

## DATA BASED QUICK & EASY CRITICALITY ANALYSIS (Q&E)



Inaccurately defined maintenance will cause problems in the production, thus the most critical parts of the production process must be identified. With traditional models it may take months – but the simulation we have developed makes it in five working days. Our Q&E criticality analysis increases efficiency by enabling work order planning and targeting to the most important equipment of the production.

### OUR SIMULATION SOFTWARE COMBINES MAINTENANCE SYSTEM'S DATA AND OUR EXPERT KNOWLEDGE

Based on both hierarchy and history data, the application simulates systems' and devices'

- availability
- failure quantities (reliability)
- criticality classes
- safety and environmental risks
- expected costs

Based on the simulation, the equipment are divided numerically and visually into three criticality classes. Criticality classes impact on the maintenance resource planning.

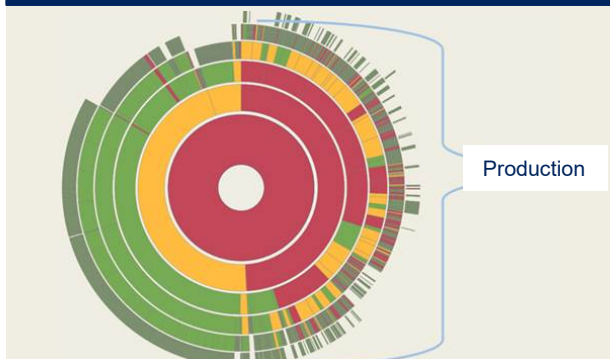
The detected equipment criticalities are added into the CMMS, where they are tagged in the preventive maintenance and failure work orders. Critical equipment and spare parts are identified proactively.

The results of the analysis can be compared to the previous criticality classification. We investigate the effectiveness of past preventive maintenance programs and whether there are any discrepancies in the results.

The analysis can be deepened by making a failure mode and effect analysis (FMEA) for the most critical equipment, and update the preventive maintenance programs for the equipment accordingly.

### VISUALIZATION OF SYSTEM LEVEL CRITICALITIES

In the middle is the plant, at the outer rims the hierarchy's equipments and components



### CASE EXAMPLE – CHART ON THE LEFT

Simulation revealed that of over 2,000 devices in the entire plant, only about 5 percent require upgrade – this share represents the greatest savings potential with the fastest achievability.

From the colors on chart, we can immediately see where in the plant there is most red, signaling need for action. We focused on change, starting with the most critical thirty items.

### ASK FOR MORE INFORMATION:

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