

USER GUIDE HD2.9

iTero Software Version 4.7

December 2012



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TABLE OF CONTENTS

Chapter 1: Overview	4
Intended Use	4
iTero Optical Impression Device	4
Main Features	4
System Start Up	4
System Shut Down.....	4
About This User Guide.....	4
iTero Login	5
Desktop Icons	5
Opening the iTero Scanner Application	6
Chapter 2: User Interface	7
Getting Started Dialog.....	7
View Control.....	8
Visibility Control.....	8
Center-of-Rotation.....	9
Multilingual Support.....	10
Keyboard & Mouse Shortcuts	11
Chapter 3: Treatment Information (Rx form)	12
Opening a New Case	12
Treatment Information (the digital Rx form)	12
Scan Later Feature	13
Digital Signature.....	13
Chapter 4: Scan Tool	14
Performing a Scan	15
Scanning Samples	16
Opposite Jaw First Finished.....	17
Scanning Finished.....	17
Chapter 5: View Tool (for Case Review)	18
Merge of Scan Images	18
Checking Occlusal Clearance	18
Rescanning	19
Adding Scans	19
Chapter 6: Sending a Case	20
Chapter 7: iTero Case Manager	21
Overview of iTero Case Manager	21
Entering iTero Case Manager.....	21
Cases to Work On (top table).....	22
All Cases (bottom table).....	22
Refresh iTero Case Manager Display (F5)	22
Files Remain Red in Tables.....	22
Color on Model.....	23

Chapter 1: Overview

Intended Use

The system is an intra-oral optical impression system for computer assisted design and manufacturing (CAD/CAM) used to record topographical characteristic of teeth, dental impressions, or stone models by analog or digital methods for use in computer-assisted design and manufacturing of dental restorative prosthetic devices.

iTero Optical Impression Device

The iTero Optical Impression Device is a mobile office unit that contains all of the necessary hardware and software components for performing case scanning.

Main Features

- PC-based system
- LCD monitor
- Optical scanner with flexible cable
- Integrated keyboard
- Wireless mouse
- Wireless foot pedal
- Lockable wheels
- Wireless Internet connection
- Uninterruptable Power Supply (UPS)



NOTE: For detailed hardware specifications, see the *Operation Manual*.

System Start Up

To turn the system on, press the power button above the keyboard. For further operation details, refer to the *Operation Manual*.



System Shut Down

To turn off the system, use Start Menu → Shut Down.

Failure to properly shut down the system may result in cases not being sent and system errors.

For further operation details, refer to the *Operation Manual*.

About This User Guide

This User Guide describes how to use the iTero Scanner application to scan cases, and how to use the iTero Case Manager application to monitor case status. From within each application, you may press F1 to access context-sensitive help.

Refer to the *Operation Manual* for hardware specifications and for detailed descriptions regarding start up, shut down, system relocation, UPS usage, safety, disinfection, sleeve replacement, and maintenance.





iTero Login

The iTero password is “cadent” (all lowercase).



Desktop Icons

The following icons should appear on your desktop.

 <p>iTero Restorative</p>  <p>iTero Orthodontic</p>	<p>The iTero HD2.9 system provides an intuitive user interface for performing digital scans for Restorative or Orthodontic use. The doctor is guided through the scanning sequence by means of visual, text and/or voice assistance. The mouse and foot pedal are used to respond to screen instructions during the scanning process. For more information, open the application and press F1 to display the iTero HD2.9 system help.</p>
 <p>iTero Case Manager</p>	<p>The iTero Case Manager works interactively with the iTero Scanner and handles file communications between the doctor's office, partnered labs, and the Align Center. The iTero Case Manager allows doctors to view the current status of all cases within 60 days.</p>
 <p>Align Support App</p>	<p>If you contact Customer Support for assistance, you may be requested to double-click this icon to enable the support representative to view and control your system from a remote station.</p>

Opening the iTero Scanner Application

Double-clicking the iTero Restorative, iTero Orthodontic or iTero Case Manager icons will open the iTero Scanner Login window.

You will be requested to Login:

- Pick the doctor that will perform treatment in the field: User Name.
- Email and Password should appear automatically.

If these fields are not filled automatically, contact Align Customer Support.



Login

iTero®

User Name:

Email:

Password:

[Forgot Your Password?](#) Remember Login

LOGIN

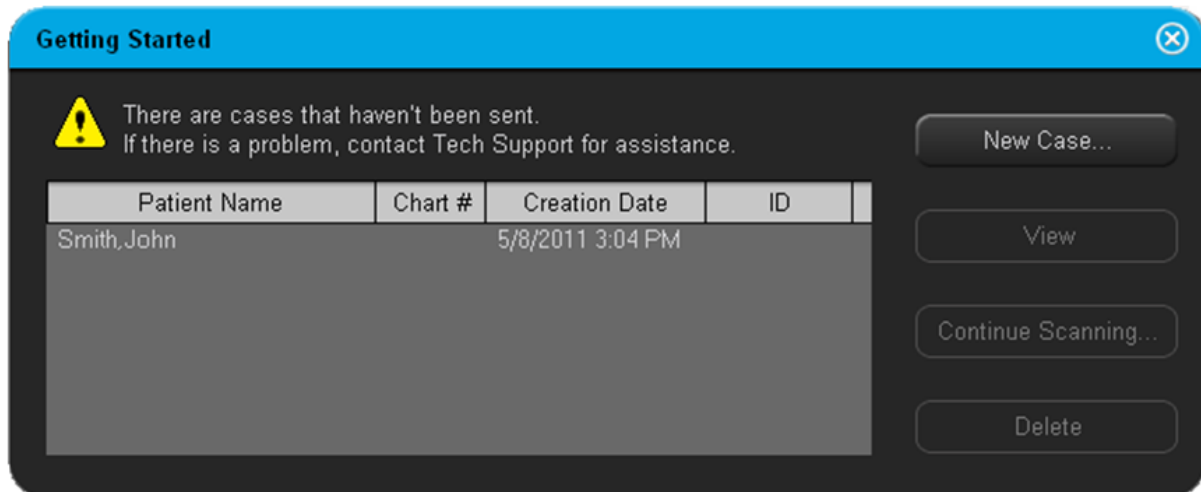
[Create Account](#) [Login without Account](#)

iTero and Case Manager are now authenticated by MyAligntech.com. A MyAligntech account ensures enhanced security and authorized access to patient scans. Scanners that are utilized by multiple doctors require a separate login for each account.

