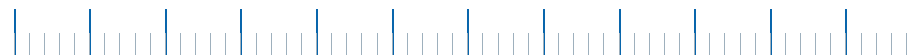




USER MANUAL

Simplified Face

Analyse the face from three clinical photographs: frontal proportions and symmetry, the soft-tissue profile, and the smile. Every screen, button and field explained in plain words.



Simplified Orthodontics Studio
by Simplified Orthodontics Academy
simplifiedortho.pages.dev

Illustrated guide to every screen,
button and field
Edition: September 2026



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1 What Simplified Face does

Simplified Face is a tool for **facial analysis**: you open ordinary clinical photographs of the patient, click on named points of the face, and the tool measures the proportions, angles and distances between them. It compares every value with its normal range and writes a short plain-word reading.

It uses three photographs and runs three analyses, one per photograph:

PHOTOGRAPH	HOW IT IS TAKEN	WHAT IS ANALYSED
Frontal at rest	Face at rest, lips lightly closed, straight on	Facial proportions (thirds and fifths, facial index) and symmetry (midline deviations, cants, right-left differences).
Frontal smile	Posed smile, straight on	Smile analysis: incisor and gingival display, buccal corridors, smile arc, smile index, dental midline and cant.
Profile	Side view in natural head position	Soft-tissue profile: facial convexity, nasolabial angle, the lips against Ricketts' E-line and Burstone's Sn-Pog' line, vertical lip relations and the mentolabial sulcus (Legan and Burstone norms).

- You place the points yourself (manual placement). The tool does all the arithmetic.
- Angles, ratios and percentages need no calibration. Millimetre values need one calibration per photo: the iris, the pupil distance or a ruler.
- It works inside your web browser, on a phone, tablet or computer. The photographs never leave your device; nothing is uploaded.
- After the first visit it also works without an internet connection.
- It is one of the five tools of Simplified Orthodontics Studio, next to Simplified Ceph, Simplified Cast, Simplified CBCT and Simplified Practice.

Words you will meet in this manual

WORD	PLAIN MEANING
Landmark	A named point on the face, for example subnasale (where the nose meets the upper lip). The analyses are built from the distances and angles between landmarks.
Soft tissue	The skin and lips, as opposed to the bone seen on an X-ray. All of Simplified Face measures soft tissue.
Midline	The vertical line through the middle of the face. In this tool it is the perpendicular to the pupil line, through the midpoint between the inner eye corners.
Pupil line	The line through the centres of the two pupils. It is the horizontal reference for the frontal photos.
Natural head position (NHP)	The head held as the patient naturally holds it, looking straight ahead at eye level. Profile photos should be taken in this position.
Calibration	Telling the tool one real distance in the photo, so that pixels can be turned into millimetres.
Norm	The value found in balanced adult faces, given as a mean with its usual spread ($\pm$ one standard deviation) or as a range.

E-line	Ricketts' esthetic line, from the tip of the nose to the chin. The lips are judged by their distance behind it.
Buccal corridor	The dark space between the last visible upper tooth and the corner of the mouth when smiling.
Smile arc	The curve drawn by the upper incisal edges compared with the curve of the lower lip.
JSON project file	A single file (ending in .json) that stores the three photos, all landmarks, the calibration and the patient details.

2 Opening the tool

- 1 Open **simplifiedortho.pages.dev** in Chrome, Edge, Safari or Firefox and choose **Simplified Face**. The direct address is **simplifiedortho.pages.dev/face/**.
- 2 The first time on each device, a small window asks you to sign in with Google or to continue without an account. Signing in keeps a copy of your work in your own Google Drive; it is optional.
- 3 To use it like an app on a phone, tablet or computer, open the **Install** page from the Studio home screen and follow the steps there. Once installed, it opens from its own icon and works offline.

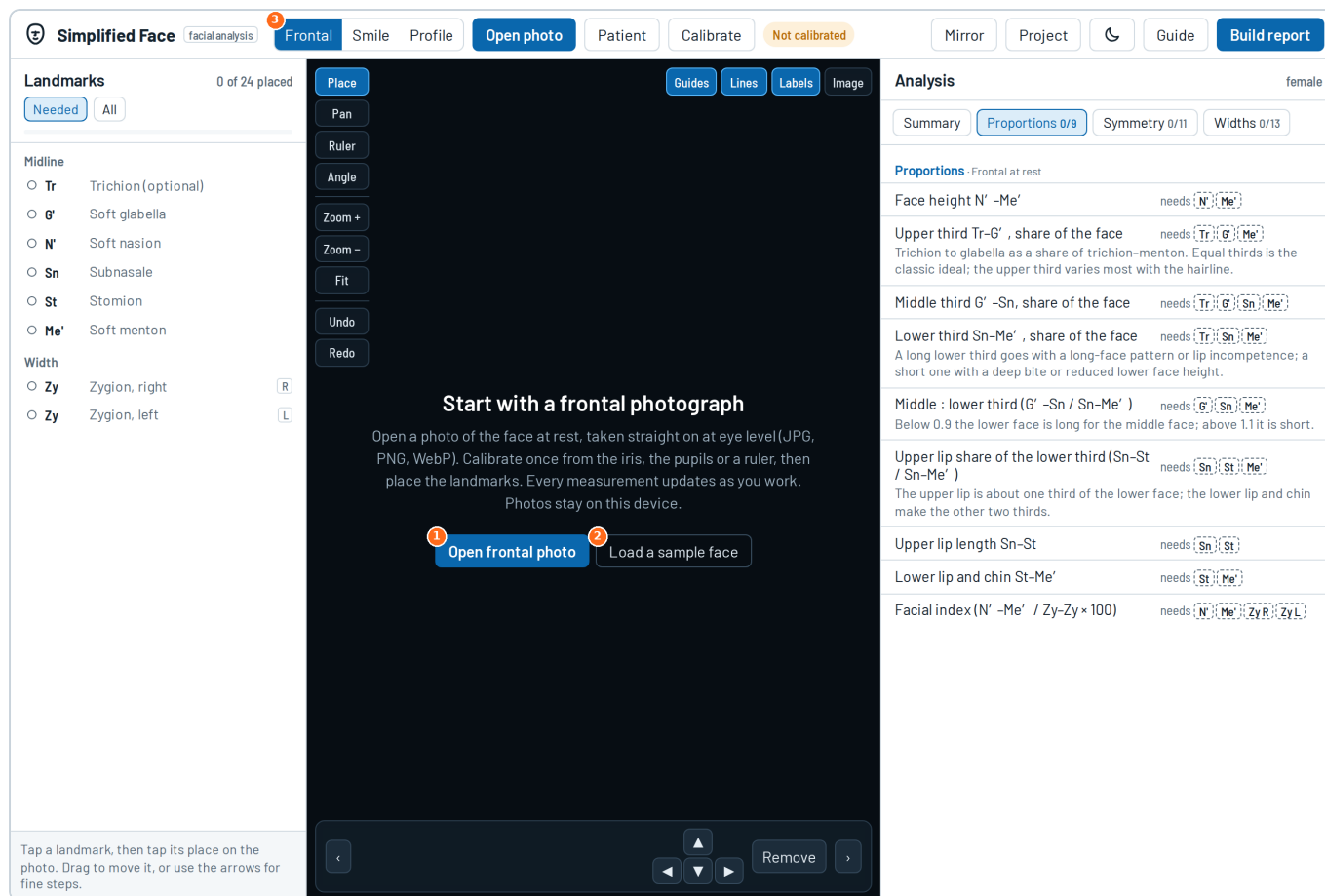


Figure 1. The tool before a photo is opened. 1 Open photo, 2 Load a sample face, 3 the view segment (Frontal, Smile, Profile).

NAME	WHAT IT DOES AND HOW TO USE IT
1 Open photo	Opens a photo from the device for the view selected at the top. JPG, PNG, WebP and most phone photo formats are accepted. Large photos are reduced to a comfortable size.
2 Load a sample face	Loads a schematic drawing of a face, already calibrated and with every landmark placed, so you can explore the analyses before you have a patient photo. It is a drawing, not a person.
3 The text on the screen	Changes with the selected view and tells you how that photo should be taken.

TIP

Load the sample face first and click around. Everything you see in this manual was made with it.

3 The screen at a glance

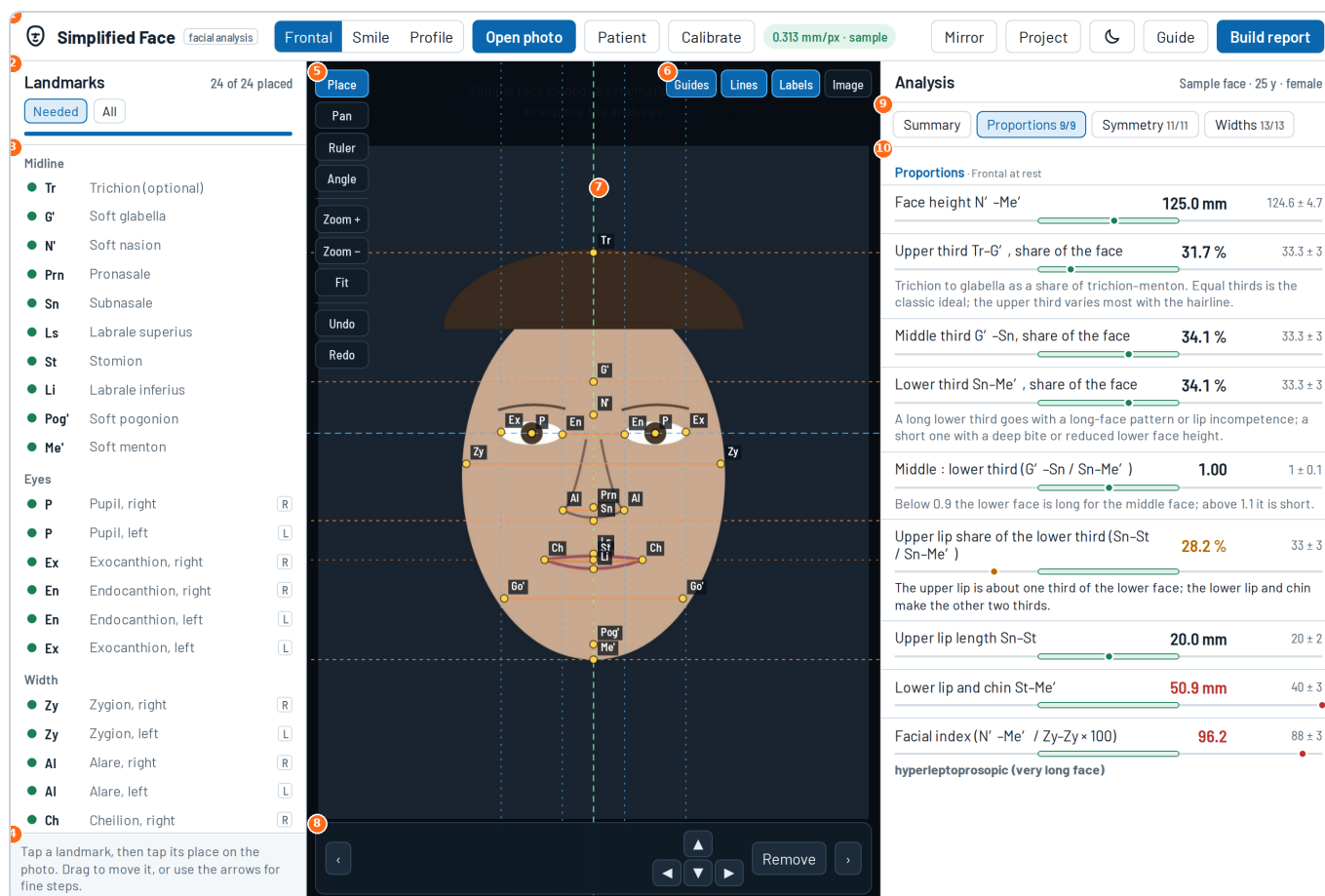


Figure 2. The working screen with the sample face and all landmarks placed. The numbers refer to the table below.

