



**COLDFORM®**



# New functionalities of COLDFORM® NxT 4.1

**Do you want to further increase your productivity? Learn how to use the new features in COLDFORM® NxT 4.1 and make them work for you!**

By the end of this course, you will be able to use all the new features in COLDFORM® NxT 4.1 and work with the best practices to configure data and analyze results. COLDFORM® NxT 4.0 provided a new user experience thanks to the optimization module freshly implemented in its interface. With COLDFORM® NxT 4.1, we go a step further, new actions are available, linked parameters are available among other new features. The new graphical functionalities will also

be covered in this course. You will appreciate the new developments such as the phase field approach used in shearing processes, and take advantage of the reduction of the computation time in 2D.

The implementation of local remeshing in 3D improves the quality and accuracy of the solutions. It is now possible to model the steady state in cold rolling. This approach reduces the computation time.

## LEVEL

**Intermediate**

## PREREQUISITES

**A first experience with COLDFORM® software is required.**

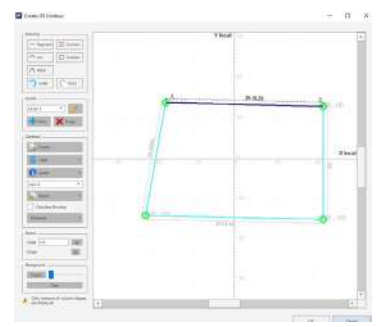
## GOALS

- **Mastering the new features in COLDFORM® NxT 4.1**
- **Taking advantage of the new features of the interface to configure data and analyze results faster**
- **Increasing the predictive quality of simulation with more realistic data setups**
- **Gaining experience based on practical case studies**

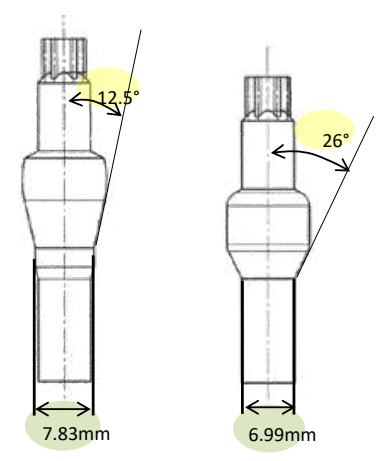
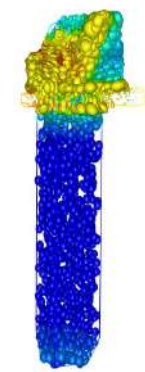
DURATION	DATES 2024	
1 day	11 June	08 October
TRAINING	PRICE EXCL. TAX	PARTICIPANTS
Inter-company	580 € per person	3 to 8 people
In-company	1400 € per training	1 to 10 people

**DAY 1 >** 8.30 a.m. to 12.00 p.m. & 1.30 p.m. to 5.00 p.m.

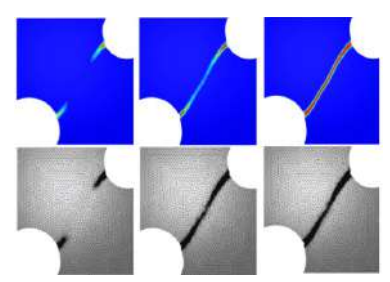
<b>Introduction</b>	<ul style="list-style-type: none"> <li>- Presentation of Transvalor</li> <li>- Course goals</li> </ul>
<b>New features</b>	<ul style="list-style-type: none"> <li>- Meshing improvements</li> <li>- Result Analysis</li> <li>- 2D CAD</li> <li>- Visualization of tensors and vectors</li> <li>- Custom legends</li> <li>- Results grouped by categories</li> <li>- Customizable display</li> </ul>
<b>Material viewer</b>	<ul style="list-style-type: none"> <li>- Graphical User Interface</li> <li>- View and edit JMatPro files, the FPD Base database, files in the Cold Rheology Generation Tool</li> </ul>
<b>Python API</b>	<ul style="list-style-type: none"> <li>- Introduction to the Python API to setup and analyze automatically your simulation</li> <li>- Python recorder</li> <li>- User interaction</li> <li>- Real time Output Display</li> </ul>
<b>Steady state in cold rolling</b>	<ul style="list-style-type: none"> <li>- Simulation setup of a process</li> <li>- Remeshing between passes</li> <li>- Field analysis: temperature, stress, velocity</li> </ul>
<b>Automated optimization</b>	<ul style="list-style-type: none"> <li>- Explanation of core concepts (individuals, generations, minimizables, constraints, parametered actions)</li> <li>- Case study</li> <li>- Results analysis (best individual, comparison...)</li> <li>- Linked parameters</li> <li>- New actions available</li> <li>- Direct definition of rules</li> </ul>
<b>Shearing process</b>	<ul style="list-style-type: none"> <li>- Data setup</li> <li>- Advantages of Phase Field approach</li> <li>- Results analysis</li> </ul>
<b>Conclusions</b>	<ul style="list-style-type: none"> <li>- Questions and course assessment</li> </ul>



2D CAD



Optimization of tool geometry



Simulation of crack initiation and propagation