Chapter 2: User Interface

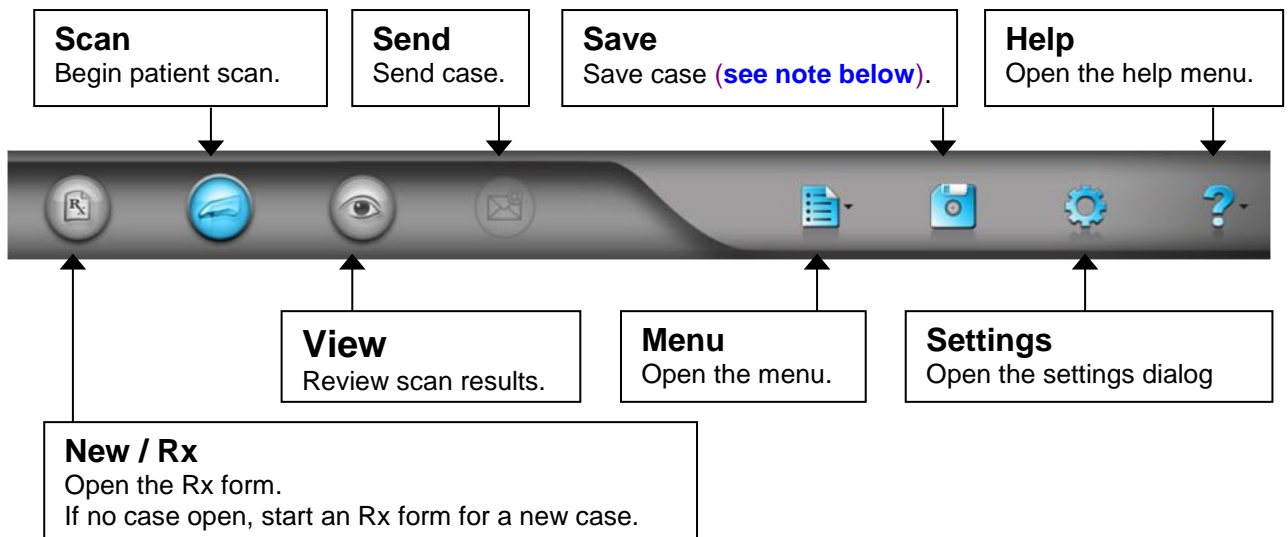
Getting Started Dialog

When the iTero Scanner application is opened, the system checks for “unsent” cases on your local system. If such cases exist, the Getting Started dialog appears with a list of unsent cases (Cases which have already been sent, may be opened using iTero Case Manager.)



Main Toolbar

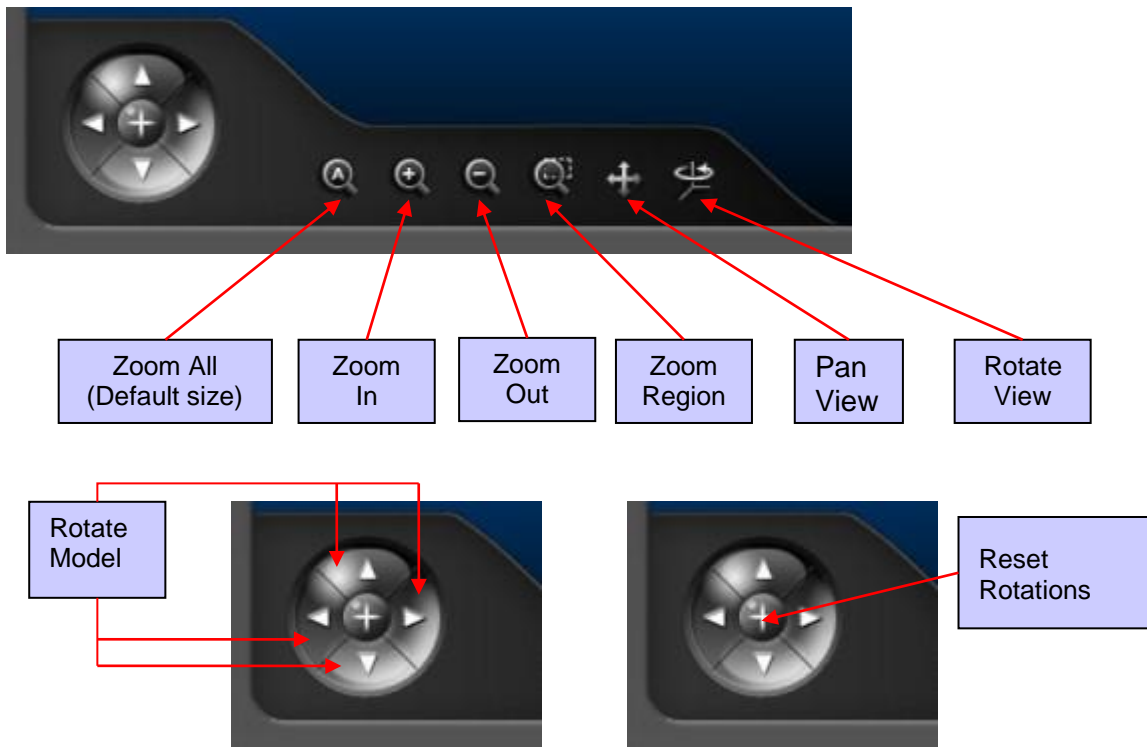
The main toolbar of the iTero Scanner application contains the following icons.



NOTE: The system saves the case automatically on a regular basis and saves the case before closing it. In addition, you may use the **Save** command manually whenever desired.

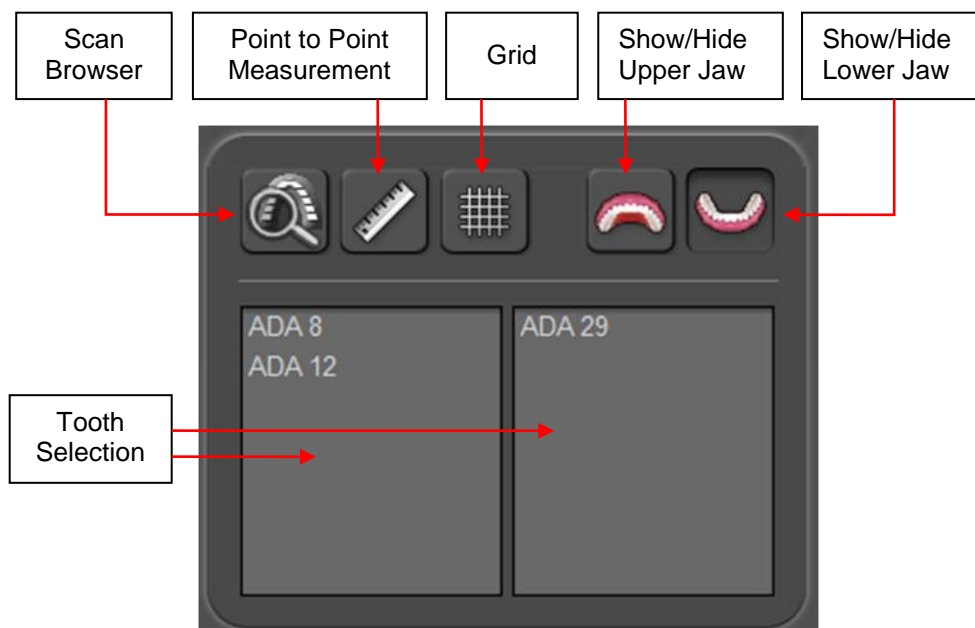
View Control

The View Control can be used to manipulate the 3D image in the graphic window.



