



**Data production**

 **Shipdex**<sup>TM</sup>  
Setting the standard

**Henrik Kaspersen**

**Manager, GMD11, Technical Doc.**

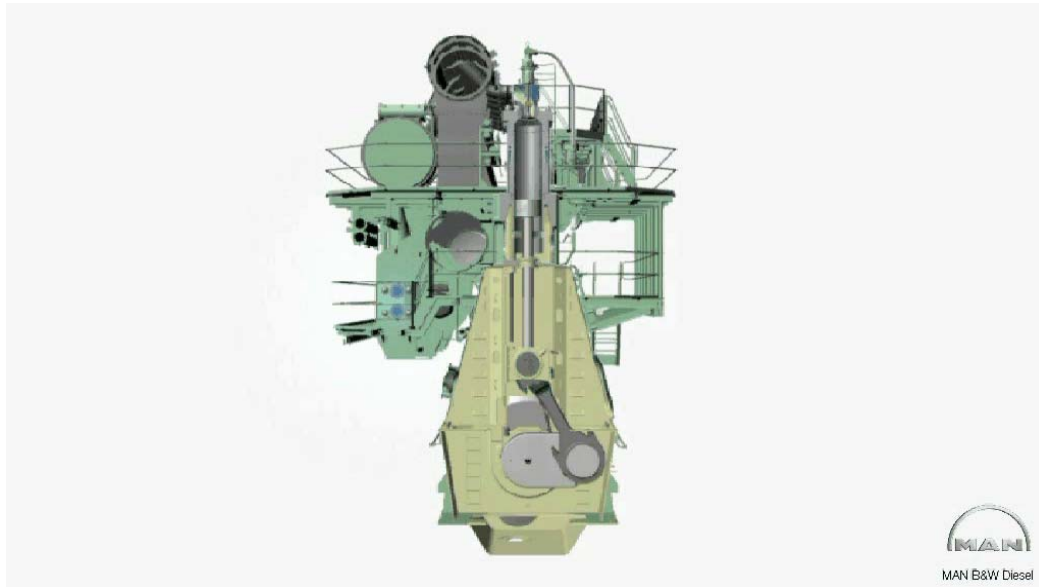
**MAN Diesel**

# Agenda

- Motivation for entering Shipdex
- Requirements to manufacturers
- The project work at MAN Diesel
- Conclusion



# Product and documentation



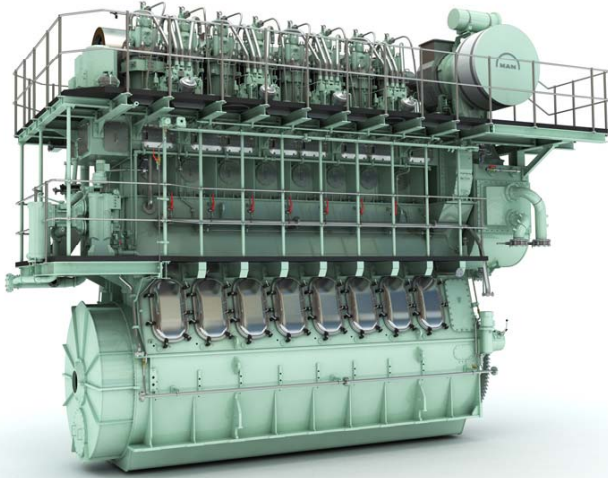
Purpose of manufacturers manuals:

