



E-Line Communication

Sbus for fast communication



Basics

Contains

- **Creation of Eline telegram**
- **Principle**
- **Com Box Master**
- **ComBox Station**
- **Modbus Mode C**

- **Practical commissionning**

Creation of E-line telegram

S-Bus Station Number	>	8
Reconnect after (s)	>	60.0
[--- Set Data Array ---]		
Slave Register Array Address	>	900
Register Array Size	>	32
Flag Array Size	>	32
[--- Get Data Array ---]		
Slave Register Array Address	>	950
Register Array Size	>	32
Flag Array Size	>	32

Master

F1 F2 F3 F4 F5 F6 F.. F32

Telegram

FRC R1 R2 R3 R4 R5 R6 R.. R32 RF

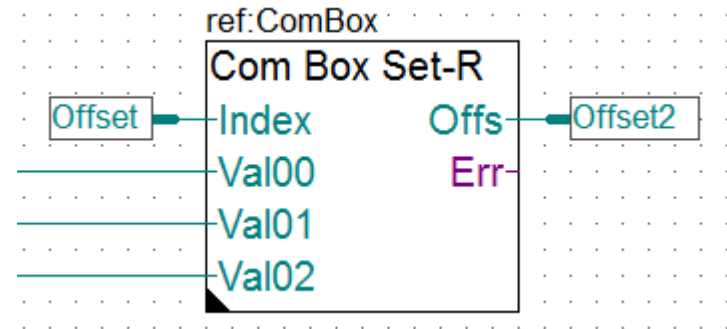
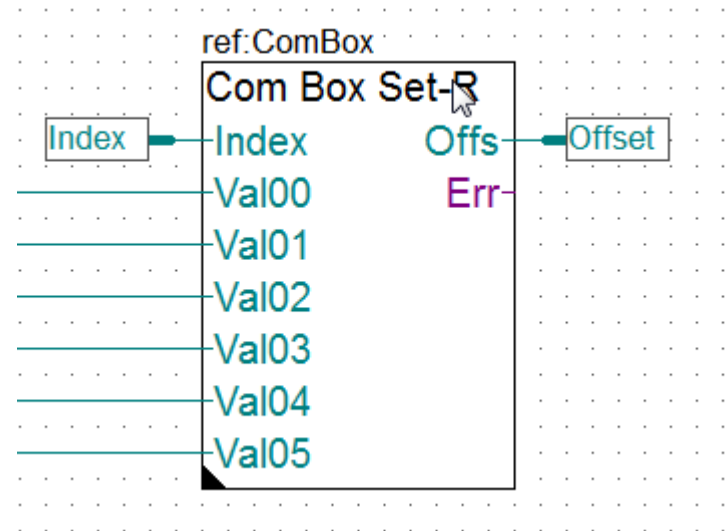
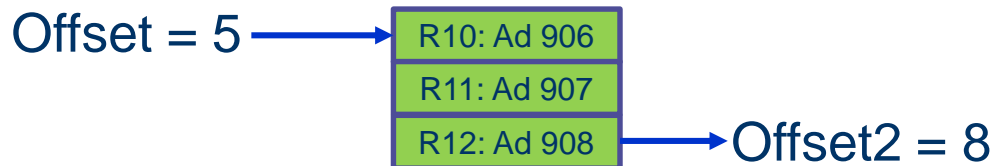
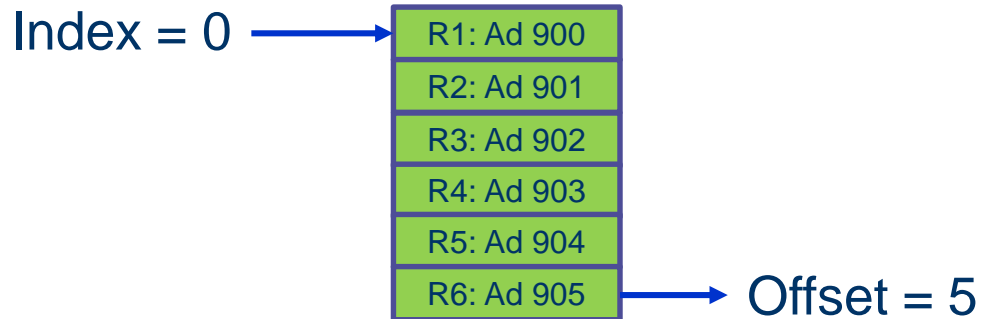
Slave