Visibility Control

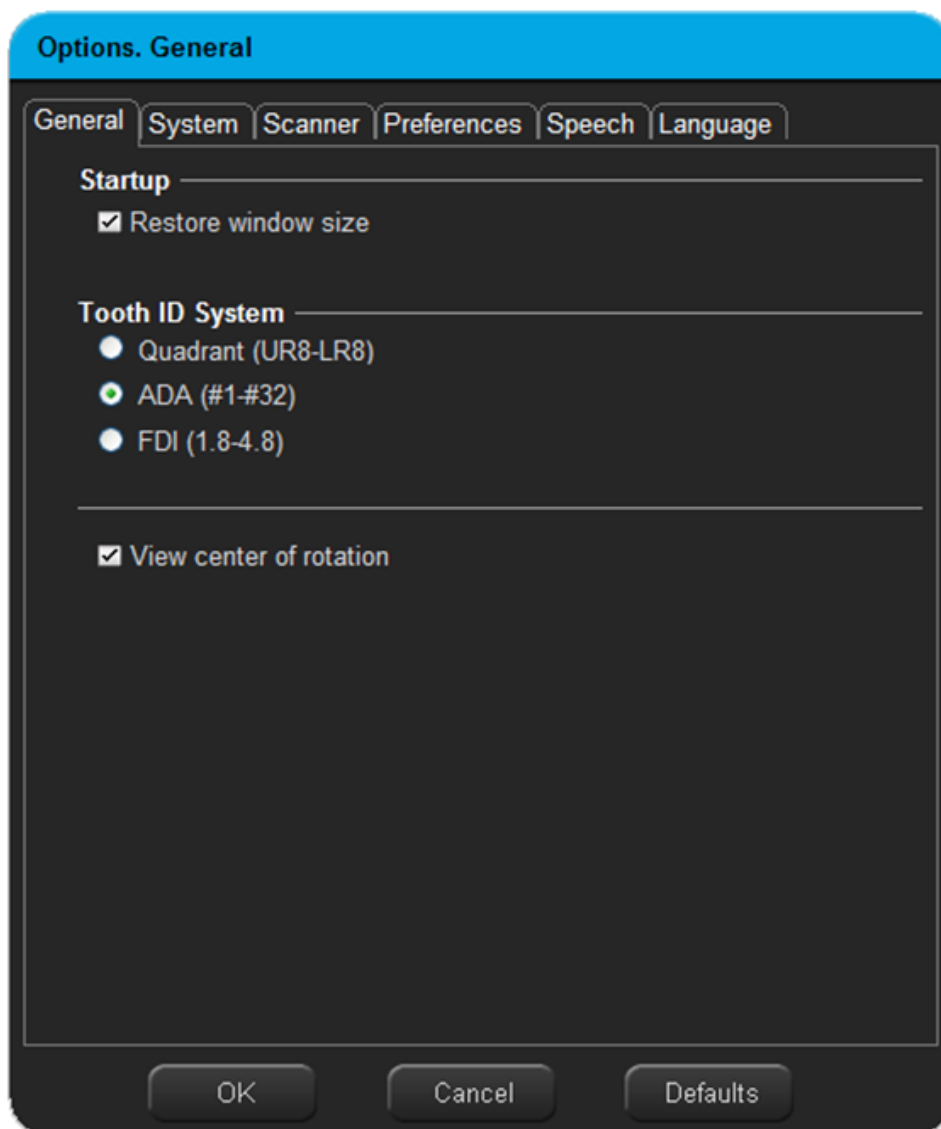
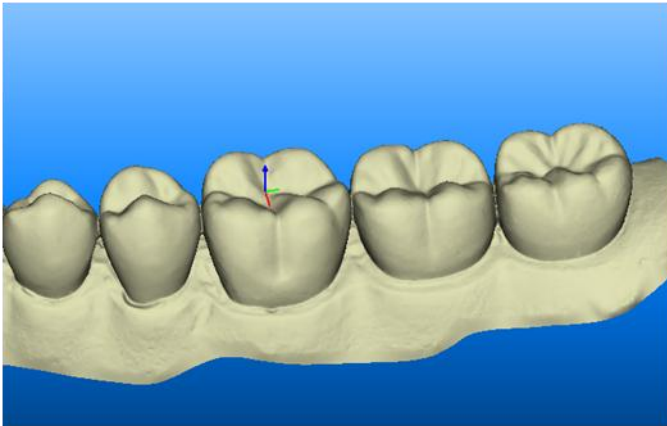
The Visibility Control can be used to Show/Hide elements in the 3D model and to activate measurement and analysis tools.



Center-of-Rotation

To move the center-of-rotation symbol to a different place on the 3D image, press Alt and click left mouse button somewhere on the image, or click and release the mouse-wheel. The 3D image will then rotate around that point.

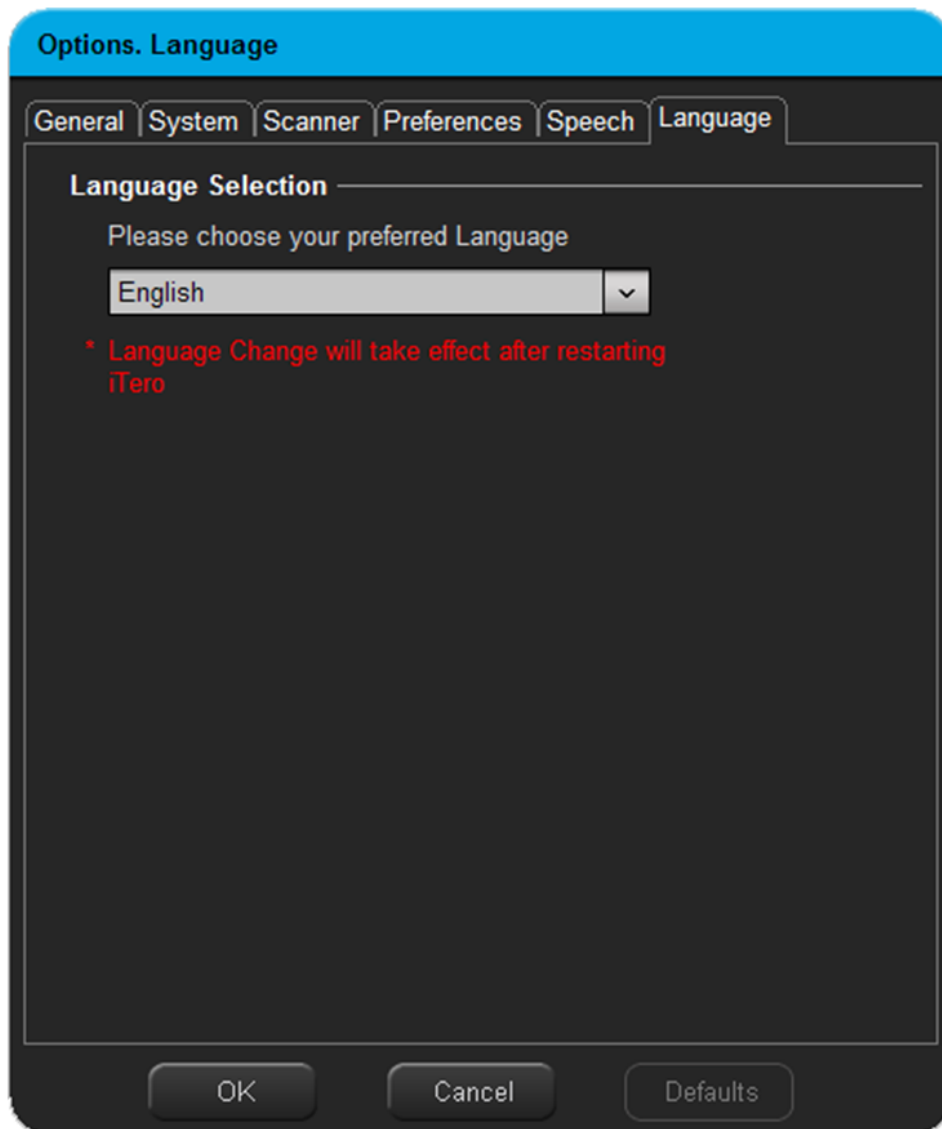
You can choose to hide or display the center-of-rotation symbol using the General options.