NAME	WHAT IT DOES AND HOW TO USE IT
1 Top bar	Choose the view, open the photo, enter the patient, calibrate, open the mirror composites, save the project, switch night mode, read the guide and build the report. See chapter 4.
2 Landmark header	Shows how many landmarks are placed, the Needed / All filter and a progress bar. See chapter 8.
3 Landmark list	Every landmark of the current view, grouped by region. Tap one to select it, then tap the photo. A green dot means it is placed.
4 Definition line	Where exactly to click for the selected landmark.
5 Tool column	Place, Pan, Ruler, Angle, zoom, fit, undo and redo. See chapter 9.
6 Display buttons	Show or hide the reference guides, the analysis lines and the labels; open the Image panel (brightness, contrast, rotation, levelling). See chapter 10.
7 Photo	The photograph with the landmarks and guide lines drawn on top. Pinch or use the wheel to zoom, drag with Pan to move.
8 Action bar	Name and definition of the selected landmark, arrows for fine movement, Remove, previous and next. See chapter 11.
9 Analysis tabs	Summary plus one tab per group of measurements of the current view.



Results

Every measurement with its value, its norm, a bar and a plain-word reading. Tap a row to highlight the landmarks it uses.

4 The top bar



Figure 3. The top bar.

NAME	WHAT IT DOES AND HOW TO USE IT
1 Simplified Face	The tool's name. Nothing to press.
2 Frontal · Smile · Profile	The view segment. Each view has its own photo, landmarks, calibration and analyses. A small dot on a view means it already has landmarks. Switch freely; nothing is lost.
3 Open photo	Opens a photo for the current view (chapter 2). Opening a new photo into a view that already has landmarks clears those landmarks, because they no longer match.
4 Patient	Opens the patient and record form (chapter 6). Sex chooses the matching norms.
5 Calibrate	Opens the calibration dialog for the current photo (chapter 7).
6 Scale chip	Reads "Not calibrated" (orange) until you calibrate, then shows the scale in pixels per millimetre and how it was set (green).
7 Mirror	Frontal view only: shows the original face beside a right-right and a left-left composite to judge symmetry (chapter 13).
8 Project	Save the whole case as one file, open a saved file, clear the current photo, or start a new patient (chapter 16).
9 Night mode	Switches the tool between light and dark colours. The choice is remembered and applies to the whole Studio.
10 Guide	A five-minute summary of the workflow and the photo requirements.
11 Build report	Lays out the three photos and every table on a printable page; save it as PDF from the print dialog (chapter 15).

5 The five-step workflow

- 1 Choose a view at the top, then **Open photo**.
- 2 Press **Patient** and enter the name, age and sex (the norms differ between women and men).
- 3 Press **Calibrate** and set the scale from the iris, the pupil distance or a ruler.
- 4 Place the landmarks: tap a name in the list, then tap its place on the photo. The list moves to the next landmark by itself.
- 5 Read the analysis on the right, repeat for the other two photos, then press **Build report**.

NOTE

Angles, ratios and percentages appear as soon as their landmarks are placed, even without calibration. Only millimetre values wait for the scale. If you only need the profile angles or the smile proportions, you can skip calibration altogether.

Patient and record

Sex selects the matching norms where they differ (lip lengths, nasolabial angle). Age is printed on the report; norms are for adults and late adolescents.

1 Patient name: Sample face

2 Record number:

3 Age (years): 25

4 Sex: Female

5 Photo date: mm/dd/yyyy

6 Clinician / clinic:

7 Clinical notes (printed in the report):

8 Cancel

9 Save patient

Figure 4. The patient form.

NAME	WHAT IT DOES AND HOW TO USE IT
1 Patient name	Printed at the top of the report and in the file name of the saved project.
2 Record number	Your file or chart number for the patient.
3 Age (years)	Printed on the report. Decimals are allowed (for example 14.5). The norms are for adults and late adolescents; treat the readings for children as a guide only.
4 Sex	Female or Male. It selects the matching norms where they differ: lip lengths, nasolabial angle, face widths and pupil distance.
5 Photo date	The date the photographs were taken.
6 Clinician / clinic	Printed on the report.
7 Clinical notes	Free text printed at the end of the report.
8 Cancel	Closes the form without saving changes.
9 Save patient	Saves the form. The details are kept on this device and in the project file.

A photograph has no scale of its own: the same face is bigger or smaller depending on the distance to the camera. Calibration tells the tool one real distance in the photo. After that every pixel has a known size in millimetres and all distance values become real. Each of the three photos is calibrated separately, because they are usually taken at slightly different distances.

Calibrate the frontal photo

A photo has no scale of its own. Tell the tool one real distance and every millimetre value becomes real. Angles and percentages work without calibration.

1 Iris width (11.7 mm) 2 Pupil distance 3 Ruler or known distance

4 Distance between the pupils (mm) Measured on the photo

63

Scale (pixels per millimetre) Copy from

3.200 —

Cancel Apply

Figure 5. The calibration dialog with its three methods.

NAME	WHAT IT DOES AND HOW TO USE IT
1 Iris width (11.7 mm)	The quickest and usually the most reliable method for frontal photos. The horizontal width of the visible iris is 11.7 mm in almost every adult (11.0 to 12.5 mm). Choose it, then tap the two sides of one iris on the photo (chapter 7.1).
2 Pupil distance	Uses the two pupil landmarks and the patient's known pupil distance (from an optician, or the adult average of 63 mm). It needs both pupils placed first.
3 Ruler or known distance	Mark any two points a known distance apart: a ruler or a paper strip held at the face, or a distance you have measured with callipers, such as the width of a central incisor (about 8.5 mm) in the smile photo.
4 Hint line	Explains the selected method.
5 Apply	Starts the chosen method. For the ruler and iris methods it closes the dialog and asks you to tap two points on the photo.

7.1 Marking two points on the photo

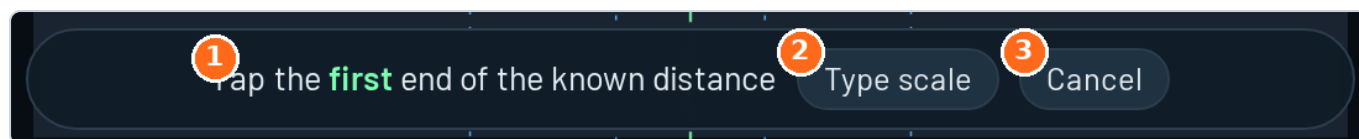


Figure 6. The bar that appears at the bottom of the photo while you mark the two points.

NAME	WHAT IT DOES AND HOW TO USE IT
1 Instruction	Tells you what to tap next: the first, then the second point.
2 Type scale	If you already know the scale in pixels per millimetre (for example from the same camera setup), type it instead of marking points. The Copy from box copies the scale from another view taken at the same distance.
3 Cancel	Leaves calibration without changing anything.

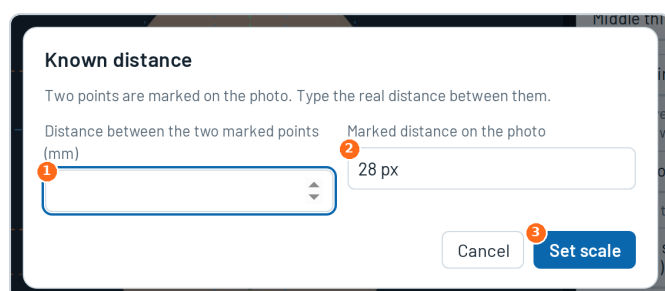


Figure 7. After the second tap: type the real distance. For the iris the box is already filled with 11.7 mm.

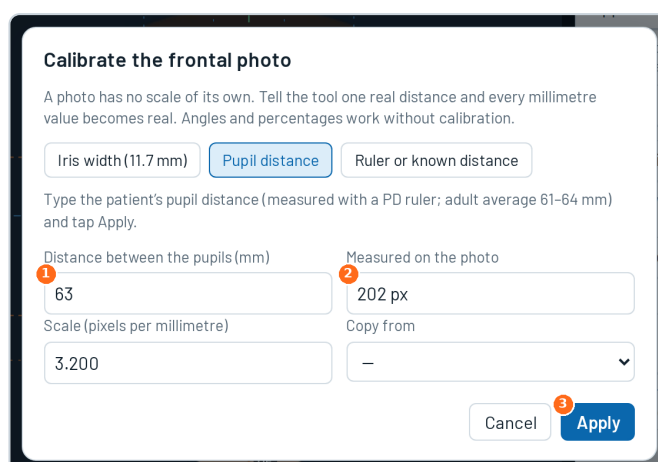


Figure 8. The pupil-distance method: type the patient's pupil distance; the tool shows the measured distance on the photo.

NAME	WHAT IT DOES AND HOW TO USE IT
1 Distance between the two marked points (mm)	The real distance. Press Set scale.
2 Marked distance on the photo	The same distance in pixels, measured by the tool. Read only.
3 Set scale	Applies the calibration. The scale chip turns green.
4 Distance between the pupils (mm)	Pupil-distance method: the patient's interpupillary distance. The adult average is 63 mm (women about 61, men about 64). Use a measured value when you have one.
5 Measured on the photo	The pupil distance in pixels between the two pupil landmarks.
6 Apply	Applies the pupil-distance calibration.

Calibrate the frontal photo

A photo has no scale of its own. Tell the tool one real distance and every millimetre value becomes real. Angles and percentages work without calibration.

Iris width (11.7 mm)

Pupil distance

Ruler or known distance

Tap two points a known distance apart: the marks of a ruler held at the face, or any object of known size in the plane of the face. Tap Apply to start.

Distance between the pupils (mm)	Measured on the photo
63	202 px
Scale (pixels per millimetre)	Copy from
1 3.200	2 —

Cancel

Apply

Figure 9. Type scale: enter pixels per millimetre directly, or copy the scale from another view.

KEEP IN MIND

The three photos are calibrated separately. A scale copied from another view is only correct when both photos were taken from the same distance with the same lens. Zooming on the screen does not change the calibration.

8 Placing landmarks

Landmarks

1 of 24 placed

2 Needed

3 All

4

5

6

Midline

- **Tr** Trichion (optional)
- **G'** Soft glabella
- **N'** Soft nasion
- **Prn** Pronasale
- **Sn** Subnasale
- **Ls** Labrale superius
- **St** Stomion
- **Li** Labrale inferius
- **Pog'** Soft pogonion
- **Me'** Soft menton

Eyes

- **P** Pupil, right

R
- **P** Pupil, left

L
- **Ex** Exocanthion, right

R
- **En** Endocanthion, right

R
- **En** Endocanthion, left

L
- **Ex** Exocanthion, left

L

Width

- **Zy** Zygion, right

R
- **Zy** Zygion, left

L
- **Al** Alare, right

R
- **Al** Alare, left

L
- **Ch** Cheilion, right

R

7 Tap a landmark, then tap its place on the photo. Drag to move it, or use the arrows for fine steps.

Figure 10. The landmark list of the frontal view.

NAME

WHAT IT DOES AND HOW TO USE IT

1 Counter

How many landmarks of the current view are placed, out of the total.

2	Needed	Shows only the landmarks the current analysis tab needs, plus those already placed. This is the normal way to work: choose a tab on the right and the list tells you exactly what to place.
3	All	Shows every landmark of the view.
4	Progress bar	Fills as landmarks are placed.
5	Group title	Landmarks are grouped by region: midline, eyes, width, lips, teeth and so on.
6	Landmark row	Abbreviation, name and side (R or L). A green dot means it is placed; the highlighted row is the active landmark, the one your next tap on the photo will place.
7	Definition	The exact place to click for the active landmark.

How to place, move and remove a point

- 1 Make sure **Place** is selected in the tool column (it is by default).
- 2 Tap a landmark in the list, then tap its place on the photo. The list jumps to the next landmark that is still needed.
- 3 A magnifier follows your finger or pointer while you hold it down, so you can see fine detail under it.
- 4 To correct a point, drag it. For small steps use the four arrow buttons in the action bar, or the arrow keys on a keyboard (with Shift for larger steps).
- 5 To delete a point, select it and press **Remove** in the action bar, or press Delete.
- 6 **Undo** and **Redo** take back and repeat any placement, move or removal.

SIDES

Right and left always mean the patient's right and left. On a frontal photo the patient's right eye is on the left side of the picture.