FRC = free running counter
telegram time counter

[--- System ---]	
Poll Timeout [sec]	> 0.0
[--- Get Data Array ---]	
Start Address Register	> 900
Register Array Size	> 32
Flag Array Size	> 32
[--- Set Data Array ---]	
Start Address Register	> 950
Register Array Size	> 32
Flag Array Size	> 32

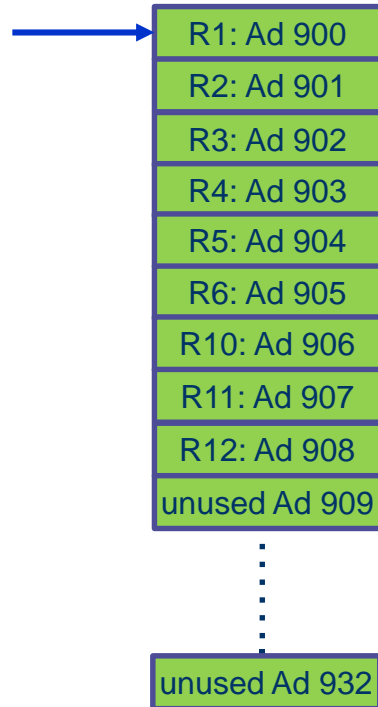
Principle

- Creation of arrays

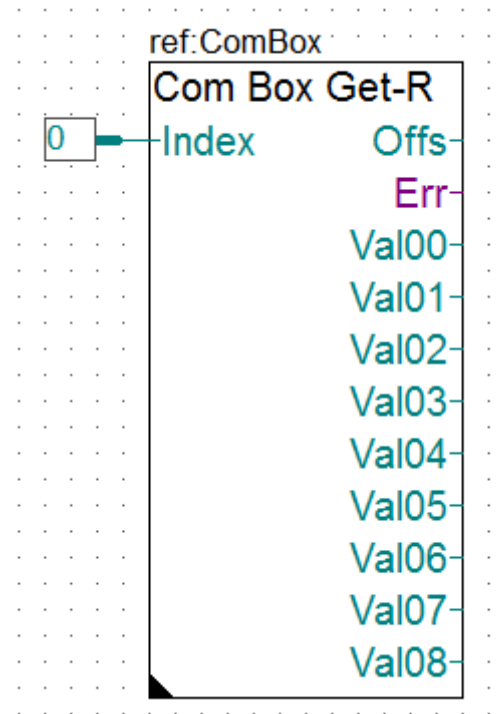


Principle creation of arrays

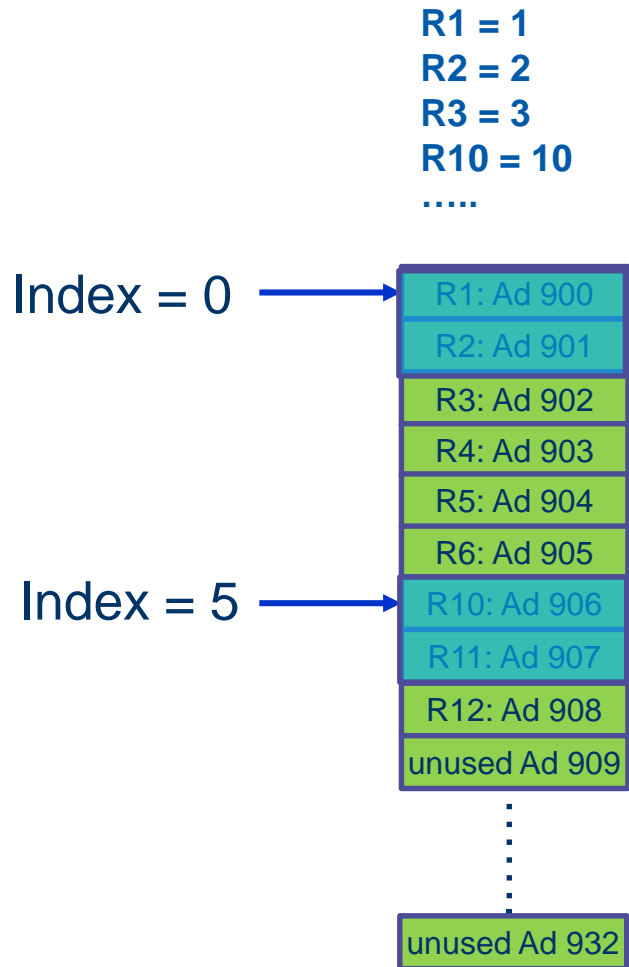
Index = 0



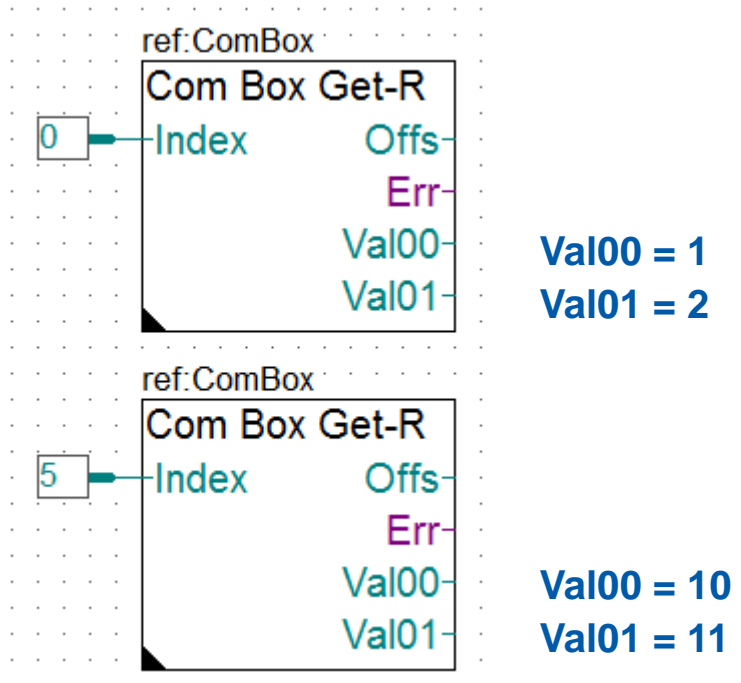
Slave station



