



SIMOCODE pro –

Basic Training
usa.siemens.com/controls

SIMOCODE pro – Smart Motor Management

Today's Agenda

- System Overview
- How can SIMOCODE Provide Value
- Customer Applications
- Parts selection





System Overview

SIMOCODE pro

SIMOCODE is an acronym for:

- SIEMENS
- MOTOR
- CONTROL
- DEVICE

Motor Management System from SIEMENS

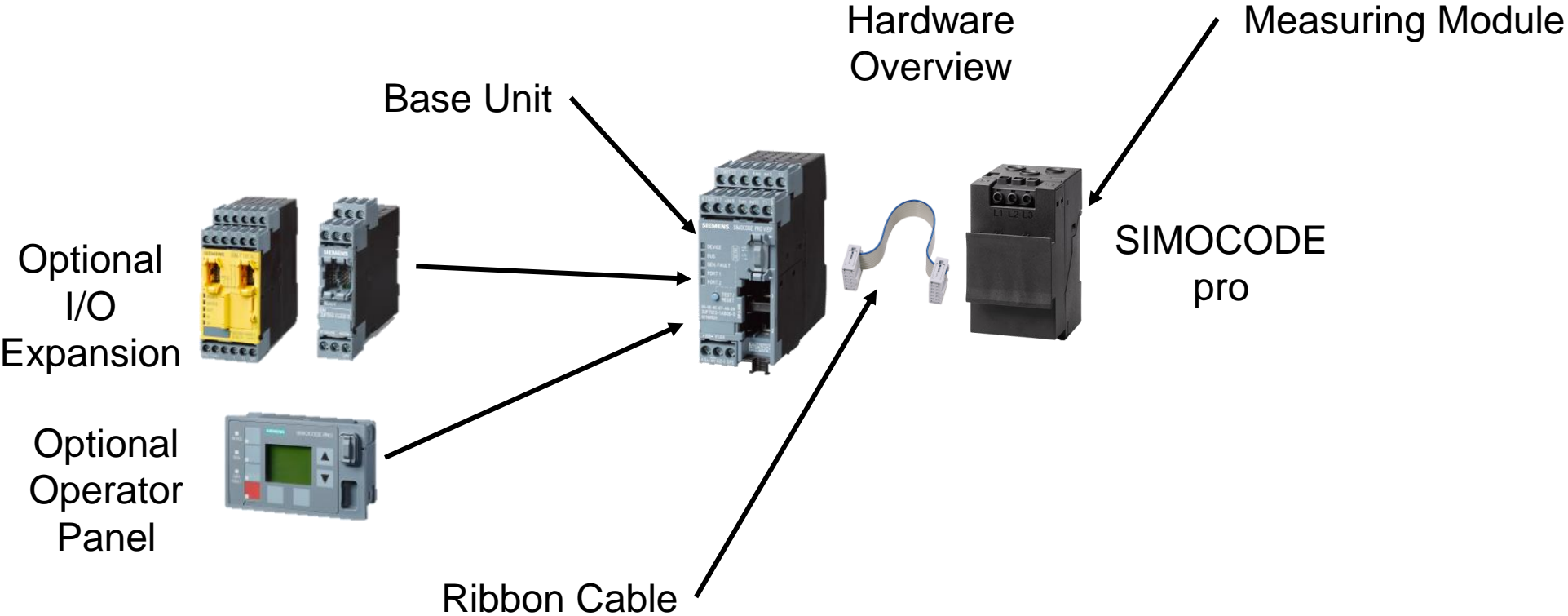


The SIMOCODE success story: Successful for decades thanks to innovations

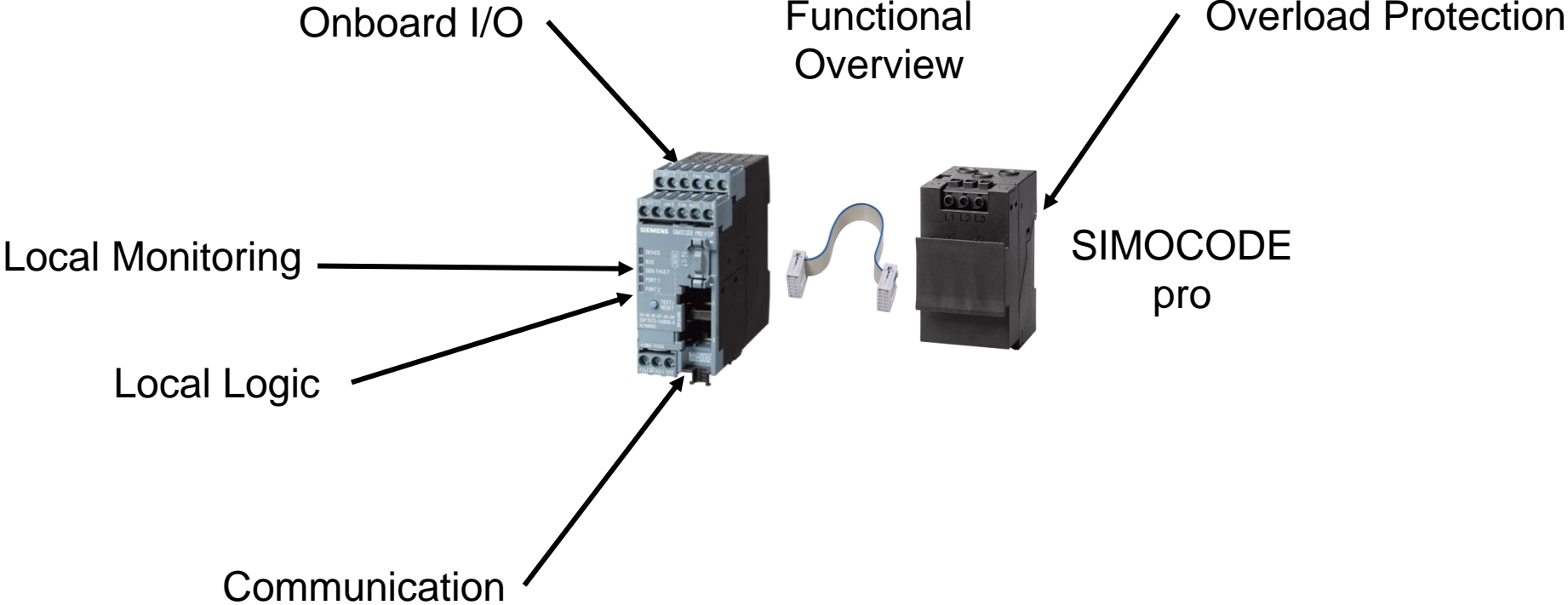
More than 30 years experience with motor management systems



SIMOCODE pro V Basics



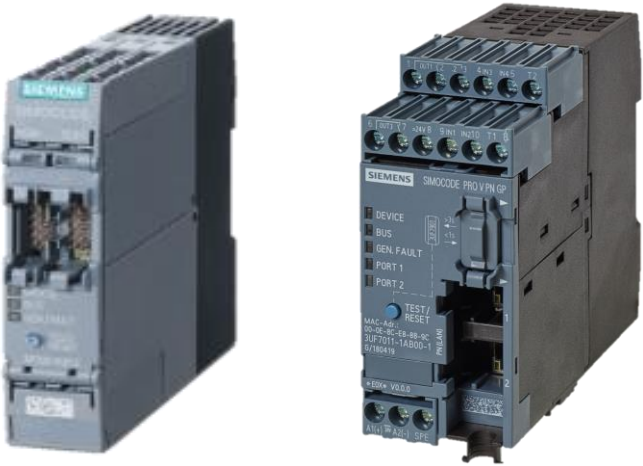
SIMOCODE pro Basics



SIMOCODE pro: From smart and compact to variable and intelligent

System – Product portfolio

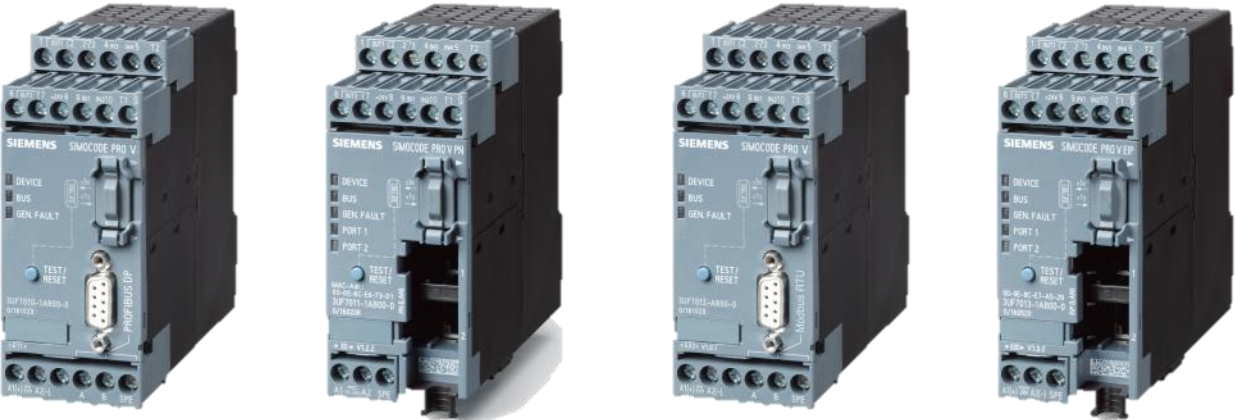
General Performance
smart and compact



PROFIBUS DP

PROFINET IO

High Performance
variable and intelligent



PROFIBUS DP






PROFINET IO

Modbus RTU

EtherNet/IP

Motor management system for all low voltage motors up to 630 A

Components – Current measuring modules and current/voltage measuring modules for SIMOCODE pro

