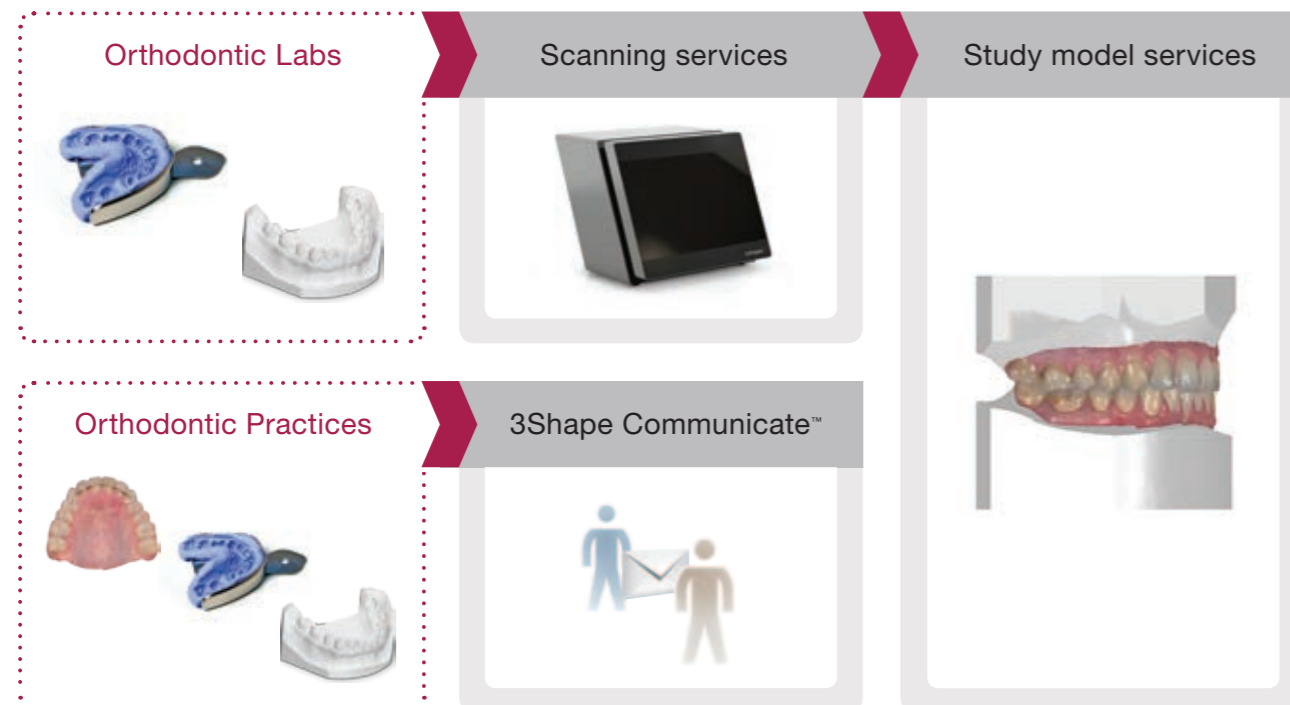# Orthodontics

Digital Solutions for Orthodontic Labs

Failure is not fatal, but failure to change might be

John Wooden, Coach & Teacher

Digital technology is changing the way we live. For many orthodontic labs, the move to digital has become a fundamental question: to be or not to be? There are plenty of reasons to say yes to desktop 3D scanners and a digital workflow. Creating digital study models from gypsum models or impressions, saving storage space, reducing environmental impact, the predictability and accuracy in CAD designed appliances are just a few. 3Shape makes your decision simpler. You build your digital lab according to your needs and budget. Start with our orthodontic software and add a desktop scanner when you are ready. You decide. We support you. Together, we make a great team!