9 The tool column

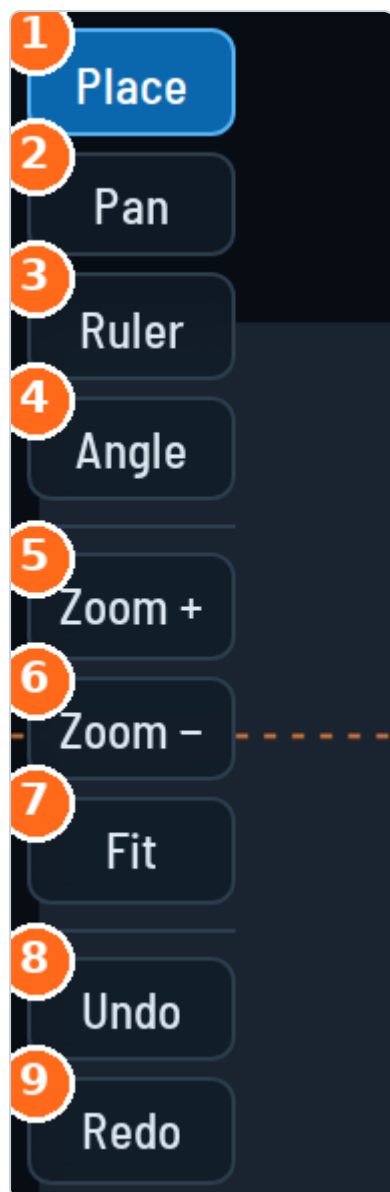


Figure 11. The tool column at the left of the photo.

NAME	WHAT IT DOES AND HOW TO USE IT
1 Place	Normal mode. Tap to place or select a landmark, drag to move it. Shortcut: V.
2 Pan	Drag the photo around. On a keyboard you can also hold Space and drag in any mode; on a touch screen, drag with one finger away from any landmark, or use two fingers.
3 Ruler	Measure any distance: tap two points. The result is shown in millimetres when the photo is calibrated, otherwise in pixels. Rulers stay on the photo until you clear them from the Image panel.
4 Angle	Measure any angle from three points: tap the first arm, the vertex, then the second arm.
5 Zoom +	Zoom in on the centre. Shortcut: + . The mouse wheel and pinching also zoom, centred on the pointer or the fingers.
6 Zoom -	Zoom out. Shortcut: - .
7 Fit	Show the whole photo. Shortcut: F.
8 Undo	Take back the last change. Shortcut: Ctrl+Z.
9 Redo	

10 Display buttons and the Image panel

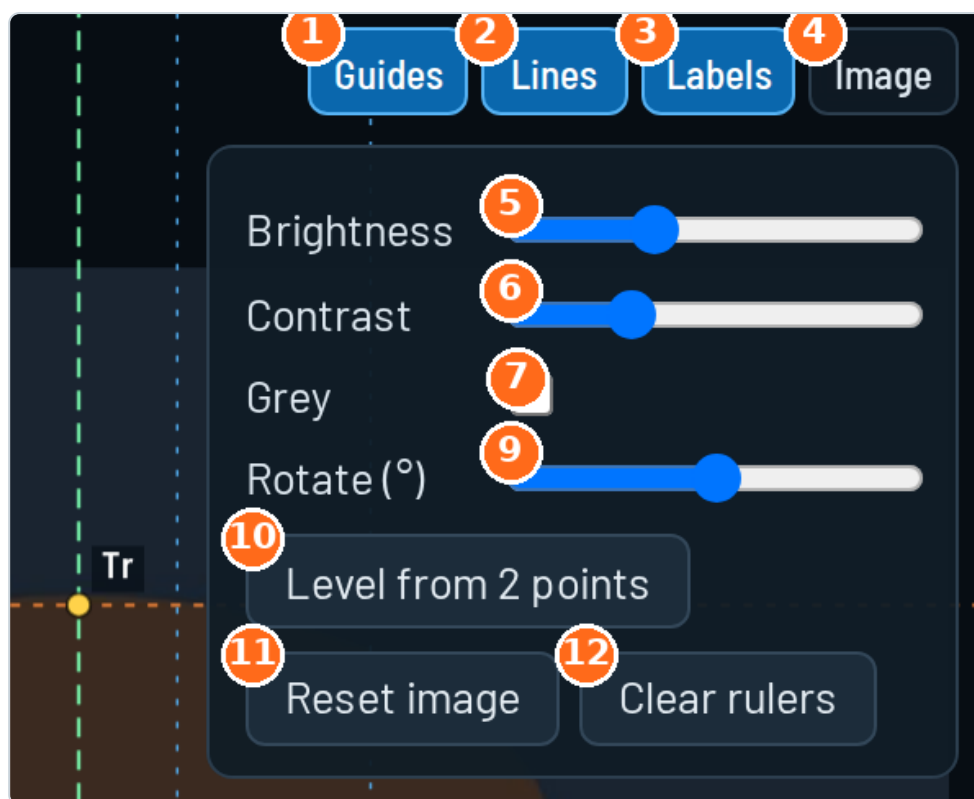


Figure 12. The display buttons(top right of the photo)with the Image panel open.

NAME	WHAT IT DOES AND HOW TO USE IT
1 Guides	Draws the reference lines used by the analyses: the pupil line and midline on the frontal photos, the E-line and Sn-Pog' line on the profile, the incisal and lip curves on the smile.
2 Lines	Draws the lines that join the landmarks of the highlighted measurement.
3 Labels	Shows the abbreviation next to every placed landmark.
4 Image	Opens and closes the Image panel below.
5 Brightness	Lightens or darkens the photo on screen. Does not change the file or the measurements.
6 Contrast	Increases or reduces contrast, useful to see the lip borders or the gingival margin.
7 Grey	Shows the photo in black and white.
8 Profile faces	Profile view only: tells the tool which way the face points (Right or Left), so that "in front of" and "behind" are read correctly. The tool guesses it from the landmarks; change it if the guess is wrong.
9 Rotate (°)	Turns the photo by up to 15 degrees either way, for a photo that was taken slightly tilted.

-
- | | | |
|----|---------------------|--|
| 10 | Level from 2 points | The precise way to straighten a photo: tap two points that should be horizontal (the two pupils on a frontal photo) or vertical (a plumb line or door frame on a profile photo). The tool rotates the photo accordingly. |
|----|---------------------|--|
-
- | | | |
|----|-------------|--|
| 11 | Reset image | Returns brightness, contrast, grey and rotation to their defaults. |
|----|-------------|--|
-
- | | | |
|----|--------------|--|
| 12 | Clear rulers | Removes all ruler and angle measurements from the current photo. |
|----|--------------|--|
-

WHY LEVELLING MATTERS

Every vertical and horizontal measurement is taken along the photo's axes after rotation. A tilted profile photo changes the reading of "behind the E-line" or "vertical lip length". Level the photo before you read the values, or take the photo with the camera level and the patient in natural head position.

11 The landmark action bar

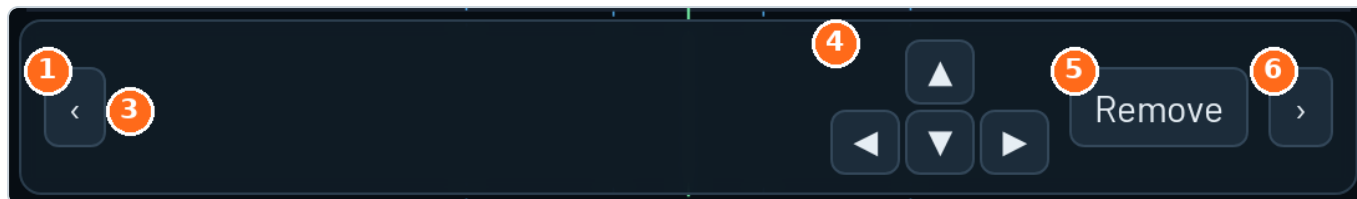


Figure 13. The action bar at the bottom of the photo.

NAME	WHAT IT DOES AND HOW TO USE IT
1 Previous	Selects the previous landmark in the list.
2 Name	The active landmark.
3 Definition	Where to click for it.
4 Nudge arrows	Move the active landmark one pixel of the photo at a time in the four directions. Keyboard: arrow keys; Shift + arrow moves five pixels.
5 Remove	Deletes the active landmark from the photo. Undo brings it back.
6 Next	Selects the next landmark in the list.

12 The analysis panel

Analysis
1 sample face - 25 y - female

2
Summary
Proportions 9/9
Symmetry 11/11
Widths 13/13

Proportions - Frontal at rest

3
6
 Face height N' -Me'
 4
5
 125.0 mm
 124.6 ± 4.7

Upper third Tr-G' , share of the face
 31.7 %
 33.3 ± 3

7
 Trichion to glabella as a share of trichion-menton. Equal thirds is the classic ideal; the upper third varies most with the hairline.

Middle third G' -Sn, share of the face
 34.1 %
 33.3 ± 3

Lower third Sn-Me' , share of the face
 34.1 %
 33.3 ± 3

A long lower third goes with a long-face pattern or lip incompetence; a short one with a deep bite or reduced lower face height.

Middle : lower third (G' -Sn / Sn-Me')
 1.00
 1 ± 0.1

Below 0.9 the lower face is long for the middle face; above 1.1 it is short.

Upper lip share of the lower third (Sn-St / Sn-Me')
 28.2 %
 33 ± 3

The upper lip is about one third of the lower face; the lower lip and chin make the other two thirds.

Upper lip length Sn-St
 20.0 mm
 20 ± 2

Lower lip and chin St-Me'
 50.9 mm
 40 ± 3

Figure 14. The analysis panel, frontal view, Proportions tab.

NAME	WHAT IT DOES AND HOW TO USE IT
------	--------------------------------

1 Patient line	Name, age and sex as entered in the patient form.
2 Tabs	Summary, then one tab per group of measurements. The small number is how many of the group's measurements are complete (for example 9/9).
3 Measurement row	One measurement: its name with the landmarks it uses. Tap the row to highlight those landmarks on the photo and draw their lines. Tap again to clear.
4 Value	The measured value with its unit. Orange means outside one standard deviation of the norm, red means far outside.
5 Norm	The normal value: mean $\pm$ one standard deviation, or a range.
6 Bar	The green band is the normal range; the dot is the patient's value.
7 Reading	A plain-word comment on what the value means clinically.

What the panel shows before the landmarks are complete

- **Needs:** ... lists the landmarks still missing for that measurement. Tap one of them to select it in the list.
- **Needs calibration** appears on millimetre values until the photo is calibrated.
- The Summary tab collects the findings of all three views in short cards, with a colour for each: green for normal, orange for outside the norm, red for a marked deviation.

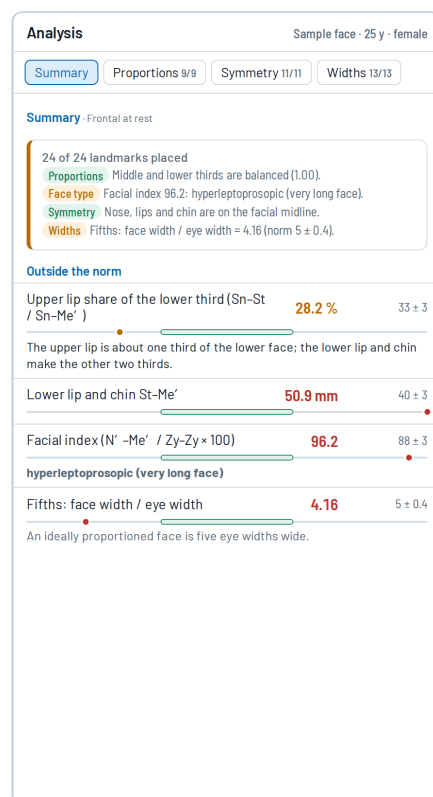


Figure 15. The Summary tab after the sample face was analysed in the three views.

13 Analysis 1: frontal proportions and symmetry

Photo: the face at rest, straight on, lips lightly closed, hair off the forehead, camera at eye level. Reference: the pupil line is horizontal; the midline is the perpendicular to it through the midpoint between the inner eye corners.

