IPS e.max®

IPS

SHADE
NAVIGATION
APP
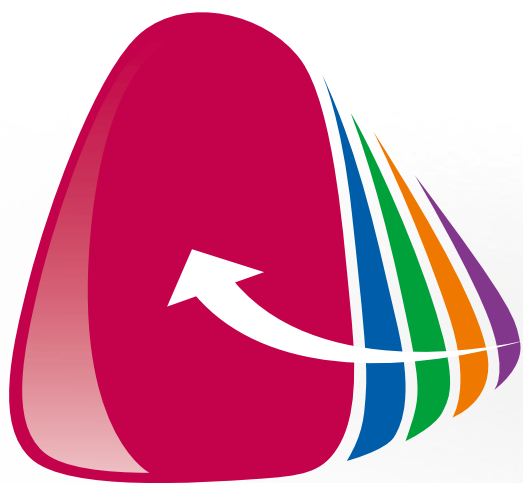
User Manual

for Android

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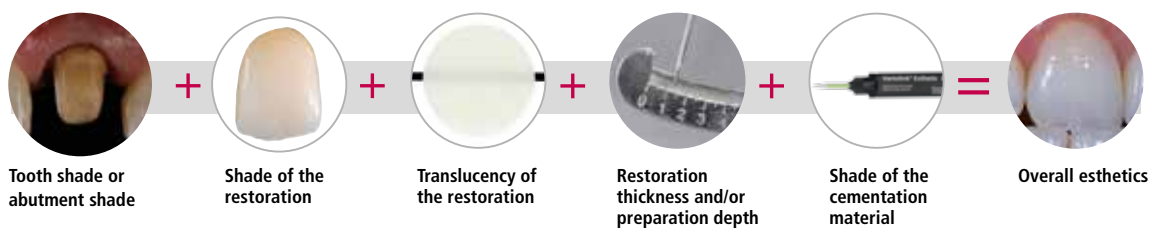passion vision innovation

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1 General information about the SNA

The IPS e.max® Shade Navigation App was developed to support you in selecting the appropriate translucency and shade of your IPS e.max restorations.

The app is based on information gathered in numerous investigations. All the important factors influencing the overall shade effect of a restoration in the oral cavity are taken into consideration so that a very precise translucency and shade recommendation can be made.

Principle

To understand the principle of the app, the user should first know the factors influencing the overall shade effect of a restoration.

| Tooth shade or abutment shade | + | Shade of the restoration | + | Translucency of the restoration | + | Restoration thickness and/or preparation depth | + | Shade of the cementation material | = | Overall esthetics |

These five factors are decisive for the overall esthetic result and should thus be taken into consideration during the fabrication of an all-ceramic restoration.

Moreover, other factors, such as the indication and material, are also to be considered:

| Desired tooth colour | + | Indication and processing technique | + | Tooth shade or abutment shade | + | Restoration thickness and/or preparation depth | + | Material of the restoration | = | Translucency and shade recommendation |

Only the appropriate interplay of all these factors permits a precise prediction of the translucency and shade of the respective material in order to achieve the desired target shade in the end.

The IPS e.max Shade Navigation App was developed and created on the basis of this principle. You, as the user of the app, enter five pieces of information and receive a defined recommendation regarding the translucency and shade from our shade experts.

> **Note:** The shade of the cementation material is not taken into consideration by the app. A transparent cement, which does not affect the overall shade effect, was used in all the investigations.

Cementation recommendation

- For the cementation of IPS e.max CAD/Press, use **Variolink® Esthetic Neutral**
- For the cementation of IPS e.max ZirCAD, use **SpeedCEM® Plus Transparent**

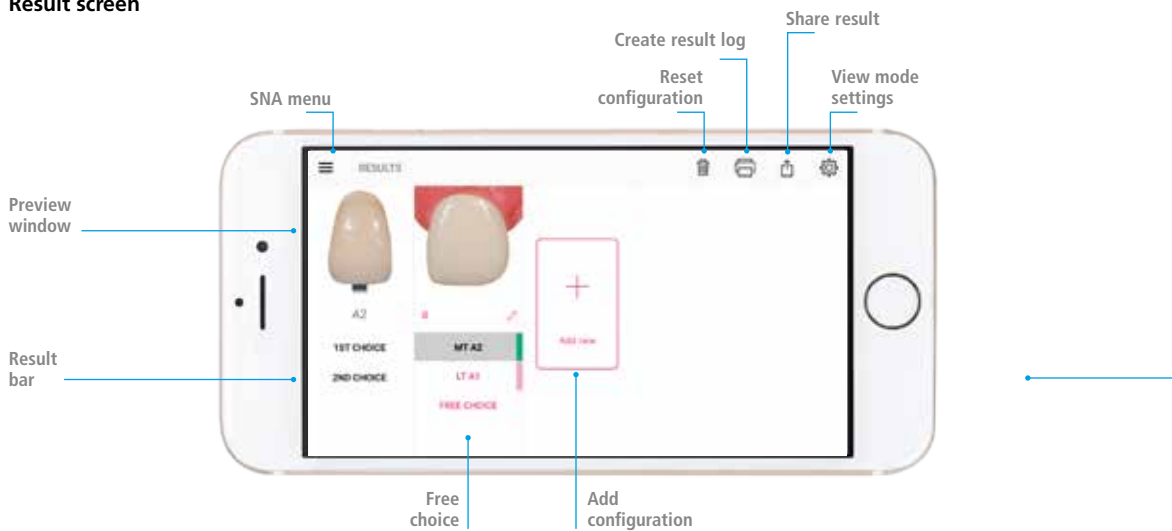> **Important:** The use of shaded cements may affect the overall shade result.

