Another company showed interest in tracing, this is an opportunity to have another partner contributing, giving feedback, etc...

People from Bosch have a pre-defined trace format. How can we work with it?

- Possibility 1- convert internal format to CTF, view with Babeltrace/LTTv/Trace Compass/TMF...
- Possibility 2- make TMF read BTF format traces
- We chose: BOTH
BTF SPECIFICATION

› BTF: Best Trace Format.
› BTF spec is a CC-BY-SA – like license
› BTF uses:
  ‒ Plain text
  ‒ Pre-defined event types
  ‒ Metadata
  ‒ Details about the events
  ‒ Supplied state systems
  ‒ Supplied suggested views
  ‒ In fact, it's more of a trace domain!
WHAT WAS DONE

› BTF native parser
› Custom events table
› Properties
› Custom state systems (in java)
› Custom viewer (XML defined)
› Reports view prototype
› Test cases!
IMPLEMENTING THE BTF PROTOTYPE

› Took 1 week for 2 developers
› 1-2 weeks for clean up afterwards
› It took longer to get the permission to show our work than to implement it!
PARSER

- Simple text parser
- Creates specific event types
- All the documentation was copied into the event types to give clear descriptions when available
- O(1) seeks
- Using absolute time if the creation time is available
CUSTOM TABLE/PROPERTIES

› Custom Table with columns that are equivalent to the fields in the BTF file
› Searching and filtering work
› Trace properties include metadata
› Event properties show detailed information
Simple to add, as it has been defined in the specification
CUSTOM VIEWER

› XML defined
› Under 50 lines!
BTF: WHAT'S NEXT?

› Immediate
  - Hand over to Bosch and their partners

› Short term
  - Task Migration views
  - Real reports view

› Long term
  - Latency views
    - Task activation delay
    - Time to lock a resource
    - Time a resource is locked
    - Task execution jitter
  - Critical path
DEMO

HTTP://YOUTUBE/T4F5KU2A6RC
QUESTIONS?

Thank you for your interest

PS. Thanks Florian!