



## Harness the power of 3D with any 2D photo

### The Revolutionary 3D FaceMap System:

When we look at a photograph, we see many distinctive characteristics and subtle nuances in a face. When a computer looks at a photograph, it sees pixels.

One limiting factor is the flat, lifeless aspect of a 2D photo. 3D FaceMap takes standard two-dimensional photographs to the next level. This revolutionary software can extract realistic, explicit information from a 2D photo and create a "virtual 3D" model. Built upon Genex's extensive research into the human form, 3D FaceMap creates models with true bone and muscle structures.

By integrating with Genex's 3D Enroll component, one image can quickly convert into dozens of images with varying pose, lighting, and expression to dramatically improve performance. 3D FaceMap will make watchlist databases many times more powerful.

### Features

- ◆ **Picture-to-3D Mapping** - Maps anatomical features from 2D into 3D facial structures.
- ◆ **Automatic 2D-to-3D Transformation** - Processes enhanced database photos in the background as part of a modular recognition system. Processing occurs offline and does not affect operations.
- ◆ **True Muscle and Bone Feature Modeling** - Utilizes sub-surface features and advanced structural algorithms.
- ◆ **Built on Genex's Human Form Research** - Algorithms, feature sets, and modeling techniques come from extensive research and experience in imaging and human forms.



### Applications

- ◆ **Law Enforcement** - Offers rapid method of enhancing criminal photos to show varying conditions.
- ◆ **Facial Recognition** - Integrates with existing FR systems via API and offline processing capability.
- ◆ **WatchList Surveillance** - Enhances WatchList databases with additional suspect photos under varying conditions.
- ◆ **Access Control** - Increases reliability of match scores by providing additional photos for each authorized user.



# 3D FaceMap™

Enabling Facial Recognition

SureMatch 3D Suite

By Genex Technologies

## Benefits

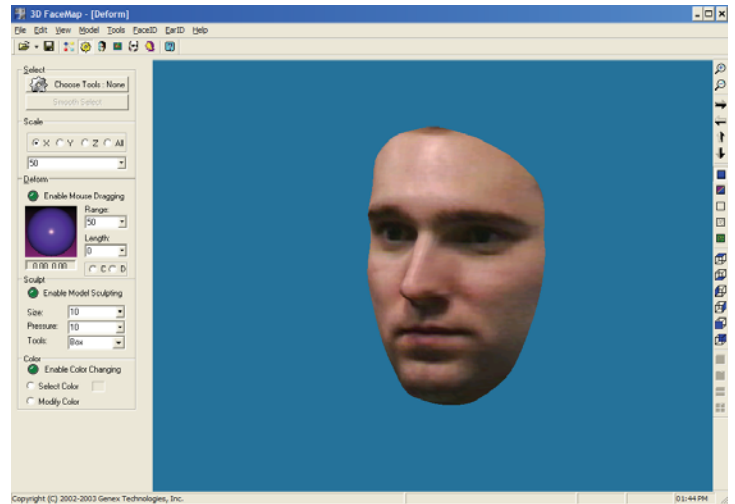
- ◆ **Significantly Improved Performance** – Integrated with Genex's 3D Enroll, 3D FaceMap provides a practical but powerful solution to overcome the difficulties inherent in facial pose, lighting, and expression variations that occur in real-life applications.
- ◆ **Seamless Integration** – 3D FaceMap integrates seamlessly with most leading facial recognition solutions to automatically obtain 2D pictures from an operational facial recognition database. For more information on available solutions, please contact Genex today.
- ◆ **Next-Generation 3D Processing Using Existing 2D Databases** – Pictures stored in a database can now be converted to 3D. By adding capabilities to traditional databases, next-generation 3D performance can be achieved today.

## Options

- ◆ **Genex Database Management:** Achieve next-generation performance today with Genex's professional conversion and management service. Genex offers these services as a complete solution for customers seeking to transform their database's capabilities. Please contact Genex today for more information.

## Specifications

- **Hardware Requirements:** Compatible with Pentium and Athlon processors. Recommended minimum of Pentium III 700 Mhz with 128 MB RAM.
- **Operating System:** Compatible with Windows 95/98/ME. Recommended Windows 2000/XP for best performance.
- **Automatic Database Interface:** Compatible with industry-standard database systems for automatic photo retrieval and storage.
- **Automatic Output of a 3D Image:** Output to file or direct transfer to another application via API.
- **Flexible Application Programmers Interface (API):** Integrate with other facial recognition tools using Genex's simple API to provide an automatic 2D-to-3D function.

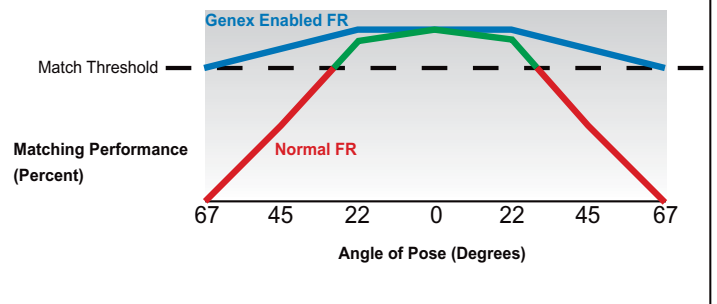


Automatic Mapping: 3D FaceMap generates a model based upon detected features, and then allows the user the flexibility to refine or alter the model if needed.

## Enhanced Performance

### Genex-Enabled Facial Recognition

outperforms normal facial recognition across the board when using 3D FaceMap's models and 3D Enroll's pose and lighting generator.



\*Data represented above is based upon limited testing at Genex Labs.

## About Genex Technologies

Founded in 1995, Genex Technologies is a world leader in 3D imaging, 3D facial recognition, and intelligent surveillance. Genex provides simple, practical solutions to some of today's most challenging imaging needs.