Multilingual Support

To change languages in the iTero Scanner application, use the Language Options.

NOTE: The change will take affect only after restarting the application.



Keyboard & Mouse Shortcuts

Functions	Cursor Icon	Sequence	Description
Zoom		Shift + left-mouse	Zoom an area of the 3D image.
Pan		Alt + Shift + left-mouse OR Mouse-wheel + right-mouse	Move 3D image within graphic window.
Rotate Freely		Alt + left-mouse OR Mouse-wheel	Rotate 3D image in any direction.
Swivel		Mouse-wheel (at edges)	Move cursor close to left or right edge of graphic window, press mouse-wheel, and move mouse up/down .
Swivel		Ctrl + Mouse-wheel	Press Ctrl key and mouse-wheel and move mouse in circular motion.
Rotate with Arrows		↑ ↓ ← →	Click in graphic window and then press arrow keys. Press up/down arrows to rotate vertically. Press left/right arrows to rotate horizontally. Hold down arrow for continuous rotation.
Move the Center-of-Rotation		Alt + click left-mouse OR Click and release mouse-wheel	To move the center-of-rotation symbol to a different spot on the 3D image.
Context-sensitive help		F1	Click in any dialog or window and then press the F1 key to display context-sensitive help.

NOTE: to exit the shortcut mode, press and release the “Right Mouse Button”, then press and release the “Left Mouse Button”.

Chapter 3: Treatment Information (Rx form)

Opening a New Case

To register a new patient, click on the “New/Rx” icon in the main toolbar. Or click on “New Case” in the Getting Started dialog.

Treatment Information (the digital Rx form)

The “Treatment Information” window is the digital prescription form used by doctors and partnered labs to fabricate the requested restoration (eliminating the need for a paper form).

- Required fields are marked with an asterisk (*).
- Click a tooth in the tooth diagram to select preparation and bridge types.
- For more details, press F1 to open the help system.

Treatment Information

Case

* Patient First Name: John
 * Patient Last Name: Doe
 Chart #:
 * Case Type: Quadrant (RTM)

Dates

Due Date: 08/28/2012
 Scanning: 08/07/2012 11:42:52

Scanning Order

* Scanning Order: Prep Jaw First

Dentist

* Name: Dr. Rudnik, QAPerson - Dentist - Michael QA
 * License #: L_n_123
 Signature:
 * Lab: QA Exclusive Dental Lab

* Click a tooth to assign its type:

■ Same design for all teeth (copied from top line) Shade System: VITA Lumin

ID (ADA) Type	Material	Preparation Design		Margin Design		Shade			Stump/ Shade
		Buccal	Lingual	Buccal	Lingual	Gingival	Body	Incisal	
19: Crown	Composite: Lab Pr	Shoulder	Shoulder	Metal Porcelain Jur	Metal Porcelain Jur	A1	A1	A1	

Notes:

Attachment: Scan Now Cancel Scan Later

iTero Restorative Treatment Information Form

Treatment Information

Case

* Patient First Name:
 * Patient Last Name:
 Chart #:
 * Case Type: Invisalign

Scanning Order

* Scanning Order: Lower Jaw First

Dentist

* Name: Dr. QA test finall, QAPersonQA -Dentist&Orthodontist-tes
 * License #:
 Signature:

Attachment: Scan Now Cancel Scan Later

iTero Orthodontic Treatment Information Form

Scan Later Feature

You may pre-enter patients in the system in order to save time during the actual patient sessions. To pre-enter a patient, fill in the Rx and then click **Scan Later**. The patient name will then appear in the Getting Started dialog each time you open the iTero Scanner application.

The screenshot shows the 'Treatment Information' dialog box with the following fields:

- Case:** Patient First Name, Patient Last Name, Chart #, Case Type (Invisalign), Scanning Order (Lower Jaw First).
- Dentist:** Name (demo_dentist), License # (l_n_123), Signature.
- Notes:** A large text area for entering notes.
- Attachment:** Icons for file operations.
- Buttons:** Scan Now, Cancel, and Scan Later (highlighted with a red rectangle).

Digital Signature

Each doctor may enter a digital signature in the system. Once entered, the digital signature will be displayed in the **Signature** field of the Rx form at the doctor's office and at any partnered lab.

- For multi-user systems where each doctor enters the system with a unique password, each doctor is required to scan in his/her own signature.
- Signatures are stored in an encrypted format that cannot be used outside of the iTero software (protecting users from unauthorized use).
- To create your digital signature, open the Preferences options and click "Print Instructions". The instructions sheet includes a calibration box and a signature box.
- It is essential to use an **ORIGINAL PRINTOUT** of the "Signature Scanning Instructions". Do not use a copy or faxed version of the sheet.

The 'Options. Signature' dialog box has the following elements:

- Tabs:** General, System, Scanner, Preferences, Signature (selected), Speech, Language.
- Signature Section:** Print and sign instruction sheet, then start scan. Buttons: Print Instructions, Scan Signature, Delete Signature.
- Buttons:** OK, Cancel, Defaults.

The 'Signature Scanning Instructions' printout includes the following text:

Signature Scanning Instructions

Follow the steps below to scan your signature into the iTero system. Once scanned and saved, your signature will be stored as an "electronic signature" and will be included in the Rx of each case you send to AlignTech for processing. If necessary, you may rescan your signature at any time. For multi-user systems, each doctor is required to scan in his/her own signature.

NOTE 1: Always use an original printout of this instruction sheet (not a copy or fax).

