



TIMING SUITE FOR REAL-TIME SYSTEMS

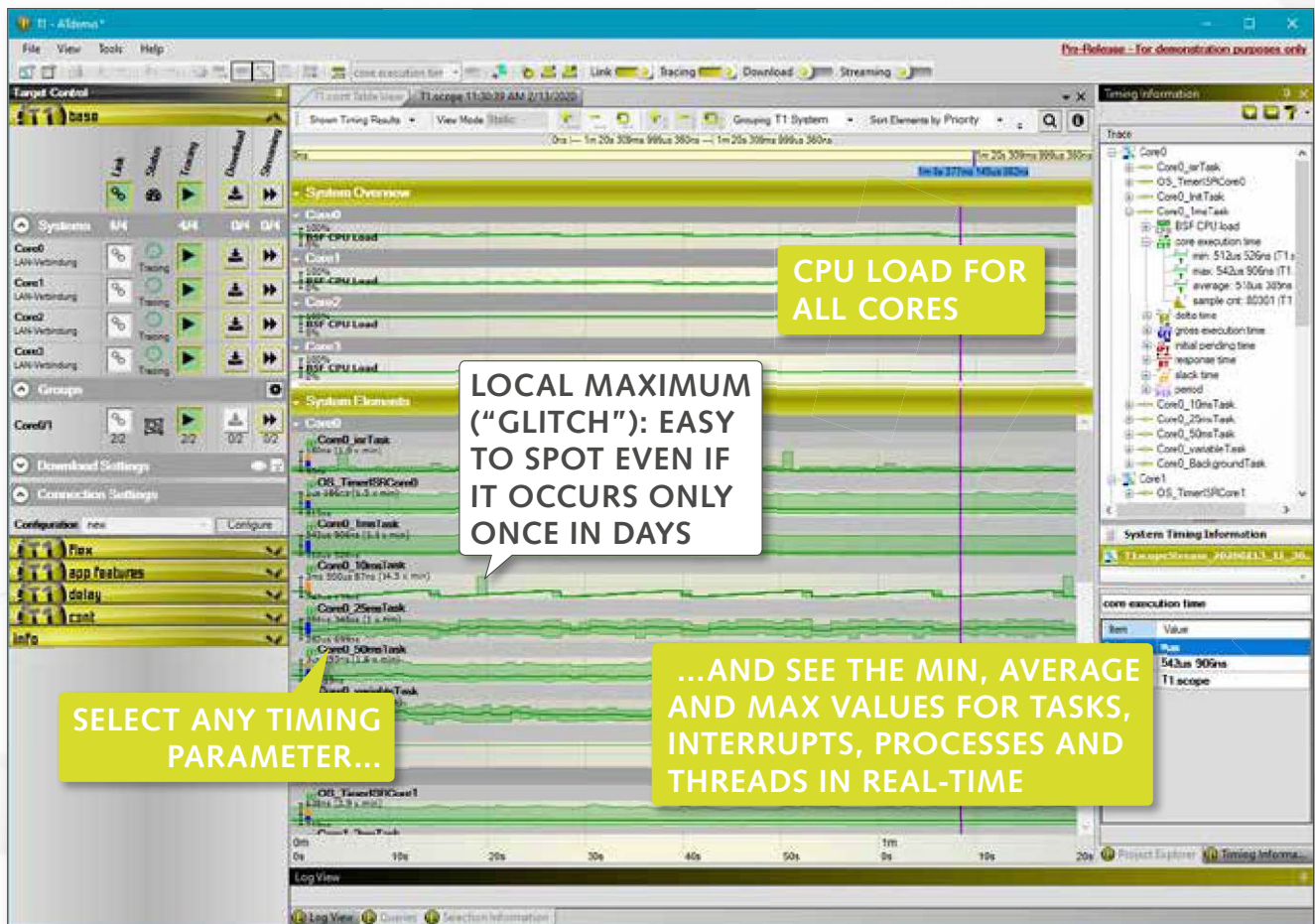
ADD-ON T1.streaming

Introduction

T1.streaming is an add-on for T1.timing and enables recording continuous target **scheduling trace data** on a PC. All trace data captured by the T1-TARGET-SW is sent to the host PC where it is **stored, analyzed and visualized "on-the-fly" in real-time**. The analysis by the user can be performed with the T1-HOST-SW while streaming or later with a stored streaming trace.

