



What is "T1 for POSIX"?

T1 version 3.2 introduced the support of POSIX operating systems through the add-on product **T1.posix** as an extension to T1.timing. Many operating systems for high-performance computing as well as the AUTOSAR AP standard are based on POSIX.

Key benefits of using T1 for the analysis of POSIX based systems

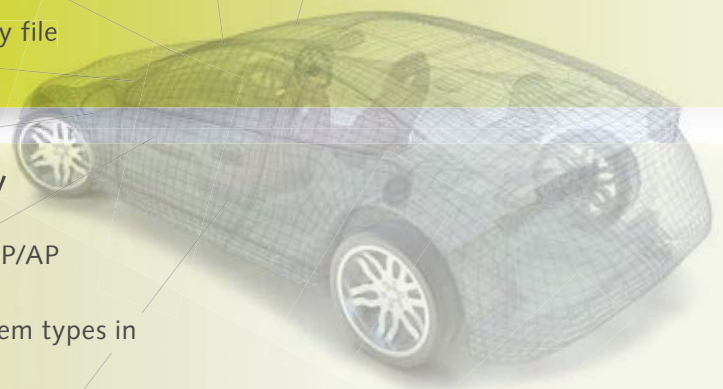
Live streaming of scheduling data from the target ECU

The T1-TARGET-SW traces at run-time and transmits the trace data via Ethernet to the T1-HOST-SW. T1.timing in combination with T1.streaming and T1.posix offers the following benefits:

- Traces of arbitrary lengths
- The analysis and trace data visualization takes place simultaneously to streaming/recording data from the target ECU
- Higher resource efficiency due to avoidance of costly file accesses

T1 addresses the needs of the automotive industry by supporting

- Combined and synchronized tracing of AUTOSAR CP/AP ECUs networks
- Synchronized visualization and analysis of both system types in parallel and in the same view
- Visualization of AUTOSAR Deterministic Client Cycles
- Well-known timing results (e.g. CET, DT, RT, ...)
- Event chains (host-side)
- Constraints (host-side)



Unique advantages of the T1 Timing suite compared to other solutions

- **Huge benefit in total cost** of ownership because of single tooling for AUTOSAR CP/AP ECUs networks
- **No need to learn new tools** since T1 is widely established in the automotive industry
- **One intuitive GUI** covers all functionalities of T1.timing, T1.streaming and T1.posix
- Flexible extension of T1 according to **customer specific needs** through dedicated engineering projects
- Single point of contact for all questions around timing and resource analysis



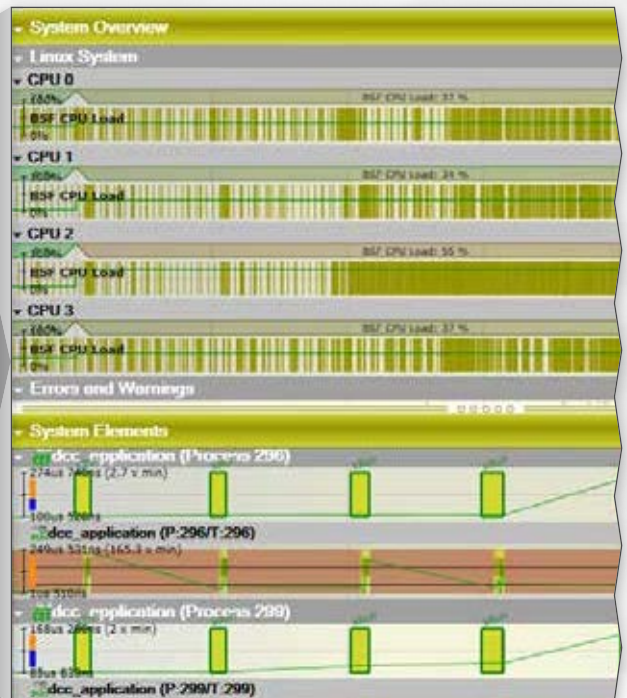
Features of T1.timing V3.2 with add-on product T1.posix

Live streaming of scheduling data - zoom in to see...



Graph view: CPU-load, CETs, RTs, DTs, etc.

...detailed state information



Detailed view: colors indicating states of Processes and Threads over time

Technical data

Supported target operating systems:

- QNX
- Linux
- Further operating systems will be supported in the future or upon request

Supported target communication interface:

- Ethernet 100/1000

Requirements regarding the host PC:

- Intel i7 or comparable CPU
- GPU
- SSD drive
- 16GB RAM

Features released summer 2020

- Synchronized AP/CP traces
- Host-side constraints
- Host-side event-chains
- Reports generation
- Memory information related to processes/threads
- Message flow analysis (e.g. for QNX)

Requirement for synchronized traces:

- Common (accessible) time-base on all relevant ECUs
- T1 integrated on all relevant ECUs