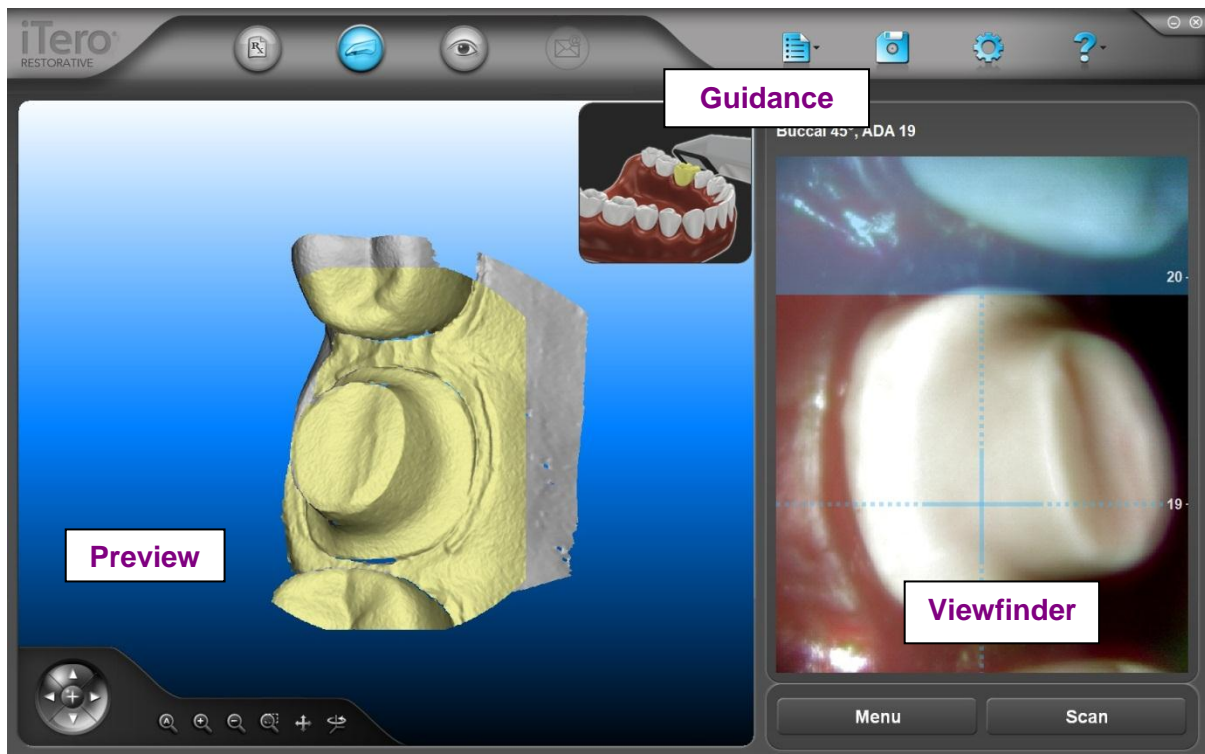
- 1) Start Process**
Open "Tools" menu, select "Options", select "Preferences" tab, and press "Scan Signature" button.
- 2) Calibrate Scanner**
Lay this sheet on a solid surface and place scanner head in middle of Calibration Box. Be sure scanner head is located completely within blank area without touching any borders. Level scanner head on surface and step on right pedal to CALIBRATE.
- 3) Sign in Signature Box**
Sign using a dark pen (black or blue) and keep your signature within the dotted pattern.
- 4) Scan Signature**
Place scanner head on signature and press right pedal to SCAN. Move scanner head to next section of signature and press SCAN again. Continue process until you have scanned the entire signature. The scan image will be displayed in the Preview Window as you proceed.
- 5) Save Signature**
If you are satisfied with your scanned signature, press the left pedal to indicate you are DONE and then press the right pedal to SAVE your signature. The iTero application will exit.

Calibration Box (A blank rectangular area)

Signature Box (A rectangular area with a dotted pattern)

Chapter 4: Scan Tool

The Scan Tool consists of the following elements:



Guidance

For each individual scan, the system provides three types of instructions:

- Text command (**Guidance**, above the **Viewfinder**)
- Visual command (**Guidance**, in the top right corner of the 3D preview)
- Voice command

Viewfinder

The **Viewfinder** helps you to position the scanner head correctly.

- Use the crosshairs to align the scanner on the tooth indicated by the **Guidance**.
- The entire area displayed within the **Viewfinder** will be scanned.
- The **Viewfinder** is for positioning purposes only. In some instances, the target area may appear slightly out of focus and you should attempt to improve the focus. Even if the focus remains poor in the **Viewfinder**, the actual scan resolution will be fine.

Preview

After performing a scan in the **Viewfinder**, the results are displayed in the **Preview** for immediate review. Press the **Menu** pedal and select **Undo** if you wish to retake the scan for any reason.

Performing a Scan

In general, the scanning process is controlled using the two foot pedals. You can also use the mouse to click commands in the Pedals dialog.



- To take a scan, first stabilize the image. Then press and release the right foot pedal to Scan. The right pedal in the pedal dialog will become pressed to indicate that a scan has been initiated. Once the image becomes steady, an audible beep indicates that the scan is in progress.
- Pressing the right foot pedal for an extended period may cause the Scan button to stay pressed. Press the left foot pedal to release the right foot pedal.

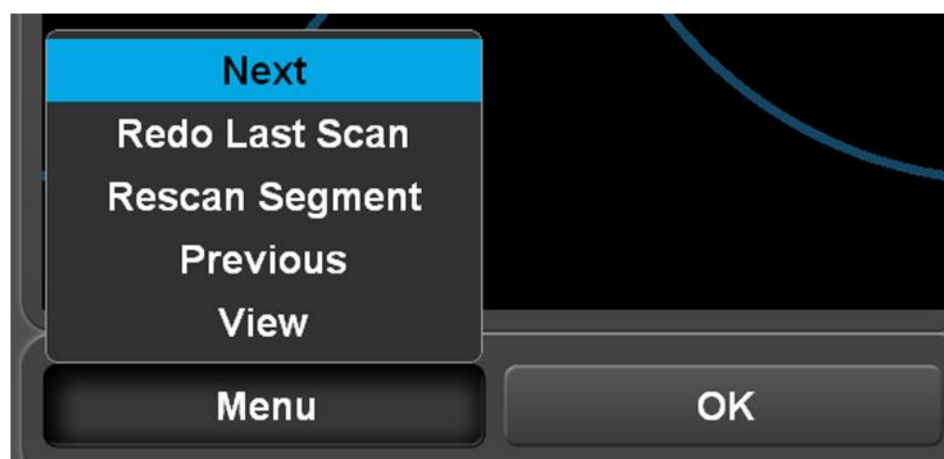


- If the patient or doctor moves during the scan, the system may request a rescan.
- You may also decide on your own (for any reason) that you wish to redo the scan. Press the left pedal (**Menu**) to open the menu. Pressing the left pedal again moves the menu selection. After the menu selection is on **Redo Last Scan**, press the right pedal (**OK**).

