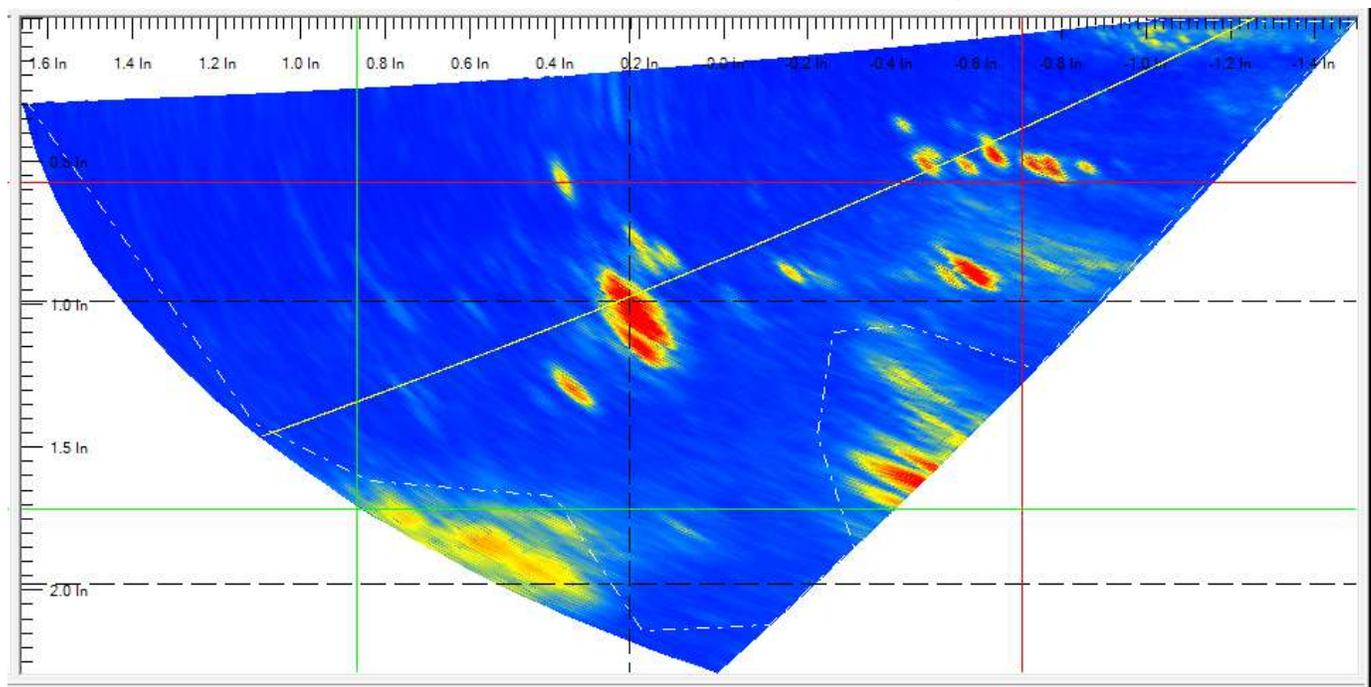


Prelude

Powerful and Easy to use **PAUT Software**



- Acquisition: Real-Time Visualization
- Analysis: In-depth look into offline data
- Wizard: Easy Inspection Setup

ABOUT

Prelude is a powerful and easy to use software platform for PAUT. Operators won't get bogged down with too many unnecessary features so you will achieve the inspection you need without all of the hassle. The ability to perform UT setup parameters and data acquisition for phased array technology has never been easier.



