



OpCon engineering for Bosch

PA-ATMO | Assembly Systems and Special Machinery

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BOSCH

OpCon

Engineering for Bosch

Directory



Chapter I: General view

Chapter II: PC-Tools

Chapter III: Training

Chapter IV: OpCon\$



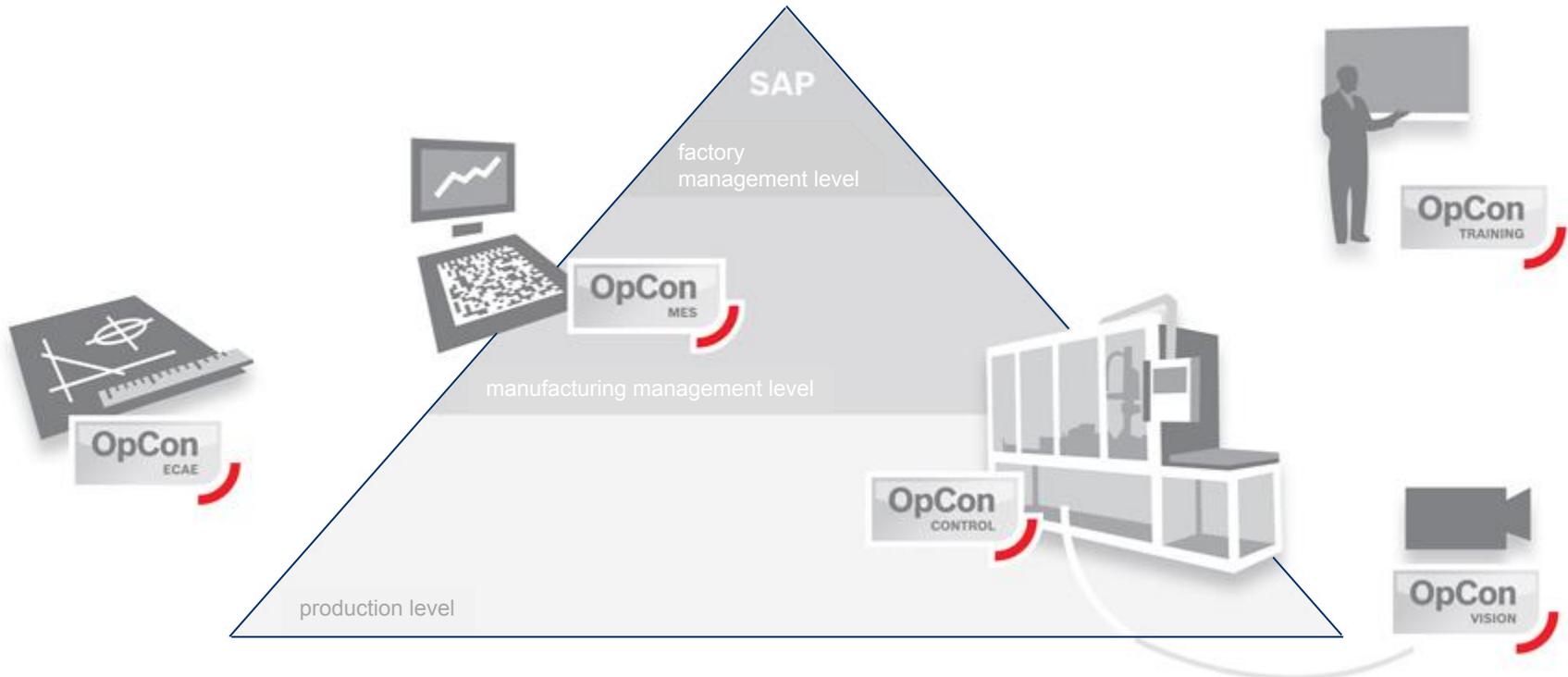


Chapter I: General View



What is OpCon ?

OpCon
your gateway to efficiency



OpCon - Control engineering for Bosch

Electronics



Sensors



Ceramics



Bosch Rexroth



Steerings



Injectors



Hybrid



Pumps



Valves



Solar, new Energy Systems



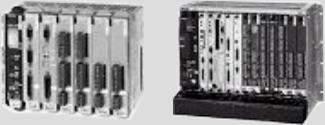
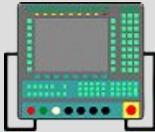
Scalable Concepts and BPS



