Introduction

3Shape’s TRIOS® digital impression solution can now scan implant abutment cases. This document explains how to use 3Shape’s Model Builder to manufacture digital implant models based on TRIOS® implant scans.

Besides reading this document, we advise you to watch the video Dental System™ 2012 - Model Builder™ for implant models on the 3Shape YouTube channel which describes the entire workflow.

Click here to watch the video

In addition, you can watch the webinar Model Builder and TRIOS Integration directly from www.3shapedental.com.

Click here to watch the webinar

Please also refer to the Online Help in Dental System™ (press F1 from the software).

Software Versions

Before continuing, please ensure that you have the correct software versions installed:

- **TRIOS®**
  You need version 1.1.2.0 of the TRIOS™ software or newer.

- **Dental System™**
  You need version 2.7.8.9 of Dental System™ 2012 or newer.

Scan flags, libraries and implant analogs

Scan flags, implant libraries and implant analogs (if needed) must be part of the same “kit” to ensure a successful workflow. Therefore, the lab and the dentist need to agree on this.

The dentist will use the scan flags during scanning and the lab will use the implant library and implant analogs when designing and manufacturing the digital implant model.

Please contact 3Shape for a list of implant kit providers.
**Workflow in the lab**

The implant scan is sent directly from the TRIOS™ to the lab - just like a standard Crown & Bridge case.

Two types of digital lab models can be designed with Model Builder:

- a) **Model with implant analog** (requires implant analog)
- b) **Model with die as part of the model** (“abutment as a die”; requires no implant analog)

The basic workflow is the same for the two model types, as described below:

1. Accept case from the Inbox or TRIOS® Inbox – depending on your setup.
2. Open the order form and select the appropriate implant system and digital model type.
3. In Model Builder, only go through the “prepare steps”. Then close Model Builder and start-up Dental Designer.
4. Design abutment in Dental Designer™ - just as usual.
5. In Dental Manager, choose “Build Model” (right click on order in Dental Manager) to open Model Builder again to finalize model design. The implant model can be designed in two different ways, depending on your preferences. There is no need to be able to manufacture soft tissue in any of the cases:
   - a. Cut (adjust) model with the abutment shape, so there is room for the abutment in the model, or
   - b. Print the abutment as part of the model (i.e. “abutment as a die”). With this solution the abutment is placed in the model as a die and you do not need implant analogs. Read more below.

**Selecting type of model**

It is the setting “Print Abutment as Part of Model” that determines how the model is manufactured.

It can be enabled in Dental System Control Panel -> Digital model -> Digital model design (applies to all models using that particular digital model design):

![Image of die and print abutment as part of model]

Alternatively, it can be set in the virtual trim settings (applies to the specific model).
If this setting is **not enabled**, the model will automatically be cut with the abutment (i.e. adjusted to fit with the abutment emergence profile). In addition, a hole for insertion of the implant analog will be made (see left image below).

If the setting is **enabled**, the abutment will be added as part of the model. You can then print the abutment, just like a normal die for a prepped tooth (see right image below). In this case you do not need an implant analog, and you can model and check the crown using the printed version of the abutment:

If you have any questions, please contact 3Shape Support at [support@3shape.com](mailto:support@3shape.com).