

"HTTP parser"

1		1
2		1
3	HTTP parser	2
4		3
5		3
6		6
7		8
8		10
9		11

1

( )  
TCP (Advanced TCP/IP Data Logger Data Logger Suite)  
HTTP

Hypertext Transfer Protocol (HTTP) . HTTP

( , - )

HTTP,

HTTP

HTTP;

(POST GET) HTTP ;

HTTP

- 
- 
- 
- 
- 
- 

2

HTTP parser :

: Windows 2000 SP4 ,

32-x 64-x

5 MB

( ), Advanced Serial Data Logger.



## 4

**Plug-in -**

Advanced Serial Data Logger

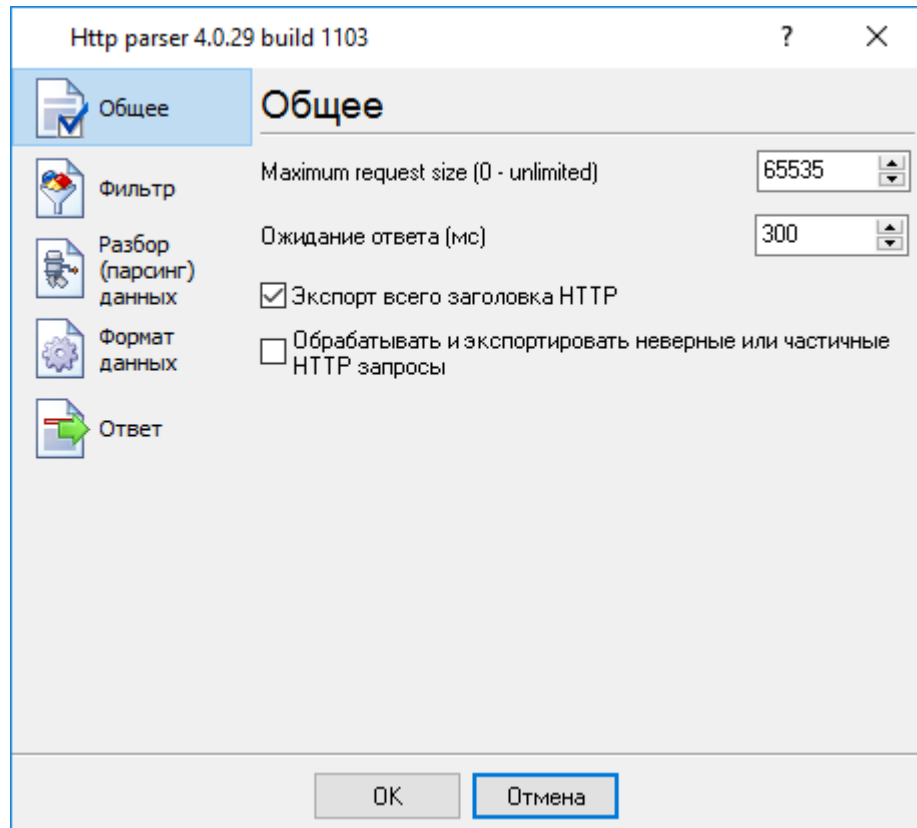
## 5

HTTP :

- GET /images/logo.gif HTTP/1.1.
- logo.gif /images
- , Accept-Language: en
- 
- 

( HTTP/1.1 ), "Host" <CR><LF>  
<CR><LF>.

HTTP  
POST- "multipart/mixed",



.1.

- . — HTTP .
- ; — HTTP ;
- HTTP — ,
- , " " ; HTTP —
- HTTP, ,

<https://www.aggsoft.ru/serial-data-logger/tutorials.htm>

:

:

```
GET /js/some.js HTTP/1.1
```

```
Host: 127.0.0.1:10000
```

```
User-Agent: Mozilla/5.0 (Windows; U; Windows NT 5.1; rv:1.8.1.17) Gecko/20080829 Firefox/2.
```

