

**3M** Science.  
Applied to Life.™

3M™ True Definition Scanner

# Frequently Asked Questions



# Indications

## **What can I do with a 3M™ True Definition Scanner?**

The 3M™ True Definition Scanner can be used to create: crowns, bridges, inlays, onlays, veneers, partials, clear aligners, mouth guards, orthodontic appliances and models.

## **If I purchase a 3M™ True Definition Scanner, can I work with my lab?**

Yes. Your dental laboratory is your first Trusted Connection; you can easily and securely send them digital impression files through the 3M™ Connection Center. If your lab has not worked with 3M™ True Definition Scanner files, 3M will work with them to assist in the transition. High precision SLA working models are available to complement your lab's craftsmanship and can be ordered with or without removable dies. For those labs wishing to work directly with the digital scan data, the 3M™ Connection Center provides a secure location for easy access to case files and prescription information.

## **Can 3M™ True Definition Scanner digital impressions be used to create traditional (non-CAD/CAM) restorations?**

Yes. The 3M™ True Definition Scanner is an open system—allowing you to use materials that are clinically appropriate for your patient.

## **Can I use the 3M™ True Definition Scanner for orthodontic cases?**

Yes. With the Standard Data Plan, you have access to Trusted Connections with the 3M™ Unitek™ Treatment Management Portal | TMP and the 3M™ Unitek™ Incognito™ Appliance System. With the Advanced Data Plan, you have access to Invisalign® Clear Aligners. You also have access to open STL files. STL files can be downloaded from the 3M Connection Center and sent to manufacturers of other orthodontic appliances who accept this industry-standard file format.

## **Can I use the 3M™ True Definition Scanner for clear aligner cases?**

Yes. With the Advanced Data Plan, you have access to a Trusted Connection to Invisalign® Clear Aligners. With the Advanced Data Plan, you also have access to open STL files. STL files can be downloaded from the 3M Connection Center and sent to manufacturers of other orthodontic appliances who accept this industry-standard file format.

## **Can you scan a scan locator or healing abutment to construct a custom implant abutment?**

Yes. As an open, accurate system, doctors can also capture digital impressions of implant scan bodies and seated abutments with the 3M™ True Definition Scanner. With the Advanced Data Plan, you have access to the Trusted Connection to both BIOMET 3i™ BellaTek® Encode® Impression System and Straumann® CARES® Prosthetic Solutions to digitally restore single- and multiple-unit implants and implant bridges.

# Open and Trusted Connections

## Is the 3M™ True Definition Scanner a closed system?

No. The 3M™ True Definition Scanner is an open system—open to materials, labs, chairside mills and any other system that accepts industry-standard STL files.

## What is an open STL file?

An open STL file is a common file format used for saving three-dimensional objects. It is a standard three-dimensional (3D) format used in many industries, including: aeronautical engineering, automobile design, video gaming and the dental industry, especially CAD/CAM equipment.

## How do doctors access the open STL file in their office?

With the Advanced Data Plan, you may access the open STL file in your office by logging into the 3M™ Connection Center web portal from your PC, tablet or smartphone using the login and password received from 3M. Access to Connection Center is obtained by contacting the Customer Care Center at 1-800-634-2249, option 3. Select the appropriate patient and case and click the STL file package to download. You may then share the STL file with any third-party provider that accepts industry-standard STL files. These files can also be made available to a variety of Trusted Connection partners and your Lab.

## What is a Trusted Connection?

3M collaborates with leading manufacturers to offer 3M™ True Definition Scanner customers seamless integration to a broad range of CAD/CAM, digital implant and orthodontic appliance workflows. The Trusted Connection process includes comprehensive technical and clinical validation, ensuring performance and quality that meets your high standards. These connections provide the benefits of an integrated system without the drawbacks of a proprietary format.

## What Trusted Connections are available today?

In the U.S., Trusted Connections include:

- Your Dental Lab
- Planmeca® PlanMill™ 40 Chairside Mill
- TS150™ In-Office Milling Solution
- BellaTek® Encode® Impression System
- Straumann® CARES® Prosthetic Solutions
- Incognito™ Appliance System
- Unitek™ Digital Models
- Invisalign® Clear Aligners
- 3Shape Dental System™ (for labs)
- Dental Wings (for labs)
- exocad® DentalCAD (for labs)

New Connections to create leading workflow, application or capabilities with dental and ortho companies, even software and systems companies, are continually being tested and validated for future integration.

# Investment

## How much does the 3M™ True Definition Scanner cost?

U.S. suggested retail pricing is \$15,995. Dentists can also choose between two affordable, subscription-based data plans.