2 The app at a glance

Screen

Configuration screen

SNA menu

Configuration window

Parameter bar

Result screen

Create result log

Share result

Reset configuration

View mode settings

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Symbols in the app

Symbol	Name	Function
☰	SNA menu	Opens the SNA menu bar. You can find additional information in "SNA menu" on page 5.
🗑	Reset configuration	All parameters entered are reset to the starting value. You can find additional information in "Reset configuration" on page 20.
🖨	Create result log	Automatic creation of a result log. You can find additional information in "Create result log" on page 19.
⬆	Share result	Permits sharing of results. You can find additional information in "Share results" on page 20.
⚙	View mode settings	Opens the settings of the view mode. You can find additional information in "View mode settings" on page 15.
a	Configuration name	Permits naming the individual configurations. You can find additional information in "Rename configuration" on page 16.
✎	Editing menu	Opens the menu for editing
+	Add configuration	A new configuration is added. You can find additional information in "Add configuration" on page 17.

3 First steps

Create user account

When you first start the app or after you have logged out, log in with your user data. If you do not have a free user account yet, you can create one. For this purpose, tap "Create an account" and follow the instructions on the screen. To complete the registration successfully, activate the user account with the help of the e-mail sent to you.

Note: Mobile internet or a WLAN connection is required to create a user account.

SNA menu

The SNA menu enables direct access to the Help pages, GTC, imprint and the user manual itself. Furthermore, you can also log out via the SNA menu.

Note: Once you have successfully logged out, you have to log in again with your user data when you open the app anew. To prevent this, the app can also be closed without logging out.

Open the SNA menu: Tap ☰ with a finger.

Close the SNA menu: Tap the right side of the screen with your finger.

4 Configuration step-by-step

General notes on configuration

Basically, you can start the configuration at any point.

❶ Tooth colour
❷ Indication
❸ Die shade
❹ Layer thickness
❺ Material

When you start the app, item ❶ is automatically activated. If you want to change the starting point, simply tap the desired item. You have to address all the items for the app to provide you with a recommendation for the translucency and shade of your restoration.

Note: Depending on your starting point, the next item to be edited may be determined by your initial selection. This may result in restrictions regarding the layer thickness, indication and material. These restrictions are high-lighted in grey and cannot be selected. You can find additional information in ❹ "Enter the layer thickness" on page 10.

Reset configuration: If you want to discard your entries and start the configuration anew, tap "Reset" in the top right hand corner of the configuration screen.

Important: To obtain an accurate recommendation, the parameters have to be determined correctly and carefully.

1. Enter the tooth colour

Select the desired tooth shade of the patient: Swipe to the left or the right with a finger in the parameter bar. Select the desired tooth shade and tap the corresponding field.

Note: After entering the desired tooth shade in item ❶, the configuration directly jumps to item ❷ "Enter the indication". If the configuration is started with another item, it automatically jumps back to item ❶.

Important: Determine the tooth shade after tooth cleaning and on the non-prepared tooth and/or the adjacent teeth with the help of the A–D shade guide. In order to achieve as lifelike results as possible, shade selection should be carried out in daylight. Furthermore, the patient should not wear clothes with intensive colours and/or lipstick. Another option for shade determination is provided by the Programat® furnaces with DSA function (Digital Shade Assistant). You can find additional information about this topic in the corresponding Programat Operating Instructions.

2. Enter the indication

Select the indication: Tap the corresponding indication to select it.

Note: The app does not list all indications. To achieve a suitable result nonetheless, please use the following alternative indications:

Non-listed indications	Alternative indications
Bridge	Crown
Partial crown	Onlay
Occlusal veneer	Onlay
Hybrid abutment	–
Hybrid abutment crown	–

There are no alternative indications available for the indications of hybrid abutment and hybrid abutment crown. The translucency and shade to be selected can be found in the corresponding Instructions for Use.

