iTero™ Partner Lab guide for iTero Lumina™ scanner

Overview

iTero Lumina™ scanner is the next generation of digital scanning technology. It pushes the boundaries of what intraoral scanners can do and sets a new standard for practice performance. The new proprietary iTero Multi-Direct Capture™ Technology offers 3x larger field of view[1], high accuracy[2] and maximum capture distance of 25mm[3] for a smooth scanning experience for users and patients.

This guide helps iTero™ Partner labs identify, understand, and address common scan-related scenarios. By following these recommendations, lab technicians can achieve better margin detection, improve restoration fit, and help your doctors avoid typical challenges with scan workflows and tools.

1.Compared to the field of view of the iTero Element™ 5D imaging system, when the iTero Lumina™ intraoral scanner's scanning distance is 12 mm. 2.The iTero Lumina™ intraoral scanner has scientifically proven greater accuracy for your clinical orthodontic needs. 3. Data on file at Align Technology, as of November 15, 2023.

This guide applies specifically to cases scanned with iTero Lumina™ scanner, with the new iTero Multi-Direct Capture™ Technology. There are new guidelines and best practices that will help you achieve more precise, high-quality restorations.

Access to the restorative workflow requires an active Lumina Comprehensive or Lumina Pro Comprehensive Service Plan. The relevant comprehensive service plan is included for the first 12 months with a new iTero scanner. After this period, continued access requires a monthly or annual service fee.

iTero™ Partner Lab guide for iTero Lumina™ scanner

Scanner type and procedure type

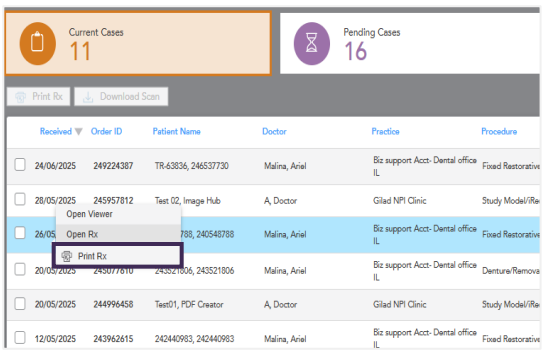
Identifying the scanner type and procedure type used for each case is essential for providing accurate solutions, particularly when working with scans captured using the iTero Lumina™ and iTero Lumina™ Pro. While you may be familiar with best practices for iTero Element™ scanners, workflows and best practices differ when using iTero Lumina™ and iTero Lumina™ Pro.

Verify that the procedure type is accurate to the case.
Each procedure is specifically designed to support a particular case and provide optimal software performance. Below is description of each procedural indication:

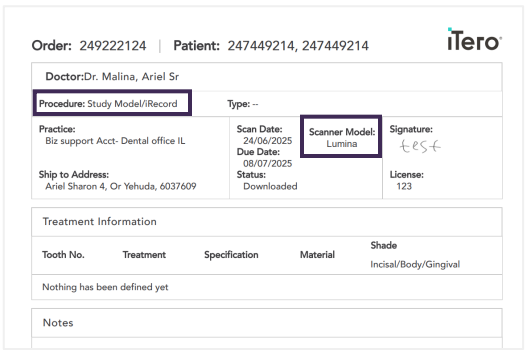
1. **Study Model/iRecord procedure**
   Most used for routine scanning and periodic documentation of dental clinical status. We do not suggest using iRecord for Restorative cases.
2. **Fixed Restorative procedure**
   Covers a range of restorations, including crowns, bridges, veneers, inlays, onlays, and implant-based restorations.
3. **Denture/Removable procedure**
   Used to design and fabricate removable prosthodontic appliances, including partial and full dentures.

Scanning technique recommendations are based on the iTero Lumina™ scanner fixed restorative procedure type.

