Canon
Delighting You Always

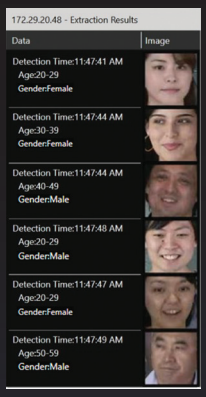
ACCURATE PROFILE DETECTION WITH PROFILE ANALYZER

Combining Face Detection and Tracking Technology, Canon's Profile Analyzer accurately detect the age and gender of multiple persons simultaneously to supply invaluable information for development of marketing strategies and resource deployment.

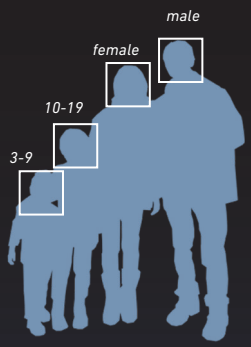
Besides surveillance, user can capitalised on existing cameras to collect visitors' information with Canon's Profile Analyzer. Analyzing up to 30 people/minute, the software can be installed at entrances of small to large scale facilities to capture the profile of visitors for marketing and operation studies.

The estimated profiles are available as preview to allow user to confirm the detection. However, the images and videos that are tied to these personal information are not saved due to privacy consideration. So management can now acquire valuable marketing information while maintaining the privacy of their shoppers.

Surveillance camera video (live video)



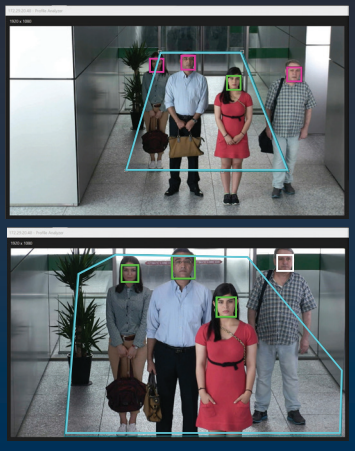
Extraction Results Screen



SETTINGS SUITABLE FOR USERS' APPLICATIONS

DETECTION AREA

User can define, select and adjust the desired area of detections for analysis based on their requirements and environment



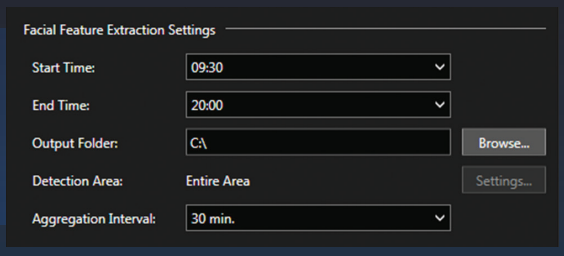
LEGEND

- *Detection area*
- *Detected person*
- *Person outside detection area*
- *Detected, but below size limit for profile estimation*

*Live video display window (For setting detection area*3)*

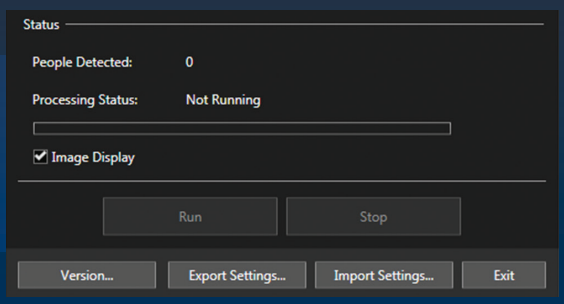
TIME SCHEDULED ANALYSIS

User can automatically activate and perform analysis based on the operation hours or scheduled setting intervals that is adjustable via screen UI.



ANALYSIS PROGRESS BAR

Simple and easy to operate UI with summary of detection and progress of analysis can be shown.