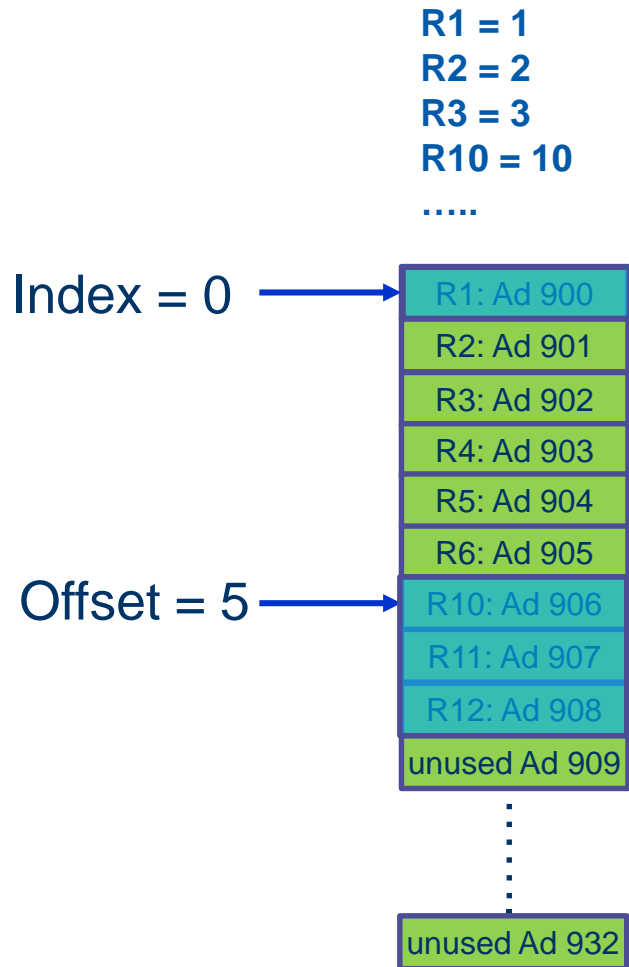
Principle Creation of arrays



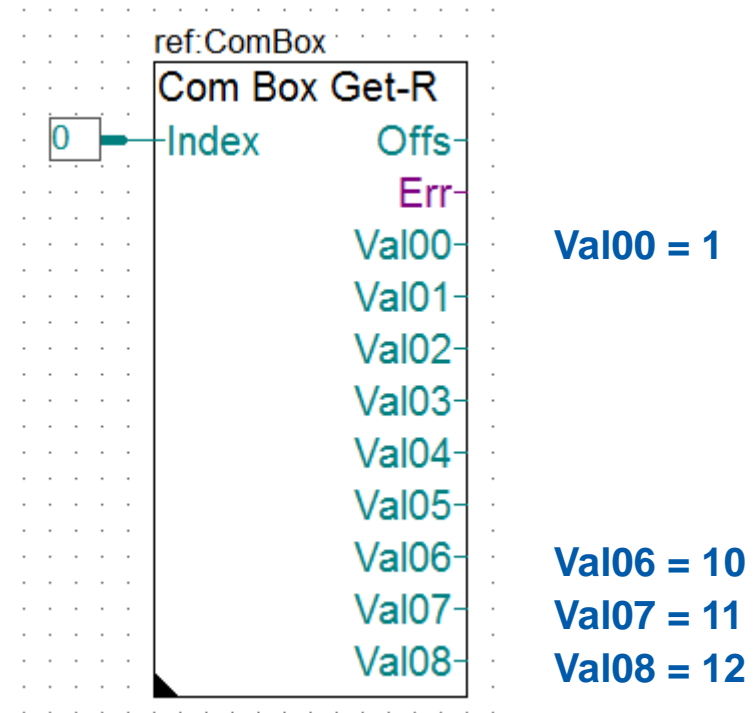
Slave station



Principle Creation of arrays



Slave station

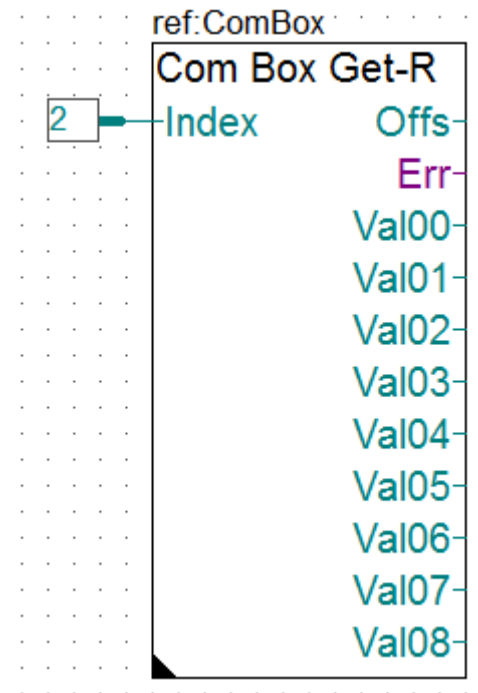


Principle Creation of arrays

R1 = 1
R2 = 2
R3 = 3
.....

