

OPCが創り出す世界

日本OPC協議会
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内容

- ▶ OPCが創り出す世界
- ▶ コラボレーションにより広がる世界
- ▶ OPC-Jの活動

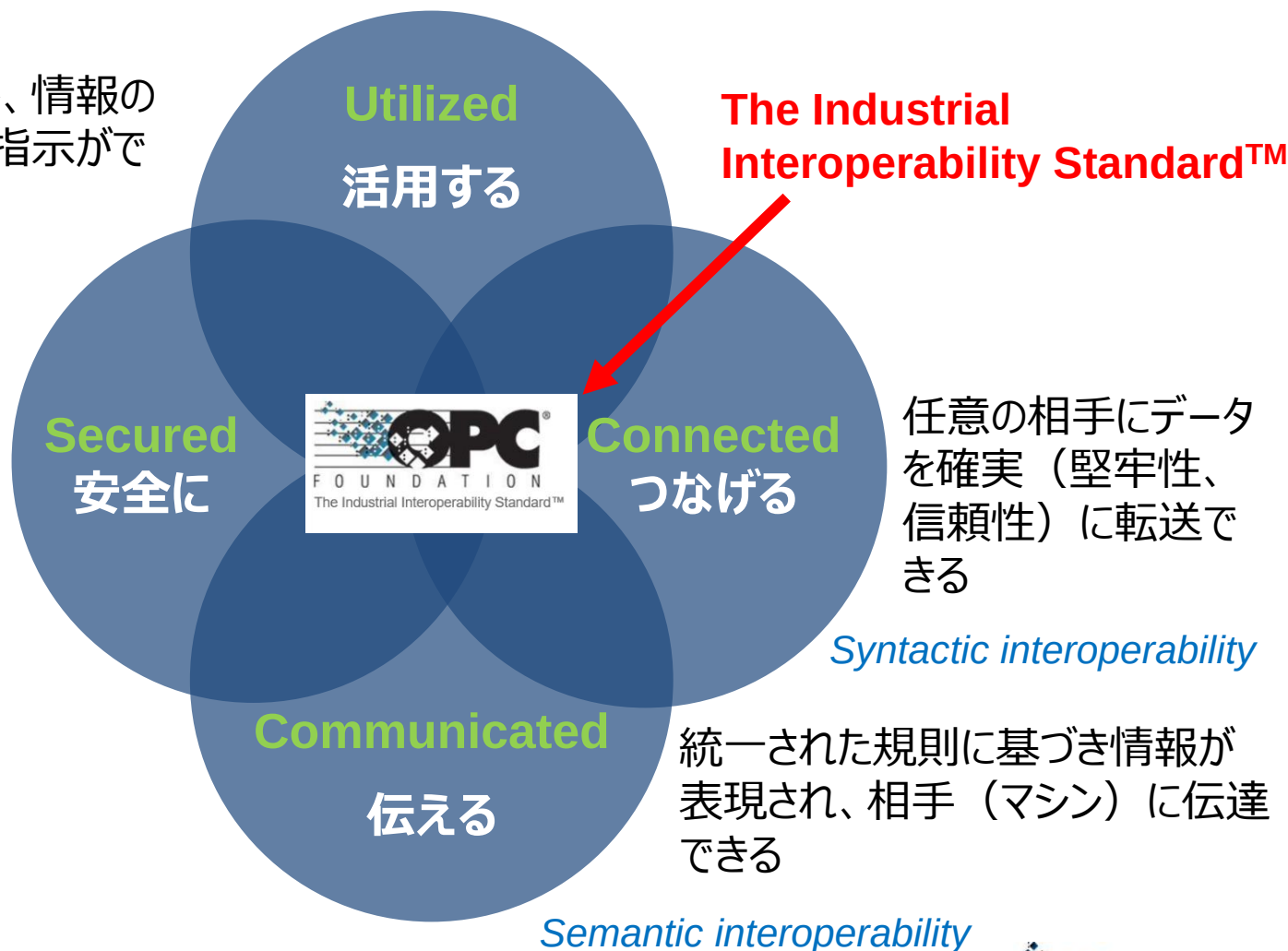
Inspiration! short on time



OPCが創りだす世界（ビジョン）

特定の課題に着目し、情報の
収集、把握、分析、指示がで
きる

データの完全性が維
持され、且つ情報が
保護される



拡大するコラボレーションパートナー

