

# ST-IPm-8460 and Red Lion Workbench

## Product Introduction

**REDLION™**

a spectris company

**EXCELLENCE. REDEFINED.**

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# ST-IPm-8460 and Red Lion Workbench

## New Product Introduction



### ST-IPm-8460

New Programmable RTU

- Rugged (High Temp; Haz Loc)
- Programmable
- Redundant Operation
- Datalogging



### Red Lion Workbench

New IEC61131-3  
Programming Workbench

- 5 Languages
- Protocols
- Redundancy
- Two variable database or one variable database

# ST-IPm-8460

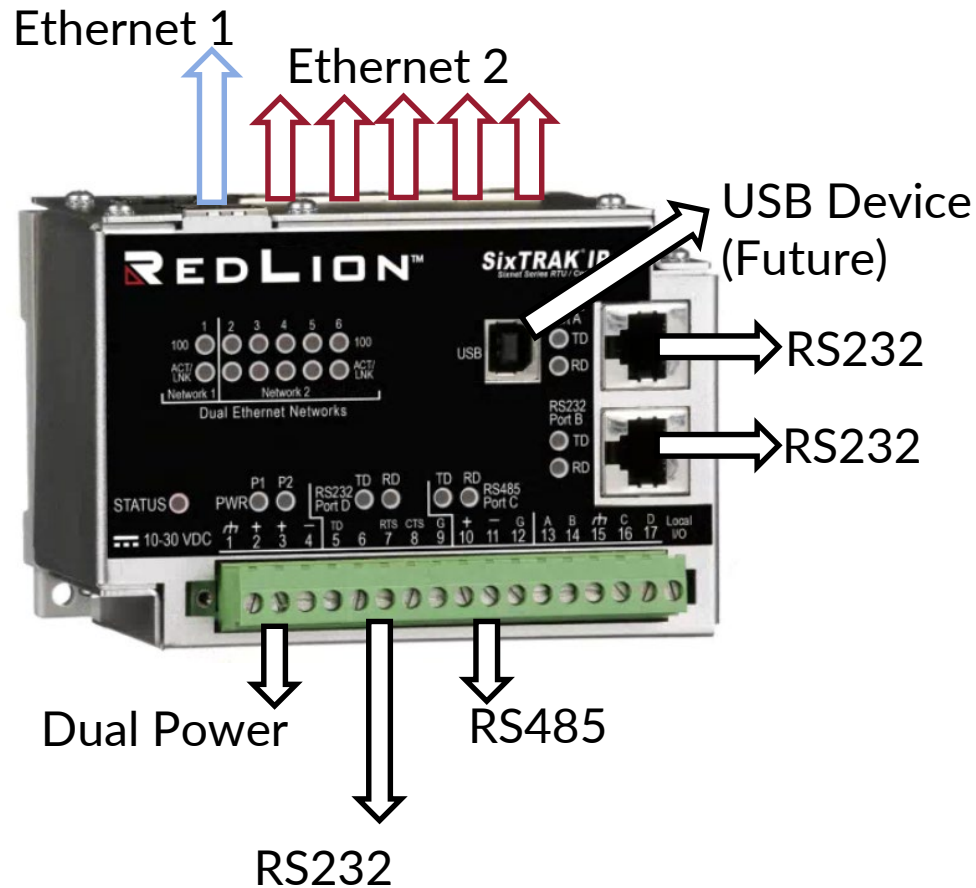
## Programmable Controller



- 10x faster performance
- 4x more NVRAM
- 4x more FLASH
- 8x more RAM
- Isolated RS232 and RS485 ports
- 1 additional Ethernet Port
- ISaGRAF Compatible (backward compatibility)
- New Red Lion Workbench (IEC61131-3 programming)

# ST-IPm-8460

## Hardware Features



- Rugged dependability in extreme environments
  - Extreme temperature rating -40 to +70°C
  - High mean-time between failure (MTBF)
- Redundancy
  - Redundant Controller
  - Dual Power Input
- Many communication ports and protocols
  - 3x RS232, 1x RS485, 6x Ethernet
- Certified for hazardous environments