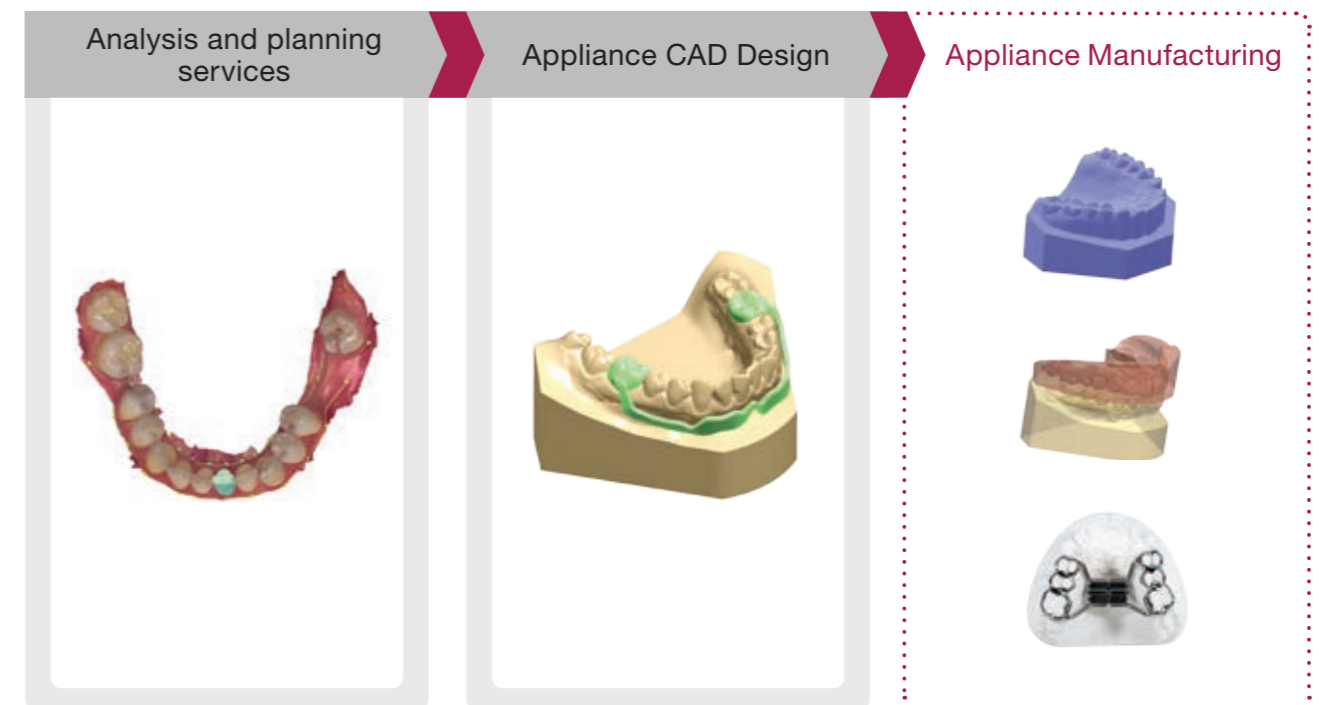
Orthodontic Labs → Scanning services → Study model services

Orthodontic Practices → 3Shape Communicate™

> " It used to take three to four weeks to have the appliance designed and shipped back. Now it only takes two to three days for a retainer. "

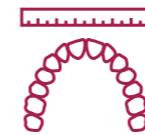*Dr. Santiago Isaza Penco,*
Orthodontist, Bologna, Italy

5 reasons
for your Orthodontic Lab to go digital

- **Expand services and attract new customers** with digital services
- **Improve customer relationships** by sharing case analysis, treatment plans and appliance design
- **Stay competitive** as more orthodontists seek digital service labs
- **Use CAD/CAM customization and accuracy** to optimize treatment, appliance design and manufacturing
- **Reduce transportation and storage costs** by going digital

