

Totally Integrated Automation Portal		
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Main [OB1]

Main Properties

General

Name	Main	Number	1	Type	OB
Language	LAD	Numbering	Manual		

Information

Title	"Main Program Sweep (Cycle)"	Author		Comment	Example 12.5 FIFO/LIFO blocks. Copyright (c) 2022 Dogwood Valley Press, LLC
Family		Version	0.1	User-defined ID	

Name	Data type	Default value
▼ Temp		
OB1_EV_CLASS	Byte	
OB1_SCAN_1	Byte	
OB1_PRIORITY	Byte	
OB1_OB_NUMBR	Byte	
OB1_RESERVED_1	Byte	
OB1_RESERVED_2	Byte	
OB1_PREV_CYCLE	Int	
OB1_MIN_CYCLE	Int	
OB1_MAX_CYCLE	Int	
OB1_DATE_TIME	Date_And_Time	
Temp1	Bool	
Temp2	Bool	
Constant		

Network 1:

ATT [FC200]

ATT Properties

General					
Name	ATT	Number	200	Type	FC
Language	SCL	Numbering	Manual		
Information					
Title		Author		Comment	
Family		Version	0.1	User-defined ID	

Name	Data type	Default value
▼ Input		
Data	Int	
Output		
▼ InOut		
Table	"FIFO25"	
Temp		
Constant		
▼ Return		
ATT	Void	

```
0001 // ATT - Add value to table
0002 //
0003 IF #Table.Last < #Table.Len THEN // Check to see if room in table
0004     #Table.Last := #Table.Last + 1; // Increment index
0005     #Table.x[#Table.Last] := #Data; // Data placed at new index
0006     ENO := true;
0007 ELSE
0008     ENO := false; // Error >> table is full. Cannot enter value
0009 END_IF;
```


FIFO [FC201]

FIFO Properties

General

Name	FIFO	Number	201	Type	FC
Language	SCL	Numbering	Manual		

Information

Title		Author		Comment	
Family		Version	0.1	User-defined ID	

Name	Data type	Default value
Input		
Output		
▼ InOut		
Table	"FIFO25"	
▼ Temp		
i	Int	
Constant		
▼ Return		
FIFO	Int	

```
0001 // FIFO - Output first value of table
0002 //
0003 IF #Table.Last >= 1 THEN // Check to see if entries in ta-
    ble
0004     #FIFO := #Table.x[1]; // Remove top element
0005     #Table.Last := #Table.Last - 1; // Decrement number of entries in
    table
0006 IF #Table.Last > 0 THEN // Check that entries still in table
0007     FOR #i := 1 TO #Table.Last DO // Move all entries up one in table
0008         #Table.x[#i] := #Table.x[#i + 1]; //
0009     END_FOR;
0010 END_IF;
0011 ENO := true; // No errors
0012 ELSE
0013     #FIFO := 0;
0014     ENO := false; // Error. No entries in table
0015 END_IF;
```


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LIFO [FC202]

LIFO Properties

General

Name	LIFO	Number	202	Type	FC
Language	SCL	Numbering	Manual		

Information

Title		Author		Comment	
Family		Version	0.1	User-defined ID	

Name	Data type	Default value
Input		
Output		
▼ InOut		
Table	"FIFO25"	
Temp		
Constant		
▼ Return		
LIFO	Int	

```
0001 // LIFO - Output last entry in table
0002 //
0003 IF #Table.Last >= 1 THEN // Check to see if entries in table
0004     #LIFO := #Table.x[#Table.Last]; // Output last entry
0005     #Table.Last := #Table.Last - 1; // Decrement number of entries in table
0006     ENO := true;
0007 ELSE
0008     #LIFO := 0;
0009     ENO := false; // Error if no entries to remove
0010 END_IF;
0011
```

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