Tip: The indications are suitable for the following processing techniques:

	Polishing technique	Staining technique	Cut-back technique	Layering technique
Veneer	✓	✓	✓	
Inlay	✓	✓		
Onlay	✓	✓		
Crown	✓	✓	✓	
Coping				✓

Important: Remember that not all the materials of the IPS e.max system are suitable for the respective processing techniques. You can find additional information in the corresponding Instructions for Use.

3. Enter the tooth shade

Select the shade of the prepared tooth: Swipe to the left or the right with a finger in the parameter bar to select the tooth shade and tap the desired shade.

Important: Determine the shade with the IPS Natural Die Material Shade Guide at the largest, most discoloured area of the prepared tooth. If you are torn between two shades, always choose the darker one. For metal build-ups it is recommended to choose the darkest shade (ND9) and the lightest shade (ND1) is indicated for zirconium oxide abutments.

Example of how to determine the tooth shade
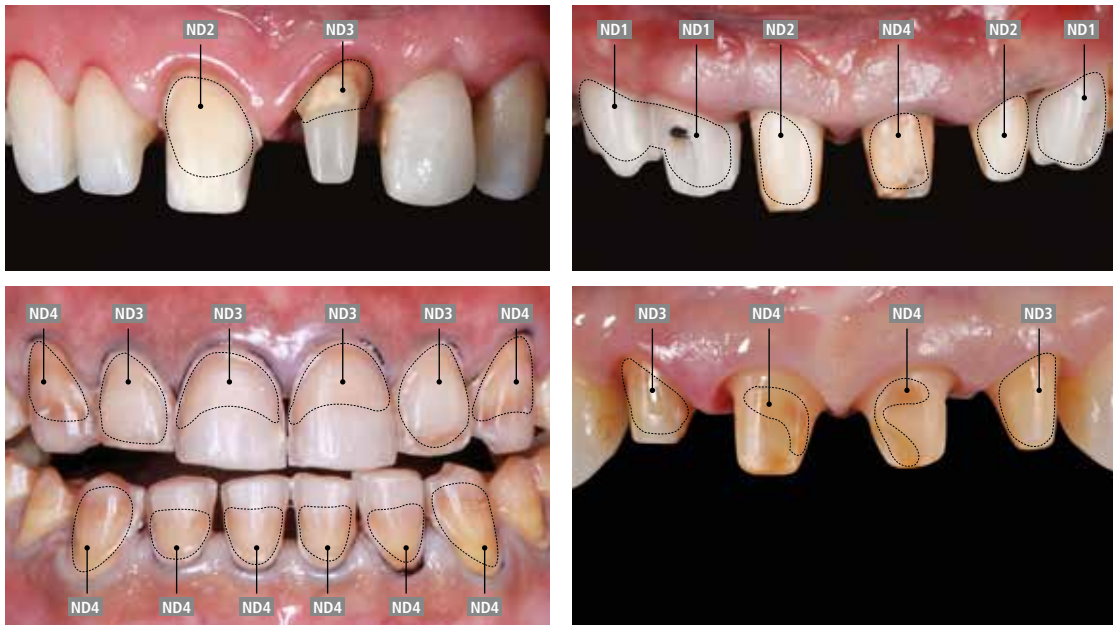
4. Enter the layer thickness

Select the layer thickness of the restoration: Swipe to the left or the right with a finger in the parameter bar to select the layer thickness. Tap the desired layer thickness.

Note: If certain fields are highlighted in grey, the corresponding layer thickness is not suitable for the selected indication or material. Review your entries and change them, if necessary.

Important: Determine the layer thickness either manually with calipers or digitally by means of CAD software. Crowns, veneers and copings are measured at the thinnest vestibular point; inlays and onlays at the thinnest occlusal point.

Manual determination of the layer thickness at the centre of the thinnest, vestibular area.
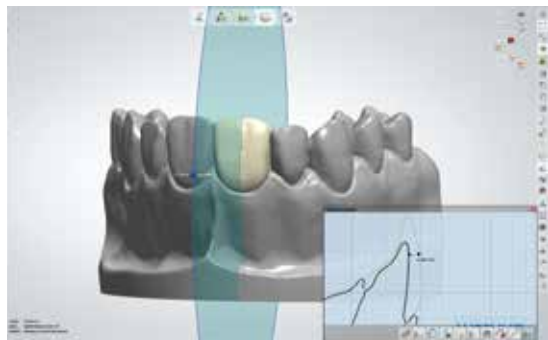
Digital determination of the layer thickness at the centre of the thinnest, vestibular area.

