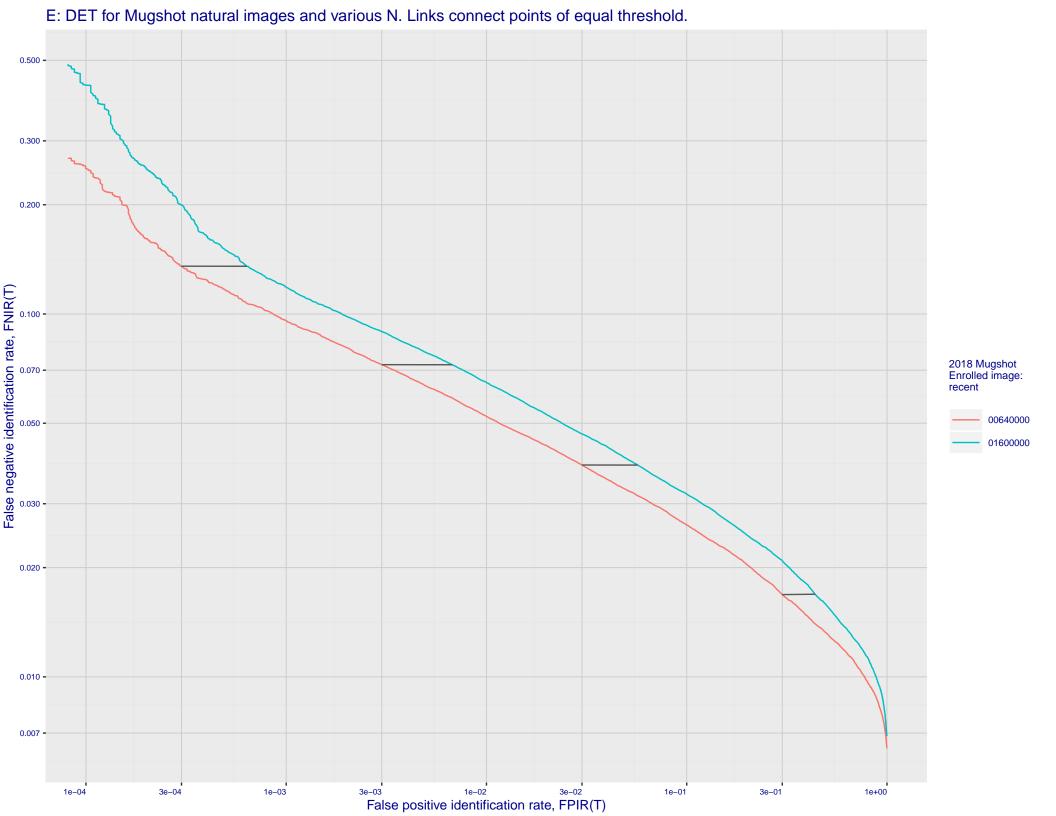
1e-04

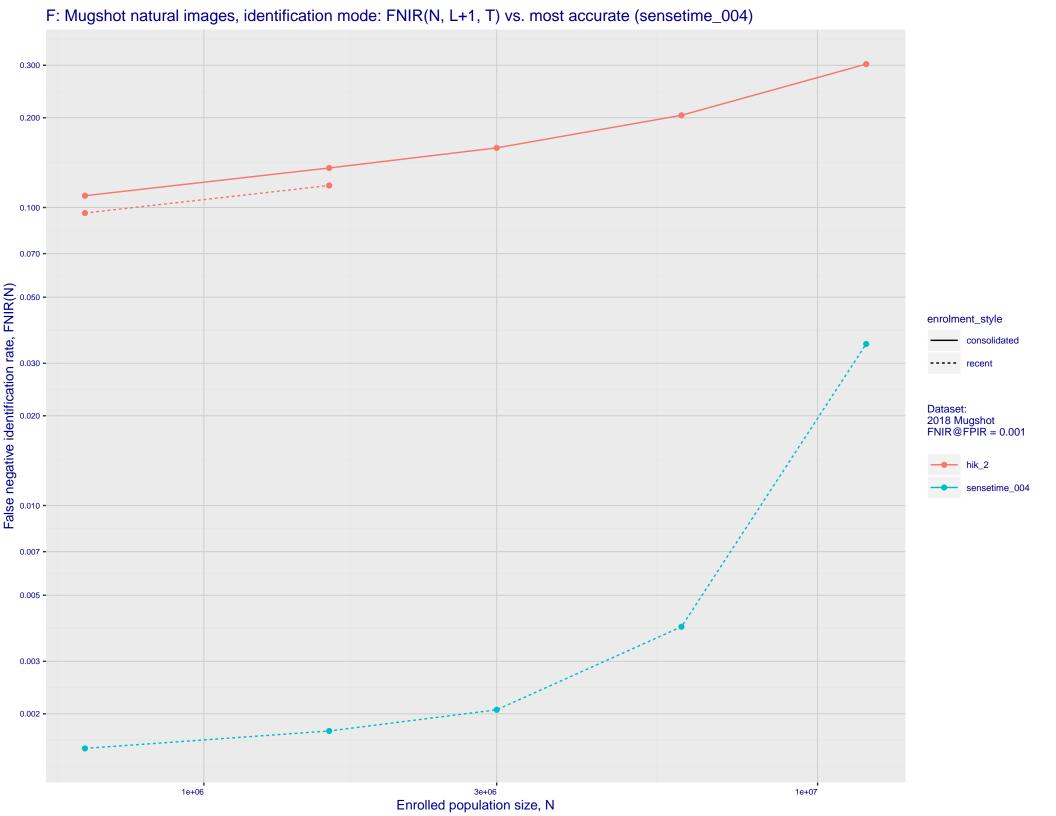
B: Dependence of error rates on T by number enrolled identities, N, for Mugshot natural images











G: Datasheet

Algorithm: hik_2

Developer: Hikvision Research Institute

Submission Date: 2018_02_12

