

Read online [here](#), if this e-mail is not displayed correctly.



No. 1 of November 7th, 2016

Hello,

This is the first InfoMail of INTES with new and interesting information about our CAE software PERMAS, our events and services.

You get this InfoMail, because you already received information from our side in the past. We would be happy to continue in doing so by this new InfoMail.

We have prepared the following content:

1. Announcement: 5th Technology Day on May 11th, 2017 in Stuttgart.
2. Upcoming PERMAS Workshops.
3. Release of PERMAS Version 16.
4. PERMAS Runs Topology Optimization of Aircraft Structures.
5. PERMAS to calculate bolt loosening.
6. INTES released Multi-Modal Optimization in PERMAS.
7. PERMAS to explore buckling load factors and mode shapes.
8. INTES will attend other events.

Best regards

The INTES Team



- 1. Announcement: 5th Technology Day on May 11th, 2017 in Stuttgart**
Alternating with the PERMAS User Meeting, the Technology Day could be established, which every two years presents relevant topics of PERMAS and VisPER applications.

[... more](#)



- 2. Upcoming PERMAS Workshops**

In November 2016:

16.11. Heat transfer

17.-18.11. Engine analysis

[Website](#), [Program](#), [Calendar](#), [Registration](#)



- 3. Release of PERMAS Version 16**

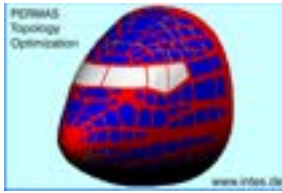
Mid 2016, the new PERMAS Version 16 and the new VisPER Version 5 have been shipped to our customers. They are the result of 24 months intensive software development.

[... more about PERMAS V16](#)

[... more about VisPER V5](#)

The current Short Description of PERMAS and VisPER is available [here](#).

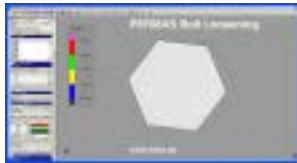
The current comprehensive Product Description of PERMAS and VisPER may be read [here](#).



4. PERMAS Runs Topology Optimization of Aircraft Structures

Fuel consumption rules the development of lightweight structures not only in material research and production technologies but also in structural design and simulation. The classical field of lightweight structures is aircraft design. From a design point of view, topology optimization is a powerful and efficient tool to achieve lightweight aircraft structures.

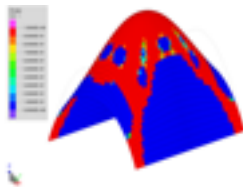
[...more](#)



5. PERMAS to calculate bolt loosening

In mechanical engineering, bolt connections are used very frequently for part connections. Beside other design conditions, the most frequently asked question is about the self-loosening of such bolt connections under operational loads. Can this self-loosening be calculated using FE analysis?

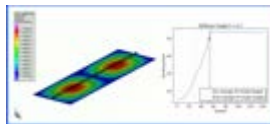
[...more](#)



6. INTES released Multi-Modal Optimization in PERMAS

For many years, topology optimization and shape optimization were used independently and successively to optimize structural parts or assemblies using Finite Element (FE) models. Now, INTES released PERMAS Version 16, where both types of optimization were unified to allow an simultaneous optimization of shape and topology. This combination of different optimization methods is named 'Multi-Modal Optimization'.

[...more](#)



7. PERMAS to explore buckling load factors and mode shapes

For many structures, buckling is an important design constraint and has to be checked by buckling analysis beside other types of analysis. Mainly beam- and shell-like structures are typically subject to buckling. To check the buckling performance a linear buckling analysis to calculate buckling load factors and buckling mode shapes is used.

[...more](#)



8. INTES will attend other events

In November:

At the VDI congress "SIMVEC - Simulation und Erprobung in der Fahrzeugentwicklung" in Baden-Baden INTES will have a booth.

[Overview on other events](#)