KP Digital Software Manual

1. Summary

KP Digital software is a software component of the K-Scan oral digital impression instrument and Smile Scan oral digital impression instrument produced by Guilin Kaiwen Peter Technology Co., Ltd. It runs independently in the Windows system to collect signals from the receiving host and input them into the software for model reconstruction and corresponding order management.

System Function Overview

KP Digital software consists of several modules, each of which performs specific functions to implement the case checking process and provide effective 3D data.

The function introduction of each module of the software component is as follows:

Functional Module	Sub modules/function points	Function point description
Registration and login	Registering	users to register account information in the system and obtain account permissions
	log on	User enters account and password to log in
	Remember password	You used to log in, so you don't need to enter it again the next time you log in
	Forgot password	Users reset their password in the system through the email bound during registration
	Import offline users	Users download the license file and import it into the system to import offline users
Case management	Search Cases	Search based on patient name and case number and display search results
	Modify Case	Modifying Case Details
	New Case	Create a new case
	Delete Case	Delete selected case information
	Upload case	Upload the selected case information and model files to the cloud
	Download Cases	Download model files from the cloud to the local location
	Copy Case	Copy the selected case
	Filter Cases	Filter cases based on their status and source
Patient Management	Search patients	Search based on patient name and display search results
	Modify Patient	Modifying Patient Details
	Create Patient	Create a new patient

	Delete Patient	Delete selected patient information
Model Scan	Scan to obtain model data	Obtain current dental model data through scanning
	Model optimization	Optimize the model data obtained through scanning to improve accuracy
	Complete Scan	Exit and save model data
	Model processing	Can perform operations such as cutting, chamfering inspection, and drawing neck lines on the model
	Model display processing	Can perform realistic display of models, prompt scanning quality, adjust model display size, take snapshots of models, and other operations
Model Preview	Model List	Display all models under the current case
	Model Display	Display the current 3D model screen
	Angle adjustment	Switch the perspective of the current observation model
Plug-in Manager	Search plugin	Search for plugins based on their names
	View plugin information	Click on the plugin to view the plugin details
	Installing plugins	Install the selected plugin to the local system
	Uninstalling plugins	Uninstall the selected plugin
System settings	Commonly used	Software global language, folder name format for exporting cases, host can set storage path, backup path, and export path
	Help	Display manufacturer information, company website, and user manual
	Software updates	Display the current software version and provide the function of manually checking the version, as well as the function of selecting offline upgrade packages for software updates
Connection Assistant	Connection of mobile apps	Mobile APP scans QR code to connect to server
User management	User Information	Display and edit the information of the logged in user, and can log out to the login interface
Cloud management	Quickly jump to the cloud	Jump to the entrance of cloud web pages

2 Operating environment

software environment

System software: Windows10 x64, Windows11 x64

Network conditions

Network card: built-in network card

3 Software Function

3.1 Install

Follow the steps below to install the software.

Double click on the installation package to start the installation, as shown in the following figure
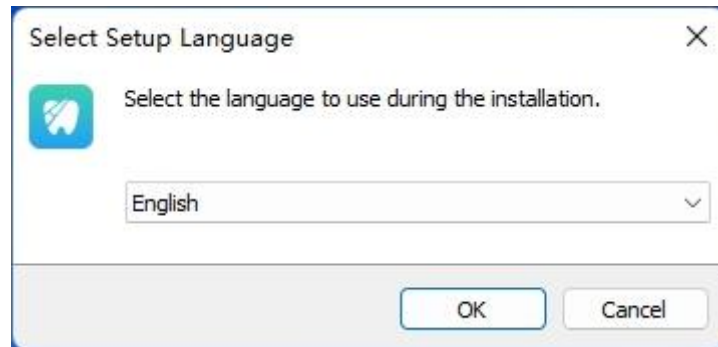