Template size: 1808 bytes

Template time (2.5 percentile): 813 msec

Template time (median): 819 msec

Template time (97.5 percentile): 854 msec

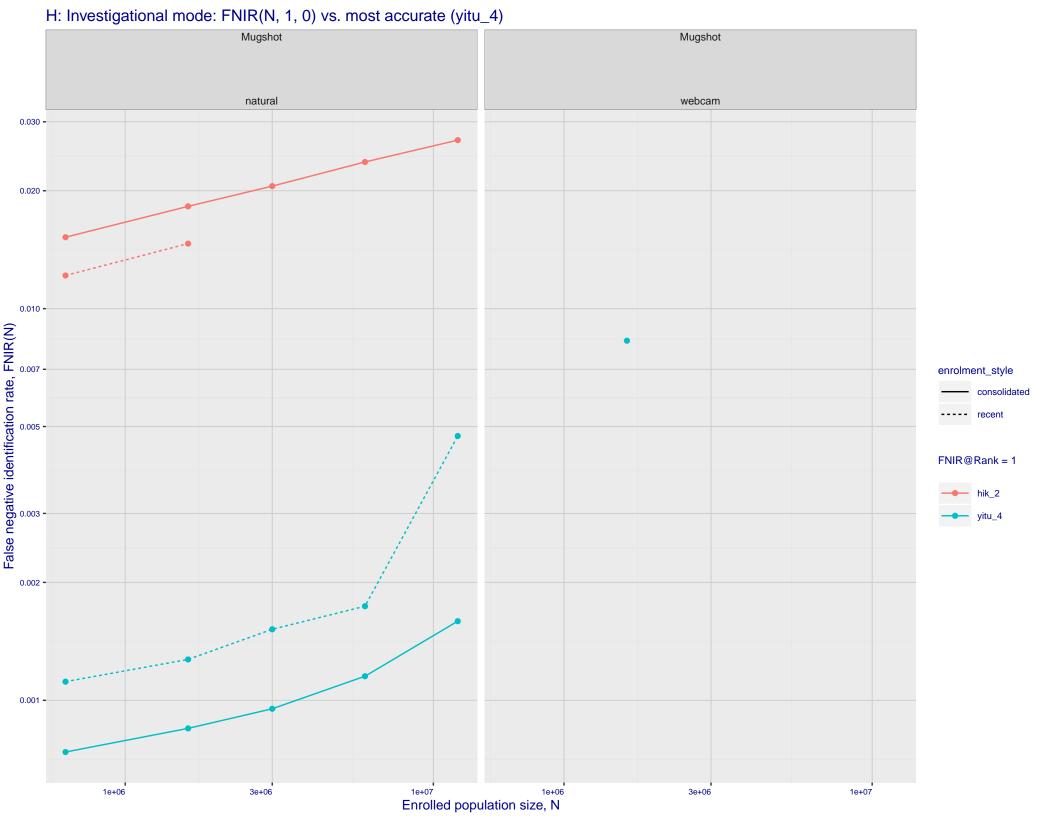
Frontal mugshot investigation rank 136 -- FNIR(1600000, 0, 1) = 0.0147 vs. lowest 0.0010 from sensetime_004

