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OMEGA SOFTWARE

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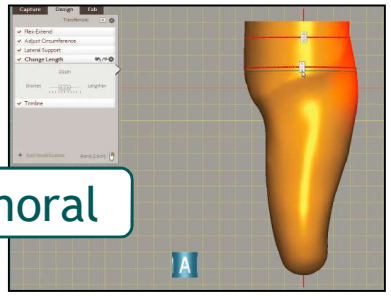
CLINICAL APPLICATIONS

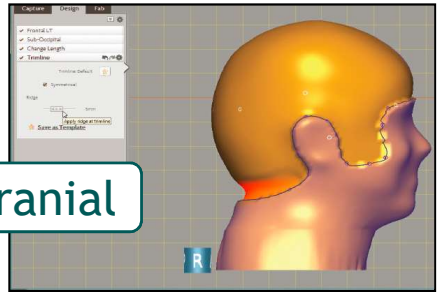
Transtibial

Transfemoral

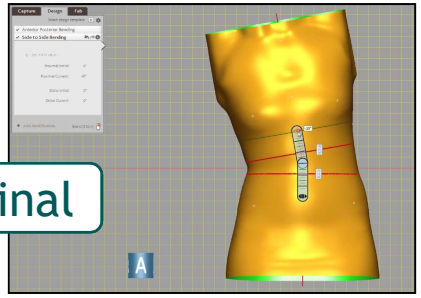


AFO

Cranial



Spinal



Two additional options

- **Other – Closed:** straight shape that is open at proximal end and closed at distal end
- **Other – Open:** straight shape that is open at proximal and distal ends

CAD/CAM BENEFITS

Business

Clinical

- Both are integral to the success of using CAD in daily routines
- *Benefits – a tool for improving patient care and experience for better outcomes and a competitive edge*

CAD/CAM BENEFITS

CAD/CAM BENEFITS

- Competitive edge and professional reputation
- Digital archiving
- Reduces time to handle requests for documentation
- Digital files allow access to data – before and after measurements to demonstrate change

CAD/CAM BENEFITS

- Clean environment
- Portable
- Reduced modification times
- Modifications streamlined
- Utilization of central fabrication services
- Reduced time and expense on shipping
- Patient visits require less time

CAD/CAM BENEFITS

- Revisions are more easily accommodated
- Clinicians have more time for patients
- Patients get devices they need sooner
- Reduces element of human error
- Reduced material costs
- Consistent quality of products

CAD/CAM BENEFITS

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Traditional shape capture and modification

Measurements and negative plaster mold	
40 min	40 min
Positive plaster cast	
30 min	70 min
Cast modification	
40 min	110 min

Omega CAD CAM

Measurements and shape capture	
10 min	10 min
Model modification	
15 min	25 min
Prepare model for fabrication	
5 min	30 min

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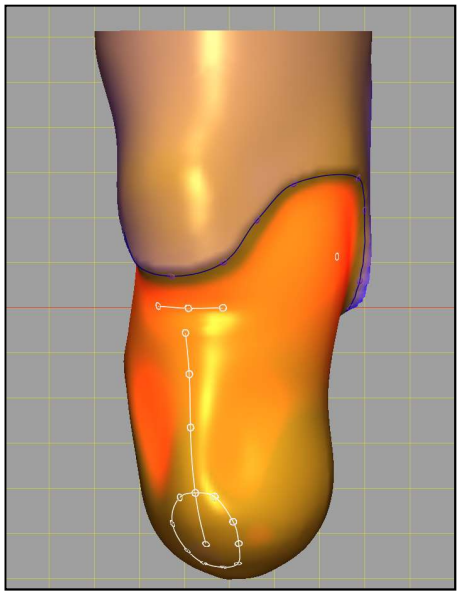
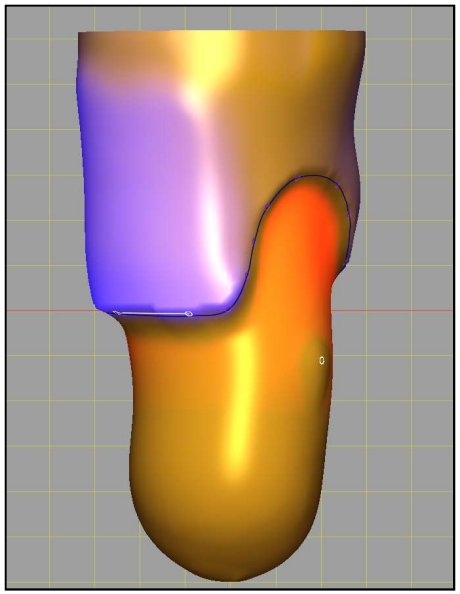
GENERAL DOCUMENTATION