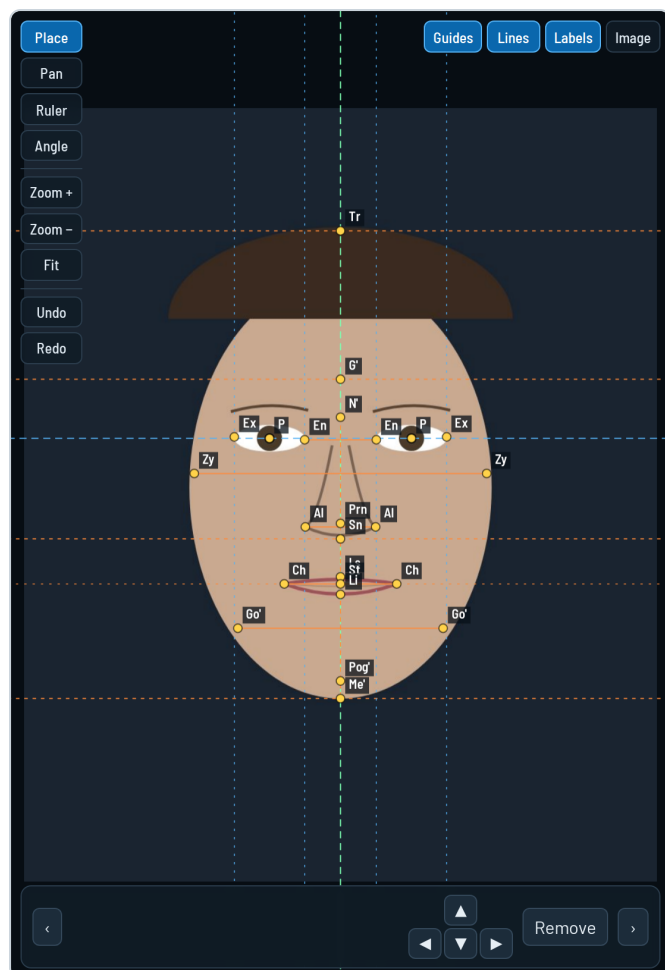


Figure 16. The frontal photo with the guides on: pupil line, midline, the horizontal levels of the thirds and the vertical lines of the fifths.

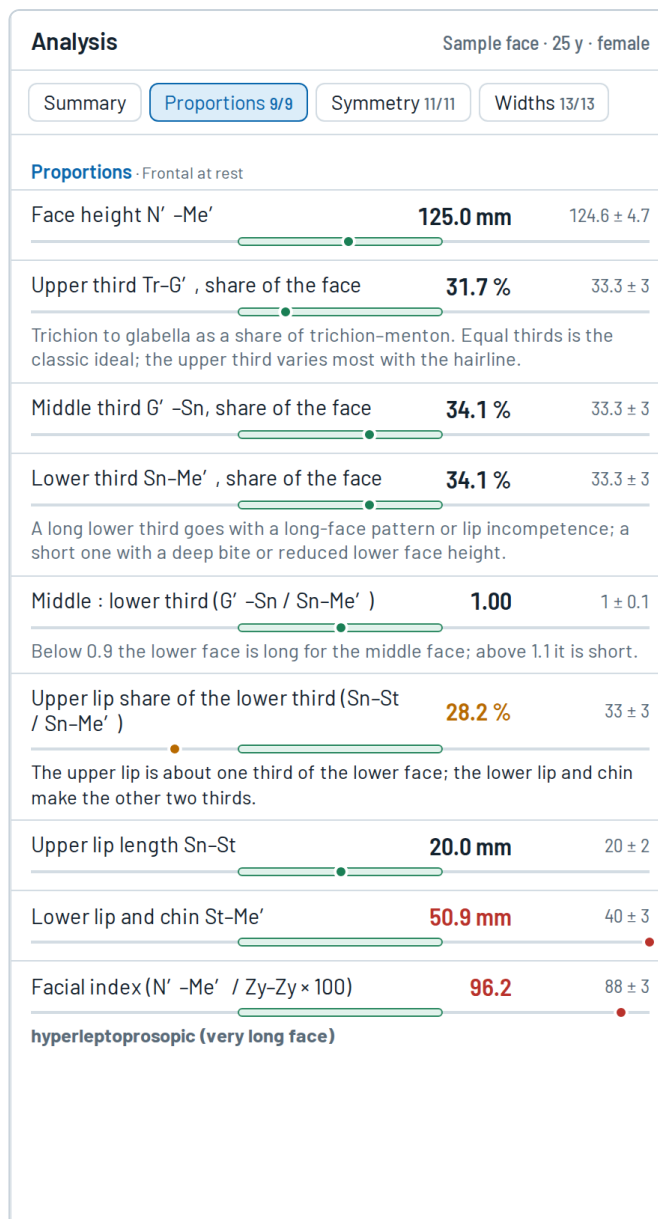


Figure 17. The Proportions tab.

Proportions

The classic rule of thirds divides the face height from the hairline (trichion) to the chin (menton) into three equal parts; the lower third is itself split one third upper lip, two thirds lower lip and chin. The facial index relates face height to face width and names the face type.

MEASUREMENT	UNIT	NORM	WHAT IT MEANS
Face height N'-Me'	mm	F 124.6 ± 4.7 · M 137.7 ± 6.5	Nasion to menton, the working face height.

Upper third Tr-G', share of the face	%	33.3 ± 3	Trichion to glabella as a share of trichion-menton. Equal thirds is the classic ideal; the upper third varies most with the hairline.
Middle third G'-Sn, share of the face	%	33.3 ± 3	Glabella to subnasale: the nose.
Lower third Sn-Me', share of the face	%	33.3 ± 3	A long lower third goes with a long-face pattern or lip incompetence; a short one with a deep bite or reduced lower face height.
Middle : lower third (G'-Sn / Sn-Me')	ratio	1.0 ± 0.1	Below 0.9 the lower face is long for the middle face; above 1.1 it is short.
Upper lip share of the lower third (Sn-St / Sn-Me')	%	33 ± 3	The upper lip is about one third of the lower face; the lower lip and chin make the other two thirds.
Upper lip length Sn-St	mm	F 20 ± 2 · M 22 ± 2.5	Short upper lips show more gum on smiling and often do not close at rest.
Lower lip and chin St-Me'	mm	F 40 ± 3 · M 44 ± 3	Lower lip and chin together; the lower two thirds of the lower face.
Facial index (N'-Me' / Zy-Zy × 100)	index	88 ± 3	Below 85 broad (euryprosopic), 85 to 90 average (mesoprosopic), above 90 long and narrow (leptoprosopic).

Symmetry

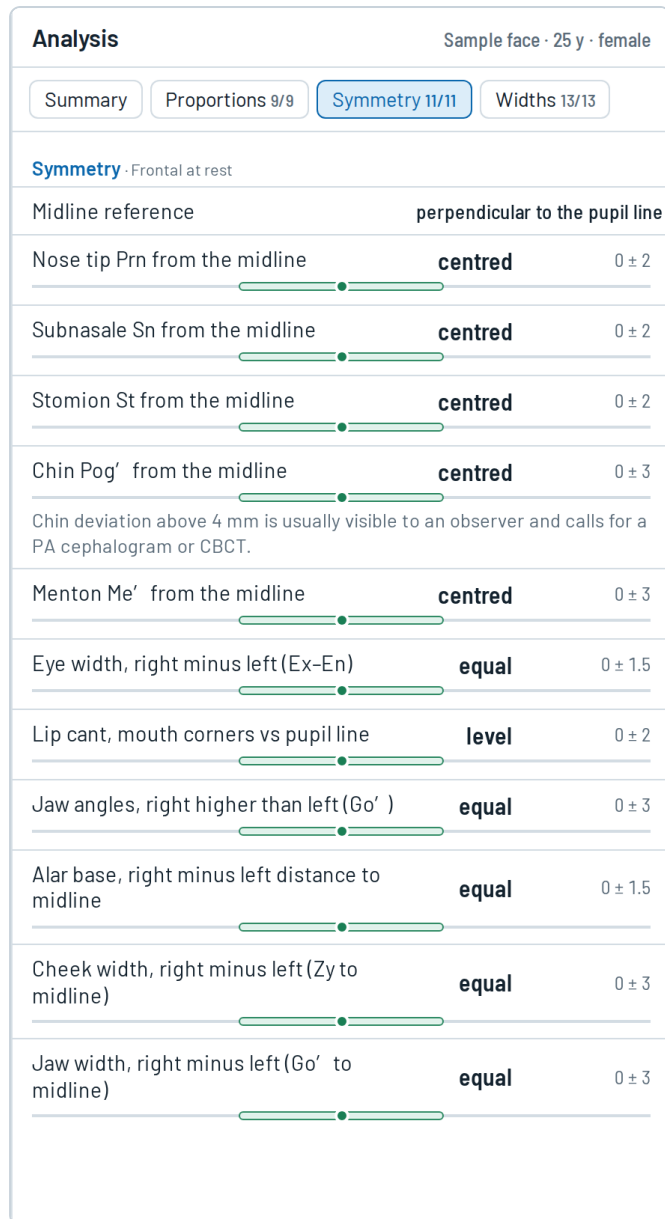


Figure 18. The Symmetry tab.

Each midline landmark is measured sideways from the facial midline; the value says how far and to which side (R or L, the patient's side). Cants are tilts against the pupil line; right-left differences compare the two half-faces.

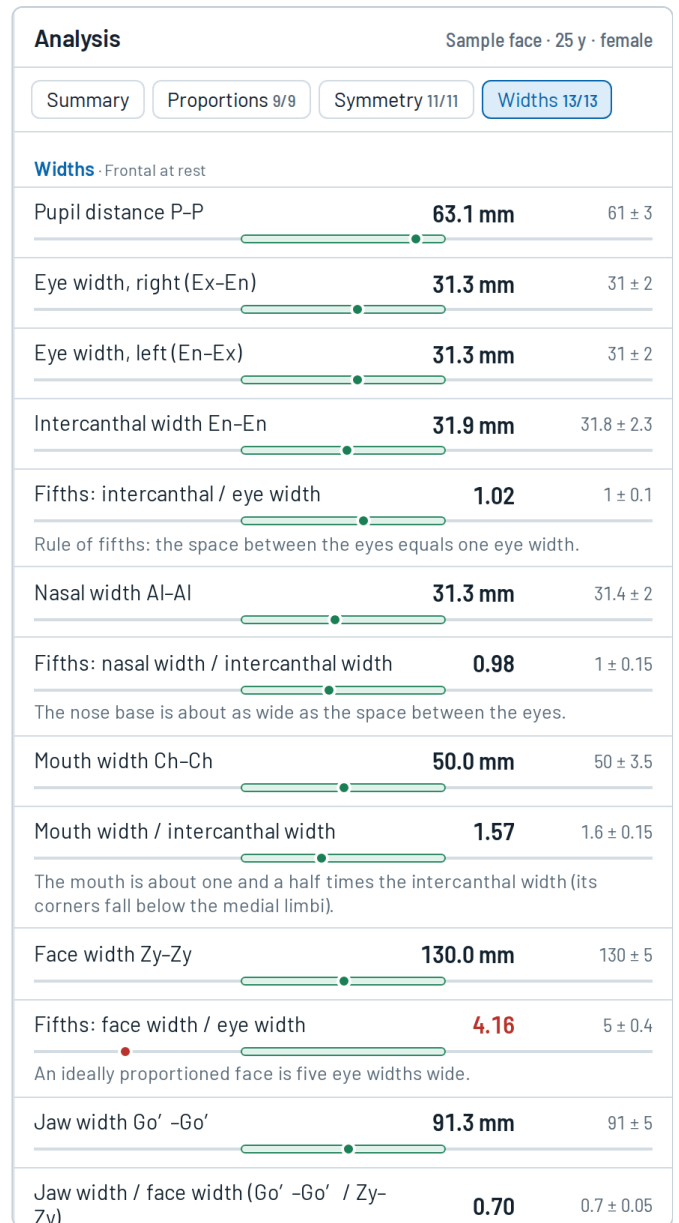


Figure 19. The Widths tab.