- Safety
- Reliability
- Economy
- Meet legal legislations



**MAN Diesel**

# Get rid of all those paper manuals



**Electronic maintenance systems are widely used for:**

- planning of maintenance work
- inventory management

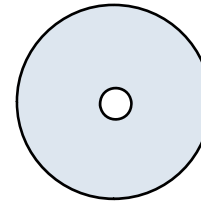
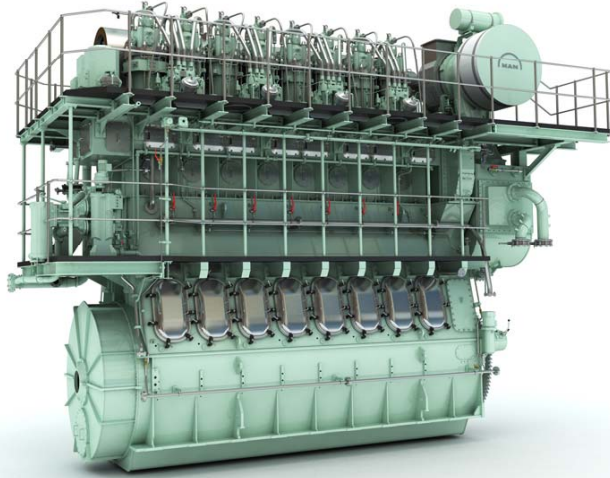
**Challenges:**

- time-consuming to feed the database
- errors may be introduced
- lack of uniformity

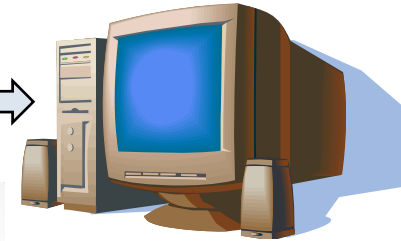


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# Shipdex – the universal adapter



1011001010111111001  
1100001110101101010  
1010101010100110110



## A Shipdex data set contains:

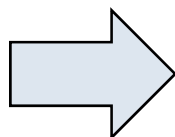
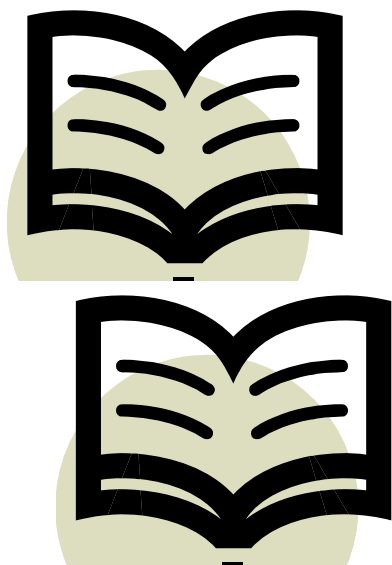
- Spare parts data
- Maintenance data

## Data base:

- ready for use
- high-quality data
- uniformity



# Requirements to manufacturers



- [-] DATA\_MODULES
  - [-] INFOSET\_DESCRIPTION\_AND\_OPERATION
  - [-] INFOSET\_IPD
  - [-] INFOSET\_MAINTENANCE\_PROCEDURE
  - [-] INFOSET\_SERVICE\_BULLETIN
  - [-] INFOSET\_TROUBLESHOOTING
- [-] DML
- [-] EXT\_DOCUMENTS
- [-] INFO\_OBJECTS

