



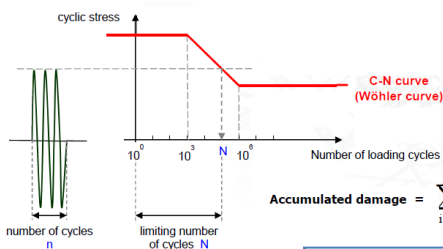
Backup Roll Supervisor

Software module for on-line monitoring of residual fatigue life of backup rolls and prediction of optimum depth of dressing amount

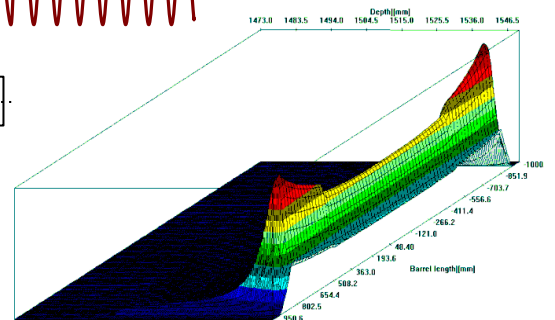
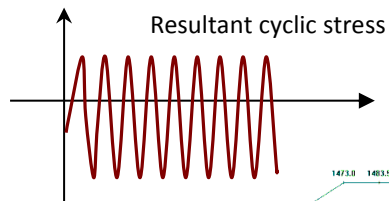
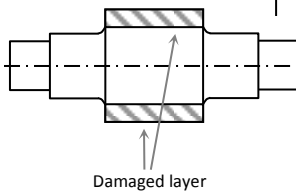
The Backup Roll Supervisor Benefits:

- Optimization of the length of the backup roll campaign**
 Monitoring of damage accumulated in the surface layer of backup roll can prolong its campaign. Expensive back up rolls can be exploited longer than scheduled. Sometimes the campaign can be shortened to avoid unexpected total damage of rolls when they are overloaded.
- Controlled backup roll grinding**
 Estimation of the up to date depth of damaged layer enables to grind away only the necessary layer so the backup roll process life can be prolonged!

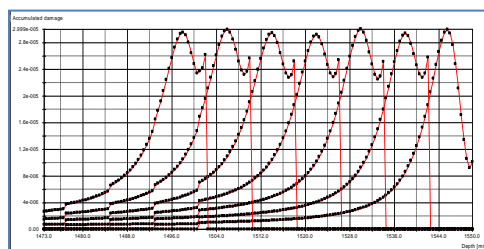
History of real proces loading of the Backup roll being saved continuously by the proces control system



Hertz contact load
Bending load
Residual stress

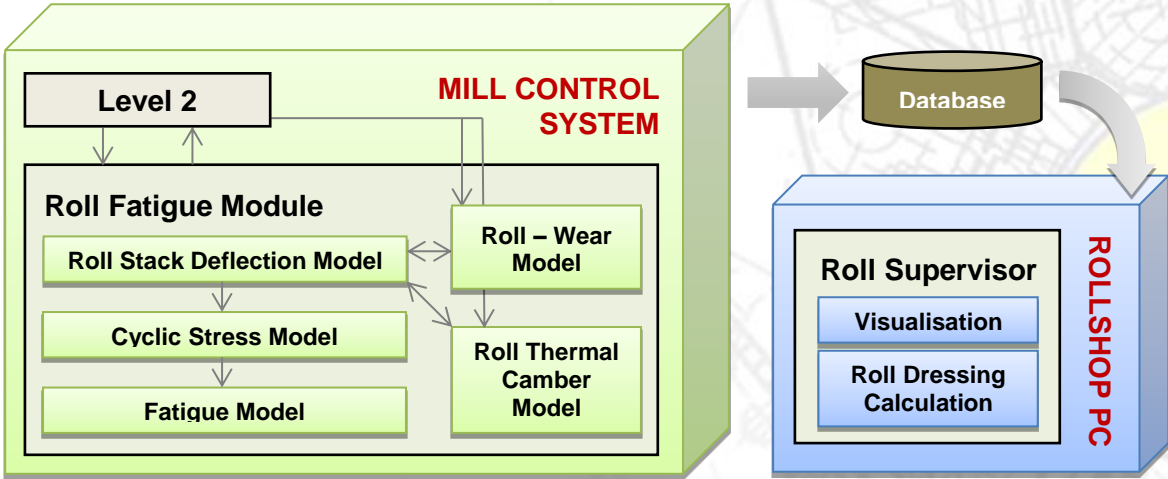


Predicted accumulated fatigue damage considering removal of dressing amount

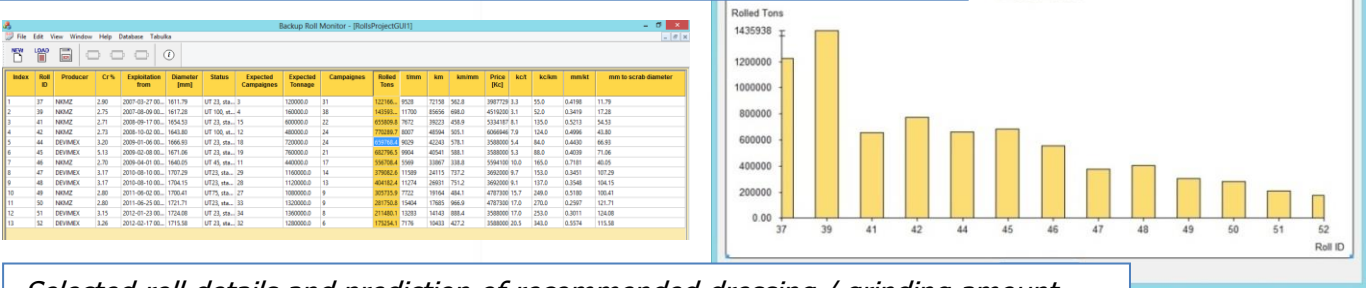


Predicted accumulated damage along the barrel length

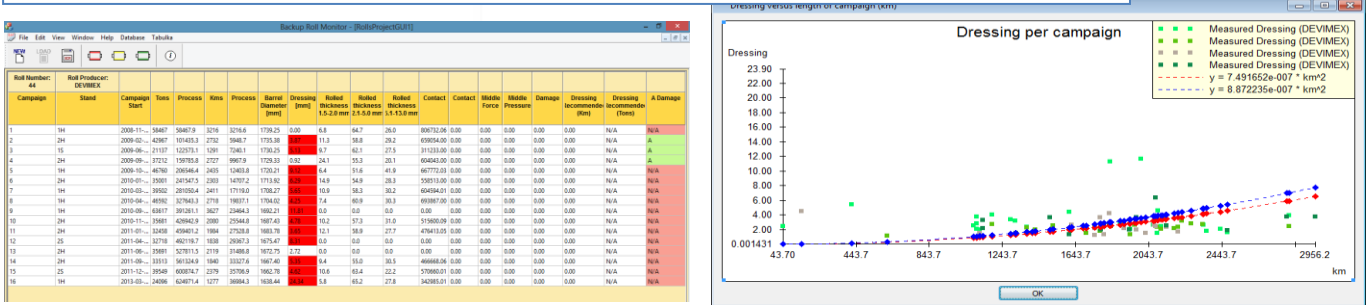
Basic scheme of the Backup Roll Supervisor



Overview of the Roll Supervisor with displayed tons rolled by each roll



Selected roll details and prediction of recommended dressing / grinding amount



Information of the degradation of the roll surface (over barrel length) in the terms of accumulated

Estimation of optimum length of campaign regarding costs