MEASUREMENT	UNIT	NORM	WHAT IT MEANS
Midline reference	reading	—	States which line is used as the midline.
Nose tip Prn from the midline	mm, R/L	0 ± 2	Nose tip deviation.
Subnasale Sn from the midline	mm, R/L	0 ± 2	Nasal base deviation.
Stomion St from the midline	mm, R/L	0 ± 2	Lip midline deviation.
Chin Pog' from the midline	mm, R/L	0 ± 3	Chin deviation above 4 mm is usually visible to an observer and calls for a PA cephalogram or CBCT.

Menton Me' from the midline	mm, R/L	0 ± 3	Chin point deviation, read with Pog'.
Eye width, right minus left (Ex-En)	mm, R-L	0 ± 1.5	Difference between the right and left eye widths.
Lip cant, mouth corners vs pupil line	°	0 ± 2	Tilt of the mouth corners; positive when the left corner is lower.
Jaw angles, right higher than left (Go')	mm	0 ± 3	Vertical difference between the two jaw angles.
Alar base, right minus left distance to midline	mm, R-L	0 ± 1.5	Nose base asymmetry.
Cheek width, right minus left (Zy to midline)	mm, R-L	0 ± 3	Cheek asymmetry.
Jaw width, right minus left (Go' to midline)	mm, R-L	0 ± 3	Jaw asymmetry.

Widths and the rule of fifths

An ideally proportioned face is five eye widths wide: the space between the eyes equals one eye width, the nose base fits between the inner eye corners, and the mouth corners fall below the inner edges of the irises. The widths are in millimetres (calibration needed); the ratios work without calibration.

MEASUREMENT	UNIT	NORM	WHAT IT MEANS
Pupil distance P-P	mm	F 61 ± 3 · M 63.5 ± 3	Interpupillary distance.
Eye width, right (Ex-En)	mm	31 ± 2	Right eye fissure width.
Eye width, left (En-Ex)	mm	31 ± 2	Left eye fissure width.
Intercanthal width En-En	mm	F 31.8 ± 2.3 · M 33.3 ± 2.7	Space between the eyes.
Fifths: intercanthal / eye width	ratio	1.0 ± 0.1	Rule of fifths: the space between the eyes equals one eye width.
Nasal width Al-Al	mm	F 31.4 ± 2 · M 34.9 ± 2.5	Alar base width.
Fifths: nasal width / intercanthal width	ratio	1.0 ± 0.15	The nose base is about as wide as the space between the eyes.
Mouth width Ch-Ch	mm	F 50 ± 3.5 · M 54 ± 4	Width of the mouth at rest.
Mouth width / intercanthal width	ratio	1.6 ± 0.15	The mouth is about one and a half times the intercanthal width (its corners fall below the medial limbi).
Face width Zy-Zy	mm	F 130 ± 5 · M 139 ± 6	Bizygomatic width, the widest part of the face.
Fifths: face width / eye width	ratio	5.0 ± 0.4	An ideally proportioned face is five eye widths wide.
Jaw width Go'-Go'	mm	F 91 ± 5 · M 97 ± 6	Bigonial width across the jaw angles.

Jaw width / face width (Go'-Go' / Zy-Zy)	ratio	0.7 ± 0.05	A ratio above 0.75 gives a square, strong jawline; below 0.65 a tapered, oval face.
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14 Analysis 2: smile analysis

Photo: a natural posed smile, straight on, at the same distance as the frontal photo. Reference: the pupil line; the facial midline runs through soft nasion and subnasale.

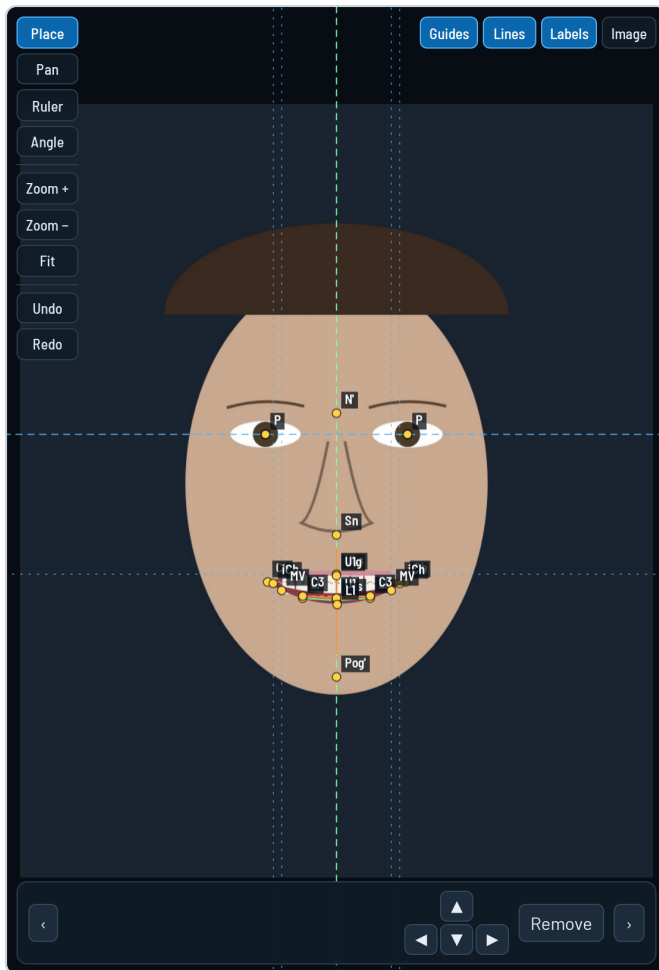


Figure 20. The smile photo with the guides: the incisal curve (yellow) and the lower-lip curve (pink), the inner commissures and the visible dentition width.

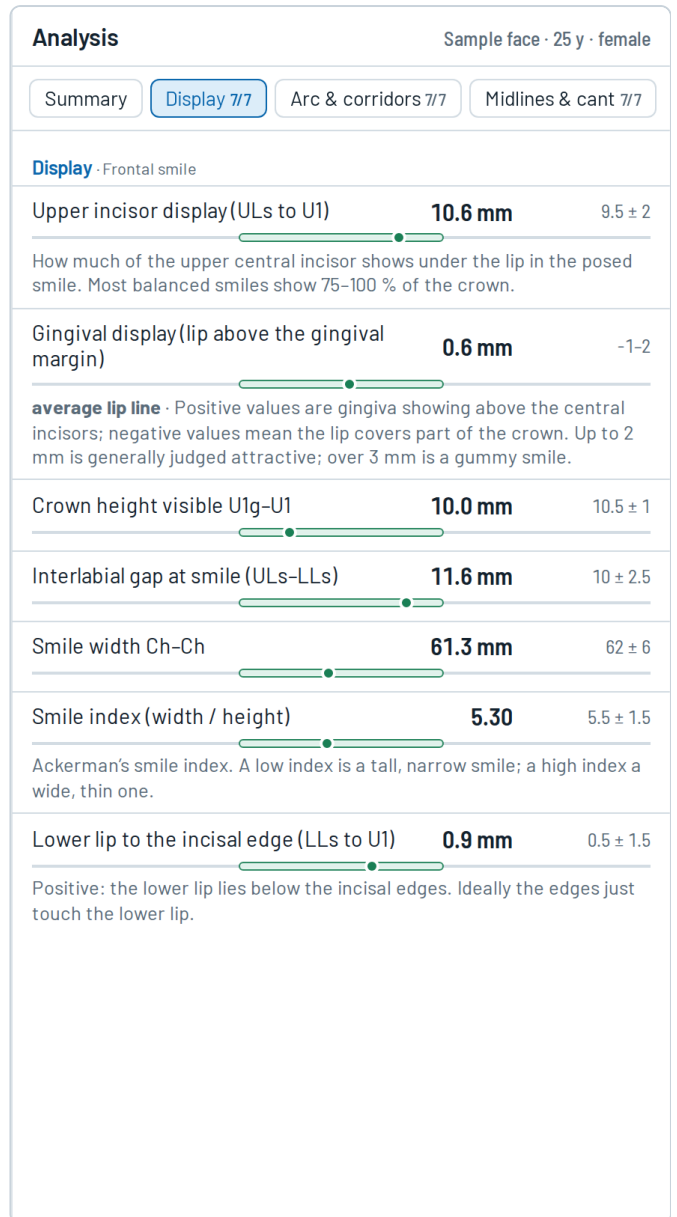


Figure 21. The Display tab.

Display

How much tooth and gum shows in the smile, and the shape of the smile frame.

MEASUREMENT	UNIT	NORM	WHAT IT MEANS
Upper incisor display (ULs to U1)	mm	9.5 ± 2	How much of the upper central incisor shows under the lip in the posed smile. Most balanced smiles show 75–100 % of the crown.

Gingival display (lip above the gingival margin)	mm	-1 to 2	Positive: gum shows above the incisor; 0 to 2 mm is pleasant, more than 3 mm is a "gummy smile". Negative: the lip covers part of the crown (low lip line).
Crown height visible U1g-U1	mm	10.5 ± 1	The clinical crown height of the central incisor between its gingival margin and its edge.
Interlabial gap at smile (ULs-LLs)	mm	10 ± 2.5	The height of the smile opening.
Smile width Ch-Ch	mm	62 ± 6	The width between the commissures.
Smile index (width / height)	ratio	5.5 ± 1.5	Ackerman's smile index. A low index is a tall, narrow smile; a high index a wide, thin one.
Lower lip to the incisal edge (LLs to U1)	mm	0.5 ± 1.5	Positive: the lower lip lies below the incisal edges. Ideally the edges just touch the lower lip.

Smile arc and buccal corridors

Analysis

Sample face · 25 y · female

Summary

Display 7/7

Arc & corridors 7/7

Midlines & cant 7/7

Arc & corridors · Frontal smile

Incisal curve depth (U1 below the canine line)

0.9 mm

0.5–3

Positive when the central incisor edges hang lower than the canine tips, which gives the smile arc its curve.

Lower lip curve depth (midline below the canine points)

0.9 mm

0.5–4

Smile arc

consonant smile arc

Consonant: the incisal edges follow the curve of the lower lip. A flat or reverse arc is the most common smile fault after orthodontic treatment.

Inner commissure width

56.3 mm

Visible dentition width MV–MV

48.8 mm

Buccal corridor, right

6.7 %

6 ± 3

Buccal corridor, left

6.7 %

6 ± 3

Buccal corridors, total

13.3 %

12 ± 5

moderate corridors · Dark space between the last visible teeth and the corners of the mouth, as a share of the inner smile width. Around 10–15 % looks natural; wide corridors suggest a narrow maxillary arch.

Figure 22. The Arc & corridors tab.

Analysis

Sample face · 25 y · female

Summary

Display 7/7

Arc & corridors 7/7

Midlines & cant 7/7

Midlines & cant · Frontal smile

Facial midline reference

perpendicular to the pupil line

Upper dental midline from the facial midline

centred

0 ± 2

Deviations up to 2 mm are rarely noticed; above that they are, especially when the midline is also tilted.

Dental midline tilt (U1g–U1 vs facial midline)

level

0 ± 2

Incisal cant, canine line vs pupil line

level

0 ± 2

A cant of the anterior occlusal plane is one of the most noticed smile faults; it often reflects a skeletal cant.

Commissure cant vs pupil line

level

0 ± 2

Commissure heights, right higher than left

equal

0 ± 1.5

Chin Pog' from the facial midline

centred

0 ± 3

Lower dental midline vs upper

L 0.3 mm

0 ± 1.5

Figure 23. The Midlines & cant tab.

MEASUREMENT	UNIT	NORM	WHAT IT MEANS
Incisal curve depth (U1 below the canine line)	mm	0.5 to 3	Positive when the central incisor edges hang lower than the canine tips, which gives the smile arc its curve.
Lower lip curve depth (midline below the canine points)	mm	0.5 to 4	How much the lower lip curves up towards the corners.
Smile arc	reading	—	Consonant: the incisal edges follow the curve of the lower lip. A flat or reverse arc is the most common smile fault after orthodontic treatment.

Inner commissure width	mm	—	Distance between the inner commissures, the frame of the smile.
Visible dentition width MV–MV	mm	—	From the last visible tooth on one side to the last on the other.
Buccal corridor, right	%	6 ± 3	Dark space on the patient's right as a share of the inner commissure width.
Buccal corridor, left	%	6 ± 3	Dark space on the patient's left.
Buccal corridors, total	%	12 ± 5	Both corridors together. About 10 to 15 % is usual; wide corridors go with a narrow arch or a retruded maxilla.