Figure 1

Figure 2

Carefully read the license agreement, agree to it, click 'I agree to this agreement', click 'Next' to continue the installation, if you do not agree, click 'Cancel' to end the installation.
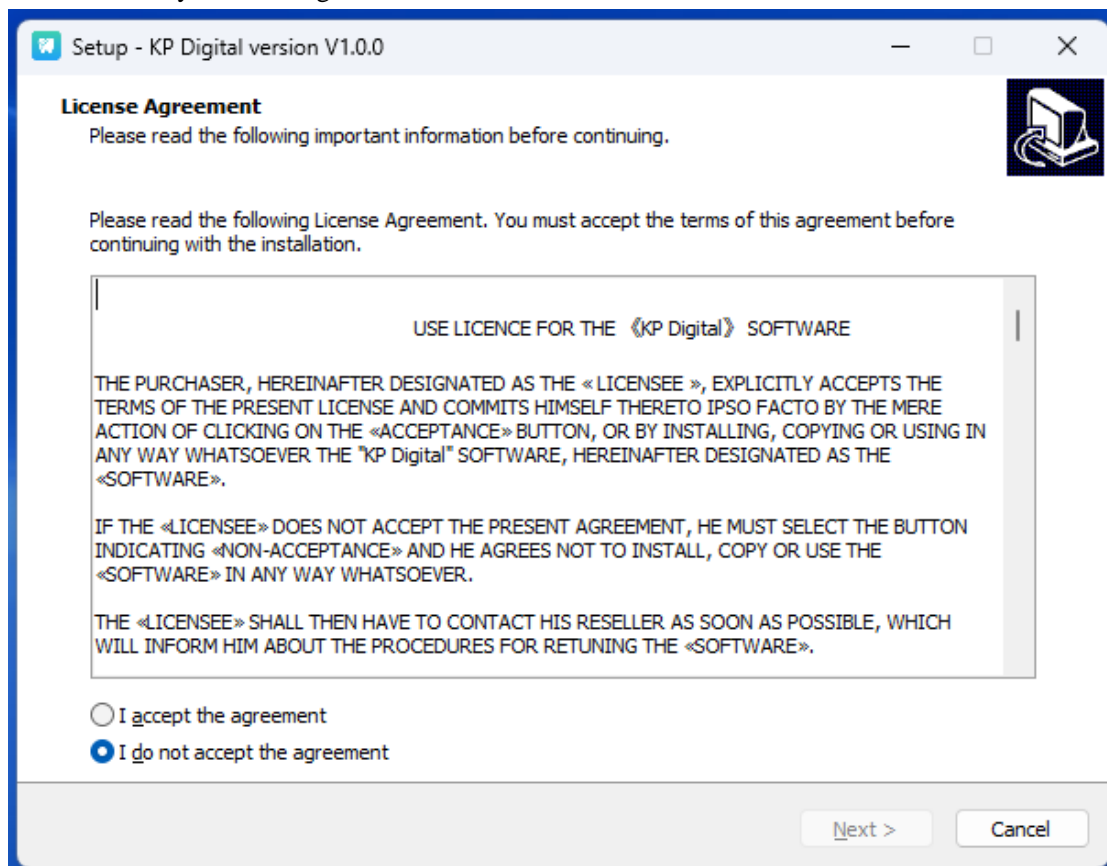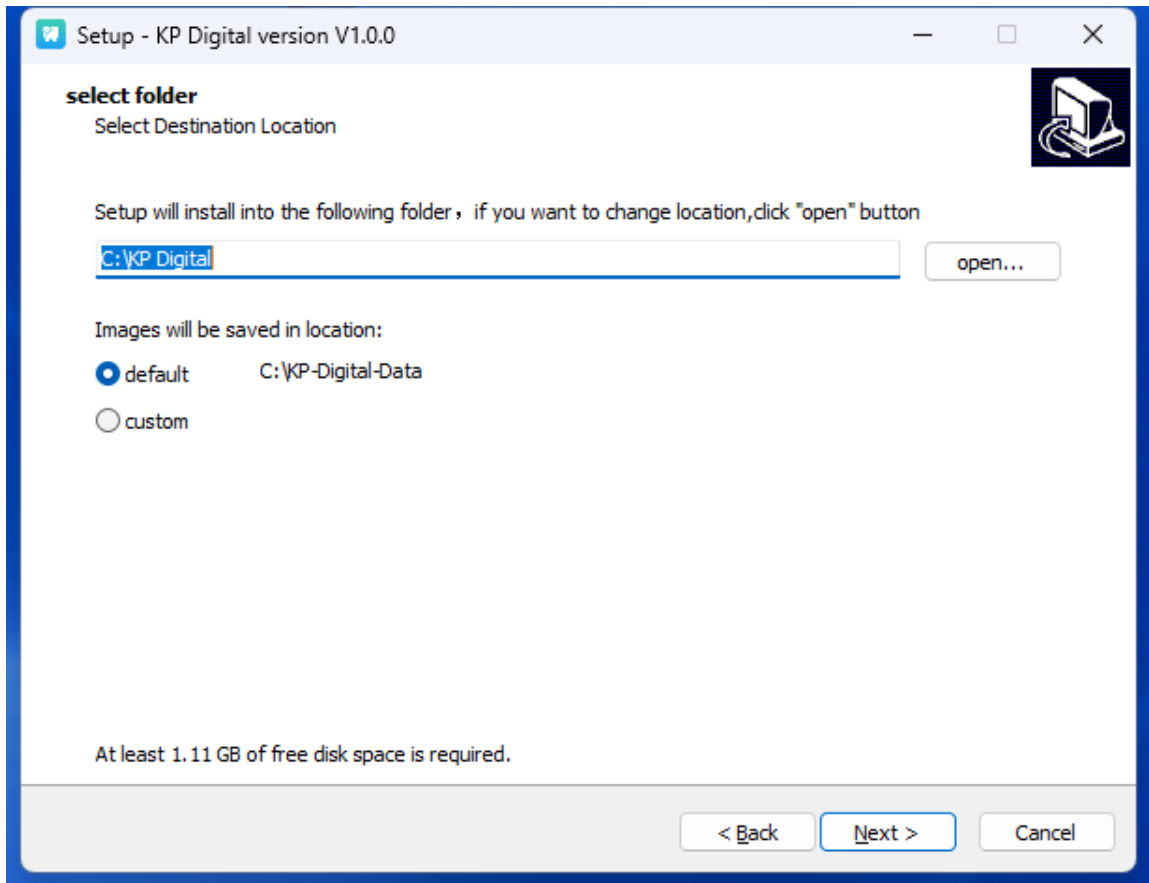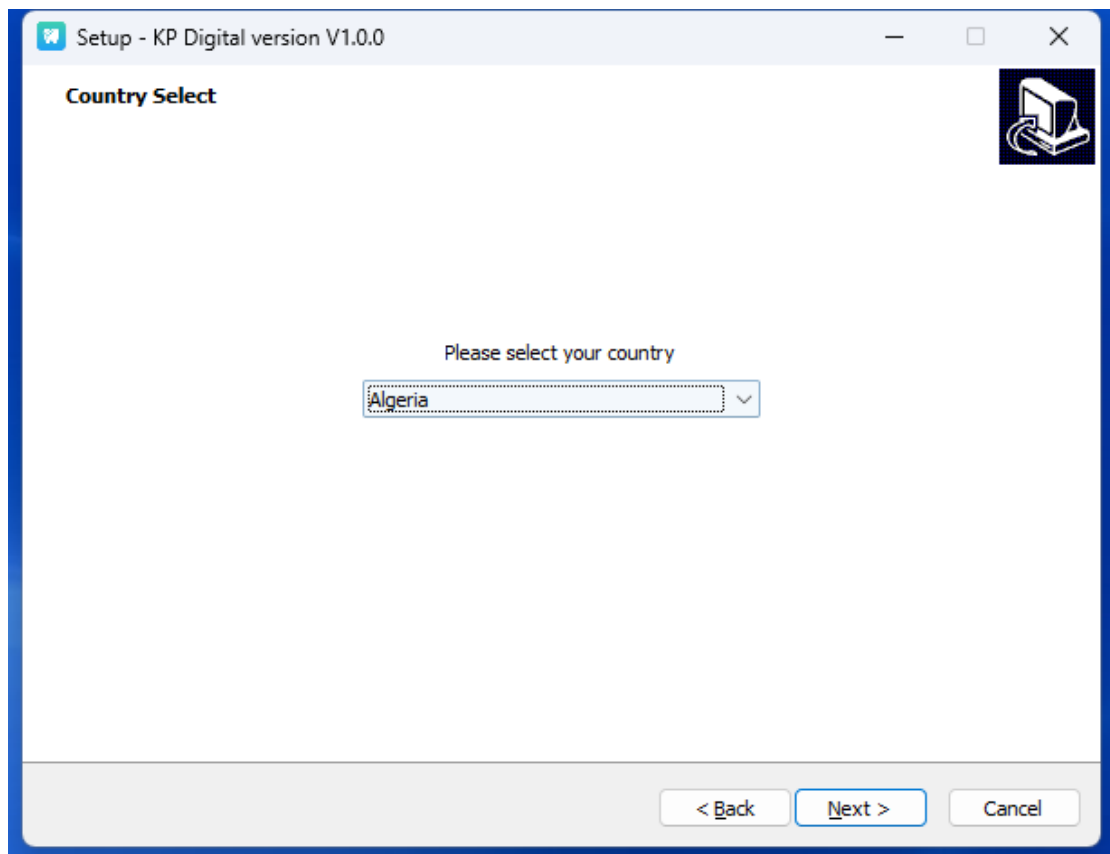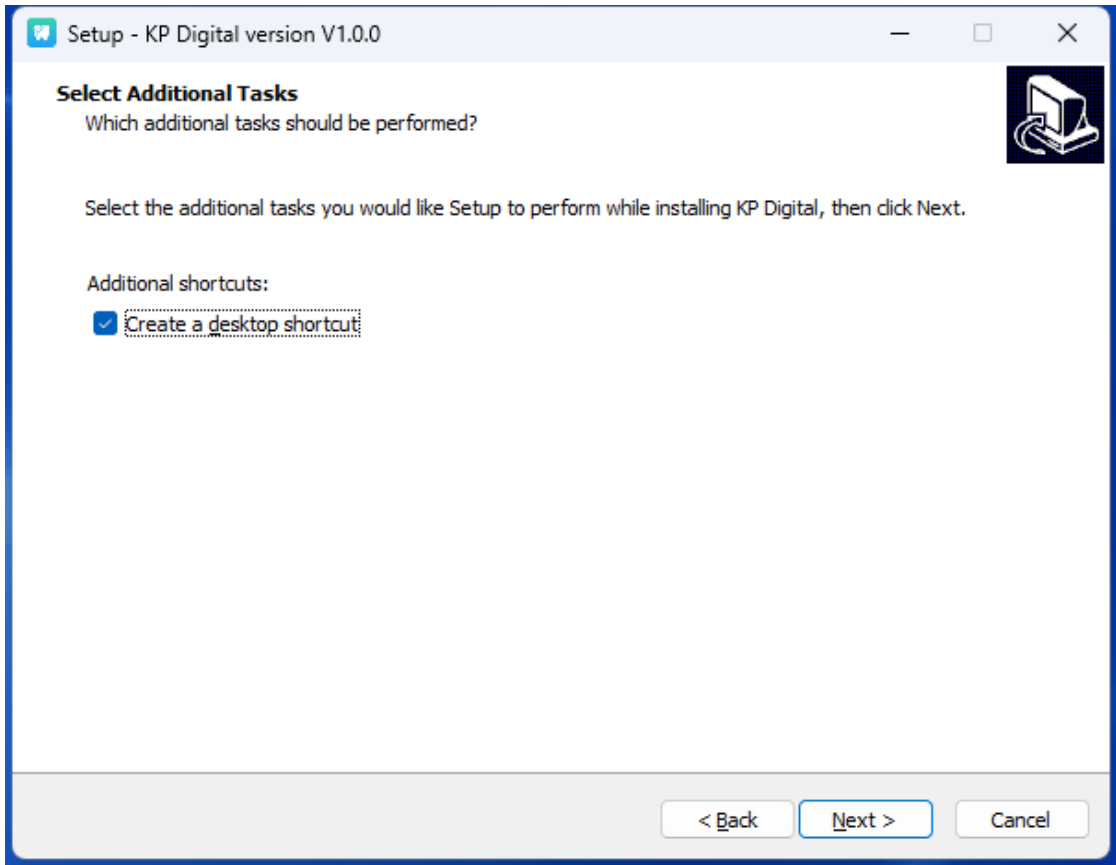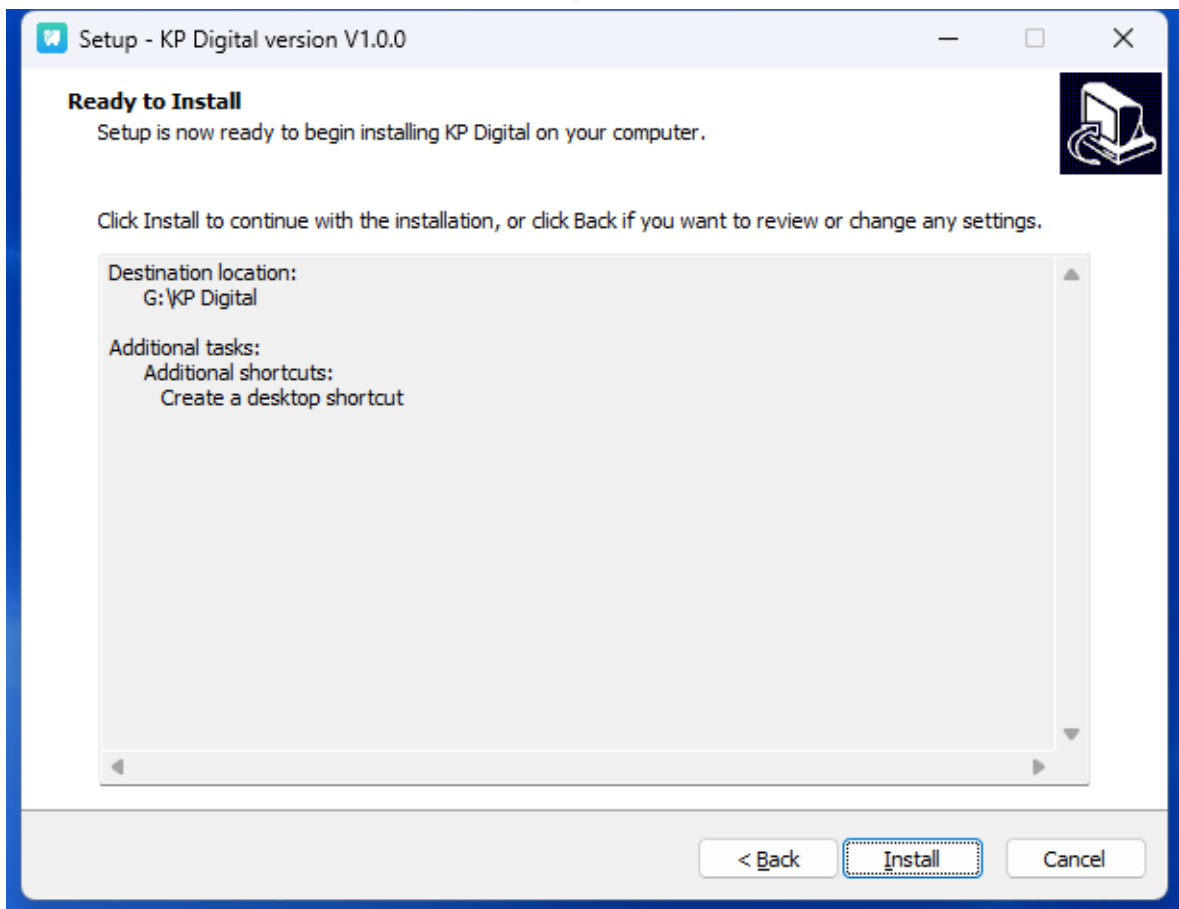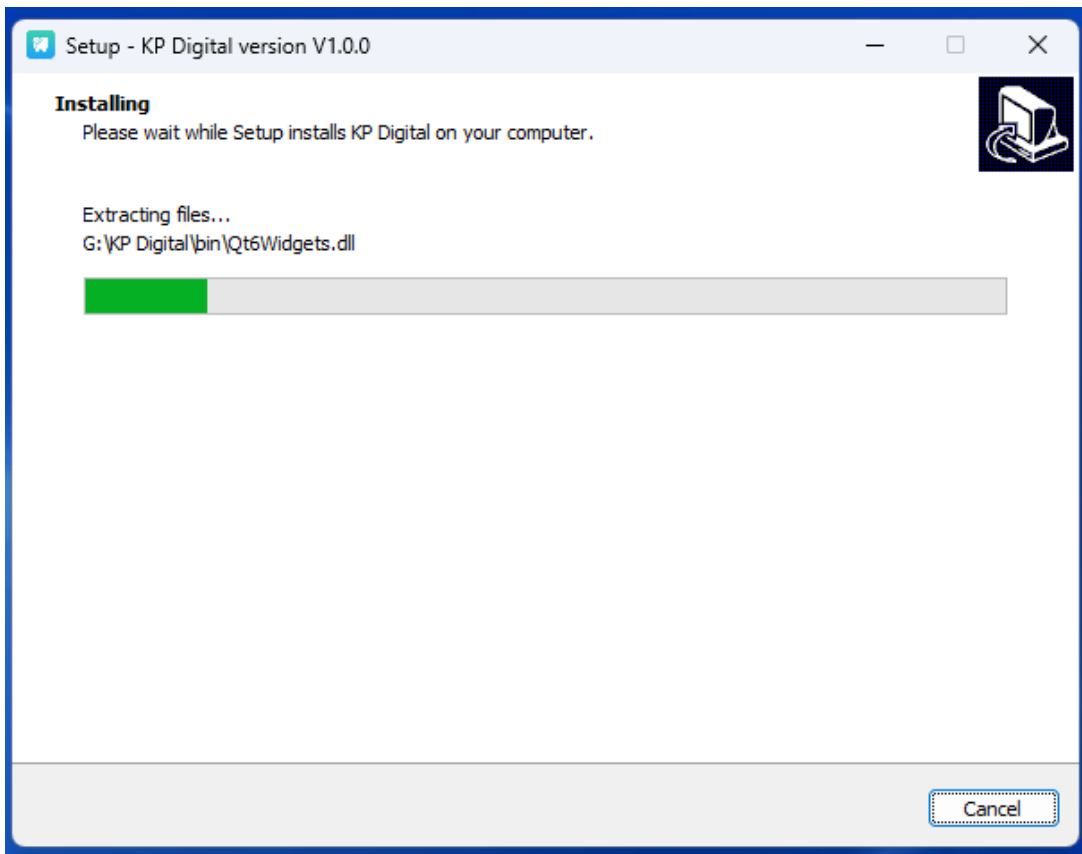

