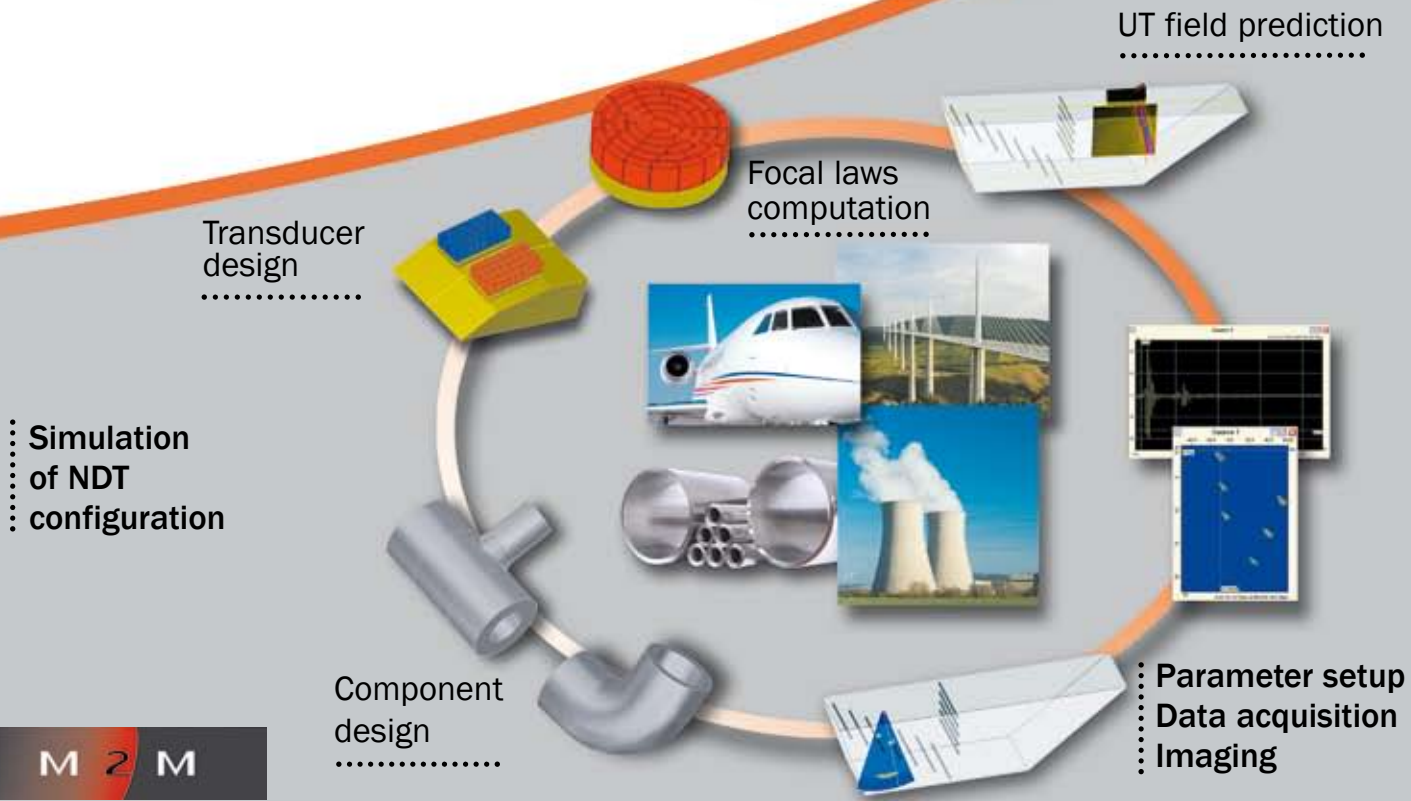




Ultrasonic Phased Array System

- Full Parallel Architecture
Conventional & Array probes
- Low Frequency (50 kHz-20 MHz)
- High Voltage (400 V)
- Tone Bursts & Chirps
Concrete, Noisy Material testing
- NDT simulation
- Flexible & User-friendly



Multix Low Frequency Specifications

Acquisition

- Software (Unlimited number) and Hardware acquisition gates.
- Synchronization of gates.
- Acquisition release on event (threshold, detected echo ..).
- Acquisition release on trigger (time, encoder, external).
- Acquisition of elementary channels, and/or related sum.
- Choice of the acquired data pattern (RF, 'peak').
- Real-time images display during acquisition.
- User-definable Inspection Configuration and Graphic Interface.
- Public file format for parameters (XML) and data (binary).
- Max. data flow > 30 MB/s Max. acquisition rate : 20 KHz

Phased array skills

- Electronic focusing, electronic scanning, sectorial scanning.
- Inspection mode: pulse echo or transmit-receive modes, DDF, with Dynamic aperture.
- Fast multiplexing of focal laws during the electronic scanning, thanks to laws stored on 32 MB hardware RAM.
- Imaging adapted to the focusing modes.
- Corrected images in the CAD component (linear, sectorial Bscan).

Digitizer

- Digitizing and real time summation on 4 channels boards.
- Max. sampling frequency 100 MHz (adjustable : 100 to 2 MHz) with real time averaging.
- Range: 12 bits.
- Global delay : 0 up to 1.6 ms, step of 10ns.
- Delay laws at transmission/reception: 0 to 100 μ s, step of 10 ns.
- Digitising depth: up to 4000 samples per elementary channels
50 000 samples after summation.

Pulsers

- Negative rectangular pulse, adjustable width : 50 ns to 10 μ s, step of 10 ns.
- Fall time < 10% pulse duration (400 V, 50 Ω)
- Adjustable voltage : 30 to 400 V, 10 V step.
- Burst and Chirp : more than 30 adjustable pulses.
- PRF : 30 Hz to 30 KHz, with change of focal laws.

On-line Processors

- 2 CPU (PowerPC) on CPU board allow fast and exchangeable processing.

Hardware Configuration

- 16, 32 or 64 channels (adjustable on a 4 channels basis).

Receivers

- Input impedance: 50 Ω
- Analog filters : 9 selectable filters.
- Adjustable gain on each channel from 0 to 80 dB.
- Adjustable analogical DAC on 80 dB (max. 20 dB/ μ s) synchronized on events.
- Cross-talk between two channels : > 45 dB
- Max. input signal amplitude 2 Vpp

NDT Simulation

- Simulation tools (CIVA software) integrated into Multi2000 software:
- Complete description of the testing configuration
 - Focal laws and related ultrasonic field computation

Compatibility

- CIVA software: data analysis and definition of NDT configurations.
- MASERA and NDT kit softwares: data analysis.

Computer

- Software environment: Windows XP.
- Usb2 link between Hardware and PC (desktop or laptop).