Midlines and cant

MEASUREMENT	UNIT	NORM	WHAT IT MEANS
Facial midline reference	reading	—	States which line is used as the facial midline.
Upper dental midline from the facial midline	mm, R/L	0 ± 2	Deviations up to 2 mm are rarely noticed; above that they are, especially when the midline is also tilted.
Dental midline tilt (U1g–U1 vs facial midline)	°	0 ± 2	Tilt of the upper incisors' midline.
Incisal cant, canine line vs pupil line	°	0 ± 2	A cant of the anterior occlusal plane is one of the most noticed smile faults; it often reflects a skeletal cant.
Commissure cant vs pupil line	°	0 ± 2	Tilt of the line between the commissures.
Commissure heights, right higher than left	mm	0 ± 1.5	Which commissure is higher, in millimetres.
Chin Pog' from the facial midline	mm, R/L	0 ± 3	Chin deviation seen in the smile photo.
Lower dental midline vs upper	mm, R/L	0 ± 1.5	Lower dental midline against the upper one.

15 Analysis 3: soft-tissue profile

Photo: the profile from the patient's right (or left, set under Image → Profile faces), natural head position, lips relaxed, ear visible. Keep the true vertical vertical; level the photo from a plumb line if needed. Norms follow Legan and Burstone (1980) with Ricketts' E-line and Burstone's lip line.

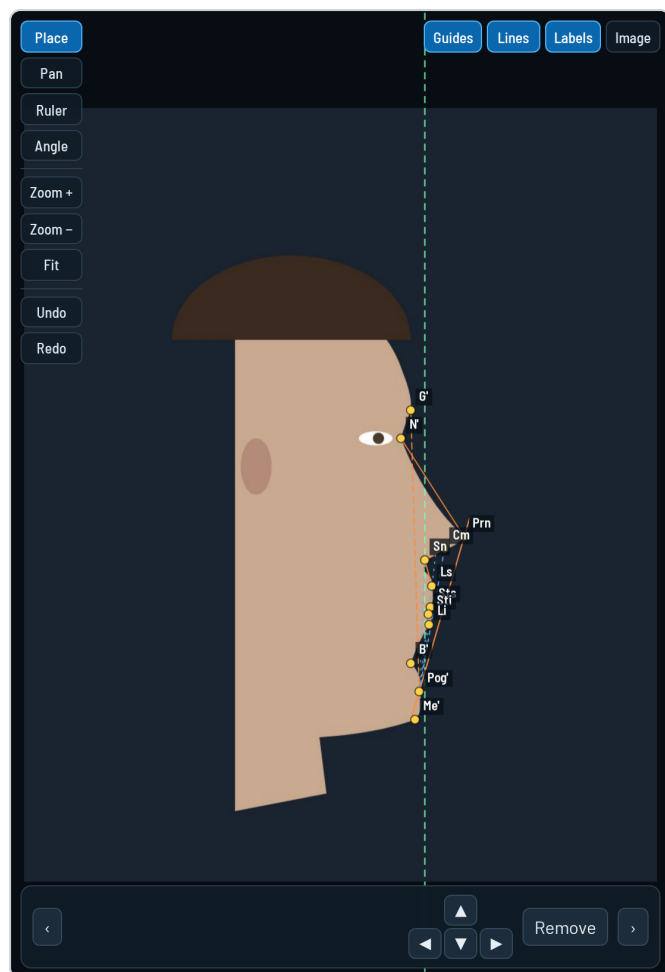


Figure 24. The profile photo with the guides: G'–Sn–Pog', the E-line from nose tip to chin (dashed), Sn–Pog' and the lip and chin lines.

Analysis

Sample face · 25 y · female

Summary

Profile 2/2

Lips: E-line and Burstone 4/4

Vertical 4/4

Profile · Profile

Facial convexity G'–Sn–Pog' (Legan)

7.8°

12 ± 4

straight profile

· Angle of deviation from a straight line at subnasale.

Convex profiles go with a Class II pattern, concave with Class III.

Nasolabial angle Cm–Sn–Ls

104.6°

103.5 ± 6.8

An acute angle points to a protrusive upper lip or upturned columella; an obtuse one to a retrusive lip. Retraction of the upper incisors opens this angle.

Figure 25. The Profile tab.

Profile

MEASUREMENT	UNIT	NORM	WHAT IT MEANS
Facial convexity G'–Sn–Pog' (Legan)	°	12 ± 4	The angle by which the chin falls behind the forehead–lip line: 8 to 16° is balanced, more is a convex (Class II type) profile, less a straight or concave (Class III type) profile.

Nasolabial angle Cm–Sn–Ls

°

F 103.5 ± 6.8 · M
 106.4 ± 7.7

An acute angle points to a protrusive upper lip or upturned columella; an obtuse one to a retrusive lip. Retraction of the upper incisors opens this angle.

Lips: E-line and Burstone

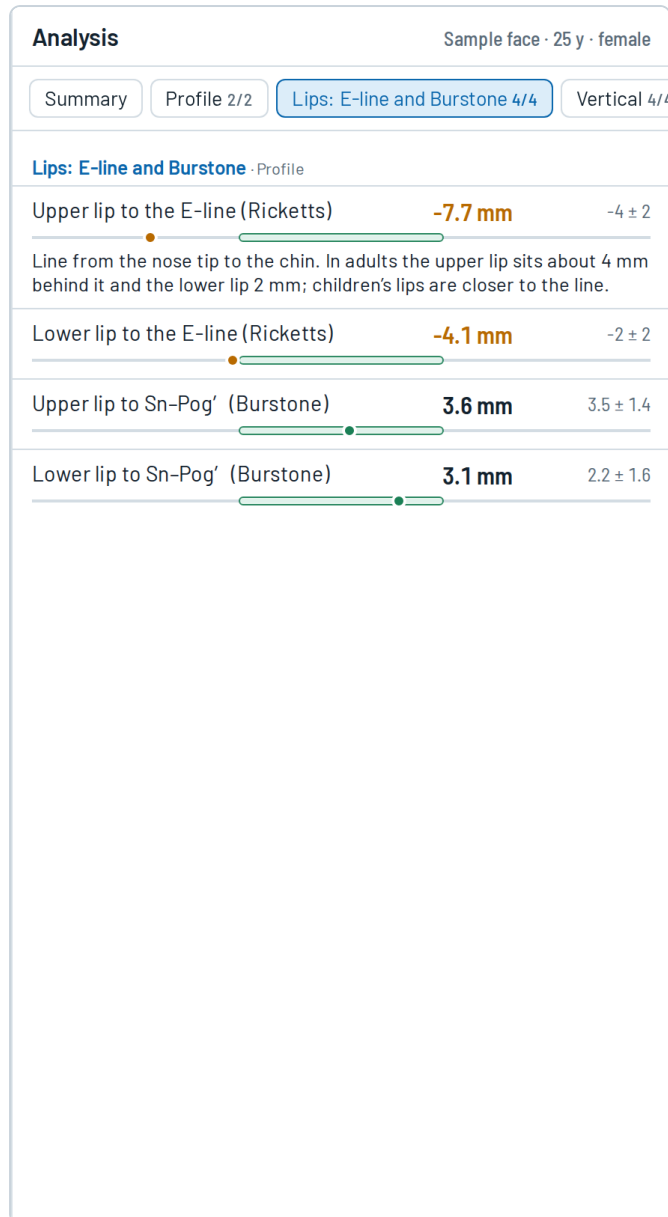


Figure 26. The Lips tab.

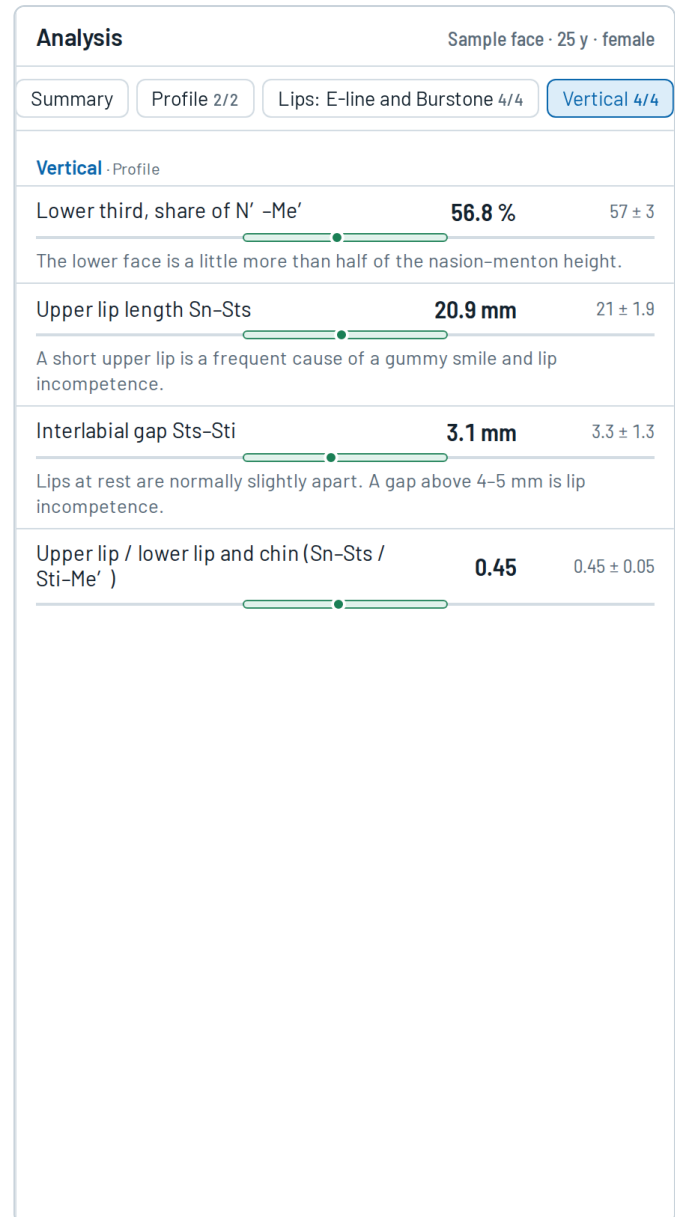


Figure 27. The Vertical tab.

Distances are positive in front of the line and negative behind it. The E-line runs from the nose tip to the chin; the lips of adults sit a few millimetres behind it. Burstone's line runs from subnasale to the chin; the lips sit a little in front of it.

MEASUREMENT	UNIT	NORM	WHAT IT MEANS
Upper lip to the E-line (Ricketts)	mm	-4 ± 2	Line from the nose tip to the chin. In adults the upper lip sits about 4 mm behind it and the lower lip 2 mm; children's lips are closer to the line.
Lower lip to the E-line (Ricketts)	mm	-2 ± 2	The lower lip sits about 2 mm behind the E-line in adults.

Upper lip to Sn-Pog' (Burstone)	mm	3.5 ± 1.4	Upper lip protrusion against Sn-Pog'.
Lower lip to Sn-Pog' (Burstone)	mm	2.2 ± 1.6	Lower lip protrusion against Sn-Pog'.

Vertical relations and chin

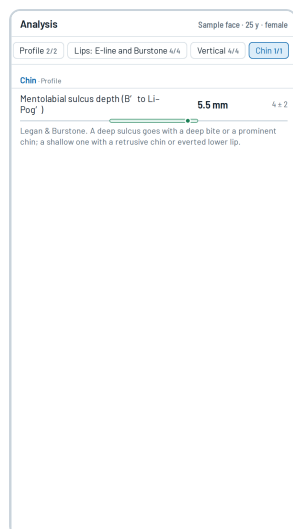


Figure 28. The Chin tab.

MEASUREMENT	UNIT	NORM	WHAT IT MEANS
Lower third, share of N'-Me'	%	57 ± 3	The lower face is a little more than half of the nasion-menton height.
Upper lip length Sn-Sts	mm	F 21.0 ± 1.9 · M 24.4 ± 2.5	A short upper lip is a frequent cause of a gummy smile and lip incompetence.
Interlabial gap Sts-Sti	mm	F 3.3 ± 1.3 · M 2.4 ± 1.5	Lips at rest are normally slightly apart. A gap above 4–5 mm is lip incompetence.
Upper lip / lower lip and chin (Sn-Sts / Sti-Me')	ratio	0.45 ± 0.05	The upper lip is a little under half the height of the lower lip and chin.

