A software package for simulating the ultrasonic wave propagation.

- Conventional UT, Phased Array UT, TOFD
- Obtain A, B, and C scans from complex objects
- Beam profile simulation
- Beam coverage visualization SimUT
FEATURES

• Import medium geometry using bitmap image

Define the geometry of simulating medium easily using SimUT’s unique Image Import feature. Draw the geometry of the component using any drawing tool (MSPaint etc), export the drawing to bitmap image and import to SimUT.

• Integrated wedge and probe library

SimUT is coming up with a complete library of commonly used wedges and probes (both conventional and Phased Array). Just choose from the list and proceed to run the simulation. Online update keeps the library up to date with the latest wedges and probes available in the market. Facility to add new wedges to the library allows the user to define custom wedges or probes.

• Parallel coding for fast performance

SimUT kernel is developed with multi threading implementation which utilizes parallel processing feature of the computer. Computers with multicore processor can take benefit of multi threaded implementation.

• GPU based parallel implementation for ultra high speed execution

SimUT is capable of utilizing the Graphical Processing Unit(GPU) for simulation. Graphics card with OpenCL support is needed to use this feature.

• Integrated delay law Calculator for Phased Array

SimUT is equipped with delay law calculator for Phased Arrays. Its integrated delay law calculator computes delay for each element for given focal depth and/or steering angle. Provision to specify custom delay law is also provided.

• Beam coverage visualization

The beam coverage (both longitudinal and shear) of the transducer is predicted and drawn on the component geometry. This feature helps to optimize the probe position and angle of inspection.