## What is included in the Standard Data Plan?

The Standard Data Plan includes:

- All software updates, improvements and many new features
- Unlimited scans (no per scan charges or click fees) and secure file transfers to the lab
- Unlimited secure cloud-based digital impression/model storage
- Access to the Trusted Model Production Connection for SLA models which can be used to create traditional restorations
- Trusted Connection to in-office CAD/CAM systems, including Planmeca® PlanMill™ 40 Chairside Mill and IOS Technologies' TS150™ In-Office Milling Solution
- Trusted Connection to the 3M™ Unitek™ Treatment Management Portal | TMP and 3M™ Unitek™ Incognito™ Appliance System

## What is included in the Advanced Data Plan?

The Advanced Data Plan includes:

- Everything available in the Standard Data Plan
- Trusted Connection to Invisalign® Clear Aligners
- Trusted Connection to implant workflows including the BIOMET 3i™ BellaTek® Encode Impression System and Straumann® CARES® Prosthetic Solutions
- Access to download industry-standard STL files from the 3M™ Connection Center to share with other third party providers

## Can I change my Data Plan?

Yes. Customers may switch between data plans once per calendar year by sending an email to [truedefscanner@mmm.com](mailto:truedefscanner@mmm.com) requesting an upgrade to your monthly data plan.

## What is covered in the Service Plan?

After the first year, the Service Plan includes:

- Comprehensive: all parts and labor included
- Unlimited technical support via phone
- Priority response time
- Unlimited phone and remote diagnostic support
- On-site visits, including labor and travel, when a problem cannot be resolved remotely
- All parts needed to return system to working order
- Discount on select new equipment / hardware upgrade offerings

## Can I get a model with the 3M™ True Definition Scanner?

While many labs are working model-free, your lab may routinely order a high-precision SLA working model. If you would like to receive a working or control model for an in-office procedure, such as a bleach tray, you may order one through a Trusted Model Production Connection directly from your 3M™ True Definition Scanner.

### **Can I get models with the 3M™ True Definition Scanner?**

3M does not manufacture the SLA models. Some high-volume labs are equipped to print them for their own purposes. The Standard Data Plan (for dentists) and Standard Lab Package (for labs) include access to a Trusted Model Production Connection in the U.S.

### **If I have a 3M™ True Definition Scanner, how do I get software updates and upgrades?**

Software upgrades and updates are included as part of the monthly Standard and Advanced data plans at no additional cost. These are downloaded directly on the 3M™ True Definition Scanner.

### **Are there scan or export fees with the 3M™ True Definition Scanner?**

No. Both subscription-based data plans include unlimited scans, uploads/transfers, and impression/model storage. The Advanced Data Plan allows dentists to export their STL files to send to any third-party provider that accepts the industry-standard STL files. These STL files can be made available to your lab regardless of your data plan.

### **What if I only do one or two BIOMET 3i™ BellaTek® Encode Impression System cases? Do I need the Advanced Data Plan?**

You may choose to perform BIOMET 3i™ BellaTek® Encode Impression System cases on a pay-per-case basis.

### **How do I get started with the Trusted Connection to Invisalign® Clear Aligners?**

3M™ True Definition Scanner clinicians wishing to enable the Trusted Connection to Invisalign® must complete Invisalign Clear Essentials 1 Training, 3M™ True Definition Scanner New User Training and the 3M Full Arch Scanning Certification Process. To begin this process, please visit [3M.com/TrueDef/Invisalign](http://3M.com/TrueDef/Invisalign) to enroll.

### **What training is provided with the purchase of the 3M™ True Definition Scanner?**

3M provides 1.5 days of training for each account that purchases a 3M™ True Definition Scanner. The first half-day (approximately 2–4 hours) is to focus on device understanding and scanning competency. During this time, you will review basic scan skills, scan path and protocol, and will practice scanning on typodonts and your staff. The Clinical Training Day (approximately 6–8 hours) will focus on clinical scanning competency and integration. During this time, you will scan three in vivo patient cases and complete single unit cases. In addition, you will review the lab prescription and Trusted Connections. Additional training is available for a fee, for instance, as you add new staff or would like re-training or advanced training.

### **How can I purchase a 3M™ True Definition Scanner?**

The 3M™ True Definition Scanner is sold in the U.S. through the following authorized distributors: Henry Schein, Benco, Burkhart, Jensen Dental, Nashville, Atlanta, Midwest, Newark, Goetze and others.

# Questions for Dental Labs

## **How can my lab work with 3M™ True Definition Scanner digital impressions?**

During the purchase of your scanner, 3M will ask you to identify a primary lab to begin receiving your digital impression files.

Labs primarily interact with 3M via the 3M™ Connection Center, a web application that stores, sends and converts the digital impression files captured by the scanner.

## **Who marks the margins with the 3M™ True Definition Scanner impressions?**

Dental labs digitally identify the margin line using 3M™ Margin Marking software as a crucial step in the model preparation and restoration design process. Additionally, the 3M™ True Definition Scanner has tools which allow you to annotate the prepared tooth and margin. Lastly, when using a chairside connection, you or your staff can trace the margin line in the chairside design software paired with each mill.