Rugged tablet displaying Prelude software



Probe with TPAC wedge and 85 mm thick aluminum SDH test piece

Prelude Wizard

- Zone Focusing with DDF mixed
- Dedicated for the supervisor only

The screenshot displays the TPAC software interface with the following configuration details:

- Probe:** Pitch-Catch, Element: 128, Frequency: 10 MHz, Path: C:\Dropbox(AOS)\Dropbox (AOS)\SW Us...
- Wedge:** Disable, Velocity: 2350 m/s, Angle: 32 deg, Height: 12.800 mm, Wedge Offset: 0 mm
- Part:** Steel, Scan Type: Long Seam, L-Velocity: 2890 m/s, S-Velocity: 3240 m/s, Radius: 254.000 mm
- Option:** Analog Gain: 40 dB, Digital Gain: 25 dB, PRF: 0.5 KHz, Max Speed: Start: 0.000 mm, Range: 75.200 mm
- Scan:** Wave Type: Shear, Angle Step: 1 deg, Angle Start: 30 deg, Angle Stop: 70 deg
- Emission:** Emission Type: Zone Focusing, Focus Type: Sound Path, Zone No.: 3, Zone Length: 100.000 mm, Emission Focus: 100 %
- Reception:** DDF Mode: Full, DDF Points: 4, DDF Spacing: 25.000 mm
- Zone #1:** Start: 0.00, End: 100.00, Focus: 100.0, Points: 4, DDF:

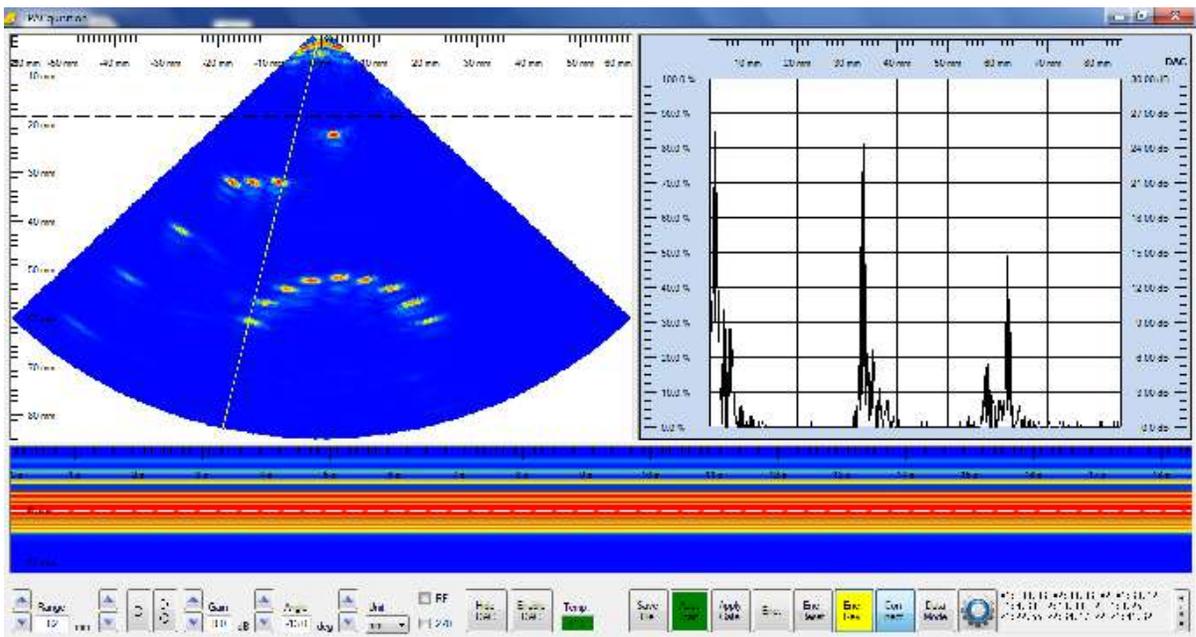
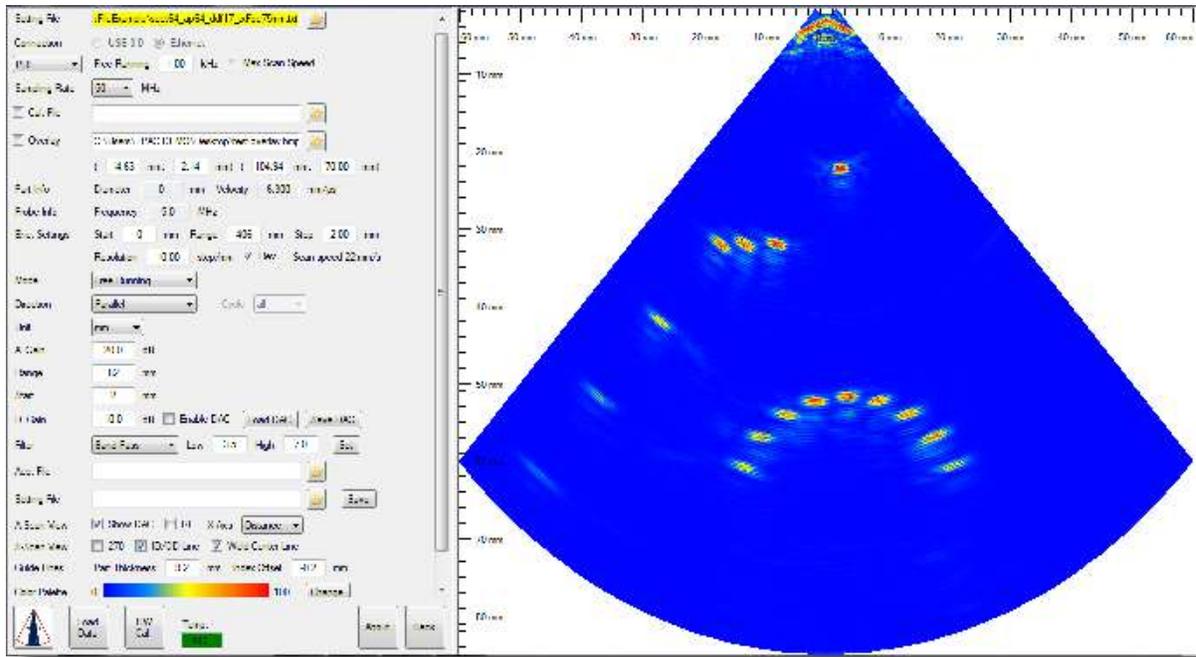
The graphical area shows a red probe head emitting a beam that focuses on a curved surface. A 'Reset' button is located in the bottom right of this area.