					Widths					
		45 mm	55 mm	120 mm			145 mm			
										
Current		<ul style="list-style-type: none"> • 0.3 A to 3 A * • 2.4 A to 25 A 	<ul style="list-style-type: none"> • 10 A to 100 A 	<ul style="list-style-type: none"> • 20 A to 200 A 			<ul style="list-style-type: none"> • 63 A to 630 A 			
		<ul style="list-style-type: none"> • 0.3 A to 4 A */** • 3 A to 40 A ** 	<ul style="list-style-type: none"> • 10 A to 115 A ** 	<ul style="list-style-type: none"> • 20 A to 200 A 			<ul style="list-style-type: none"> • 63 A to 630 A 			
Current/voltage measuring modules - Voltage		<ul style="list-style-type: none"> • 110 V to 690 V 	<ul style="list-style-type: none"> • 110 V to 690 V 	<ul style="list-style-type: none"> • 110 V to 690 V 			<ul style="list-style-type: none"> • 110 V to 690 V 			
					Straight-through transformer					
							Busbar connection			

* Up to 820 A with 3UF18 intermediate transformers

**Only current/voltage measuring modules of 2nd generation

SIMOCODE pro S Components

Components General Performance – Overview of SIMOCODE pro S






Basic unit	Multifunction module	Current measuring module	Residual current transformer 3UL23	Operator panel
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<ul style="list-style-type: none"> 4 DI and 2 DO Thermistor PROFIBUS DP 1.5 Mbps Supply voltage 24 V DC or 110-240 V AC/DC Terminals for bus connection 	<ul style="list-style-type: none"> 4 DI and 2 DO Connection for temperature sensor External earth-fault monitoring via residual current transformer 3UL23 Inputs with 24 V DC or 110-240 V AC/DC 	<ul style="list-style-type: none"> 0.3 A to 630 A Straight-through technology/ busbar connection 	<ul style="list-style-type: none"> 6 designs with opening diameter from 35 to 210 mm Current range 0.03 to 40 A 	<ul style="list-style-type: none"> 10 LEDs 5 keys
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SIMOCODE pro V GP Components

Components General Performance – Overview of SIMOCODE pro V PN GP

Basic unit	Expansion modules	Current measuring module	Residual current transformer 3UL23	Operator panel
				
<ul style="list-style-type: none"> ▪ 4 DI and 3 DO ▪ Thermistor ▪ PROFINET IO 100 Mbps ▪ Supply voltage 24 V DC or 110-240 V AC/DC ▪ Bus connection via Ethernet plug ▪ 1 or 2 ports 	<ul style="list-style-type: none"> ▪ Digital module: 4DI/2DO ▪ Temperature module: 3 inputs for temperature sensors ▪ Earth fault module: External earth-fault monitoring via residual current transformer 3UL23 ▪ 1 Expansion module per basic unit possible 	<ul style="list-style-type: none"> ▪ 0.3 A to 630 A ▪ Straight-through technology/ busbar connection 	<ul style="list-style-type: none"> ▪ 6 designs with opening diameter from 35 to 210 mm ▪ Current range 0.03 to 40 A 	<ul style="list-style-type: none"> ▪ 10 LEDs ▪ 5 keys

SIMOCODE pro V Components

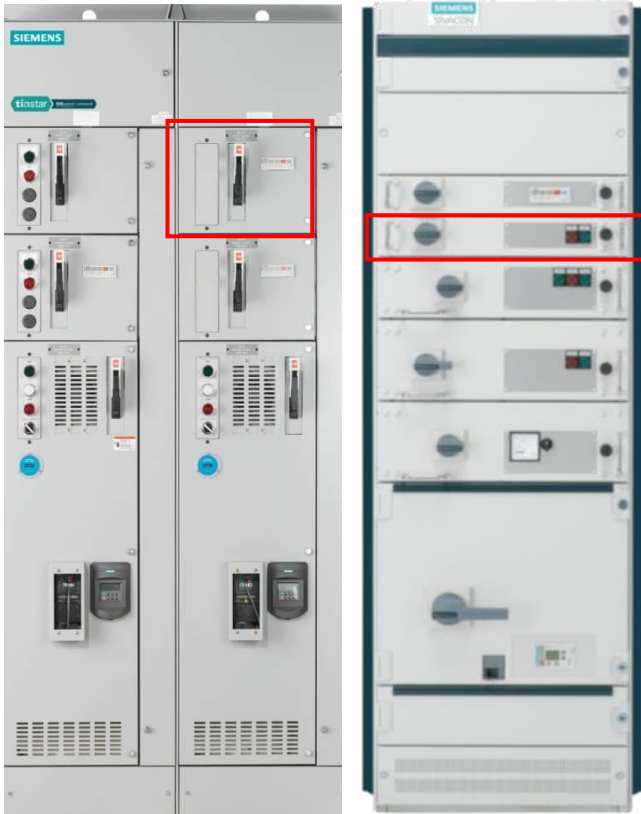
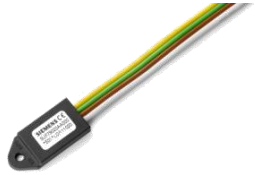
Components High Performance – Overview of SIMOCODE pro V

Basic unit	Expansion module	Current or current/voltage measuring module	Residual current transformer 3UL23	Operator panel with display
				
<ul style="list-style-type: none"> 4 DI and 3 DO Thermistor PROFIBUS DP 12 Mbps or PROFINET IO 100 Mbps or Modbus RTU 57.6 kbps or EtherNet/IP 100 Mbps Supply voltage 24 V DC or 110-240 V AC/DC Bus connection via connector or terminals (RS485) 	<ul style="list-style-type: none"> Digital I/Os Analog I/Os Temperature input External earth-fault monitoring via residual current transformer Fail-safe digital module 	<ul style="list-style-type: none"> 0.3 A to 630 A 110 V - 690 V * Straight-through technology/ busbar connection Dry-run protection according to ATEX** 	<ul style="list-style-type: none"> 6 designs with opening diameter from 35 to 210 mm Current range 0.03 to 40 A 	<ul style="list-style-type: none"> Multilingual display 7 LEDs 4 keys

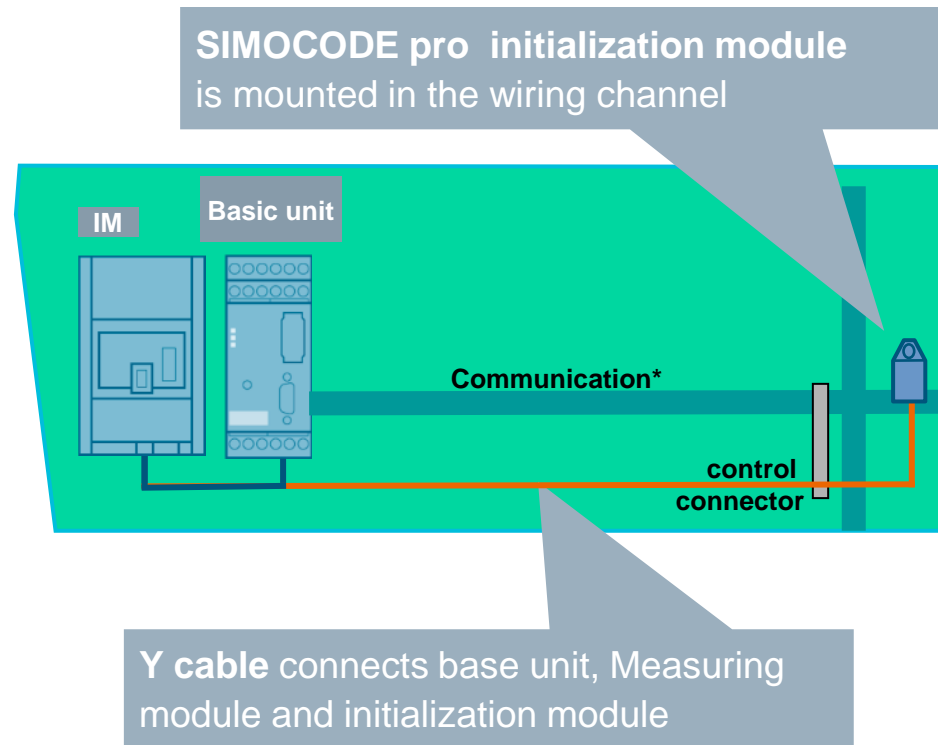
* Current/voltage measuring modules only