RECORD TRACE DATA FOR SECONDS, MINUTES, HOURS OR EVEN DAYS

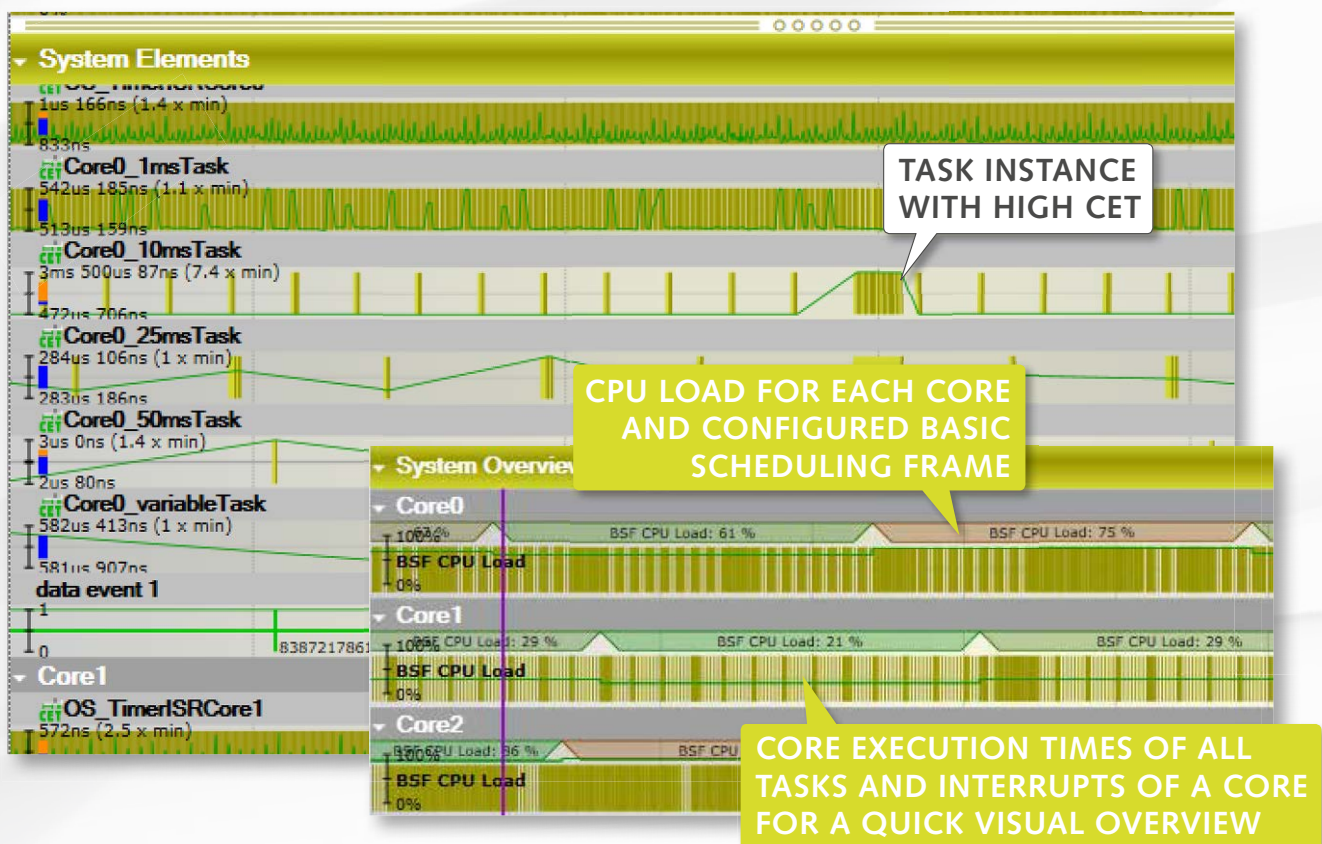
The duration of a recorded trace is only limited by the capacity of the hard-disk used for this purpose. **T1.streaming enables recording trace data for seconds, minutes, hours or even days**. With T1.streaming it is now possible to record all trace data during whole test drives and perform detailed analysis as needed at any time.



A lot of analyses can be performed with the stored trace data:

- **Extract and analyze all timing parameters** (min/max/average of CET, GET, RT, IPT, ST, PER and NST) for all tasks and interrupts, processes and threads
- Visually identify maximum and minimum values **at the first glance and zoom in to a single instance** of a task, interrupt, process or thread within a second
- Get an **immediate visual impression** of the core loads of all cores
- Add **unlimited constraints and visualize violations** of the constraints (available mid 2020)
- Add **unlimited event-chains** to calculate user specific timing parameters (available mid 2020)

Zooming in shows more details of the tasks, interrupts, processes and threads:



Depending on the zoom level the following visualization modes are **automatically selected**:

- Graphs with the aggregated min/max/average timing parameters
- Graphs indicating each timing parameter available (no aggregation)
- Detailed state-view similar to T1.scope: colors indicate states like “ready” or “running”

Technical data

Supported interfaces:

- Ethernet (IP/UDP)
- CAN FD (restrictions are possible depending on configuration and available bandwidth)

Requirements regarding the host PC:

- Intel I7 or compatible CPU
- GPU
- SSD drive
- 16GB RAM