Analysis and planning services → Appliance CAD Design → Appliance Manufacturing

5 reasons
to choose 3Shape orthodontics

Enhance analysis and treatment planning with fully integrated digital workflows

Increase productivity with CAD/CAM appliance design and manufacturing

Improve orthodontic treatment with ISO accuracy-documented scanners

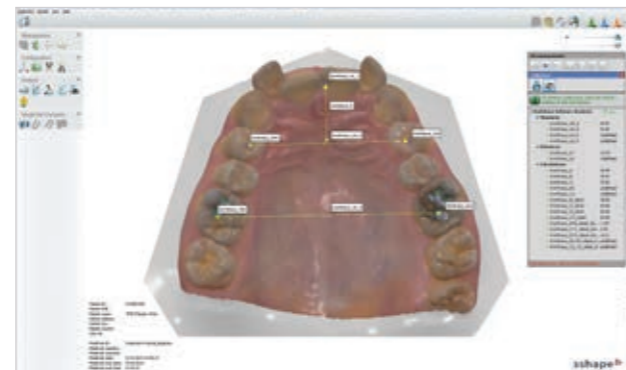Connect directly to TRIOS® orthodontists and orthodontic solution providers

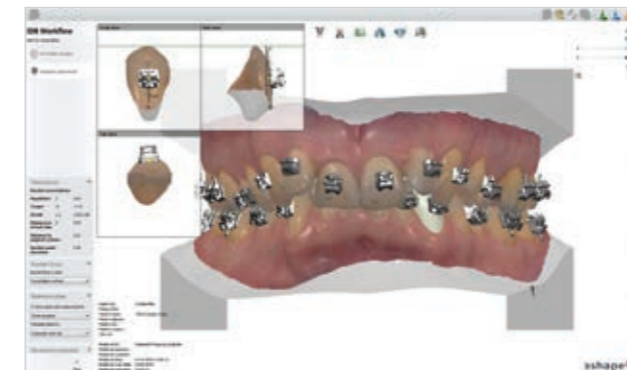Secure your investment with unlimited software upgrades and global support

Digital Study Models
Add digital archiving to your services. Create digital study models from impressions and plaster models as well as digital intraoral scans.

Orthodontic analysis services
Take advantage of easy to use and customizable case analysis software.

Treatment planning services
Seamlessly share treatment proposals including bracket placement with orthodontists.

Complete CAD/CAM workflows
Take advantage of CAD appliance design for design optimization and flexible manufacturing options via open file output formats.

Working with digital models

Study models are the cornerstone of your analysis and planning process. Creating digital versions of study models enables space-saving digital archiving, easy case sharing and improved communications between lab, orthodontist and patient.
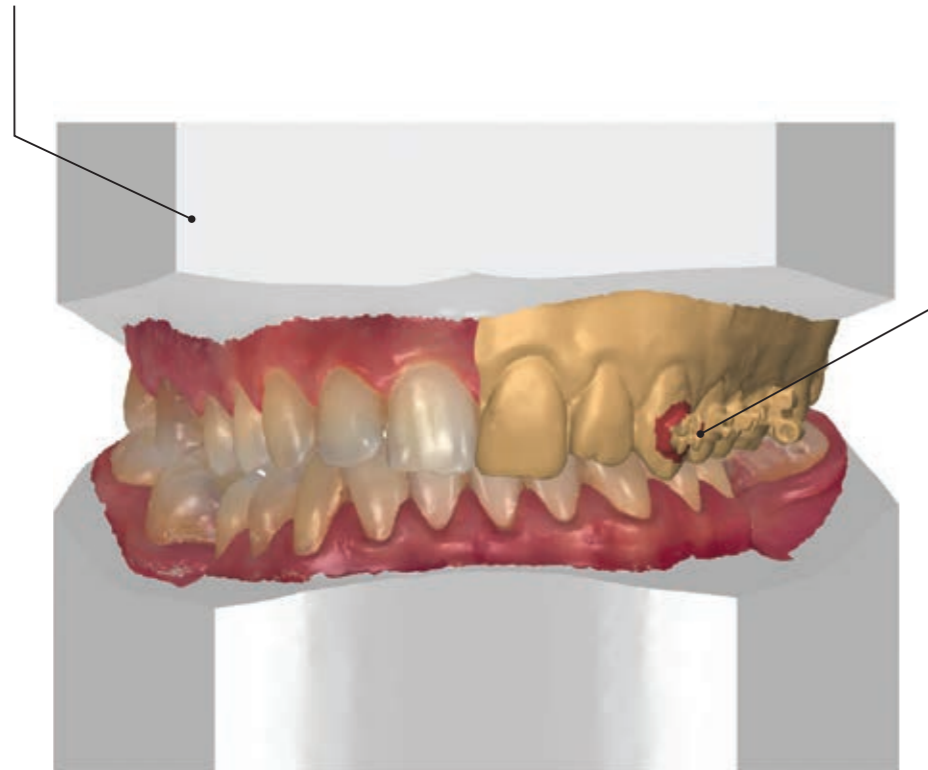
Create study models from intraoral and desktop scans