** Separate version of current/voltage modules required

Initialization Module



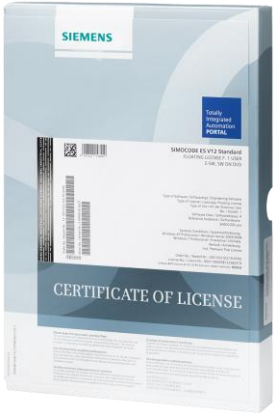
Allows quick replacement and minimizes plant downtime



- Device parameters and address are automatically stored in the initialization module in the motor control center and downloaded from there (initialized).
- Replacement of a MCC motor feeder is possible without special knowledge of SIMOCODE pro.
- Manual addressing and parameter assignment are no longer required, which simplifies the operation.
- Useable with SIMOCODE pro V and SIMOCODE pro S devices

SIMOCODE pro Basics

TIA Portal Software



Available in 2 versions

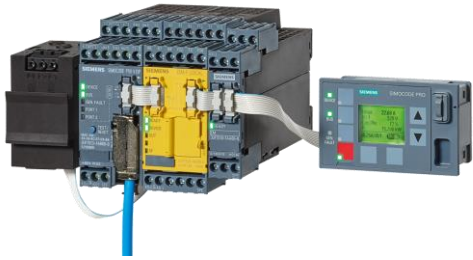
SIMOCODE ES	Basic	Professional
Access via the local interface on the device	✓	✓
Parameter assignment in list form	✓	✓
Parameter assignment via expert list	--	✓
Bulk engineering	--	✓
Working with libraries	✓	✓
Parameter printing in list form	✓	✓
Operating	✓	✓
Diagnostics	✓	✓
Test	✓	✓
Service data	✓	✓
Analog value recording ¹⁾	✓	✓
Trend display of measured values	--	✓
Parameterizing with convenient graphical display	--	✓
Parameterizing with the integrated graphics editor (CFC-based)	--	✓
Printing of diagrams	--	✓
Parameter comparison	--	✓
Access via PROFIBUS/PROFINET/Ethernet	--	✓
Teleservice via MPI	--	✓
Routing ²⁾	--	✓
Firmware update basic units ¹⁾	✓	✓
✓ Function available		
-- Function not available		

Free download

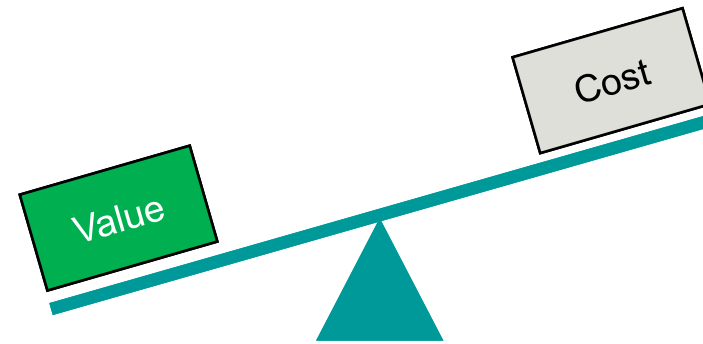


SIMOCODE Adds Value

How Does SIMOCODE Provide Value?



- Manufacturers like to talk about all the functions their product provides



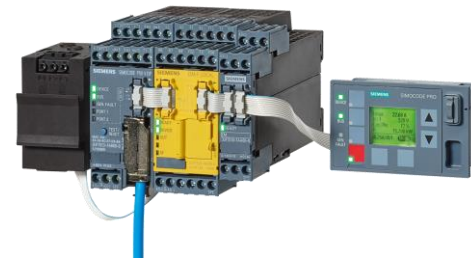
- Functions that customers find **VALUE** in is more important
- SIMOCODE can provide **VALUE** in many different ways

How Does SIMOCODE Provide Value?

Let's start with a simple analogy/comparison:



Cell Phone



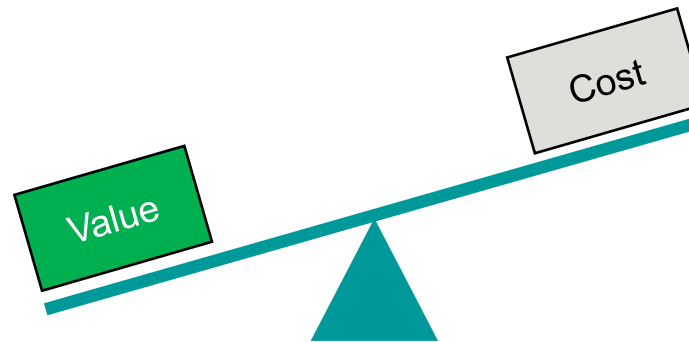
SIMOCODE pro

How Does SIMOCODE Provide Value?

Let's start with a simple analogy/comparison:



Cell Phone

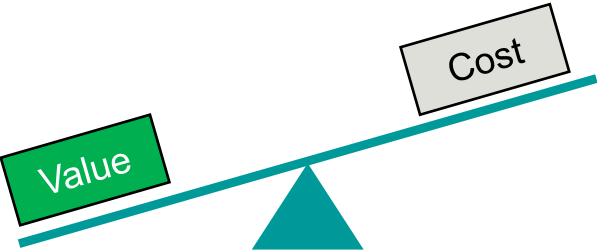


How Does SIMOCODE Provide Value?



What Can a Cell Phone Do ?

Cell Phone Functions			
1		11	
2		12	
3		13	
4		14	
5		15	
6		16	
7		17	
8		18	
9		19	
10		20	

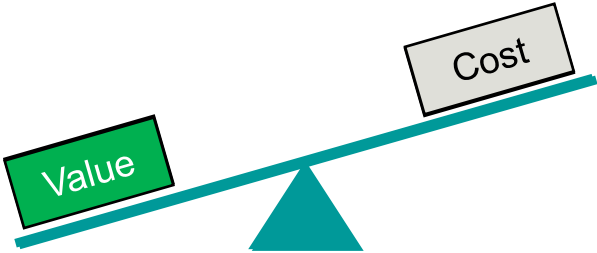


How Does SIMOCODE Provide Value?



Top 3

Cell Phone Functions			
1	Camera	11	Alarm clock
2	Video recorder	12	Calendar
3	Radio	13	Notepad
4	MP3 player	14	Photo album
5	calculator	15	Phone book
6	GPS	16	Watch tv (news, sports, movies, etc.)
7	Flashlight	17	Check emails
8	Hot spot	18	Measuring tape
9	Portable gaming device	19	Money
10	Internet access	20	Airline ticket



How Does SIMOCODE Provide Value?



- Control
- Monitor
- Protect

SIMOCODE pro Functions			
1		11	
2		12	
3		13	
4		14	
5		15	
6		16	
7		17	
8		18	
9		19	
10		20	

How Does SIMOCODE Provide Value?

Top 3

SIMOCODE pro Functions

1	Solid State Overload Relay adjustable response	11	Safety Relay
2	Current Monitoring Relay	12	Power Monitoring
3	Voltage Monitoring Relay	13	Energy Meter
4	Power Factor Monitoring Relay	14	Hour Meter
5	Phase Monitoring Relay	15	Counter
6	Jam Protection Relay	16	Local Controller
7	Temperature Monitoring Relay	17	Timer
8	Ground Fault Relay	18	Signal Conditioner
9	Digital I/O	19	Network Interface
10	Analog I/O	20	Cloud Edge Device



- Control
- Monitor
- Protect

Remember - You don't need to see **value** in all 3 areas to convince the customer to use SIMOCODE

How Does SIMOCODE Provide Value?

