**Intra-Oral Scanning Tips**

### Common Scanning Errors

- **Insufficient scan data.** Full scan of all anteriors are recommended on anterior restoration cases to recreate the same shape and size of the existing teeth and for articulation purposes.

- **Missing and distorted data on 3M scan.** This is most likely caused by wet spray/excess moisture in the mouth.

- **Missing data on adjacent teeth and occlusion.** This can cause issues when fabricating models and articulating the bite.

### Tips to Ensure a Quality Scan

#### Gingival Retraction
- Proper gingiva retraction strategy enables good scanning of the margin line.
- Intra-Oral scanners can only scan what is visible to the eye. If the margin is subgingival, the scanner will have a difficult time capturing the margin without excellent retraction techniques.
- The two-cord retraction technique is recommended for a visible margin line.

#### Moisture Control
- Dry teeth using compressed air.
- Be sure to dry the interproximal and gingival areas of the arch.
- Use cotton rolls, dry tips, and saliva ejectors to keep the mouth dry during scanning.
- Make sure the scanner wand is clean and free of moisture.

#### Scan Sprays (if required by scanner)
- Teeth must be dry before applying scan spray. Saliva and spray can mix and may cause false scan data.
- More is NOT better. Over-spraying can cause 3D images to be inaccurate.
- Sprayed teeth must be completely dry before scanning.

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**Do not** submit a case with any missing data at the margins; this can compromise the fit. Scan at least 4 opposing teeth for the bite registration to ensure the bite is aligned properly.

The lingual margin data is missing in the image on the left. The right image shows the scan after the margins are fixed by 3M. Notice how the fixed areas are not smooth. A new scan is recommended on this case.
Recommended Data to Capture When Scanning

Anterior Crowns
- Scan all anterior teeth so the restoration can be adapted to the patient’s existing dentition.
- If possible, scan a pre-op model of existing pre-prepped teeth or temps for diagnostic/esthetic purposes.

Posterior Crowns
- Scan at least 2 adjacent teeth on the mesial & distal of the restoration.

Restorations With No Posterior Stop(s)
- Full arch maxillary and mandibular scan is needed to ensure bite is correct in design software.

Proper retraction to accurately mark margin. Sufficient scan data without missing data or distortion.

Smooth scan of all teeth and margin line.

Clear view of margin and all teeth are complete.

Sufficient scan of adjacent and opposing teeth to properly articulate models.

Small areas on the adjacent teeth or opposing will not affect the case.

A full arch was provided to aid in articulating the bite, since there is no posterior stop.