Example of how to determine the layer thickness

| Veneer | Crown/coping | Crown/coping | Inlay | Onlay |
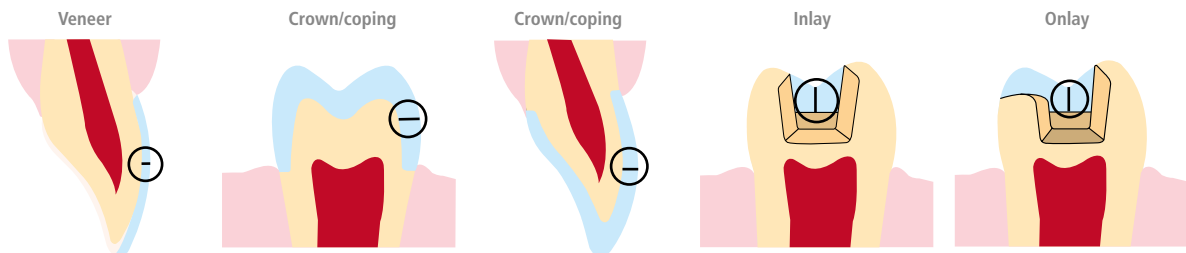
5. Enter the material

Select the desired material: Tap the desired material.

Selection Icon	Product	Material	Integrated Translucency Levels	Use
	IPS e.max® Press	Lithium disilicate	Multi, HT, MT, LT, MO, HO	Use this selection, if you process IPS e.max Press ingots.
	IPS e.max® CAD	Lithium disilicate	HT, MT, LT, MO	Use this selection, if you process IPS e.max CAD blocks.
	IPS e.max® ZirCAD	Zirconium oxide	LT, MO	Use this selection, if you process IPS e.max ZirCAD blocks.
	IPS e.max® ZirCAD	Zirconium oxide	MT Multi, MT, LT, MO	Use this selection, if you process IPS e.max ZirCAD discs.

Important when using IPS e.max ZirCAD with sintering times < 1 hour: Please keep in mind that the duration of the sintering process directly affects the shade and translucency of the restoration. Very short sintering times (>1 hour) lead to lighter results. For sintering times under one hour, therefore, it is advisable to select blocks and discs that are one shade darker than the shade recommended by the app, i.e. app recommendation A2 -> correct choice A3.

Note: If a field is highlighted in grey in the material selection, the material is not suitable for the respective indication or layer thickness. Review your entries and change them, if necessary.

5 Around the result

General notes on the result

In the **result bar** you will receive one or two recommendations, depending on the configuration. They are shown in the result window, next to "1st Choice" and "2nd Choice. If no recommendation is available - indicated by a dotted line in the result window - the parameters (e.g. indication, layer thickness or material) have to be adjusted. As an alternative, you can define your own result in "Free Choice".

The **preview window** shows a virtual representation of the results. The currently displayed result is highlighted in grey in the result bar. The result is shown as an anterior crown or shade tab, depending on the indication.

Indication	Result presentation	
Veneers, crowns	Anterior crown	
Inlays, onlays, copings	Shade tab	

Important: To obtain an accurate recommendation, the parameters have to be determined correctly and carefully.

Note: Keep in mind that all combinations were examined with a transparent luting cement. The use of shaded cements may affect the overall shade result.

Compare result

Virtually compare your results with the A-D shade guide to identify any necessary shade adjustments well in advance or to assess the shade of your free choice.

Move the A-D shade guide tooth: To compare the shades, tap and hold the A-D shade guide tooth and move it over the result. If you let it go, it will return to its original position.

Note: The translucency and shade recommendations are selected in such a way that the target shade of the restoration is rather lighter than too dark. This is important to ensure the basic brightness of the restoration. A good brightness match is particularly important in the incisal third. The shade match is then fine tuned by staining, depending on the material, e.g. with IPS Ivocolor or the IPS e.max CAD Crystall./Stains. A control die of IPS Natural Die material in the corresponding shade is recommended for fine tuning the shade. You can find additional information in the Instructions for Use of the respective material.

Important: Even though the virtual shade comparison provides quite an exact preview of the shade result, it should not be considered to be absolute. Particularly with freely chosen shades, you cannot always rely on the virtual comparison. You can find additional information in "Free choice" on page 14.

Select result

Select your result: Tap the respective result in the result bar to select it and have it shown in the preview window. Selected results are automatically highlighted in grey in the result bar.