MEASUREMENT	UNIT	NORM	WHAT IT MEANS
Mentolabial sulcus depth (B' to Li-Pog')	mm	4 ± 2	Legan & Burstone. A deep sulcus goes with a deep bite or a prominent chin; a shallow one with a retrusive chin or everted lower lip.

READING THE PROFILE

The Summary tab combines these values into one sentence per topic: profile type, lips against the E-line, nasolabial angle, lip competence, upper-lip length and the lower third. Use them together with the frontal and smile findings and with the cephalogram; soft-tissue values alone do not decide a treatment.

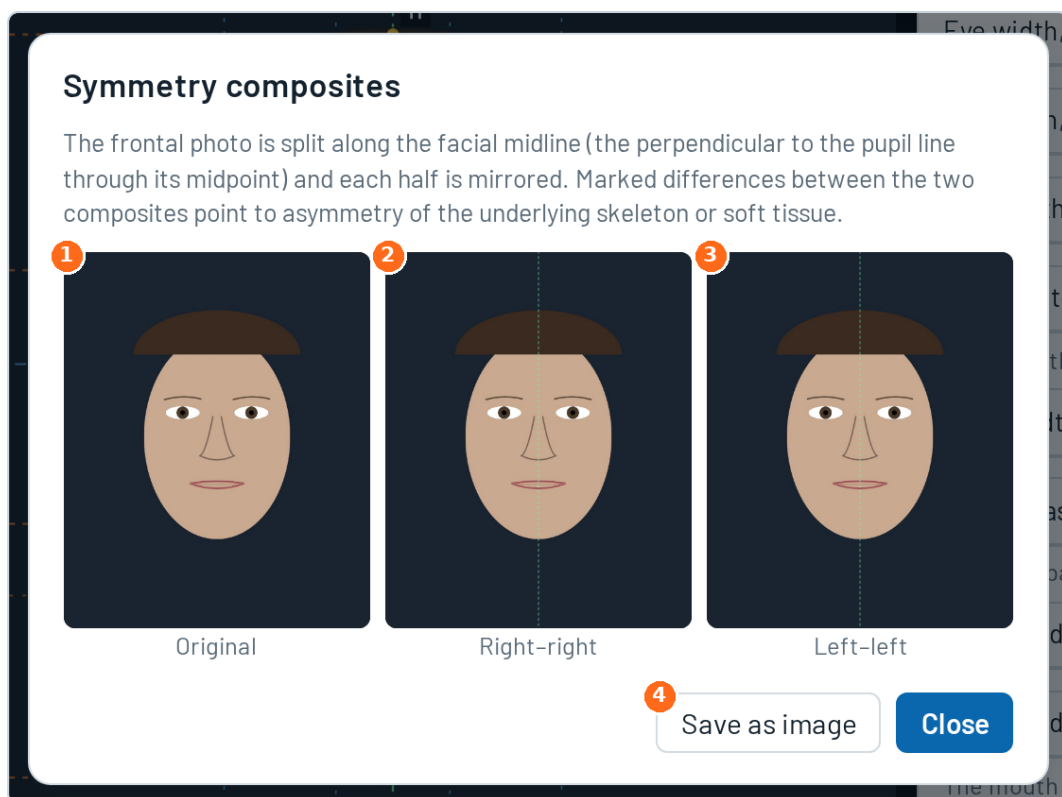


Figure 29. The Mirror window: the original face between the right-right and left-left composites.

NAME	WHAT IT DOES AND HOW TO USE IT
1 Original	The frontal photo as taken, levelled on the pupil line.
2 Right-right	The patient's right half mirrored onto the left: the face the patient would have if both sides matched the right.
3 Left-left	The left half mirrored onto the right.
4 Save as image	Saves the three faces side by side as one picture, for the record or to show the patient.

The composites need the two pupils and the two inner eye corners placed, because the midline is built from them. Marked differences between the two composites show which side carries the asymmetry.

1
Back to the photos

2
Print / save as PDF

Facial analysis

Simplified Face - Simplified Orthodontics Studio

Sample face
24 September 2026

Age: 25 years Sex: Female Photo date: — Clinician: —

Frontal at rest Frontal smile Profile

Frontal at rest

Proportions: Middle and lower thirds are balanced (1.00).
Face type: Facial index 96.2: hyperleptoprosopic (very long face).
Symmetry: Nose, lips and chin are on the facial midline.
Widths: Fifths: face width / eye width = 4.16 (norm 5 ± 0.4).

Measurement	Value	Norm	Note
Face height N' - Me'	125.0 mm	124.6 ± 4.7	
Upper third Tr - G' , share of the face	31.7 %	33.3 ± 3	
Middle third G' - Sn, share of the face	34.1 %	33.3 ± 3	
Lower third Sn - Me' , share of the face	34.1 %	33.3 ± 3	
Middle : lower third (G' - Sn / Sn - Me')	1.00	1 ± 0.1	
Upper lip share of the lower third (Sn - St / Sn - Me')	28.2 %	33 ± 3	below

Figure 30. The report page. 1 Back to the photos, 2 Print / save as PDF.

Press **Build report** in the top bar. The report shows the patient details, the three photos with their landmarks and guide lines, the summary cards, and every measurement table with value, norm and reading. Press **Print / save as PDF**: in the print dialog choose **Save as PDF** as the printer to get a file, or a real printer for paper. The page is laid out for A4.

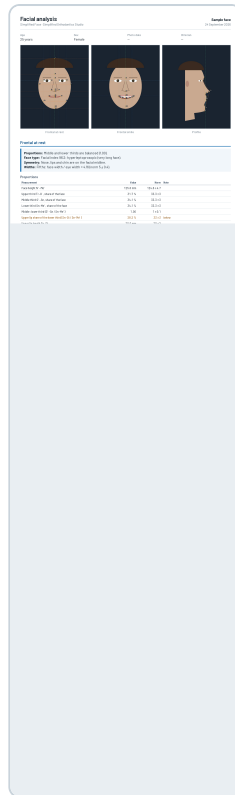


Figure 31. The printed report as it appears on paper.

- Views without landmarks are left out of the report.
- Measurements that are still missing landmarks or calibration are listed as such, so the report is honest about what was not measured.
- The clinical notes from the patient form are printed at the end.

18 The Project menu: saving and reopening a case

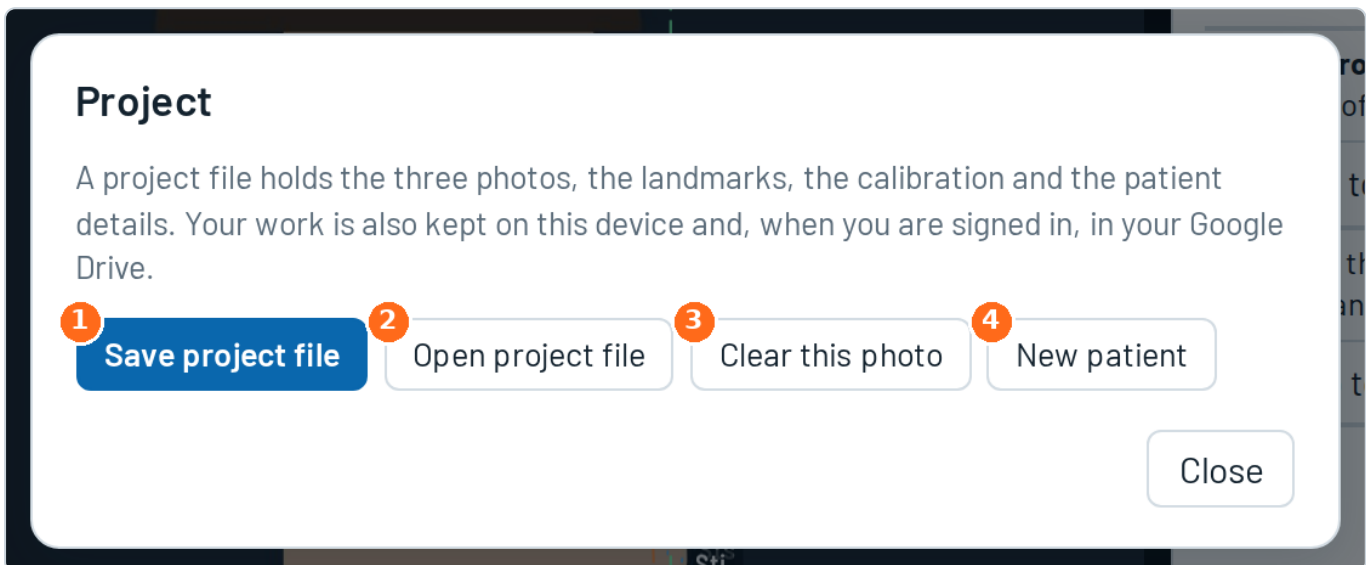


Figure 32. The Project menu.

NAME

WHAT IT DOES AND HOW TO USE IT

1	Save project file	Downloads one file that holds the three photos, all landmarks, the calibration and the patient details. Its name starts with the patient's name and the date. Keep it with the patient record.
2	Open project file	Restores a saved project, photos included. You can also drop a project file onto the photo area.
3	Clear this photo	Removes the current view's photo, landmarks and calibration. The other two views are untouched.
4	New patient	Clears all three views and the patient form to start a new case. Save the project first if you need it.

WHAT IS KEPT AUTOMATICALLY

The landmarks, the calibration and the patient details are kept on this device between visits, and copied to your Google Drive when you are signed in. The photographs themselves are not kept between visits: reopen the same photos, or open the project file, and the landmarks appear on them again.

19 Using Simplified Face on a phone

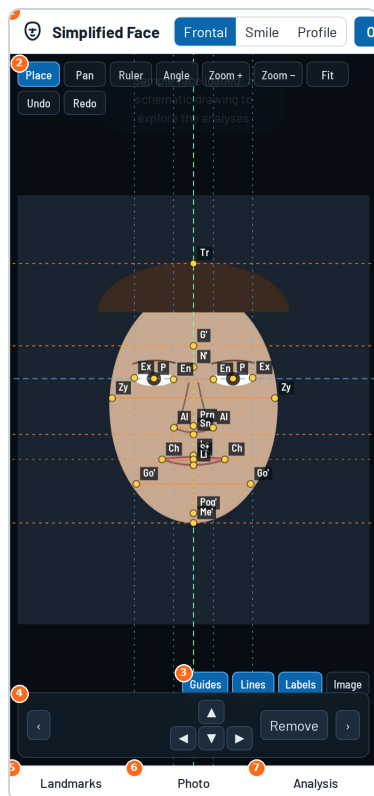


Figure 33. On a phone the photo fills the screen. ① Top bar (swipe sideways to see every button), ② tool row, ③ display buttons, ④ action bar, ⑤ Landmarks, ⑥ Photo, ⑦ Analysis.

- The three buttons at the bottom switch between the landmark list, the photo and the analysis panel.
- Tap a landmark in the sheet; the sheet closes and your next tap on the photo places it.
- Pinch to zoom, drag with one finger away from a point to pan. Hold a finger on a point to see the magnifier, then drag it into place.
- The nudge arrows in the action bar move the point one pixel at a time when a finger is too coarse.

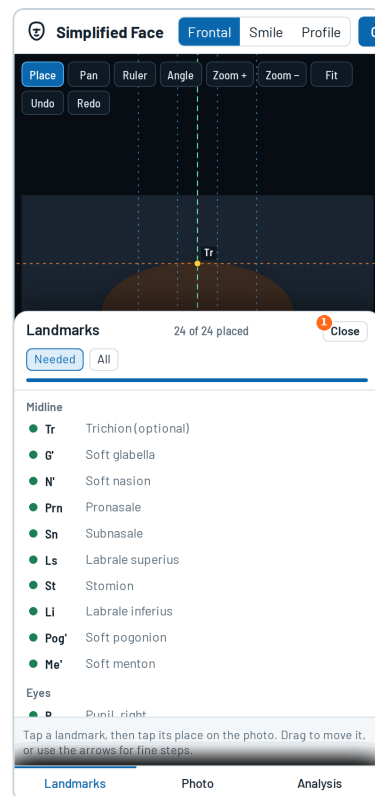


Figure 34. The landmark list opens as a sheet from the bottom; Close returns to the photo.

