

LIMIT Release Notes

Version LIMIT2020r1

<u>www.limit-fatigue.com</u>
March 2020



Novelties in 2020r1

- ▶ New way of licensing LIMIT-CAE
- ▶ New LIMIT license server including new way of licensing LIMIT-CAE
- Updated LoadManager
- New fatigue coded added: IIW Recommendations
- Different sheet thickness within a weld set supported
- Using Ansys 2020r1
- Further improvements
- Compatibility with LIMIT2019



New way of licensing CAE

- **→** Only first instance of LIMIT CAE running on a particular client counts as used license
 - Using a network license:
 - You need an updated license file and the new license server version LIMIT 2020 r3.004.
 - Previous LIMIT versions will work within the new license system. Only the first instance counts.
 - Using a node locked license:
 - You need an updated license file that will only work with LIMIT2020.
 - For previous LIMIT versions you need a separate license file. Previous LIMIT versions will count as one license per instance.
 - For customers under regular support and maintenance this update is included. Our support team will contact you!



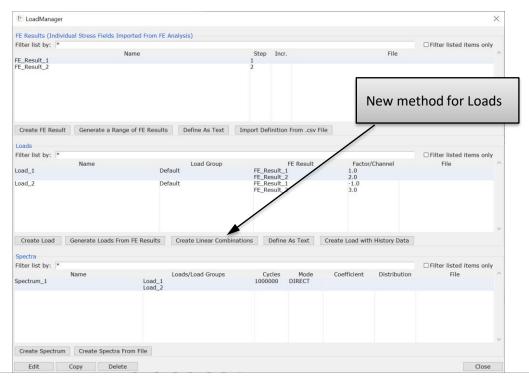
New License Server Version LIMIT 2020 r3.004

- → Please find detailed information in document: LIMIT-License-Server.pdf
- New features:
 - New CAE licensing
 - User names are listed in the log. So the license usage can be referred to a certain user
 - LIMIT license server log file can be directly accessed over a new button



Updated LoadManager

- Please find detailed information in document: LIMIT-GUI_CAE_Introduction.pdf
- **→** New features:
 - Better overview of ways to generate input.
 - Generation of Loads from linear combinations





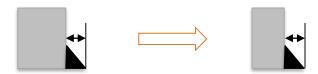
IIW-Recommendations Available for Fatigue Assessment

- Please find detailed information in document: LIMIT_Assessment_Procedures_of_IIW.pdf
- **Features:**
 - Assessment types for:
 - Fatigue against CAFL (Constant Amplitude Fatigue Strength), if no cycle numbers are given
 - Constant amplitude fatigue for (very) high load cycle numbers
 - Variable amplitude fatigue
 - Static strength
 - Can take into account:
 - Proportional or un-correlated loads
 - Thickness correction
 - Elevated temperatures
 - Mean stress influence
 - Toe improvement by grinding or TIG dressing
 - SN-curves can be modified by user

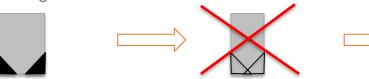


Different Sheet Thickness within a Weld Set Possible

- ★ This way welds running along sheets with different thickness can be defined in one setup
- **→** Activation in JobManager setting parameter "Shell Thickness Check" to "NO"
- Addaption of weld geometry:
 - LIMIT will try to position the weld toe relative to the sheet surface in the same way as defined in EditSetup. A-dimensions will remain unchanged.



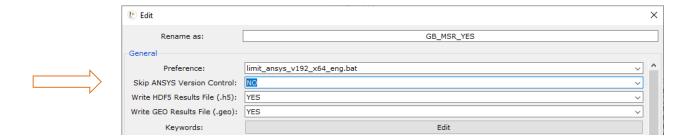
• If the root positions intersect, then LIMIT will simply scale all weld geometry parameters according to the shell thickness.





Using Ansys 2020r1

For technical issues there is currently no specific interface for of Ansys 2020r1. Use interface for Ansys V2019r2 instead. In this case the Ansys version control has to be deactivated in LIMIT JobManager.





Further improvements

- Wireframe button in LIMIT CAE
- Plugin: ReadLoadCasesFromBDF.py
- Path information connected to different files (load and job manager)
 - Can be removed and/or edited in GUI
 - No more path information for sensor file (.sens-file) written to .lmt-file. This way jobs can be copied to other computers and executed without editing the .lmt-file!
- New Documents:
 - -LIMIT_Assessment_Procedures_of_DVS1612.pdf (explains procedure, setting and job parameters)
 - LIMIT_Assessment_Procedures_of_IIW.pdf (explains procedure, setting and job parameters)
 - LIMIT_Rainflow_Counting_Procedures.pdf (explains procedure with example)



← Compatibility with LIMIT2019

■ Databases from LIMIT2019 and LIMIT2020r1 are compatible in both directions.



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