Note: Please note that only selected results are included in the result log. You can find additional information in "Create result log" on page 19.
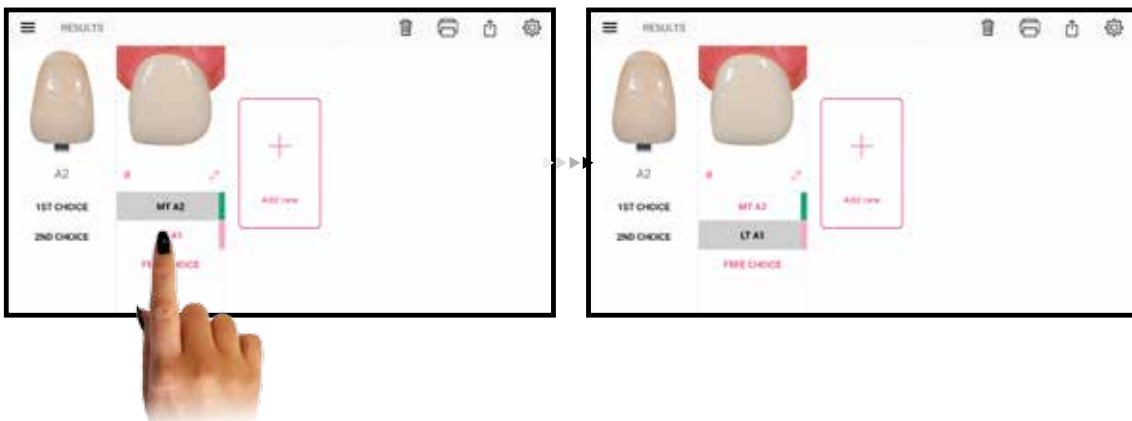
Free choice

Under "Free choice" you may choose your own result. This is helpful, for example, if you do not have the recommended translucency and shade in stock or if you are looking for a common translucency and shade for several restorations.

Opening the "Free choice" list: Tap "Free choice" in the result bar.

Select your result: Swipe up or down in the "Free choice" list with a finger to select the desired translucency and shade. Tap the desired result. The list automatically closes once you have made your choice.

Closing the "Free choice" list: Tap "Cancel" in the upper left corner of the screen.

Note: The "Free choice" list only shows the translucency levels recommended for the selected indication. Ivoclar Vivadent recommendations are marked in colour in the "Free choice" list.

Important: Please note that the free choice option is not an Ivoclar Vivadent recommendation.
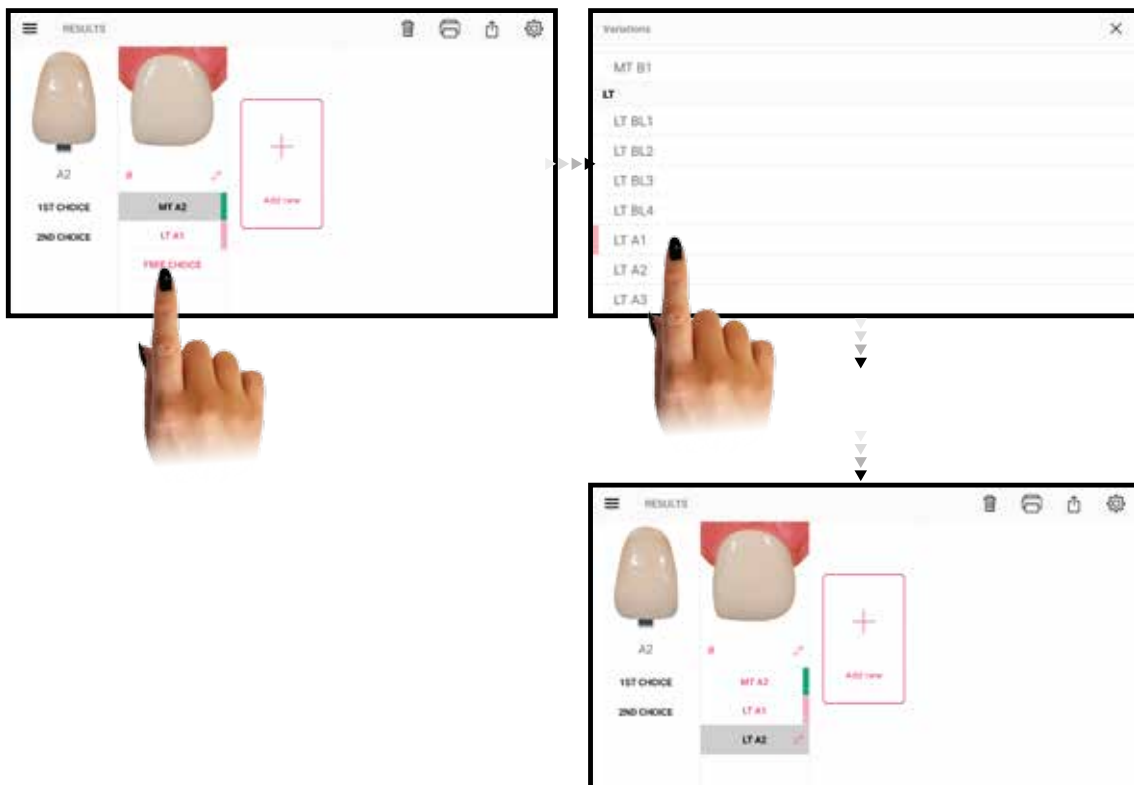
6 Additional functions

View mode settings

Under "View mode settings" you may adjust the view mode of the result window. These settings may have a positive effect on the shade evaluation, i.e. shade differences are easier to recognize and permit the assessment of the geometry and shade of the tooth.

