



"Expressions"

1		1
2		1
3	<b>Expressions</b>	<b>2</b>
4		<b>3</b>
5		<b>4</b>
1	.....	4
2	.....	5
	.....	5
	.....	7
	.....	8
	.....	9
	.....	9
<b>6</b>	<b>?</b>	<b>11</b>
1	.....	11

1

- "Expressions" ( , Advanced Serial Data Logger)

• + :  
 • - :  
 • \* :  
 • / :  
 • ^ : ( - )

: ABS, ATAN, COS, EXP, LN, ROUND, SIN, SQRT, SQR, TRUNC

: COPY, REPLACE, POS ;  
 : AND, OR, XOR . .

2

Expressions :

: Windows 2000 SP4 , 32-x 64-x

5 MB

( ), Advanced Serial Data Logger.

**Microsoft Vista** :

Program Files,

1. , ;
2. ;
3. Windows Vista .

### 3 Expressions

1. ( , Advanced Serial Data Logger),

;

2. ;

3. ,

Windows;

4. .

" " ;

5. " "

, " "

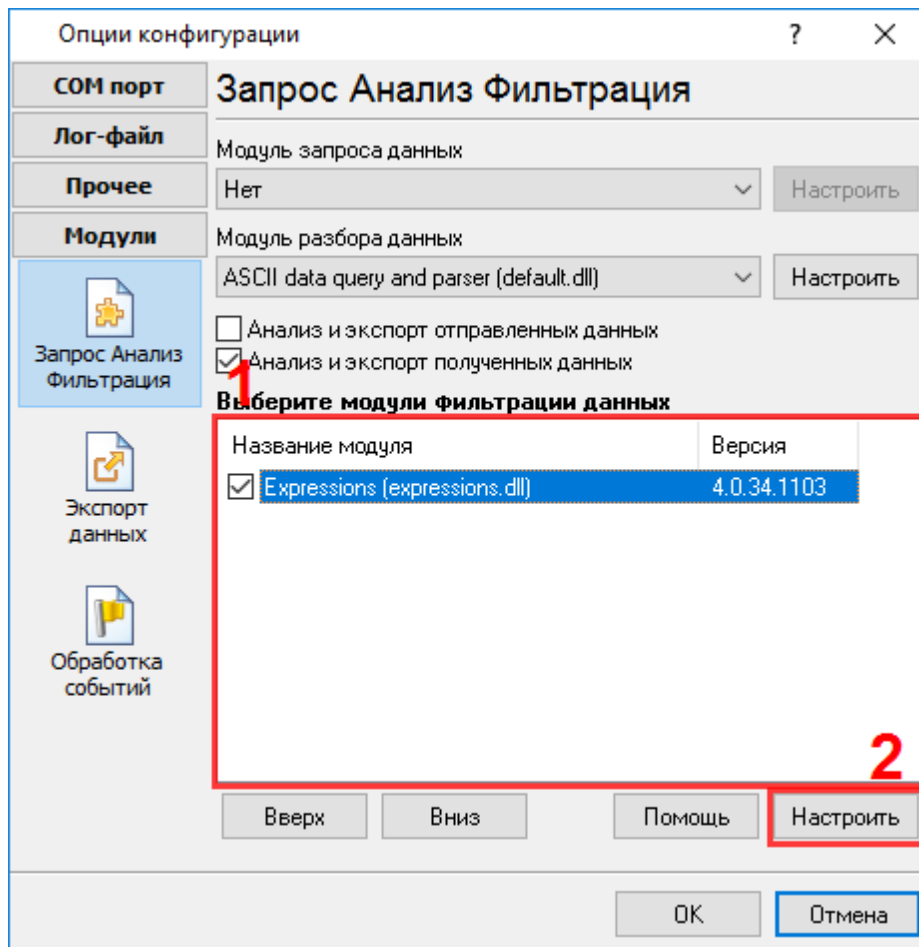
, .1-2.

" "

.

" - "

" " " "



.1.

