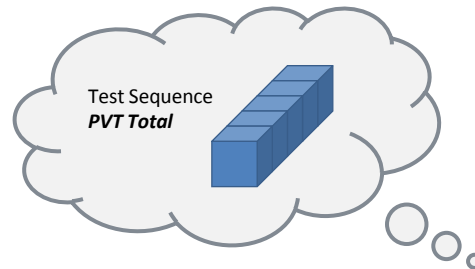
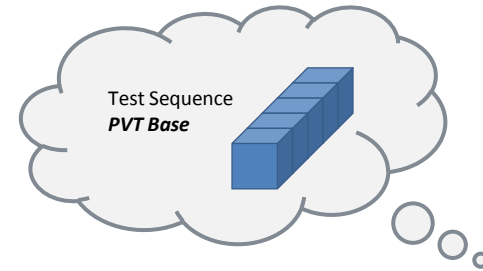
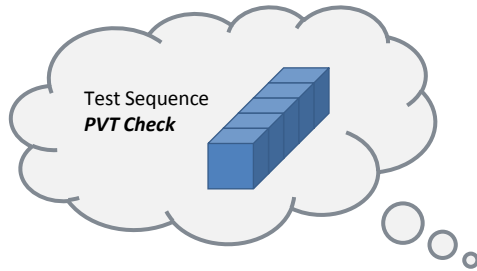


**VOLVO**

# What we have



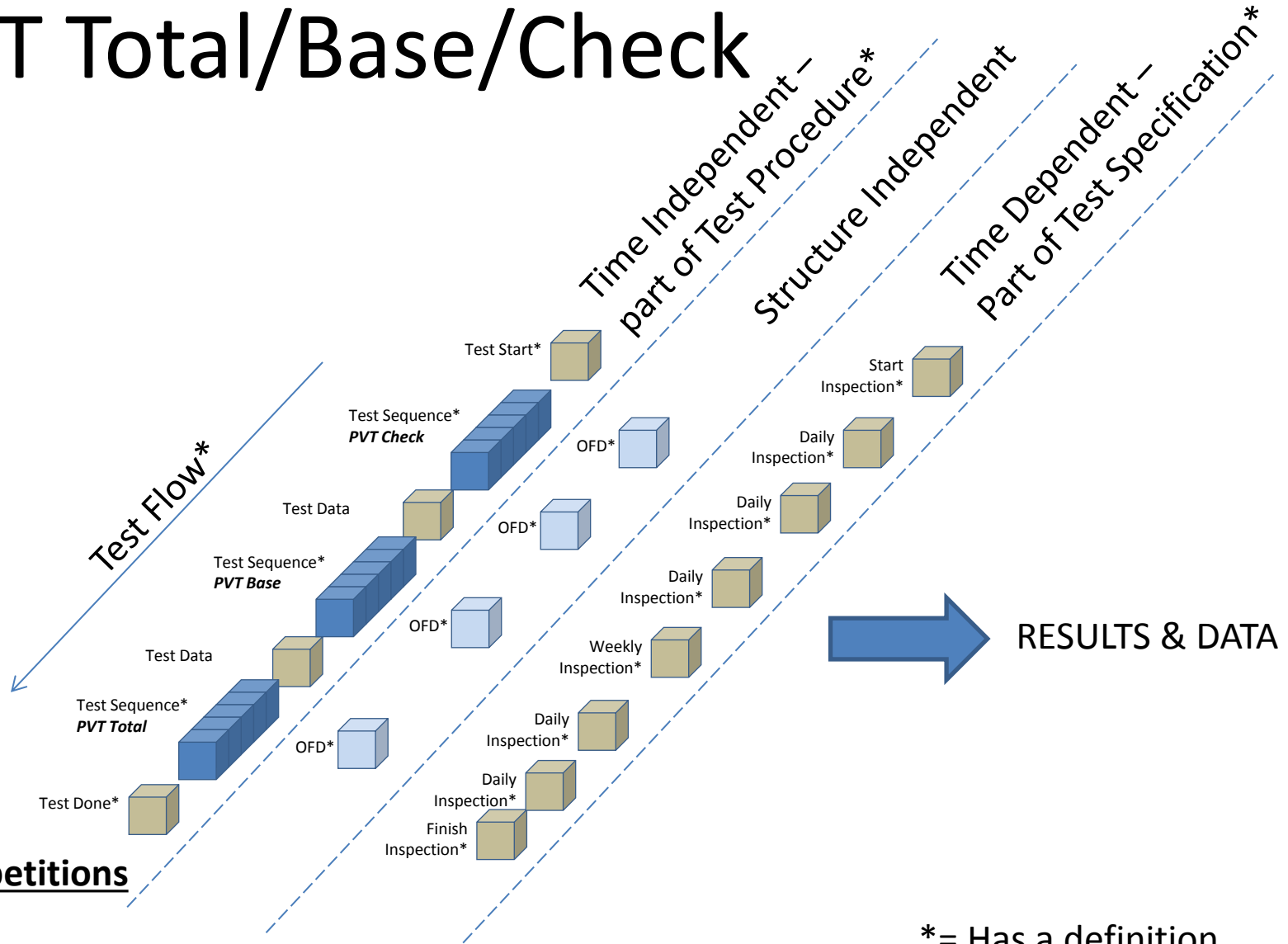
Other test data stored in excel,  
word, text, mail etc and in a non-  
standard way (depending on the  
Engineer)