Open "View mode settings": Tap ⚙ in the upper right hand corner of the screen.

Show / hide gingiva: Select "View mode settings" and tap ⬤ on the right to 🦷, in order to show or hide the gingiva.

Adjust tooth translucency: Select "View mode settings" and move the slide control 🦷 ———————————————— 🦷 to the desired position to change the translucency of the tooth. In this way, the shade and geometry of the tooth can be assessed.

Change background colour: Select "View mode settings" and tap White ○, Grey ⬤ or Black ⬤, to change the background colour accordingly. Please note that the background colour decisively affects colour perception.

Close "View mode settings": Tap "Done" in the upper right hand corner of the screen.

Information window

Via the information window, the parameters for the respective configuration can be viewed and changed, if necessary.

Opening the information window: Tap ✐ in the bottom right of the result window and then select "Info".

Edit parameters: Tap "Edit configuration" and adjust the parameters accordingly. You can find additional information in "Edit configuration" on page 17.

Closing the information window: Tap ✕ in the upper right hand corner of the screen to close the information window.

ⓘ **Note:** All the parameters entered are also shown in the result log. You can find additional information in "Create result log" on page 19.

Rename configuration

Newly created configurations are automatically alphabetized. However, your can rename them, e.g. to assign them to a particular tooth. In this way, you can stay on top of things even when working with several configurations.

Rename configuration: Tap the assigned letter (e.g. a) in the bottom left of the result window to rename the configuration.

ⓘ **Note:** Please note that the number of available characters is restricted to three, e.g. 12 or 23A.
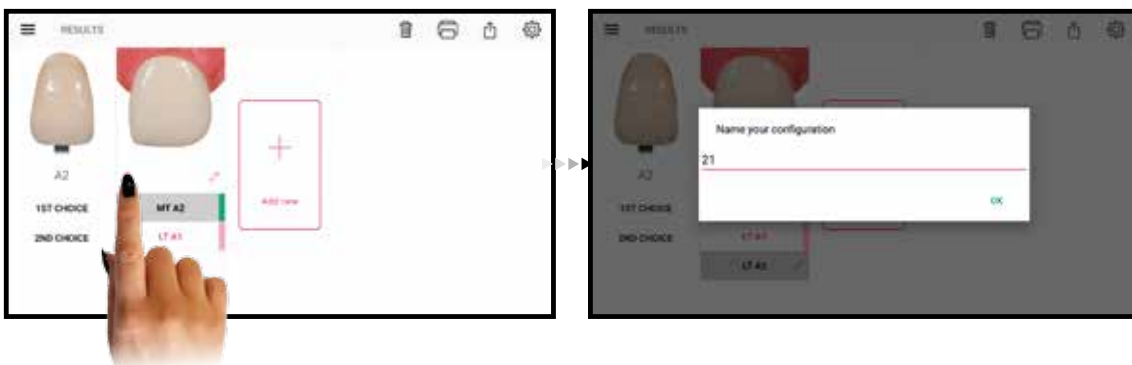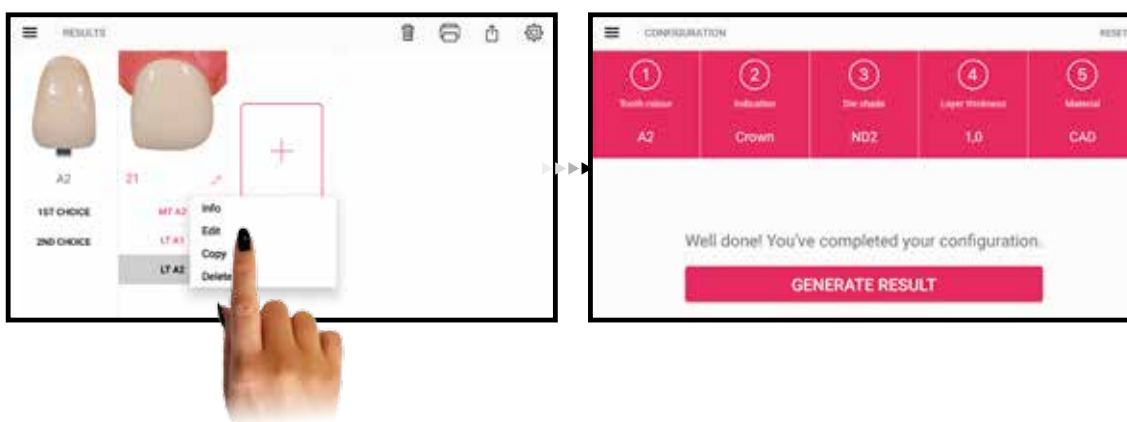
Edit configuration

If you want to change any parameters, you can edit each configuration separately.