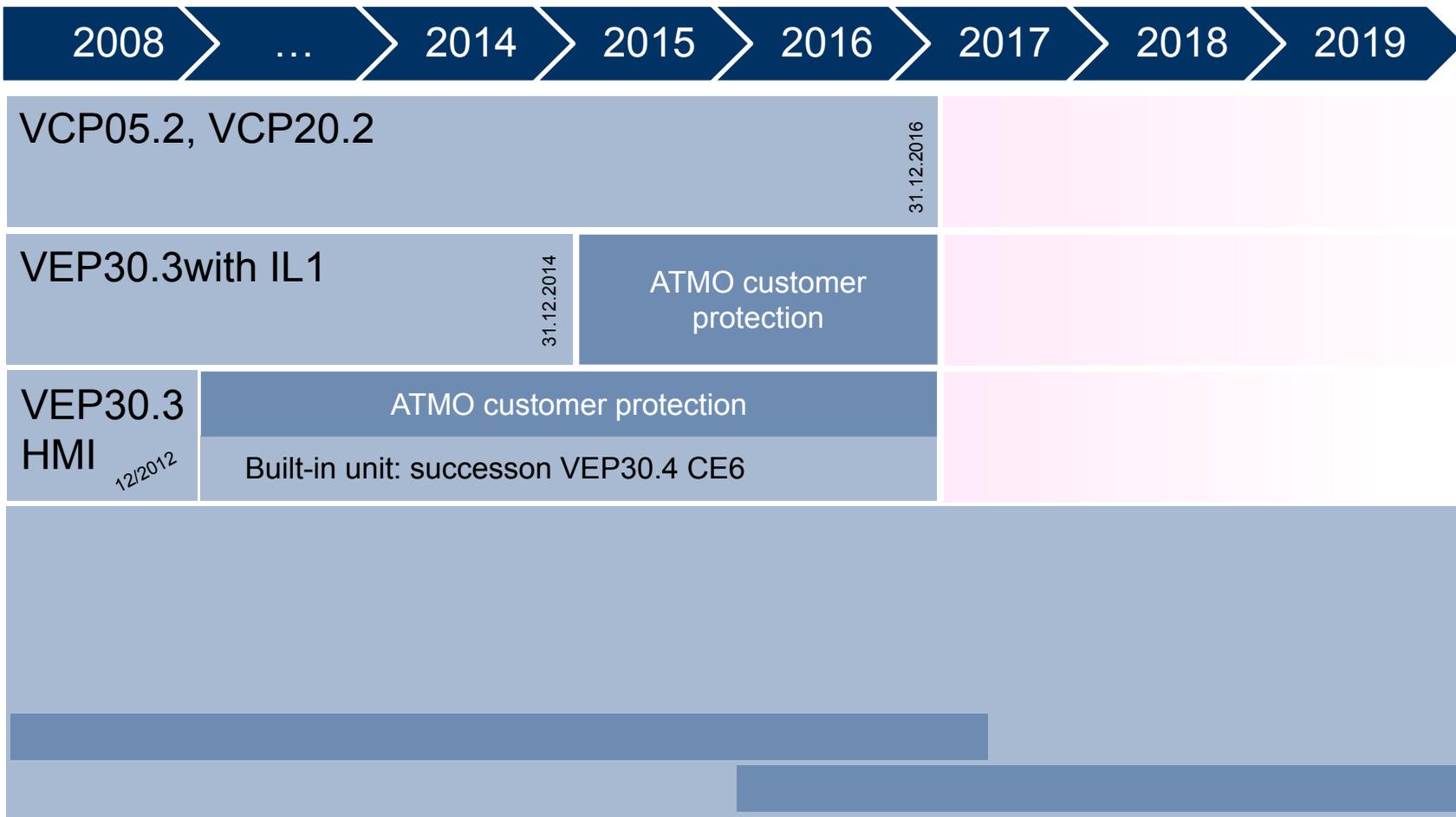
Projects



ATMO – Assignments in production field

Assembly and short-cycle stations	Assembly, control and adjustment stations	Logistics stations	Selection of control stations	MES
Realized until now with: PLC... , PC ... , VXI ...				
 <p>CL150 -CL200</p> <p>CL350 - CL500</p>	 <p>BF 2000</p>	<p>VME processor (OS9) VXI Unix PC (RMOS, NT, RMX)</p>		 <p>Server</p>
Currently realized with: PC based control technology (since 1998)				
 <p>VEP30 Embedded PC</p>	 <p>VDP Industrial PC and CX2020</p>			 <p>Server</p>
... A continuous platform and control field for all assignments				

Availability BT-MADAP compatible panels





Chapter II: PC-Tools



The PC tools for programmers

- ? OES – OpCon Engineering System V3.x
- ? Indralogic V1.61
(PLC programming environment & Fieldbus configurator)
- ? AtmoScan
- ? CodeChecker