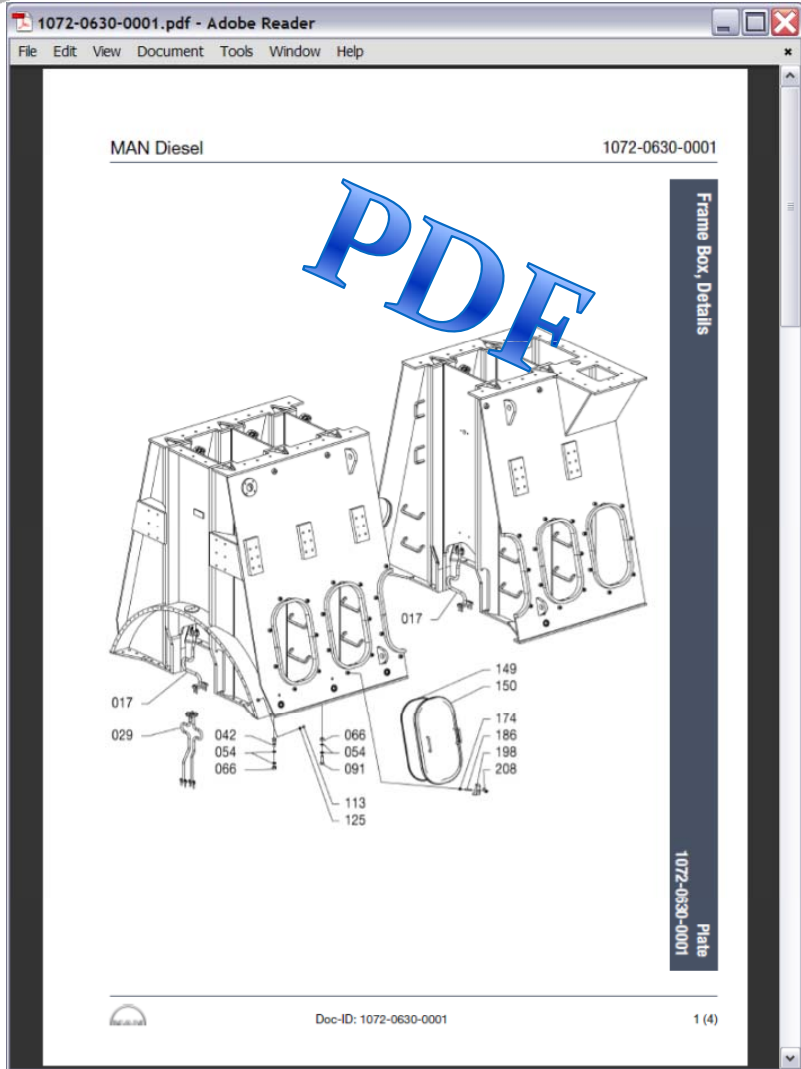
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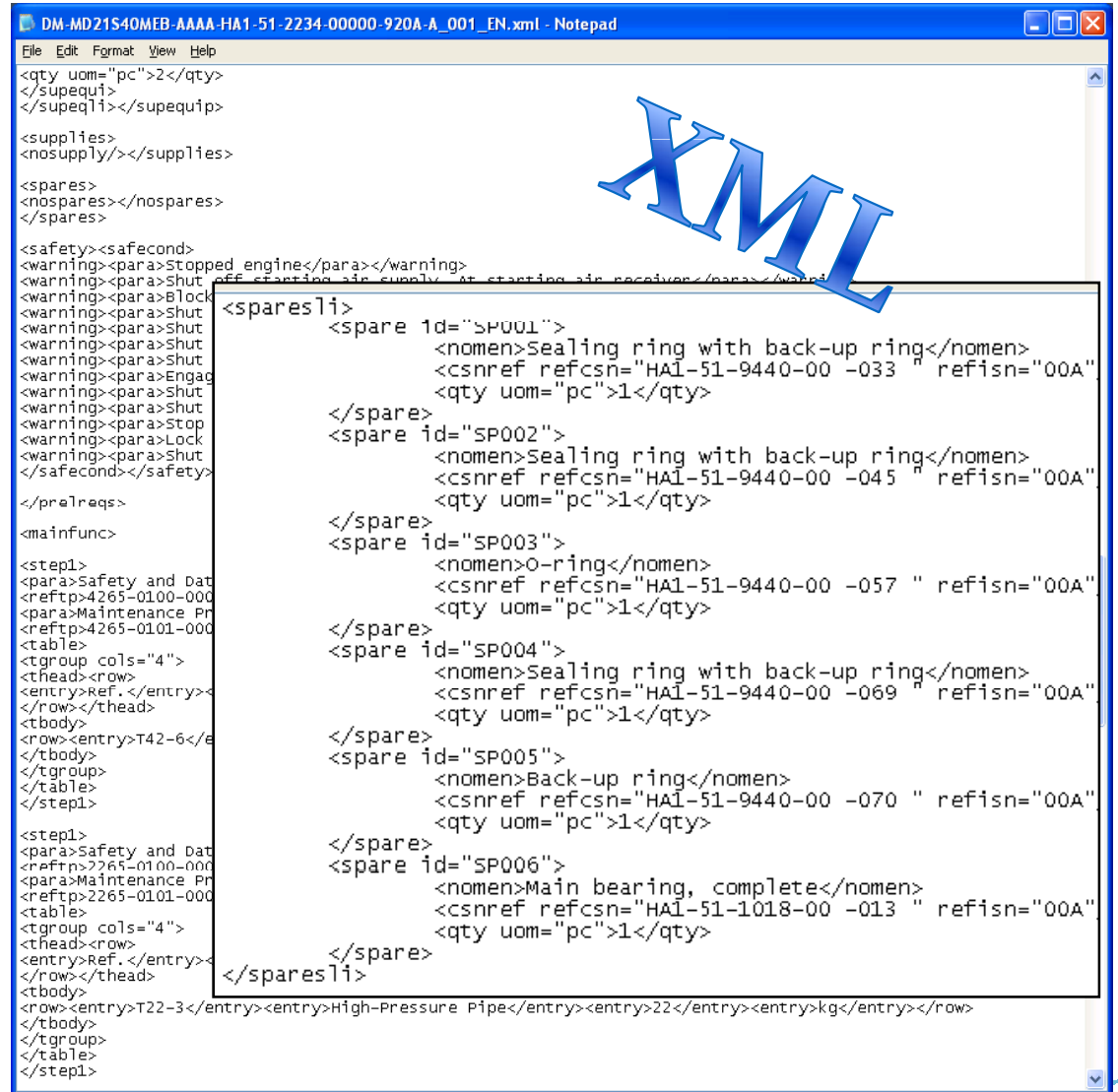
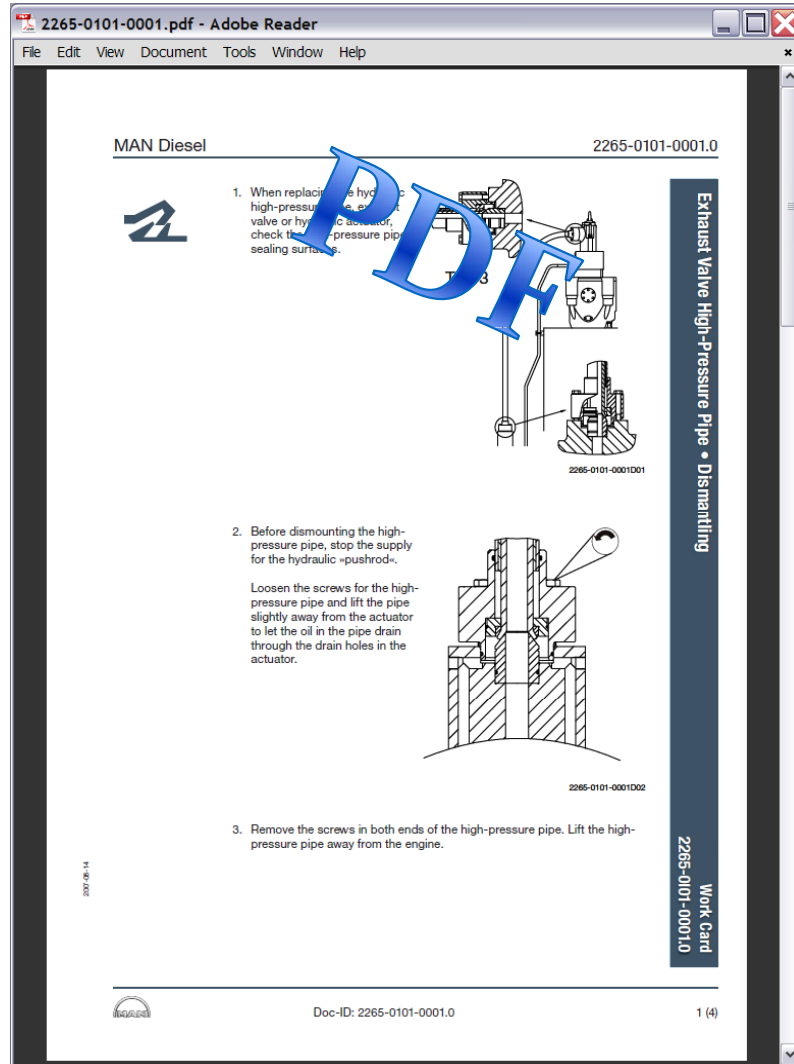
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File Edit Format View Help
<?xml version="1.0" encoding="utf-8"?>
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<!--Arbortext, Inc., 1988-2005, v.4002-->
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<!NOTATION pdf SYSTEM "pdf">
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]>