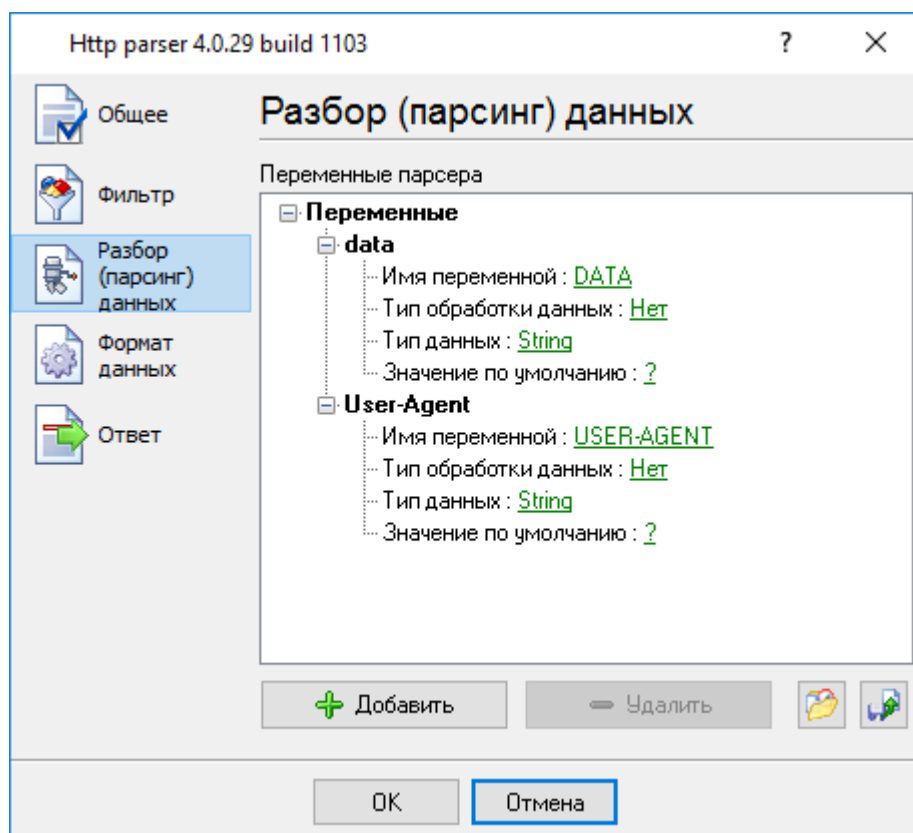
```

Accept: */*
Accept-Language: q=0.8,en-us;q=0.5,en;q=0.3
Accept-Charset: windows-1250,utf-8;q=0.7,*;q=0.7
Keep-Alive: 300
Connection: keep-alive
Referer: http://127.0.0.1:10000/incl/meta1.txt

```

- Host - "127.0.0.1:10000";
- User-Agent - ;

" ( .2)  
: string, date, time, . ..



.2.

1.

( HTTP . )

2.

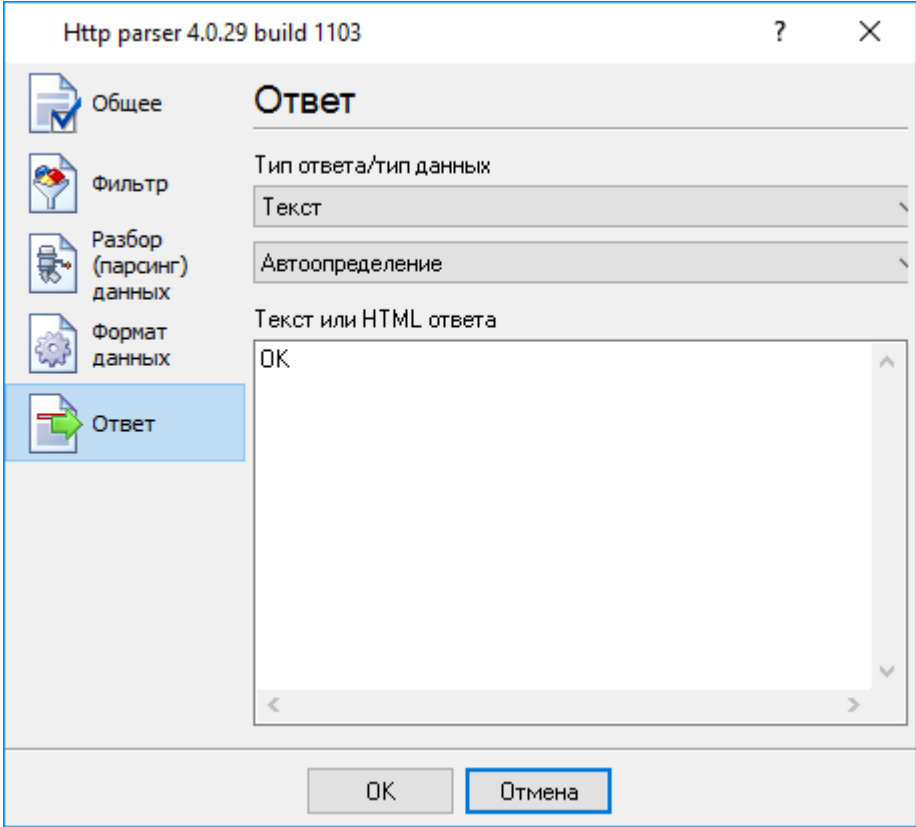
3. HTTP (query string).
4. HTTP (POST GET). HTTP
5. - NULL. HTTP
6. - HTTP
7. . - ( ).

