

**EDDL Cooperation Team**

# **Field Device Integration (FDI) Project**

**ACHEMA 2009**



# FDI Project Briefing – AICHEMA 2009

- **Single solution for integration of field devices into host systems**
- **Combines strengths of EDDL and Device Type Manager (DTM)**
- **Open specification that will be an international Standard**
- **Technology direction agreed by major suppliers**
- **Use cases agreed by major end users**

# FDI Project Briefing – AICHEMA 2009

- **Host system independent**
- **Platform and operating system independent**
- **Provides access to the full capability of the field device**
- **Supports FOUNDATION™, HART®, PROFIBUS® & PROFINET®**
- **Adoptable to support other fieldbus communication technologies**
- **Based on OPC UA client/server specifications & information model**
- **Specifications independently validated by the ECT organizations**
- **Provides backward compatibility with existing EDD's & DTM's**
- **Provides conformance test requirements to assure compliance**
- **Provides guidelines for field device and system developers**

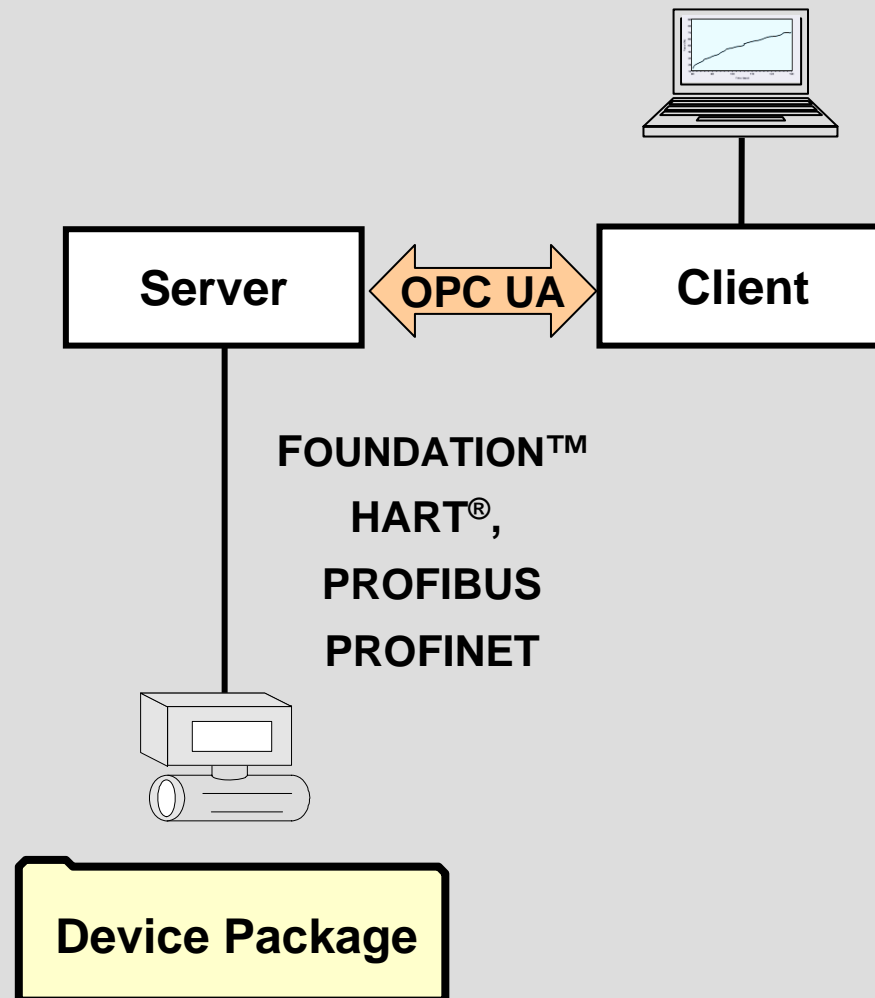
# FDI Project Briefing – AICHEMA 2009

- Input from AIDA, NAMUR, WIB and PNO on use case development
- Use cases based on plant life-cycle model
- Requirements derived from use cases
- System architecture derived from requirements