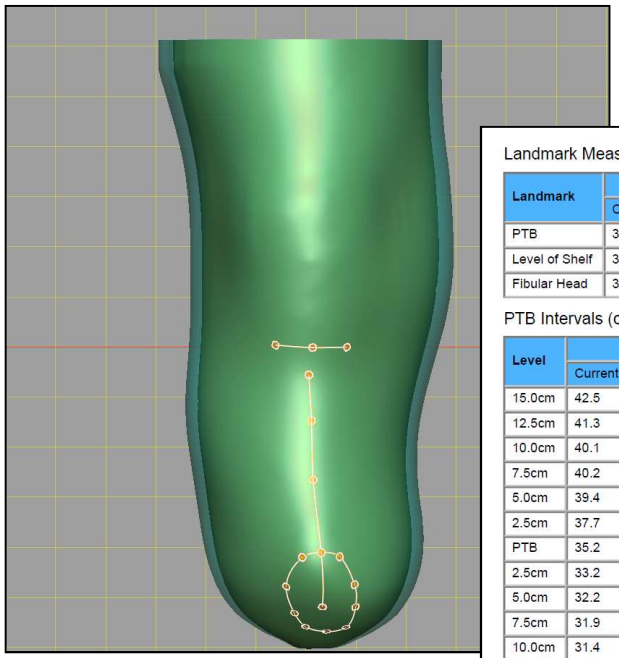
Modification Summary

Design Modifications

Modification	Description of changes
PTB	Maximum change: -6mm
Adjust Circumference	Level: 201mm set to 350mm Level: 151mm set to 355mm Level: 101mm set to 325mm Level: 51mm set to 292mm
Narrow M/L	Medial: -2mm Lateral: -1mm
Shelf	Depth: 6mm Medial Taper: 13° Lateral Taper: 12°
Trimline	Trimline: Default Ridge: 5mm



COMPARISON REPORTING

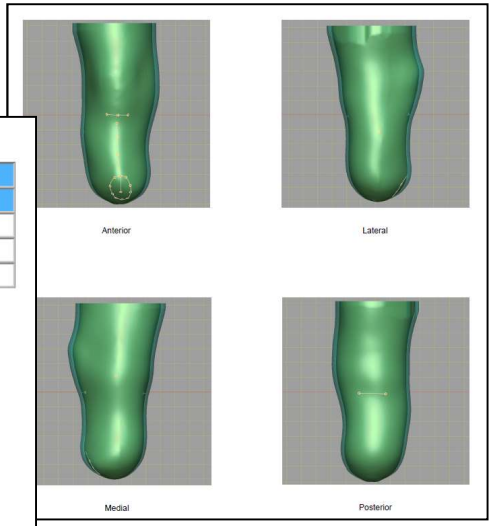


Landmark Measurements (cm)

Landmark	Circumference			AP			ML		
	Current	Compare	Diff	Current	Compare	Diff	Current	Compare	Diff
PTB	35.2	39.2	-3.9	11.3	12.6	-1.3	11.4	12.7	-1.3
Level of Shelf	35.0	38.8	-3.9	11.2	12.4	-1.2	11.4	12.6	-1.3
Fibular Head	32.9	36.6	-3.7	10.3	11.4	-1.1	10.8	12.0	-1.2

PTB Intervals (cm)