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<pas>
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<pcs uom="pc">
<qui>AR</qui></pcs></pas>

```

**XML**

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**</figure>**  
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**<isn isn="00A">**  
**<rfs value="0"/>**  
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**<mfc>R1594</mfc>**  
**<pnr>1072-0630-0001-017</pnr>**  
**<pas>**  
**<dfp>Lubricating oil pipe for main bearing</dfp>**





# The Shipdex Protocol

Shipdex		The Shipdex™		Issue 1.1	
4.2.6.3.	UNIT OR ASSEMBLY .....				94
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Contract decisions

Numbering system

Standard tables

Authoring rules

Optionals





# Codifying the product to Shipdex

**MD21S40MEB-HA1-51-1018-00000-941A**

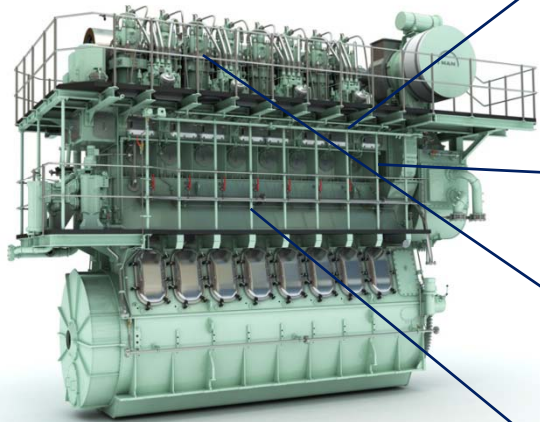
Model  
Identification  
code

Standard  
numbering  
system

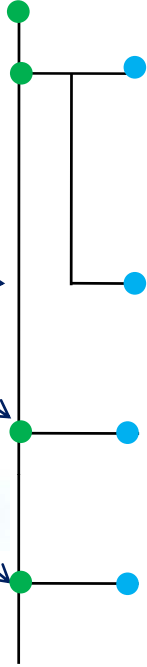
Disassembly  
code  
+ techname  
+ variant

