Impact of the Human Machine Interface in a Production Environment

13th Annual EMS Summit, Berlin

11/28/2017 - Josef Kriegmair
MTU competency

Development/Production

- Low-pressure turbine
- Turbine center frame
- High-pressure compressor

Maintenance

- Low-pressure turbine
- Turbine center frame
- High-pressure turbine
- Combustion chamber
- High-pressure compressor
- Low-pressure compressor
- Fan

MTU components
Human Machine Interface (HMI)

Does it matter?
Human Machine Interface (HMI)

It does matter
Smart Factory

Technology

People

HMI

Process
Outstanding User Experience (UX)
Delight Users
Delight Users

- Easy to handle
- Self explanatory
- Few user actions
Key Success Factors

Deep understanding of the topic

Data Architecture

System is resilient

System incorporates complexity
Data Architecture, the bricks of tomorrow’s project execution.

Pedro Travares
Smarts Things Need a Unique Identity (UID) in the Data Architecture

\[ \text{UID} = \text{TYPE} + \text{INDIVIDUAL} \]
System Example: Start – Yellow Background

CHIP: UID for the system

TYPE: 2D Matrix
Touchscreen
Keyboard + mouse

IND.: 2D Matrix
Touchscreen
Keyboard + mouse
System Example: Manual Check – Blue Background

Touchscreen
Keyboard + mouse
System Example: Manual Check – Red Background

Touchscreen
Keyboard + mouse
Outstanding User Experience Provides Benefits

Quality

Cost

Time
Human Machine Interface
An underestimated lever to increase productivity
The value of technology is not what you have, but how you use it.
Ingeniously simple is beautiful
Q & A
MTU Aero Engines AG
Josef Kriegmair
Dachauer Strasse 665
80995 Munich, Germany
Josef.Kriegmair@mtu.de
www.mtu.de