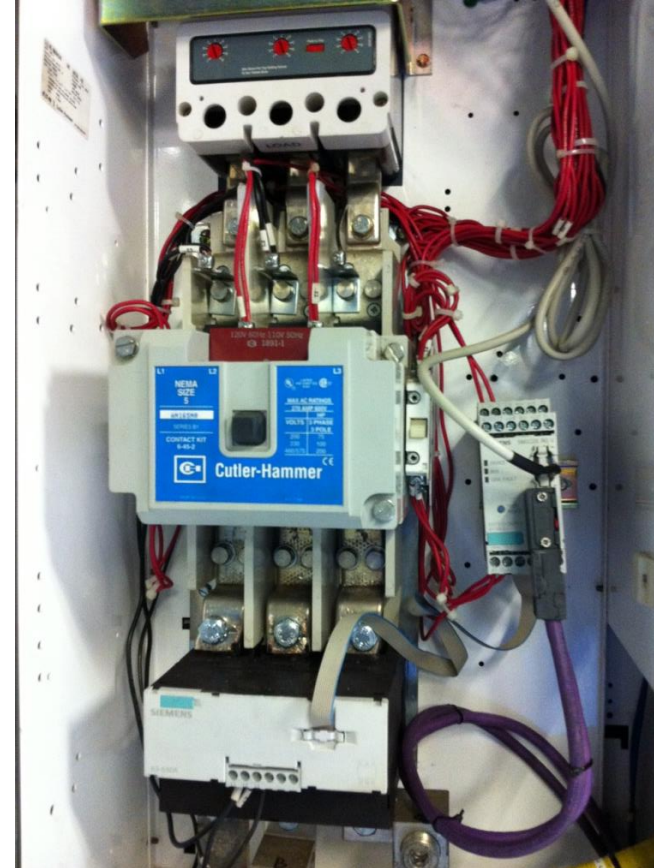
Function	Traditional Starter	SIMOCODE pro																	
Control	Local – Fixed Logic Remote – Directly tied to output	Flexible Logic – (Common Motor Applications) 16 Bits – Input Logic or tied to output Remote Reset Emergency Start																	
Monitoring	Motor Current - Amps Contactor Aux. Contact Overload Fault Contact	<table border="0"> <tr> <td>Motor Current - Amps</td> <td>Limit Starts/Hour</td> </tr> <tr> <td>Motor Current - % Amps</td> <td>Thermal Model</td> </tr> <tr> <td>Individual Faults</td> <td>Power failure Monitoring</td> </tr> <tr> <td>Individual Warnings</td> <td>Run/Stop Time</td> </tr> <tr> <td>Current Flowing</td> <td>I/O Status</td> </tr> <tr> <td>Time to Trip</td> <td>PLC/Bus Status</td> </tr> <tr> <td>Cool Down Time</td> <td>Phase Unbalance</td> </tr> <tr> <td>Number of Starts</td> <td>Selectable Response</td> </tr> </table>		Motor Current - Amps	Limit Starts/Hour	Motor Current - % Amps	Thermal Model	Individual Faults	Power failure Monitoring	Individual Warnings	Run/Stop Time	Current Flowing	I/O Status	Time to Trip	PLC/Bus Status	Cool Down Time	Phase Unbalance	Number of Starts	Selectable Response
Motor Current - Amps	Limit Starts/Hour																		
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Current Flowing	I/O Status																		
Time to Trip	PLC/Bus Status																		
Cool Down Time	Phase Unbalance																		
Number of Starts	Selectable Response																		
Protection	Motor	Motor Process or Machine Productivity																	

Example Application - Retrofit

Cutler Hammer MCC

Solution - SIMOCODE pro V:

- Fits into existing bucket
- Eliminate new Cap Expense
- Allowed them to monitor loss of load
- Provided local control when network was lost

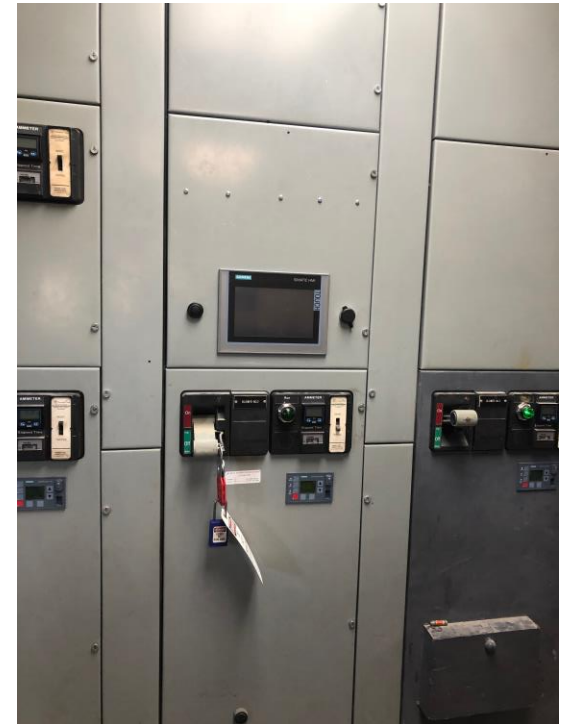
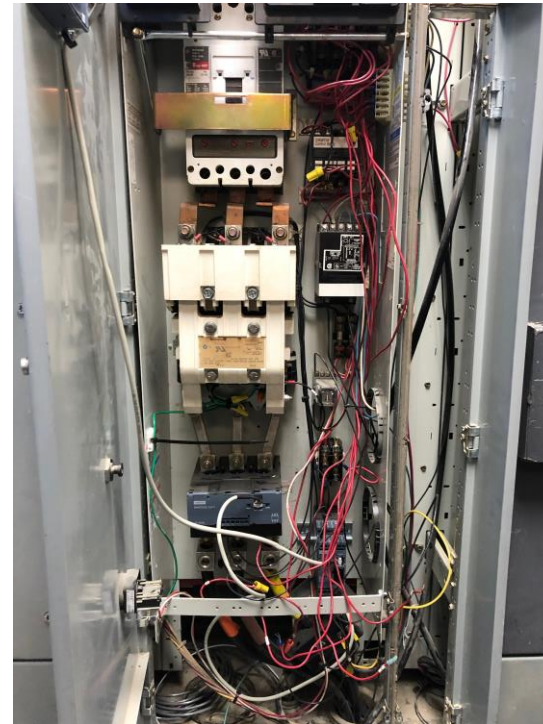


Example Application - Retrofit

GE MCC

Solution - SIMOCODE pro V:

- Fits into existing bucket
- Eliminate new Cap Expense
- Flexible implementation
- Provides key maintenance and operational data



Example Application - Retrofit

Siemens TIASTAR MCC smart MCC

1. Customer was going to use Rockwell IntelCenter and ControlLogix PLC. Our team showed that we can talk EIP with Simocode to unseat E300 Rockwell Smart Motor Starter
2. Customer wanted more than just a Smart Motor starter with Communications. Simocode offered more functionality than the E300.
3. Start-up of the Buckets was easier and faster than the E300 that would had taken with standard E300. The key was the Global Library in the TIA Portal.

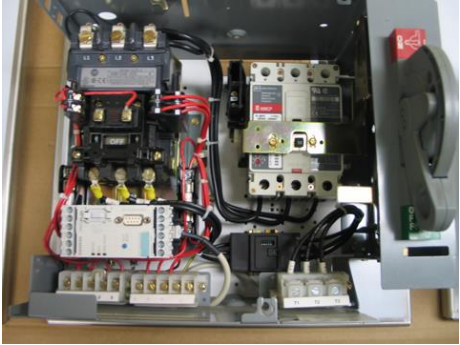


Example Application - Retrofit

Siemens



Rockwell



Eaton



GE



Schneider Electric



MCC Retrofit Applications
SIMOCODE Fits In Them All



Data Communication

Data Communication

- SIMOCODE supports 2 types of data communication
 - Cyclic – Transferred every PLC cycle (No additional programming required)
 - Acyclic – Transferred on a scheduled time or event (Additional PLC programming required).

Data Communication - Cyclic

- With cyclic data, both the amount of data and the meaning of the data is configurable.
 - The amount of data (How many bytes in/out) is referred to as the “Basic Type) and is selected in the PLC/DCS configuration
 - The meaning of the data (The digital or analog signal assign to the data) is determined in the SIMOCODE configuration

Data Communication - Cyclic

- SIMOCODE PN supports 3 “Basic Types”
 - Basic Type 1 supports
 - 10 bytes of PLC inputs
 - 4 bytes PLC outputs
 - Basic Type 2 supports
 - 4 bytes of PLC inputs
 - 2 bytes PLC outputs
 - Basic Type 3 supports
 - 20 bytes of PLC inputs
 - 6 bytes PLC outputs

- SIMOCODE EIP supports 4 “Basic Types”
 - Basic Type 1 supports
 - 10 bytes of PLC inputs
 - 4 bytes PLC outputs
 - Basic Type 2 supports
 - 4 bytes of PLC inputs
 - 2 bytes PLC outputs
 - Basic Type 3 supports
 - 20 bytes of PLC inputs
 - 6 bytes PLC outputs
 - Basic Type 4 supports
 - 488 bytes of PLC inputs
 - 6 bytes PLC outputs