Pedals Dialog – ready to scan:



Pedals Dialog – menu open:



Scanning Tips & Techniques

Scanning Basics

- Each scan should have crosshairs following the natural shape of the arch (tangential).
- Buccal and lingual scans should include occlusal information (scan at 45 degree angle).
- We recommend the use of cheek retractors to avoid excessive tissue from being scanned (especially for scanning anterior teeth).

Slow Scanner Response after Pressing Pedals

- Ensure that an overhead light is not shining directly on the area being scanned.
- Verify that patient and scanner are not moving during scan.
- Check that saliva is not blocking the field of vision. Dry the area in question.
- Ensure that interference is not occurring (tissue, lips, tongue, etc.)
- Check that patient is holding tongue still.
- If necessary, ask the patient to position tongue on the opposite side of the mouth.

Viewfinder Displays Blurred Image

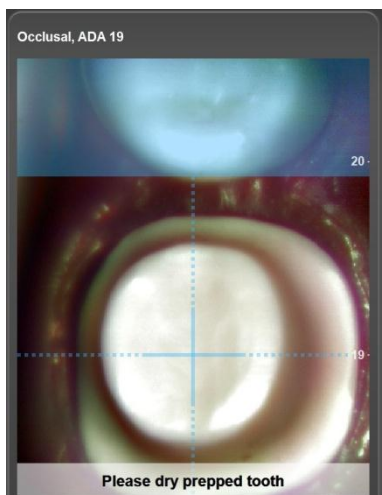
- Try cleaning the external scanner sleeve window with clean cotton or paper.
- If cleaning does not help, try replacing the scanner sleeve with a new sleeve.
- If the new sleeve doesn't help, contact Align Customer Support for assistance.

Jaw Relation Scans

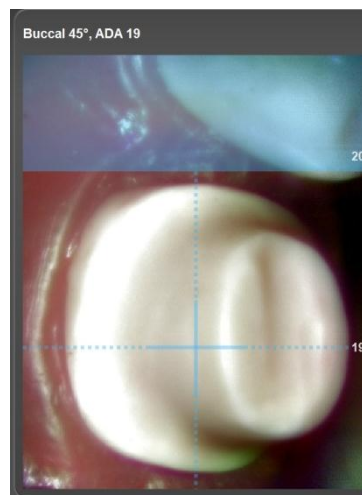
- Center reference line should follow the occlusal plane.
- The jaw relation scan should contain teeth data from both jaws, for a better registration.

Scanning Samples

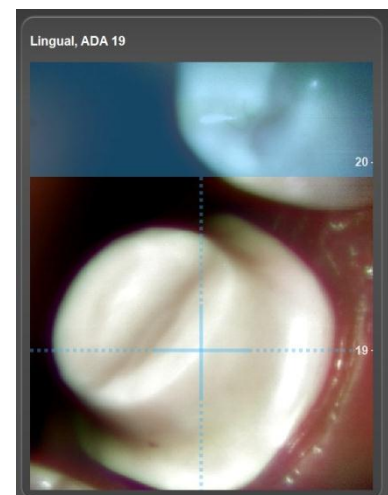
Occlusal View (prep)



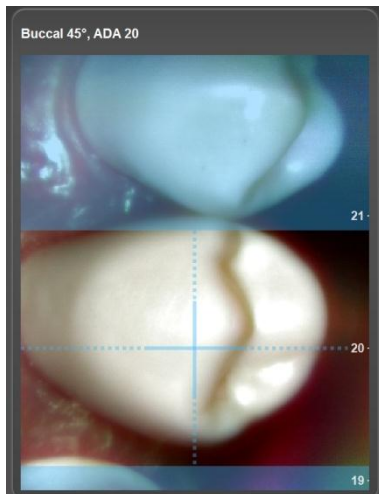
Buccal View (prep)



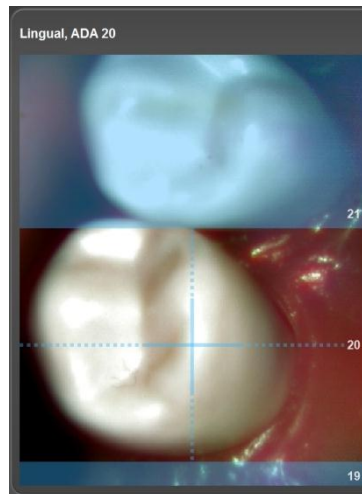
Lingual View (prep)



Buccal View (non-prep)



Lingual View (non-prep)



Jaw Relation



Opposite Jaw First Finished

If user chose scanning order of “Opposite Jaw First”, at the end of scanning the opposite jaw, the system announces that “Segment Finished”:

Segment Finished

The left pedal will show “Add Scans” and the right pedal will show “View”:



Press “View” to pause the scanning and go to the View Tool to review the scanned jaw. In the View Tool, press the “Scan” pedal to return to the Scanning Tool and scan the prep jaw.

Press “Add Scans” to add scans to the opposite jaw.

Scanning Finished

At the end of the scanning process, the system announces that “Scanning Finished”:

Segment Finished

The left pedal will show “Add Scans” and the right pedal will show “View”:



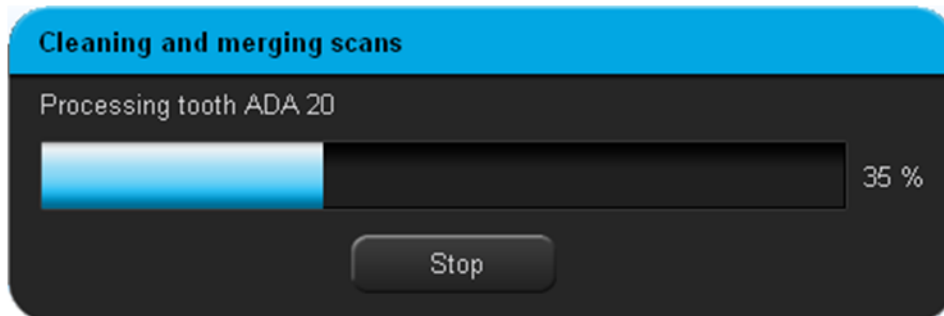
Press “View” to go to the View Tool to review the scanned jaw.

Press “Add Scans” to add scans to the last scanned jaw.

Chapter 5: View Tool (for Case Review)

Merge of Scan Images

After the scanning is complete, the system merges all scans into a single graphic image and displays the resulting image for review. Progress bars are displayed during the merge process.

