

Ultrasonic technique development used to be a lot of hard work...

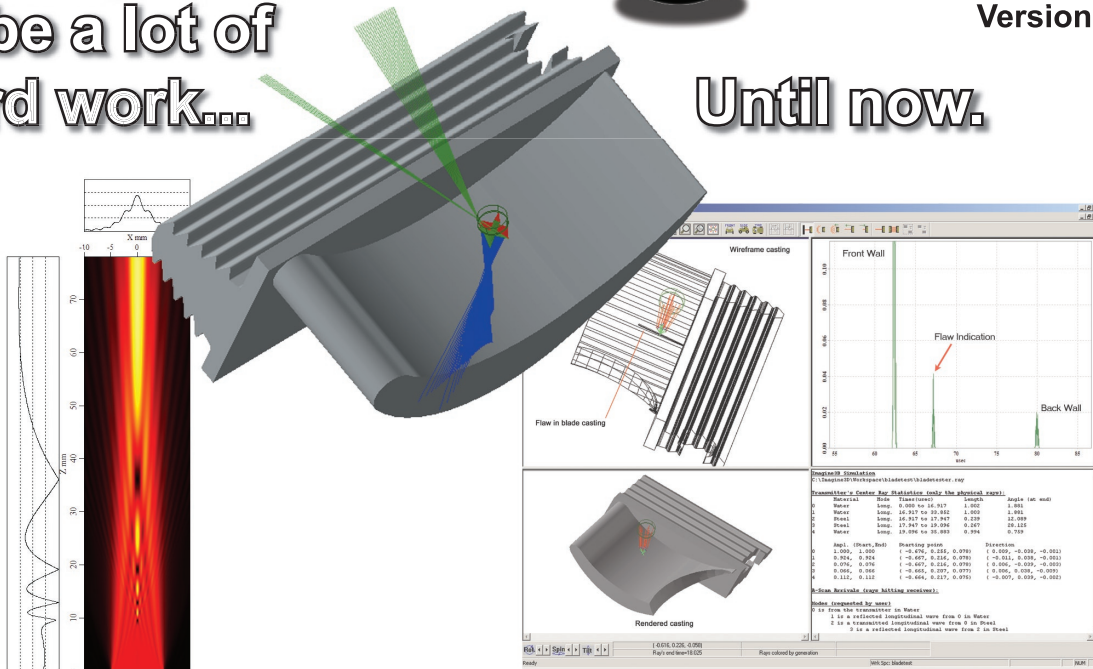


Imagine3D

Version 2.7

Until now.

Ultrasonic Simulation Software



Imagine3D ultrasonic simulation software allows you to completely simulate your inspection method so that you can save time and make fewer errors

Imagine3D shows you exactly where your ultrasonic sound field is going in a part using three-dimensional graphics that can be rotated to any viewing angle. All longitudinal and shear-wave mode conversions can be displayed using different colors. Simulated A-scans also provide the means of confirming signal strength and position for comparison with the real thing.

Visualize and confirm your inspection techniques

Imagine3D is used to solve a range of everyday problems encountered when developing ultrasonic inspections. Imagine3D allows you to develop an inspection technique with the benefit of understanding how potential problems such as shadowing and internal multiples might limit your real-world results.

Plan your Inspections faster

Imagine3D shows you exactly where the ultrasound is going by using longitudinal, shear and mode-converted waves. Each new wave generation is displayed in a different color for clarity.

Solve inspection problems with ease

Imagine3D can accurately identify the origin of unexplained echoes. A simple yet powerful color B-scan display shows you the times of signals arriving back at the transducer. You can directly measure the arrival times of the echoes by moving the cursor between signals shown on the B-scan.

Imagine3D will simulate the beam profiles of transducers that you already own, thereby allowing you to determine if any of them are able to do the job for a given inspection. If not, Imagine3D can help you determine the transducer you will need. This eliminates expensive errors such as ordering transducers with focal lengths or beam spreads that do not provide optimum sensitivity or coverage.

The probes can be anything that you might have on the shelf or that you can order from a catalog. The success of your inspection technique is aided by discovering how various angles, mode conversions and focal lengths affect the simulated A-scan signals.



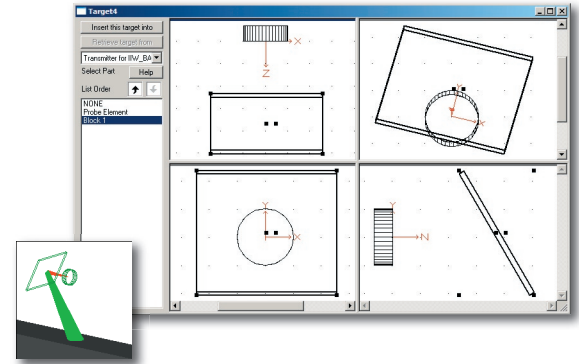
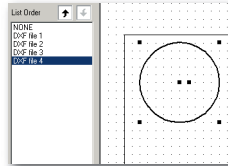
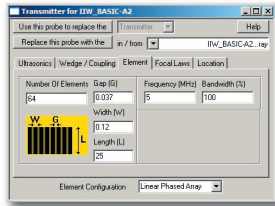
Learn more about Imagine3D at www.utex.com



Ultrasonic Simulation Software

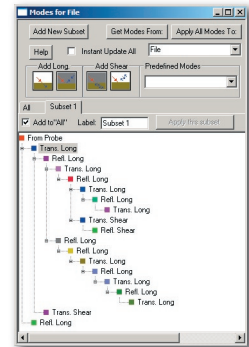
New Capabilities

- Linear Phased Array simulation - including the import of .LAW files
- Copy and paste editing of target components
- Mirrors and lenses can be attached to transducers
- "Live" looking A-scan display



Standard Features

- Import ACIS® SAT Solid model and DXF formats
- Simulate immersion and contact inspections
- Create parts using Imagine3D's solids CAD engine
- Animate the sound field propagation
- Shareable inspections using the free I3DViewer format
- Simple 2D simulation view for increased clarity
- Contact probes follow target surfaces
- Selectable sound modes; View only the modes you want
- B-scan files are compatible with WINSPECT



Simulated B-scans can show you how flaws might be accidentally shadowed by part geometry or unwanted mode conversions. They quickly show you which of the selected modes are returned as the probe moves across the surface of the inspected part.

Popular uses

- Ultrasonic training
- Technique development
- Technique validation
- Improving transducer selection and fixturing
- Report writing