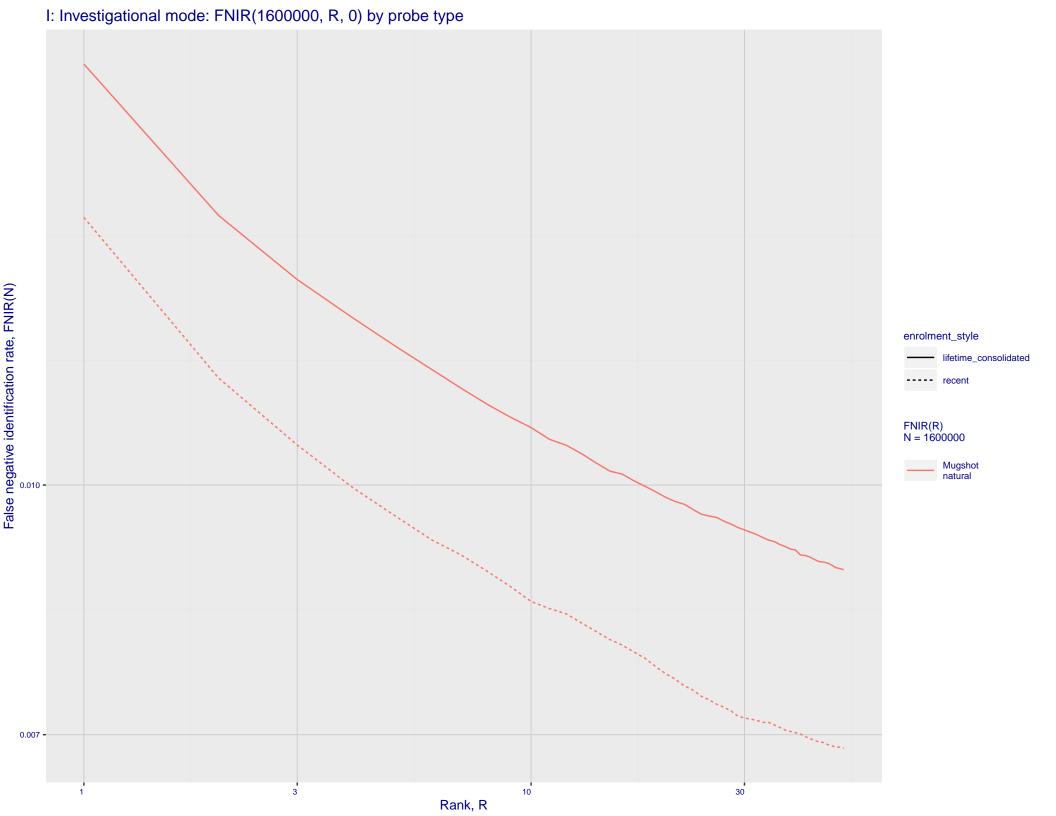
natural investigation rank 164 -- FNIR(1600000, 0, 1) = 0.7398 vs. lowest 0.0492 from paravision_005

natural investigation rank 164 -- FNIR(1600000, 0, 1) = 0.7398 vs. lowest 0.0492 from paravision_005

Frontal mugshot identification rank 134 -- FNIR(1600000, T, L+1) = 0.1185 vs. lowest 0.0018 from sensetime_004

natural identification rank 79 -- FNIR(1600000, T, L+1) = 0.9839 vs. lowest 0.1020 from sensetime_004





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