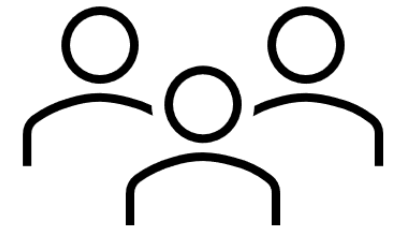
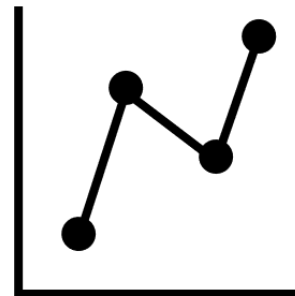
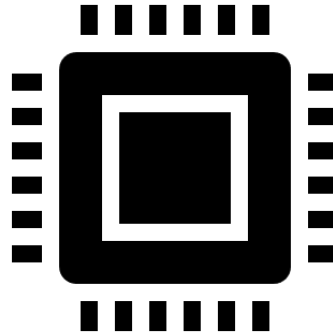
**ABS**



# ST-IPm-8460

## Software Features

- Flexible open architecture
  - Linux operating system
- Security
  - User Authentication
  - Advanced firewalls
- Datalogging configuration
- Programmable with IEC61131-3 and C
  - Red Lion Controls Workbench
  - ISaGRAF (backward compatibility)



# ST-IPm-8460

## Order Guide

Part Number	PORTS			MEMORY		
	Eth	232	485	NVRAM	FLASH	DRAM
<b>ST-IPm-8460</b>	<b>6</b>	<b>3</b>	<b>1</b>	<b>8M</b>	<b>512M</b>	<b>512M</b>



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### Red Lion Workbench

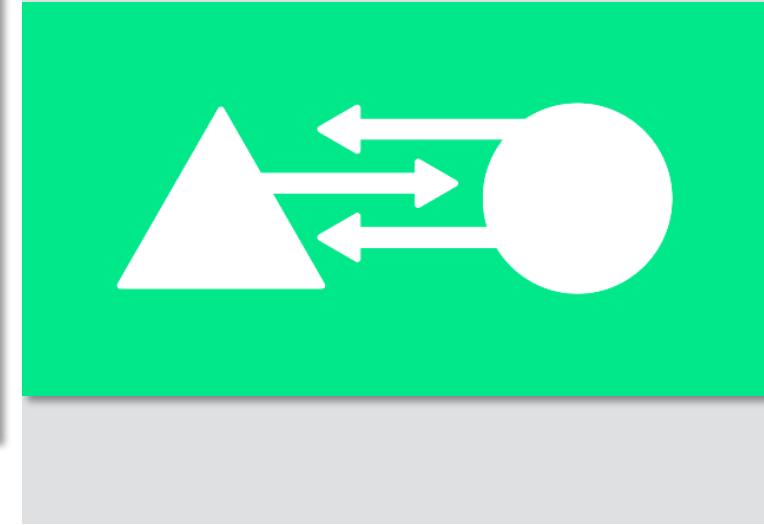
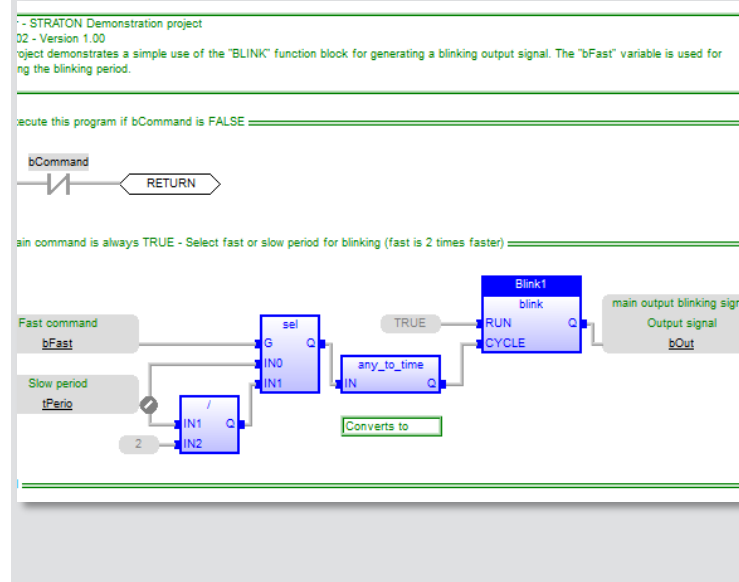
New IEC61131-3  
Programming Workbench

- 5 Languages
- Protocols
- Redundancy
- Two variable database or one variable database