Slave station

Index = 2 →



Val00 = 3

Val06 = 12

Val07 = Undefined

Val08 = Undefined

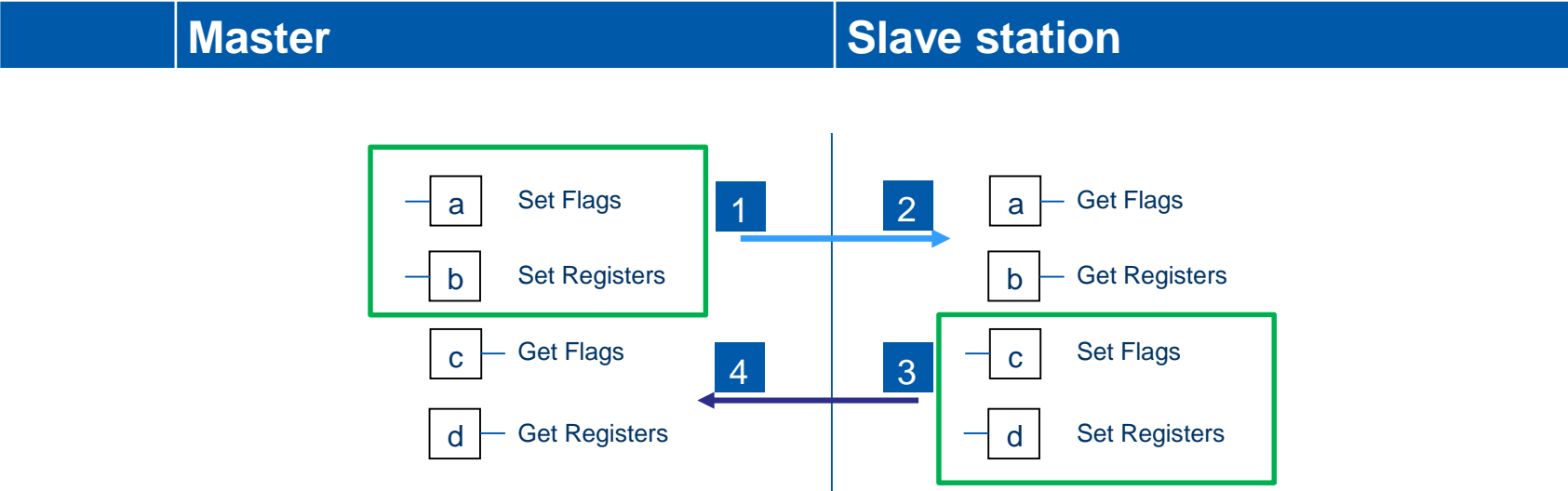
Principle

- Send multi-media Register and flags together in 1 telegram
- Flags are put together in registers
- → 32 flags are send as 1 register
- Slave station does disassemble register into flags again.
- 1 Telegram is send with all datas (in Arrays)
- 1 answer is transmitted back to the master