# Purpose of Meta-model

- Unified way of handling test data (not only TC and result)
- Force users to generate information
- Be able to compare test data between different views.
- Make our product (INFORMATION) shine!

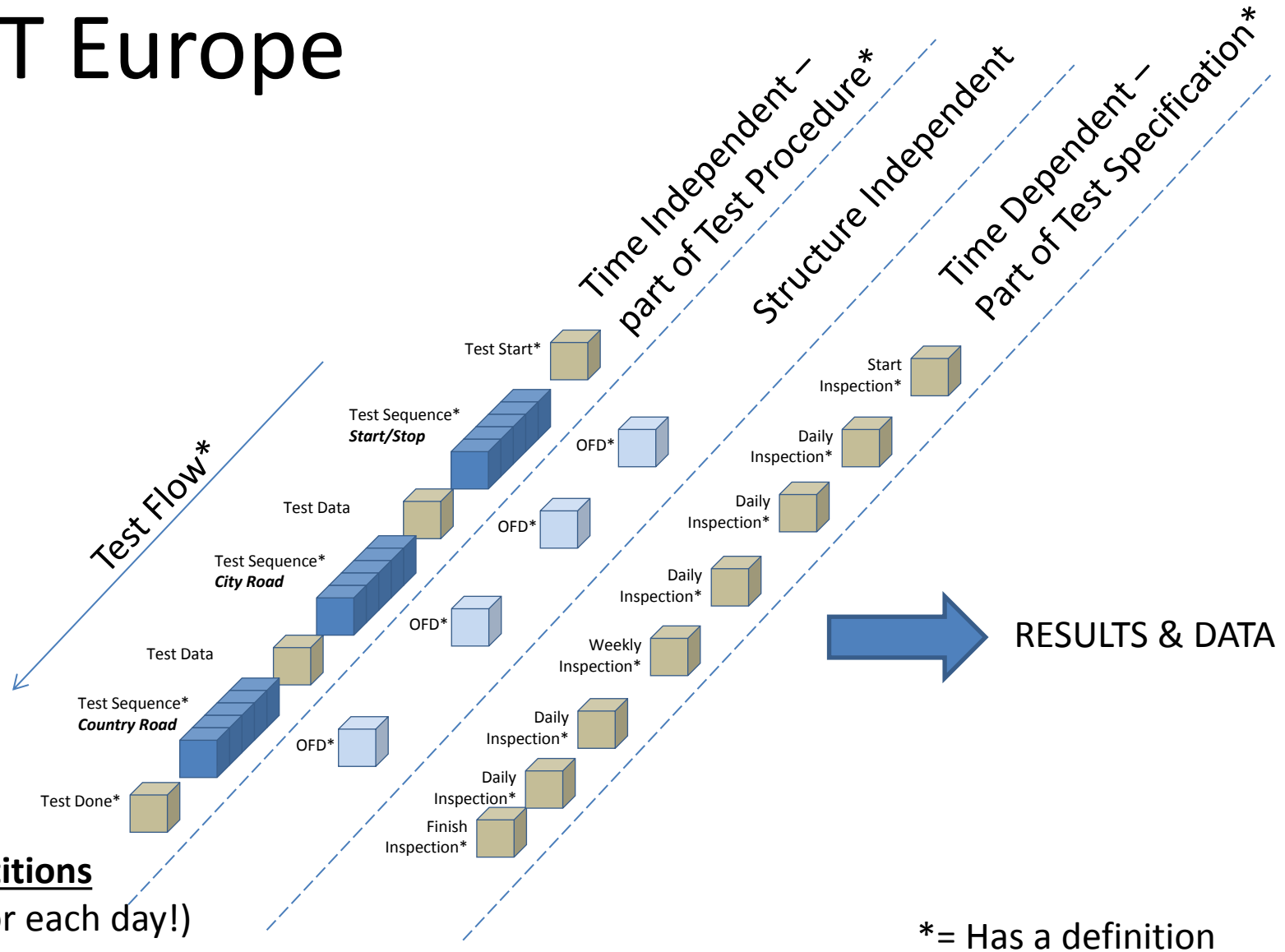
# PVT Total/Base/Check

**X repetitions**



\*= Has a definition

# PVT Europe



## TESTPLAN

TEST		TESTSPECIFICATION	
<b>TESTREQUEST–</b>			
<b>PERSONNEL–</b>			
<b>PROJECT/S–</b> Main project Co-riding Projects Other sync		<b>TESTPROCEDURE</b>	
<b>TESTOBJECT –</b> Vehicle (PROTUS version) SW Release SW Baseline		<b>TESTROUTINE – Start of test</b>	
<b>TESTEQUIPMENT –</b> Mlogger Other		<b>TESTSEQUENCE</b>	
<b>TESTDIARY –</b>		TESTCASE	
		TESTCASE	
		TESTCASE	
<b>OTHER –</b> SPEC REQUIREMENT/S Quest?		<b>TESTROUTINE</b>	
		<b>TESTSEQUENCE</b>	
		TESTCASE	
		TESTCASE	
		TESTCASE	
		<b>TESTROUTINE</b>	
		<b>TESTSEQUENCE</b>	
		TESTCASE	
		TESTCASE	
		TESTCASE	
		<b>TESTROUTINE – End of test</b>	
			<b>TESTROUTINE – Daily Insp</b>
			<b>TESTROUTINE – Weekly Insp</b>
			<b>TESTROUTINE – Overnight</b>
			<b>TESTROUTINE – Trailer swap</b>
			<b>TESTROUTINE – Cargo weight</b>
			<b>TESTROUTINE – 24h</b>
			<b>TESTROUTINE – Go/NoGo</b>