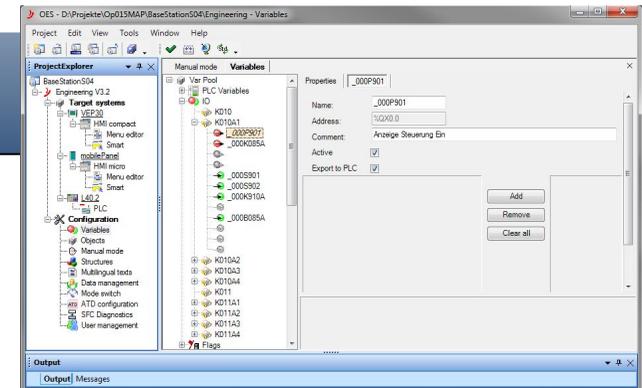


OpCon Engineering System

OES

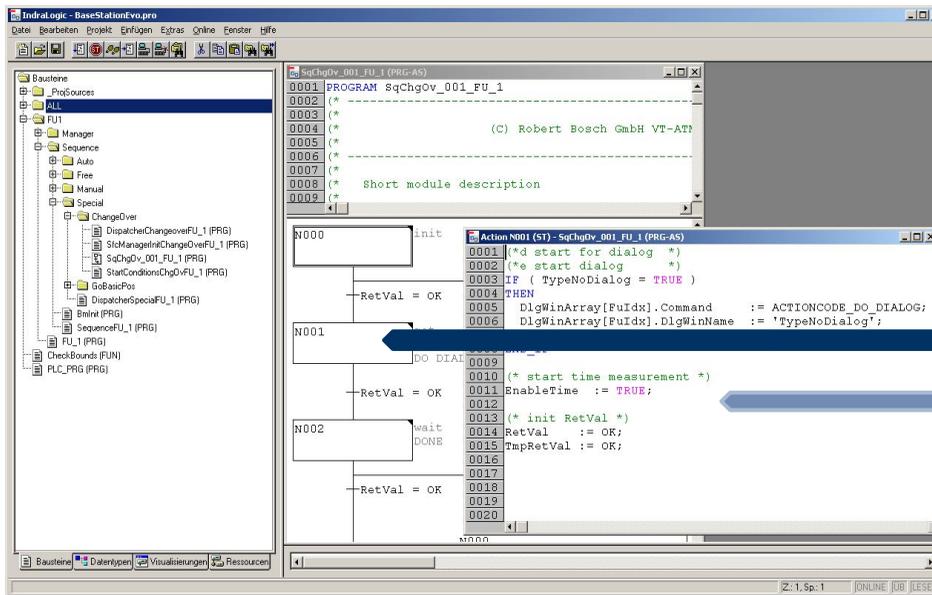
**OpCon
Engineering
System
(Control)**

- Engineering of OpCon stations
- Creation of code / configuration for PLC and visualization
- Coupling to electronic construction
- Standardized and continuous system for the application of OpCon stations



IndraLogic

The PLC program is created using the development environment of 3S or Rexroth.



PLC programs for the OpCon standard are created in the programming languages

SFC (sequential function chart)

ST (structured text)

IndraLogic bus configurator

For all bus systems a configurator is available, which is used to configure the bus master of the target system.

The screenshot shows the IndraLogic software interface for configuring an L40 DP-Master. The main window displays the configuration tree with the following structure:

- IndraLogic L40 DPM 02VRS
 - OnBoard-IO[FIX]
 - Rekroth-Inline-IO[FIX]
 - L40_DP-Master[FIX]
 - IL PB BK DI8 DO4[VAR]
 - BK: DI8 DO4
 - AT %QB0: BYTE;
 - AT %IB0: BYTE;
 - AT %IX0.0: BOOL; (* Bit 0 *)
 - AT %IX0.1: BOOL; (* Bit 1 *)
 - AT %IX0.2: BOOL; (* Bit 2 *)
 - AT %IX0.3: BOOL; (* Bit 3 *)
 - AT %IX0.4: BOOL; (* Bit 4 *)
 - AT %IX0.5: BOOL; (* Bit 5 *)
 - AT %IX0.6: BOOL; (* Bit 6 *)
 - AT %IX0.7: BOOL; (* Bit 7 *)
 - IL 24 DO 4
 - AT %QB1: BYTE;
 - IL 24 DO 16
 - AT %QB2: BYTE;
 - AT %QX1.0: BOOL; (* *)
 - AT %QX1.1: BOOL; (* Bit 1 *)
 - AT %QX1.2: BOOL; (* Bit 2 *)
 - AT %QX1.3: BOOL; (* Bit 3 *)
 - AT %QX1.4: BOOL; (* Bit 4 *)
 - AT %QX1.5: BOOL; (* Bit 5 *)
 - AT %QX1.6: BOOL; (* Bit 6 *)
 - AT %QX1.7: BOOL; (* Bit 7 *)

