



"Expressions"

1		1
2		1
3	Expressions	2
4		3
5		4
1	4
2	5
	5
	5
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	8
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	9
	12
6	?	12
1	12

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 :

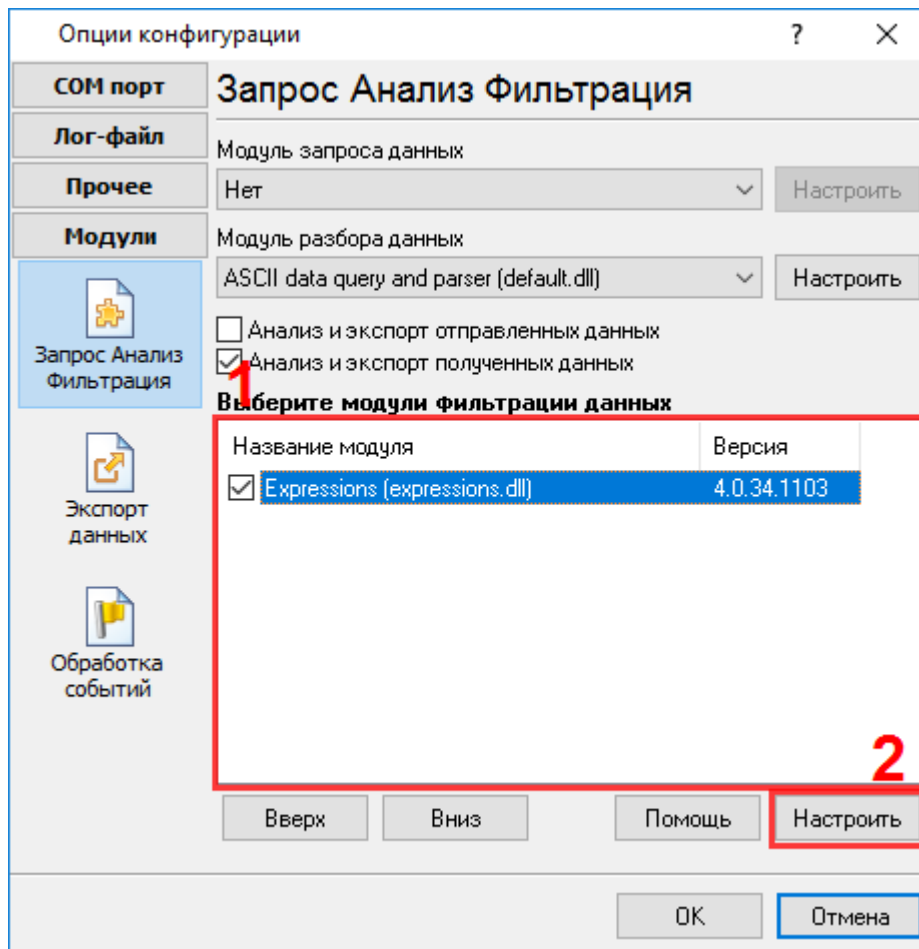
Program Files,

1. ,
2. ;
3. Windows Vista .

3

Expressions

1. (, Advanced Serial Data Logger),
 2. ;
 3. ,
 4. Windows;
 5. " " ;
- .1-2.
- " " " - " "



.1.

4

Plug-in -

Advanced Serial Data Logger

5

5.1

(.1).

:

VARIABLE_NAME=EXPRESSION
 VARIABLE_NAME -
 EXPRESSION - /

(" ").

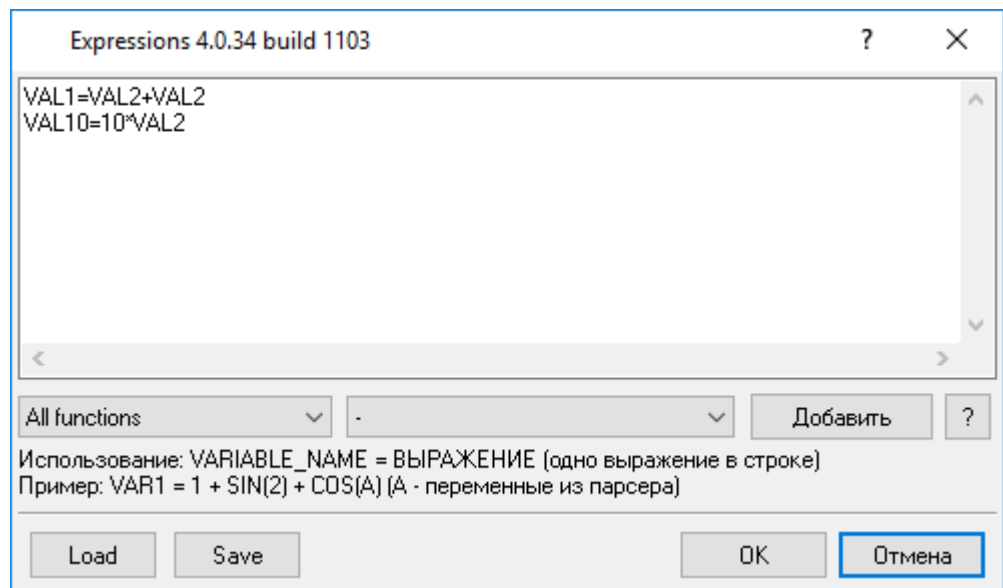
,

,

,

- , :

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



.1.