01 Open the MyiTero™ portal for labs and access the Rx file by selecting **Print Rx**.



02 Locate the scanner type and procedure type in the Rx.



iTero™

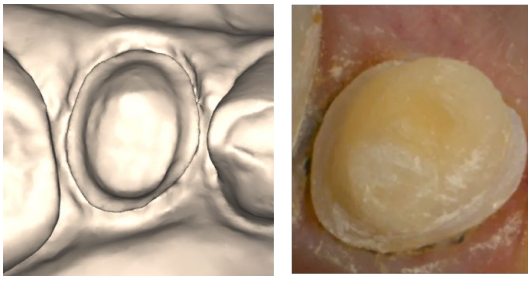
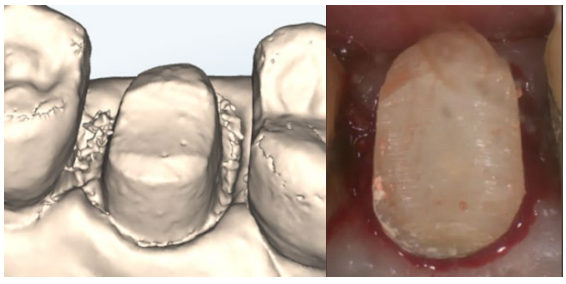
iTero™ Partner Lab guide for iTero Lumina™ scanner

General guidelines

This section provides practical steps to help doctors capture high-quality scans with clear margins, and accurate surface data, ensuring better lab outcomes and optimal restoration fit.

Tissue and moisture management

Effective tissue and moisture management are essential for clear margins and accurate scans. If you notice moisture, blood, or poor retraction in the 2D images (available in iTero exocad Connector™) or color model, inform the doctor that improved gingival isolation is needed to enhance visibility and margin clarity.

Example of good moisture management	Example of poor moisture management
	

Real-time scan assistance

- Instruct the doctor to utilise the real-time scan assistance, during scanning, to assist with filling in any blue holes in critical areas—for example, on the margin and adjacent contacts.
- Inspect the scan for voids in critical areas: around the preparation, contact points, and adjacent gingiva.

iTero™ Partner Lab guide for iTero Lumina™ scanner

General guidelines - cont.

Scanning technique

- The iTero Lumina™ scanner provides a flexible scanning experience, allowing your doctors to hover or touch the teeth when scanning, based on the patient's unique anatomy. For restorative workflows and capturing fine details such as margin lines, **we recommend touching the prepared teeth to optimise surface quality capture and ensure a precise restoration fit**.

- After adequate gingival isolation, scan the arch and preparations in one single pass. **Note:** No individual prep segment scans needed.

- When **the doctor reaches the prep tooth, we recommend to touch the preparation with the wand tip,** to get as close as possible for optimal margin capture.

- Rock the wand buccally and lingually. Then move the wand over the occlusal in a circular motion for better capture in the proximal areas, and to fill any blue voids that may be present on the prepared tooth. This technique allows the 6 cameras within the wand the opportunity to capture all the surrounding areas and help fill voids.

- Instruct the doctor to use the real-time scan assistance during scanning to fill any blue holes in critical areas, such as the margins and adjacent contacts while using the circular motion scanning technique.
  Note: The iTero Lumina™ scanner requires continuous wand movement across varying depths to capture data, unlike the iTero Element™ scanner which collects more data while stationary.

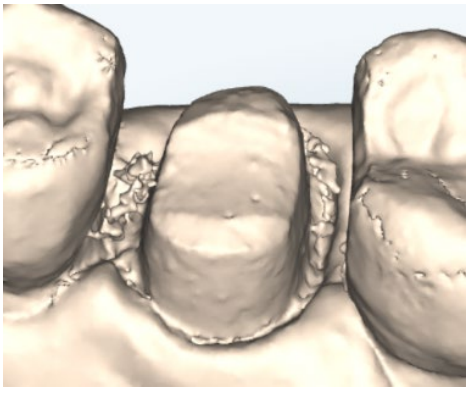
Have questions or need support? Contact your iTero™ Customer Support team on WhatsApp.

iTero™ Partner Lab guide for iTero Lumina™ scanner

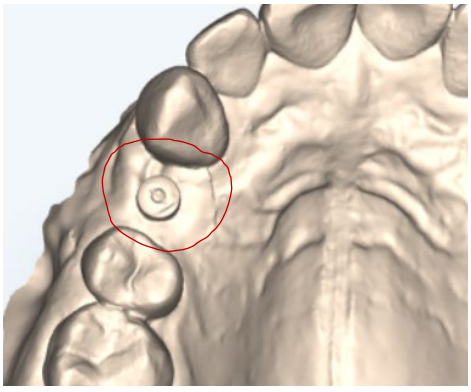
Scan optimisation insights

This section helps labs identify, understand, and address common scan-related scenarios.

