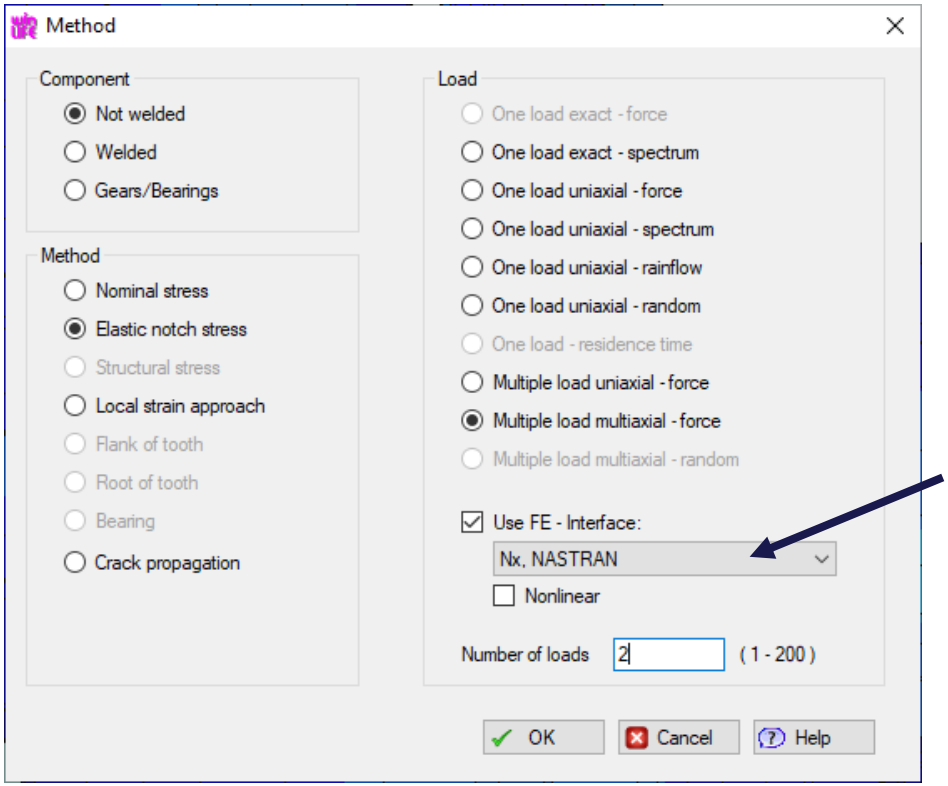
Overview of innovations in winLIFE 2020

- User interface
  - projects can be reloaded / preselection of FE interface /..
- Viewer4winLIFE
  - presentation of several load cases / definition of attributes per node / tripod / Weld seam display for curved surfaces / optimization of the graphic /..
- FE-Import
  - optimization of FE-Imports / unit conversion / CDI with any column selection / attributes /..
- Solver
  - optimization of the solver / predicted computing time / prevention of ‚BrokenSession' / attribute pre node, as if different sn-curve / 5000 container projects /..
- Loads
  - Improved import of FAMOS-files / channel names are displayed /..
- FKM
  - combinations upper / lower stress and amplitude / mean stress / third principal stress without surface roughness /..
- Classification matrix
  - raw analysis / automatic recognition of the hysteresis loop /..
- Others
  - automated generation of load files from a load collective /..

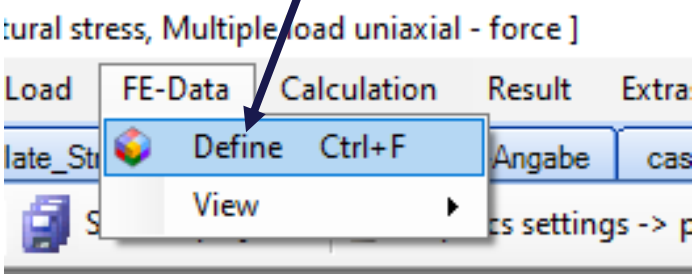
- **See chapter 10 of the installation instructions**