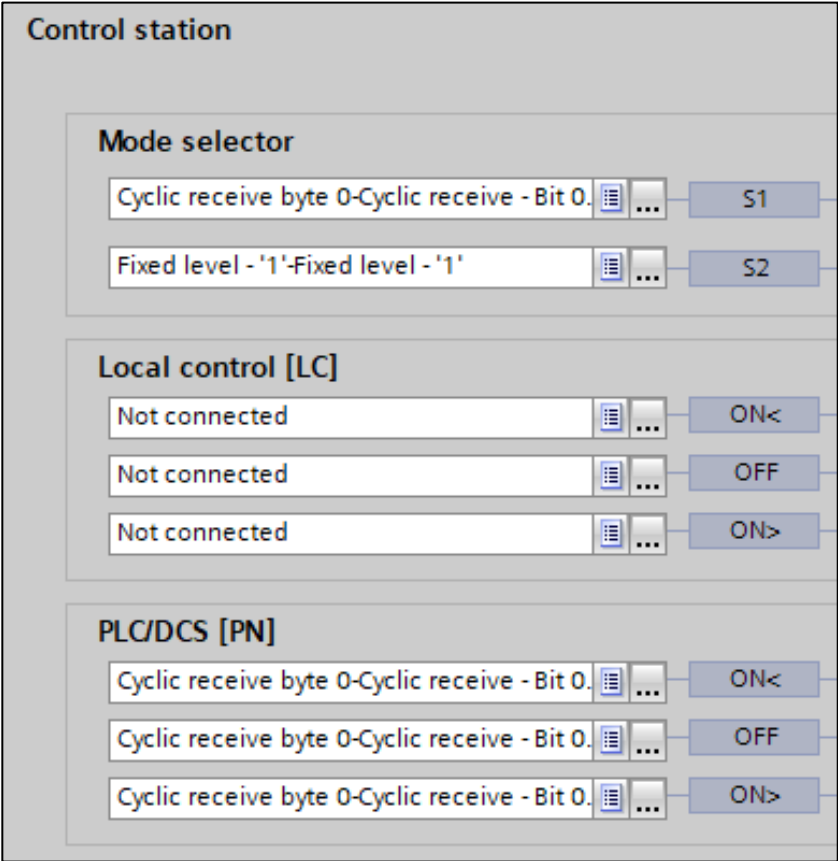
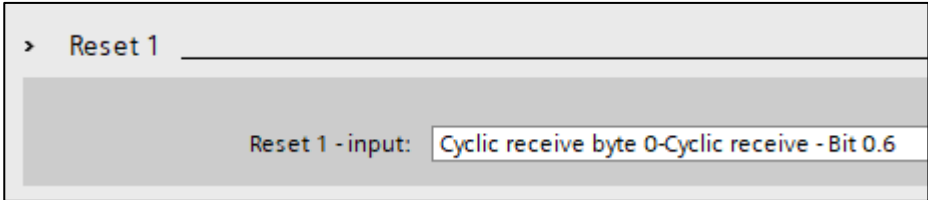
Data Communication - Cyclic

- The assignment of the digital and analog input signals are done in the “Cyclic Send Data” area under the “Outputs” section

Cyclic send data	
Byte 0	
Bit 0.0:	Protection/Control-Status - ON<
Bit 0.1:	Protection/Control-Status - OFF
Bit 0.2:	Protection/Control-Status - ON>
Bit 0.3:	Extended protection-Event - prewarning overload (>115%Is)
Bit 0.4:	Extended control-Status - interlocking time active
Bit 0.5:	Status - remote mode-Status - remote mode
Bit 0.6:	Status - group fault-Status - group fault
Bit 0.7:	Status - group warning-Status - group warning
Byte 1	
Bit 1.0:	Extended control-Fault - execution ON command
Bit 1.1:	Extended control-Fault - execution STOP command
Bit 1.2:	Extended control-Fault - feedback (FB) ON
Bit 1.3:	Extended control-Fault - feedback (FB) OFF
Bit 1.4:	Status - current flowing-Status - current flowing
Bit 1.5:	Not connected
Bit 1.6:	Not connected
Bit 1.7:	Not connected
Analog values	
Byte 2/3 (analog value):	max. current I_max (% of Is)-max. current I_max (% of Is)
Byte 4/5:	Current I_L1 (100 mA)-Current I_L1 (100 mA)
Byte 6/7:	Current I_L2 (100 mA)-Current I_L2 (100 mA)
Byte 8/9:	Current I_L3 (100 mA)-Current I_L3 (100 mA)
Byte 10/11:	Line-to-line voltage UL1-L2-Line-to-line voltage UL1-L2
Byte 12/13:	Line-to-line voltage UL2-L3-Line-to-line voltage UL2-L3
Byte 14/15:	Line-to-line voltage UL3-L1-Line-to-line voltage UL3-L1
Byte 16/17:	Time to trip-Time to trip
Byte 18/19:	Remaining cooling down period-Remaining cooling down period

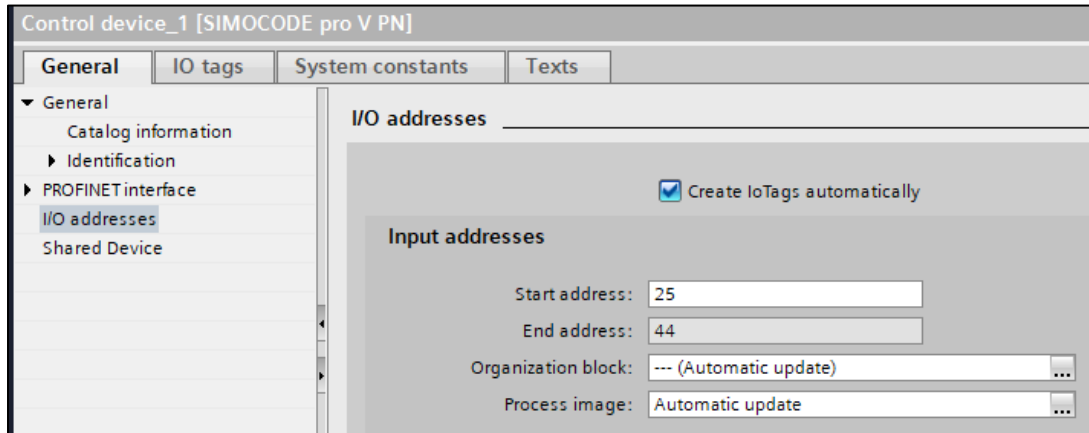
Data Communication - Cyclic

- The assignment of the digital and analog output signals are not done in one area. They are assigned in various locations throughout the “Parameters” section.



Data Communication - Cyclic

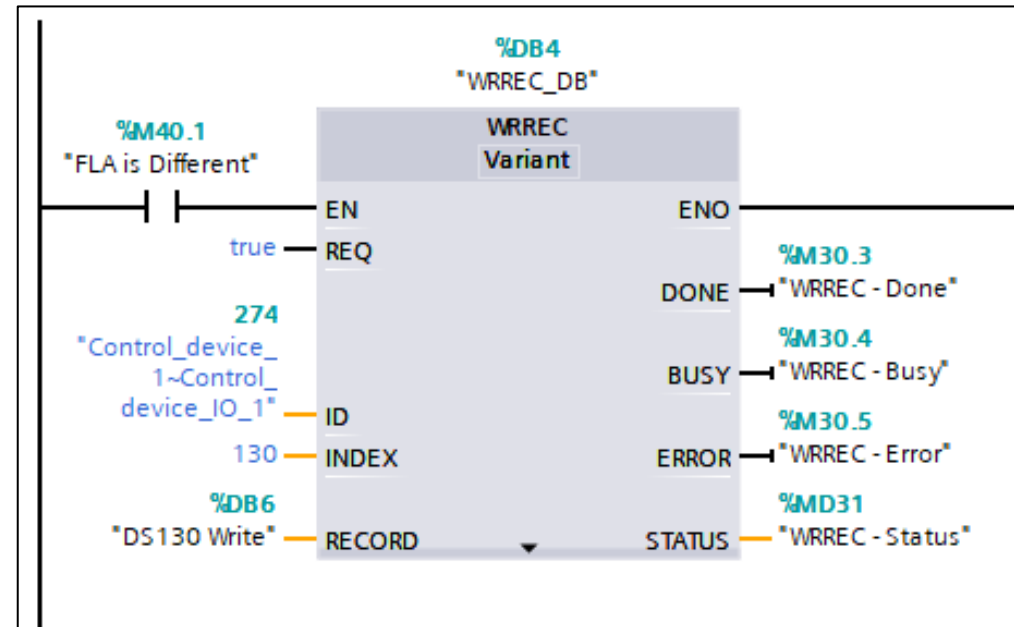
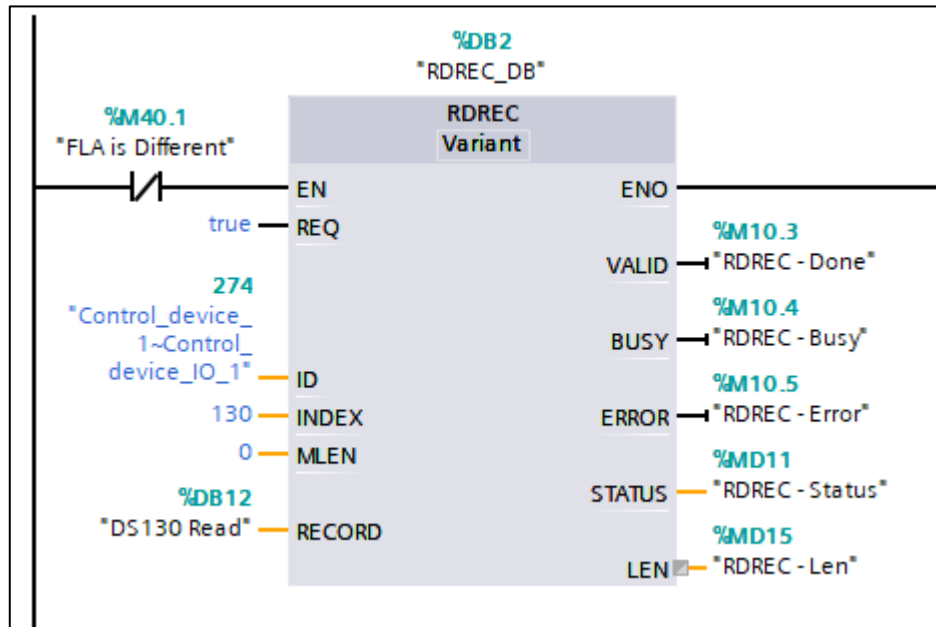
- Automatic creation of Siemens PLC tags of assigned digital and analog input and output signals is possible in Portal.