- String - 1 65535 ;
- Memo - 1 2^32 ;
- Bytes - ;
- Blob - Binary Large Object field ( );
- Boolean - (True/False) - 0 1;
- Float - - : -2.9 x 10^39 .. 1.7 x 10^38
- Smallint - - : 32768..32767;
- Word - - : 0..65535;
- Integer - : -2147483648..2147483647;
- Date - ;
- Time - ;
- DateTime - .

## 6

HTML . " " "HTTP/1.1 200 OK",  
HTTP.



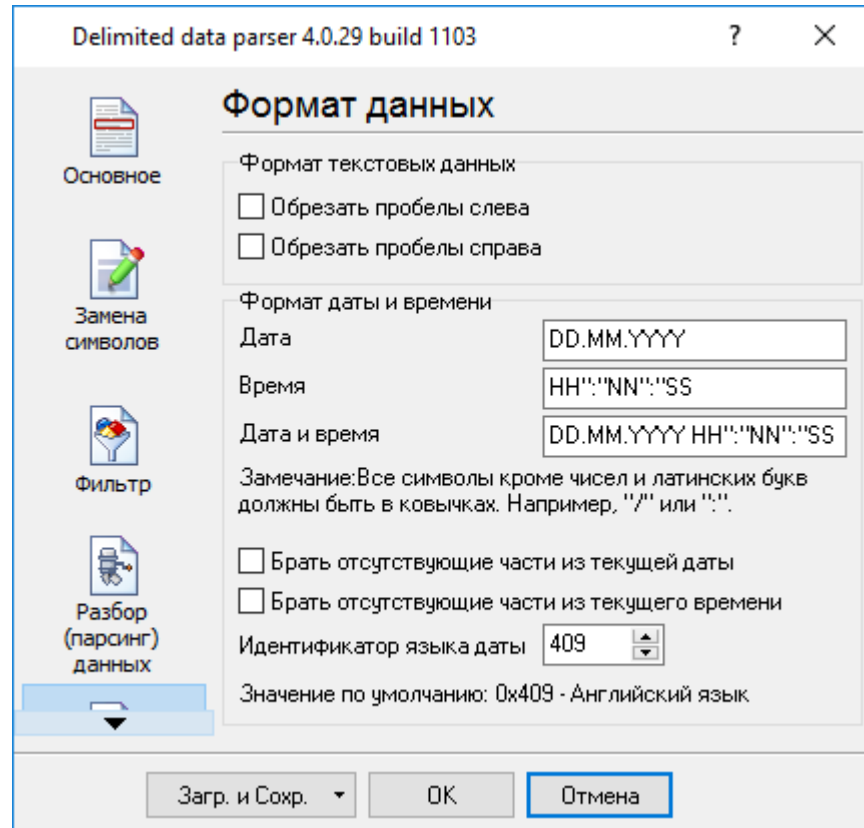


.5.

- - HTTP ;
- 403 - HTTP 403 (Forbidden) ( );
- 404 - HTTP 404 (Not Found) ( );
- - HTML HTTP 200 (OK) ( );
- - 200. 404;
- - 404. " "
- 200.

## 7

( . . . ).



. 2.

