



Successful digital denture scans depend on a consistent, controlled approach. Maintain data overlap, move slowly, and segment scans as needed. Manage soft tissue to ensure clear access, especially in commonly missed areas like the retromolar pad, tuberosities, and undercuts. Avoid over-scanning, failing to trim, losing tracking, or movement during bite capture. Before submitting, confirm a complete intaglio, clear borders, no major voids, a clean trimmed scan, and a stable bite with “adjust for contacts” off. This approach improves predictability, reduces remakes, and supports DDS Lab’s 3D printed denture workflow.

## STEP 1 – Case Selection & Setup

### Use this workflow when:

- Patient has an **existing denture with a functional impression**
- Goal is to fabricate a **new immediate or copy denture**

### TRIOS Order Form Setup:

- Indication: **Removable** → **Full Denture**
- Scan Type: **Reference Denture**

## STEP 2 – Lower Reference Denture Scan (Mandibular)

### A: Initial Intaglio Scan

- Start at **first molar**
- Move toward **retromolar pad**
- Use a **rolling motion**:

Capture:

- Intaglio (tissue side)
- Buccal + lingual
- Peripheral border

Key principle:

Always keep **previously scanned data in view** for alignment

### IMPORTANT NOTE ON ADAPTING FIT: Wash Impression

If the existing denture does not demonstrate an accurate functional fit, take a **light-body wash impression** inside the denture prior to scanning to capture current tissue anatomy.

This helps correct minor discrepancies, improves adaptation, and ensures the intaglio surface reflects a more clinically accurate baseline. Border mold as needed and verify stability and extension before scanning. The scan will replicate what is captured—so improving fit at this stage directly improves the final outcome.



## STEP 2 – Lower Reference Denture Scan (Mandibular) continued:

### B: Continue Across Arch

- Scan to **midline**
- **Rotate denture in hand**
- Continue same motion to opposite retromolar pad

### C: Pause & Inspect

- Stop scanning
- Allow rendering

Confirm:

- Clean intaglio capture
- No major voids

### D: Second Pass (Refinement)

- Re-scan areas slowly

Focus on:

- Border detail
- Missed anatomy
- Maintain **scan overlap at all times**

### E: Capture External Surfaces

Roll to:

- Buccal border
- Facial flange

Focus on:

- Pink acrylic
- Peripheral roll

### F: Occlusal Surface

- Rotate scanner back and forth

Capture:

- Teeth
- Occlusal anatomy

# MODERNIZING REMOVABLES – TRIOS REFERENCE DENTURE WORKFLOW AT-A-GLANCE

### G: Trim Scan Data

- Remove excess beyond **lingual cusp areas**

Why this matters:

- Prevents **“watertight scan” errors** in design software
- Reduces unnecessary data load