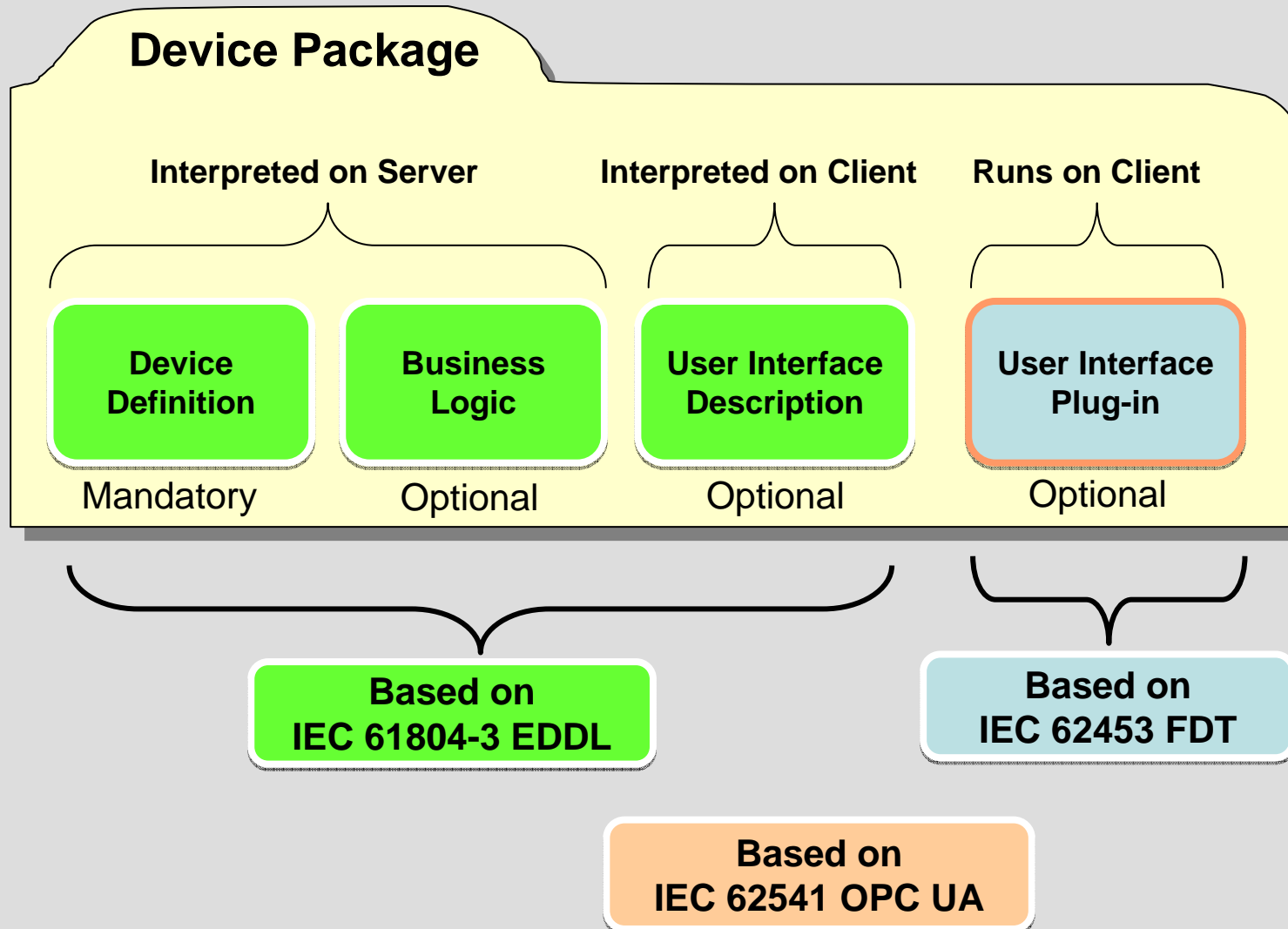
Planning	Engineering	Commissioning	Operation/Maintenance
<p>Process Design Device Selection</p>	<p>Location Requirements Engineering Field Topology Planning Redundancy Planning Segment Definition Device Instance Handling Communication Configuration Device Parameterization Function Block Assignment Function Block Parameterization IO Signal Assignment IO Signal Parameterization Control Application Engineering Alarm Engineering Operator HMI Setup Project Documentation</p>	<p>Topology Check Device Commissioning Data Synchronization Function Test System Commissioning Process Optimization</p>	<p>Operator Training Process Supervision Process Status View Production Parameter Setup Alarm Handling</p> <p>Condition Monitoring Device Calibration Define/Schedule Maintenance Action Diagnosis Establish Process Maintenance Mode Location Function Repair Device Repair Device Replacement Device Optimization Remote Service Online Data Access Simulation</p>

# FDI Project Briefing – AICHEMA 2009

## System Architecture



# FDI Project Briefing – AICHEMA 2009



# FDI Project Briefing – AICHEMA 2009

Client Window

<Device Instance Name>

<Device Type>

<Version>

<Manufacturer>

UI Functions

- UI Function 1
- UI Function 2

Group 1

Group 2

Group 1

Distance

Level

psi

0.0

Time(s)

Time (hours)

Group 2

User Interface Description

# FDI Project Briefing – AICHEMA 2009

The screenshot shows a 'Client Window' with a standard Windows-style title bar and toolbar. On the left, there is a sidebar with a tree view under '<Device Instance Name>' containing a valve icon and sub-items: '<Device Type>', '<Version>', '<Manufacturer>', 'UI Functions', 'UI Function 1', and 'UI Function 2'. The main area has two tabs: 'Group 1' and 'Group 2'. Below the tabs, a large grey rectangle is visible. At the bottom, a 'User Interface Plug-In' is displayed, which includes:

- A gauge titled 'Output1 [bar]' showing a reading of 0.73 bar. Below the gauge is a 'Bumpless Transfer' dropdown menu set to 'Disabled'.
- A bar chart titled 'Valve Position Stem Setpoint' showing two bars: 'Stem Setp.' at 50.02 and 'Valve Pos.' at 51.00.
- A settings panel on the right with the following options:
  - Zero point
  - Autocorrection
  - Fatal error
  - x-signal
  - W too small
  - i/p converter
  - Hardware

**User Interface Plug-In**

# FDI Project Briefing – ACHEMA 2009

- |  |         |
|--|---------|
| ✓ FDI Project approved                       | 1Q 2007 |
| ✓ FDI Project technical team kickoff meeting | 2Q 2007 |
| ✓ Use case review with NAMUR and WIB         | 4Q 2007 |
| ✓ Use cases and requirements approved        | 2Q 2008 |
| ✓ System Architecture                        | 3Q 2008 |
| ✓ Technology criteria                        | 4Q 2008 |
| ✓ Technology selection                       | 1Q 2009 |
| ✓ Draft functional specifications            | 1Q 2009 |
| ■ Begin specification validation             | 2Q 2009 |
| ■ Draft technical specifications             | 3Q 2009 |
| ■ Final specifications                       | 1Q 2010 |

# FDI Project Briefing – ACHEMA 2009