- View of an E-line telegram with front line

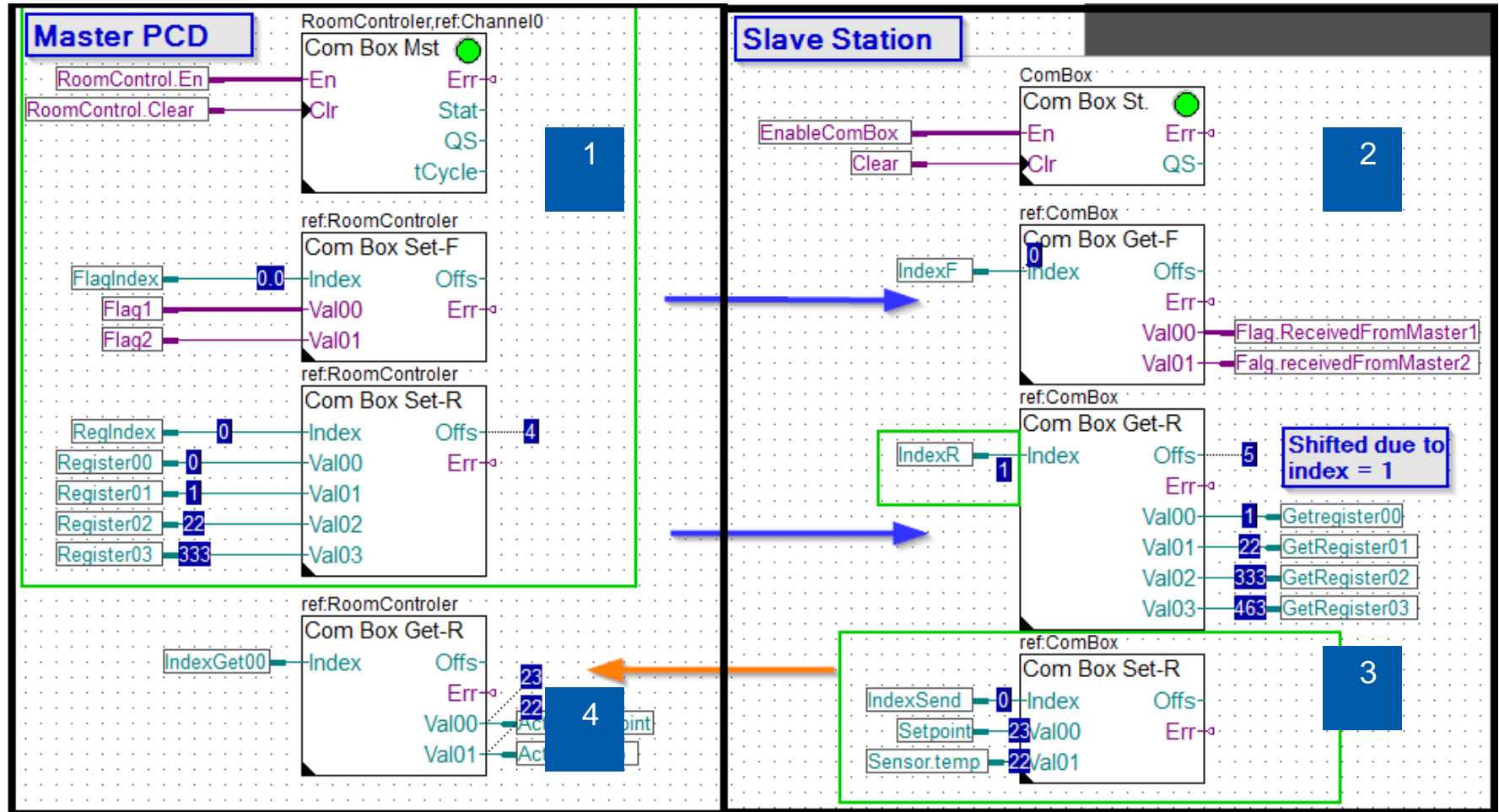
11	Telegram	8	Read Write Multi-Medias		41	00:00:00.000347
12	Response	8	Read Write Multi-Medias	total Time:	35	00:00:00.004065

Principle

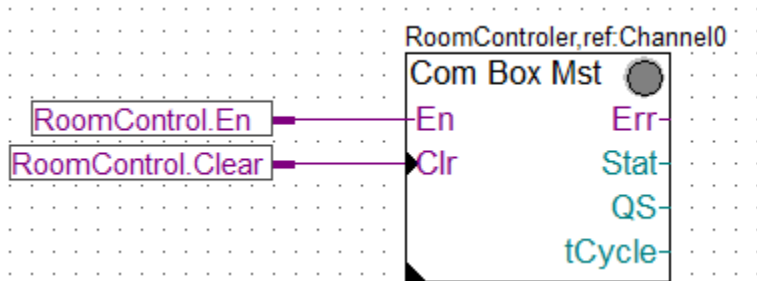


	Master	Slave station
1	send datas	
2		Get datas sent by master
3		Send datas
4	Get datas sent by slave station	

Principle



Com Box Master



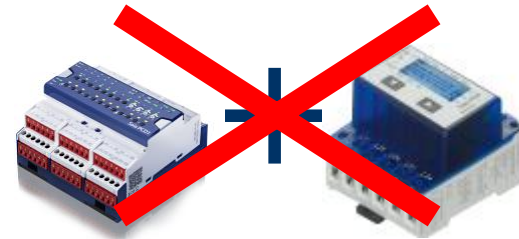
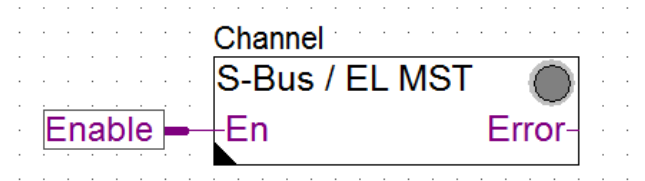
S-Bus Station Number	>	8
Reconnect after (s)	>	60.0
[--- Set Data Array ---]		
Slave Register Array Address	>	900
Register Array Size	>	32
Flag Array Size	>	32
[--- Get Data Array ---]		
Slave Register Array Address	>	950
Register Array Size	>	32
Flag Array Size	>	32
[--- E-Suite V 2.0 ---]		