## **What is included in the Standard Lab Package?**

- Secure access to 3M™ Connection Center website
- Secure access to digital prescription information
- Access to Case Status dashboard and audit trail
- Ability to Purchase SLA Models from a Trusted Model Production Center
- Ability to outsource digital model preparation to a Certified Margin Marking Lab
- Secure access to digital impression information including STL files
- Access to 3M™ Margin Marking Software training
- License to 3M™ Margin Marking Software
- Access to 3Shape Dental System™ Trusted Connection
- Access to exocad® DentalCAD Trusted Connection
- Access to Dental Wings Software Trusted Connection

# Technical Capabilities, Features and Benefits

## What do I get when I purchase a 3M™ True Definition Scanner?

The 3M™ True Definition Scanner is built with best-in-class components for reliable performance, including:

- A workstation with touchscreen monitor on a mobile cart. The workstation is designed to meet the demands of professionals who work with large and complex datasets and intricate 3D models.
- A lightweight and robust scanning wand with no moving parts, low-intensity LEDs, a light sensor and lens, and supporting electronics—it connects to the system by a USB cable.
- Embedded software and firmware.

The system is supported by the 3M™ Connection Center, a secure and open cloud-based hub for storing and sharing unlimited digital scans without restriction.

## Is there a laptop version of the 3M™ True Definition Scanner?

3M sales representatives are equipped with a laptop for demo purposes only. 3M has found a freestanding laptop is not practical for routine clinical use, forcing the clinician to purchase a supporting cart system or have the patient hold the laptop. Furthermore, the laptop would not meet 3M's stringent safety standards. 3M will always be at the leading edge of technology as they become available.

## What is 3D-in-Motion technology?

3D-in-motion video technology generates a true replica of the oral anatomy with extraordinary detail. It captures 3D data in a video sequence and models the data in real time. The 3M™ True Definition Scanner can capture approximately 20 3D data sets per second—or close to 2,400 data sets per arch—for a high-speed, high-accuracy scan. This enables the user to scan images while moving the wand—and simultaneously view and control the scan on the touchscreen. In contrast, the traditional scanning method, which uses point-and-click technology, requires the wand to be first positioned and then held steady, at which point the user can initiate a single capture or the system automatically initiates the scan.

## How do you measure accuracy?

Accuracy is measured by constructing a dental model which is calibrated very precisely on a coordinate measuring machine (CMM). We then compare scans from the 3M™ True Definition Scanner and competitive scanners of this model against the precise reference. Any discrepancies in the measurements taken from three or six points distributed on the model are expressed as a percentage error. This method is becoming a global standard for accuracy in the dental industry.

## Why does the 3M™ True Definition Scanner use a scanning spray?

The 3M™ True Definition Scanner was designed to use 3M™ High-Resolution Scanning Spray to enhance the speed of capture, accuracy and affordability. The scanning spray is a proprietary formulation of titanium dioxide. Scanning spray enables the 3M™ True Definition Scanner to be the most accurate—and most consistently accurate—scanner on the market.<sup>1</sup> After the clinician retracts and isolates the patient, the light dusting is only 15 seconds in a one-hour crown preparation procedure.

<sup>1</sup> For additional information, see [www.3M.com/TrueDef](http://www.3M.com/TrueDef)

### **Why aren't the 3M™ True Definition Scanner images available in color?**

The 3M™ True Definition Scanner uses its extra channel of information to provide stereoscopic 3D images used by clinicians and lab to enhance the clinical process.

### **Can the 3M™ True Definition Scanner “see” through tissue, blood and/or saliva?**

No digital impression system on the market can see through tissue or fluid. All require proper retraction and isolation in order to capture images. Clinicians may choose from a variety of products and your clinical digital specialist and/or clinical trainer will be able to provide guidance on which products may best suit your practice and technique.

## **General**

### **How long has the 3M™ True Definition Scanner been in the market?**

The 3M™ True Definition Scanner was launched in the U.S. in October 2012.

### **Is the 3M™ True Definition Scanner just a refresh of the Lava™ Chairside Oral Scanner?**

The Lava™ Chairside Oral Scanner is 3M's previous intra-oral scanner and is no longer available. The 3M™ True Definition Scanner, introduced in 2012, was designed new and is not a refresh of the Lava™ Chairside Oral Scanner.

### **Can my assistants take digital impressions with the 3M™ True Definition Scanner?**

Depending on your state regulations, assistants may take digital impressions with the 3M™ True Definition Scanner. Some states allow assistants to take all digital impressions required for a case, while others ensure the digital impression of the preparation is conducted by a dentist. In that case, some doctors have found it helpful if they do the scan of the preparation and the assistant completes the opposing arch and bite registration.

### **Who do I call if I have questions (or need additional training)?**

You may contact 3M Customer Care at 1-800-634-2249.

## **Patient Marketing**

### **I have a 3M™ True Definition Scanner and would like to promote this technology with my patients. Does 3M have anything I can use?**

We've developed the 3M™ True Definition Scanner Marketing Kit, with tips and tools to help you promote your use of the scanner, reinforcing your position as a progressive leader on the forefront of digital dentistry. Please contact your Clinical Digital Specialist for more information.



**Customer Care Center: 1-800-634-2249**

**[www.3M.com/TrueDef](http://www.3M.com/TrueDef)**



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