
IPETRONIK

Key-Value Pairs (KVP)

Maximize data traceability with IPEmotion and MDF4 data files

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▶ With KVP you can increase data traceability.

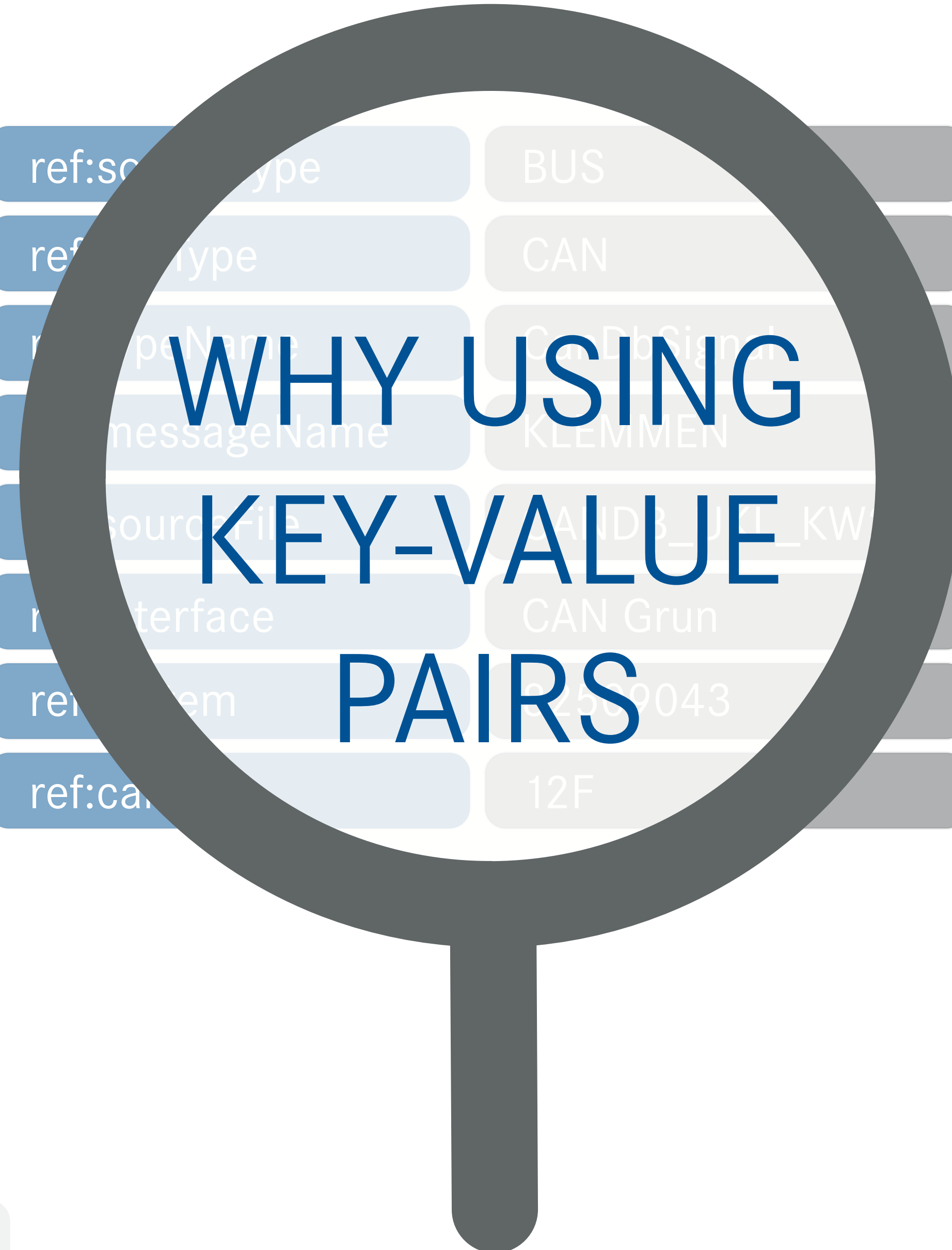
▶ Add meta data of the measurement environment to your data files

▶ Reduce complexity and hierarchy of data file structure.

▶ Simplify your post processing operations.

▶ MDF4 data file export can be customized for Key-Value Pairs.