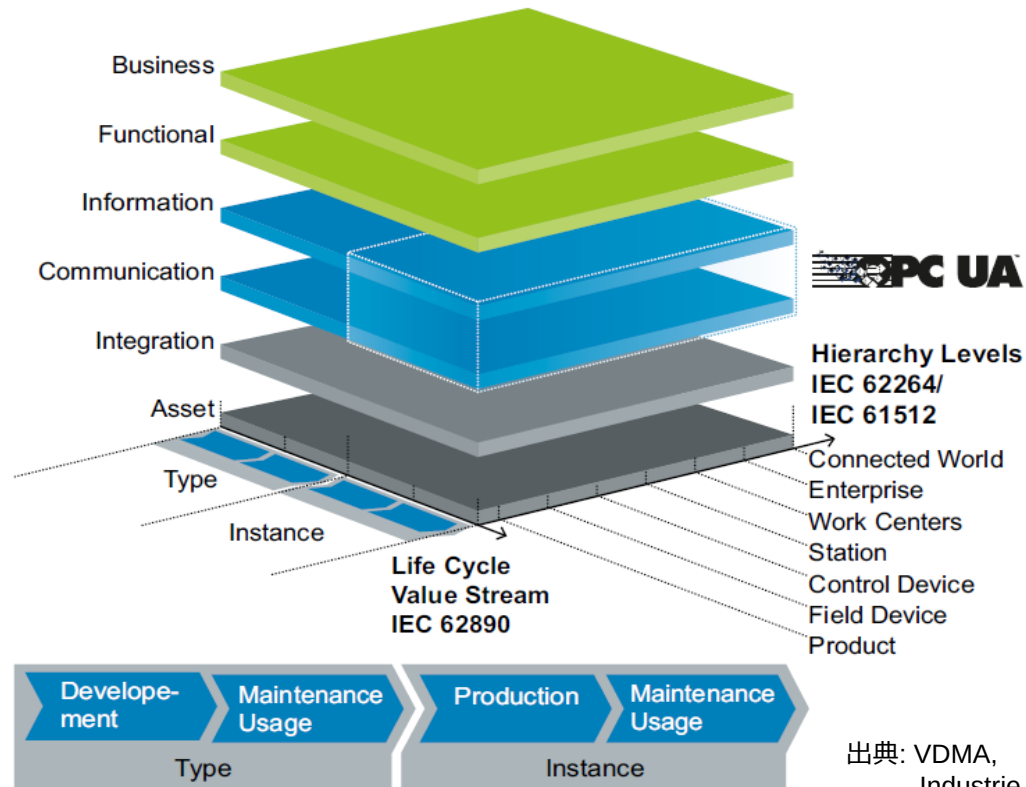


▶ 市場

- Automation
- Building Automation
- Energy
- Engineering
- Machinery
- Measurement
- Oil & Gas
- Transportation

VDMAの活動

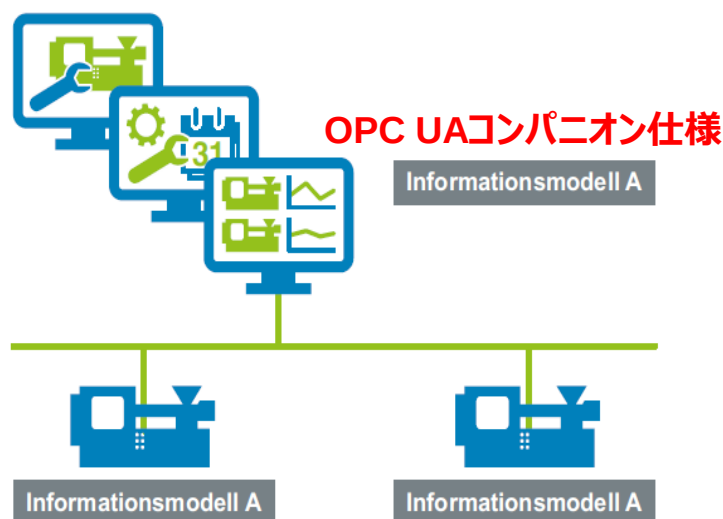
- ▶ Industrie 4.0通信の実装ガイドを公開（2017/04）
 - 概念（concept）を実装（implementation）に変換（transform）する