# **VOLVO**

**Presentation 2013-08-23**

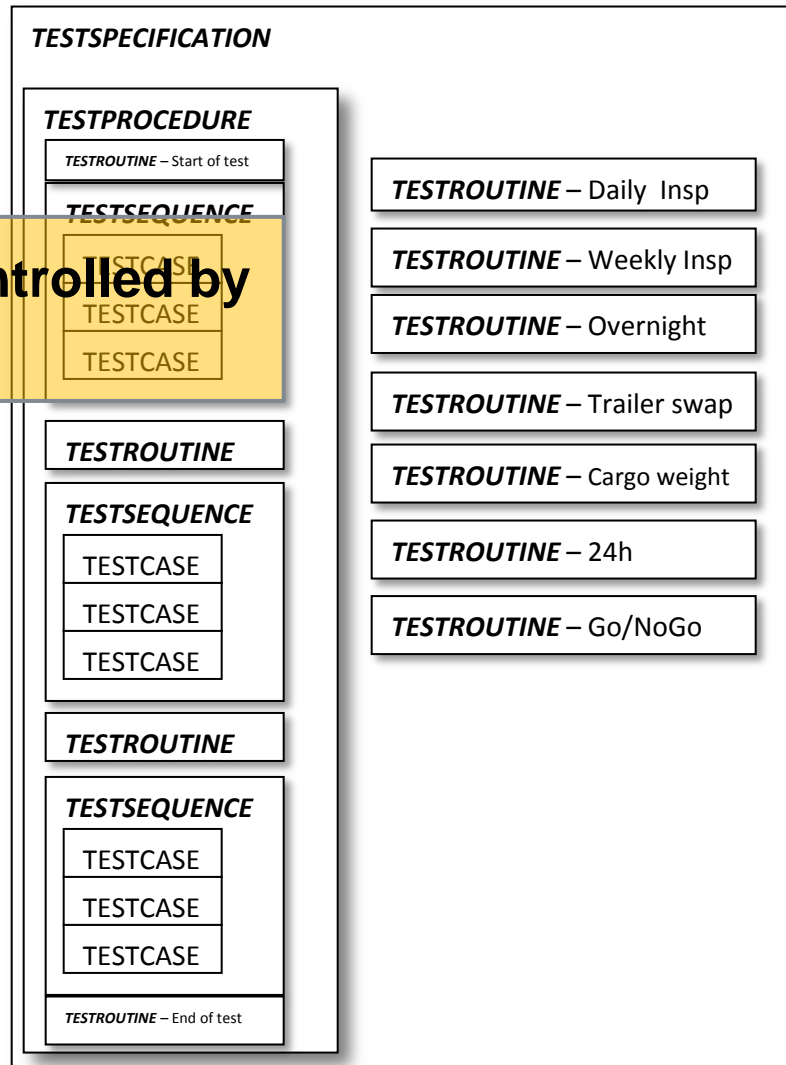
# PVT Total – Planning & Preparation

TestProcedure =  
Sequal Data

**Testorder is controlled by  
driver settings**

PVT Base →

PVT Total →



← Non-sequal  
data



## TESTSPECIFICATION

### TESTPROCEDURE

*TESTROUTINE* – Start of test

#### TESTSEQUENCE

TESTCASE

TESTCASE

TESTCASE

### TESTROUTINE

#### TESTSEQUENCE

TESTCASE

TESTCASE

TESTCASE

### TESTROUTINE

#### TESTSEQUENCE

TESTCASE

TESTCASE

TESTCASE

*TESTROUTINE* – End of test

*TESTROUTINE* – Daily Insp

*TESTROUTINE* – Weekly Insp

*TESTROUTINE* – Overnight

*TESTROUTINE* – Trailer swap

*TESTROUTINE* – Cargo weight

*TESTROUTINE* – 24h

*TESTROUTINE* – Go/NoGo



# RESULT

# TEST PROTOCOL

## TESTSPECIFICATION

### TESTPROCEDURE

TESTROUTINE – Start of test