PLC tags				
	Name	Tag table ▲	Data type	Address
25	Control device_1~Status-RemoteMode	Default tag table	Bool	%I25.5
26	Control device_1~Status-GroupFault	Default tag table	Bool	%I25.6
27	Control device_1~Status-GroupWarning	Default tag table ▼	Bool	%I25.7
28	Control device_1~max.CurrentI_max(%OfIs)	Default tag table	Word	%IW27
29	Control device_1~PLC/PCS-OFF	Default tag table	Bool	%Q25.1
30	Control device_1~PLC/PCS-ON>	Default tag table	Bool	%Q25.2
31	RDREC - Status -First Scan	Default tag table	DWord	%MD21
32	Control device_1~Test1-input	Default tag table	Bool	%Q25.3
33	Control device_1~ModeSelector-S1	Default tag table	Bool	%Q25.5
34	Control device_1~Reset1-input	Default tag table	Bool	%Q25.6

Data Communication - Cyclic

- With acyclic data, Siemens PLC logic must be written using standard library blocks to read or write blocks of preassigned data.

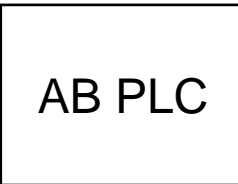
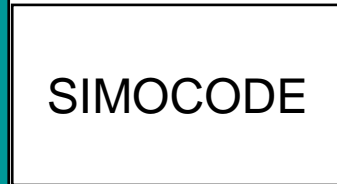
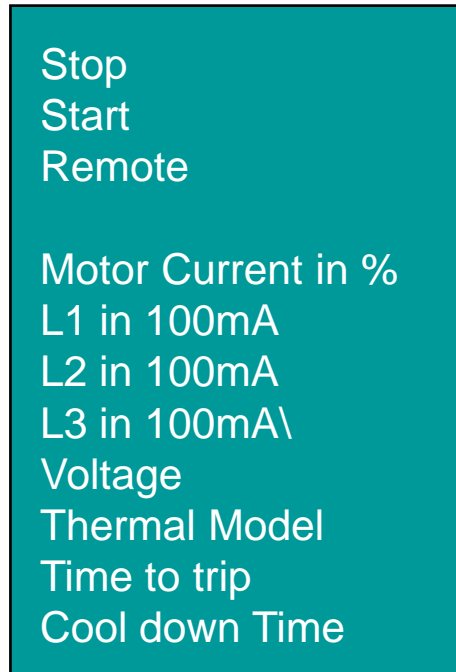


Note - Contact CP&C Industrial Market Development Team for sample Portal projects

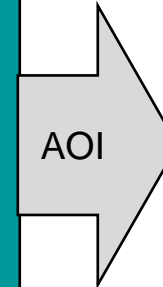
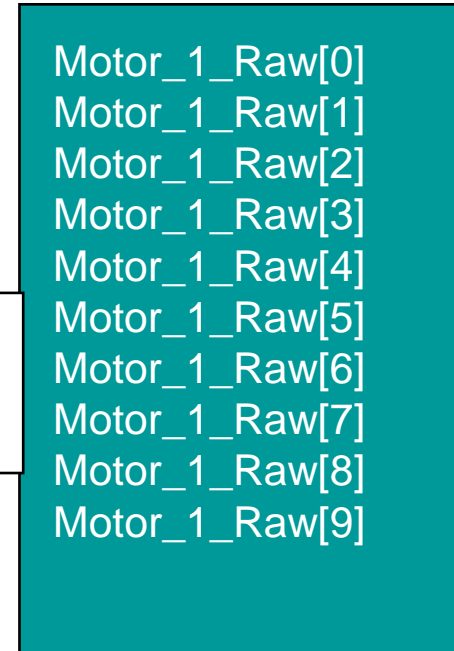
Data Communication - Cyclic

- Creation of AB PLC tags of assigned digital and analog input and output signals is simplified using a UDT and AOI.

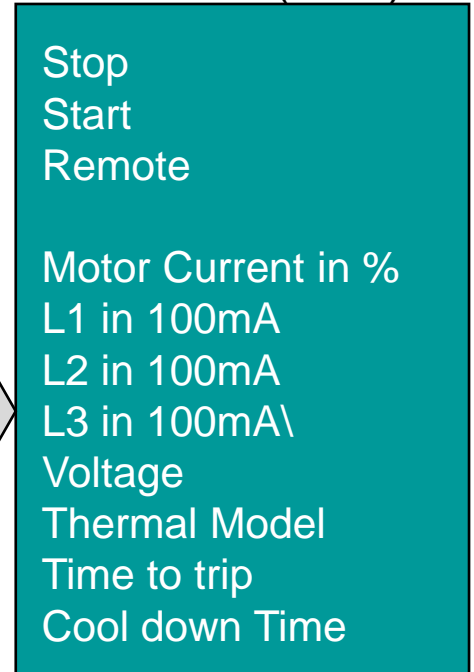
SIMOCODE Configuration "Motor 1"



EDS File Motor_1_Raw



AOI Output Motor_1 (UDT)