▶ Key-Value Pairs are supported on all IPETRONIK data loggers.



ref:source	type	BUS
ref:source	type	CAN
ref:source	type	CanDbSignal
ref:source	messageName	KLEMMEN
ref:source	sourceFile	CANDB_JUL_KW
ref:source	interface	CAN Grun
ref:source	id	02509043
ref:source	ref:can	12F

WHY USING KEY-VALUE PAIRS

General	
Type	NumericVector
Name	V__VEH_COG
Description	DTS-Zuordnung:Speed
Values	
Value count	153355
Unit	km/h
Data type	16-Bit integer unsigned
Physical Min	0
Physical Max	1023,984375
Display Min	0
Display Max	1023,984375
Decimal places	Automatic
...	...

EXAMPLE: KEY-VALUE PAIRS



What you do not know where is the data coming from?

- ▶ Which measurement system?
- ▶ What kind of bus (CAN, LIN, ETH)?
- ▶ Which ECU is sending data?
- ▶ Which DBC / A2L / FIBEX description file was used?
- ▶ Which Protocol XCP, CCP, .?
- ▶ ... more ...

User defined parameters

Value

ref:sourceType

BUS

ref:busType

CAN

ref:typeName

CanDbSignal

ref:messageName

V-VEH

ref:sourceFile

CANDB_UKL_KW27_1

ref:Interface

CAN Grun

ref:system

82509043

ref:canID

1A1

ref:SenderName

DSC_Modul_DSC_2013

ref:BusSender

DSC_Modul_DSC_2013

ref:DeviceName

M-LOG-8-2 V3

ref:DeviceSerNo

82509043

...

...

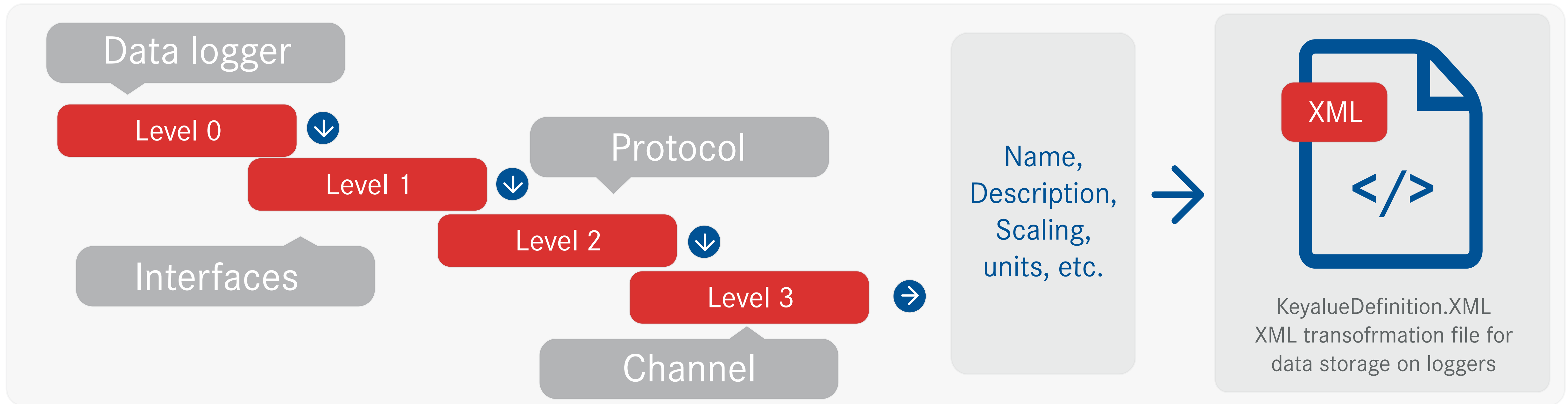
EXAMPLE: KEY-VALUE PAIRS



KVP: Answer to your questions

- ▶ Bus type: CAN
- ▶ Description file: CANdb
- ▶ Name of the config file
- ▶ System: Logger Serial Number
- ▶ CAN ID of Signal
- ▶ ... A lot more ...

FLAT STRUCTURES - XML TRANSFORMATION



Flat data structure on channel level:

Channel
Level 3

Name, Description,
Scaling, units, etc.

