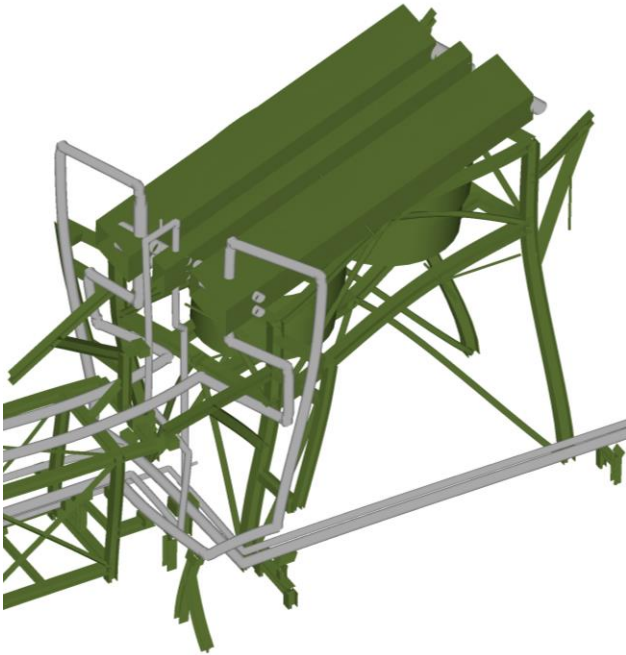


PULSIMSUITE NEWSLETTER

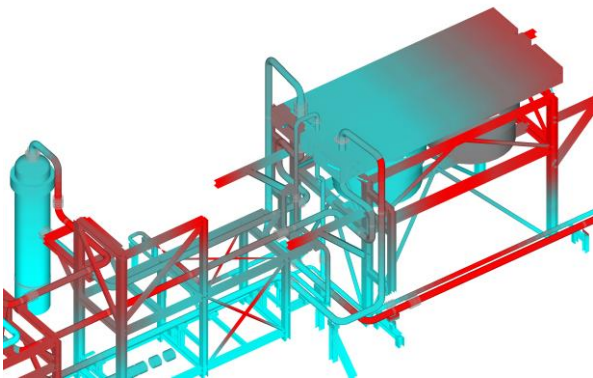
This is the PulsimSuite newsletter of Q1, 2024, presenting version 2.4.0. With your feedback, we have implemented new functionality of which we give you a brief overview here.

In this release 2.4.0, the main new functionality is the possibility to visualize animations of mechanical eigenmode shapes. This is a great help to the engineer in finding out where supports need to be added or reinforced in case of excessive mechanical response. Do also check out the other new functionalities below.



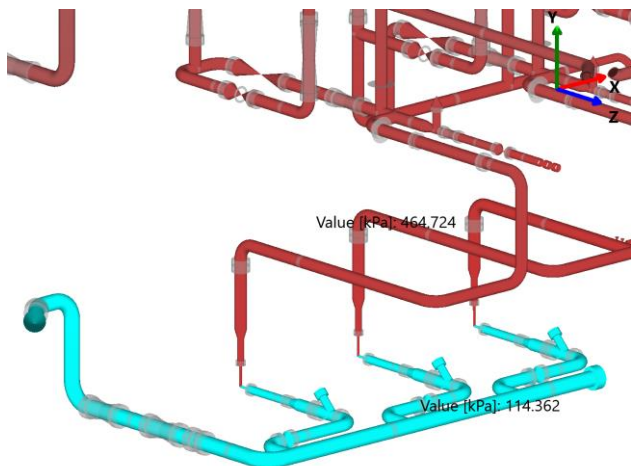
Mode shape animation

Like loading results on the pipe system, you can now also load the mechanical vibration eigenmode shapes, and animate their motion. By mode animation, you get a good view of where and, especially, how the system moves, at a specific (eigen)frequency that the vibration results showed as critical. The mouse functions of rotate, translate, and zoom in the 3D model view window are all available, so you can look around the system easily, while the motion is being animated. Hiding of parts of the system will also work during the animation.



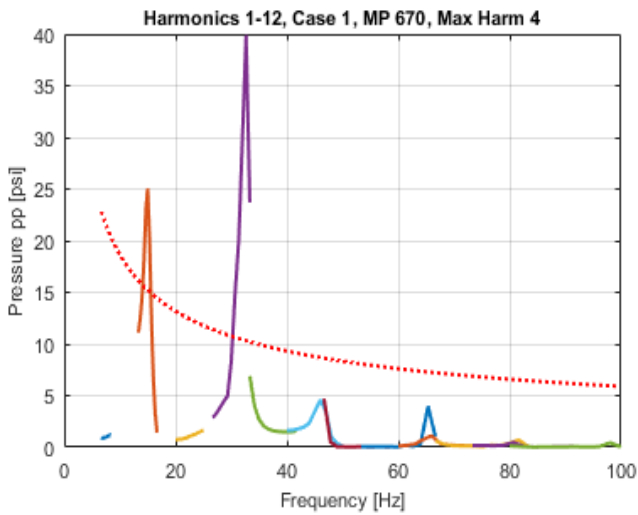
Results on beams

All mechanical response results that used to be visible on the piping only, can now also be seen on the structural elements (beams and structural pipes). Thus, you can now check vibrations and cyclic stresses on all structural elements too.



DPC node

A DP node was introduced PulsimSuite version 2.3.0, for simulating a harmonically varying pressure difference source (Flow-Induced Pulsation). We now introduce the DPC node, which produces a user-specified constant pressure difference, without any reflective properties. The DPC can be used in e.g. pump systems, to model a (centrifugal) booster pump that generates an increase in pressure. Any reflective properties of the booster pump are currently not present in the DPC, so the user needs to introduce reflection by applying e.g. a strongly reduced pipe diameter at the DPC. On the left, an example where three booster pumps (DPC nodes) increase the pressure by 3.5 bar.



New graph for pulsation levels

With the MP plot function you can now also plot pressure peak-to-peak levels as a function of frequency in Hz. The graph will show the pulsation levels for the different frequency components (harmonics), and the corresponding API allowable level indication, all as function of frequency in Hz. This graph is appreciated by clients who are used to the “American way” of looking at the results.

For more information, support or your feedback, please contact us: pulsimsupport@tno.nl
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