Figure 3

Figure 4

Figure 5

Figure 6

Figure 7

Figure 8

Installation completed, click 'Finish'
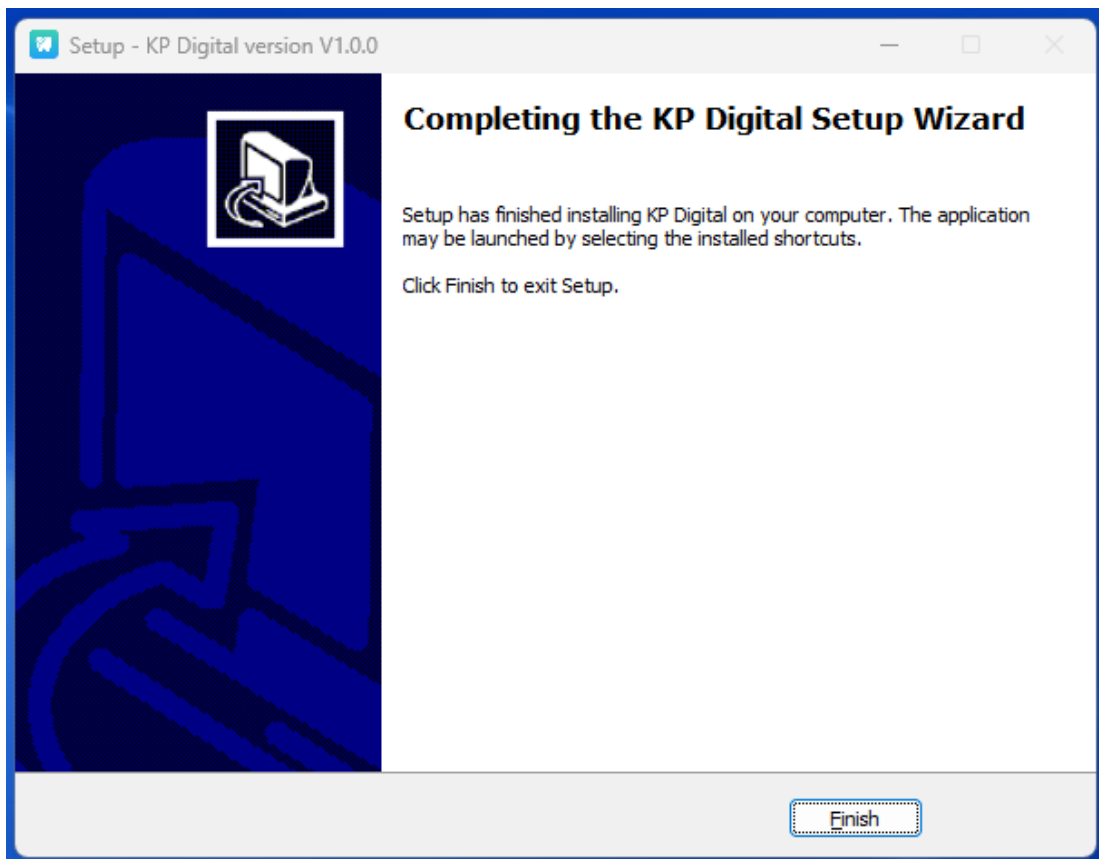
Figure 9

3.2 log on

After installation, there will be a software icon on the computer desktop, as shown in the figure. Double click the icon, and after the software starts, you will enter the software login interface, as shown in the figure.
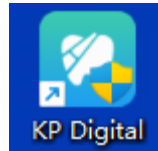
Figure 10
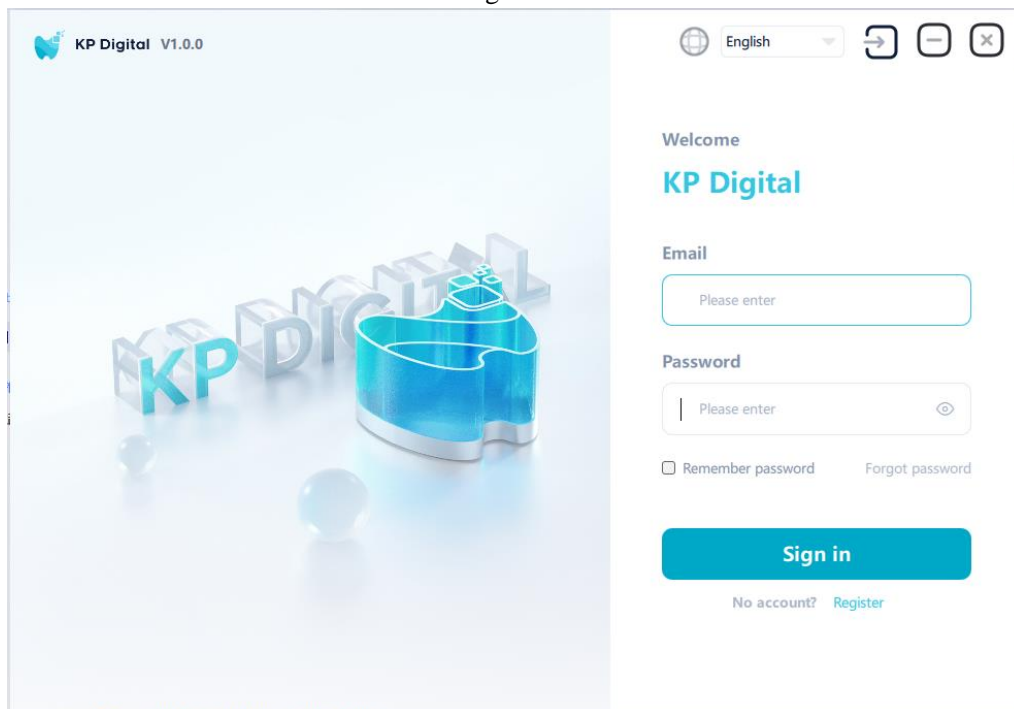
Figure 11

3.2.1 Registration and login

If you have not registered, please click the registration button to go to the webpage to register your account, as shown in the figure.
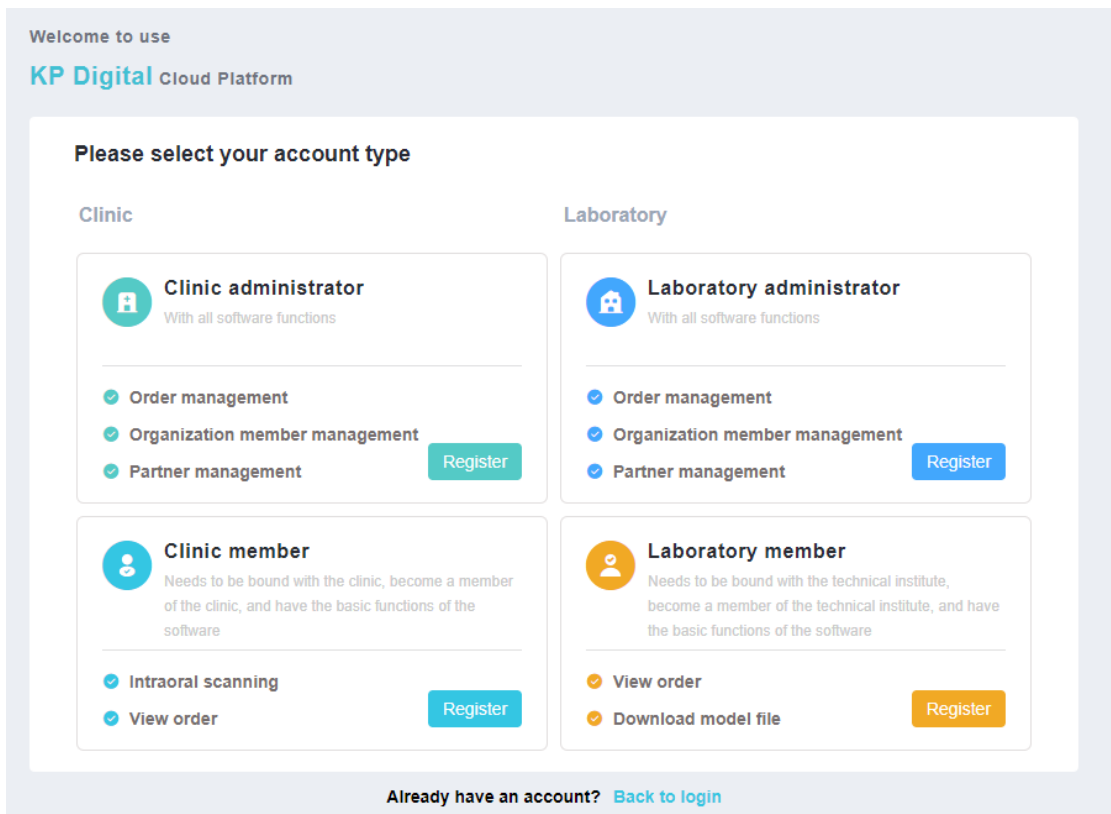
Figure 12

Enter the username and password, click the login button to log in to the main interface, as shown in the figure. In the login interface, users can check "Remember Password" and do not need to enter the password again the next time they log in.

Figure 13

Figure 14

If you forget your password, you can click "Forgot Password" on the login interface. The system will open the password retrieval interface on the webpage, as shown in the figure. After the user enters their email, the system will send an email. The user logs in to the email and opens the password reset link, where they can reset their password.

Figure 15

If you have previously registered, you can download the license file in the personal center module of the KP Digital cloud platform, click on Import, select the license file to import, and then log in using the account, as shown in the figure

Figure 16

3.3 Case Management Module

3.3.1 Search Cases

Enter the case number or patient name in the input box, and then click the search icon. The system will display the corresponding search results, as shown in the figure

Figure 17

3.3.2 New Case

Click on the "New Case" icon on the homepage, as shown in the figure. Enter patient, dental position, and other information in the case interface, and then click Save, as shown in the figure。

Figure 18

Figure 19

3.3.3 Modify Case

Double-click the case to be modified in the case list to enter the case modification interface, as shown in the figure. Users can modify the corresponding information as needed. After modification, click the save button to save it。
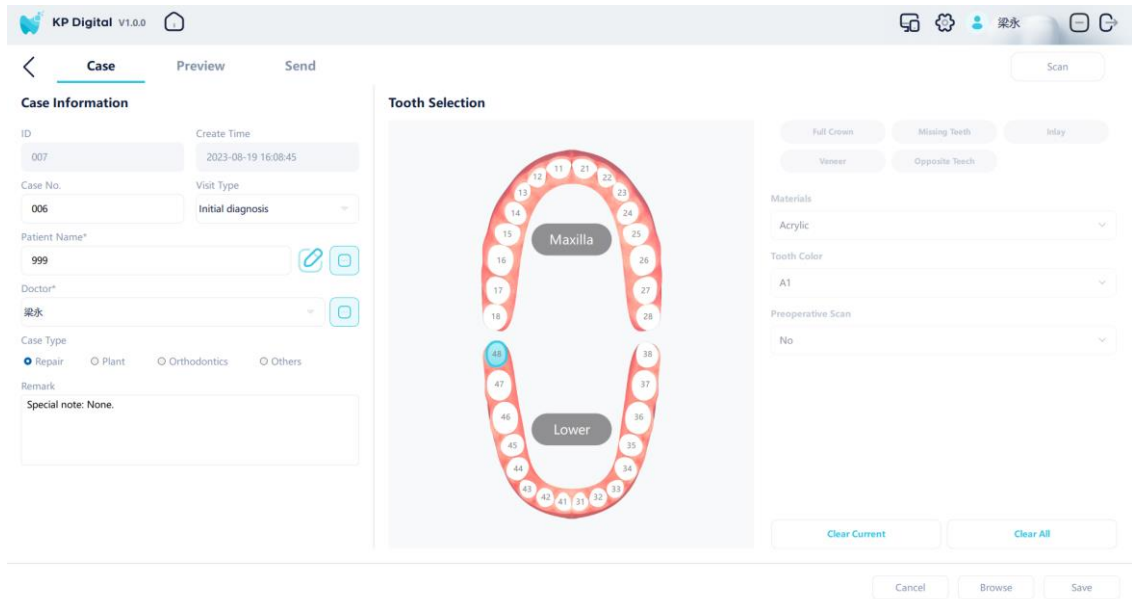
Figure 20