### H: Final Touch-Ups

- Identify voids
- Re-scan selectively
- Confirm complete dataset

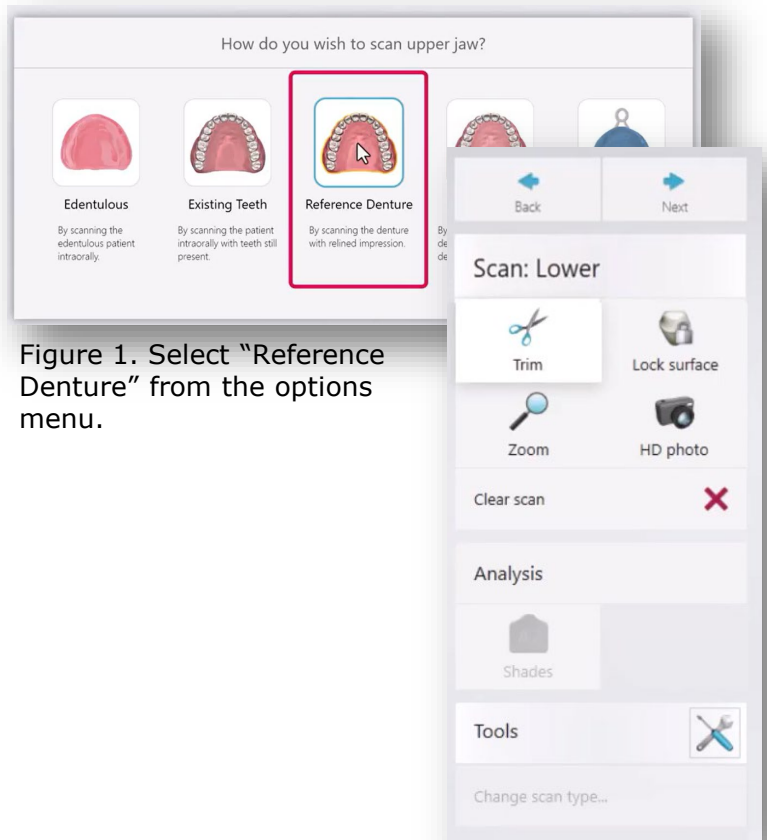


Figure 1. Select “Reference Denture” from the options menu.

Figure 2. Per G: Trim Scan Data, remove access lingual cusp areas

# MODERNIZING REMOVABLES – TRIOS REFERENCE DENTURE WORKFLOW AT-A-GLANCE

## STEP 3 – Upper Reference Denture Scan (Maxillary):

### A: Initial Global Scan

- Start at **maxillary tuberosity**
- Move across **alveolar ridge**
- End at opposite tuberosity

### B: Palatal Sweep

- Move anterior → posterior
- Use **side-to-side motion**
- Goal: **global accuracy**

### C: Angled Ridge Capture

- Hold scanner at **~45° angle**
- Capture:
  - Internal ridge
  - Buccal vestibule border

### D: Pause & Inspect

- Stop and render
- Confirm clean base scan

### E: Border & Buccal Scan

- Return to tuberosity
- Focus on:
  - Peripheral borders
  - Facial/buccal flange

### F: Teeth Capture

- Rotate scanner
- Capture full occlusal anatomy

### G: Fill Missing Areas

- Re-scan:
- Undercuts
  - Voids under ridge

### H: Trim Data

Remove:

- Palatal excess
- Artifacts

Goal:

- Clean, efficient dataset for design

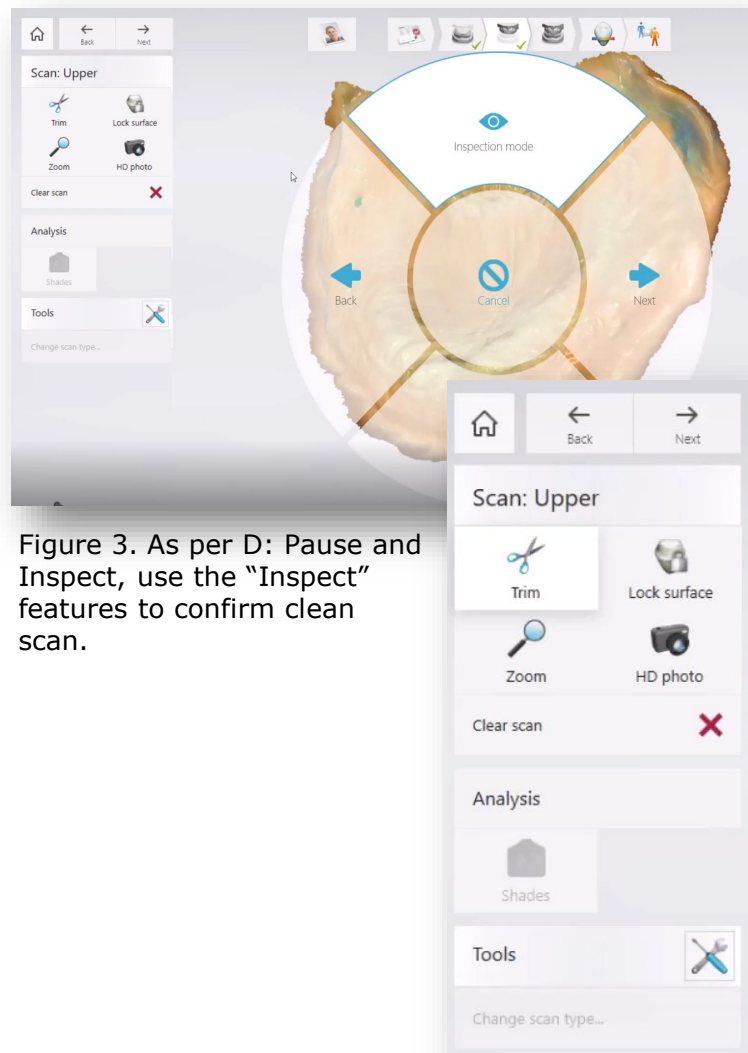


Figure 3. As per D: Pause and Inspect, use the “Inspect” features to confirm clean scan.

Figure 4. Remove palatal excess and artifacts with the “Trim” feature.

## STEP 4 – Bite Registration Recommended Method: Buccal Bite Scan

### A: Preparation

- Trim excess bite material
- Ensure:
- Teeth are visible
  - Clear alignment points exist

### B: Stabilize Dentures

- Hold firmly:
- Thumb on lower
  - Fingers stabilizing upper
- Avoid movement

### C: First Bite Scan

- Start with **50/50 upper/lower in view**
- Allow alignment
- Continue scanning **2–3 seconds after alignment**

### D: Turn OFF “Adjust for Contacts”

- Critical:
- This ensures **true patient occlusion**
- Especially important in:
- Class II / Class III cases

### E: Second Bite Scan

- Repeat scan
  - This is the **scan used in design software**
- Best practice:
- Capture **full buccal facial sweep** during second bite

# MODERNIZING REMOVABLES – TRIOS REFERENCE DENTURE WORKFLOW AT-A-GLANCE

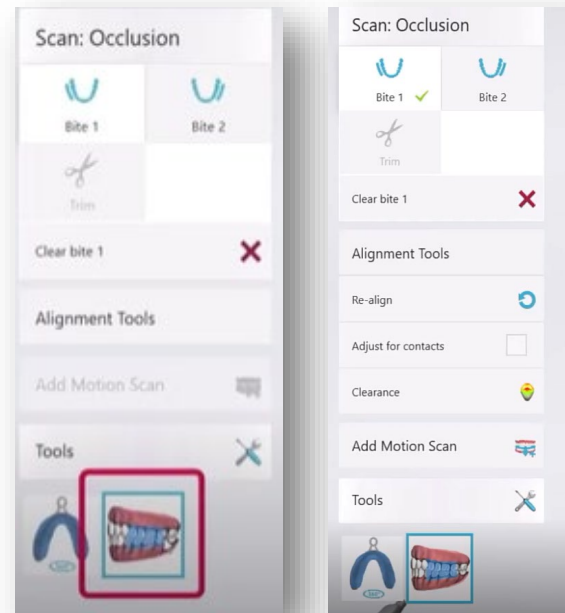


Figure 5 & 6. It is suggested to use the “Buccal Bite Scan” from the user interface. Always remove “Adjust for Contacts.”

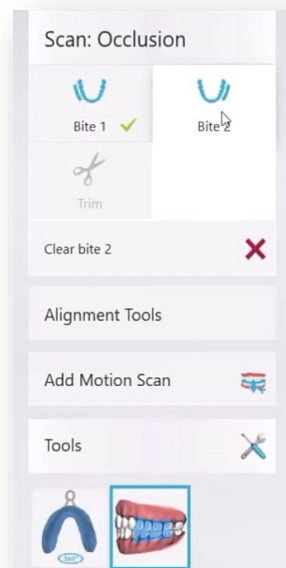


Figure 7. E: Second Bite Scan requires you to select “Bite 2” from the interface menu.