Provide digital model services
Created from impressions or plaster models with 3Shape R-series scanners.

Virtually debond brackets
In a few clicks to prepare retainers ahead of the next patient visit.

Avoid model contamination
Digital study models eliminate contamination concerns.

Receive digital impressions directly
Directly from TRIOS® clinics with the TRIOS® Ready program.

Lab Scanners to meet your needs

	R900L High speed and color	**NEW** R1000 Ultra-high productivity	**NEW** R2000 Upper/lower simultaneous scan
Cameras	4 cameras, 5.0 Mega Pixel	4 cameras, 5.0 Mega Pixel	4 cameras, 5.0 Mega Pixel
Light technology	Blue LED	Blue LED Multi-line	Blue LED Multi-line
Accuracy (ISO)	7 µm	5 µm	5 µm
Accuracy (Study model)	8 µm	8 µm	8 µm
Gypsum model scanning	✓	✓	✓
Impression scanning	✓	✓	✓
Expanded interior space	✓	✓	✓ (Room for 2 models)
Texture scanning	✓ (Color Texture)	✓ (Color Texture)	✓ (Color Texture)
Scan time plaster model	40 sec	30 sec	30 sec
Scan time impression	120 sec	75 sec	75 sec

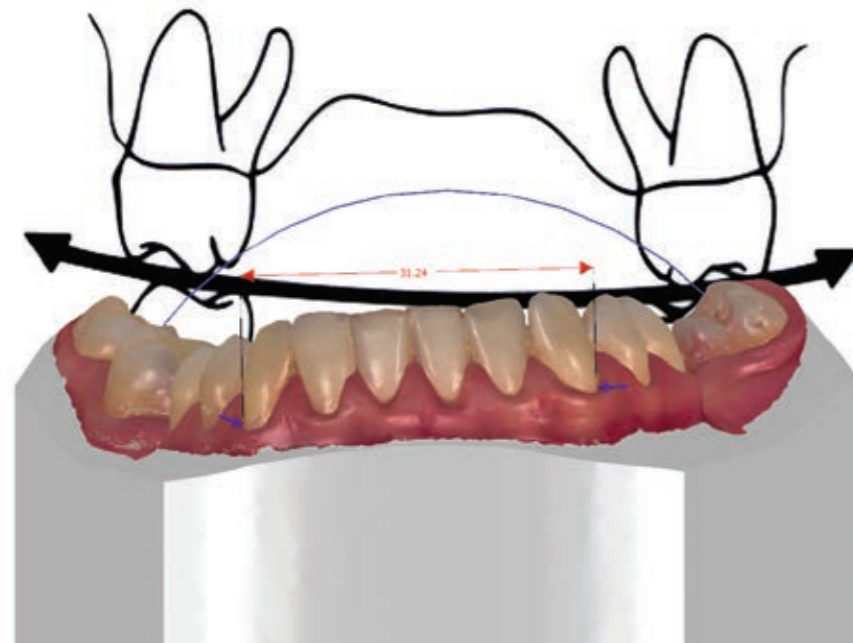|	R500 Entry scanner to CAD/CAM	**NEW** R750 Workhorse of productivity	**NEW** R850 Study model accuracy
Cameras	2 cameras, 1.3 Mega Pixel	2 cameras, 1.3 Mega Pixel	2 cameras, 5.0 Mega Pixel
Light technology	Red laser	Blue LED	Blue LED
Accuracy (ISO)	10 µm	10 µm	7 µm
Accuracy (Study model)	-	12 µm	8 µm
Gypsum model scanning	✓	✓	✓
Impression scanning	✓	✓	✓
Expanded interior space	-	✓	✓
Texture scanning	-	-	✓ (Texture)
Scan time plaster model	105 sec	65 sec	60 sec
Scan time impression	240 sec	180 sec	160 sec

