

MatchID

Metrology beyond colors

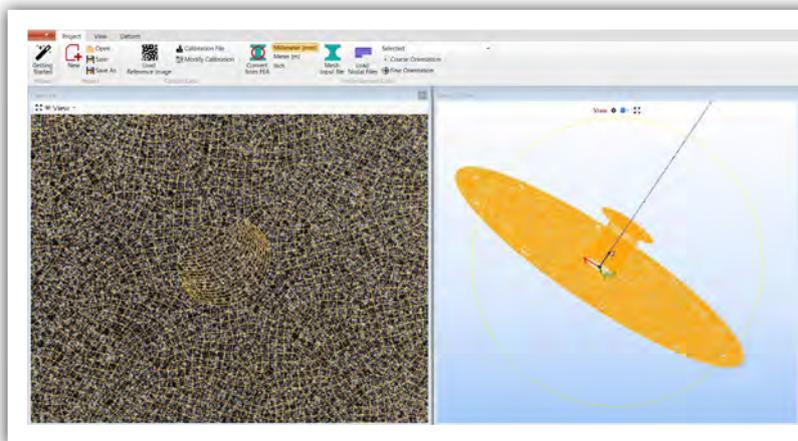
Numerical image deformation

MatchID has implemented the concept of virtual test setups by numerically deforming images.

This means there is an exact knowledge of what the deformation is, and thus of what the DIC algorithm outcome should be.

This technique allows to improve algorithms, qualitatively compare DIC systems, identify systematic errors and quantify absolute errors.

It also allows users to optimise experimental set-ups, and for processing of FE-models for validation purposes.



Key Features

- ✓ Quantify uncertainties
- ✓ Virtual experiments
- ✓ Specimen geometry optimisation
- ✓ Systematic error evaluation
- ✓ Generation of ground-truth images

Applications

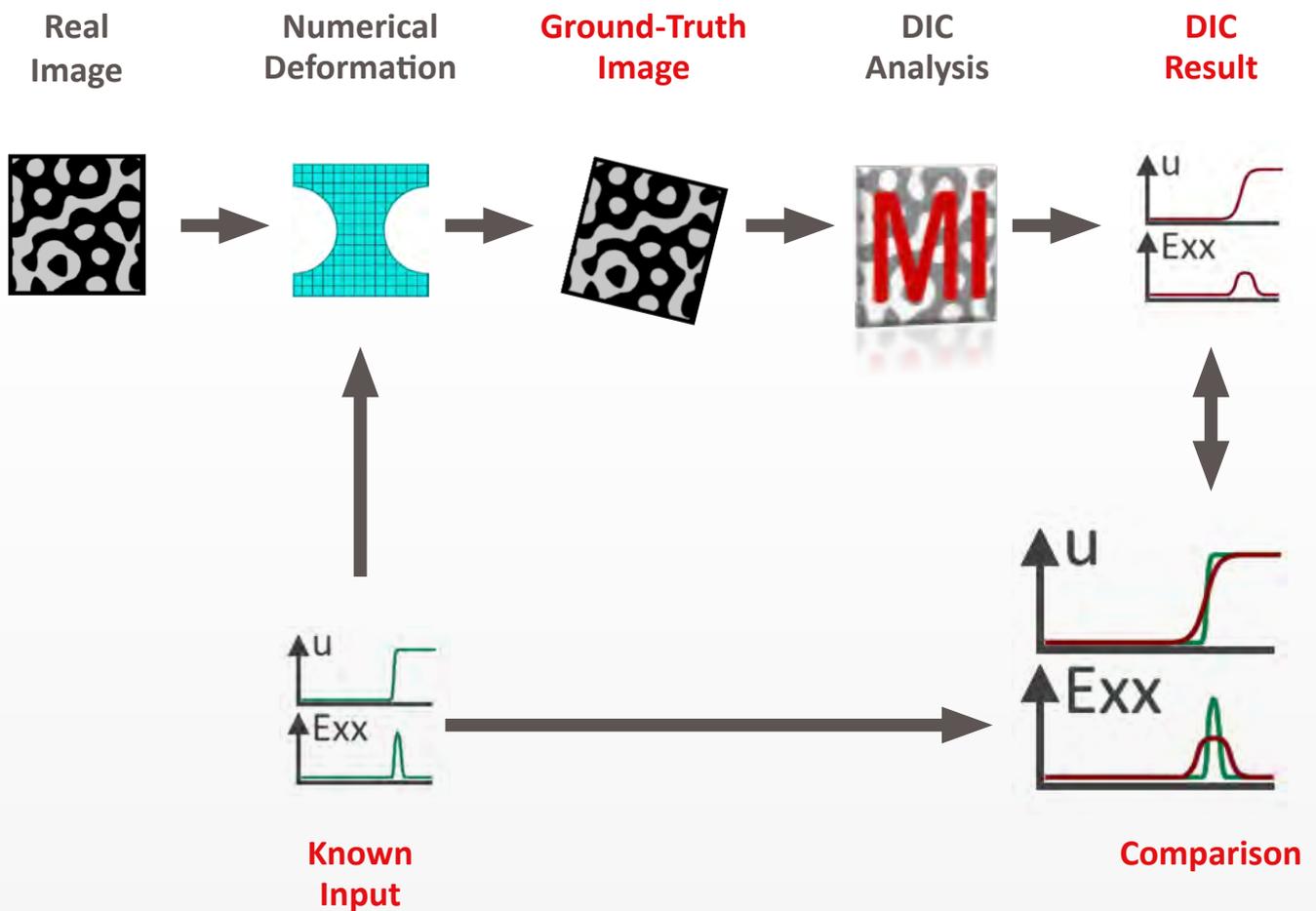
- ✓ Any DIC-test
- ✓ Quasi-static or high-speed
- ✓ 2D or Stereo DIC
- ✓ FE-model validation
- ✓ Own algorithm validation

Customer Benefits

- ✓ Error quantification
- ✓ Uncertainty elimination
- ✓ Improved test results
- ✓ Select best algorithm
- ✓ Warrant simulations
- ✓ Test optimisation

Competitive Advantages

- ✓ Most accurate results
- ✓ Detailed experiment insights
- ✓ Quantified link with FEA
- ✓ Proven DIC algorithm quality



About MatchID

MatchID is a university spin-off, developing open, high-end, engineering software.

At the core of **MatchID**'s offering sits a holistic DIC-platform, providing quantitative result interpretation with integrated error assessment.

Many DIC systems generate coloured images to mark changes, such as strains or displacements; mostly operating by the black-box principle, these results merely show WHAT is happening in your experiment.

MatchID however answers the more important question: WHY and HOW does deformation happen; we provide insight into result creation, rather than having you test presumptions, thereby taking Digital Image Correlation to the next level.

Building on our DIC results, we do identification of mechanical properties of materials through the Virtual Fields Method (VFM).

Structural validation of Finite Element simulations is also supported, by establishing a one-to-one relation between model and experiment in the FEA module (FE-VAL).

Ultimate flexibility is offered by allowing direct interaction with external scripts, functions or programs through our universal Programming Language Interface (PLI).

The **MatchID** app-store allows for storing, using and buying or selling of third party tools.

In-depth training is available in the form of annual courses, webinars, self-training and online exercises.