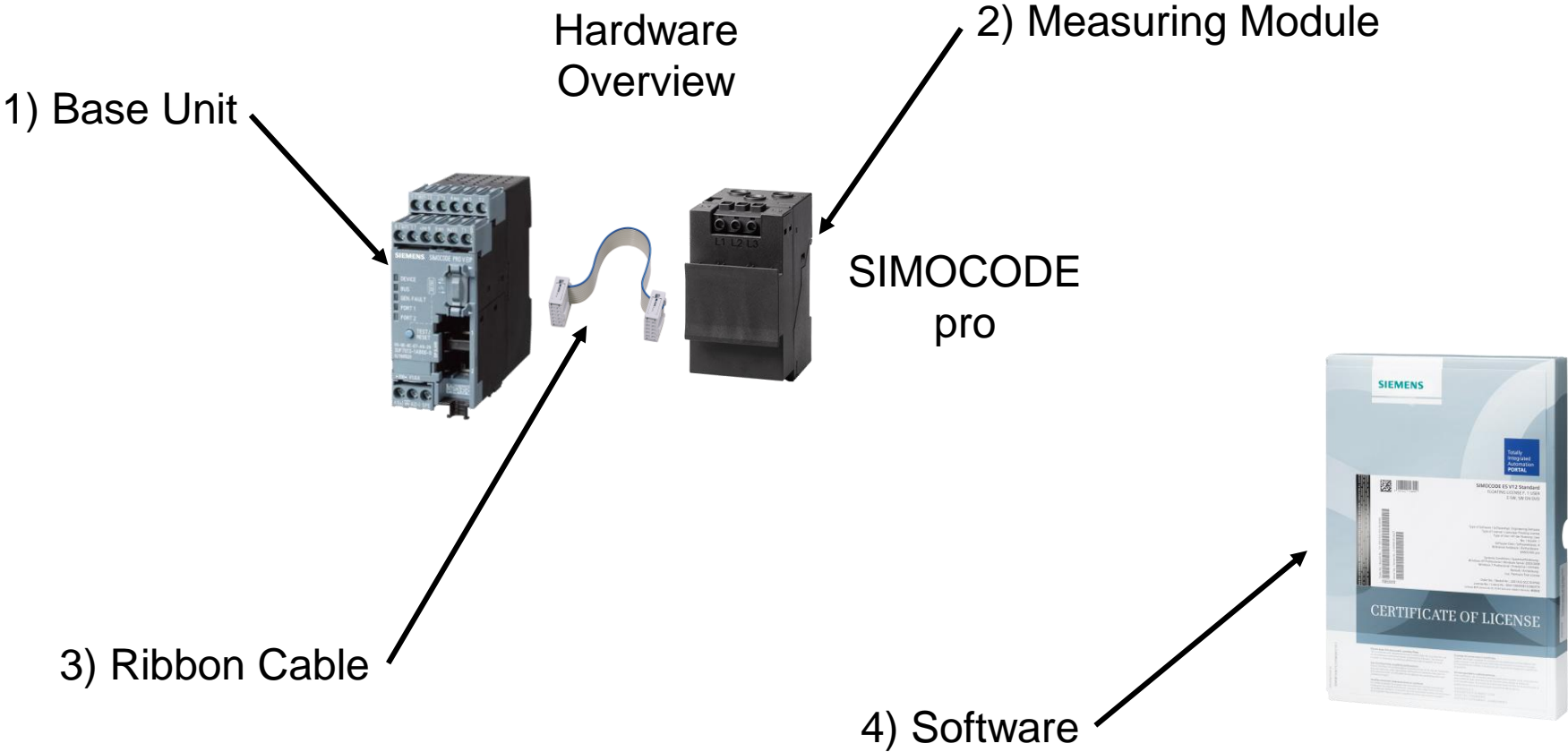


Note - Contact CP&C Industrial Market Development Team
for sample Portal/Studio 5000 projects



How to Select Parts

How to Select a Typical Configuration



Using Online Controls Catalog

2022 Industrial Controls Download Catalog



New Industrial Controls Catalog - May 2022

The 2022 Industrial Controls Catalog is available as a single interactive PDF file. It includes the latest, best-in-class Control Products from our SIRIUS Control, SIRIUS Hybrid, SIRIUS Monitor, SIRIUS Command and General Purpose families. This is an extremely interactive catalog with page links, bookmarks, and search engine. Download it today to see just how quickly you can select products and retrieve information.

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Section 0 Table of Contents & Catalog Overview	Section 1 IEC Motor Starter Protectors (MSP's)	Section 2 IEC Contactors	Section 3 IEC Overload Relays	Section 4 IEC Starters	Section 5 Fast Bus Power Distribution System
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SIRIUS IEC Overload Relays

Section 3 as an interactive PDF (3/1 - 3/86) - includes SIRIUS 3RU Thermal & 3RB Solid State Overload Relays and the SIMOCODE pro 3UF7 Motor Management System.

Note: See Section 2 pages 2/86 - 2/94 for SIRIUS 3RR Current Monitoring Relays

[Section 3 \(4.3MB\)](#)

Overload Relays

Industrial Control Product Catalog 2021

3 Section

contents

Thermal overload relays	Solid state overload relays
<p>3RU21 overload relays up to 100 A with screw connection, CLASS 10</p> <p>Selection and ordering data</p> <ul style="list-style-type: none"> Basic Unit 3/10 Accessories 3/11 <p>Description 3/8-3/9 Technical data 3/12-3/14 Circuit diagrams 3/15 Dimension drawings 3/16-3/17</p>	<p>3RB24 overload relays up to 630A with IO-Link current monitoring</p> <p>Selection and ordering data</p> <ul style="list-style-type: none"> Basic Unit 3/51 Accessories 3/55 <p>Description 3/52-3/53 Technical data 3/56-3/62</p>

SIRIUS 3RV motor starter protectors up to 100 A

<p>3RB20/21, 3RB30/31 overload relays up to 630 A, 3RB20/30 CLASS 10 or 20, 3RB21/31 CLASS 5, 10, 20, 30</p> <p>Selection and ordering data</p> <ul style="list-style-type: none"> Basic Unit 3/22-3/23 Accessories 3/11 <p>Description 3/18-3/19 Cross Reference Aid 3/21 Technical data 3/24-3/28 Dimension drawings 3/30 Circuit diagrams 3/31</p>	<p>3RB22/23 overload relays up to 800 A for full motor protection, CLASS 5 to CLASS 30 adjustable</p> <p>Selection and ordering data</p> <ul style="list-style-type: none"> Basic Unit 3/34-3/35 Accessories 3/49-3/50 <p>Description 3/47 Technical data 3/40-3/43 Dimension drawings 3/45-3/46 Circuit diagrams 3/47</p>	<p>3UF7 SIMOCODE Pro Motor management and control devices</p> <p>Selection and ordering data</p> <ul style="list-style-type: none"> Basic Unit 3/74-3/76 Expansion modules 3/77-3/79 Accessories 3/80-3/82 <p>Description 3/83-3/86 Technical data 3/69-3/73 Software and licenses 3/83-3/86</p>
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(Section was last modified on 08/19/21) Siemens Industry Inc., Industrial Control Catalog 3/1

Step 1) Select Base Unit

SIMOCODE 3UF Motor Management and Control Devices
SIMOCODE pro 3UF7
 Basic units **IE3/IE4 ready**

3 OVERLOAD RELAYS

Selection and ordering data

Version	SC	Screen terminals	PU (UNIT SET, M)	PS ¹⁾
d	Article No.	Price per PU		
SIMOCODE pro PROFIBUS				
SIMOCODE pro C PROFIBUS DP interface, 12 Mbps, RS 485 4 I/O freely assignable, input for thermistor connection, monostable relay outputs Rated control supply voltage U _G : • 24 V DC • 110 ... 240 V AC/DC				
3UF7000-1AB00-0		▶ 3UF7000-1AB00-0	1	1 unit
		▶ 3UF7000-1AU00-0	1	1 unit
SIMOCODE pro S PROFIBUS DP interface, 1.5 Mbps, RS 485 4 I/O freely assignable, input for thermistor connection, monostable relay outputs, can be expanded by a multifunction module Note: The connection cable to the current measuring module must be at least 15 cm. Rated control supply voltage U _G : • 24 V DC • 110 ... 240 V AC/DC				
3UF7020-1AU01-0		▶ 3UF7020-1AB01-0	1	1 unit
		▶ 3UF7020-1AU01-0	1	1 unit
SIMOCODE pro V¹⁾ PROFIBUS DP interface, 12 Mbps, RS 485 4 I/O freely assignable, input for thermistor connection, monostable relay outputs, can be expanded by expansion modules Rated control supply voltage U _G : • 24 V DC • 110 ... 240 V AC/DC				
3UF7010-1AB00-0		▶ 3UF7010-1AB00-0	1	1 unit
		▶ 3UF7010-1AU00-0	1	1 unit
SIMOCODE pro PROFINET				
SIMOCODE pro V PROFINET GP ^{1) 100} ETHERNET/PROFINET IO, OPC UA server and web server, 100 Mbps, PROFINET system redundancy, 4 I/O freely assignable, input for thermistor connection, monostable relay outputs, can be expanded by expansion module, web server in German/English/Chinese/Russian 2 x connection to bus through RJ45, Media Redundancy Protocol Rated control supply voltage U _G : • 24 V DC • 110 ... 240 V AC/DC 1 x connection to bus through RJ45, Rated control supply voltage U _G : • 24 V DC • 110 ... 240 V AC/DC				
3UF7011-1AB00-1		▶ 3UF7011-1AB00-1	1	1 unit
		▶ 3UF7011-1AU00-1	1	1 unit
		▶ 3UF7011-1AB00-2	1	1 unit
		▶ 3UF7011-1AU00-2	1	1 unit
SIMOCODE pro V PROFINET ETHERNET/PROFINET IO, OPC UA server and web server, 100 Mbps, 2 x connection to bus through RJ45, PROFINET system redundancy, media redundancy protocol, 4 I/O freely assignable, input for thermistor connection, monostable relay outputs, can be expanded by expansion modules, web server in German/English/Chinese/Russian Rated control supply voltage U _G : • 24 V DC • 110 ... 240 V AC/DC				
3UF7011-1AB00-0		▶ 3UF7011-1AB00-0	1	1 unit
		▶ 3UF7011-1AU00-0	1	1 unit

¹⁾ For the use of 2nd generation current/voltage measuring modules, SIMOCODE pro V PROFINET with product version E10 (V4.0) must be ordered. This version does not have an NEPSI certificate. It can be ordered at no extra charge. The article number must be supplemented by **-Z** and the order code **B01**, e.g. **3UF7010-1AB00-Z B01**.