# Red Lion Workbench

## IEC61131-3 Programming

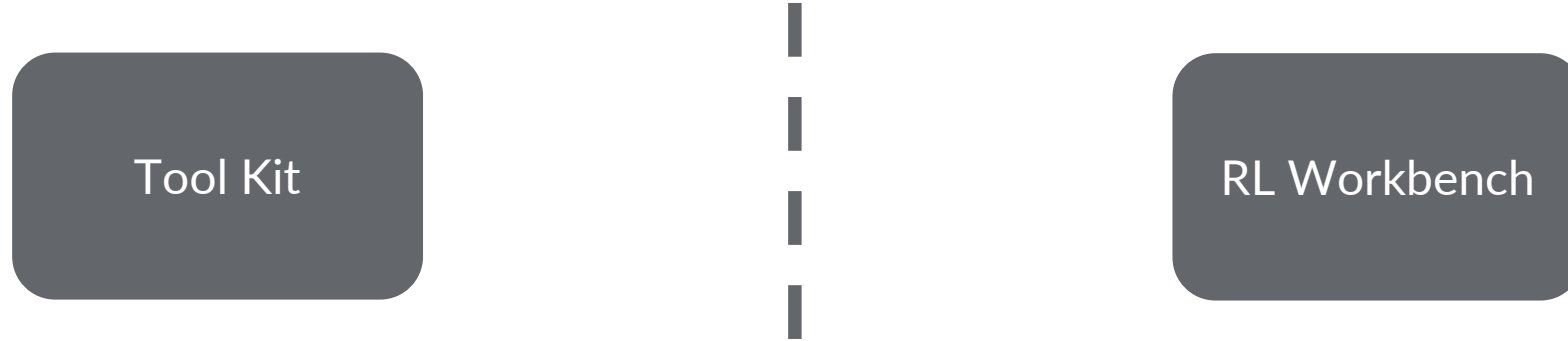
- 5 Programming Languages
  - ST, SFC/CFC, IL, FBD, LD
- Many Protocols Supported
  - Modbus Included
  - DNP3 (Future)
  - IEC60870 (Future)
  - IEC61850 (Future)
  - Ethernet/IP (Future)
- Controller Redundancy
  - Bumpless transfer
- No License Required