3.3.4 Delete Case

Click the delete button in the case list, and the system will pop up a deletion prompt, as shown in the figure. After the user confirms the deletion, the selected case will be deleted and the case list will be refreshed.
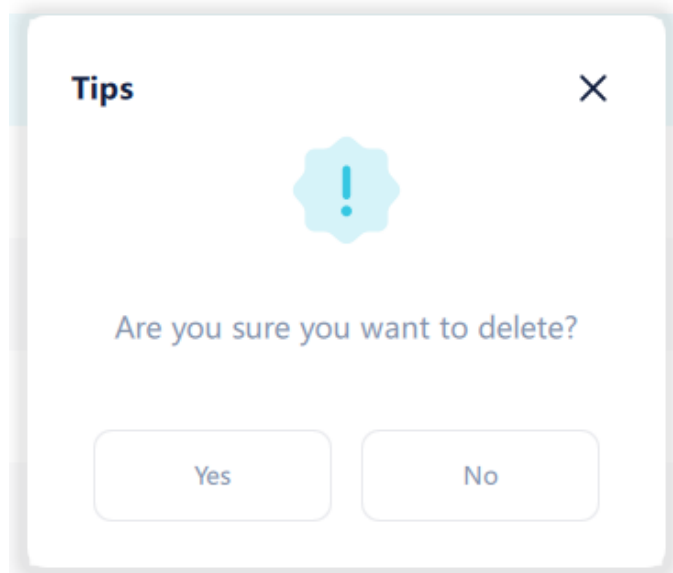
Figure 21

3.3.5 Send Case

Click the send button in the case list to jump to the case sending interface, displaying the detailed information of the case, as shown in the figure. Select the technician to send, click the "send" button, and the data will be uploaded to the cloud.
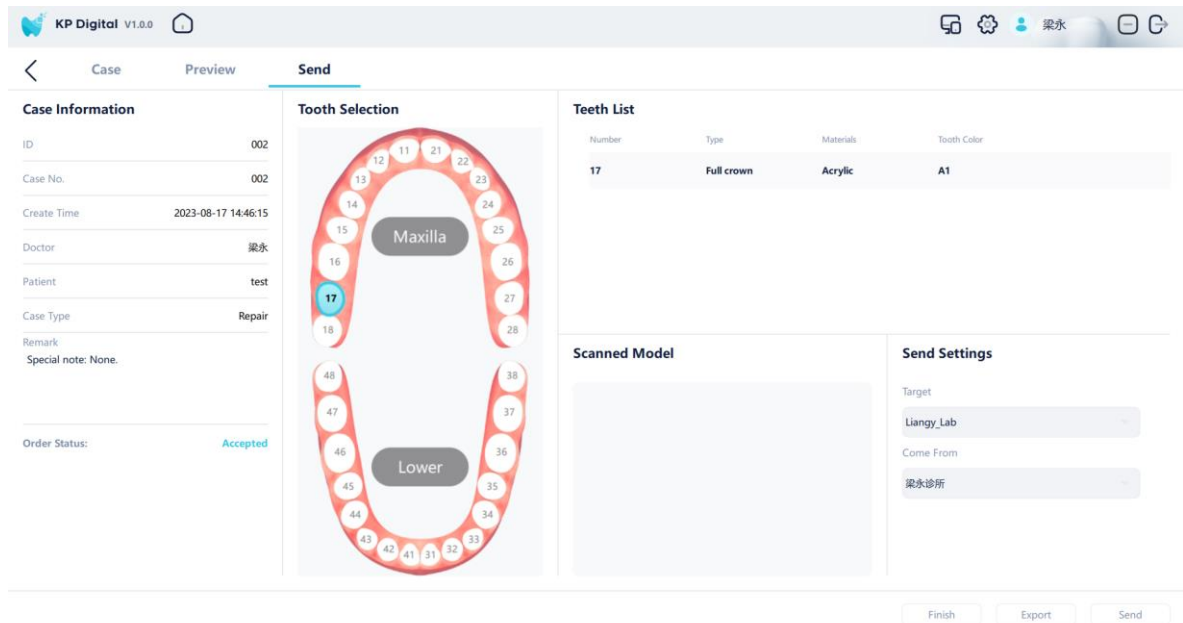
Figure 22

In the sending interface, users can export case information to disk. Click the "Export" button, and the system will pop up a save dialog box, as shown in the figure. The user can set the export name, export path, and export format, and click "OK" to proceed.
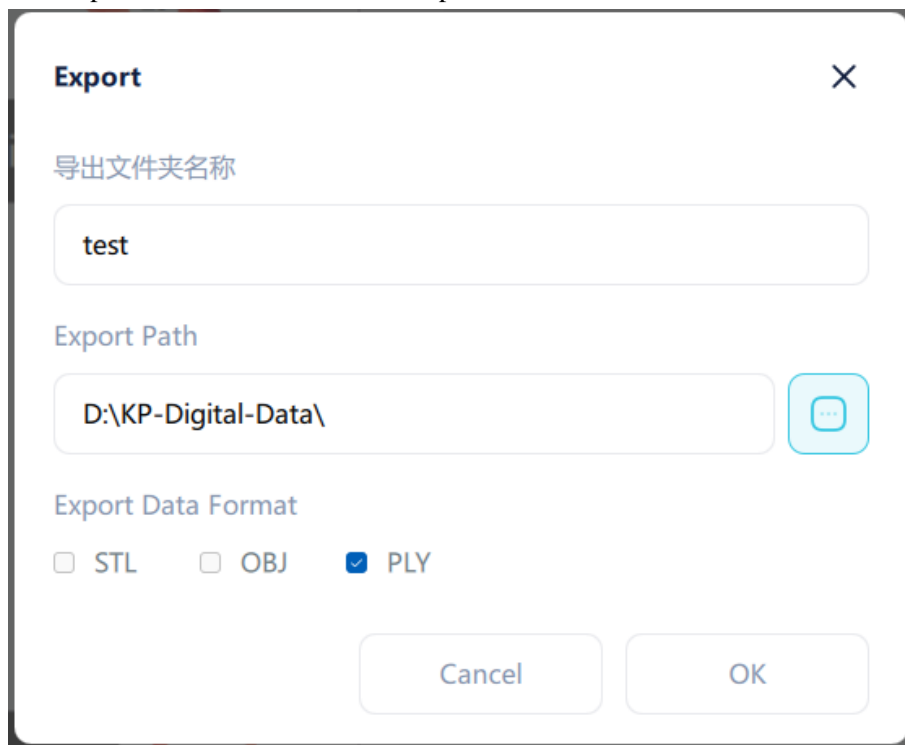
Figure 23

3.3.6 Open Case

In the case list, double-click the case to open the case details page.

3.3.7 Copy Case

In the case list, click the copy button to copy the specified case.
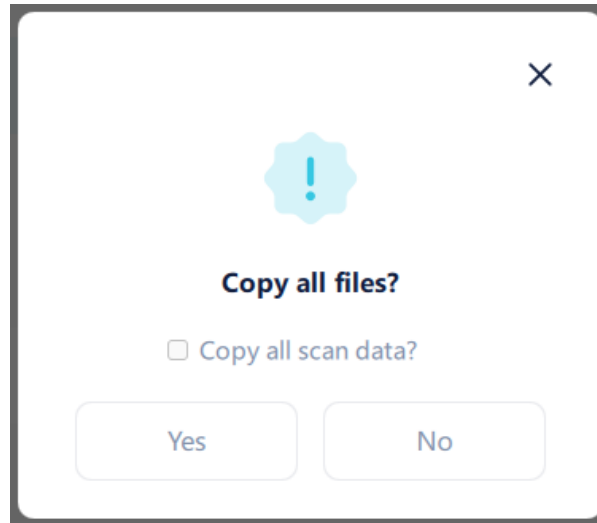
Figure 24

3.4 Patient Management Module

3.4.1 New Patient

Click the "New Patient" button and enter patient information in the pop-up dialog box. The name is a required field and the rest are optional fields. After entering, click the "OK" button to proceed.
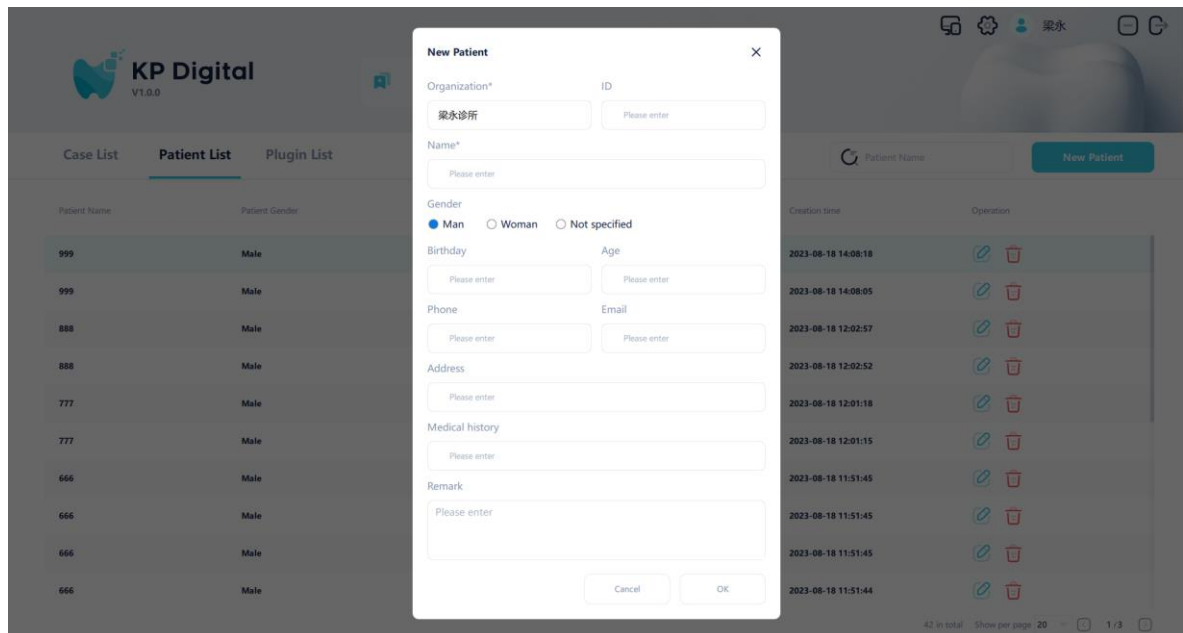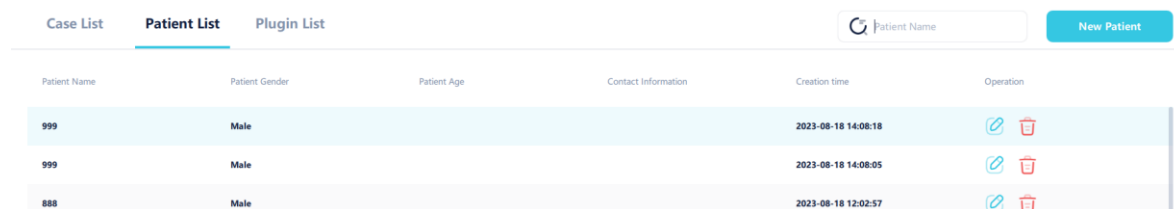
Figure 25

3.4.2 Search patients

In the patient list, users can enter the patient name for fuzzy search, and the search results are displayed in the list, as shown in the figure.
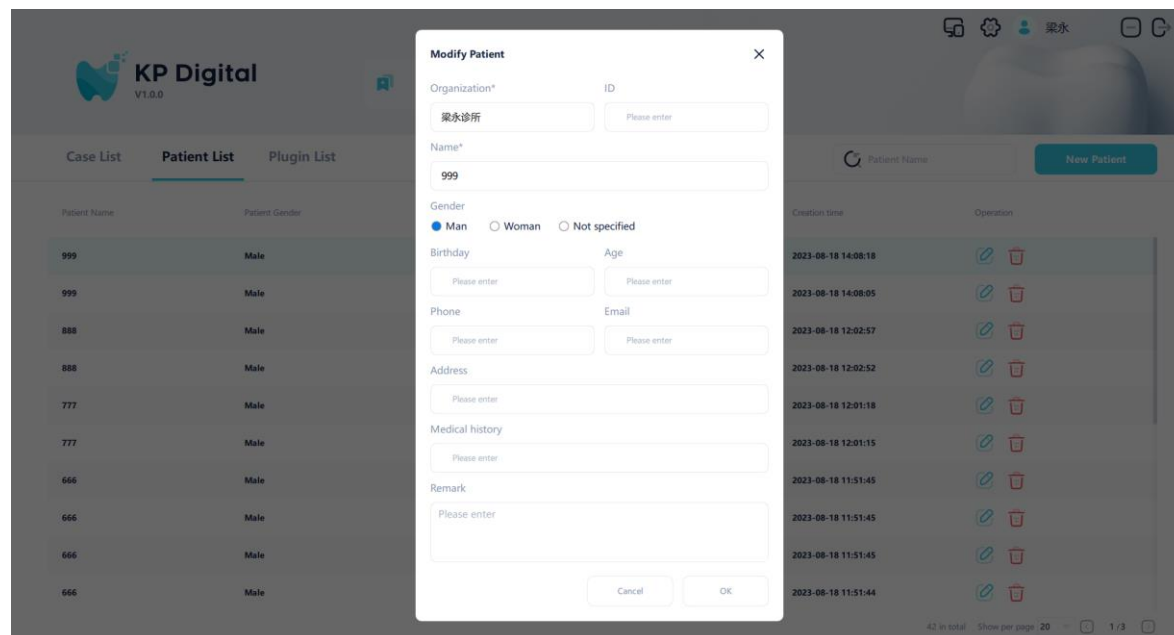
Figure 26