Shifting your orthodontic skills to the digital world

The flexibility of 3Shape orthodontic solutions enable you to begin delivering digital services at a minimum investment. Start with Ortho Analyzer™ software and deliver digital analysis and treatment services. Add a scanner and begin archiving models digitally. You build your digital lab according to your needs and budget.

Precision digital analysis services

Create full digital patients
Merge CT/CBCT data, scans, x-ray panoramics, cephalometric tracings and photos with digital study models for precision analysis.

Deliver digital analysis services
And make your work more effective with proven workflows, designs and history paths, and your lab-to-clinic communications more efficient.

Take advantage of 2D and 3D analysis orthodontic toolkit
For analysis of arc shapes, overjet/overbite, Bolton ratios, occlusion and spaces.

Benefit from customized analysis wizards
Easy to use tools and wizards help you provide, share and save analysis processes tailored to your customers' needs.

Define and simulate tooth movements

NEW Accurately place brackets on the virtual models
Automatic FA point definition and real-time collision detection.

Optimize occlusion in real time
Assess treatment proposals instantly with virtual articulators.

Simulate orthodontic treatments
Including extractions, interproximal reductions, constraints and full tooth movements details.

Show and tell treatment plans with your customers
Simply share treatment proposals online via 3Shape Communicate™.

Leverage the power of CAD/CAM for efficient design and production

Take the next step in your digital journey by adding the CAD/CAM production of customized appliances. 3Shape Appliance Designer™ open file output formats enable you to manufacture appliances in-house or externally depending on your lab set up.

Design any type of orthodontic appliance

Create clear aligners, night guards, retainers, customized bands, splints, surgical bites, palatal expanders, bionators, twin blocks, Herbst appliances, planas tracks and more in Appliance Designer™.
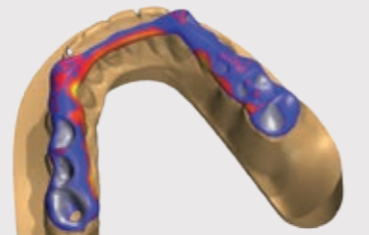
Take advantage of proprietary orthodontic appliance toolbox
A fully-loaded virtual toolbox filled with design tools, easy addition or subtraction of STL attachments, drill compensations and virtual articulators for optimal function.

Achieve efficiency and precision
Auto-template creation and design inspection tools in the software make your work more efficient and predictable.

Provide indirect bonding services
With the flexible design of bracket placements trays or jigs.

Deliver perfect fit appliances to your customers
Digital accuracy enables you to create appliances that have a perfect fit, improve hygiene and reduce the number of visits.
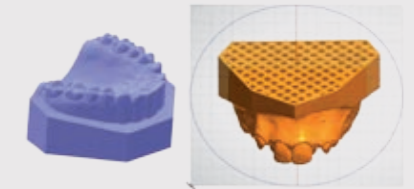
TRIOS® Ready

Produce cost-efficient appliances directly from digital impressions. Become a TRIOS® Ready lab and connect to all TRIOS® clinics.

Flexible and open manufacturing options

Appliance Designer™ creates standard file formats to enable you to send designs to the CAM machine of your choice.

Export modified master models
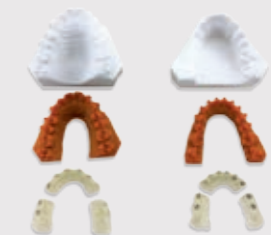Models can be modified (e.g., with removed undercuts) for 3D printing and further manual work.

Manufacture on machines and materials of your choice
Open file formats enable you to produce in-house or externally.