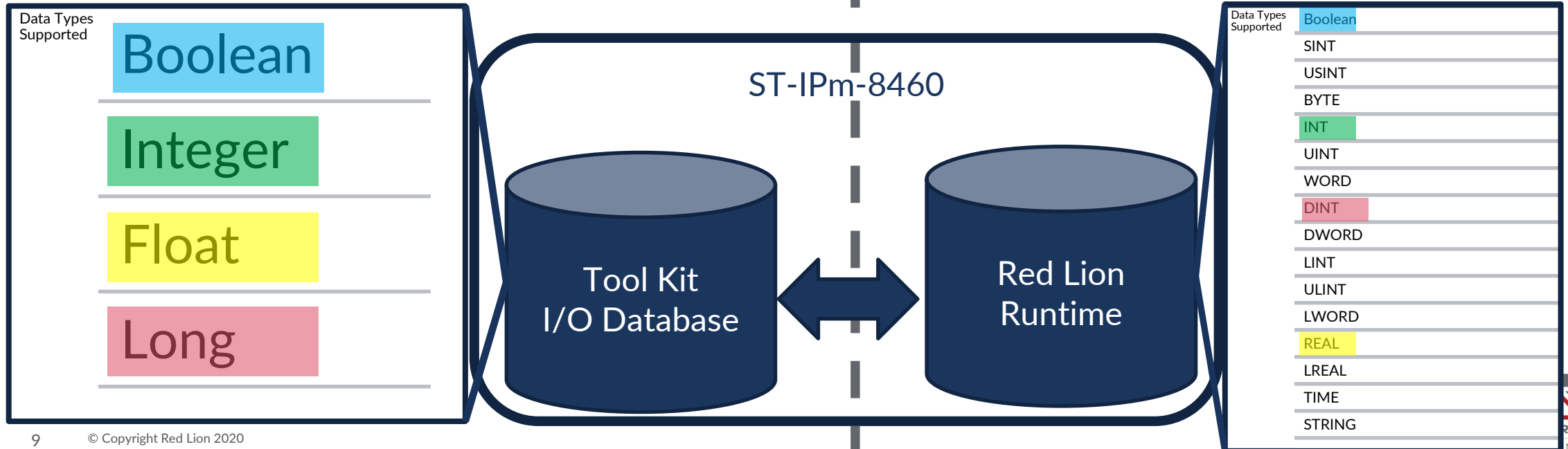


# Tool Kit and Red Lion Workbench

## Separate Variable Databases

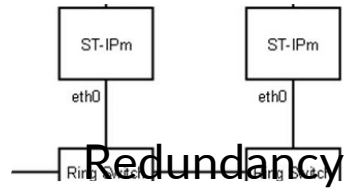


When ever there is a change you must resync



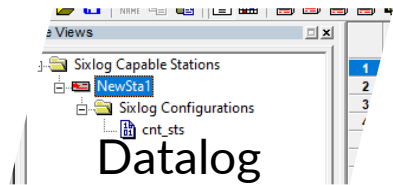
# Tool Kit and Red Lion Workbench

## Separate Variable Databases



Tool Kit

RL Workbench

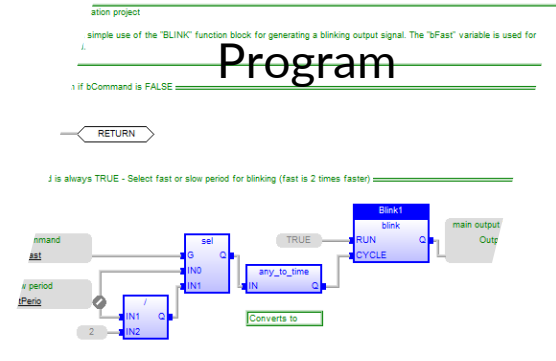
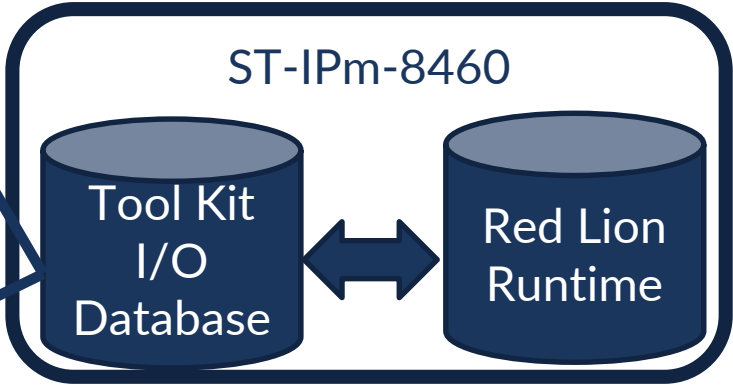


me	Defined Action	Local Type	Local Start	Remote Type	Remote Start	Number of Registers
...	Read SIO NET I/O	To Analog In	0	From Discrete In	0	16
...	Read SIO NET I/O	To Analog In	16	From Discrete In	0	16
...	Read SIO NET I/O	To Analog In	32	From Discrete In	0	16
...	Read SIO NET I/O	To Analog In	48	From Discrete In	0	16
...	Read SIO NET I/O	To Analog In	64	From Discrete In	0	16
...	Read SIO NET I/O	To Analog In	80	From Discrete In	0	16
...	Read SIO NET I/O	To Analog In	96	From Discrete In	0	16
...	Read SIO NET I/O	To Analog In	112	From Discrete In	0	16

Line Communications Port Properties:

Port	Settings
Network 1/Eth0	Ethernet: 10.1.0.1
Network 2/Eth1	Ethernet: 192.168.1.1
RS232 Port A	Modbus RTU Slave, 9600, N, 8, 1, RS232
RS232 Port B	Modbus RTU Slave, 9600, N, 8, 1, RS232
RS485 Port C	Modbus RTU Slave, 9600, N, 8, 1, RS485
RS232 Port D	Modbus RTU Slave, 9600, N, 8, 1, RS232