The 'Zone Focusing and DDF' graph shows a vertical axis from 0 to 300 mm. It features three horizontal lines representing zones: Zone #1 (purple) at 100 mm, Zone #2 (yellow) at 200 mm, and Zone #3 (blue) at 300 mm. Blue 'x' marks indicate reception points, and red 'x' marks indicate emission points.

Buttons at the bottom include 'Calculate Focal Laws' and 'Generate OEMPA File'.

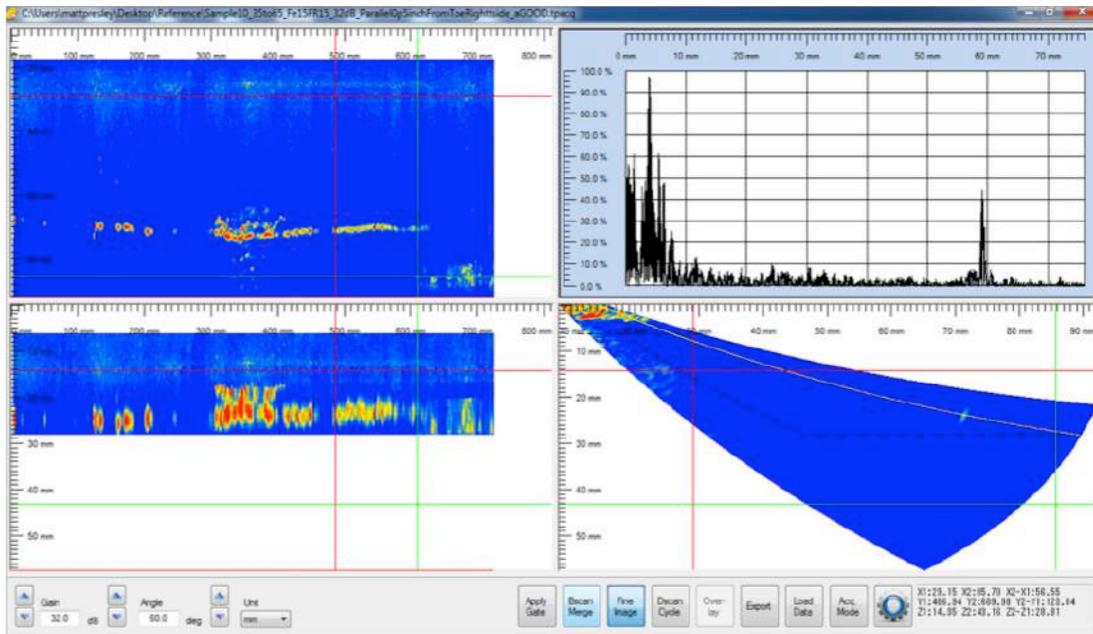
Acquisition Mode

- Easy to use; can be trained in 15 minutes
- Corrected views are standard
- Merged views can be obtained by a single click

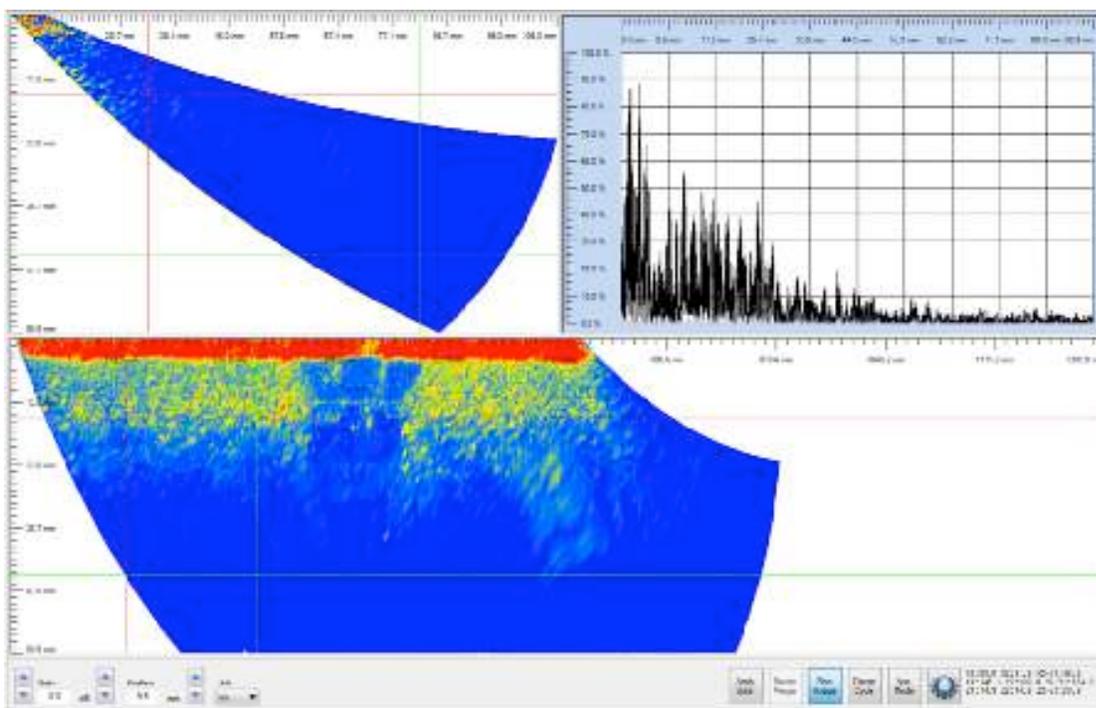


Data Analysis

- Marking feature to reject ghost echoes (Polygon)
- Provides parallel and perpendicular scan corrected views for long seams and girth weld
- Manages Linear or Matrix array