### TESTSEQUENCE

TESTCASE

TESTCASE

TESTCASE

### TESTROUTINE

### TESTSEQUENCE

TESTCASE

TESTCASE

TESTCASE

### TESTROUTINE

### TESTSEQUENCE

TESTCASE

TESTCASE

TESTCASE

TESTROUTINE – End of test

TESTROUTINE – Daily Insp

TESTROUTINE – Weekly Insp

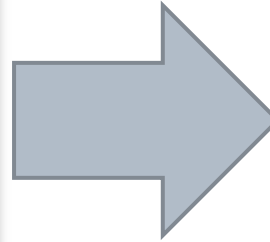
TESTROUTINE – Overnight

TESTROUTINE – Trailer swap

TESTROUTINE – Cargo weight

TESTROUTINE – 24h

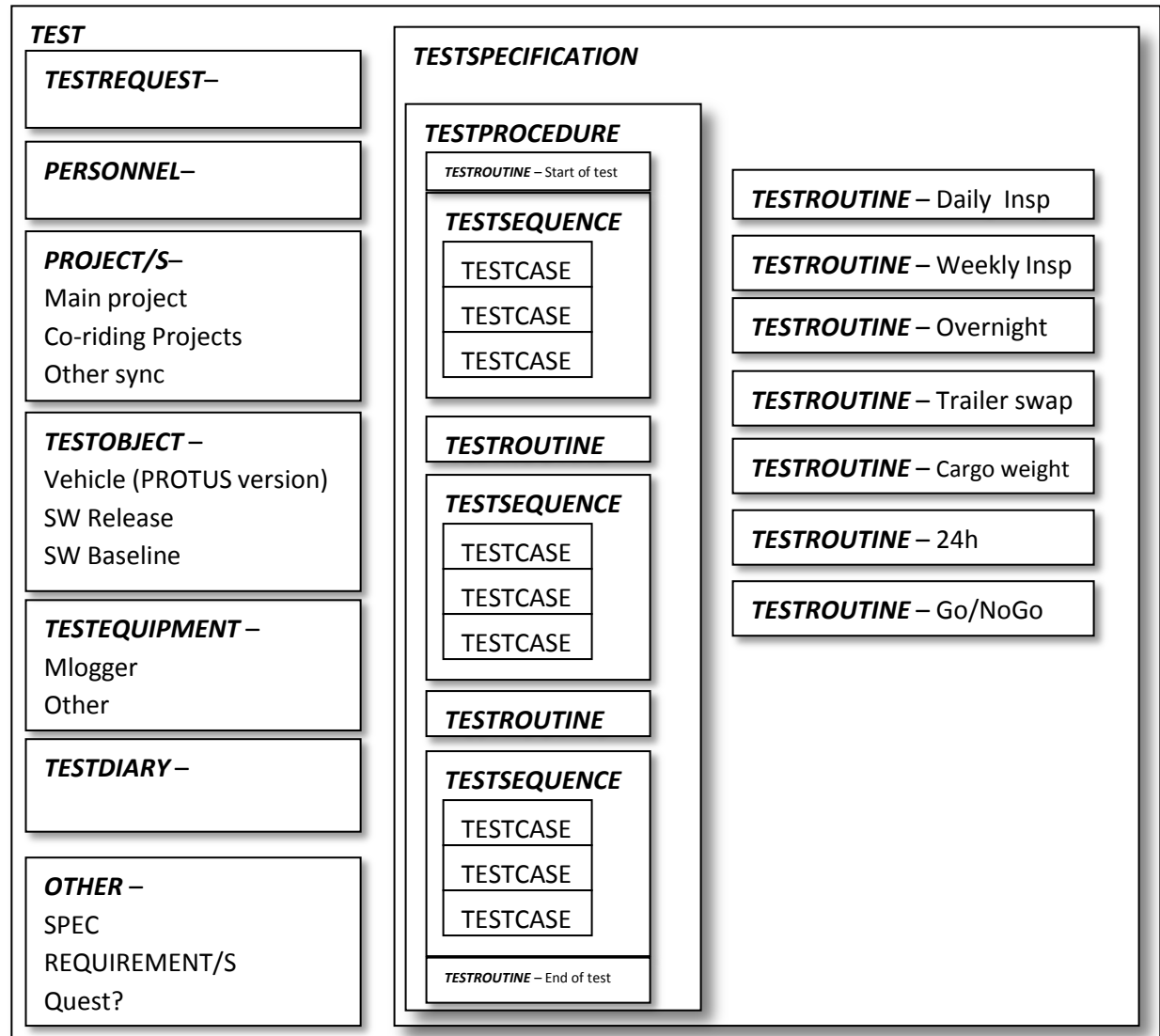
TESTROUTINE – Go/NoGo



## TEST PROTOCOL

Timestamp	Who	Type	Result	Tagged for
2013-08-22 09:16:21	Driver – Kroken	TestRoutine – Start of Test	OK	
2013-08-22 09:17:01	Driver – Kroken	Testcase #314:1	OK	#Testcase Review
2013-08-22 09:18:22	Engineer – Motten	Diary Input	OK	#Note
2013-08-22 09:19:12	Driver – Kroken	OFD	NOK	#Error
2013-08-22 09:19:13	Driver - Kroken	TestRoutine – Trailer Swap	OK	