Level	Circumference			AP			ML		
	Current	Compare	Diff	Current	Compare	Diff	Current	Compare	Diff
15.0cm	42.5	47.2	-4.7	14.2	15.7	-1.6	12.9	14.4	-1.4
12.5cm	41.3	45.9	-4.6	13.8	15.4	-1.5	12.5	13.9	-1.4
10.0cm	40.1	44.6	-4.5	13.7	15.2	-1.5	12.1	13.5	-1.3
7.5cm	40.2	44.7	-4.5	13.9	15.4	-1.5	12.0	13.4	-1.3
5.0cm	39.4	43.7	-4.4	13.3	14.8	-1.5	12.0	13.4	-1.3
2.5cm	37.7	41.9	-4.2	12.5	13.9	-1.4	11.8	13.2	-1.3
PTB	35.2	39.2	-3.9	11.3	12.6	-1.3	11.4	12.7	-1.3
2.5cm	33.2	36.9	-3.7	10.4	11.5	-1.2	10.9	12.2	-1.2
5.0cm	32.2	35.7	-3.6	10.2	11.3	-1.1	10.5	11.6	-1.2
7.5cm	31.9	35.4	-3.5	10.3	11.5	-1.1	10.2	11.3	-1.1
10.0cm	31.4	34.9	-3.5	10.3	11.5	-1.1	10.0	11.2	-1.1
12.5cm	27.0	30.0	-3.0	8.7	9.7	-1.0	8.7	9.6	-1.0
15.0cm	1.2	1.2	0.0	0.6	0.6	0.0	0.6	0.6	0.0



LEARNING AND INTEGRATION

- Learning curve is unique to each user
- Adopt in phases - Choose one application to learn before moving to another
- Multiple clinicians – team members develop different clinical competencies and learn from one another
- Requires a conscious and concerted effort
  - Taking the “I'll play around with it in my spare time” approach typically leads to a failed implementation

OMEGA HARDWARE OPTIONS

- Structure Sensor
  - Attaches to an iPad
  - Most affordable option
  - Use with Omega Scan App *
  - Not integrated with OMEGA software (have to import scan)

* Requires Omega License

- OMEGA Scanner 3D
  - White light scanner
  - More accurate than Structure Sensor
  - Fast Acquisition
  - Integrated with OMEGA software

OTHER INPUTS

- TF By Measurement
- TF Scan and Merge
- Import files (STL, OBJ, AOP)

