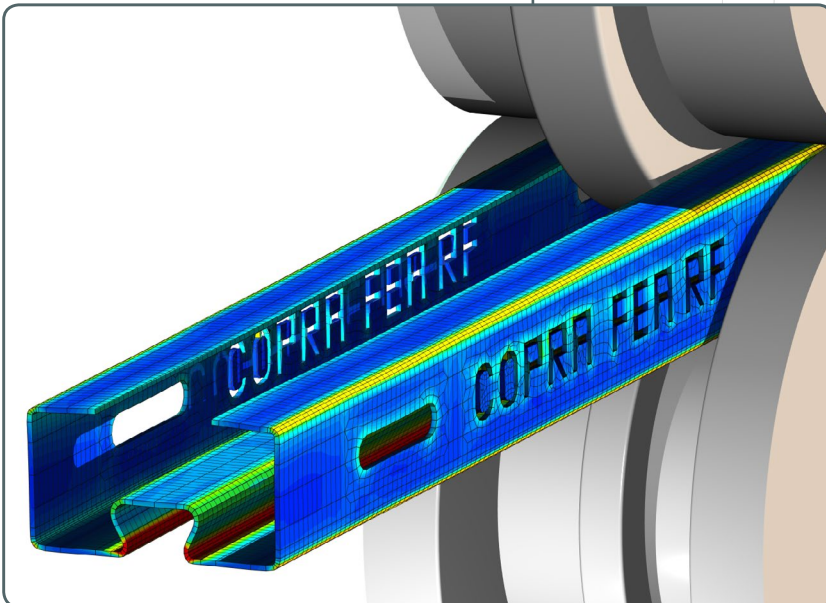
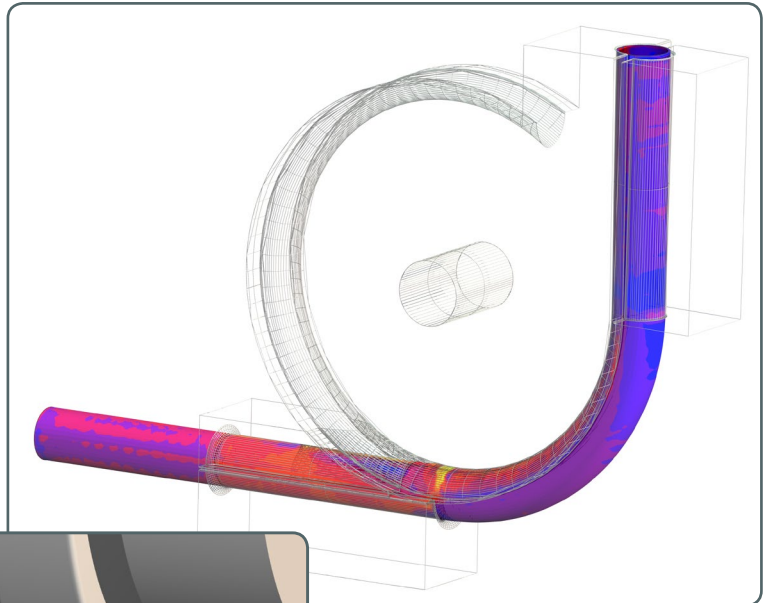


# COPRA® FEA RF 2019



## Release Notes

**COPRA®**  
Finite Element  
Analysis  
for Roll Forming



**data M**  
Sheet Metal  
Solutions

# COPRA® FEA RF

## What's new in version 2019

With over 20 years of FEA simulation experience in research and industry our specialists have contributed to the COPRA® FEA RF continuous improvement. The target of the new 2019 version is to:

- Reduce simulation time
- Reduce results analysis time
- Improve the usability of the software from a roll forming industry perspective.

