

# Benchmarking



E.T.

The election tool projekt

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Team „Performance Issues“

# Set Up

- Framework: Visual Studio Loadtest Tool
- Parameter:

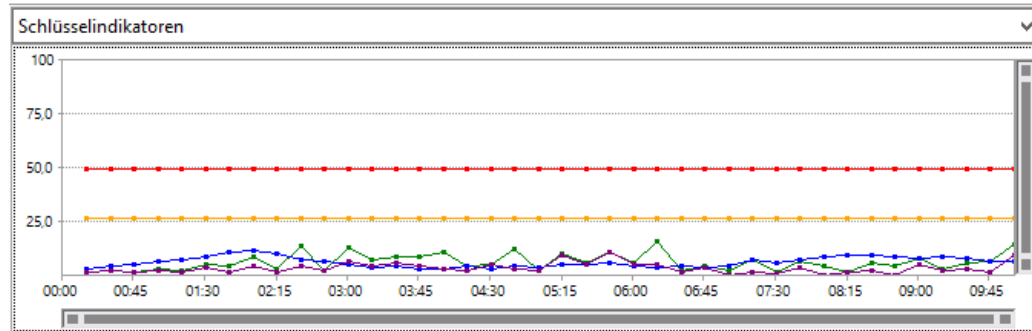
$$\begin{array}{ll} n_1 = 50 & n_2 = 100 \\ t_1 = 5s & t_2 = \mathbf{15s} \end{array}$$

- Presented in this talk:

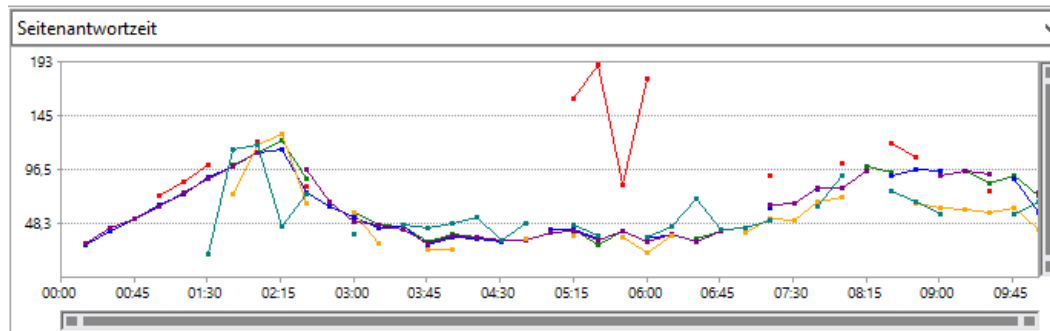
$$n_1 \times t_2 \qquad n_2 \times t_1$$

- „pseudo-Exception“: http-Timeout simulating annoyed users

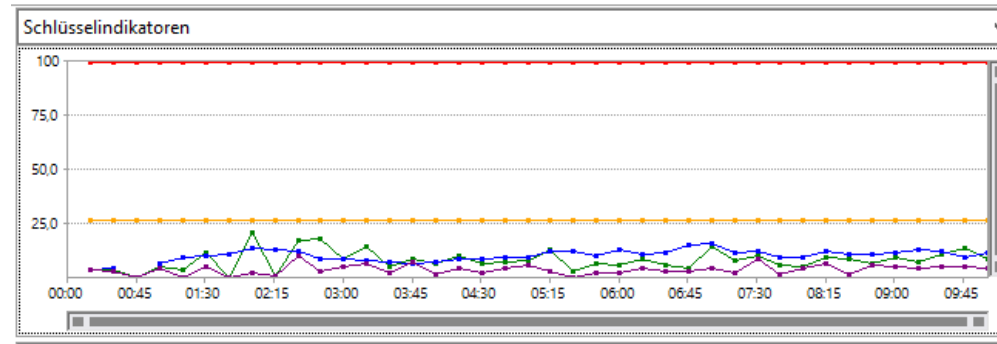
# 50 User, 15 seconds



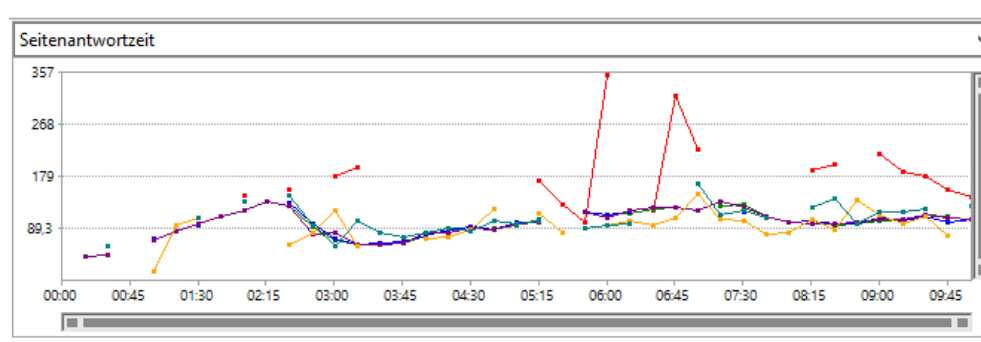
Average Page Time  
Pages per Second  
Faults