Important Menu Changes in winLIFE 2020



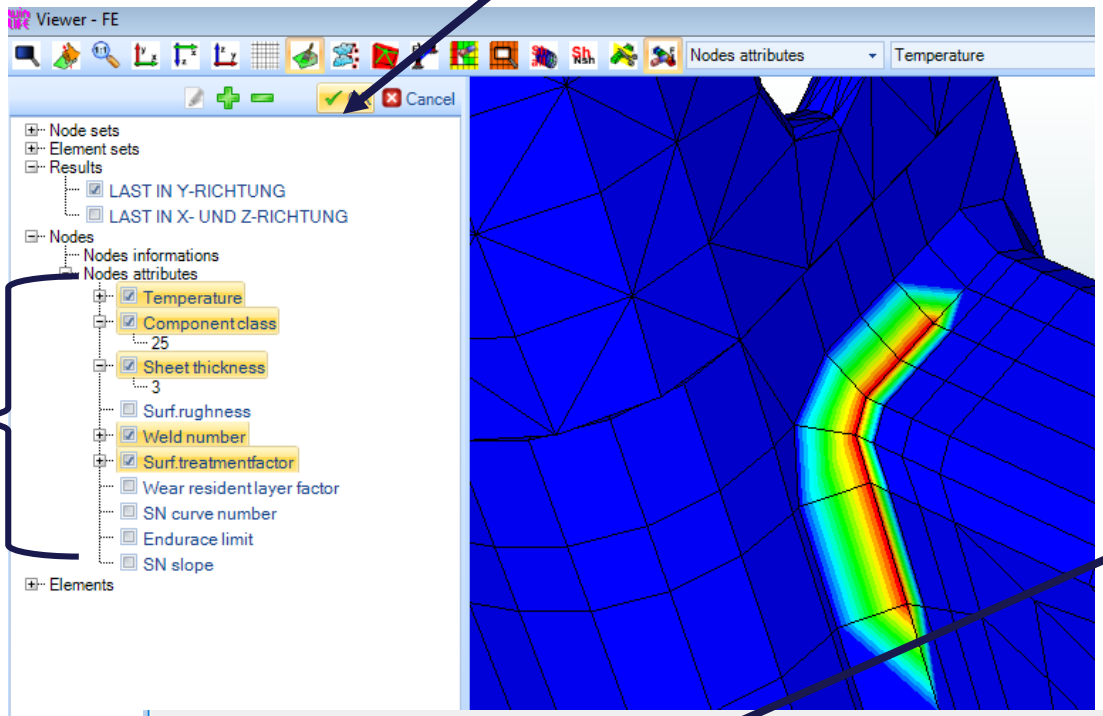
Selection of the FE interface (NASTRAN, ANSYS, …)

Specification of the FE-data



Definition of attribute in winLIFE 2020

Button OK
Attributes are used in in winLIFE



Attribute specification

Attribute and influence on strength (winLIFE protocol)

```
  node         Rm*     sigma_d    sig_mean      sig.am sig_am_mod      n damage proportion     from   to
Component class uesed 25 -> Sigma_D 9.21
KV used 1.100 -> Sigma_D 10.13
Sheet thicknesse used. 3.000 -> factor 1.0000 -> Sigma_D 10.13
Temperaturfactor=1-0.40*(10e-3*(123.0-100.0))-1.55*(10e-3*(123.0-100.0))^2=0.990 -> Sigma_D 10.03
   5457      750.00       10.03       -5.82       91.78       90.90     0.5  7.445522e-05     49      1
   5457      750.00       10.03       -3.95       93.65       93.06     1.0  1.597485e-04     50      1
   5457      750.00       10.03       -9.57       84.29       82.85     1.0  1.127339e-04     46      2
   5457      750.00       10.03       -7.70       86.16       85.00     3.0  3.652714e-04     47      2
```