# Testspecification belongs to a Test



# Compiled data

- Testcase-result and OFD➔ Status of each Function/Area
- Compare results between trucks, testcase, projects, SW releases, drivers, engineers, hours spent, budget followup, mileage,
- Knowledge management for PVT, projects(whitebooks), line-org (new employees, learn from eachother), Control,
- Follow a project from Quest, email communications, to PMR and testing

# ALOT of new nomenclature

Name	Category	Sub category	Description
TEST	Nomenclature	Container	The overall container for every planned and executed activities including the result
TESTSPECIFICATION	Nomenclature	Container	The container for the activities in the TEST. Contains both sequential and non-sequential activities
TESTPROCEDURE	Nomenclature	Container	The container for all sequential activities in a TESTSPECIFICATION, Needs to be executed in chronological order.
TESTPROTOCOL	Nomenclature	Container	The result of a TEST
TESTSEQUENCE	Nomenclature	Container	Set of testcases, Are default sorted but can be sorted individual as well.
TESTROUTINE	Nomenclature	Container	A generic container for every planned activity that is not a testcase/testsequence. Could be time-dependent(Such as Daily inspections) or independent (Such as Test start routine or Start Inspection)
TESTCASE	Nomenclature	Container	Description, Expected Result and attributes collected to one container, possible to generate structure and statistics
TESTREQUEST	Nomenclature	Container	Information from the customer, a desire to perform a TEST. Can be updated during the preparation of the TEST
TESTDIARY	Nomenclature	Container	A timebased notepad where all non-planned activities can be documented. Used for personal use, evaluation, knowledge management and formal reporting
PVT Check	Test		
PVT Base	Test		
PVT Total	Test		
PVT Haulage	Test		
PVT Development	Test		Custombuilt testspecification
PVT Europe	Test		
Start Inspection	Test Routine		Inspection of vehicle before start of testing.
Daily Inspection	Test Routine		Inspection and routine after one day of testing.
Weekly Inspection	Test Routine		Inspection and routine after one week of testing.
End Inspection	Test Routine		Final inspection after all Sequences are performed. Includes to restore the truck in to normal shape.
Step Inspection	Test Routine		In between inspection
Overnight 1 person	Test Routine		Routine for spending the night alone in the truck
Overnight 2 person	Test Routine		Routine for spending the night in the truck with 2 persons
PVT Check Sequence	Test Sequence	Verification test	All PVT Check testcases in default order. Sorting based on driver input if available!
PVT Base Sequence	Test Sequence	Verification test	All PVT Base testcases except the PVT Check in default order. Sorting based on driver input if available!
PVT Total Sequence	Test Sequence	Verification test	All PVT Total testcases except the PVT Check and PVT Base in default order. Sorting based on driver input if available!
PVT Haulage Sequence	Test Sequence	Validation test	All PVT Haulage testcases
City Sequence	Test Sequence	Validation test	Sequence in PVT Europe
Country Road Sequence	Test Sequence	Validation test	Sequence in PVT Europe
Highway Sequence	Test Sequence	Validation test	Sequence in PVT Europe
Sleepover Sequence	Test Sequence	Validation test	Sequence in PVT Europe
Start/Stop Sequence	Test Sequence	Validation test	Sequence in PVT Europe
Driver Sorting	Test Sequence	Settings	Individual sorting of testcases for verification sequences

# Questions

- Are we building a too advanced system with this?
- Can we control the Tests globally with this?
- Can we handle Knowledge Management with this?
- Can we generate statistics from this?
- Can we build further functionality? (e.g. Requirement traceability)
- Can we easily adapt the system to new structure (e.g. IFR)
- Can we autogenerate reports from this structure?