## 4

### Plug-in -

Advanced Serial Data Logger

## 5

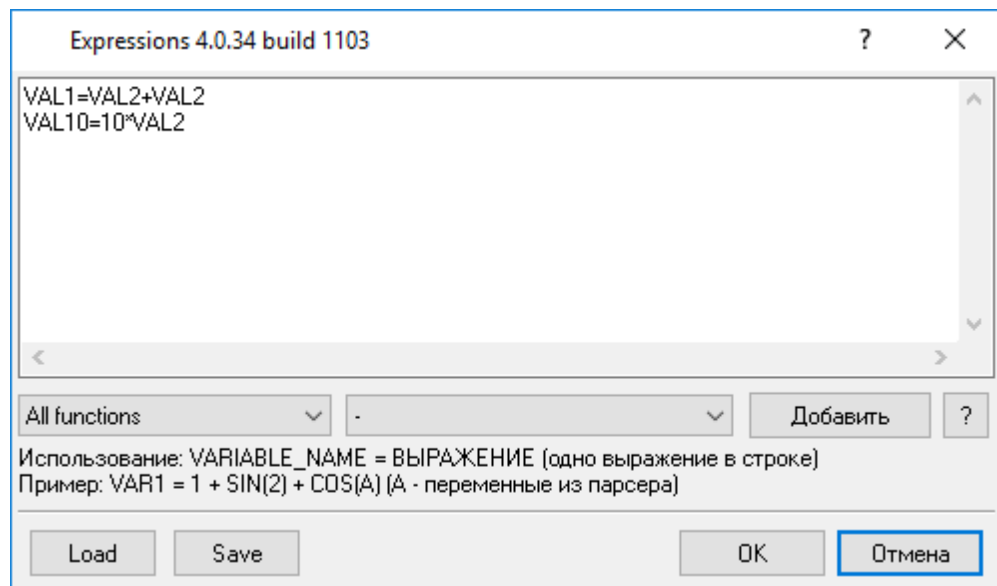
## 5.1

( .1).

VARIABLE\_NAME=EXPRESSION  
 VARIABLE\_NAME -  
 EXPRESSION - /

( " ").

1. ;
2. ( );
3. "Add /";
4. "Add /".



.1.

## 5.2

### 5.2.1

**ABS(X)** -  $|X|$

**ARCCOS(X)** -  $\arccos(X)$ ,  $X \in [-1, 1]$ , range  $[0, \pi]$

**ARCCOSH(X)** -  $\operatorname{arccosh}(X)$ ,  $X \geq 1$

**ARCSIN(X)** -  $\arcsin(X)$ ,  $X \in [-1, 1]$ , range  $[-\pi/2, \pi/2]$

**ARCSINH(X)** -  $\operatorname{arcsinh}(X)$

**ARCTAN2(X, Y)** -  $\operatorname{arctan2}(Y, X)$ ,  $Y \in [-2^{64}, 2^{64}]$ ,  $X \in [-\pi, \pi]$ , range  $(-\pi, \pi]$