Parallel scan to the weld

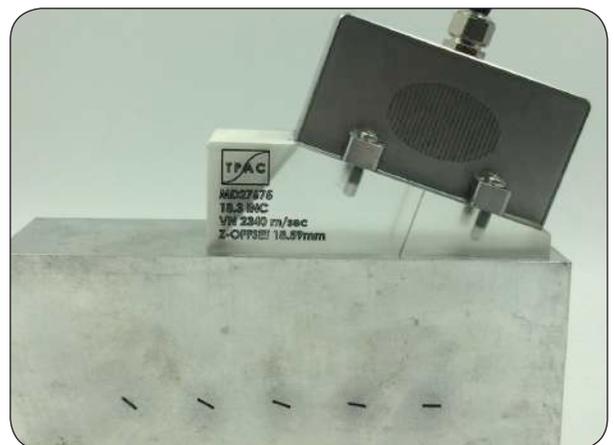
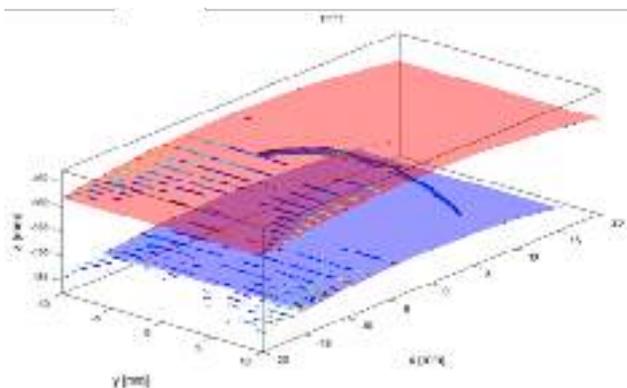
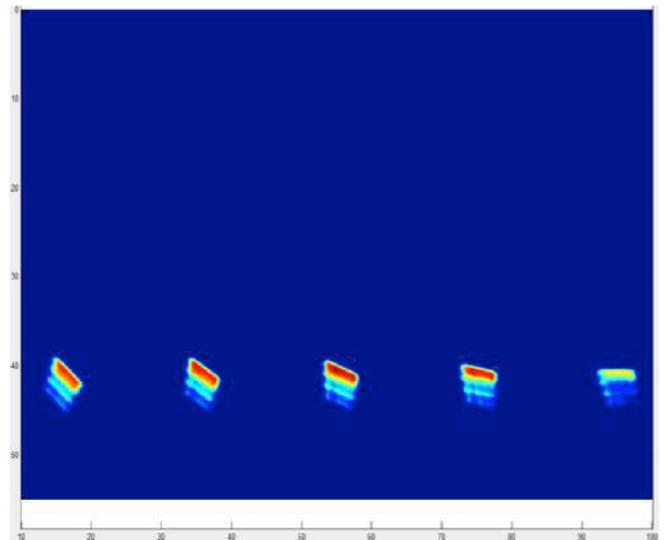
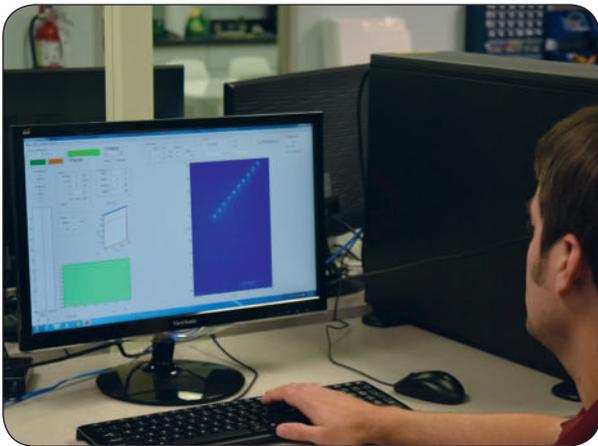


Perpendicular scan to the weld

TFM Software Services

What can TPAC do for you?

- Customize TFM software to fit your application
- Analyze FMC data
- Help you design the best PA probe for TFM
- Feasibility Study: Scan your parts so you can see the benefit of TFM



About TPAC

Custom Software

- Developing the exact application you want
- Phased Array and Conventional UT
- Solutions ranging from simple to complex

Custom Probe Design

- Phased Array (Linear, Matrix, Annular, Pitch/Catch)
- Simulation, Manufacturing, Characterization
- Selecting the right probe for your application

Training and Support

- Teaching inspection techniques to technicians
- Supporting all needs even if that means going out into the field
- Direct line to over 25 years of experience in providing NDT services



Consulting

- Deciding between phased array or conventional ultrasonics
- Determining the best equipment for the job
- Utilizing our network of UT equipment suppliers to get the best value

Equipment Customization

- Integrating UT technology into a pre-existing system
- Building custom enclosures for any environment

TPAC

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