The parameter table on the right shows the following configuration:

Parameter	Wert	Einheit
Slot Time (TSL)	400	tBit
Min. Station Delay (min11)		tBit
Max. Station Delay (max150)		tBit
Quiet Time (TQUI)	2	tBit
Setup Time (TSET)	1	tBit
Target Rotation Time (4449)		tBit
Gap Update Factor	10	
Max. Retry Limit	2	
Min. Slave Interval	2	100 µs
Poll Timeout	10	10 ms
Data Control Time	1200	ms

The bottom of the window shows the library path configuration:

```
Lade Bibliothek 'w:\std\plc\lib\AtmoPdpBuWAs1.Lib'  
Lade Bibliothek 'w:\std\plc\lib\AtmoPdpBbts.Lib'  
Lade Bibliothek 'w:\std\plc\lib\AtmoDatFileAccess.Lib'  
Lade Bibliothek 'w:\std\plc\lib\AtmoTcpIpTimeClient.Lib'  
Lade Bibliothek 'w:\std\plc\lib\AtmoSerBase.Lib'
```





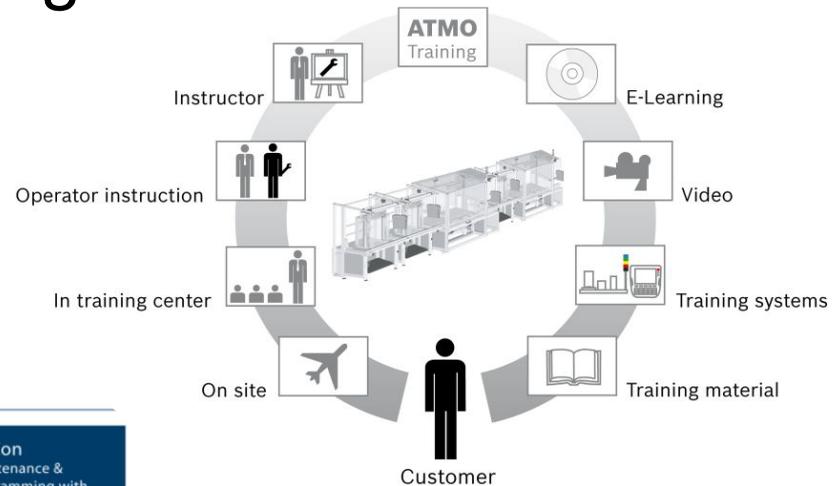
Chapter III: Training



Control engineering trainings

OpCon FBs and Fault Administration Op 004	OpCon Material Flow Control vMDT on the station Op 006-C/E	OpCon ATD Automated Cycle Time Analysis Op 071/E		
OpCon Advanced Programming with VPP21 Op 002-AP	OpCon Advanced Programming with VEP30&L40 Op 015-AP/E	OpCon Direct Data Link on the station Op 036-C/E		
OpCon Maintenance & Programming VPP21 Op 002-MAP/E	OpCon Maintenance & Programming VEP30/L40 and HMLmicro/L10 Op 015-MAP/E	OpCon Maintenance & Programming with L40&VCPxxx Op 017-MAP	OpCon CL Training Op 019-MAP/E	OpCon Maintenance & Programming with VPB40 and HMLmodulo Op 020-MAP/E
OpCon Introduction to IEC61131 with IndraLogic Op 001/E	OpCon Operator Training Op 012	OpCon Introduction to the Control Engineering Concept Op 013-C	OpCon Direct Data Link Basic Op 036-B/E	OpCon System Introduction and Operation Op 061

Maintenance
 Programming
 Maintenance and Programming
 Planers/Constructeurs, Maintenance, Programming, Adjuster



https://inside-ws.bosch.com/FIRSTspiritWeb/permlink/wcms_pa_-SGS21_Training-DE

Training.PA-ATMO1@de.bosch.com

PA-ATMO | Assembly Systems and Special Machinery





Chapter IV: OpCon\$

Support Hotline

- ? Any technical questions:
BCN Outlook mailbox / Release server:



Fe16416\OpCon\$ 

Willkommen
auf dem OpCon Distributionsserver von PA-ATMO1

Welcome
to the OpCon distribution server of PA-ATMO1

OpCon Controls / Steuerungstechnik

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OpCon MES / Leittechnik

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OpCon ECAE / Elektrokonstruktion