Information  
code  
+ infoname  
+ variant

Product type



Design  
**HA1-51**



Documentation => Shipdex

IC= 941	IC= 310	IC= 711	IC= 711



MAN Diesel

# The project work at MAN Diesel

- Codifying the product to Shipdex

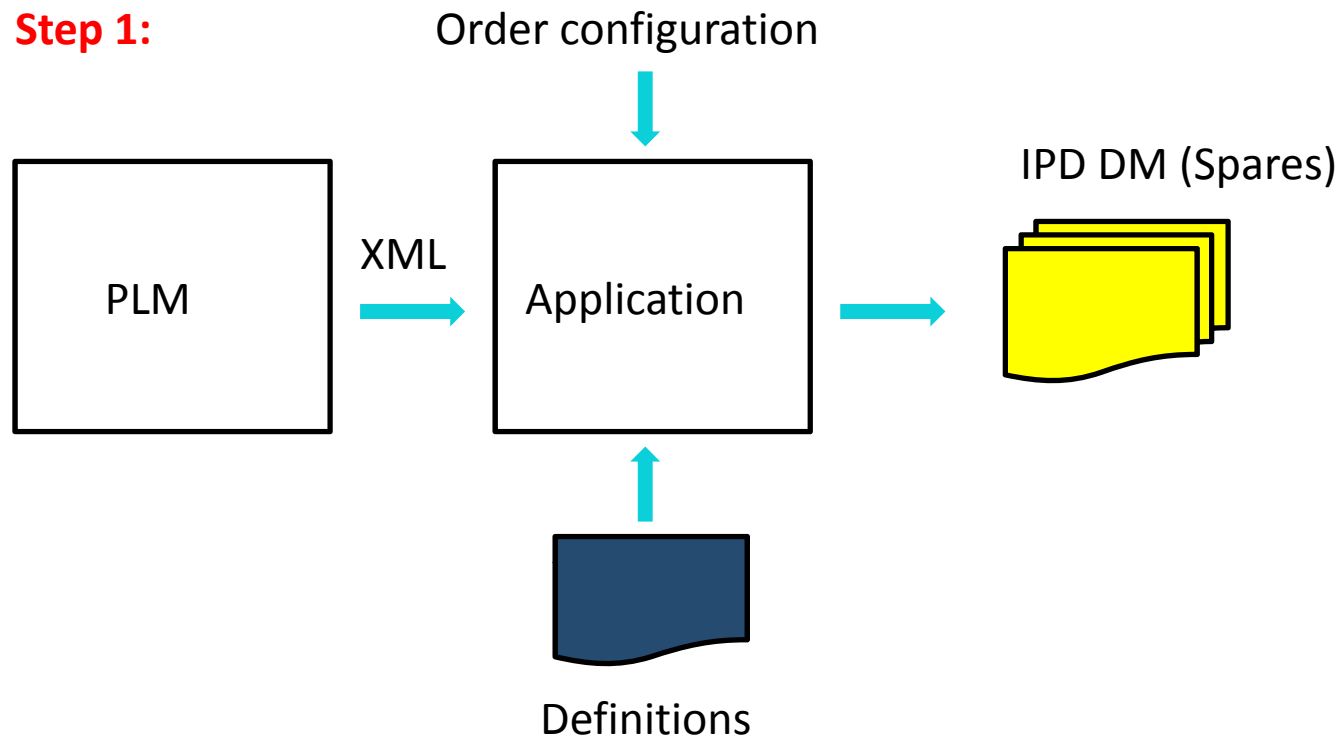
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[P90102]
Cylinder Cover - Hydraulic Ring
0006
02
A
C
[P90103]
Indicator Cock - Mounting
0006
03
A
C
[P90105]
Cylinder Cover - Pipes
0048
01
A
C
[P90201]
Piston and Piston Rod
0010
01
A
C
```



