Release notes

15 Jul 2022 **visage|SDK 9.0b1 (Beta)**

Platforms: all

New age and gender estimation models

Introducing smaller, faster and more accurate age and gender estimation models.

Multi-frame analysis module

Introducing new API functions for multi-frame age and gender analysis to ensure more stable and accurate results

Fixed multi-face tracking when the fitting is disabled

New tracking and detection output parameter facial bounding box

Introducing a new parameter for obtaining the bounding box of each tracked/detected face

Slightly improved face tracking precision

Improved physical contour tracking

Platform: Android, iOS

GPU support

visage|SDK algorithms now can be offloaded to the GPU

Platform: macOS

Support of macOS ARM architecture

visage|SDK package for macOS provides optimized libraries for ARM and x86_64 chip architectures

14 Dec 2021 **visage|SDK 8.8**

Platforms: all

Liveness API exposure
The usage of the Liveness preset actions is now also available through the FaceRecognition license.

Upgrade of VNN algorithm for tracking and detecting masked faces
Face tracking and detection algorithms are enhanced so that they can track and detect faces wearing protective masks of various colors and patterns.

Removal of the legacy tracking and detection algorithm
With the improvement of the quality and performance of the VNN algorithm, we have achieved state-of-the-art face tracking and detection. In order to simplify usage and reduce the data, all those algorithms that are no longer competitive are removed.

Switching from visible to physical contour
Introducing the physical contour the stability and accuracy of one of the main visage|SDK features – 3D head-pose estimation has been improved. Improved the usability of the visage|SDK for many market fields such as DMS, Virtual Try-on, and Gaming.

Swift wrapper
It is now possible to develop with the visage|SDK in Swift language on iOS and macOS using the newly implemented Swift wrapper

16 Jul 2021 **visage|SDK 8.8b2 (Beta)**

Platforms: Windows, Android, iOS, Linux, macOS, RedHat, HTML5

Face tracking and detection with protective masks

Face tracking and detection algorithms are enhanced so that they can track and detect faces wearing protective masks of various colors and patterns.

Switching from tracking and detection of visible contour points to physical contour points

Introducing the physical contour the stability and accuracy of one of the main visage|SDK features – 3D head-pose estimation has been improved. Improved the usability of the visage|SDK for many market fields such as DMS, Virtual Try-on, and Gaming.

Platforms: iOS

Swift wrapper

You can now develop with visage|SDK using Swift language on iOS using a newly implemented Swift wrapper

30 Sep 2020 **visage|SDK 8.7 (Stable)**

Platforms: Windows, Android, iOS, Linux, macOS, RedHat, HTML5

New face recognition model

Introducing a smaller, faster, and more accurate face recognition model.

The new and improved face detection model

Introducing improved face detection model, more robust to various challenging conditions such as faces with high variability in scale, illumination, pose and occlusion.

New fast mode of VNN tracking algorithm

Introducing new VNN algorithm fast mode which significantly improves performance at the cost of feature points precision while keeping the same precision of head pose.

Improved tracking performance of VNN algorithm

VNN tracking algorithm now works with higher FPS, with significant improvements on devices such as high-end mobile and desktop devices.

Platforms: Android, iOS

Reduced tracking noise in VNN tracking algorithm on mobile platforms

New VNN tracking models now work with less tracking jitter.

31 Jul 2020 **visage|SDK 8.7b2 (Beta)**

The new improved face detection model

Introducing improved face detection model, more robust to various challenging conditions such as faces with high variability in scale, illumination, pose and occlusion.

New fast mode of VNN tracking algorithm

Introducing new VNN algorithm fast mode which significantly improves performance at the cost of feature points precision while keeping the same precision of head pose.

Improved tracking speed of VNN algorithm

VNN tracking algorithm now works with higher FPS, with significant improvements on devices such as high-end mobile and desktop devices

Reduced tracking noise in VNN tracking algorithm (iOS, Android)

New VNN tracking models now work with less tracking jitter.

Known issues

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08 May 2020 **visage|SDK 8.7b1 (Beta)**

New runner on mobile platforms – Android and iOS

Optimized for running neural networks and significantly improving the performance of visage|SDK algorithms.

New Face recognition model

Introducing a smaller, faster, and more accurate face recognition model that completely replaces the old model that will no longer be distributed.

The model is available for desktop platforms and on mobile platforms.

Known issues

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10 Feb 2020 **visage|SDK 8.6.1 (Stable)**

A novel experimental tracking algorithm – *VNN* – introduced

The new algorithm minimizes jitter, increases tracking accuracy and robustness but reduces tracking performance (speed). It is demonstrated in ShowcaseDemo and FaceTracker2 samples via new *Ultra* tracking configuration.

New neural network runner provided – OpenVINO™ toolkit

Significantly improves the performance of age estimation, face recognition and face tracking with VNN algorithm on Intel 64-bit processors.

OpenVINO is a trademark of Intel Corporation or its subsidiaries.

Ear tracking   NEW FEATURE

Additional 24 feature points on ears are now tracked (12 points per ear). Ear tracking is configurable through the tracker configuration file or API.

Iris tracking   NEW FEATURE

Face data from tracker and detector now includes information about iris diameter.

VisageConfiguration **API introduced**

It is now possible to modify specific tracker configuration parameters via an interface during tracking.

Age estimation accuracy improved

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30 Mar 2019 **visage|SDK 8.5 (Stable)**

Improved smoothing filter

Smoothing of feature points is performed using multiple filters. For still face, higher amount of smoothing is applied while fast movements are less smoothed in order to avoid noticeable delay. Increased stability of feature points and head position especially in profile and half-profile pose.

Refactoring of frame preprocessing resulting in more stable FPS and improved accuracy on high-resolution frames

The core tracking loop was re-implemented to make the tracking frame rate less dependent on the size of the face in the image. This fixes performance drops in cases where the face takes up a small portion of the frame. Additionally, noise introduced by resizing of higher-resolution frames is reduced which results in more stable tracking.

HTML5 **API upgraded to use typed arrays**

API for fetching tracking data has been modified to return typed arrays. Improves performance and simplifies memory management of tracked data.

IOS **ANDROID** *ShowcaseDemo* **introduces example of tracking from video including source code.**