Empirically entered logical function [FB19]

Empirically entered logical function Properties							
General							
Name	Empirically entered logical function	**Number**	19	**Type**	FB	**Language**	SCL
Numbering	Automatic						
Information							
Title		**Author**		**Comment**		**Family**	
Version	0.1	**User-defined ID**					

Name	Data type	Default value	Retain	Accessible from HMI/OPC UA/Web API	Writable from HMI/OPC UA/Web API	Visible in HMI engineering	Setpoint	Supervision	Comment
Input									
s1	Bool	false	Non-retain	True	True	True	False		
s2	Bool	false	Non-retain	True	True	True	False		
s3	Bool	false	Non-retain	True	True	True	False		
s4	Bool	false	Non-retain	True	True	True	False		
Output									
vysledek	Bool	false	Non-retain	True	True	True	False		
stav	Int	0	Non-retain	True	True	True	False		
text	String	''	Non-retain	True	True	True	False		
InOut									
Static									
TF	Array[0..16] of Byte		Non-retain	True	True	True	False		
TF[0]	Byte	16#0	Non-retain	True	True	True	False		
TF[1]	Byte	16#0	Non-retain	True	True	True	False		
TF[2]	Byte	16#0	Non-retain	True	True	True	False		
TF[3]	Byte	16#0	Non-retain	True	True	True	False		
TF[4]	Byte	16#0	Non-retain	True	True	True	False		
TF[5]	Byte	16#0	Non-retain	True	True	True	False		
TF[6]	Byte	16#0	Non-retain	True	True	True	False		
TF[7]	Byte	16#0	Non-retain	True	True	True	False		
TF[8]	Byte	16#0	Non-retain	True	True	True	False		
TF[9]	Byte	16#0	Non-retain	True	True	True	False		
TF[10]	Byte	16#0	Non-retain	True	True	True	False		
TF[11]	Byte	16#0	Non-retain	True	True	True	False		
TF[12]	Byte	16#0	Non-retain	True	True	True	False		
TF[13]	Byte	16#0	Non-retain	True	True	True	False		
TF[14]	Byte	16#0	Non-retain	True	True	True	False		
TF[15]	Byte	16#0	Non-retain	True	True	True	False		
TF[16]	Byte	16#0	Non-retain	True	True	True	False		
OUTF_number	Array[0..16] of Bool		Non-retain	True	True	True	False		
OUTF_number[0]	Bool	false	Non-retain	True	True	True	False		
OUTF_number[1]	Bool	false	Non-retain	True	True	True	False		
OUTF_number[2]	Bool	false	Non-retain	True	True	True	False		
OUTF_number[3]	Bool	false	Non-retain	True	True	True	False		
OUTF_number[4]	Bool	false	Non-retain	True	True	True	False		
OUTF_number[5]	Bool	false	Non-retain	True	True	True	False		
OUTF_number[6]	Bool	false	Non-retain	True	True	True	False		
OUTF_number[7]	Bool	false	Non-retain	True	True	True	False		
OUTF_number[8]	Bool	false	Non-retain	True	True	True	False		
OUTF_number[9]	Bool	false	Non-retain	True	True	True	False		
OUTF_number[10]	Bool	false	Non-retain	True	True	True	False		
OUTF_number[11]	Bool	false	Non-retain	True	True	True	False		
OUTF_number[12]	Bool	false	Non-retain	True	True	True	False		
OUTF_number[13]	Bool	false	Non-retain	True	True	True	False		
OUTF_number[14]	Bool	false	Non-retain	True	True	True	False		
OUTF_number[15]	Bool	false	Non-retain	True	True	True	False		
OUTF_number[16]	Bool	false	Non-retain	True	True	True	False		
INP_word	Byte	16#0	Non-retain	True	True	True	False		
state	Int	0	Non-retain	True	True	True	False		
OUTF_text	Array[0..16] of String		Non-retain	True	True	True	False		
OUTF_text[0]	String	''	Non-retain	True	True	True	False		
OUTF_text[1]	String	''	Non-retain	True	True	True	False		
OUTF_text[2]	String	''	Non-retain	True	True	True	False		
OUTF_text[3]	String	''	Non-retain	True	True	True	False		
OUTF_text[4]	String	''	Non-retain	True	True	True	False		
OUTF_text[5]	String	''	Non-retain	True	True	True	False		
OUTF_text[6]	String	''	Non-retain	True	True	True	False		
OUTF_text[7]	String	''	Non-retain	True	True	True	False		
OUTF_text[8]	String	''	Non-retain	True	True	True	False		

