

**Christian Doppler
Laboratory**

Contact Us

+43-732-2468-4241
cdl-mint@se.jku.at

Model-Integrated Smart Production

*Enterprise Architect
Sequence Miner*

CDL-MINT

- Text to Model Transformation
- Sequence Diagram Generator
- Enterprise Architect Plugin
- Log File Model Mining

Enterprise Architect Sequence Miner

Understanding log traces enables efficiently analyzing runtime behavior.

Manually inspecting textual traces is an error-prone task and not entirely user friendly. By displaying log traces graphically, users are able to explore structural interdependencies **much more intuitively**. This makes reasoning about possible system misbehavior more accessible.

EA Sequence Miner is an Enterprise Architect Plugin that transforms log traces to **UML sequence diagrams**.

Log File Example

The following structured log file is considered:

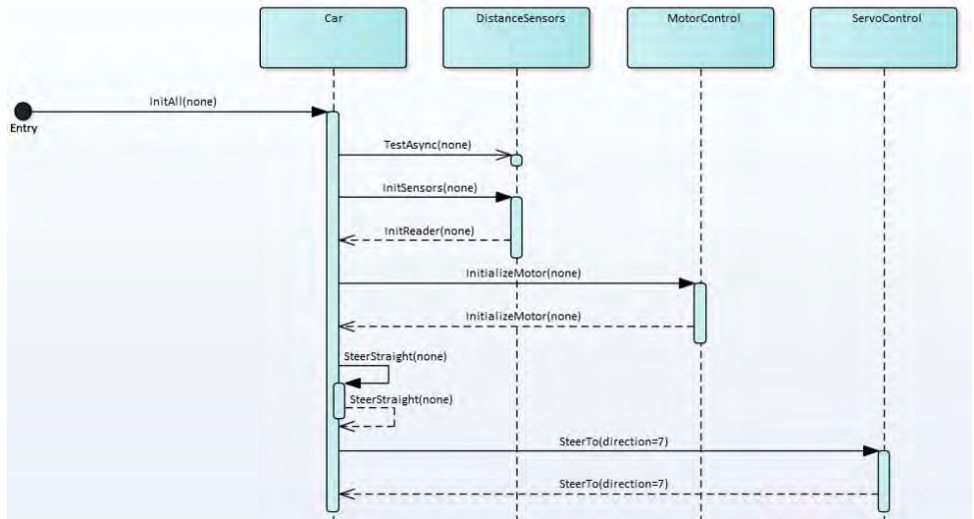
- **Lifeline** of the executing entity
- **Activity** that is logged by the software or hardware system
- **Timestamp** defining the time of an event
- **Message Parameters** that are passed with requests
- **Request and Response Attribute**

caseID	timestamp	lifeline	activity	messageParam	reqOrRes
1	2017-02-27 17:38:13.914	Car	InitAll	none	REQ
1	2017-02-27 17:38:13.917	DistSensors	InitSensors	none	REQ
1	2017-02-27 17:38:13.928	DistSensors	InitReader	none	RES
1	2017-02-27 17:38:13.954	ServoCont	InitServo	none	REQ
1	2017-02-27 17:38:13.964	ServoCont	InitServo	none	RES
1	2017-02-27 17:38:13.991	Car	SteerStraight	none	REQ
1	2017-02-27 17:38:13.992	ServoCont	SteerTo	dir=7	REQ
1	2017-02-27 17:38:15.145	ServoCont	SteerTo	dir=7	RES

Sequence Diagram

The goal of EA Sequence Miner is to transform log traces to **standard conformant** UML sequence diagrams.

This process can be viewed as a **text-to-model transformation**. A new sequence diagram is created for a specific log file. Log entries are then analyzed and transformed into corresponding elements of this sequence diagram, such as lifelines, occurrence specifications and messages.



EA Sequence Miner is a Plugin for Enterprise Architect.
For any inquiries, please contact LieberLieber Software GmbH:
<https://www.lieberlieber.com/>

Contact

DI Mag. Dr. Alexandra Mazak
alexandra.mazak@jku.at

Peter Lieber, LieberLieber
peter.lieber@lieberlieber.com



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<https://cdl-mint.se.jku.at>



JKU Linz

Institute of Business Informatics – Software Engineering

CDL-MINT

Altenberger Straße 69, Science Park 3


4040 Linz

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