- Data Types Supported:
- Boolean
  - Integer
  - Float
  - Long



# Red Lion Workbench

## One Variable Database

Tool Kit

Configuration Only

- IP address
- User Authentication
- Firewall

RL Workbench

ST-IPm-8460

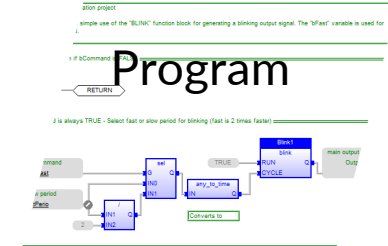
Red Lion  
Runtime

Data Types  
Supported

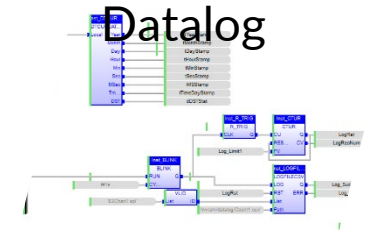
Boolean  
SINT  
USINT  
BYTE  
INT  
UINT  
WORD  
DINT  
DWORD  
LINT  
ULINT  
LWORD  
REAL  
LREAL  
TIME  
STRING



Program



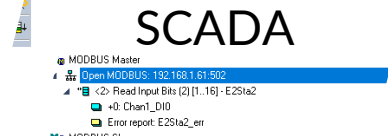
Datalog

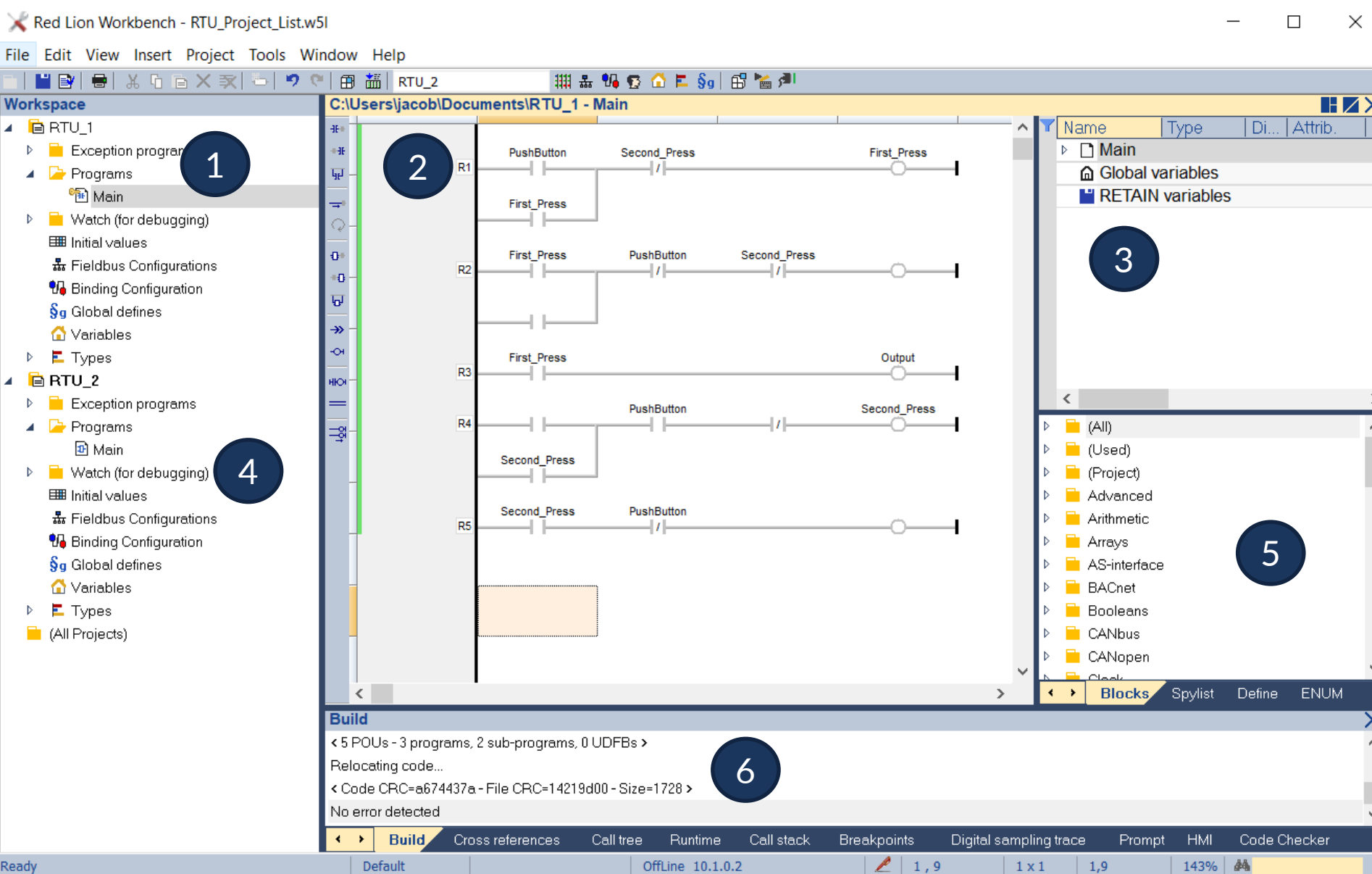


I/O Transfers



SCADA



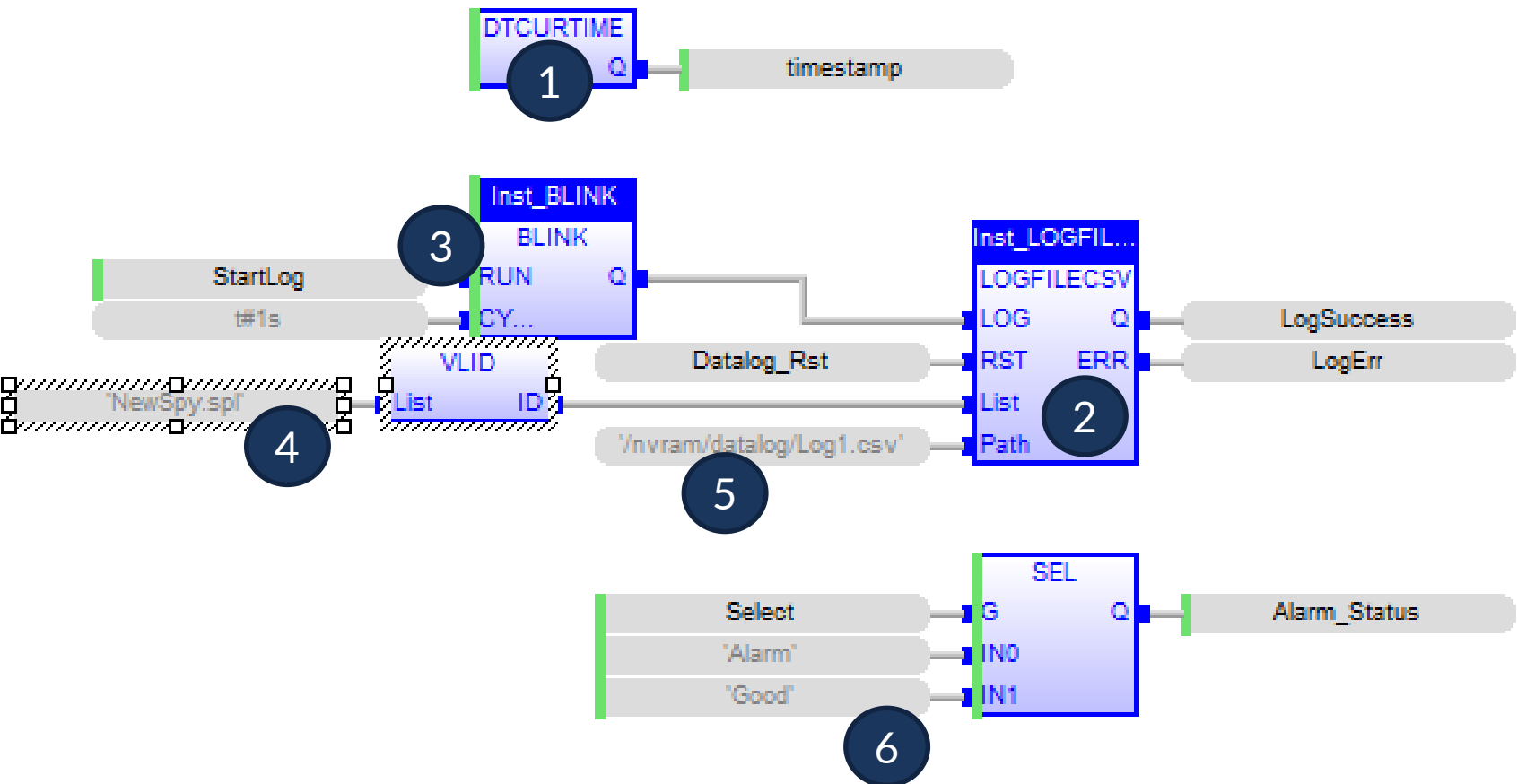


- 1 Multiple Projects Each Project List
- 2 Main Window Editor
- 3 Global/Local Variable List
- 4 Watchlist
- 5 List of Functions
- 6 Build status output