Identify the right material for the right appliance
Investment casting or laser sintering for Chrome Cobalt, biocompatible resin or 3D printing.
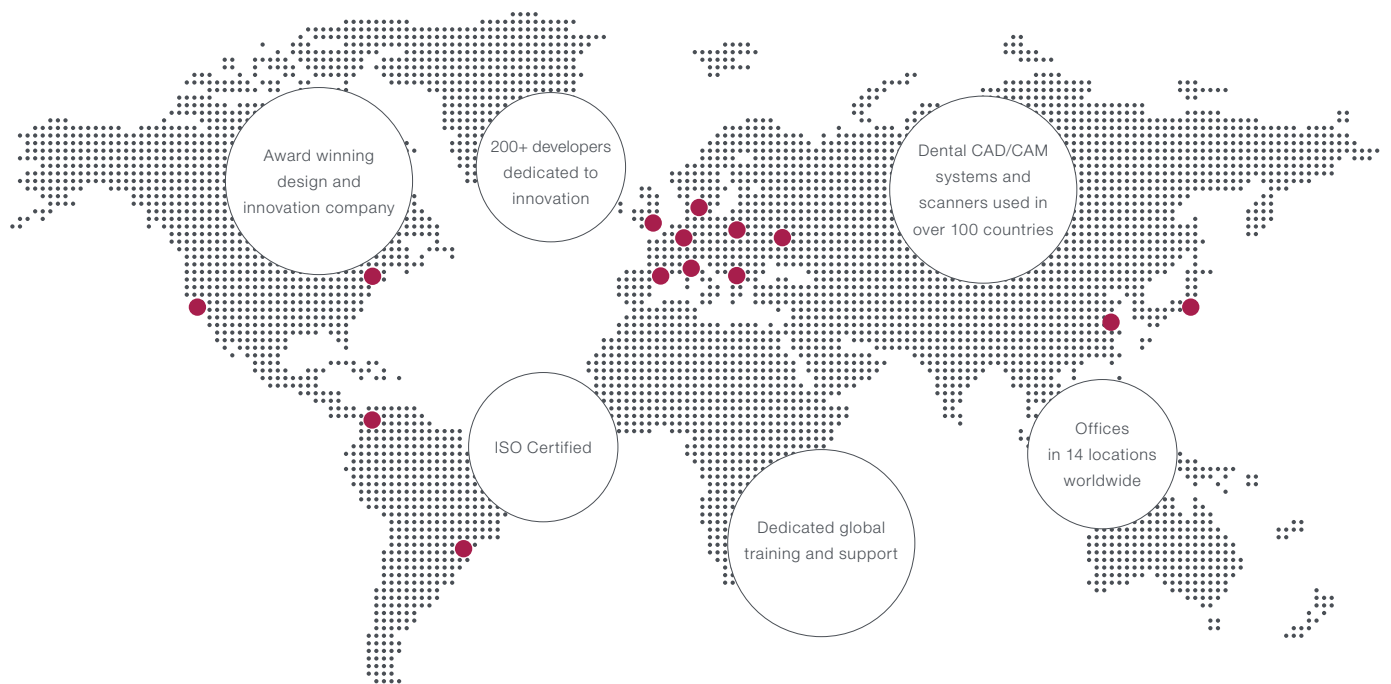
Full integration with all 3Shape digital dental solutions
Appliance Designer™, as well as all 3Shape software, interfaces with Dental System™ and CAMbridge™.
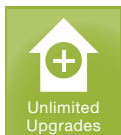
3Shape develops 3D technologies
for dental practices and labs

Award winning
design and
innovation company

200+ developers
dedicated to
innovation

Dental CAD/CAM
systems and
scanners used in
over 100 countries

ISO Certified

Dedicated global
training and support

Offices
in 14 locations
worldwide

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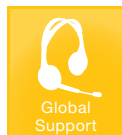
Backing labs with care, technology and expertise

Expert
Training

Unlimited
Upgrades

Global
Support

3Shape LABcare™ is an integral part of your annual 3Shape subscription. It bundles services that are designed to ensure your investment, secure maximum uptime, and help you get the most from your solution year after year.

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