**NEW**

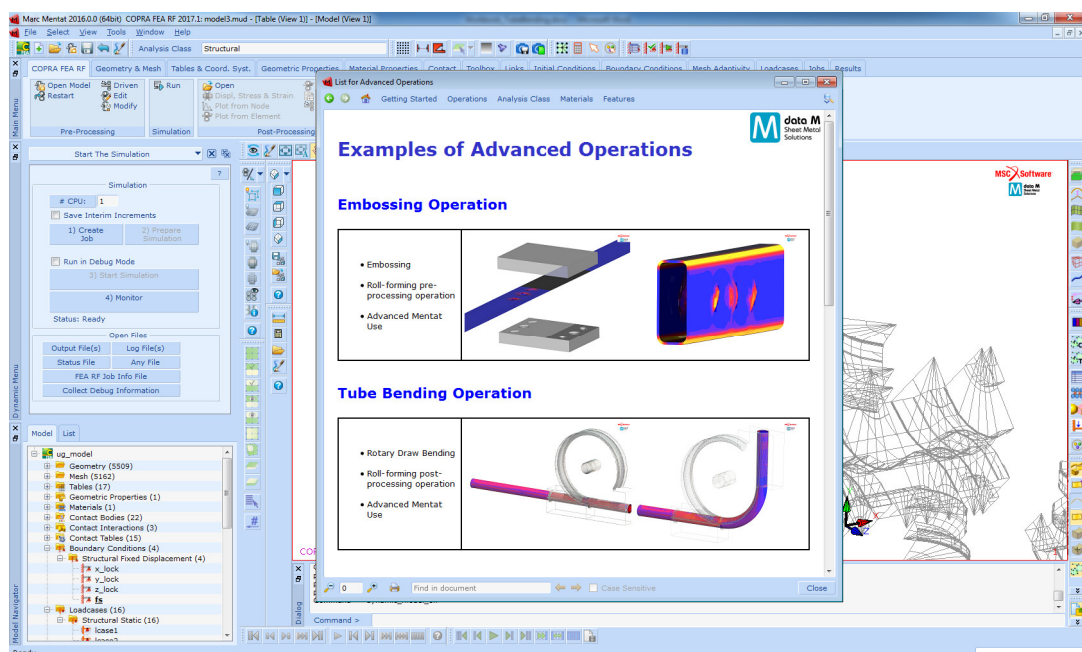
### **COPRA® FEA User's Guide:**

With this new tool COPRA® FEA RF users get step-by-step illustrated instructions on software functionalities.

The guides consist of:

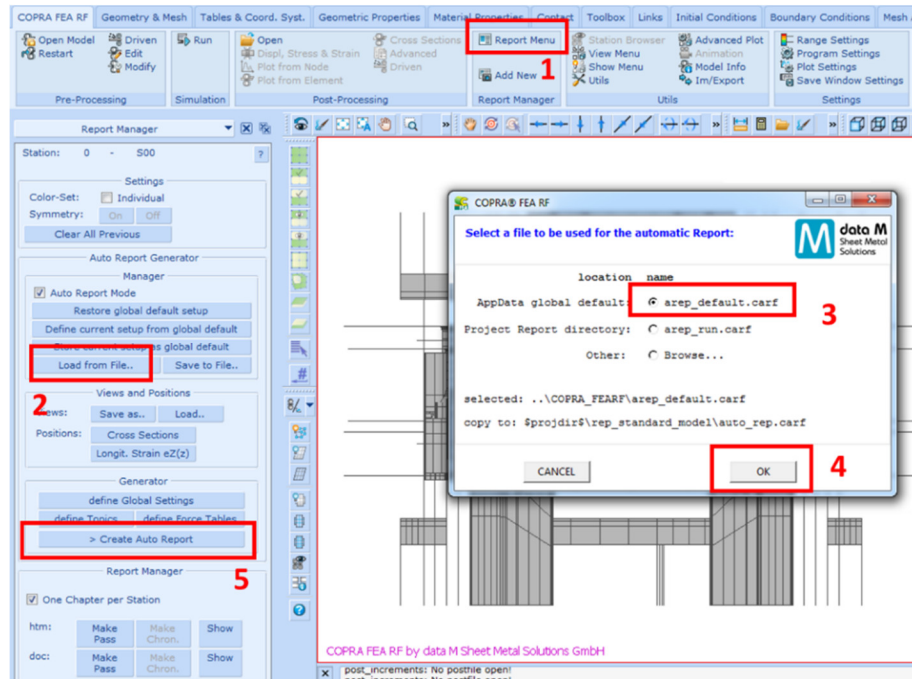
- *Ready-to-use simulation models*
- *Manuals for the creation of an example model*

Additionally, roll formers and tube makers planning to expand their product portfolio with additional processing steps will find instructions on how to model two advanced operations: “tube bending” and “embossing”.