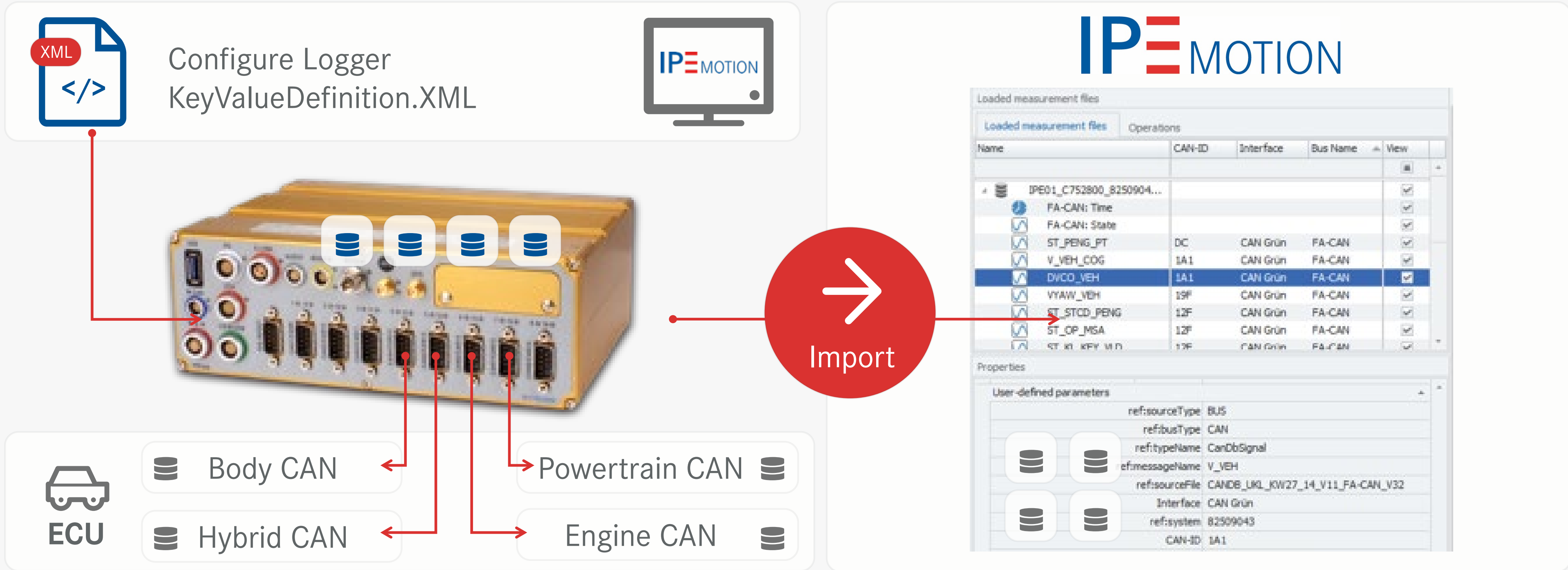
Logger
Level 0

Interfaces
Level 1

Protocols
Level 2

Properties of different levels are consolidated on channel level. Full data traceability!

PROCESS OVERVIEW



MDF4 - CUSTOMIZED DATA EXPORT

IP MOTION



Loaded measurement files

Name	CAN-ID	Interface	Bus Name	View
IPE01_C752800_8250904...				
FA-CAN: Time				
FA-CAN: State				
ST_PENG_PT	DC	CAN Grün	FA-CAN	
V_VEH_COG	1A1	CAN Grün	FA-CAN	
DVCO_VEH	1A1	CAN Grün	FA-CAN	
YAW_VEH	19F	CAN Grün	FA-CAN	
ST_STCD_PENG	12F	CAN Grün	FA-CAN	
ST_OP_MSA	12F	CAN Grün	FA-CAN	
ST_M_KP_VEH	13F	CAN Grün	FA-CAN	

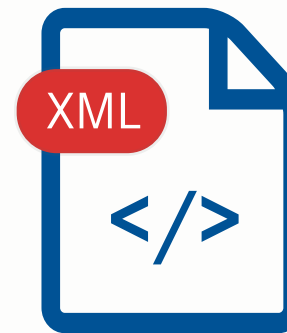
Properties

User-defined parameters

ref:sourceType	BUS
ref:busType	CAN
ref:typeName	CanDbSignal
ref:messageName	V_VEH
ref:sourceFile	CANDB_UKL_KW27_14_V11_FA-CAN_V32
Interface	CAN Grün
ref:system	82509043
CAN-ID	1A1