Business *can* be simple

SPECIFICATIONS

OPERATING ENVIRONMENT		
Recommended PC specifications		CPU : Intel Core-i7-4770 or greater (at least 4 cores, HT technology compatible) Memory : 8GB or greater
Operating system		Windows 7 Ultimate/Professional/Enterprise/Home Premium SP1 64-bit Windows 8.1/Windows 8.1 Pro/Windows 8.1 Enterprise 64-bit Windows 10 Pro/Enterprise/Home 64-bit Windows Server 2008 R2 Standard SP1 64-bit Windows Server 2012 Standard 64-bit Windows Server 2012 R2 Standard 64-bit
Software		.NET Framework 4.5.2
Operating system language		Japanese/English
Compatible Cameras		[Canon network camera] VB-H45/B, VB-M44/B, VB-H730F MK II, VB-S30D MK II, VB-S31D MK II, VB-S800D MK II, VB-S900F MK II, VB-S805D MK II, VB-S905F MK II VB-H761LVE-H, VB-H751LE-H, VB-M741LE-H, VB-S30VE, VB-S800VE, VB-S910F, VB-R13VE, VB-R13, VB-R12VE, VB-M50B, VB-H652LVE, VB-H651VE, VB-H651V, VB-H761LVE, VB-H760VE, VB-H751LE, VB-R11VE, VB-R11, VB-R10VE, VB-M641VE, VB-M641V, VB-M640VE, VB-M640V, VB-M741LE, VB-M740E, VB-H43/B, VB-H630VE, VB-H630D, VB-H730F, VB-M42/B, VB-M620VE, VB-M620D, VB-M720F, VB-S30D, VB-S31D, VB-S800D, VB-S900F, VB-S805D, VB-S905F
Requirements for the input file		Video Format : JPEG Resolution : 1920x1080, 960x540, 480x270 (The closest available image size offered by the camera, will be used as a source.) Frame rate : 10fps (Fixed) Other Setting : The camera's quality and angle settings, other than the resolution and frame rate, need to be set using the camera beforehand. Continuous : Not limited. Continues as long as the camera's "Maximum Connection Time" setting allows. Communications Protocol : IPv4 (Does not support IPv6), HTTP. Does not support SSL User Authentication : Basic Authentication /Digest Authentication Connection via proxy : Not supported
FUNCTIONS		
Age group estimation Gender estimation	Input	Canon network camera live video
	Output	Output : CSV file, log Age* : 0-2 / 3-9 / 10-19 / 20-29 / 30-39 / 40-49 / 50-59 / 60 or older (Unit : old) Gender* : Male / Female * If a profile cannot be estimated (for example, only a side profile is visible and a forward looking face is undetectable), it is set to no profile. * Counts People for each profile (age grounp, gender), and aggregates at each specified time.
Detection area specification		Sets using a polygon with three to eight points. Multiple areas cannot be specified. Detection area edit: Changes the shape of the detection area
CSV file aggregation interval		Interval at which to aggregate the results of feature extraction: 10 min. / 15min. / 30 min. / 1 hr
File output interval		Works with file aggregation interval
Schedule Setting		Sets analysis start time/ end time (30 min. units)
Settings export/import		Export file are output into the specified folder.
Log output		✓
Processing status check		People detection status (displays rectangles on detected faces) Preview display (displays latest profile estimation results for 6 people)
SPECIFICATIONS		
Maximum detectable number people per minute		30 people / min
Minimum analyzable face size		80 pixels
Number of concurrent activations per license		1
Number of simultaneous sessions on one PC		No limitations. (Sier controls the programming)
CAMERAS INSTALLATION CONDITION		
Detectable tilt of human face		Within +/- 15° in all directions (up/down/right/left rotation). When over/under +/- 15°, it is possible that the face cannot be detected.
Recommended declination		The angle from directly in front of the face to the left or right is ±5°. The vertical angle from the face to the camera is 13° or less.
SCENES AND SUBJECTS THAT ARE DIFFICULT TO DETECT		

Situations where detection accuracy decreases		• Backlit face appears dark. Contour of the person is fuzzy, due to backlight.
		• Face is blurry. (Shutter speed is slow)
		• Face is not facing camera.
		  • E.g.: Looking at the ground
		  • E.g.: Turning the head or holding cellphone which blocks the face
		  • E.g.: Looking around
		• Part of face is hidden. (mask, sunglasses and facial hair that can not recognize ones face)
		• Inadequate light
		  • Face is not recognized due to darkness
		  • Due to unequal distribution of light, part of face may be shaded
		• People or face blocked or hidden by object

The following situations can cause non-human objects to be incorrectly detected as a person:		• Things that are often mistakenly detected as people
		  • Objects like dolls, or composed of colors/shapes similar to face
		  • Reflections in water, mirrors, glass, etc.
		  • Photos and illustrations in posters, etc.
		  • People displayed on the monitor, etc.

FOR FULL SPECIFICATIONS, PLEASE REFER TO OUR WEBSITE

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