3.4.3 Modify Patient

In the patient list, click the edit button, enter the information that needs to be modified in the pop-up dialog box, and click "OK" to save the modified information, as shown in the figure:

Figure 27

3.4.4 Delete Patient

In the patient list, click the delete icon and a confirmation prompt will pop up. After the user confirms the deletion, the system will delete the selected patient information.
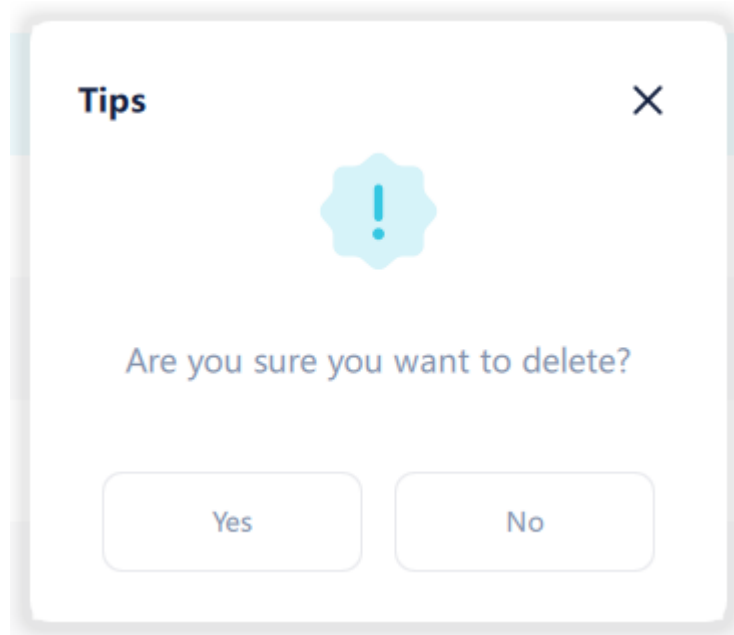
Figure 28

For patients who have already created a case, their information cannot be deleted.
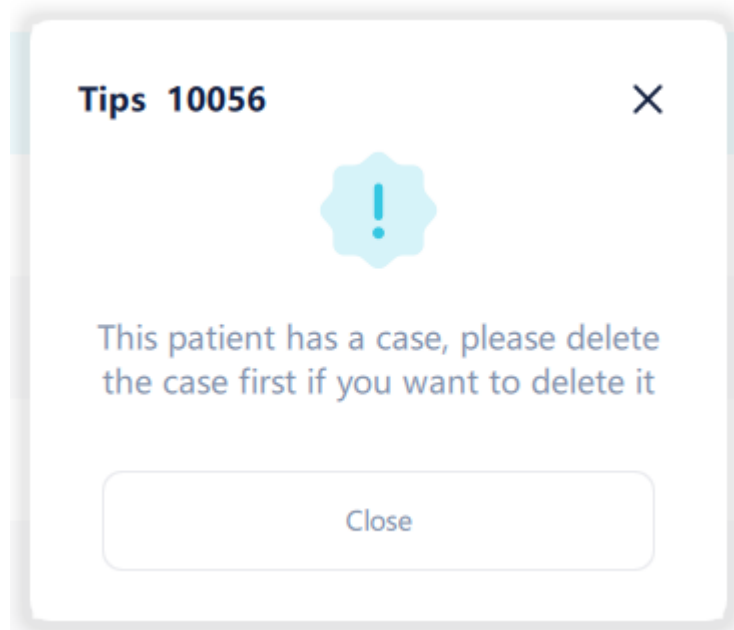

Figure 29

3.5 Model Scan

In the case editing interface, click the "Descan" button at the top to enter the scanning interface, as shown in the figure:
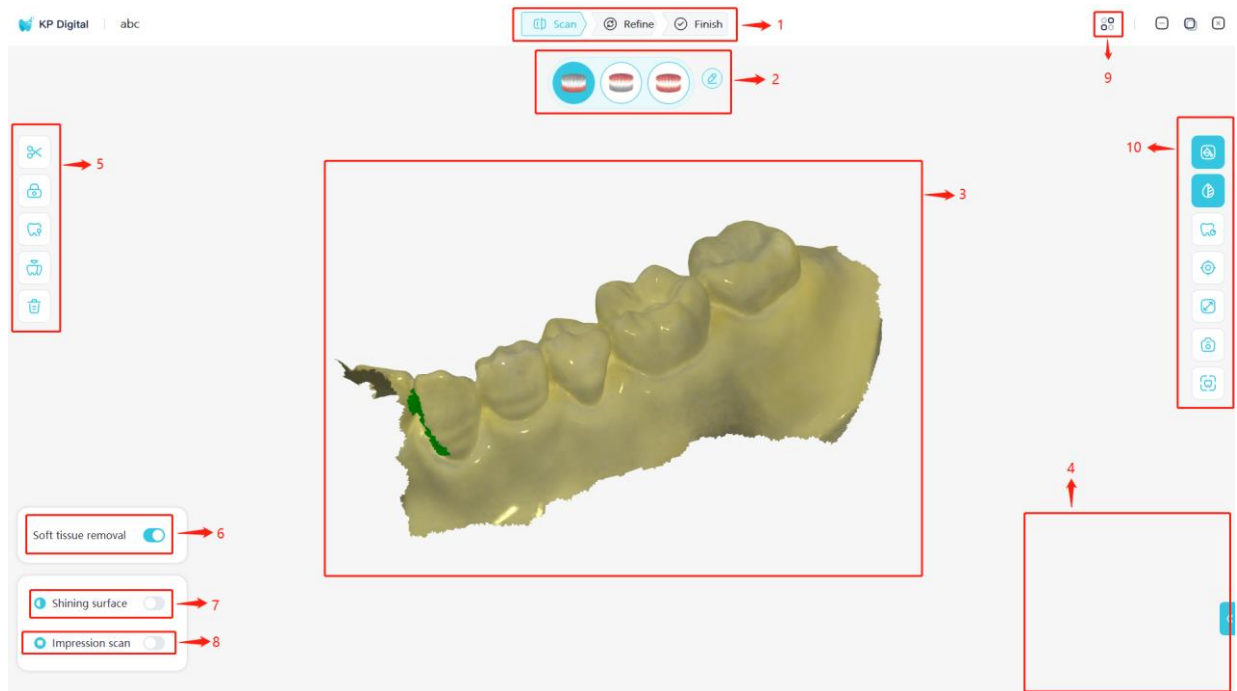
Figure 30

3.5.1 Functional Area Description

1	Scanning steps: Display the current step during the scanning process
2	Upper and lower jaw/occlusal switch: switch to the current scanned jaw
3	3D model display area: displays the 3D model generated by scanning
4	Video preview area: Display real-time video of scanned teeth, and display scanner status when not scanning
5	Image toolbar: can select and manage 3D images
6	Soft tissue removal switch: When enabled, soft tissue can be automatically removed when scanning the mouth
7	High gloss surface switch: When scanning bright metal, this switch can be turned on for scanning
8	Mold scanning switch: When enabled, the mold area can be scanned. After exiting, the 3D model of the mold will be flipped and merged into the 3D model of the teeth
9	Option menu: allows for software configuration and viewing of software versions
10	Display toolbar: You can change the display of 3D models

3.5.2 Scan Icon Function Description

Scanning steps	
Scan	Scan button for scanning the upper jaw, lower jaw, and occlusal relationship
Refine	Optimize button to refine the 3D model obtained from scanning and use various tools to check the optimization results
Finish	Complete button, complete case information, and save scan results
Scan section switching	
	Lower jaw button, switch to lower jaw for scanning or viewing

	Upper jaw button, switch to upper jaw for scanning or viewing
	Bite button, switch to bite relationship for scanning or viewing
	Upper jaw scanning rod button, switch to upper jaw scanning rod scanning or viewing
	Lower jaw scanning rod button, switch to lower jaw scanning rod scanning or viewing
	Swap upper and lower jaw buttons to exchange scanned upper and lower jaw data

image toolbar	
	Trim button, freely draw closed-loop curve to delete unnecessary data
	Undoes the previous action
	Return to the previous level of operation
	Lock button to lock one or more areas on the model to prevent updates from subsequent scans
	Mark Teeth button to enter the Mark Teeth toolbar
	Add tooth marker button
	Delete Tooth Marker Button
	Move tooth marker button
	Inverted check button to calculate the inverted teeth from the current perspective
	Delete button to delete the generated model data
	Neck edge line positioning direction button, set the neck edge line positioning direction to the current viewing angle direction
	Neck edge line button, add neck edge line
	Neck edge line editing button
	Neck edge line delete button

Show toolbar	
	True color button, when selected, displays the 3D model in actual color, and when not selected, displays the 3D model in monochrome
	Realistic display button, with a more realistic display effect when selected
	Scan quality prompt button, displayed in green for areas with good scanning results
	Display the 3D center button. When selected, the rotation center of the current model will be displayed when rotating the 3D model
	Full screen display button to zoom the 3D model to the optimal size to fit the display range
	Screen snapshot button to take a snapshot of the 3D model displayed on the screen
	Oral endoscope button, select 2D intraoral image

Configuration option	
	Option menu button to open option settings and about dialog boxes