Opening the configuration widow: Tap ✏ in the bottom right of the result window in the respective configuration. Then tap "Edit". Direct access via the information window is yet another option. You can find additional information in "Information window" on page 16.

Edit configuration: In the configuration window, you can now change the individual parameters. Tap the item to be edited and change your entry. After that, tap "Generate result" to confirm the change. The new result is displayed.

Add configuration

Up to four configurations can be displayed at the same time. This is particularly helpful, if several teeth, e.g. in the anterior region, have to be restored using different indications and shades.

Add configuration: Tap ➕ in the result window to add a configuration.

Entering the parameters: Select the corresponding parameters for the new configuration in the configuration window and then tap "Generate result" to confirm your entries. The new configuration is now displayed.
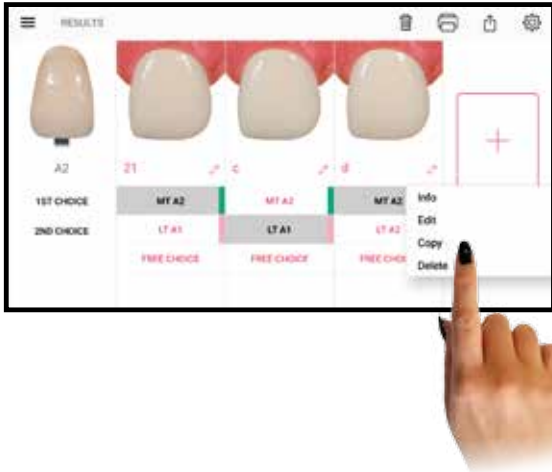
ⓘ **Note:** Please note that item ❶ , i.e. the tooth colour, cannot be changed in added configurations.
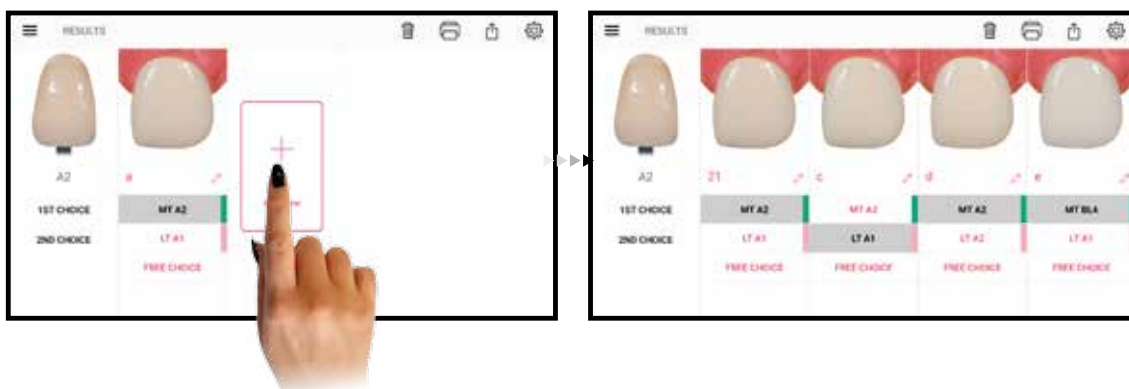
Copy configuration

Copy the configuration to show various results of a configuration next to each other or to assess the direct effect of parameter changes.
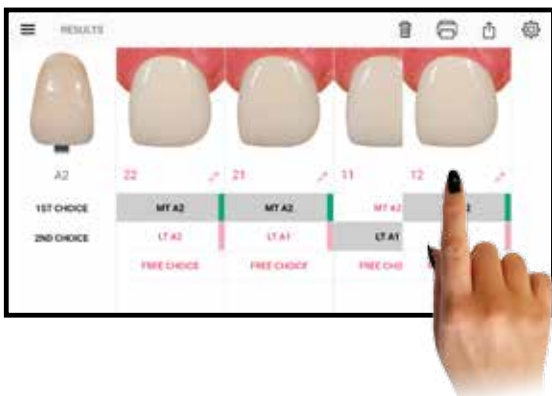
Copy configuration: Tap ✎ in the bottom right of the result window in the respective configuration. Then tap „Copy".