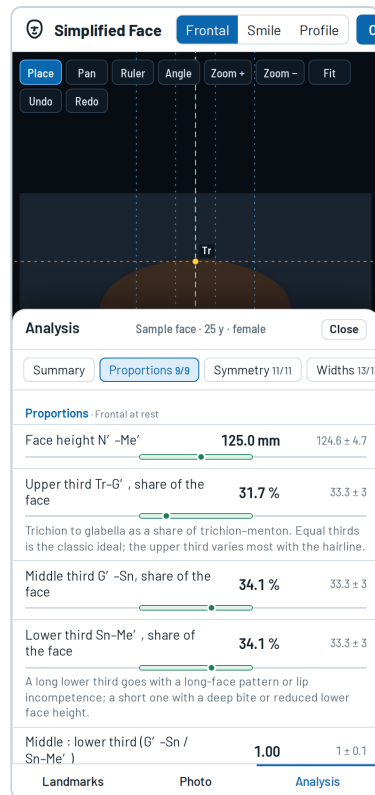


Figure 35. The analysis sheet on a phone.

20 Night mode

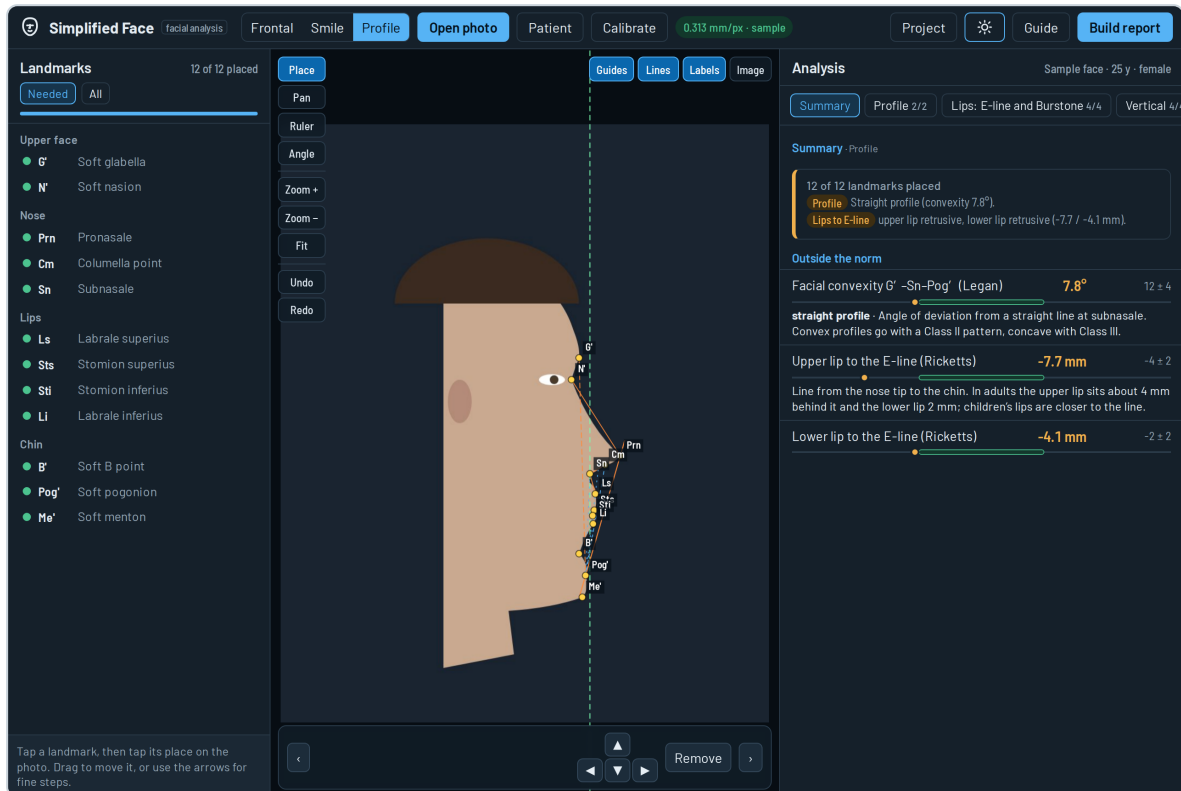


Figure 36. The same screen in night mode.

The moon/sun button in the top bar switches between light and dark colours. The choice is remembered on the device and applies to the Studio home page and to every tool. With no choice made, the tool follows the phone or computer's own setting.

21 Keyboard and mouse shortcuts

KEY	ACTION
V	Place tool
Space (hold) + drag	Pan the photo
Mouse wheel · pinch	Zoom
+ / -	Zoom in / out
F	Fit the whole photo
Arrow keys	Nudge the active landmark by one pixel
Shift + arrow keys	Nudge by five pixels
Delete / Backspace	Remove the active landmark
Ctrl+Z / Ctrl+Y	Undo / redo
Esc	Close a dialog or the report

The abbreviation is what you see on the photo and in the tables. A prime (') marks a soft-tissue point. Optional landmarks add a measurement but are not needed for the others.

Frontal view (24 landmarks)

ABBREVIATION	NAME	WHERE TO CLICK
Tr	Trichion	Midpoint of the hairline. Optional: it adds the upper third. <i>Optional.</i>
G	Soft glabella	Most prominent midline point of the forehead between the eyebrows.
N	Soft nasion	Deepest midline point at the root of the nose, between the eyes.
Prn	Pronasale	Tip of the nose, the most forward midline point.
Sn	Subnasale	Where the columella of the nose meets the upper lip.
Ls	Labrale superius	Midpoint of the upper vermillion border (the top edge of the red lip).
St	Stomion	Midpoint of the line where the lips meet. If the lips are apart, the middle of the gap.
Li	Labrale inferius	Midpoint of the lower vermillion border.
Pog	Soft pogonion	Centre of the chin prominence.
Me	Soft menton	Lowest midline point of the chin.
P (R)	Pupil, right	Centre of the patient's right pupil (left side of the picture).
P (L)	Pupil, left	Centre of the patient's left pupil.
Ex (R)	Exocanthion, right	Outer corner of the right eye.
En (R)	Endocanthion, right	Inner corner of the right eye.
En (L)	Endocanthion, left	Inner corner of the left eye.
Ex (L)	Exocanthion, left	Outer corner of the left eye.
Zy (R)	Zygion, right	Widest point of the right cheek (over the cheekbone).
Zy (L)	Zygion, left	Widest point of the left cheek.
Al (R)	Alare, right	Widest point of the right nostril wing.
Al (L)	Alare, left	Widest point of the left nostril wing.
Ch (R)	Cheilion, right	Right corner of the mouth.
Ch (L)	Cheilion, left	Left corner of the mouth.
Go (R)	Soft gonion, right	Angle of the jaw on the right, where the jawline turns up towards the ear.
Go (L)	Soft gonion, left	Angle of the jaw on the left.

Smile view (20 landmarks)

ABBREVIATION	NAME	WHERE TO CLICK
P (R)	Pupil, right	Centre of the patient's right pupil. The pupil line is the horizontal reference.
P (L)	Pupil, left	Centre of the patient's left pupil.
N	Soft nasion	Deepest midline point between the eyes. With subnasale it fixes the facial midline.
Sn	Subnasale	Where the columella meets the upper lip.
Pog	Soft pogonion	Centre of the chin. Shows chin deviation when smiling. <i>Optional</i> .
ULs	Upper lip, lower border	Lowest point of the upper lip at the midline during the smile.
LLs	Lower lip, upper border	Highest point of the lower lip at the midline during the smile.
Ch (R)	Commissure, right	Outer corner of the mouth on the right.
Ch (L)	Commissure, left	Outer corner of the mouth on the left.
iCh (R)	Inner commissure, right	Inner corner of the right commissure, where the red lips meet.
iCh (L)	Inner commissure, left	Inner corner of the left commissure.
LI (R)	Lower lip under right canine	Upper border of the lower lip directly under the right canine tip.
LI (L)	Lower lip under left canine	Upper border of the lower lip directly under the left canine tip.
U1	Upper incisal midline	Contact point of the two upper central incisors at their incisal edges.
U1g	Upper gingival midline	Gingival margin between the two upper central incisors (top of the papilla).
C3 (R)	Right canine tip	Cusp tip of the upper right canine.
C3 (L)	Left canine tip	Cusp tip of the upper left canine.
MV (R)	Last visible tooth, right	Distal edge of the last upper tooth visible on the right.
MV (L)	Last visible tooth, left	Distal edge of the last upper tooth visible on the left.
L1	Lower incisal midline	Contact point of the lower central incisors at the incisal edge, if visible. <i>Optional</i> .

Profile view (12 landmarks)

ABBREVIATION	NAME	WHERE TO CLICK
G	Soft glabella	Most prominent point of the forehead in profile.
N	Soft nasion	Deepest point between the forehead and the nose.
Prn	Pronasale	Most forward point of the nose tip.

Cm	Columella point	Most forward point of the columella, just before it turns into the upper lip.
Sn	Subnasale	Where the columella meets the upper lip. The true vertical line passes through it.
Ls	Labrale superius	Most forward point of the upper lip.
Sts	Stomion superius	Lowest point of the upper lip.
Sti	Stomion inferius	Highest point of the lower lip.
Li	Labrale inferius	Most forward point of the lower lip.
B	Soft B point	Deepest point of the fold between the lower lip and the chin (mentolabial sulcus).
Pog	Soft pogonion	Most forward point of the chin.
Me	Soft menton	Lowest point of the chin.

23 Glossary of abbreviations

Tr, G', N'	Trichion (hairline), soft glabella, soft nasion
Prn, Cm, Sn, Al	Pronasale (nose tip), columella point, subnasale, alare
Ls, Li, St, Sts, Sti	Labrale superius and inferius (lip borders), stomion (lip contact), stomion superius and inferius
Ch, iCh	Cheilion (mouth corner), inner commissure
Pog', Me', B', Gn'	Soft pogonion, menton, B point (mentolabial sulcus), gnathion
Ex, En, P	Exocanthion (outer eye corner), endocanthion (inner corner), pupil
Zy, Go'	Zygion (cheek), soft gonion (jaw angle)
U1, U1g, L1, C3, MV	Upper incisal midline, upper gingival midline, lower incisal midline, canine tip, last visible tooth
ULs, LLs, LI	Upper lip lower border, lower lip upper border, lower lip under the canine (smile view)
E-line	Ricketts' line from Prn to Pog'
Sn-Pog'	Burstone's line from subnasale to soft pogonion
NHP	Natural head position
F / M	Norm for females / males
SD	Standard deviation, the usual spread around the mean

24 Problems and answers

A value reads "Needs: ..."	One or more landmarks are missing. Tap the abbreviation to select it and place it on the photo.
Millimetre values read "Needs calibration"	Calibrate the photo (chapter 7). Angles and ratios do not need it.
Values are strange after I opened another photo	Each view keeps its own landmarks. Opening a new photo into a view clears its landmarks because the old points no longer fit the new picture; place them again.
The profile lips read "in front" when they are behind	Set Image → Profile faces to the side the face actually points to.
Symmetry values all lean to one side	The pupil line or the midline points are off. Check the two pupils and the two inner eye corners, or level the photo from the pupils.
The landmarks are gone after reopening the page	The photographs are not kept between visits. Reopen the same photo and the saved landmarks return; or open the project file.
The magnifier hides the point	Move slowly; the magnifier shows the area under your finger while you hold it and disappears when you lift it.

Print does nothing

Some in-app browsers block printing. Open the tool in Chrome, Safari or Edge and try again.

The report shows only one view

Views without landmarks are left out. Place landmarks in the other views to include them.

NOTE

Soft-tissue values are diagnostic aids. Weigh them together with the clinical examination, the cephalogram and the study models. Landmark identification on photographs carries an error of about 1 mm, and camera distance and lens change the apparent proportions. The screenshots in this manual use a schematic sample face, not a patient photograph.