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SOFTWARE CONCEPT

- **Capture……..**

  Scan Model
  Enter Measurements

  Align Shape

  Clean up model
  Landmarks

- **Design……..**

  Modifications

  Customize Design Stack

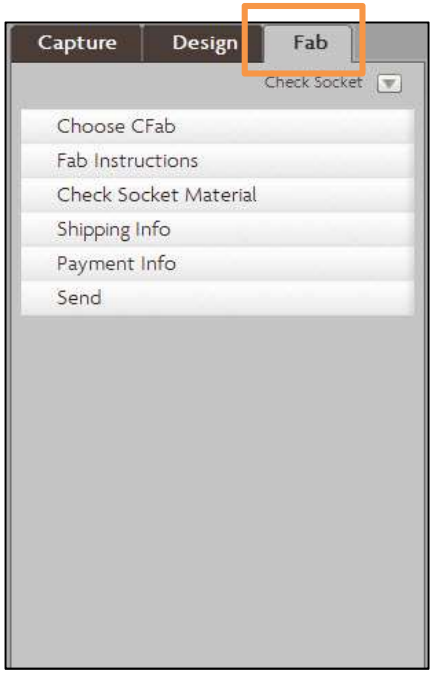
- **Fabricate……**

  Carve Model

  Socket Fabrication instructions

STACKS

Customizable

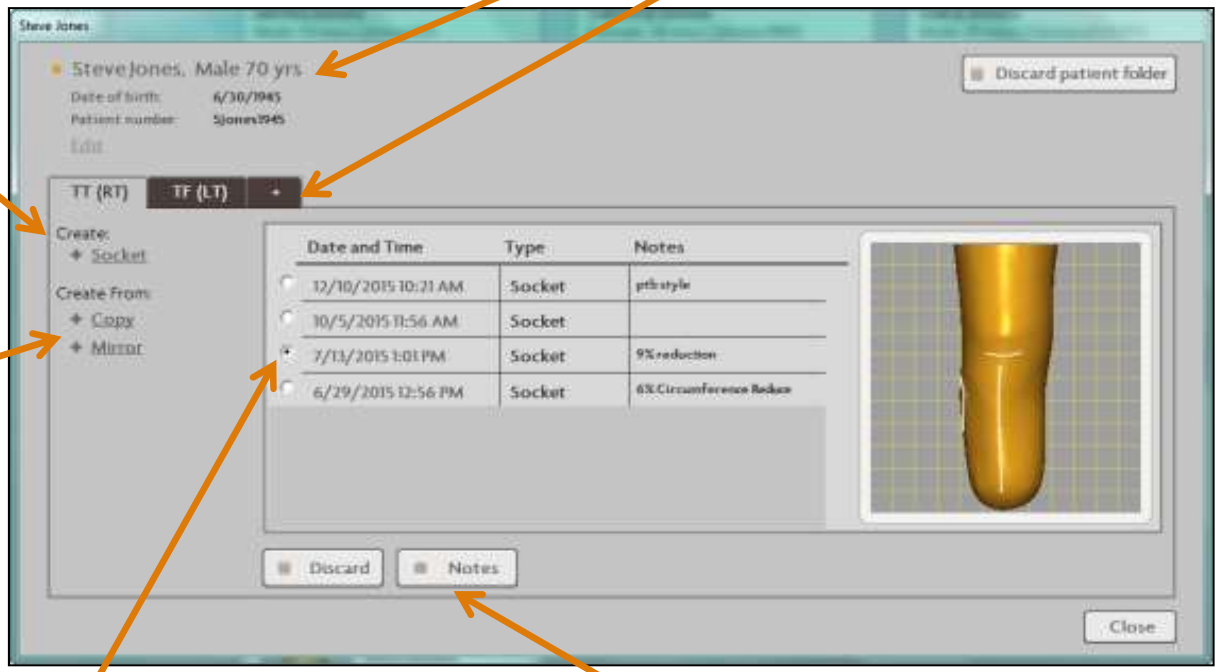


PATIENT FOLDER DISPLAY

Patient information

Multiple conditions (if relevant)

