



CIVA

N·D·E | 10

CIVA 10.1: Optimize your CIVA 10

*This new release of the expertise platform for Non Destructive testing simulation includes a lot of **improvements** and **bugs fixing** within the 3 existing modules UT, ET and RT.*

UT Improvements

In order to ease and speed-up the definition of the work piece properties, **the materials database** has been enriched. It includes now about **50 materials** (isotropic, anisotropic or composite).

In **immersion** testing, the **refraction angle** can now be directly defined, the corresponding incidence angle in the coupling medium will be calculated and displayed (only the incidence angle used to be available before). With phased-array transducers, it is now possible to define **focal points in the coupling medium** or at the **interface** between different media. The **ray tracing** has been largely improved with **TRL** and **PA** transducers, especially when using the “beam of rays” options.

In the revolution like work pieces inspected by the side, enlarged **scanning possibilities** are proposed, including an angle of skew.

Post-Processing has also been improved in CIVA 10.1. For instance, it is now possible to **export Cscan** data in text files (all Bscan data included in the Cscan will be exported).

A summary of input data of a given CIVA configuration is also now available both in the beam computation and the defect response module provided in a **Data Information** menu.

It is now possible to export parametric files or 2.5D CAD files created in CIVA in **IGES format**. An automatic **3D CAD** file is then generated.

To ease the use of the software, we have also improved the English **labels** in many menus.

ET Improvements

To help new users to get started with the ET module, **a tutorial** is now available as it was already the case for the UT module. This tutorial is available as a pdf document in the DVD as well as on the CIVA club website.

Post-Processing has been largely improved with the possibility **to Export results in text files** (Impedance plane data, Cscan data), a summary of input data of a given configuration provided in a **Data Information** menu, an easier storage and access to **calibration coefficients**. The **impedance plane** curves are now given in an **equal axis** way.

As for the UT, some English **labels** have also been clarified in the menus.

Like in UT, the **export of 3D CAD** file in IGES format is also available in the ET module.

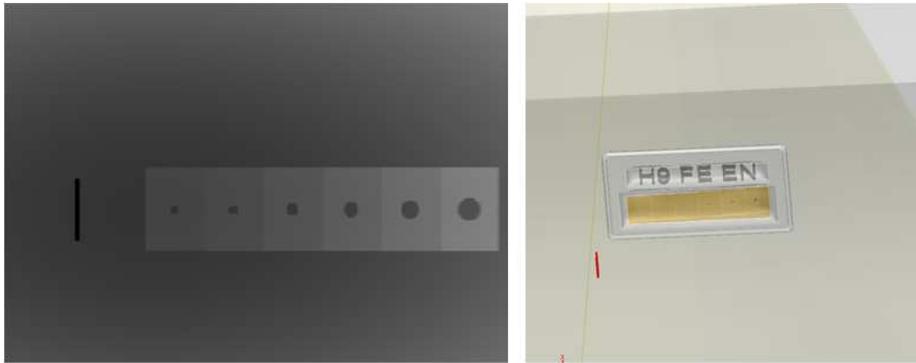
RT Improvements

To help new users to get started with the RT module, **a tutorial** is now available as it was already the case for the UT module. This tutorial is available as a pdf document in the DVD as well as on the CIVA club website.

The graphical user interface of the RT module version has been **relooked** for this version which makes its use more user-friendly.

A summary of **input data** of a given configuration is provided in a **Data Information** menu.

To obtain simulation results still closer to real acquisition data, a new **IQI** option is now available. A large library of the **main standards IQI** is included in CIVA.



In order to ease and speed-up the definition of the spectra of the X-Ray source, **the spectrum database** has been enriched. The user could load precomputed spectrum obtained with a Monte Carlo simulation for an X-ray tube with a tungsten anode, a target angle of 20° with other filter. The spectrum energies are from **50 kV to 450 kV**.

The visualization of the **MTF** can be displayed as curves or as a tab in which all the values of the MTF will be displayed in function of the spatial frequency.

As for flaw positioning, **the Mouse Interactivity** for **source and detector** positioning is now available.

It is now possible to export parametric files or 2.5D CAD files created in CIVA in **IGES format**. An automatic **3D CAD** is then generated.

Bugs fixing

About **100 bugs** fixing have been performed within the 3 modules of CIVA.

We thank you for your feedback on your CIVA use, allowing us to report these malfunctions and improve the quality of the software as much as we can.

We will inform you personally when you reported us a major malfunction that has been corrected in this new version.