Max 219 bytes could be send in 1 telegram

When 32 flags == 1 register == 4 bytes

Only 1 flag == 1 register (flags are put together in register for transmitt)

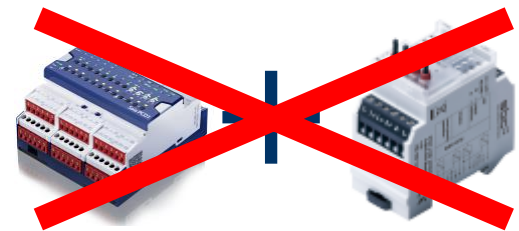
S-Bus vs EL Master



Eline Rio + SBUS counter

Do not connect on the same bus
if ELINE protocol is used

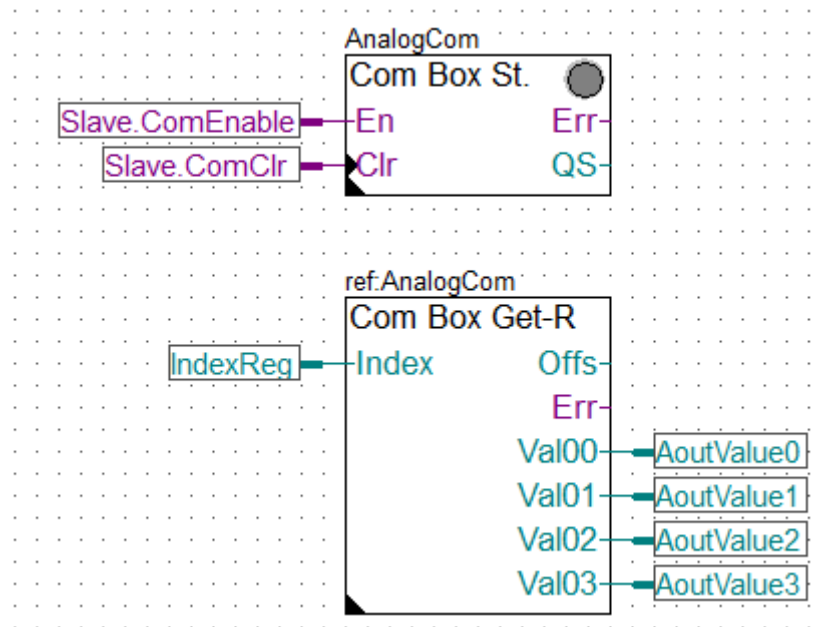
- Counter will slow down the com
- Rios does not accept Eline SBUS
- Rios will crash



Eline Rio + PCD7.L100/200 Rios

Com Box Station

- E-Line slave



The screenshot shows the 'Adjust: Com Box Init Station' window with the following settings:

Adjust: Com Box Init Station	
Read All Write all Set Defaults Info	
[--- System ---]	
Poll Timeout [sec]	> 0.0
[--- Get Data Array ---]	
Start Address Register	> 900
Register Array Size	> 32
Flag Array Size	> 32
[--- Set Data Array ---]	
Start Address Register	> 950
Register Array Size	> 32
Flag Array Size	> 32
[--- E-Suite V 2.0 ---]	

Fupla Master - station

Master

S-Bus Station Number	>	8
Reconnect after (s)	>	60.0
[--- Set Data Array ---]		
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Flag Array Size	>	32
[--- Get Data Array ---]		
Slave Register Array Address	>	950
Register Array Size	>	32
Flag Array Size	>	32
[--- E-Suite V 2.0 ---]		

Station 8

[--- System ---]		
Poll Timeout [sec]	>	0.0
[--- Get Data Array ---]		
Start Address Register	>	900
Register Array Size	>	32
Flag Array Size	>	32
[--- Set Data Array ---]		
Start Address Register	>	950
Register Array Size	>	32
Flag Array Size	>	32
[--- E-Suite V 2.0 ---]		

Communication Dali – G1100

- EnOcean used on Dali module in order to drive G1100 modules
- Communication speed
- Timeout could be set in ComBox Station
 - If no telegram received within the poll time set, error is set and QS is incremented

