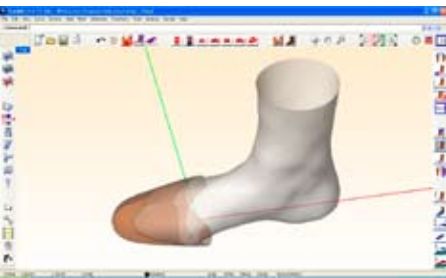


FootMILL Last Modeling System

A revolution in last modeling for custom and orthopaedic shoemaking.



FootMILL applies the power of the world's leading CAD/CAM platform to the specialised world of custom and orthopaedic last making. It utilises technology developed for precision engineering to create a tool that enables the skilled last maker to radically increase productivity and accuracy without compromising on the quality of the traditional process.

For the less skilled, FootMILL provides a series of easily understood steps and processes that enable the design of accurate custom lasts without the need for detailed knowledge of the traditional last making craft.

FootMILL represents a genuine revolution in CAD/CAM for shoe lasts. Based on the powerful and widely-used Rhinoceros CAD/CAM technology, and used in conjunction with the FotoScan 3D foot scanning system, it is the most powerful, flexible and compatible last modeling system in the world.

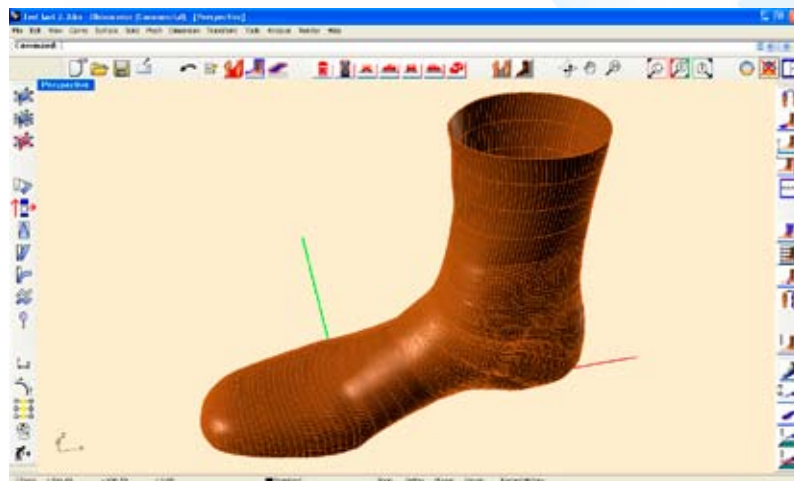
Transforming a 3D Foot into a Last

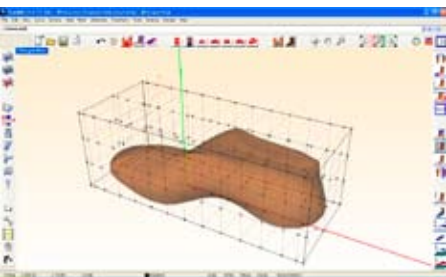
For high quality orthopaedic last making, directly modifying the shape of the foot into a shoe last is the primary way of making orthopaedic shoes. Shoe fit is guaranteed because the foot itself is the basis of the final last shape. This is a highly skilled method of creating an orthopaedic shoe last, but FootMILL makes it a simple, reliable and quick process that can be handled by a wide range of staff with no traditional craft skills. Features include:

Direct import of the foot in 3D – FootMILL allows you to work directly on a scanned 3D image of the patient's foot. Using the FotoScan foot scanner, that 3D model can be in full colour, so the last maker can see the actual foot when designing the last, including any relevant skin conditions.

Easy addition of toe shapes – Using manual methods this a highly skilled process, but with FootMILL it can be achieved with a few clicks of the mouse. You simply select the toe shape that you want, position and adjust it onscreen, and then blend it with the original foot to create a perfect last shape. FootMILL is supplied with an extensive library of standard toe shapes and you can easily add more of your own.

Full range of tools to refine the last shape – FootMILL offers a huge range of easy to use tools that allow the last maker to precisely control the final last shape. Functions include heel and toe pitch, rotation for pronation or supination, scaling/grading, and adding or removing material. Throughout the process the full colour 3D foot can be displayed within the last as an accurate reference point for the changes being made.





Customising a Last to fit the Foot

Using this approach FootMILL will allow you to quickly and easily amend a standard last shape so that it exactly fits the foot. This technique is widely used for less extreme orthopaedic shoes and for non-orthopaedic custom footwear. Features include:

Accurate foot measurement – when used with the FotoScan 3D foot scanner, you are working with a 3D model that is accurate to within 0.5mm, so you can be confident that the measures will be right. A few mouse clicks define all the key measures on the foot, including ball girth, waist, instep etc.

Selection from last library – FootMILL is supplied with a wide range of standard lasts, and it is easy to add your own last designs to extend the database.

Automatic last fit – once the last is selected FootMILL automatically adjusts the key measures to fit the 3D foot. There is no need for last shapes to be graded for multiple sizes, as this is handled dynamically by the system.

Powerful last editing tools – FootMILL provides a full range for easily used tools to adjust the final last shape. They include scaling of the last shape, surface editing using control boxes and points, heel and toe pitch, rotation and smoothing. All are controlled using simple mouse clicks, allowing users of all levels of ability to create an accurate and attractive custom last.

Flexible Milling Solutions

FootMILL can export its customised lasts to over 30 different 3D file formats. This allows the data to be used with any standard CNC milling machine on the market, so you are not tied to expensive, specialist devices.

Alternatively, having the data in digital form means that you can simply email the complete digital last to any lastmaker in the world who will be able to mill it on their own equipment.

Support for Pattern Engineering Systems

Through its high levels of compatibility, FootMILL can export lasts for use with any of the leading pattern engineering systems. That means that you can take advantage of digital flattening and pattern production to improve product quality and speed up footwear manufacturing. Again, with digital data this can be done using in-house systems or outsourced to external specialists.

Specialist Technical Support

FootMILL is developed and supported by a specialist shoemaking technology company whose staff have over 25 years experience in the orthopaedic and custom last modeling sector. FootMILL is a proven solution backed by a business with a detailed knowledge of last making issues and the shoemaking industry.

Technical Specification

- Direct transformation of foot to last
- Customisation of stock last to fit foot
- Toe shape - preview and selection
- Last – preview and selection
- Auto merge of toe shape
- Auto last scaling
- Last rotation
- User defined last scaling
- Last bending
- Surface editing – fine and coarse control
- Auto smoothing
- Mirroring
- Supplement design and creation

- Toe pitch control
- Heel pitch control
- Export to multiple file formats (incl. STL, VRML, IGES, etc)
- Import foot scans in multiple formats (incl. STL and VRML)

System Requirements

- Windows XP/Vista/7
- 2 GHz
- 1 Gbyte RAM
- Rhinoceros CAD/CAM 4.0

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