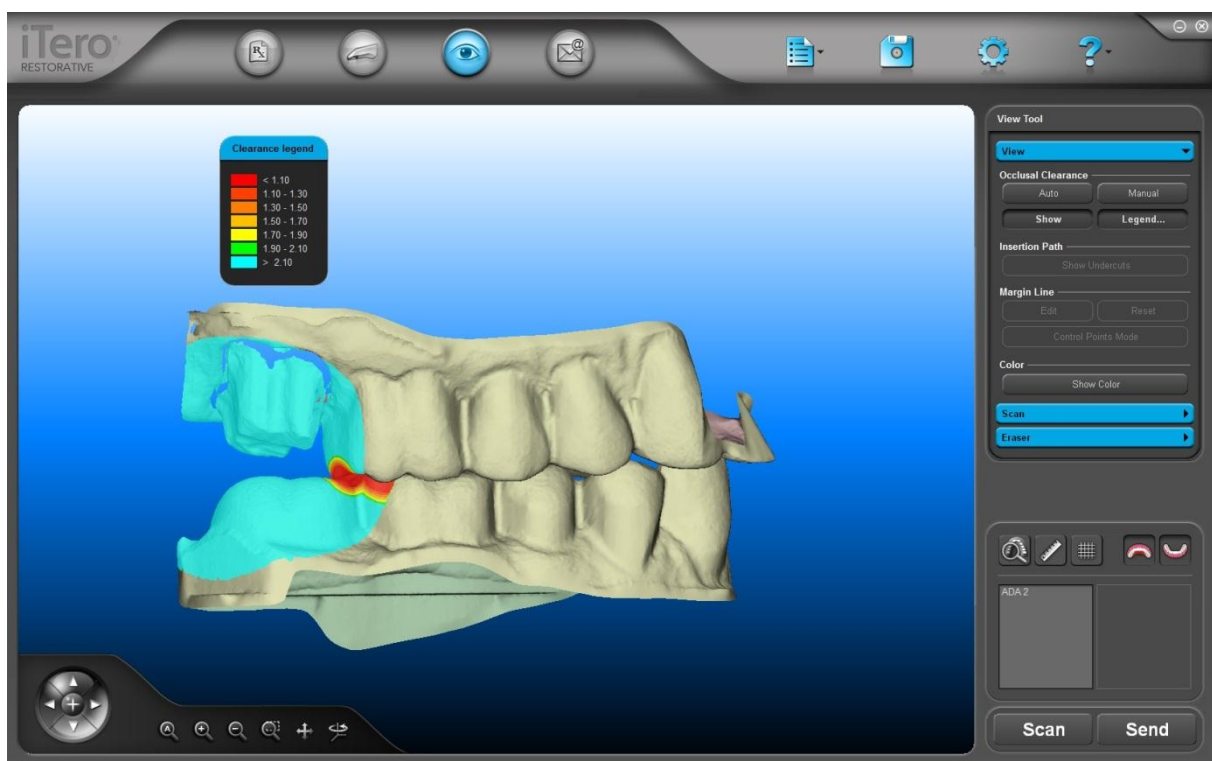


Case Review with Patient Present

It is important to review the case with the patient still present, since rescanning may be required. Be sure to check that proper retraction was obtained for a clear margin and that the tooth reduction was adequate.

Checking Occlusal Clearance

Use the Show command in the Analyze tab to show/hide occlusal clearance colors along with the Clearance Legend (showing mm distances). If you perform further reduction on the preparation tooth, you will need to rescan the prep.

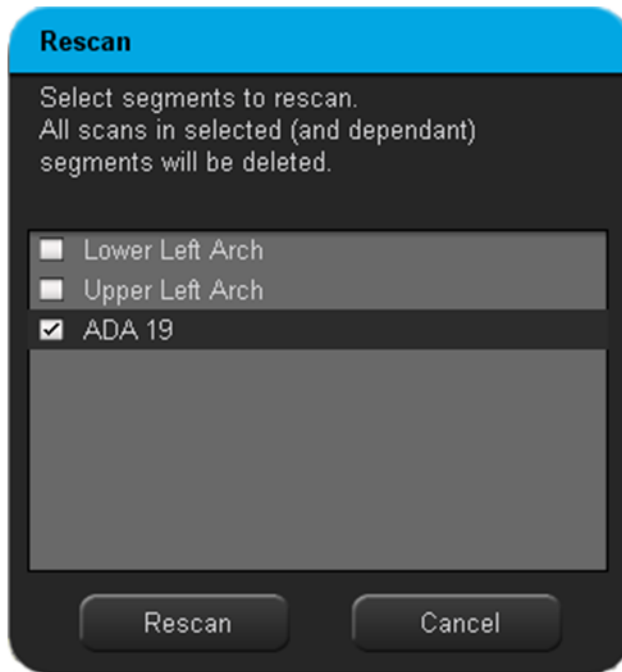


Rescanning

To perform rescanning, click the “Rescan...” command in the Scan tab.

Choose the desired rescan area(s) and press “Rescan”.

The system will automatically begin the rescanning sequence. When complete, the system indicates that the “Scanning is Done” and the updated scans are remerged for final review in the View Tool.



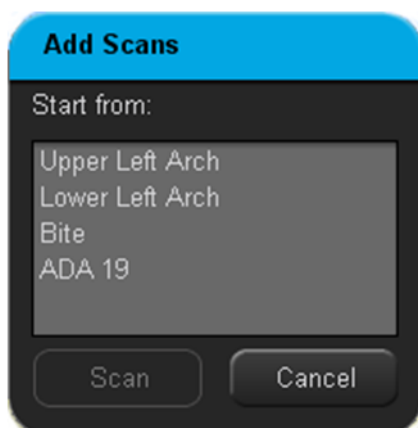
Adding Scans

After reviewing the case in the View Tool, user may want to add scans to the model – to capture missing areas or other additional data.

To add scans, click the “Add Scans...” command in the Scan tab

Choose the area in which scans should be added and press “Add Scans”.

The system will automatically go to scanning mode and continue from a segment according to user selection. When complete, user should move back to the View Tool to review the new merged model.



Chapter 6: Sending a Case

Once you have finished scanning and reviewing the case, click on the “Send” icon in the main toolbar.

The iTero Scanner application will automatically close, and the file transfer process will be handled by the iTero Case Manager application. First the file data will be processed on the system, and then the case will be sent. To confirm that the case has been sent (or is queued for sending), open iTero Case Manager.

Chapter 7: iTero Case Manager

Overview of iTero Case Manager

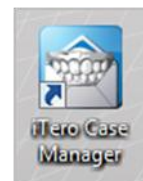
The iTero Case Manager application works interactively with the main iTero Scanner application to provide the following capabilities.

- Displays case essentials (case ID, patient, dentist, lab, etc.)
- Shows current status of all cases.
- Opens cases in the iTero Scanner application (for viewing & editing).
- Uploads new cases from your office to the Align Center.
- Downloads the latest version of a case to your office for viewing purposes. **(OPTIONAL)**

Entering iTero Case Manager

Double-click the iTero Case Manager icon to start the application.

