DHVANI RESEARCH

SIM X-Ray
A Ray Based software package
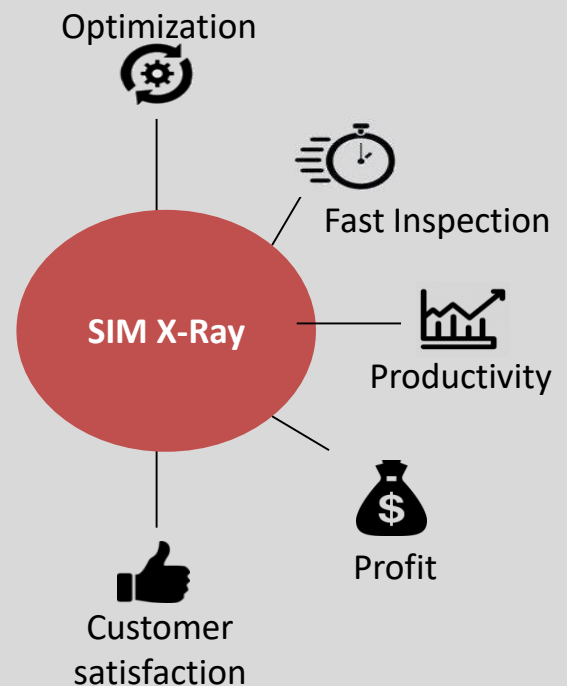
Digital Simulator

A software for simulating 3D Digital X-ray Imaging on Live Objects and Defects Manipulation in 3D. Material Attenuation using Elemental Library for Source and Detector Characteristics. Computed Tomography Simulation which is GPU based Rapid Tomography Reconstruction. Surface Extraction for Geometry Visualization and also used for Dual Energy Simulations and Material Identification.

Features

- Import OBJ and STL files from CAD Models
- Integrated material elemental and compound library
- Parallel and GPU coding for real-time performance
- Computed Tomography (CT) Simulation and Volume Reconstruction
- Visualization of Geometry from CT Reconstructions
- Integrated Detector Parameter Control
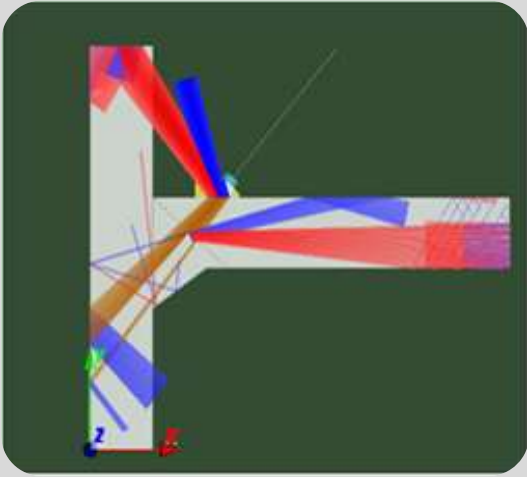- Source Spectrum and Characteristics Entry

Optimization

Fast Inspection

SIM X-Ray

Productivity

Profit

Customer satisfaction

WHY DHVANI RESEARCH ?

- NDT Automation Experts with 10 years of Experience.
- Leaders in ADR Software for Auto and Aero components.
- Proven Track Record of Reliability and Service.

DHVANI RESEARCH

SIMSONIC
(A Ray based Ultrasonic Simulator)

Digital Simulator

A RAY software for 3D Ultrasonic Testing Simulations of Transducer, Material and Component Libraries. Live Component and Transducer Manipulation in 3D. Works in Conventional UT (Focused & Un-focused) and Phased Array Simulations Pulse-echo and Pitch-Catch Transmission modes. Also in Contact, Wedge or Immersion modes. Diffraction effects included Output files can be visualized and analyzed in Dhvani Research Ultrasonic C-Scan Analysis Software.

Features

- Import SLP files from CAD Models
- Integrated material elemental and com- pound library.
- Real time Performance
- Physics of wave propagation and interaction
- Multiple Inspection Modes
- Output Data and Post Processing Analysis Option

Optimization

Fast Inspection

SIMSONIC

Productivity

Profit

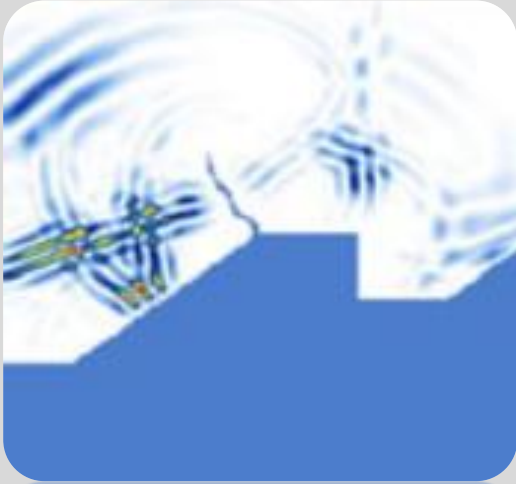Customer satisfaction

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DHVANI RESEARCH

SIM UT
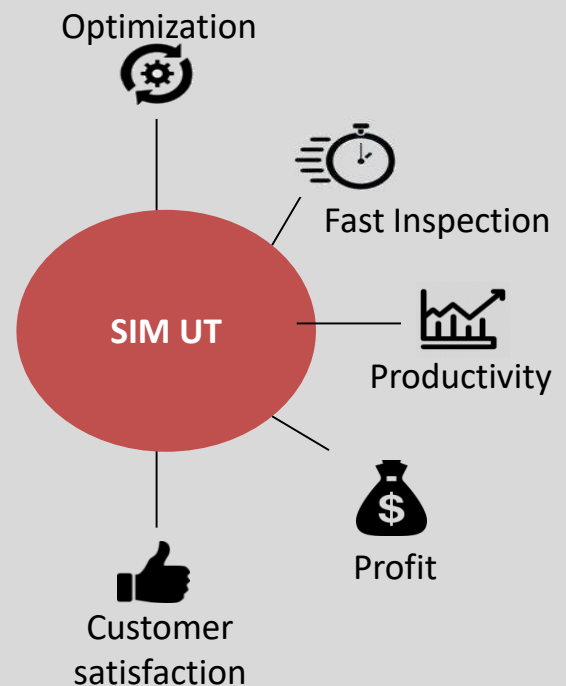### Finite Difference Time Domain Ultrasonic Simulator

Digital Simulator

A software package for simulating the ultrasonic wave propagation. Useful for Conventional UT, Phased Array UT, TOFD. Obtain A, B from complex objects. Beam profile simulation and Beam coverage visualization

Features

- 2D bitmap geometry image can be generated using Ray based SimSonic Simulator.
- Integrated wedge and probe library
- Parallel coding for fast performance
- GPU based parallel implementation for ultra high speed execution
- Integrated delay law Calculator for Phased Array
- Beam coverage visualization

Optimization

Fast Inspection

SIM UT

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