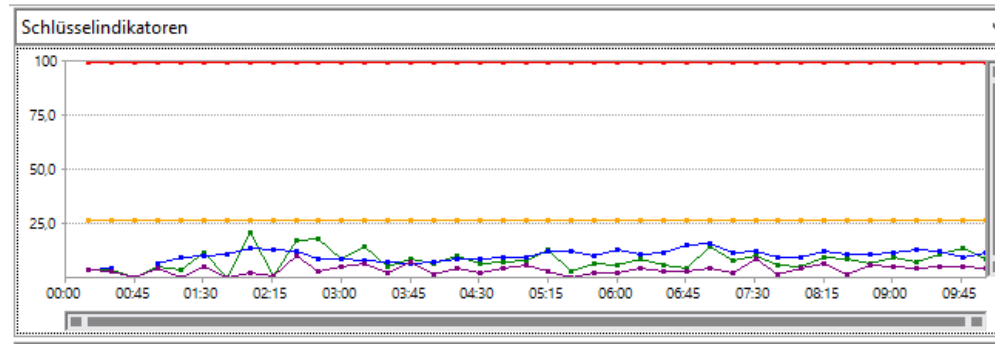
# Double amount of users, one third of waiting time



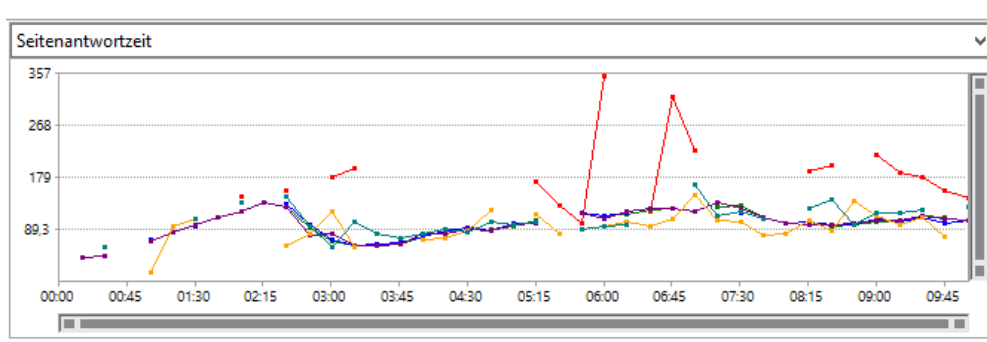
Average Page Time  
Pages per Second  
Faults



# Double amount of users, one third of waiting time



Average Page Time  
Pages per Second  
Faults

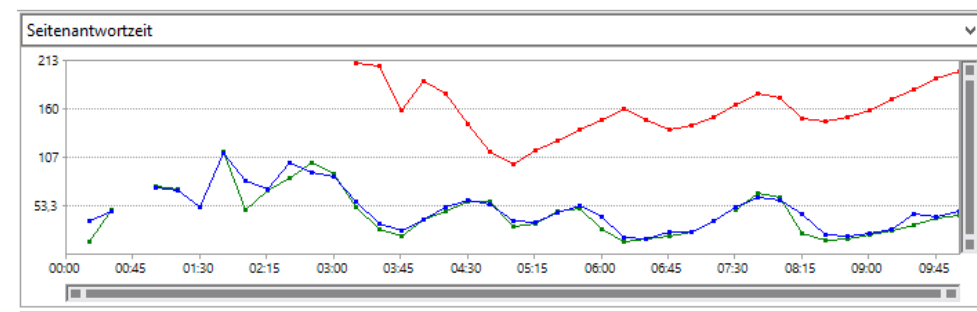
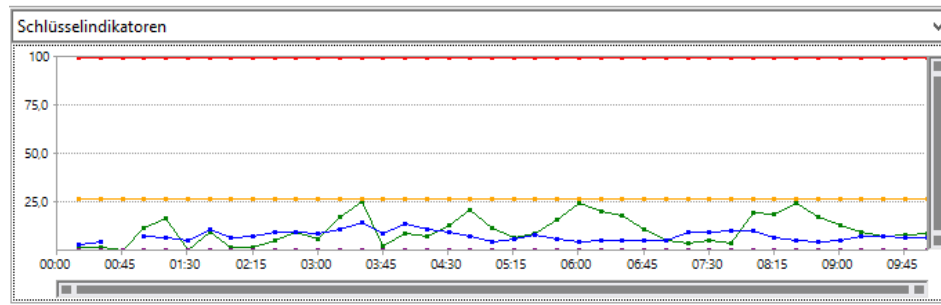


Test	Szenario	Gesamt	Erfolgreich	Fehler
ClosestWinner	100u5s	110	105	<a href="#">5,00</a>
MemberBundestag	100u5s	53,0	0	<a href="#">53,0</a>
SeatsBundestag	100u5s	131	0	<a href="#">131</a>
Ueberhangmandate	100u5s	45,0	0	<a href="#">45,0</a>
Wahlkreis	100u5s	117	109	<a href="#">8,00</a>
Winner	100u5s	49,0	49,0	<a href="#">0</a>

„Timeout-Exceptions“




# Only three queries: 100 users, 5 seconds



Tests				
Test	Szenario	Gesamt	Erfolgreich	Fehler
ClosestWinner	100u5s	252	252	<a href="#">0</a>
Wahlkreis	100u5s	222	222	<a href="#">0</a>
Winner	100u5s	174	174	<a href="#">0</a>

# Lessons learnt:

- Though optimization was applied, queries using the complete distribution of seats in parliament are still too slow. This has negative effects on the performance of the other queries, too.
- Not in this presentation:  
many threshold warning in the Loadtest-Tools indicate hardware hardware inefficiency.

 Continuing optimizing....