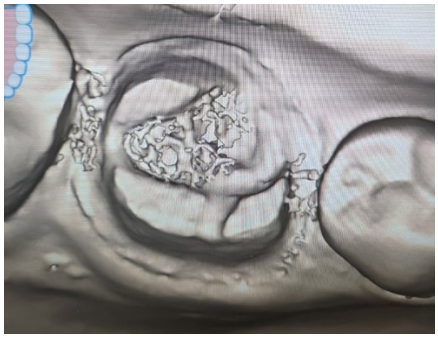
Margin Line optimisation

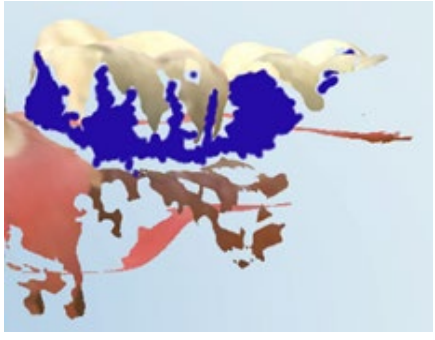


Prep editor tool



Restoration misfit





iTero™ Partner Lab guide for iTero Lumina™ scanner

Scan optimisation insights - cont.

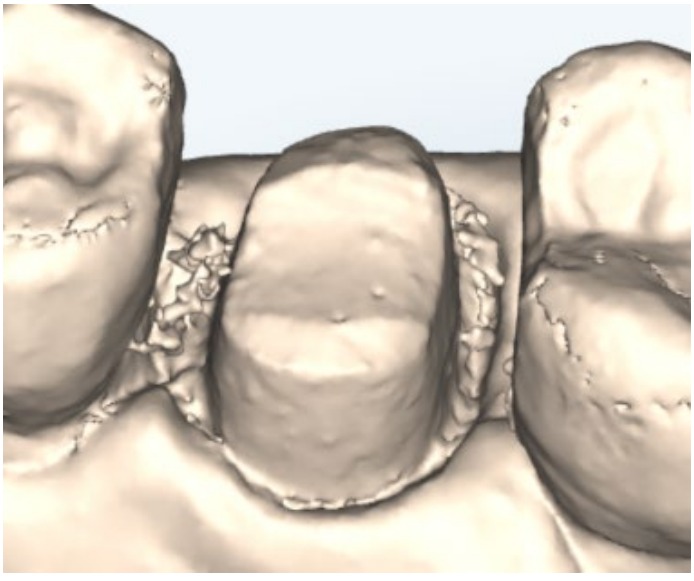
Margin line optimisation

Unclear margins occur when the margin line is blurred or obscured by fluid, tissue or scanning errors.
Remind doctors to review margins.

Evaluation tools

1. Use the colour mode to assess the surface texture.
2. View the scan in monochrome mode to enhance edge visibility.
3. If using the iTero exocad Connector™, examine the 2D intraoral images and iTero™ NIRI technology (Near Infra-Red Imaging) to trace unclear margins.

If the margin is still ambiguous, you can submit the case to the iTero™Modelling and Interpretation team (M&I) to request margin marking corrections, which is a complimentary service available via your myiTero™ Portal.
Cases are typically returned within approximately six hours.



iTero™ Partner Lab guide for iTero Lumina™ scanner

Scan optimisation insights - cont.