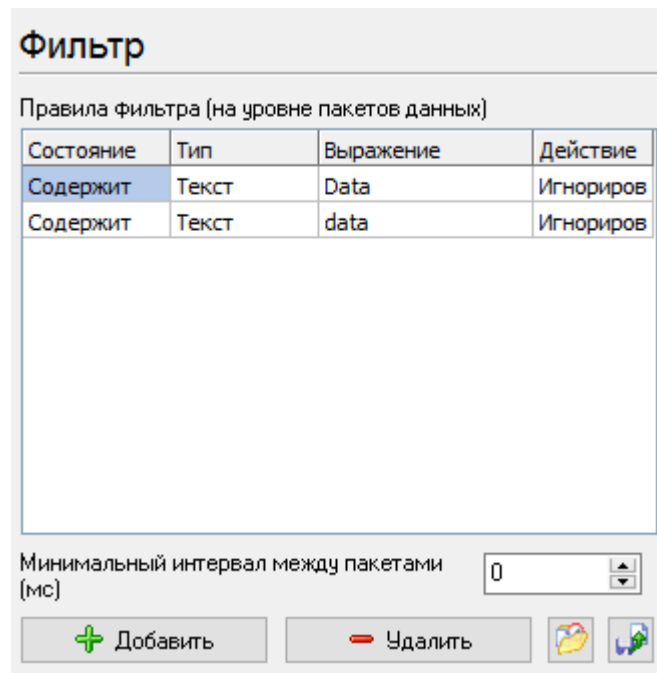
/ , - String.

Data Logger). : "/" / ":" ( , Advanced Serial ( . . . ).

d - , (1 - 31);  
 dd - , (01 - 31);  
 ddd - ( - ) ,

dddd - ; ( - )  
m - , (1 - 12);  
mm - , (01 - 12);  
mmm - ( - ) ,  
mmmm - ; ( - ) ,  
yy - (00 - 99);  
yyyy - (0000 - 9999);  
h - , (0 - 23);  
hh - , (00 - 23);  
n - , (0 - 59);  
nn - , (00 - 59);  
s - , (0 - 59);  
ss - , (00-59).  
- ( , )  
:  
• ;  
• .  
( "Jan, 10 2024")  
,  
(language ID),  
" "

## 8



. 3.

9

?	{0,1}	a?	" .
+	{1,}	a+	" .
*	{0,}	a*	" .

" " (-) ( U) .

g ( )

i

m . : ^ , \$- ' .

s " . (.)

u UTF-8

U

x

() ,

[]

{a,b} "a. "b.

| " "

\ []

\d [0-9]

\D [^d]

\f ( )

\n

\pL UTF-8

\r u

\s	[ \t\r\n\f]		
\S	[^s]	,	
\t			
\w	[0-9a-z_]	,	
\W	[^w]	,	,
\v			

^	[^da]	,	"d.	"a.
-	[a-z]	,	"a.	"z.

^	^a	aaa aaa
\$	a\$	aaa aaa
\A	\Aa	aaa aaa aaa aaa
\z	a\z	aaa aaa aaa aaa

\b	a\b	aaa aaa	:
	\ba	aaa aaa	,'
			- ,

\B	\Ba\B	aaa aaa
----	-------	---------

\G	\Ga	aaa aaa	4- ,
			- ,
			a

^[0-9]+

^

W- : 0 9 , \w  
lws

( ) "a., : 10 20  
a{10,20}

- " .. +, " ..  
 ( " .),  
 :  
 ".\*"

<a href="helloworld.htm" title=" " > , </a>

"helloworld.htm" title=" " , "

".\*?"

( ?) :

"helloworld.htm" " , "

.. -  
" ..  
" ..





, , \1 , "aaa123bbb.  
"aaa.

, Perl.  
i

Perl  
( "/.), :

(?i)pattern

-  
, - .  
, : .

\(  
(

\#[[a-fA-F][0-9]]{3, 6}

0x00-0xFF

0x([a-fA-F0-9]{2})

0.0000

([0-9]+(\.[0-9]{2})?)

JSON "name": "1234"

"name":\s\*"([\^"]+)

XML HTML name="1234"

name=([\^"]+)

value : 1234

value\s\*:\s\*(\d+)