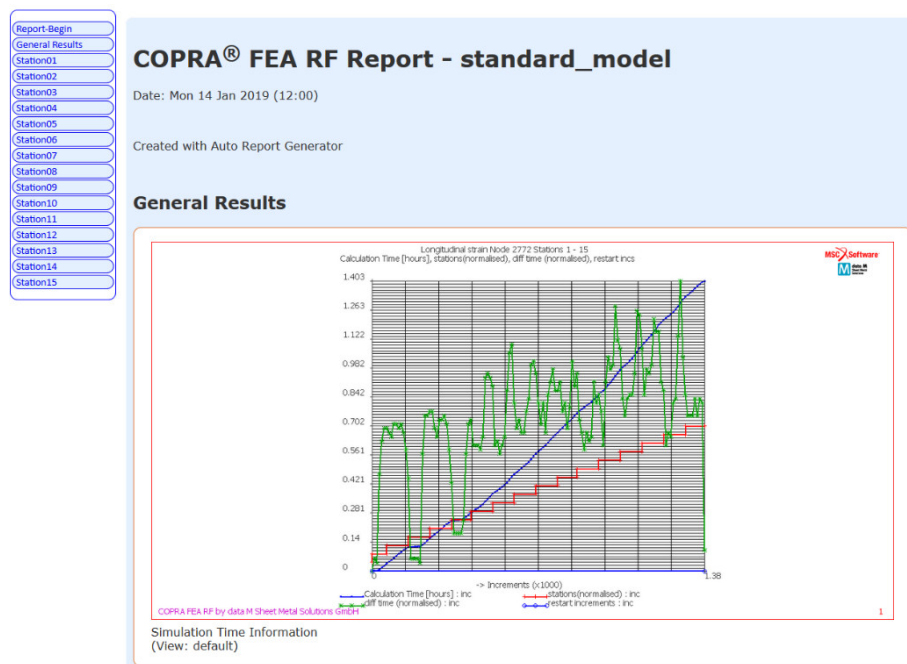


**NEW****Automatic Report Feature:**

reduces the time necessary for the analysis and evaluation of the simulation results. Designers profit from major time savings of up to 90%. Also, it facilitates the standardization of reports and information and the comparison of different simulations by means of user-defined templates. It can also be used as a powerful tool to gain more detailed insight into the manufacturing process.