Name	Data type	Default value	Retain	Accessible from HMI/OPC UA/Web API	Writable from HMI/OPC UA/Web API	Visible in HMI engineering	Setpoint	Supervision	Comment
OUTF_text[9]	String	''	Non-retain	True	True	True	False		
OUTF_text[10]	String	''	Non-retain	True	True	True	False		
OUTF_text[11]	String	''	Non-retain	True	True	True	False		
OUTF_text[12]	String	''	Non-retain	True	True	True	False		
OUTF_text[13]	String	''	Non-retain	True	True	True	False		
OUTF_text[14]	String	''	Non-retain	True	True	True	False		
OUTF_text[15]	String	''	Non-retain	True	True	True	False		
OUTF_text[16]	String	''	Non-retain	True	True	True	False		
Temp									
Constant									

```
0001 //[ 0 0 0 0 s4 s3 s2 s1]
0002 #INP_word.%X0 := #s1;
0003 #INP_word.%X1 := #s2;
0004 #INP_word.%X2 := #s3;
0005 #INP_word.%X3 := #s4;
0006
0007 //Pravdivostni tabulka
0008 #TF[1] := 2#00000000;
0009 #TF[2] := 2#00001000;
0010 #TF[3] := 2#00000100;
0011 #TF[4] := 2#00001100;
0012 #TF[5] := 2#00000010;
0013 #TF[6] := 2#00001010;
0014 #TF[7] := 2#00000110;
0015 #TF[8] := 2#00001110;
0016 #TF[9] := 2#00000001;
0017 #TF[10] := 2#00001001;
0018 #TF[11] := 2#00000101;
0019 #TF[12] := 2#00001101;
0020 #TF[13] := 2#00000011;
0021 #TF[14] := 2#00001011;
0022 #TF[15] := 2#00000111;
0023 #TF[16] := 2#00001111;
0024
0025 //Vystup cislo
0026 #OUTF_number[15] := 1; //ostatni indexy 0
0027 // Vystup text
0028 #OUTF_text[1] := 'testovy vystup, kdyz senzory 0';
0029 #OUTF_text[2] := 'spatna orientace';
0030 #OUTF_text[3] := 'objekt je spatne otacen';
0031 #OUTF_text[14] := 'objekt nema spravnou velikost';
0032 #OUTF_text[15] := 'spravna soucast';
0033 #OUTF_text[16] := 'nema diru';
0034
0035 //Logika
0036 FOR #state := 1 TO 16 DO
0037   IF #TF[#state] = #INP_word THEN
0038     #vysledek := #OUTF_number[#state];
0039     #text := #OUTF_text[#state];
0040     #stav := #state;
0041     ;
0042   END_IF;
0043   ;
0044 END_FOR;
```

Symbol	Address	Type	Comment
#INP_word		Byte	
#INP_word.%X0		Bool	
#INP_word.%X1		Bool	
#INP_word.%X2		Bool	
#INP_word.%X3		Bool	
#OUTF_number[*]		Bool	
#OUTF_number[15]		Bool	
#OUTF_text[*]		String	
#OUTF_text[1]		String	
#OUTF_text[2]		String	
#OUTF_text[3]		String	
#OUTF_text[14]		String	
#OUTF_text[15]		String	
#OUTF_text[16]		String	
#s1		Bool	
#s2		Bool	
#s3		Bool	
#s4		Bool	
#state		Int	
#stav		Int	
#text		String	
#TF[*]		Byte	
#TF[1]		Byte	
#TF[2]		Byte	
#TF[3]		Byte	

Symbol	Address	Type	Comment
#TF[4]		Byte	
#TF[5]		Byte	
#TF[6]		Byte	
#TF[7]		Byte	
#TF[8]		Byte	
#TF[9]		Byte	
#TF[10]		Byte	
#TF[11]		Byte	
#TF[12]		Byte	
#TF[13]		Byte	
#TF[14]		Byte	
#TF[15]		Byte	
#TF[16]		Byte	
#vysledek		Bool	