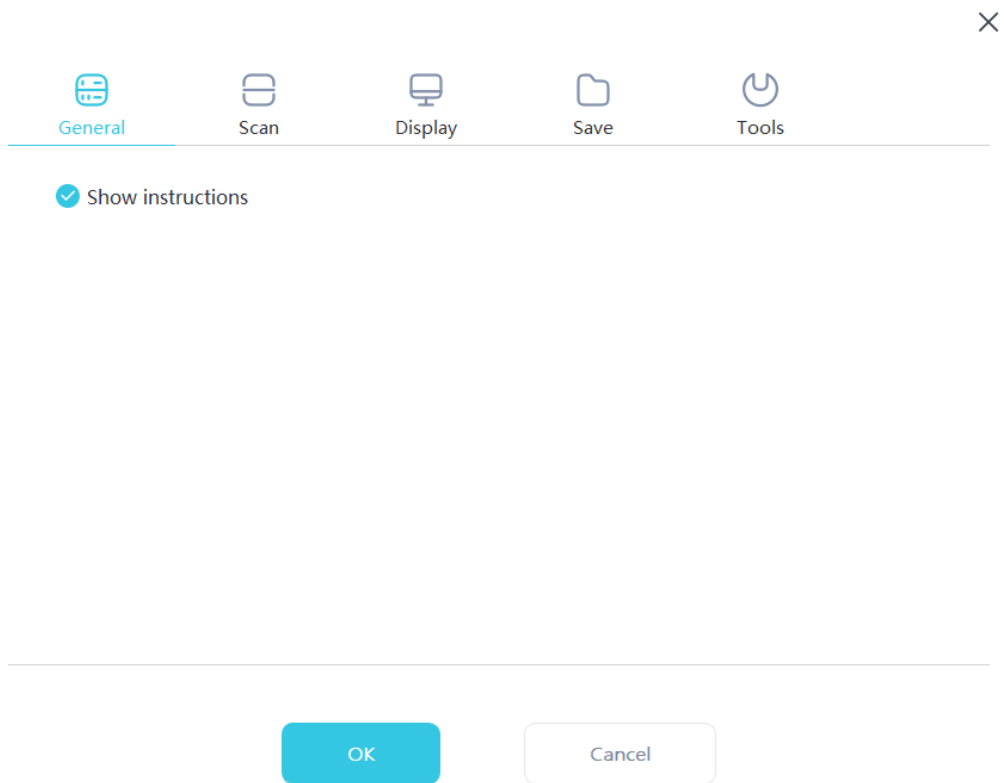### 3.5.3 Option Configuration

Figure 31

Display prompt: When selected, the software will pop up tutorial animations for some functions.
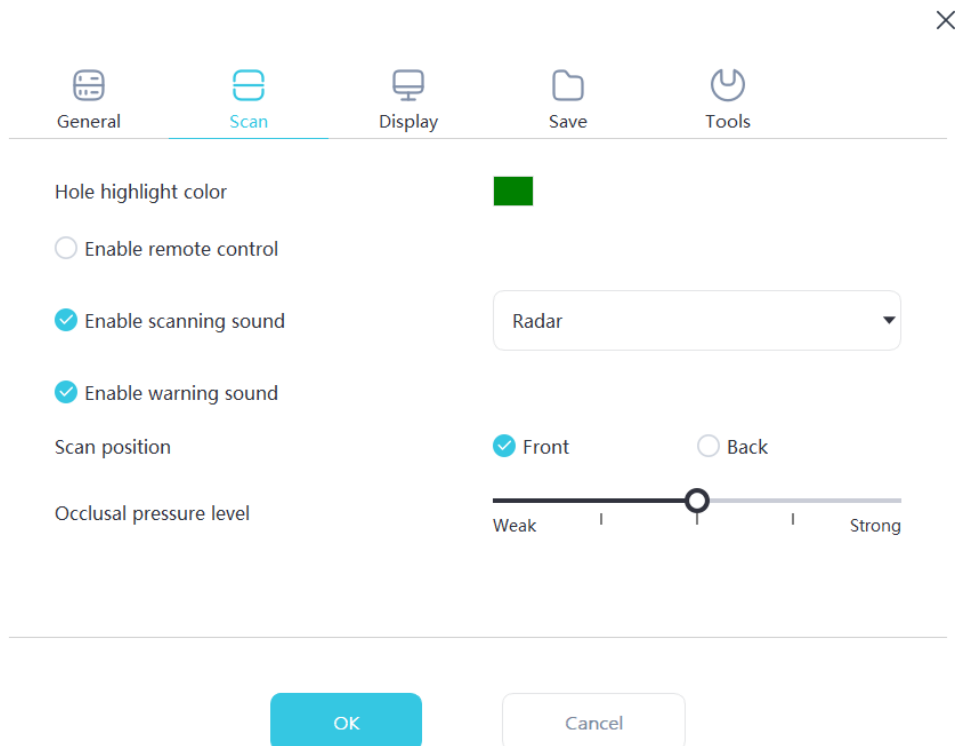
Figure 32

Hole marking color: The software fills the tooth holes in the model with the color specified during scanning and optimization

Enable remote sensing control: When selected, after scanning stops, the scanned 3D model can be rotated by rotating the scanner

Enable scanning sound: When selected, play a prompt sound when scanning images

Enable warning sound: When selected, if the scanning time of the image exceeds the recommended threshold, or if there is strong light during scanning, or if the scanning performance decreases, a warning sound will be played

Scanning pose: switching the direction displayed during model scanning

Degree of occlusal pressure: Adjust the occlusal pressure
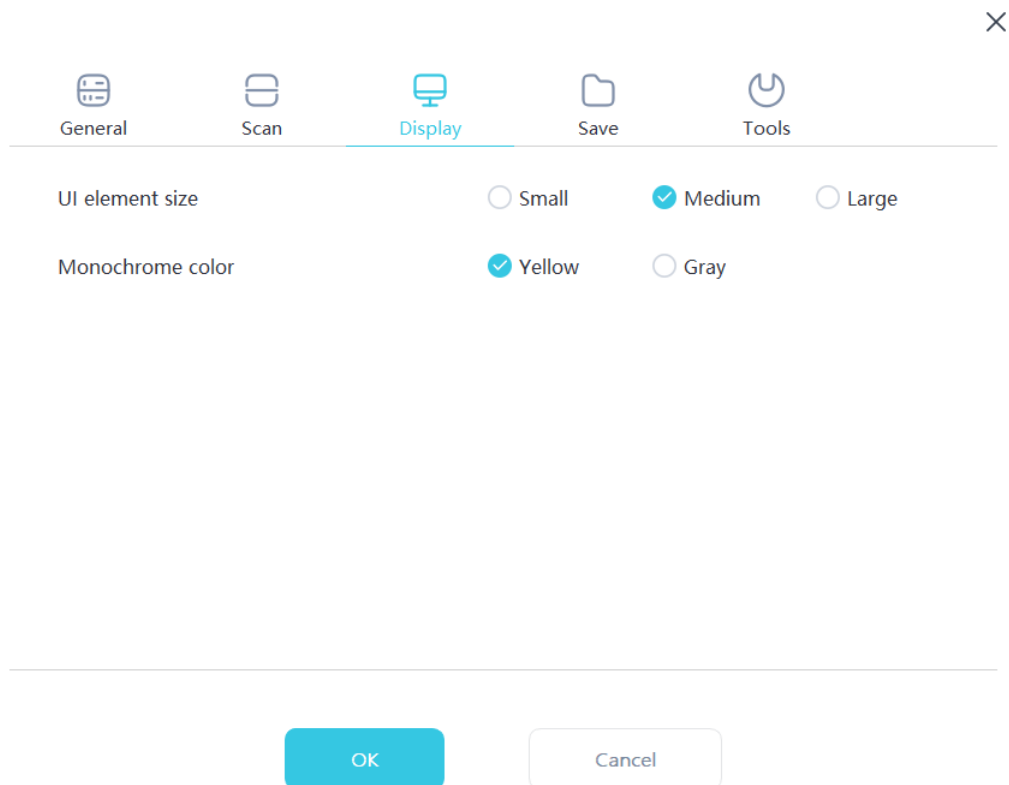
Figure 33

Interface element size: Select the size of the interface icon to adapt to different screen resolutions

Monochrome mode color: Select the color when displaying a 3D model in monochrome

Figure 34

Save bite data: When selected, save the bite file

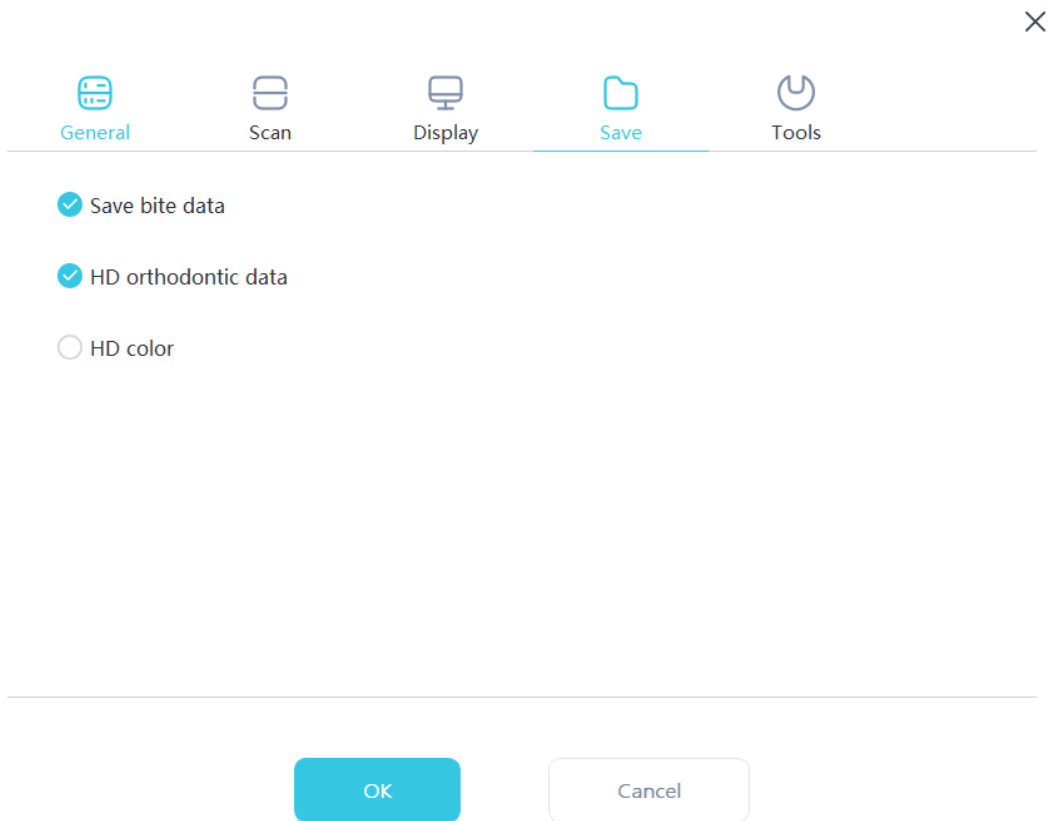High definition orthodontic data: When selected, the orthodontic scan file will be saved in high resolution

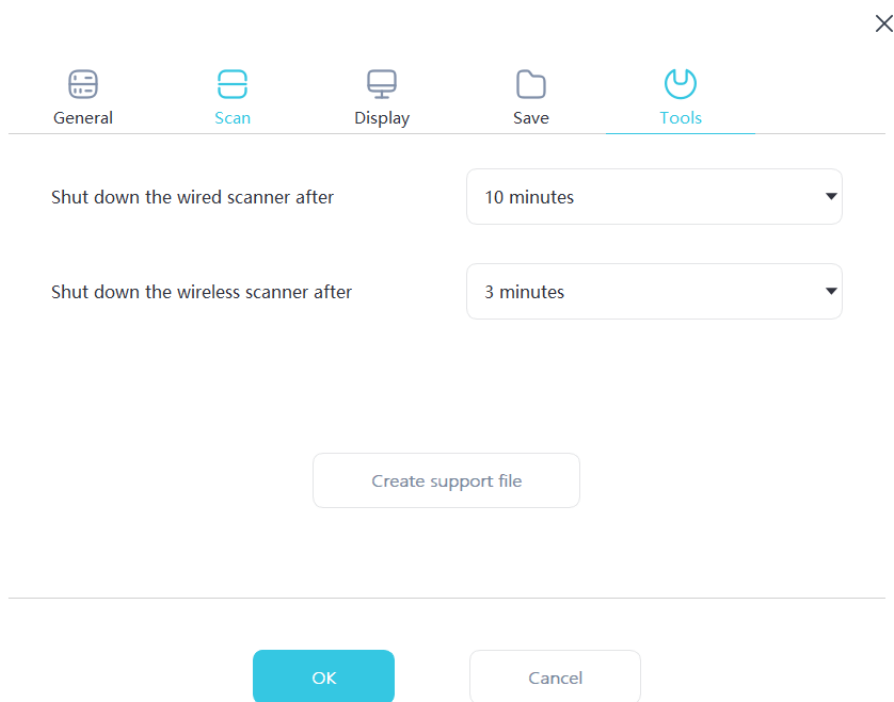High definition color: When selected, the map is saved in high-definition format