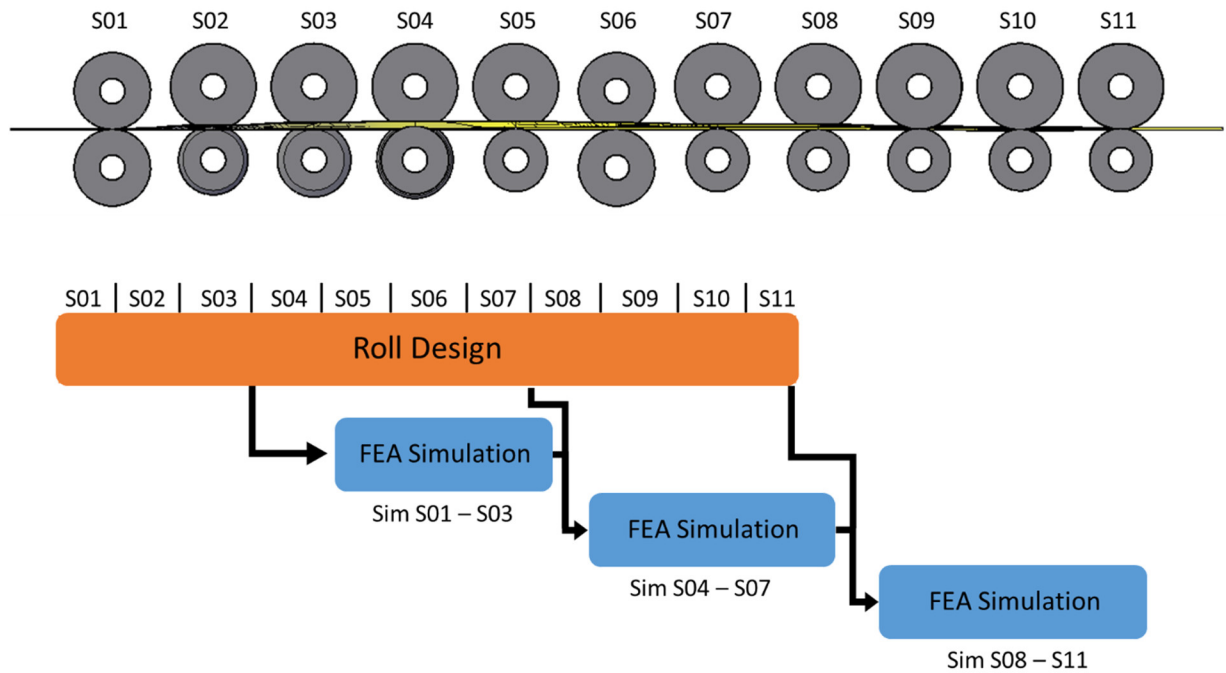
**The absolute Highlight of COPRA® FEA RF 2019!**

**A report can be created with just 5 clicks!**



**NEW**
**Simulation End Station:**

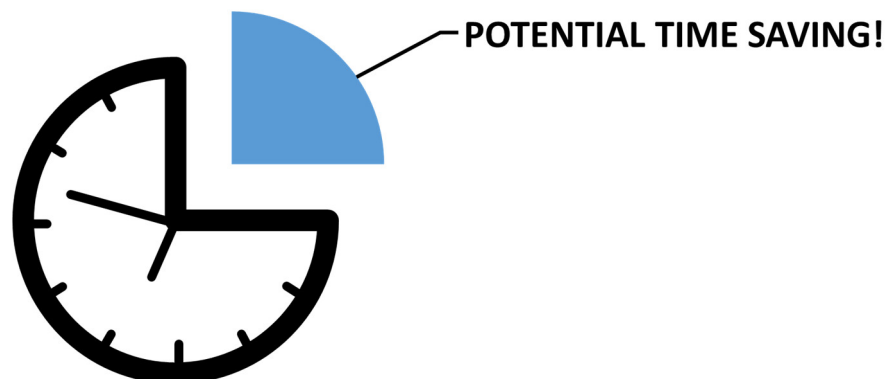
During the design-phase the user can start a simulation and define in which station the simulation should end. This allows the user to simulate the already existing designed stations while continuing the roll design. This tool can be used for a more efficient simultaneous roll design and finite element simulation resulting in considerable time savings in the overall process


**IMPROVED**
**Improved hole meshing capabilities:**

to create more robust, stable and effective meshes, even when simulating profiles with complex hole shapes.

**IMPROVED**
**Reduced Calculation time:**

due to an improved contact algorithm. Depending on the model, the time saving can be as high as 25%!



## Additional Developments and Notes

- + *E-mail notification when simulation is finished***
- + *Improved CAD-import***
- + *Model Navigator for an easy FEA model overview and navigation***
- + *Marc / Mentat 2018.0 included***
- + *Multi-Physics simulation available***
- + *Windows 10 support***
- + *Save View & Get View functions can be used with multiple views***
- + *New colour map***
- + *General usability improvements***
- + *New, improved Help***

