

FACE DETECTION AND RECOGNITION

Overview

In November 2023, Timestone Software introduced Face Detection and Recognition technology into its software.

This technology allows Timestone Software customers (herewith referred to as photographers) to automate and expedite some of the more arduous and time-consuming tasks associated with high volume photography.

Timestone Software recognises there may be a sense of unease in the wider community with respect to the use of such technology. This white paper is therefore aimed at easing such concerns by explaining, in simple terminology, what the technology is and how it can and cannot be used. Particular emphasis will be placed on addressing questions of privacy and security.

Regulatory matters

Depending on the region, there may be regulations in place regarding biometric information, consent and utilization.

Photographers should obtain their own advice as to any applicable laws and regulations in their area. Timestone Software is not responsible for photographers using its Face Detection and Recognition technology when they are not permitted to do so.

Scope

The Face Detection and Recognition technology is completely optional. Photographers may choose to use some, all or none of the features outlined in this document.

How it works

Multiple points of the face in a digital image are analysed to create what is known as a Face Template - also referred to by such terms as a Face Profile or Face Biometric Profile. This digitised template is encrypted and stored in the photographer's database against the image's data record. The Timestone Software desktop applications can then use this data to perform various tasks listed below.

What it's used for

Once the Face Template has been made and associated with the image, the photographer can proceed to use the technology to help with the following:

1. Detect closed eyes
2. Correct inconsistencies in cropping
3. Find mismatched images
4. Automatically name traditional group photographs
5. Find multiple occurrences of a face photographed at different times at an event

Detect closed eyes

The technology can be used to very quickly detect any faces where eyes are closed saving the photographer the arduous task of checking each image manually.

Correct inconsistencies in cropping

Variations in cropping and sizing from image to image are inevitable in high volume photography. The software can be used to reduce or eliminate such variations.

Find mismatched images

When a person has more than one image associated to them, the Face Recognition technology can detect if the faces are different and therefore different people. The photographer is alerted of such 'mismatches'.

Name traditional group photographs

The technology can be used with named group photographs by detecting each face in the group photograph, finding their corresponding portrait image then placing the name associated with the portrait image into the correct row and position.

Find multiple occurrences of a face

Mainly used by event and pre-school photographers where a person has many photographs taken of them throughout the event. The technology can be used to find all the occurrences of the same face and match them all to the correct person.

What it can't do

A face template can only be used within the Timestone Software applications and for the tasks listed above.

Notably, it cannot be used to re-create a face. Someone in possession of the template cannot use it to know what the face looks like or who it belongs to.

Security and Privacy

As mentioned, the technology can only be used for the tasks listed and only by photographers using Timestone Software's applications. Nevertheless, the most common questions concerning privacy and security are answered below.

Where and how is the Face Template stored?

The Face Template is encrypted and stored in the photographer's MySQL database as part of the image's data record. When it needs to be accessed by the software, the data transfer from the MySQL database to the software is also encrypted.

Is the internet involved at all?

No. The Face Template is created by the photographer's Timestone Software applications on their desktop computers. Third party cloud services are not used at all. The images do not need to leave the photographer's premises.

What about when ordering online?

The Timestone Internet Ordering System does not use Face Detection and Recognition. Images uploaded to the photographer's site do so without the Face Template.

If I buy my child's images, do they come with the Face Template?

No. The Face Template is not part of the image file itself. It is separate data, stored in the database only.

What if the photographer is hacked or broken into?

In the event someone gains unauthorised access to the photographer's server, they will find the MySQL database locked behind a username and password. Should they get past that, they will need to know how to navigate through a complex relational database only to find the Face Template record is encrypted and unreadable. Should they manage to crack the encryption they would find the Face Template of no use unless they have Timestone Software to perform the tasks mentioned above.

Note: Server security is the responsibility of the photographer not Timestone Software. Timestone Software encrypts the Face Template but is not responsible for the general security of a photographer's servers.

More information

Any outstanding questions or concerns can be emailed to support@timestone.com.au