# Red Lion Workbench

## Full Featured Editor





- 1 Select the timestamp format
- 2 Use the Log File function block
- 3 Define log trigger
- 4 Create log records with spylists
- 5 Log to RTU directory
- 6 Log all data types including messages and time

# Red Lion Workbench

## Datalogging

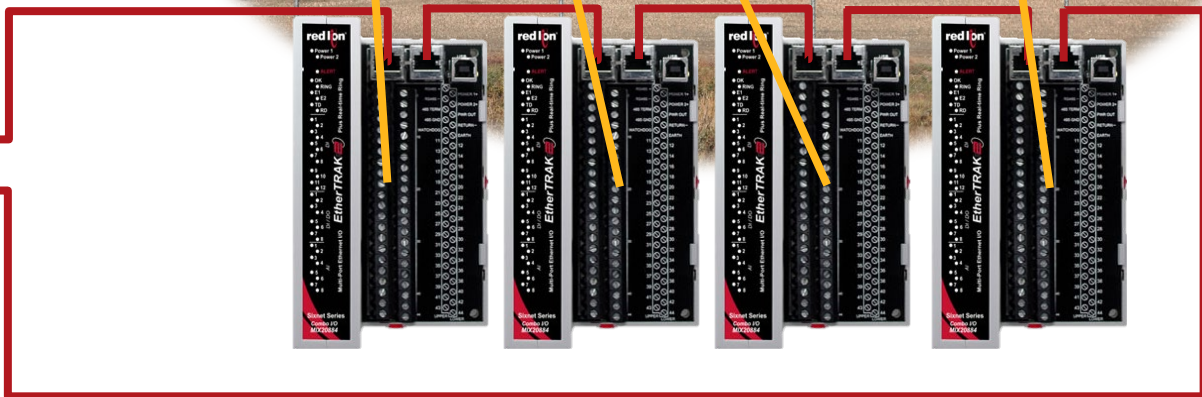
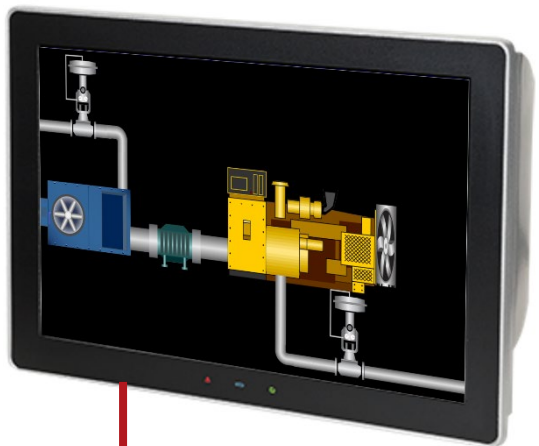
**1** Configure slave device and registers to read/write

**2** Variables for program are automatically created

Name	Value
Request	<2> Read Input Bits
Slave/Unit	0
Address	1
Nb Item	16
Period on error	0
Timeout (ms)	3000
Number of trials	1
Description	DI_READ

Name	Type
Global variables	
DI_1	BOOL
DI_2	BOOL
DI_3	BOOL
DI_4	BOOL
DI_5	BOOL
DI_6	BOOL
DI_7	BOOL
DI_8	BOOL
DI_9	BOOL

Symbol	Operation	Offset	Mask	Storage	Range (Lo...)	Range (Hi...)	Signal
1	Data exchan...	0	FFFF	Default			
2	Data exchan...	1	FFFF	Default			
3	Data exchan...	2	FFFF	Default			
4	Data exchan...	3	FFFF	Default			
5	Data exchan...	4	FFFF	Default			
6	Data exchan...	5	FFFF	Default			
7	Data exchan...	6	FFFF	Default			
8	Data exchan...	7	FFFF	Default			
9	Data exchan...	8	FFFF	Default			
10	Data exchan...	9	FFFF	Default			



# ST-IPm-8460, EtherTRAK-2 I/O, Graphite

## Gas Compression Operation

# ST-IPm-8460 and Red Lion Workbench

## Powerful Combination



Red Lion Workbench Inside

## ST-IPm-8460 and Red Lion Workbench

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FOR MORE INFORMATION

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