出典: VDMA,
Industrie 4.0 Kommunikation mit OPC UA

I4.0通信（OPC UA）実装ガイド

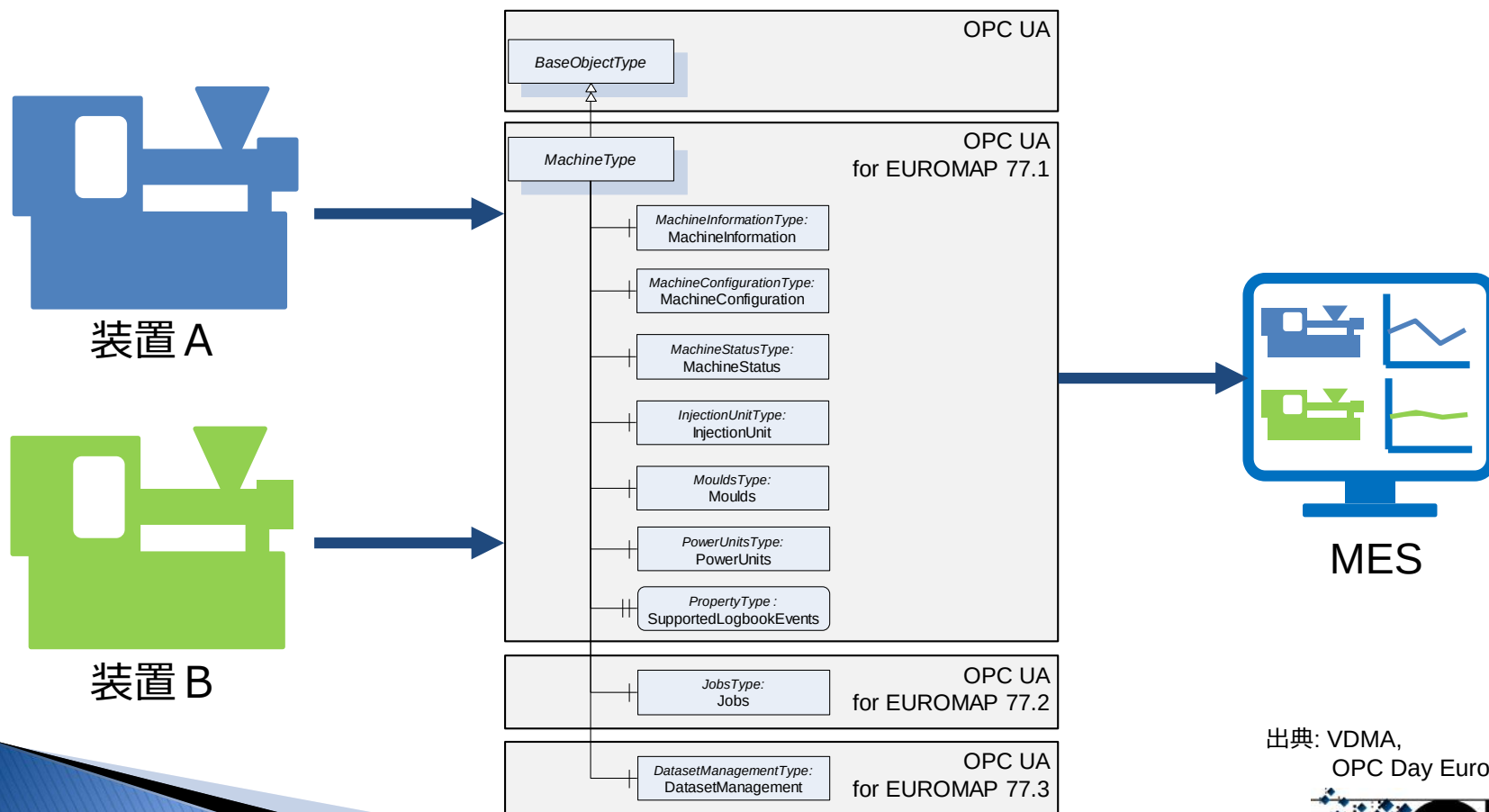
- ▶ 相互運用レベルの段階的な引き上げ
 - ① データの見える化（Connected）
 - ② 装置の見える化（Communicated）
 - ③ Administration Shell に適用