Create new socket

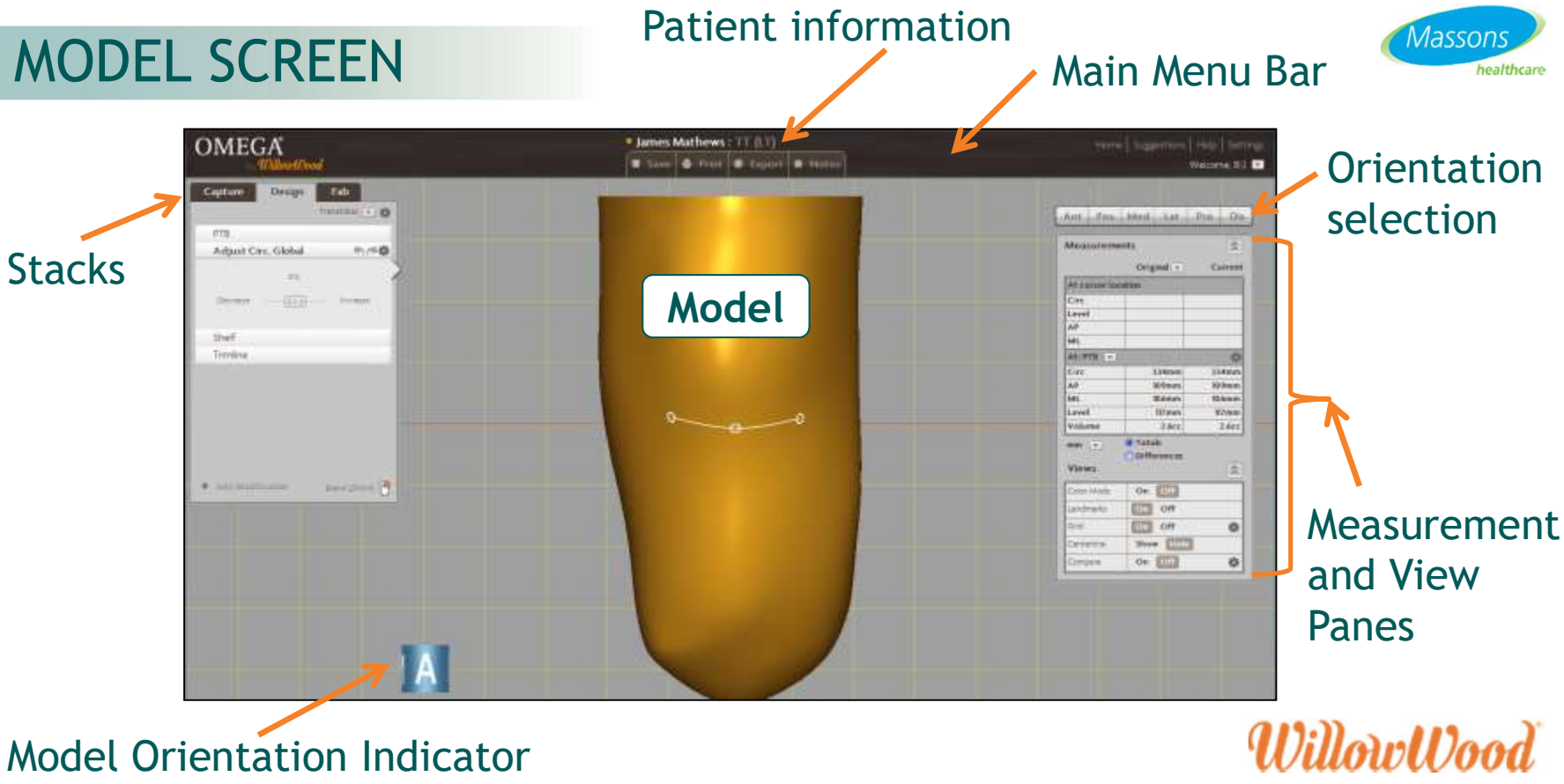


Create a Copy or Mirror image

Display preview

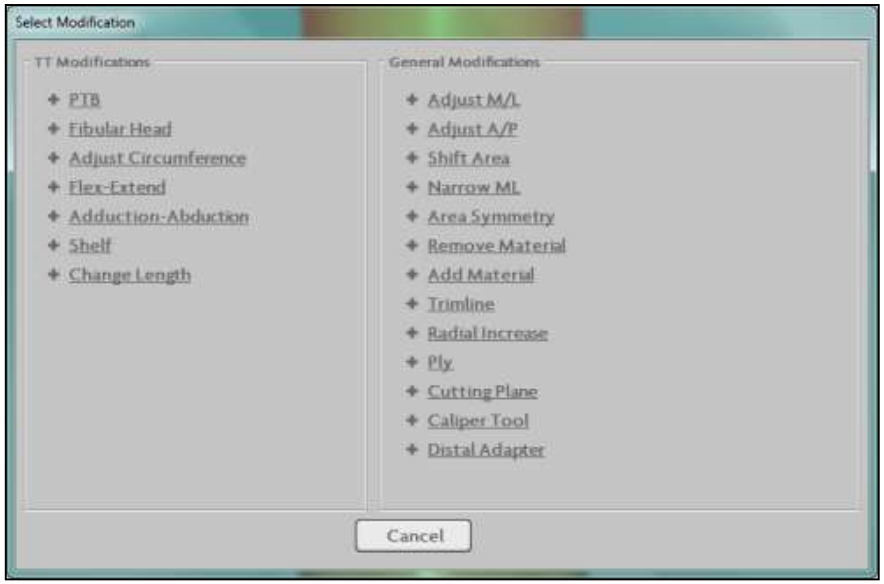
Add notes to file

MODEL SCREEN



MODEL MODIFICATIONS

- Localized Areas & Regions
- Adjust Tools
- Bending
- Caliper Style
- Global Changes



ADJUST TOOLS

- A/P, M/L, and Circumference at Intervals
  - Additional parameters and options can be specified to further isolate modifications to a specific aspect of the shape

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