The iTero Case Manager application contains two tables, as described below. Your selections in the top three fields (Case ID, Patient Name, Lab Name) serve as a filter for determining which cases are displayed in the two tables. Click **Clear** to empty the three fields and display all cases.



iTero Case Manager 4.8.0.1 - Tester, Beta HD2.9

File Tools Help

Case ID\Code Patient Name Lab Name Clear

Cases to Work On:

T.	Code	Case ID	Patient Name	Due Date	State Time (Local)	Dentist Name	Lab Name	Local State
			rthry fgb	2012-12-31		Tester, Beta HD2.9	QA Exclusive Dent...	New File
			hn gb	2012-12-31		Tester, Beta HD2.9	QA Exclusive Dent...	New File

Cases:

T.	Code	Case ID	Patient Name	Due Date	State
	84D2JR	7518943	firsttest-scan reliability4	2012-12-27	iTero Modeling (RTM)
	8476T2	7514269	igor 1Betatest	2012-09-27	iTero Modeling (RTM)
	8476VX	7514271	igor 1Betatest	2012-09-09	iTero Modeling (RTM)
	8476WV	7514272	igor 1Betatest	2012-09-27	iTero Modeling (RTM)
	8476XT	7514273	test 1b test 1b	2012-09-09	iTero Modeling (RTM)
	8476YR	7514274	2test 1 2test 1	2012-09-09	iTero Modeling (RTM)
	8476ZN	7514275	igor 1Betatest	2012-09-09	iTero Modeling (RTM)
	84770F	7514276	test -1 test2	2012-09-26	iTero Modeling (RTM)
	84771D	7514277	test-2 test2	2012-09-09	iTero Modeling (RTM)
	84772A	7514278	3test 1 3test 1	2012-09-09	iTero Modeling (RTM)
	847738	7514279	1test 1 1test 1	2012-09-09	iTero Modeling (RTM)
	847746	7514280	1test2 1test2	2012-09-09	iTero Modeling (RTM)
	847754	7514281	7test -1 test 7	2012-09-18	iTero Modeling (RTM)
	847762	7514282	test-2 test2	2012-09-27	iTero Modeling (RTM)

Ready... There are 2 cases to work on.

Cases to Work On (top table)

The top table lists cases that have not yet been sent to the Align Center. These cases are also displayed within the Getting Started dialog when opening the iTero Scanner application. Double-click a case to open it. Or right-click on a case and select the desired action. The case are color-coded as follows.

Blue Cases

New Case (not yet sent)

Case information has been entered but case has not yet been “sent” to the Align Center (the case may or may not be scanned.) **These cases require action by the user.**

Red Cases

Waiting for Send

Case has been scanned and sent. The case file is queued for upload transmission in the next communication session with the Align Center. **No action is required by the user.**

All Cases (bottom table)

The bottom table displays all cases from the past sixty days.

- This list includes all cases that appear in the top table (colored **blue** and **red**).
- This list also shows cases that have been sent (colored **black bold**). Viewing of these cases is not required. If you do wish to view a case, simply double-click the case and it will be opened for viewing. Once viewed, the case remains black (but not bold).

Refresh iTero Case Manager Display (F5)

To refresh the table display, use the “Refresh” command in the Tools Menu (or press F5).

In general, the iTero Case Manager tables are updated automatically and the Refresh command is not needed. However, there is one particular situation where the Refresh command can be of assistance. After sending out a number of cases, it may take a few minutes for the communication session to complete. During this time, the iTero Case Manager will not update the display until all cases are processed. However, if you issue the Refresh command, the iTero Case Manager tables will be updated immediately based on the current state of communications.

For example, if six cases were sent but only two were actually transferred at this point in time, pressing Refresh would update the tables accordingly.

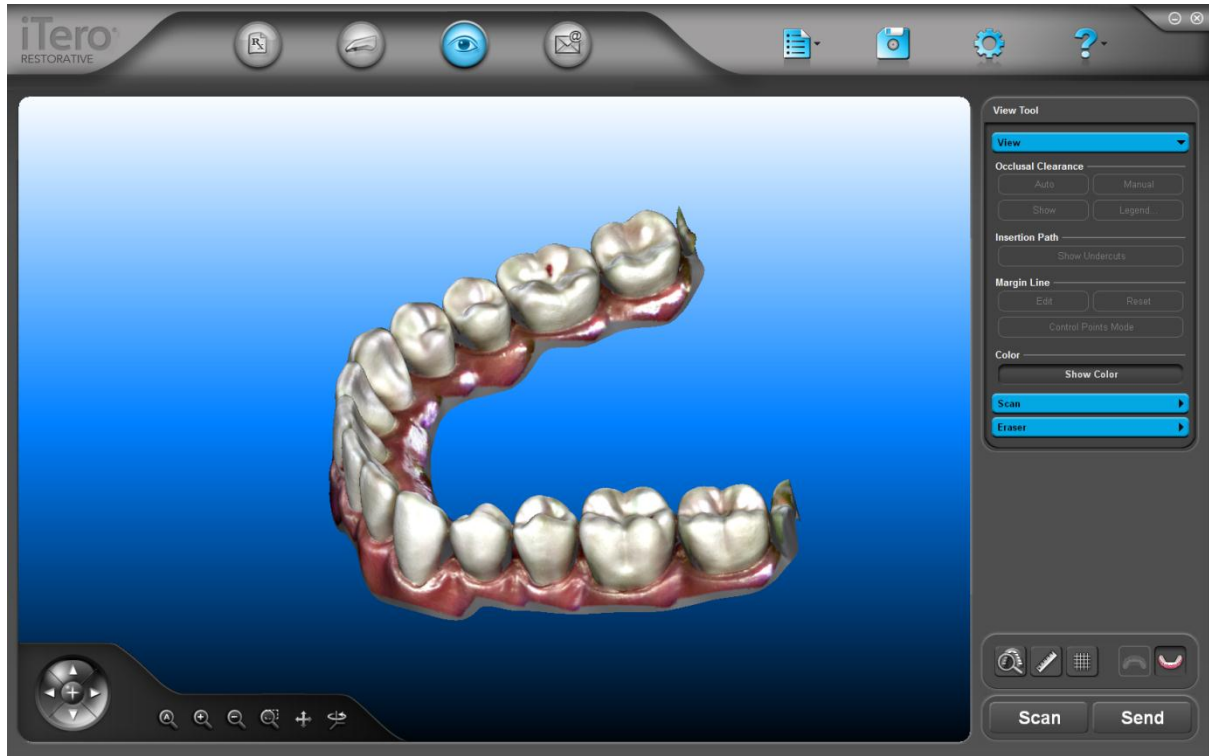
Files Remain Red in Tables

If files remain red in the iTero Case Manager tables for an extended period of time, there may be a problem.

- Ensure that the Internet is operational in your office. If not, you may need to contact your Internet service provider or local technician
- If the Internet is accessible in the office but not on the scanner, contact Customer Support.
- If the Internet is accessible on the scanner but cases still remain red, try pressing Send/Receive button in the iTero Case Manager.

Color on Model

- In the View Tool, the user can now see the color on the merged model.
- Color will be shown automatically for 'opposite first' cases.
- Color can be turned on/off by the 'show Color' button in the view tab.



* Color feature may be disabled in some countries.