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- ▶ [SGS](#)
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- ▶ [Services](#)
- ▶ [MES and Traceability](#)
- ▶ [Control Technics](#)
- ▶ [Measurement](#)
- ▶ [Process Testing](#)
- ▶ [Training](#)

- ? E-Mail adresse for external members:
OpConHotline.PA-ATMO1EES@de.bosch.com

Release server „\\FE16416\OpCon\$“

- ? Central release server for all OpCon software products
- ? Access to documentations and product information are available free of charge
- ? Access to installation files after former registration



Fe16416\OpCon\$



Willkommen
auf dem OpCon Distributionsserver von PA-ATMO1

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▶ [Training](#)



Base stations
Visualization systems
PLC libraries
System images
Documentations

Product information

- Product name and group
- Target system
- Usage, sense & intention
- Target groups
- Premises
- Contact person (Link!)
- Documentations (Link!)
- Version history
- Open directory
- Installing

Engineering VPB40, C69xx, VEP30, L40, L10, mobilePanel/microPanel

English Version

OpCon Engineering System (OES)

Die Entwicklungsprozesse im Anlagen- bzw. Sondermaschinenbau bekommen in der Zukunft eine immer größere Bedeutung. Auch innerhalb der OpCon Steuerungstechnik hat das Engineering einen besonderen Stellenwert, um damit...

► **Produkt-Versionen**

- [OES V1.2](#)
- [OES V2.1](#)
- [OES V2.2](#)
- [OES V2.3](#)
- [OES V3.0](#)
- [OES V3.1](#)
- [OES V3.2](#)

► **Verwendung, Sinn & Zweck**

- **Softwareengineering bedeutet:**
 - Wiederverwendung bereits getesteter Softwaremodule (Qualität)
 - Übernahme bereits vorhandener Daten (keine Doppelleingaben, Entwicklungszeit)
 - wizardgeführte Softwareentwicklung (zentrales Tool, Ausbildung)
 - Funktionales Engineering (kein Gewerksdenken, sondern gewerksübergreifendes Standardisieren)
 - skalierbare Softwareentwicklung (Softwareerstellung in Stufen, graphische Softwareerstellung)
- All diese Facetten sind bzw. werden in OpCon berücksichtigt, durch die Bereitstellung des OpCon Engineering Systems.
- **OpCon-Konfigurator für VPB40, C69xx, VEP30, mobilePanel/microPanel, L40 und L10-Systeme mit:**
 - EPlan-Import
 - Editoren für Variablen, Objekte, Handfunktionen, Struktur, mehrsprachige Texte, Datenverwaltung
 - Smart-WindowEditor für alle OpCon HMIs (außer HMI classic)
 - Deployment-Funktionen zum Kopieren der Konfigurationsdaten auf das Zielsystem
 - Bedienung der Target Remote-Funktionen

► **Zielgruppen**

- Applikateure und Instandhalter

► **Lizenzinfo**

- Die Lizenzvereinbarungen entnehmen Sie bitte der Broschüre [OpCon Steuerungstechnik, Katalog und Preisliste](#)

► **Ansprechpartner**

- [PA-ATMO 1/EES12 - Scherrieble Joerg](#)

► **Dokumentationen**

- [Versionsübersicht](#)
- [.NET Framework Informationen](#)

Access to installation files

OpCon-Controls Überblick

Engineering VPB40, C69 mobilePanel/microPanel



Verzeichnis öffnen

OES Projektkonvertierung ...

Speziell zur Installation sind ggf. besondere Zugriffsrechte erforderlich!

Zugriffsrechte beantragen

[E-Mail OpCon-Hotline](#)

OpCon Engineering > Bestellung/Abmeldung

Bestellung/Abmeldung :

OK Cancel

Persönliche Daten

Adresse *

Vorname *

Nachname *

Firma

Abteilungsbezeichnung *

Anschrift

PLZ

Ort

Telefon

E-Mail *

User-Kennung * (inkl. Domain)

Sp. de/9996

Kommentar

OpCon

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OpCon Control Steuerungstechnik

OpCon Control News

Produktkatalog

Datenzugriff

OpCon Wiki

OpCon MES Fertigungstechnik

OpCon MES News

MES Data Management Classic

MES - Services, DBL, OIS.NET

Werk / Erzeugnis

OpCon Training Schulung

Schulungsplan

OpCon ECAE Elektrokonstruktion

OpCon ECAE News

Datenzugriff

Bitte geben Sie Ihre Contracting Nummer an.

OK Cancel