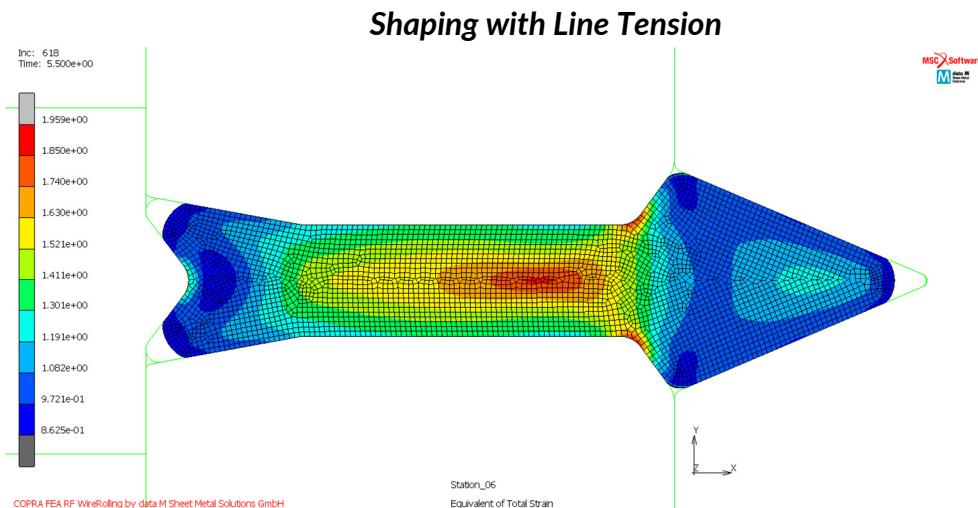
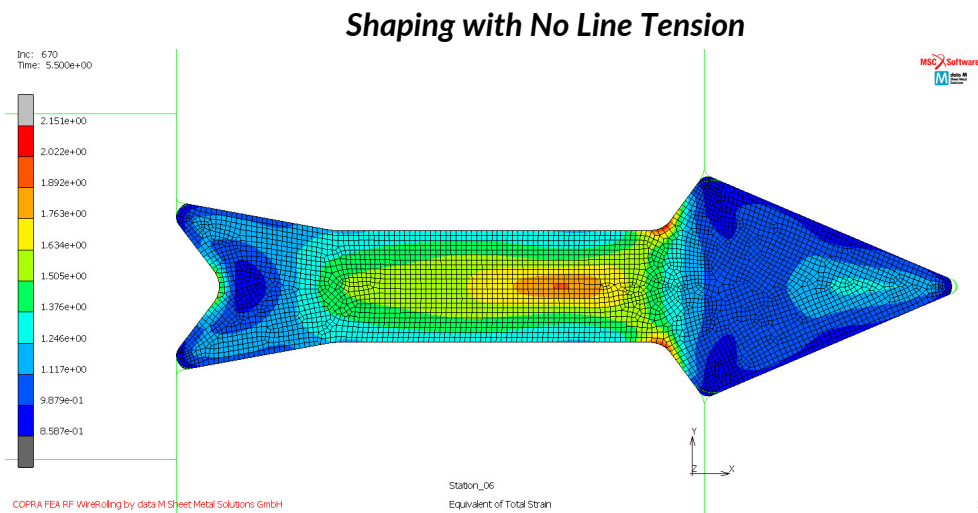
# COPRA® FEA RF WireRolling

## What's new in version 2019

NEW

### **Definition of Line Tension with Pulling Forces:**

for a more thorough and accurate simulation of the real wire rolling process.



NEW

### **Definition of Annealing Stations:**

to simulate the annealing process that prevents material cracking due to the strain hardening of the material.

## IMPROVED

***Adapt Remesh Settings:***

allows the user to control, for each individual station, the density of mesh that is generated during the remeshing phase. Thus, it is possible to decide either for a faster simulation with a coarser mesh or a more accurate simulation with a finer mesh.

## NEW

***Model Info is now Available:***

for an easy and fast overview of all the relevant simulation settings like meshing, material and process parameters.

## Additional Developments and Notes

- + *Model Navigator for an easy FEA model overview and navigation*
- + *Marc / Mentat 2018.0 included*
- + *Windows 10 support*
- + *New colour map*
- + *General usability improvements*
- + *New, improved Help*



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