Move configuration

You can change the position of the configuration at any time.

Move configuration: Tap and hold the respective configuration and drag it to the left or right into the desired new position. Release it to paste it in the desired position.

Delete configuration

Delete a configuration: Tap ✎ in the bottom right of the result window in the respective configuration. Then tap „Delete".
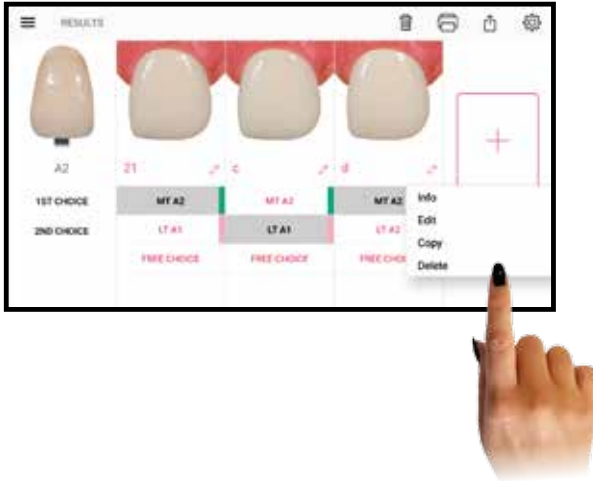

Create result log

You have the option to print out a result log with the most important information for documentation purposes or to create an order. The result log facilitates communicating the shade information and provides an additional backup.

The result log contains every configuration with the entered parameters and the selected result.

Create result log: Tap 🖶, to generate the result log. You can either save the log as PDF and print it or send it to an email address.
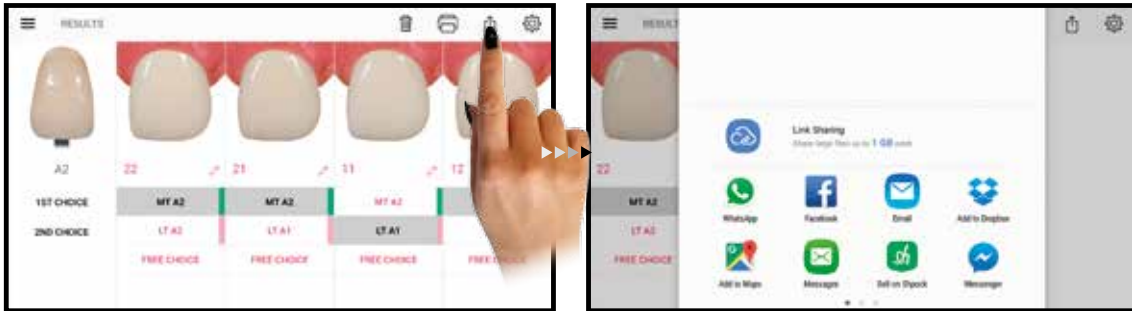
⛔ **Important:** The result log only contains the selected and/or active results (with grey background)
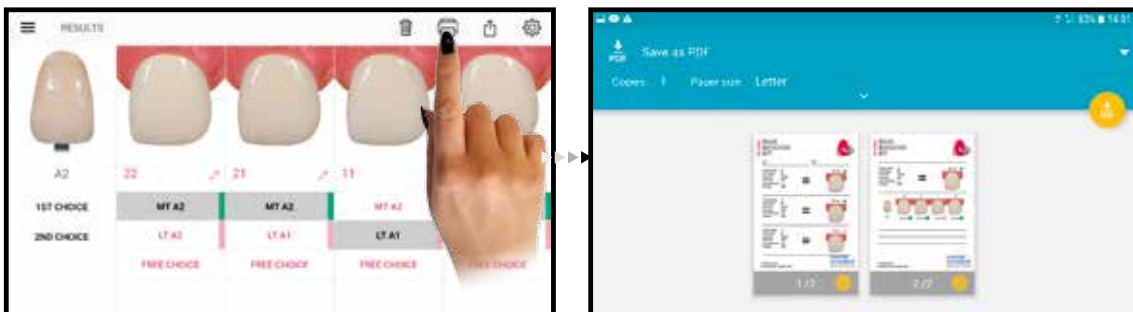
Share result

Share or send your results to colleagues and friends using WhatsApp, Facebook or e-mail.

Share the results: Tap ⬆ at the top right of the screen and then select WhatsApp, Facebook, Mail etc. to share the results.

Reset configuration

Reset configuration: Tap 🗑 on the top left of the screen and confirm your entry. This is how you can reset all the configuration parameters entered to the original value.

Enjoy the reliable and relaxed way of working with this app!
Ivoclar Vivadent

www.ivoclarvivadent.com