Prep editor tool

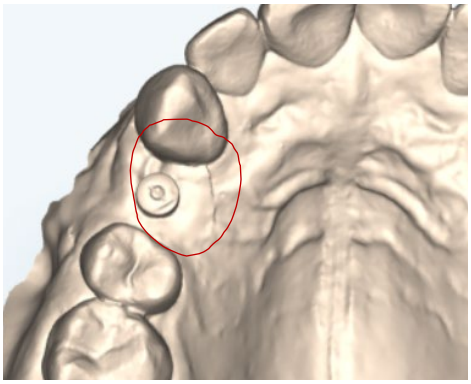
The iTero Lumina™ scanner enables doctors to capture data in one continuous scan eliminating the need to scan individual preparation segments.

To support this streamlined workflow, we've added the prep editor tool, which allows doctors to adjust preps and manage the clinical environment during scanning, if needed.

Situations where the prep editor tool was used unnecessarily:

Case example

In this case, the clinician initially scanned the full arch, then used the prep editor tool to remove the area containing the healing abutment and rescanned that section. This approach led to visible mismatched lines between the original scan and the rescanned area.



Other examples where the prep editor tool was used unnecessarily:

- Duplicating a tooth by scanning the full arch with the temporary in-place, removing the temporary and rescanning the preparation - rather than using the pre-treatment scan workflow.
- Duplicating a full-arch case and using the prep editor tool to erase and rescan a specific area, then resending the case, without realising that too many changes occurred between the two scans.
- Managing the margin by marking and removing a very specific area and then rescanning an area that is not big enough.

iTero™ Partner Lab guide for iTero Lumina™ scanner

Scan optimisation insights - cont.

Prep editor tool - cont.

Possible causes

- Poor integration of the new/replaced section.
- Not scanning enough anatomy outside of the erased area.
- Gingiva and surrounding tissues often change due to anesthesia or bleeding, leading to mismatched scans.

Communication to the doctor

- If you detect inconsistencies in gingival appearance or surface transitions, suspect the prep editor tool was used ineffectively.
- Recommend that the clinic scan the prep area and surrounding tissues together, rather than relying solely on partial edits. They should ensure the scanned area is larger than the section they edited.
- Suggest rescanning the full arch or quadrant after prep is completed to maintain uniformity. If the clinical environment has changed too much or hard to manage it's best to rescan the entire arch or quadrant.
- Refer to additional training resources - for example, the prep editor tool video, which is accessible on the iTero™ Learning Centre via their myiTero™Portal, which shows how to use the tool effectively.

iTero™ Partner Lab guide for iTero Lumina™ scanner

Scan optimisation insights - cont.

Restoration misfit

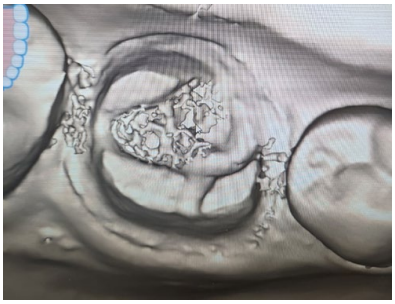
The fabricated restoration does not fit properly.

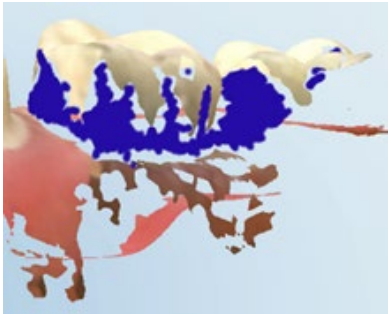
Examples include Crown is too big or too high, the contact area is too tight, and the intaglio is too tight on the preparation.

If there is a challenge with the restoration fit at the margin line, refer to the margin line optimisation section on page 6 of this guide.

What are the possible causes of misfitting restoration?

- Inefficient scanning technique, such as repeatedly rescanning the same area multiple times during the scan.
- Rapidly changing clinical environment, such as uncontrolled fluid or tissue collapse.
- Missing data (blue holes present).





Communicate to the doctor

When scanning, aim for a continuous movement, at a convenient pace, while actively managing moisture and soft tissue, touching the teeth when scanning any preparations.