3/74 Siemens Industry Inc., Industrial Control Catalog



3UF7011-1AB00-0

SIMOCODE pro V PROFINET

ETHERNET/PROFINET IO,
 OPC UA server and web server, 100 Mbps,
 2 x connection to bus through RJ45, PROFINET system redundancy, media redundancy protocol,
 4 I/O freely assignable, input for thermistor connection, monostable relay outputs, can be expanded by expansion modules,
 web server in German/English/Chinese/Russian

Rated control supply voltage U_G:

- 24 V DC
- 110 ... 240 V AC/DC




▶ 3UF7011-1AB00-0

▶ 3UF7011-1AU00-0


1 1 unit

1 1 unit

Step 2) Select Measuring Module

SIMOCODE pro current or current/voltage measuring modules					
 <p>3UF7103-1AA00-0</p>	Current measuring modules				
	<ul style="list-style-type: none"> • Straight-through transformers 	0.3 ... 3	45	▶	3UF7100-1AA00-0
		2.4 ... 25	45	▶	3UF7101-1AA00-0
		10 ... 100	55	▶	3UF7102-1AA00-0
		20 ... 200	120	▶	3UF7103-1AA00-0
<ul style="list-style-type: none"> • Busbar connection⁶⁾ 	20 ... 200	120	▶	3UF7103-1BA00-0	
	63 ... 630	145	▶	3UF7104-1BA00-0	
 <p>3UF7110-1AA01-0</p>	2nd-generation current/voltage measuring modules for SIMOCODE pro V¹⁾²⁾				
	Voltage measuring up to 690 V, measured values with increased accuracy, power, power factor and frequency monitoring				
	<ul style="list-style-type: none"> • Straight-through transformers 	0.3 ... 4	45	▶	3UF7110-1AA01-0
		3 ... 40	45	▶	3UF7111-1AA01-0
		10 ... 115	55	▶	3UF7112-1AA01-0
20 ... 200		120	▶	3UF7113-1AA01-0	
<ul style="list-style-type: none"> • Busbar connection⁶⁾ 	20 ... 200	120	▶	3UF7113-1BA01-0	
	63 ... 630	145	▶	3UF7114-1BA01-0	
 <p>3UF7123-1AA01-0</p>	Current/voltage measuring modules for dry-running protection of centrifugal pumps in hazardous areas²⁾³⁾⁴⁾ NEW				
	<ul style="list-style-type: none"> • Straight-through transformers 	0.3 ... 4	45	▶	3UF7120-1AA01-0
		3 ... 40	45	▶	3UF7121-1AA01-0
		10 ... 115	55	▶	3UF7122-1AA01-0
		20 ... 200	120	▶	3UF7123-1AA01-0
<ul style="list-style-type: none"> • Busbar connection⁶⁾ 	20 ... 200	120	▶	3UF7123-1BA01-0	
	63 ... 630	145	▶	3UF7124-1BA01-0	

Step 3) Select Connecting Cable

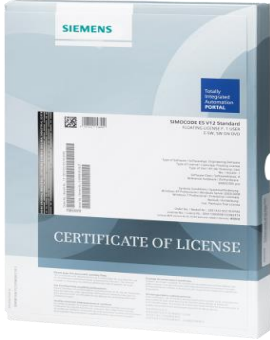
Connection cables (essential accessory)				
 <p>3UF7932-0AA00-0</p>	In different lengths for connecting basic unit, current measuring module, current/voltage measuring module, operator panel or expansion modules			
	Version	Length		
	Flat	0.025 m		▶ 3UF7930-0AA00-0
		0.1 m		▶ 3UF7931-0AA00-0
		0.15 m	NEW	▶ 3UF7934-0AA00-0
		0.3 m		▶ 3UF7935-0AA00-0
		0.5 m		▶ 3UF7932-0AA00-0
	Round	0.5 m		▶ 3UF7932-0BA00-0
		1.0 m		▶ 3UF7937-0BA00-0
		2.5 m		▶ 3UF7933-0BA00-0

Step 4) Select SIMOCODE ES Portal Software

Available in 2 versions

Free download

TIA Portal Software



SIMOCODE ES	Basic	Professional
Access via the local interface on the device	✓	✓
Parameter assignment in list form	✓	✓
Parameter assignment via expert list	--	✓
Bulk engineering	--	✓
Working with libraries	✓	✓
Parameter printing in list form	✓	✓
Operating	✓	✓
Diagnostics	✓	✓
Test	✓	✓
Service data	✓	✓
Analog value recording ¹⁾	✓	✓
Trend display of measured values	--	✓
Parameterizing with convenient graphical display	--	✓
Parameterizing with the integrated graphics editor (CFC-based)	--	✓
Printing of diagrams	--	✓
Parameter comparison	--	✓
Access via PROFIBUS/PROFINET/Ethernet	--	✓
Teleservice via MPI	--	✓
Routing ²⁾	--	✓
Firmware update basic units ¹⁾	✓	✓
✓ Function available		
-- Function not available		



Siemens Support

Siemens
<https://support.industry.siemens.com> › start

Siemens Industry Online Support

This is how you get quick and easy current information from our global support database. Simply enter your specific product information.

Siemens AG · Image Database · SIOS · Cybersecurity

Industry Online Support Services

Site Explorer


Product Support | Services | Forum | mySupport

SIMOCODE ES Vx software can be downloaded from the **Siemens Service and Support site**.

Note: The software includes a temporary “Professional” trial license. Once that license expires the software will continue to run in “Basic” for free



Step 4) Select SIMOCODE ES Portal Software

SIMOCODE ES V <input type="checkbox"/> Professional	
	<p>Floating license for one user</p> <p>Engineering software, class A, 6 languages (German/English/Chinese included, French/Italian/Spanish as a download), Combo license for parallel use of versions 2007 and V17 of SIRIUS ES, for all SIMOCODE pro, online functions via system interface and PROFIBUS/PROFINET/Ethernet, parameterizing with the integrated graphics editor (CFC-based)</p> <p><u>Type of delivery:</u></p> <ul style="list-style-type: none">• Software and documentation on DVD and floating license on USB flash drive• Software and documentation as a download and floating license as a download
	<p>3ZS1322-6CC1 <input type="checkbox"/> -0YA5</p> <p>3ZS1322-6CE1 <input type="checkbox"/> -0YB5</p>

Note: Older Professional License is valid for all newer versions (Ex. V13 license works for V18)

- 3 = V15
- 4 = V16
- 5 = V17
- 6 = V18

How to Find the Part Number To Order a SIMOCODE Professional License

> **3ZS13226CC160YA5**

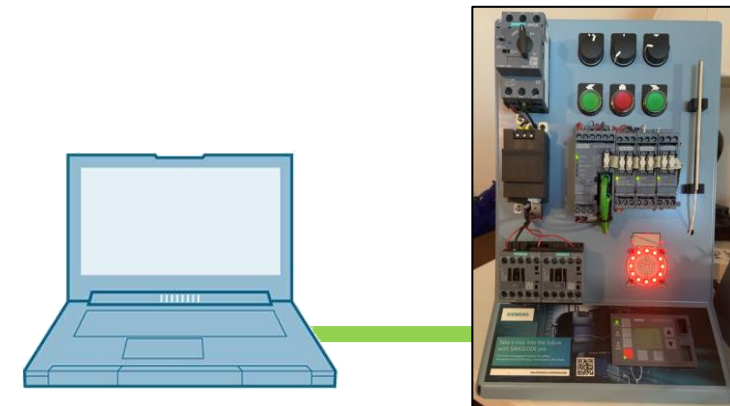
SIRIUS SIMOCODE ES V18 Professional; floating license for one user, engineering software, software and documentation on DVD license key on USB, class A, 6 languages (de,en,zh included, fr,sp,it for download) combo license parallel use of SIMOCODE ES 2007 and V18 for SIMOCODE pro, online functions via system interface and PROFIBUS / PROFINET, internal graphic editor (CFC-based) executable in: Windows 10 - 64-bit (Professional/Enterprise) / Windows 11 (Home/Professional/Enterprise) Windows Server 2016/2019/2022

Note: There are also upgrade options by changing the letter “A” in the part number. Refer to the IC 10 catalog for available choices

SIMOCODE pro – Smart Motor Management

Hands On Labs

1. Verify IP Address for PC and SIMOCODE demo
2. Create direct starter base configuration w/ 3-wire control
3. Add start and stop indication
4. Add remote reset
5. Use Online Commissioning tools
6. Add emergency start function
7. Separate start & stop functionality
8. Switch to 2-wire control
9. Add over current monitoring
10. Add under voltage monitoring function
11. Add power failure monitoring function
12. Add a truth table function



5 Step Configuration Process

1. Select Base Unit
2. Select Profile
3. Match hardware
4. Set Network Address
5. Set FLA for motor

Questions



Contact

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