Figure 35

Turn off wired scanner after this time: Users can customize the automatic shutdown time of the scanner
Creating supporting files: exporting software and firmware logs
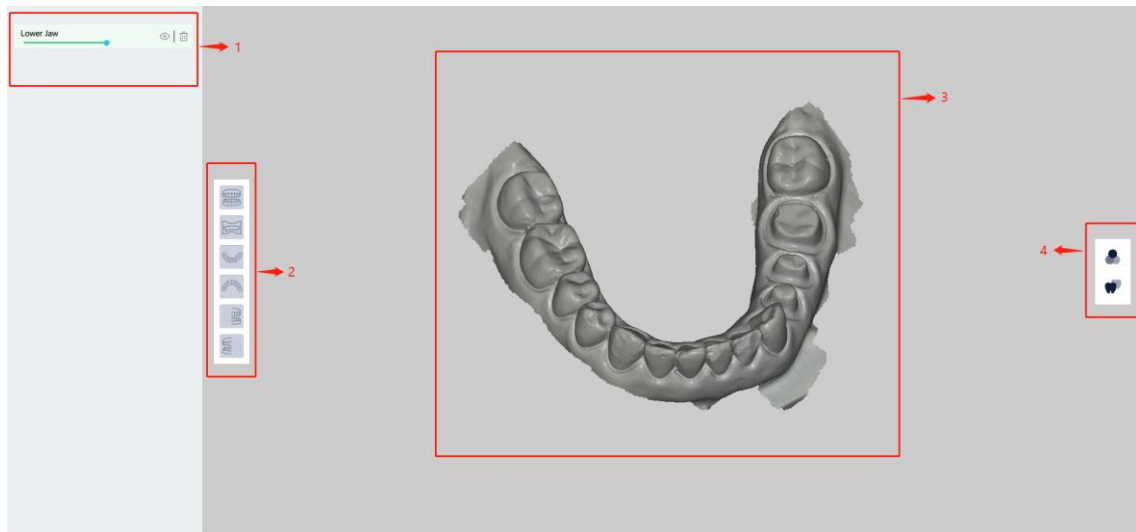
3.6 Model Preview

Figure 36

3.6.1 Functional Area Description

1	Model file list: All scan generated model files are listed here
2	Angle adjustment bar: adjust the display direction of the model
3	Model display area
4	Show toolbar

3.6.2 Model Preview Icon Function Description

⊙	Show/Hide Model Button
🗑	Delete button to delete the current model data
	Front view button, adjust the current perspective of the model to the front view direction
	Back view button, adjust the current perspective of the model to the back view direction
	Top view button, adjust the current perspective of the model to the top view direction
	Look up button, adjust the current perspective of the model to look up direction
	Right view button, adjust the current perspective of the model to the right view direction
	Left view button, adjust the current perspective of the model to the left view direction
	Gypsum color button, switch model color to gypsum color
	Angle adjustment button to adjust the current model size to the optimal display size

3.7 Plug-in Manager

3.7.1 Search plugin

Enter the plugin name, click the search button, and query for the specified plugin
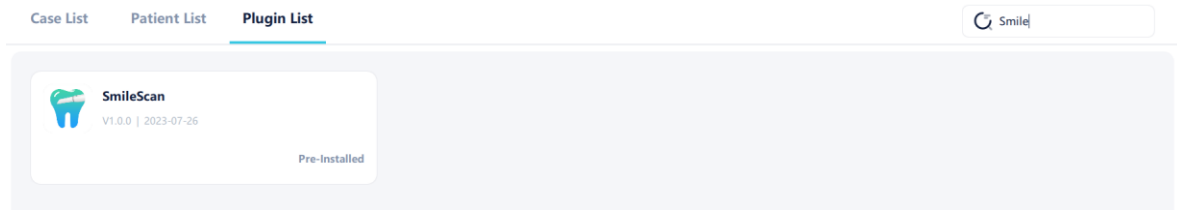

Figure 37

3.7.2 View plugin information

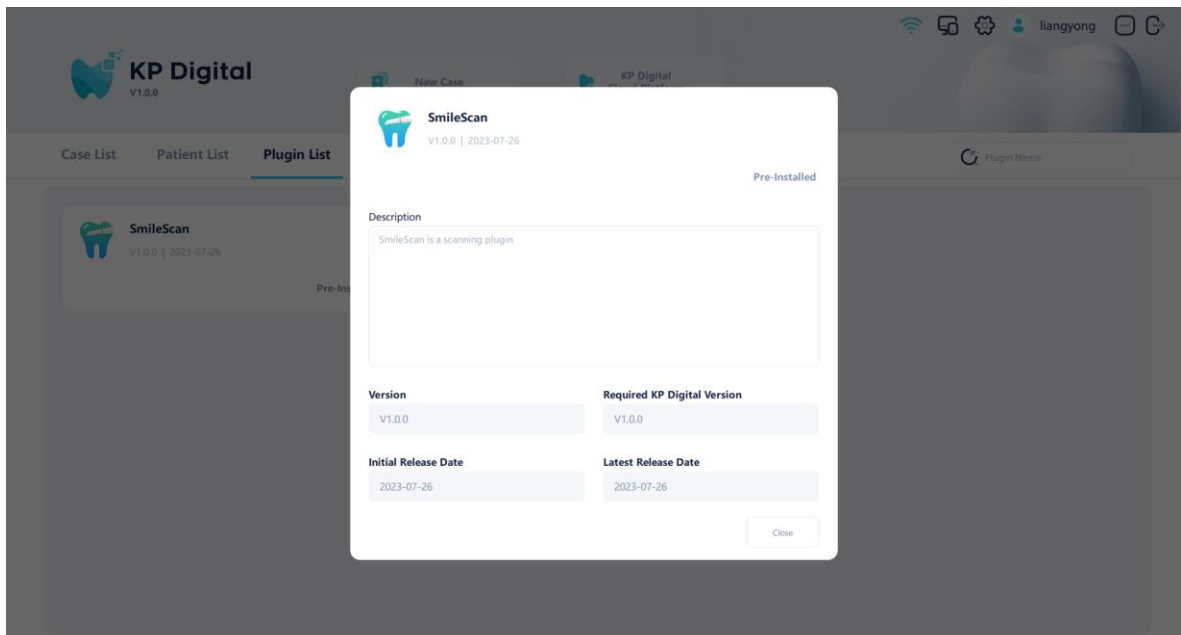Click on the plugin to view the plugin information

Figure 38

3.7.3 Install plug-in

Click on the plugin and click the install button on the plugin information page to install it

3.7.4 Uninstalling plugins

Click on the installed plugin and click the uninstall button on the plugin information page to uninstall it

3.8 System settings

Click on the settings icon in the upper right corner of the software to enter the settings interface, which includes common settings, help, and software update functions.

3.8.1 Common

Common settings include functions such as multilingual switching, exporting folder name format settings, storage path settings, backup path settings, and export path settings.
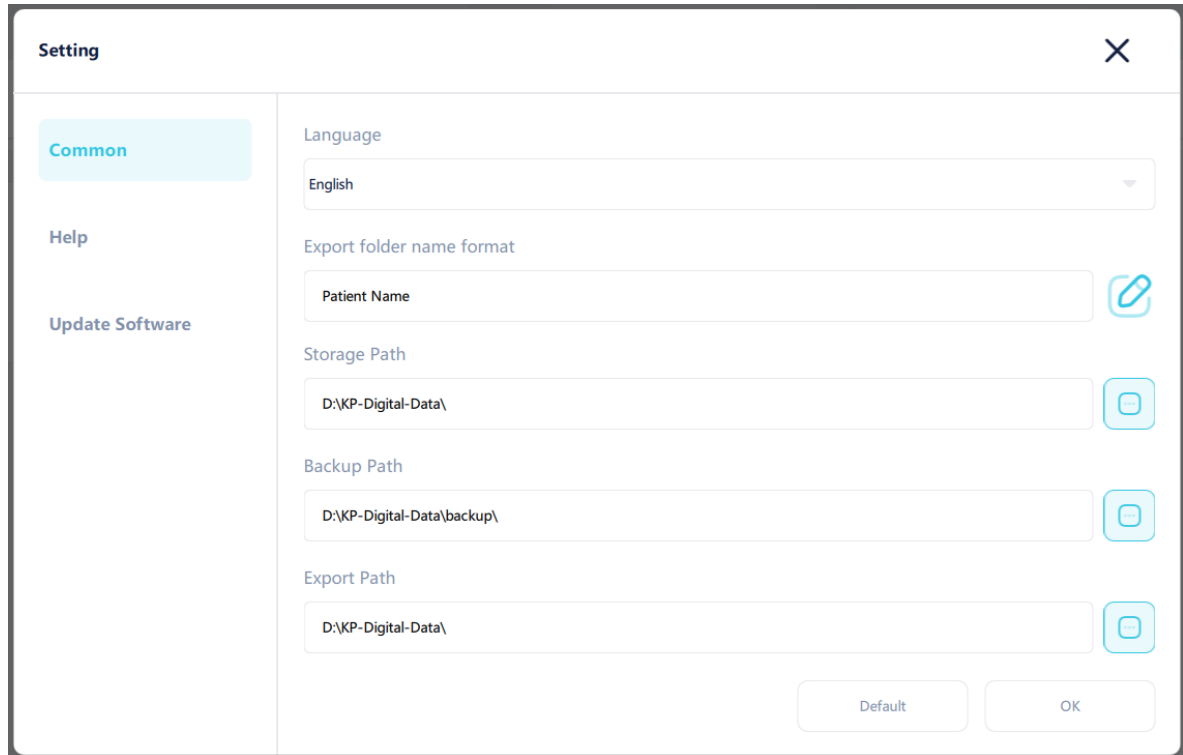

Figure 39

3.8.2 Help

The help interface displays the name of the software development unit and company website. Click the "Open" button to display the software user manual.
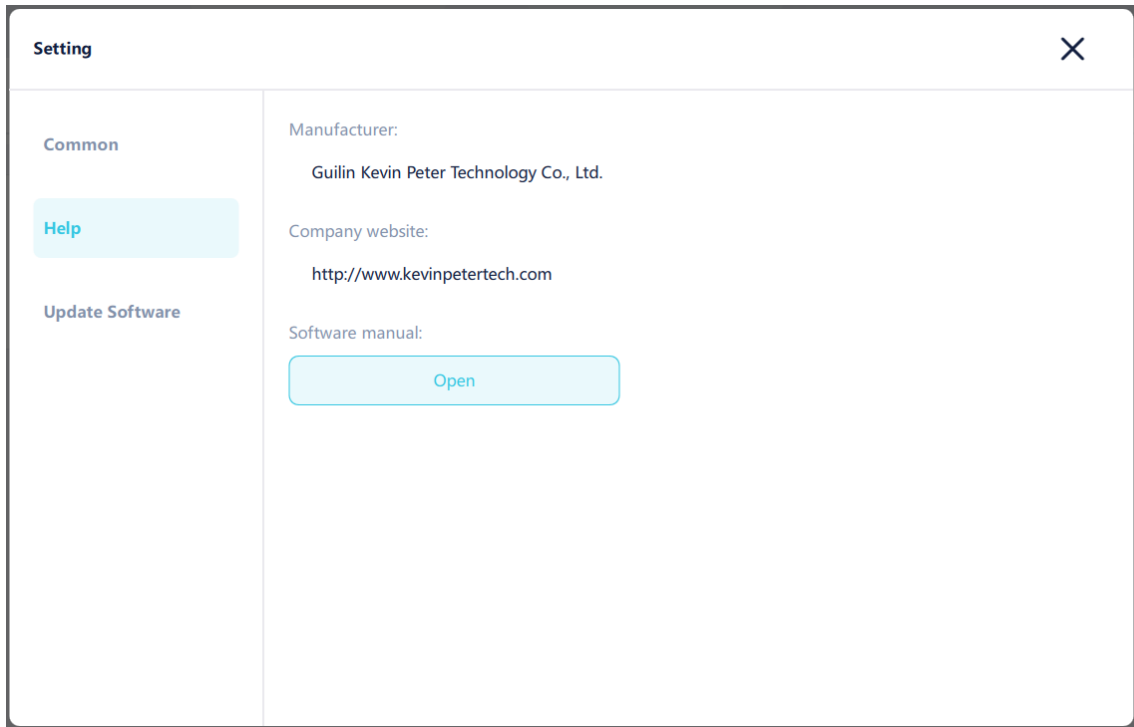
Figure 40

