Portable & Powerful

BTBP Research M3D
CLARITY™

The Mini 3D System is a small yet powerful 2D and 3D clinical research system, that provides users with a comprehensive set of measurements. It is capable of 2D measurements and 3D topography of skin features as well as 3D facial contour measurements.

Users have the ability to create highly configurable studies and recipes, all in a system with a portable form factor.

Features

Multi-spectral imaging to view & measure surface and sub-surface features

Our patented AI analysis software uses different wavelengths of light to highlight features on the face automatically in order to count and measure them. The information is displayed in many formats including a count and classification of features along with images highlighting the features and measurements are of interest. We use our patented blue light wavelength to replace the dangerous UV light in the system. This means images can be taken with the subject eyes open(perfect for eyelash measurements) and there is no need to worry about skin damage.

Detailed, high resolution 3D models & measurements

The Research 3D System creates high resolution(0.05mm in the xy-plane and less than 0.004mm in the z-plane) photogrammetric 3D model from three separate images. This model can be used for high resolution depth measurements for features such as Wrinkles, Acne, Scars, Facial Contours, Sagging, Enlarged Pores, Texture, Under Eye Bags & Lash Volume. We are the only company that can extract measurements from the 3D models of the face through artificial intelligence. Display beautiful high resolution models in 4K resolution with our BTBP 3D Viewer.

Automatic alignment of all images and 3D models

Never worry about subject facial positioning with the automatic alignment software. Images will be automatically normalized so that there is no error caused by position changes between different timepoints.

Automatic detection of over 110 facial regions for use in analysis

With our recognition technology we automatically detect 110 points on the face and can accurately find the position of any region or feature relative to any of these points. This allows for tracking of specific features or regions overtime for many image sets by our algorithms. The power of this technology removes the need for drawing the regions of interest more than once.

Study Management Modules

Never deal with clinical services again, Configure studies quickly and analyze them instantly with our artificial intelligence software that is more repeatable than a panel of dermatologists.

Progression trends*

Do more than comparisons with our artificial intelligence software to compare measurements between different timepoints automatically.

Batch Processing

There is no need to go through clinical services with our products as all of their analysis capability is handled by our forward thinking artificial intelligence engine which is years ahead of the competition. This will save you time and money because you will not need to pay for each analysis and studies will be completed in fraction of the time because our engine is faster & more repeatable than any visual grader. Batch process the images taken after panelists leave in order to maximize the amount of images taken for a study.

Facial contour and volume modeling

View macro and micro level changes in contours and volume. Get exact numbers for the changes you are seeing through our patented artificial intelligence software.

Portable form factor

Rapid capture

Archiving & Retrieving

Movie timeline of skin progression*

Image and 3D model export

Data Export into Excel

Power Specifications : 100 - 240 VAC 120 @ 10 amps

Measured Features

Skin Type

- Skin Type classification from I-VI (Fitzpatrick)
- High Resolution BTBP skin type classification 1-50
- RGB Average
- L* a* b*

Radiance

- Luminance Delta
- L* from LAB color space

Redness

- Degree of Intensity & Surface Area

Pigmentation

- Spot Count
- Percentage of Surface Area
- Size Classification & Size Distribution
- Intensity & Contrast
- Melasma Scoring via : Darkness, Homogeneity, Average Brightness

Subsurface Pigmentation

- Spot Count
- Percentage of Surface Area & Total Surface Area
- Size Classification & Size Distribution
- Intensity & Contrast
- Pigment Darkness

Wrinkles

- Total Count w/ Emerging, Fine and Deep Line Classification
- Average Length, Width & Severity
- Total Surface Area
- Volume

Enlarged Pores

- Pore Count
- Percentage of Surface Area
- Average Size, Diameter, Visibility, Circularity & Intensity
- Size Classification with Count & Distribution in 3 Categories
- Volume

Texture

- Average Roughness
- Average RGB values
- 3D Skin Topography

Acne

- Active Acne Count & Visibility Scores
- Post Inflammatory Hyperpigmentation & Visibility Scores
- Acne 3D Topography

Eye Area

- Under Eye & Crow's Feet Wrinkle Surface Area
- Under Eye Darkness (L*a*b)
- Individual Typology Angle (ITA) *
- Eyelid Crepiness (Roughness-Average R, G, B)
- Puffiness, i.e. 3D Curvature Profile *

Lips

- Surface Area & Redness Levels
- Border Contrast, Smoothness & Curvature
- Lip Wrinkle Counts Classified by Severity
- 3D Lip Volume

Facial Contours *

- 3D Volume measurement
- Facial Surface area and volume mapping by region of interest
- Sagging Jowls, Hollow Areas, Deep Folds/Creases
- Drooping of the Brow & Upper Eye Lid

Eye Lid Texture

- Roughness

Lash Surface Area

- Lash density
- Maximum Length
- Average Length

Lash Volume

- Lift Up Angle
- Curl Up Angle

The BTBP Difference

- We are the only company that can extract measurements from 3D models of the face through artificial intelligence.

- **We replace clinical services** with our patented AI analysis engine saving your time and money.

- We don't just highlight features on the face, we measure them automatically without the need of a visual grader.

- Display beautiful high resolution models in 4K resolution with our BTBP 3D Viewer.
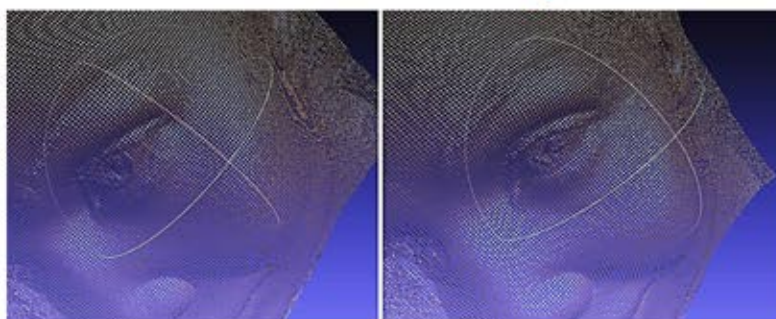
Facial Contour Analysis
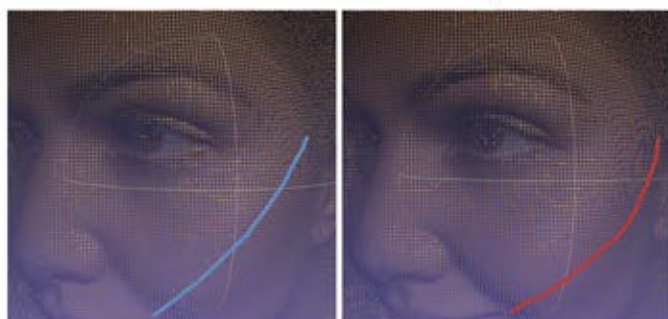
Neutral expression cheek contour
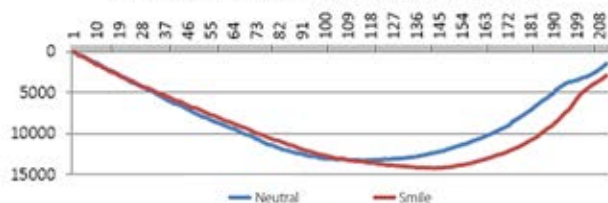
Smile expression cheek contour

Cheek contour map change due to expression

Facial Volume Analysis

Neutral expression

Smile expression

Cheek volume change due to expression