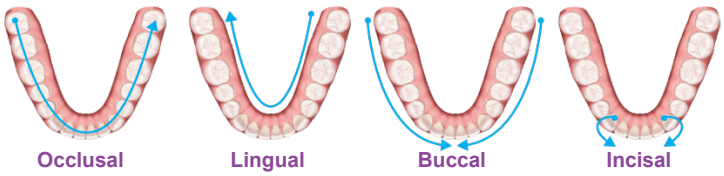
Scanning restorative cases with the iTero Lumina™ scanner

How does the technology work?

The iTero Lumina scanner is powered by iTero Multi-Direct Capture™ technology (MDC) with 3x larger field of view[1], and maximum capture distance of 25mm[2], designed to scan 2x faster[2]. The iTero Lumina wand **captures both the surface directly under the window and parts of the surrounding jaw surfaces**. When the iTero Lumina wand is held in parallel with the occlusal surface, the buccal and lingual surfaces can be partially captured in the same segment.

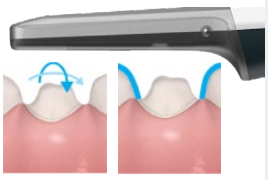
Scanning guidelines

- Before scanning, ensure the teeth are dry and the margin is exposed.
- To optimize the scan quality and minimize artifacts, scan from posterior to anterior for each arch **as follow:**



Scanning strategy:

To ensure full coverage with iTero Lumina's multi-angled cameras



- For fine details like margins, gently **touch the prepared tooth**.
- Move the wand in a continuous, rocking, circular motion. This technique allows for projectors and angled cameras to capture all surfaces of the prep, margin, contacts and surrounding tissue from various angles and distances.

Scanning workflows

Single and multiple preps on natural teeth workflows

The scanning sequence is as follows:

1. Optional: If you are using the pre-treatment workflow, begin by scanning the pre-treatment arch. This will be indicated by number 1 on the tooth chart. 

2. Scan the opposing arch.
3. Scan the bilateral bite by capturing the posterior areas in occlusion on both sides. (This step may vary depending on the use of the pre-treatment workflow)
4. Scan the arch (working arch) with the prepared tooth or teeth. Preparation is scanned as part of the arch.

1. Compared to the field of view of the iTero Element™ 5D dental imaging system, when the iTero Lumina™ intraoral scanner's scanning distance is 12 mm. Data on file at Align Technology, as of November 15, 2023. **2.** Compared to the iTero Element™ 5D dental imaging system with tolerance AVE=±0.1 operating at a working distance from 0-20 mm. Data on file at Align Technology, as of November 15, 2023.001595-US-EN

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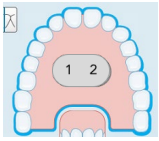
Scanning workflow continued

Removable denture workflow



This workflow uses an existing denture to be copied or used as a reference for the new one.

1. Scan the reference denture 360º with the relining or adjustments as needed outside of the mouth.
2. Scan the opposing arch or opposing denture.
3. Scan the edentulous arch, if needed.
4. Scan the bite bilaterally with the denture in the mouth and/or using a jig to capture the VOD.

Implant workflow

In this workflow, it is possible to scan the soft tissue emergence profile before scanning the scan body.

1. Optional scan of emergence profile: Remove the implant healing abutments and scan the arch starting with the implant site to capture the soft tissue emergence profile before it collapses.
2. Scan the opposing arch.
3. Scan the bite bilaterally.
4. Screw the scan bodies onto the implant and scan it together with the arch.

Improve the scan of margin line

In cases where capture defects prevent the clear visualization of the preparation margins, use the prep editor tool to delete the specific part of the scan, ensure the correct tissue and fluids management and rescan the area.

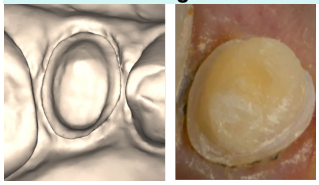
Example of poor soft tissue and fluids management:

Click here to learn more about the prep editor tool

Evaluate your scan

1. Review the 3D model in both monochrome and color **after the case has processed**.
2. Use the intraoral camera images to assess whether any capture defects were caused by fluids or soft tissue collapse.

Example of good fluid management



Example of poor fluid management