3.8.3 Update software

The software update interface displays the version information of the current software. Clicking on "Check for updates" will connect to the cloud to check for new versions.
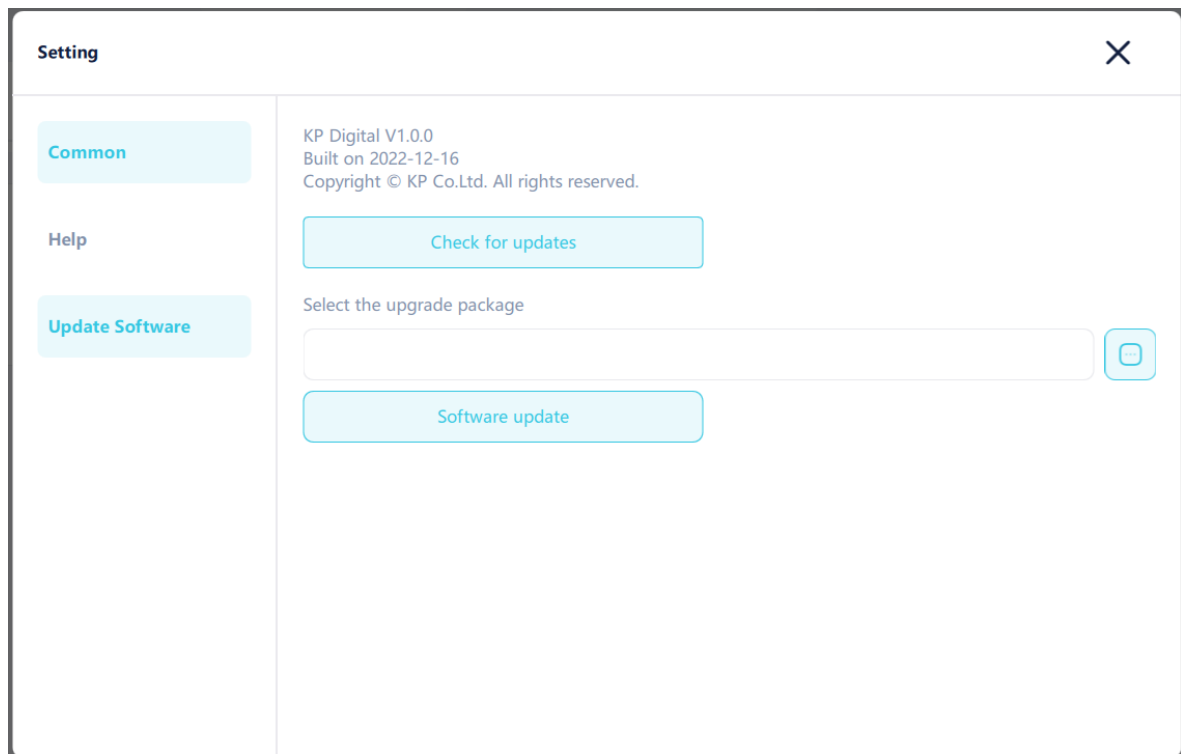

Figure 41

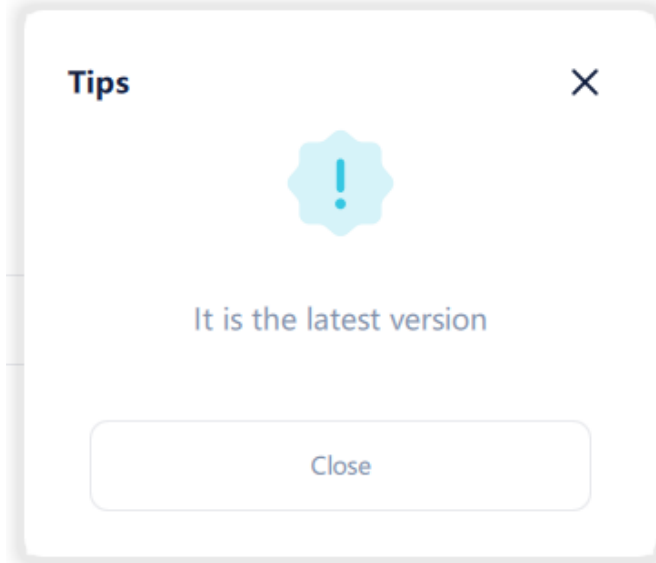When the current version is the latest:

Figure 42

When there is a new version, you will be prompted whether to download the upgrade package. Click "Yes" to start downloading the upgrade package. After downloading, you will be prompted whether to install it. Click "Yes" to immediately install it.
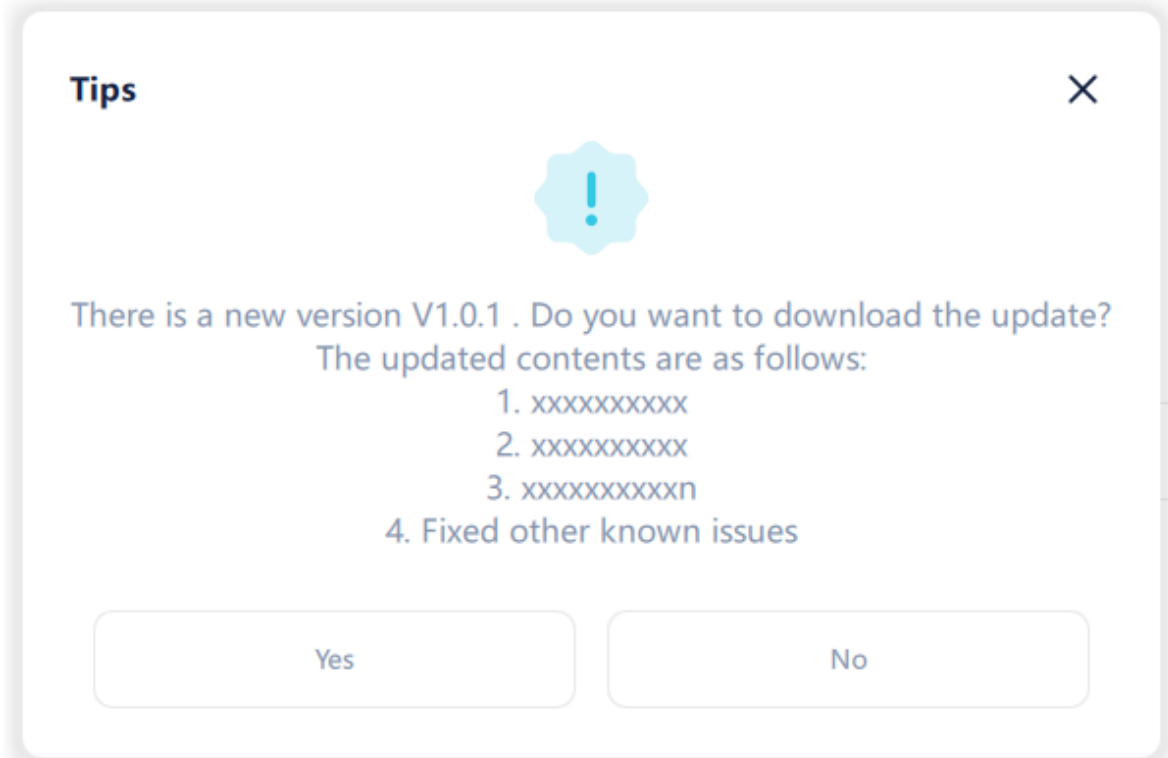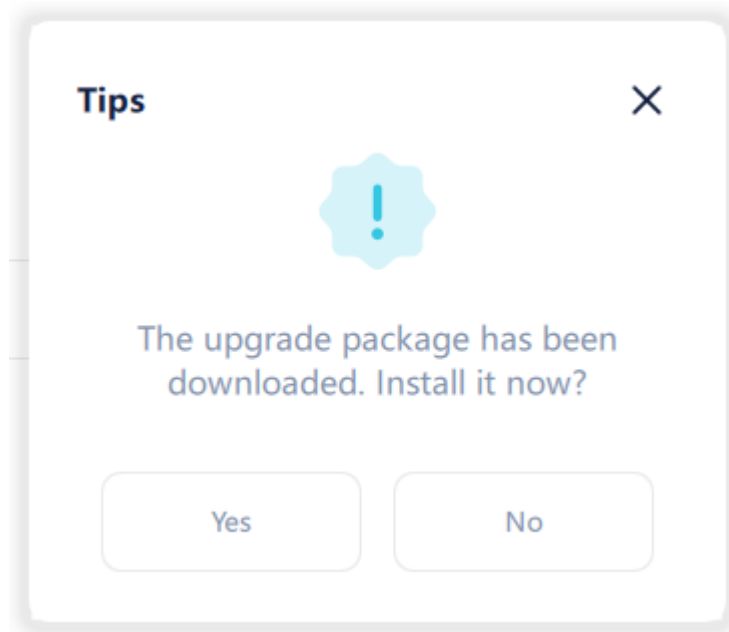

Figure 43

Figure 44

3.9 Connection Assistant

The mobile app needs to connect to the server to view case data. The mobile network and computer network are in the same local area network. Click on the connection assistant, and the mobile app can scan the QR code on the interface to log in. You can also manually enter the IP and Port on the connection assistant to log in.
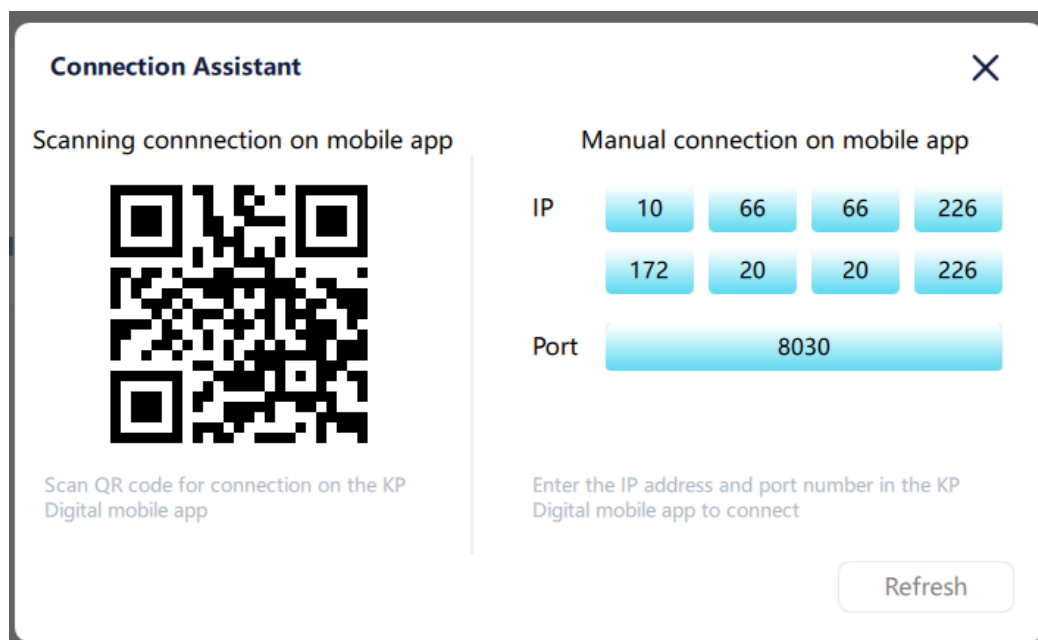

Figure 45

3.10 User Management

After logging into the software, you can click the My Information button to view the basic information

of the logged in user, edit user information, or click the Exit Login button to return to the login page.

Figure 46

3.11 Cloud management

Click on the "KP Digital Cloud Platform" button to go to the cloud platform webpage for cloud management

Figure 47

4 Scope of application

As a software component of the oral digital impression instrument, its main function is to receive image information from the host for generating 3D models and managing patient orders.

This device is only allowed for professional and trained personnel to use. Proper use of this device will not cause side effects; If this device is not used correctly, it will result in incorrect image acquisition.