# The project work at MAN Diesel

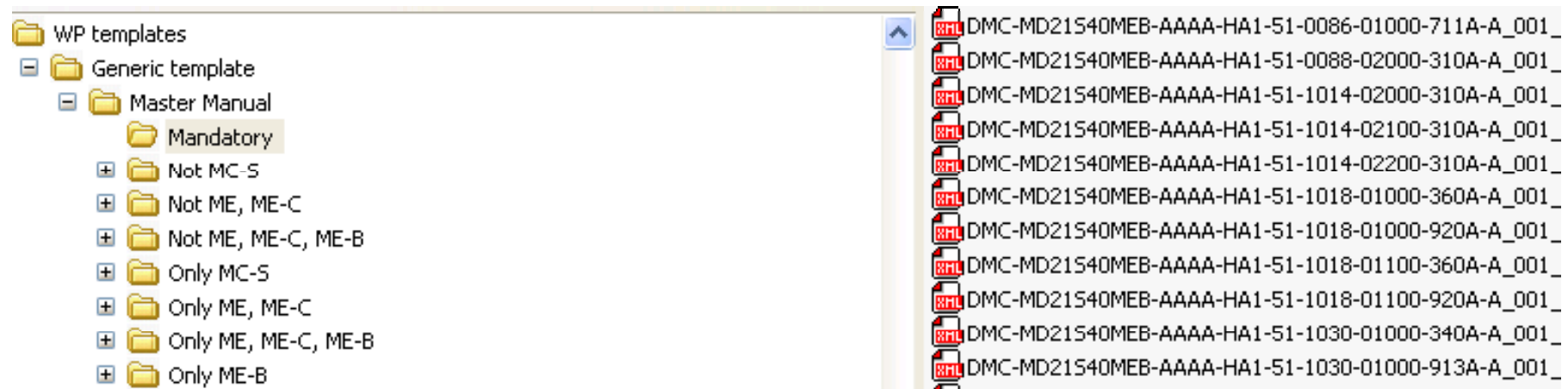
- Tools to combine PLM data and definitions into **Spare Parts DM (IPD DM)**