5.2

5.2.1

TRUE -
FALSE -

5.2.2

ABS(X) - X X- -

ARCCOS(X) - () X X -1
1. [0..Pi],

ARCCOSH(X) - X X
1.

ARCSIN(X) - X X -1 1.
[-Pi/2..Pi/2],

ARCSINH(X) - X

ARCTAN2(X, Y) - ArcTan (Y/X), X X
-2^64 2^64, -Pi Pi, 0.

ARCTANH(X) - X X
-1 1 ().

CEIL(X) - Ceil X X
MaxInt.

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

CLIP(X, Min, Max) - Min, X <= Min; Max, X >= Max,
X

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

COS(X) - X, X- ;

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

COTAN(X),
COTG(X) - Cotan Cotg , X
 - $1 / \tan(X)$;

DEG(X) - $\text{DEG}(X)$, $\text{DEG}(X) = (180 / \text{PI}) * X$;

EXP(X) - e^X ;

FLOOR(X) - $\text{FLOOR}(X)$;
 :
 Floor(-2.8) = -3
 Floor(2.8) = 2
 Floor(-1.0) = -1
 : X ;

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

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

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

RANDOM(X) - $\text{RANDOM}(X)$;
 0 <= X < 1. ;
 : **RANDOM(X)** ;
 , **RANDOM(X)** ;

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

SIGN(X) -

0
1
-1

SIN(X) -

X, X- ;

SINH(X) -

X;

SQR(X) -

X, X, X*X, X-

SQRT(X) - X -

X

TAN(X), TG(X) - Tan Tg

X. $\text{Tan}(X) = \text{Sin}(X) / \text{Cos}(X)$.

TRUNC(X) -

() . X - . TRUNC(X) Int64,

5.2.3

- -

* -

/ -

^ ** -

65535, 0. : x**y

+ -

< -

<= -

<> -

= -

> -

>= -

AND -

AND, : : : X and Y

DIV -

x div y x/y

MOD - **MOD**
 $x \bmod y = x - (x \text{ div } y) * y.$

OR - **OR**, : : : : : : : : X or Y

SHL - , : : : : : : : : X shl 2

SHR - , : : : : : : : : X shr
2

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

5.2.4

FIRSTLINE(S) - CR LF.

REMOVECHAR(S, Char) - Char -
S -

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

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

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

5.2.5

DATE() - **DateTime**.

DATE(S) - **DateTime**, **S**.
S - 'DD.MM.YYYY': **DATE('15.01.2007')**

DATE(Y,M,D) - **DateTime**, **Y ()**,
M (), **D () ()**. **DATE(2007, 1, 15)**

DAY(X) - **X**, **DateTime**.

GOMONTH(X,Y) - **Y**, **X Y**,
X, **DateTime**.

MONTH(X) - **X**,
DateTime.

NOW - **DateTime**.

TIME() - **DateTime**.

TIME(S) - **S**, **S** -
'HH:NN': **TIME('15:21')**, **DateTime**.

TIME(H,M,S,MS) - **H ()**, **M**,
(), **S () ()**. **TIME(15, 21, 0, 0)**,
DateTime.

YEAR(X) - **X**, **DateTime**.

5.2.6

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

NVL(X,Y) - X , NULL (
), Y.

DISCARD_DATA_PACKET_IF(X,Y) - X ,
Y,

:

DISCARD_DATA_PACKET_IF(VAR > 10, "Value is too big")

GENERATE_EVENT_IF(X,Y,N1,V1,N2,V2) - X ,
Y, N1, V1 .. Nn, Vn,

EVENT-TO-CFG

EVENT-GLOBAL=TRUE,

SEND_EVENT_IF - GENERATE_EVENT_IF.

:

GENERATE_EVENT_IF(VAR > 10, "VAR_TOO_BIG_EVENT", "VAR_NAME", "VAR",
"VAR_VALUE", VAR)

GENERATE_EVENT_IF(VAR > 10, "VAR_TOO_BIG_EVENT1", "EVENT-TO-CFG", "COM1")

GENERATE_EVENT_IF(VAR > 10, "VAR_TOO_BIG_EVENT2", "EVENT-GLOBAL", TRUE)

REDIRECT_DATA_IF(X, Y) - X , Y,

DISCARD_DATA_PACKET_IF.

:

REDIRECT_DATA_IF(VAR > 10, "COM2")

DISCARD_DATA_PACKET_IF(1=1)

SEND_BYTE_IF(X, Y) - X Y
(COM TCP).

SEND_DATA_IF(X, Y) - X Y

SEND_DATA_TO_DATA_SOURCE_IF(X, Z, Y) - X
Y Z.

SEND_DATA_TO_DATA_SOURCE_IF(VAR > 10, "COM2", "Data string" + CHR(13) + CHR(10))

Y. . .

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

5.2.7

Google :

pascal " _ "

delphi " _ "

6

?

6.1

" - 'Plugins"

() -

%s [%s] -

(%s) -

%s. (%s) -

`%s. (%s) -`

`(, ,)`.

support@aggsoft.ru.

`"%s"`