Export



Mdf4Metadata
Configuration.XML

ASAM

Vector MDF Validator

IPE01_C752800_82509043_20150630T131637_DO010101

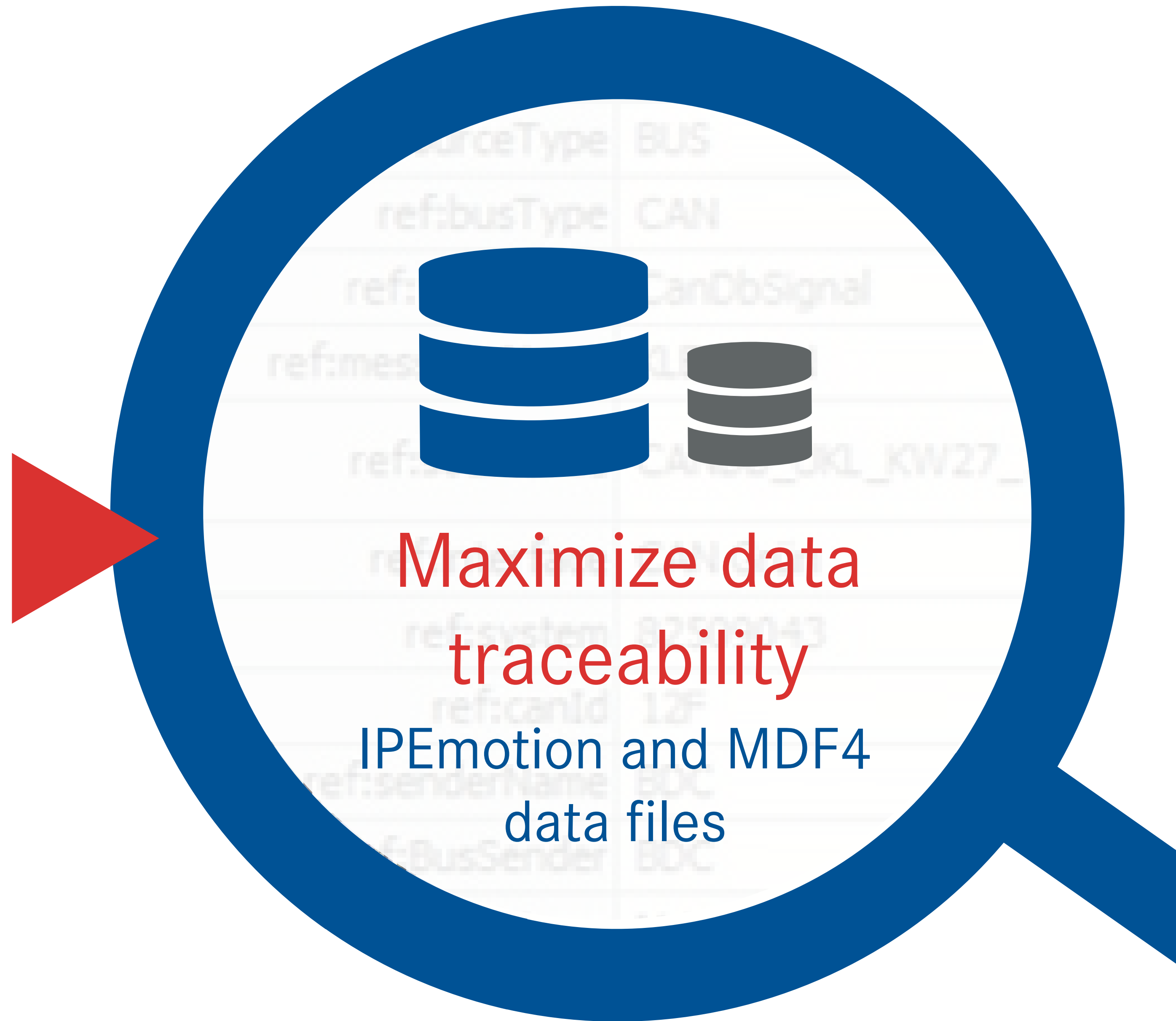
IPE01_C752800_82509043_20150630T131637_0

- ID Block [MDF 4.10]
- Header Block
 - Meta Data Block
 - File History 1 (ci = 0)
 - Data Group 1
 - Data Block
 - Text Block
 - Channel Group 1
 - Meta Data Block
 - Text Block
 - Source Information
 - FACAN: Time
 - FACAN: State
 - ST_PENG_PT
 - V_VEH_COG
 - DVCO_VEH

MDF4 File

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KEY-VALUE PAIRS



DO YOU WANT TO KNOW MORE?

GET IN TOUCH WITH US!



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