## Step 1:



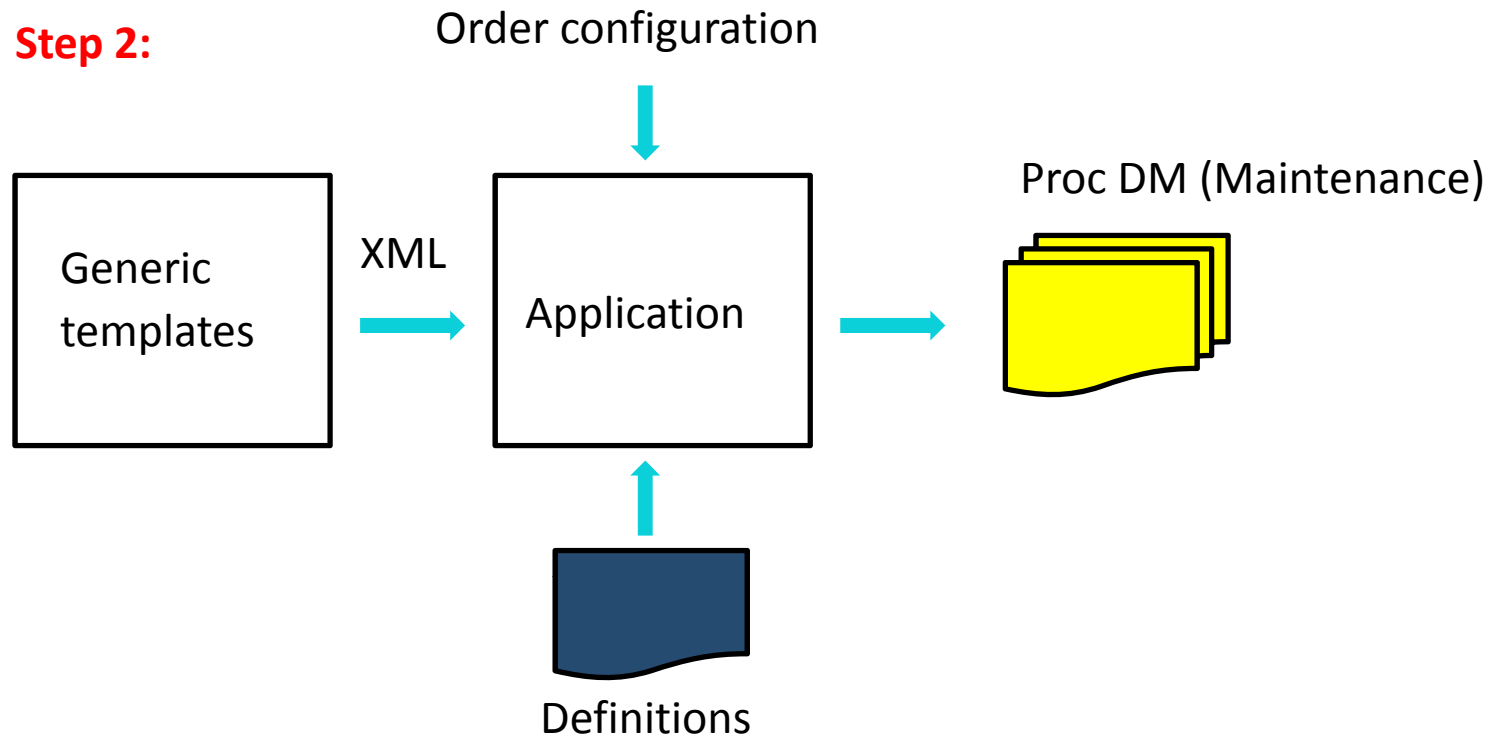
# The project work at MAN Diesel

- ❑ Pool of generic Work Procedure templates



# The project work at MAN Diesel

- Tools to combine Work Procedure templates and definitions into **Procedural DM**

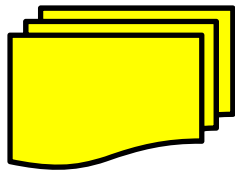


# The project work at MAN Diesel

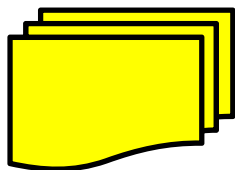
- Tools to build a **Shipdex data set**

## Step 3:

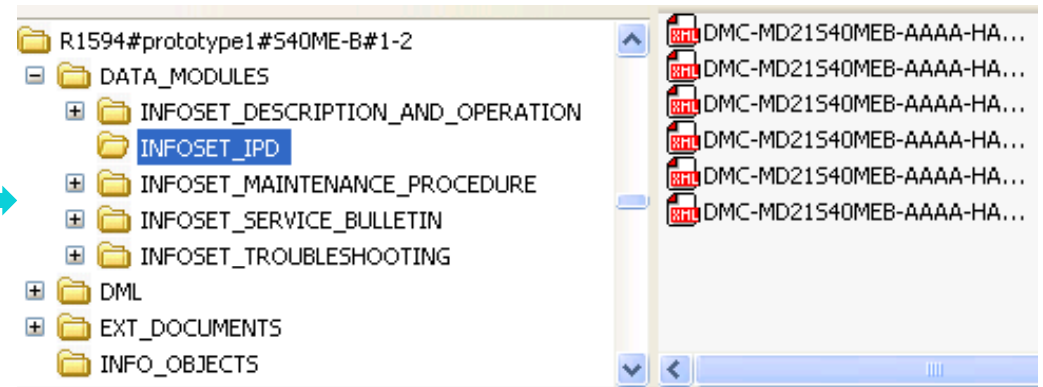
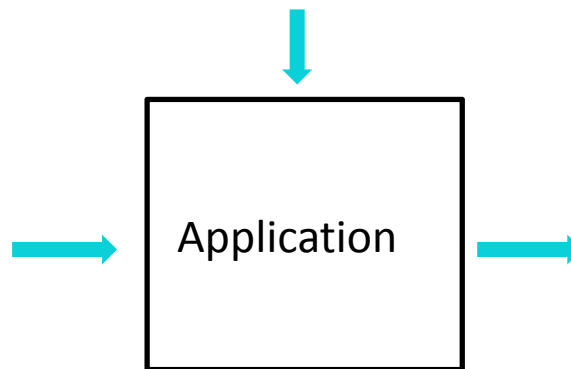
IPD DM



Proc DM



Order configuration



- \* DML
- \* ICN coding
- \* PDF inclusion



# The project work at MAN Diesel

□ Summary of project steps:

**Codify product to Shipdex**

**Create definition files**

**Create Work Procedure templates**

**Develop production software**

**Develop business processes**

**Develop Shipdex prototype data set**



# Conclusion

- It is a project :
  - to learn the Shipdex protocol
  - to codify the product to Shipdex
  - to make the necessary definitions
  - to review and change existing business processes
  
- When you succeed, Shipdex data production will be:
  - an integrated part of the daily technical documentation work
  - aligned to the business processes
  - contribute to enhancing internal processes and data quality



Questions are most welcome



**Thank you for your attention**