**ARCTANH(X)** -  $\operatorname{arctanh}(X)$ ,  $X \in (-1, 1)$

**CEIL(X)** - Ceil  $X$ ,  $\lceil X \rceil$

:  
 Ceil(-2.8) = -2  
 Ceil(2.8) = 3  
 Ceil(-1.0) = -1

**CLIP(X, Min, Max)** -  $\operatorname{clip}(X, \operatorname{Min}, \operatorname{Max})$

:  
 CLIP(2, 3, 4) = 3  
 CLIP(3, 2, 4) = 3  
 CLIP(4, 2, 3) = 3

**COS(X)** -  $\cos(X)$

**COSH(X)** -  $\cosh(X)$

**COTAN(X), COTG(X)** -  $\operatorname{cotan}(X)$ ,  $\operatorname{cotg}(X) = 1 / \tan(X)$

**DEG(X)** -  $\text{DEG}(X) = (180 / \text{Pi}) \times X$  ;

**EXP(X)** -  $e^X$  ;

**FLOOR(X)** -  $\lfloor X \rfloor$  ;  
 Floor(-2.8) = -3  
 Floor(2.8) = 2  
 Floor(-1.0) = -1

**FRAC(X)** -  $\text{Frac}(X) = X - \text{Int}(X)$  ;

**HEX(X)** -  $\text{HEX}(X)$  ;

**LN(X)** -  $\ln(X)$  (Ln(e) = 1) ;

**LOG(Base, X)** -  $\log_{\text{Base}}(X)$  ;

**POW(Base, Exponent), POWER(Base, Exponent)** -  $\text{Base}^{\text{Exponent}}$  ;  
 Exponent - 65535, Base - 0;

**POWLN2(X)** -  $\log_2(X)$  ;

**RAD(X)** -  $\text{RAD}(X) = (\text{Pi} / 180) \times X$  ;

**RANDOM(X)** -  $0 \leq X < 1$  ;  
 $\text{RANDOM}(X)$  ;  
 $\text{RANDOM}(X)$  ;

**ROUND(X)** -  $\text{ROUND}(X)$  ;  
 ( ) . X - Int64, "Banker's Rounding".

**SIGN(X)** -  $\text{SIGN}(X)$  ;  
 0  
 1  
 -1





**SHR** - , : . : . : X shr  
2

**XOR** - XOR, : . : . : X xor Y

### 5.2.3

**FIRSTLINE(S)** - CR LF.

**REMOVECHAR(S, Char)** - Char -  
, S -

**REMOVENONPRINT(S)** - S  
( ASCII < 32).

**REPLACE(S, OldPattern, NewPattern)** -

REPLACE  
NewPattern. S -  
OldPattern - OldPattern. NewPattern. NewPattern -

**REPLACECHAR(S, OldChar, NewChar)** -

REPLACECHAR  
NewChar. S - OldChar  
NewChar. NewChar - OldChar - OldChar.

**SUBSTR(S, Index, Count), STRCOPY(S, Index, Count), COPY(S, Index, Count)** -  
Copy S [Index]. Count Count

[Index] Index S, Copy S  
( S )  
;

**STRPOS(Substr, S), POS(Substr, S)** - Substr S.

Substr S - Pos Substr S  
Pos Substr Substr Pos S.

**TRIMLEFT(S), LTRIM(S)** -

**TRIMRIGHT(S), RTRIM(S)** -

**TRIM(S)** -

## 5.2.4

**DATE()** -  $\text{DateTime}$ .  
**DATE(S)** -  $\text{DateTime}$ , S.  
 S - 'DD.MM.YYYY'. : DATE('15.01.2007')

**DATE(Y,M,D)** -  $\text{DateTime}$ , Y ( ),  
 M ( ), D ( ) ( ). : DATE(2007, 1, 15)

**DAY(X)** - X  $\text{DateTime}$ .

**GOMONTH(X,Y)** - Y X Y  
 X  $\text{DateTime}$ .

**MONTH(X)** - X  
 $\text{DateTime}$ .

**NOW** -  $\text{DateTime}$ .

**TIME()** -  $\text{DateTime}$ .

**TIME(S)** - S, S -  
 'HH:NN'. : TIME('15:21'). -  $\text{DateTime}$ .

**TIME(H,M,S,MS)** - H ( ), M  
 ( ), S ( ) ( ). : TIME(15, 21, 0, 0).  
 -  $\text{DateTime}$ .

**YEAR(X)** - X  $\text{DateTime}$ .

## 5.2.5

**IIF(X,Y,Z)** - X ,  
 Y, Z.

**MAX(A,B)** - . MAX

**MIN(A,B)** - . MIN

**SUM(A,B)** - A+B, A B .

BYTETOSTR(X) -	1	X	.	.
DOUBLETOSTR(X) -	8	X	.	.
DOUBLETOSTRBE(X) -	8	"Big-endian"	X	.
INT64TOSTR(X) -	8	X	64	.
INT64TOSTRBE(X) - 64	8	"Big-endian"	X	.
LONGINTTOSTR(X) -	4	X	32	.
LONGINTTOSTRBE(X) - 32	4	"Big-endian"	X	.
LONGWORDTOSTR(X) -	4	X	.	32
LONGWORDTOSTRBE(X) - 32	4	"Big-endian"	X	.
SINGLETOSTR(X) -	4	X	.	.
SINGLETOSTRBE(X) -	4	"Big-endian"	X	.
SMALLINTTOSTR(X) -	2	X	.	16
SMALLINTTOSTRBE(X) - 16	2	"Big-endian"	X	.
WORDTOSTR(X) -	2	X	.	16
WORDTOSTRBE(X) - 16	2	"Big-endian"	X	.

6

?

6.1

" " - ,  
"Plugins"

( ) -

%s [%s] -

(%s) -

%s. (%s) -

%s. (%s) -

( , ) .

[support@aggsoft.ru](mailto:support@aggsoft.ru)

"%s"