出典: VDMA,
Industrie 4.0 Kommunikation mit OPC UA

コンパニオン仕様（情報モデル）の例

▶ EUROMAP 77 - Injection Molding Machines / MES



VDMAにより広がるOPC UAの世界

- Agricultural Machinery
- Air Conditioning and Ventilation
- Air Pollution Control
- Air-handling Technology
- Building Control and Management
- Cleaning Systems
- Compressors, Vompresed Air and Vacuum Technology
- Construction Equipment and Building Material Machines
- Drying Technology
- **Electrical Automation**
- Electronics, Micro and Nano Technologies
- Engine Systems for Power and Heat Generation
- Engines and Systems
- Fire Fighting
- Equipment
- **Fluid Power**
- **Food Processing Machinery and Packaging Machinery**
- **Foundry Machinery**
- Gas Welding
- **Hydro Power**
- **Integrated Assembly Solutions**
- Large Industrial Plant Manufacturing
- Lifts and Escalators
- **Machine Tools and Manufacturing Systems**
- **Machine Vision**
- Materials Handling and Intralogistics
- Measuring and Testing Technology
- Metallurgical Plants and Rolling Mills
- Metallurgy
- Micro Technologies
- Mining
- **Plastics and Rubber Machinery**
- Power Systems
- **Power Transmission Engineering**
- Precision Tools
- Printing and Paper Technology
- Process Plant and Equipment
- Productronic
- Pumps + Systems
- Refrigeration and Heat Pump Technology
- **Robotics**
- Robotics + Automation
- Security Systems
- Software
- Surface Treatment Technology
- Textile Care, Fabric and Leather
- Technology
- Textile Machinery
- Thermal Turbines and Power Plants
- Thermo Process Technology
- Valves
- Waste Treatment and Recycling
- Wind Energy
- Woodworking Machinery

■ コンパニオン仕様作成中
■ コンパニオン仕様候補

出典: VDMA,
OPC Day Europe 2017



公開されているコンパニオン仕様

About ▾	Membership ▾	Products ▾	Certification ▾	Markets & Collaboration	Resources ▾	News & Events ▾
Enata		This document contains changes to the OPC UA Specifications. These changes may impact interoperability and compliance. More >			Registered User	
OPC Unified Architecture for AutoID		This specification was created by a joint working group of the OPC Foundation and AIM. It defines an OPC UA Information More >			Member	
MDIS OPC UA Companion Specification		This standard is an Oil and Gas standard for interfacing the Subsea Production Control System (SPCS) with a Master More >			Registered User	
OPC Unified Architecture for FDT		The FDT® standard is the hub of critical information from tens of millions of Device Type Manager™ More >			Registered User	
OPC Unified Architecture for Devices (DI)		Companion Specification featuring an Information Model for Devices. The information model specification More >			Registered User	
OPC Unified Architecture / PLCopen Information Model		This companion specification describes a standardized interface to programming PLCs, covering: Fundamentals More >			Registered User	
OPC Unified Architecture for FDI		A suite of specifications. License: OPC Specifications Agreement of Use Support Tracking More >			Registered User	
ISA-95 Common Object Model		ISA-95 provides a standard manner to describe the flow of information between Manufacturing Operations Management (MOM) More >			Registered User	
OPC Unified Architecture for AutomationML		The AutomationML data format, developed by AutomationML e.V., standardised in IEC 62714, is an open, neutral, XML-based, More >			Registered User	
OPC Unified Architecture for Analyzer Devices (ADI)		Companion Specification featuring an Information Model for Analyser Devices. The information model More >			Registered User	
OPC Unified Architecture for Sercos Devices		This specification has been created by Sercos International as part of the machinery initiative, which was started More >			Registered User	

注意：EXTERNALカテゴリの仕様はオーナーとなる組織が公開

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OPC-Jの活動

▶ OPC UA利用ガイド

- OPC アプリケーション開発入門（書籍）好評販売中
 - <http://www.ice-keiso.co.jp/contents/OPCapli.htm>
- セキュリティの利用ガイド（準備中）
- 情報モデルの設計ガイド（計画中）

▶ 他団体との活動

- IAF制御層情報連携意見交換会（KPI検討会、シーズ検討会）

▶ SCF 2017への出展

- 他団体との協調（合同展示）
- OPC UA 展示とデモンストレーション



資料の参照先

▶ VDMA

- Industrie 4.0 Kommunikation mit OPC UA (ドイツ語)

- http://industrie40.vdma.org/documents/4214230/16617345/1492669959563_2017_Leitfaden_OPC_UA_LR.pdf/f4ddb36f-72b5-43fc-953a-ca24d2f50840

▶ OPC

- OPC UA Specifications

- <https://opcfoundation.org/developer-tools/specifications-unified-architecture>

ご清聴ありがとうございました

日本OPC協議会

URL: <https://jp.opcfoundation.org>

