



# *OPC Scada Viewer*

Watch It!

OPC Scada Viewer

<b>1</b>		<b>1</b>
1	.....	1
2	.....	2
<b>2</b>	,	<b>3</b>
1	.....	3
2	.....	4
3	.....	4
4	.....	5
<b>3</b>		<b>5</b>
1	.....	5
2	.....	5
<b>4</b>		<b>6</b>
1	.....	6
2	.....	8
	.....	8
	.....	8
	.....	9
	.....	9
	.....	12
	.....	25
3	.....	30
4	.....	38
	.....	38
	.....	42
	.....	42
	.....	43
5	.....	44

# 1

## 1.1

OPC

OPC

OPC Scada Viewer  
OPC DA1 DA2,

OPC Scada Viewer

OPC.

OPC Scada Viewer

OPC

OPC Scada Viewer:

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OPC

OPC

OPC

);

OPC

Windows,

OPC  
Windows 95.

!

SCADA,

: <http://www.aggsoft.ru/>

: <http://www.aggsoft.com/serial-data-logger.htm>

## 1.2

**ASCII** - ASCII -  
 Windows  
 ASCII. ASCII \*.TXT ( ,  
 README.TXT).

**Binary File** - ASCII ( 0 255).

**Bytes** ( ) - , , .

**Bit** ( ) - : 0 1. 8  
 8 ( ) .

**Client/Server** ( / ) - , ,  
 ( , , . . )  
 ( ) .

**DA (data access)** - .

**IP, Internet Protocol** ( ) - Internet Protocol,  
 TCP/IP, IP IP ,  
 'xx.xx.xx.xx'.

**IP ( Internet Protocol)** - TCP/IP.  
 IP , IP . IP  
 : 198.63.211.24.

**LAN (Local Area Network)** - .

**NIC, Network Interface Card** ( ) - , ,  
 nuBus, .) ( , 10baseFL). (PCI, turbochannel,

**OPC (OLE for Process Control)** –

**OPC Alarms and Events** - OPC

**OPC Data Access** - OPC

**OPC DA** - . OPC Data Access.

**OPC Historical Data Access** - OPC

**OPC HDA** - . OPC Historical Data Access.

**PC** ( ) - Personal Computer ( ).

**TCP/IP, Transport Control Protocol / Internet Protocol** - TCP IP

TCP/IP  
Internet.

## 2

### 2.1

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1. OPC Scada Viewer

2.

3. OPC Scada Viewer

4.

5. OPC Scada Viewer  
sales@aggsoft.ru

6. OPC Scada Viewer

OPC Scada Viewer

7. **OPC Scada Viewer** "AS IS".

8.

9.

OPC Scada Viewer

10.

OPC Scada Viewer  
OPC Scada Viewer.

## 2.2

shareware-

[4](#)

- 21
- 
- 65535

## 2.3

shareware-

[3](#)

Internet,

## 2.4

OPC Scada Viewer	<a href="mailto:support@aggsoft.ru">support@aggsoft.ru</a>
	<a href="mailto:support@aggsoft.ru">support@aggsoft.ru</a>
	<a href="mailto:sales@aggsoft.ru">sales@aggsoft.ru</a>

## 3

### 3.1

- Windows 2000 SP 4 - Windows 10 ( x86 x64, ).

COM-

### 3.2

OPC Scada Viewer.

Viewer" , OPC Scada Viewer ,

"\Programs Files\OPC Scada

OPC Scada Viewer

4

4.1

- 
- 
- 
- 
- 

OPC OPC ; ;

OPC OPC ( , ,

);

( .1).

1. " 8";

2. - - ;

3. , " 9";

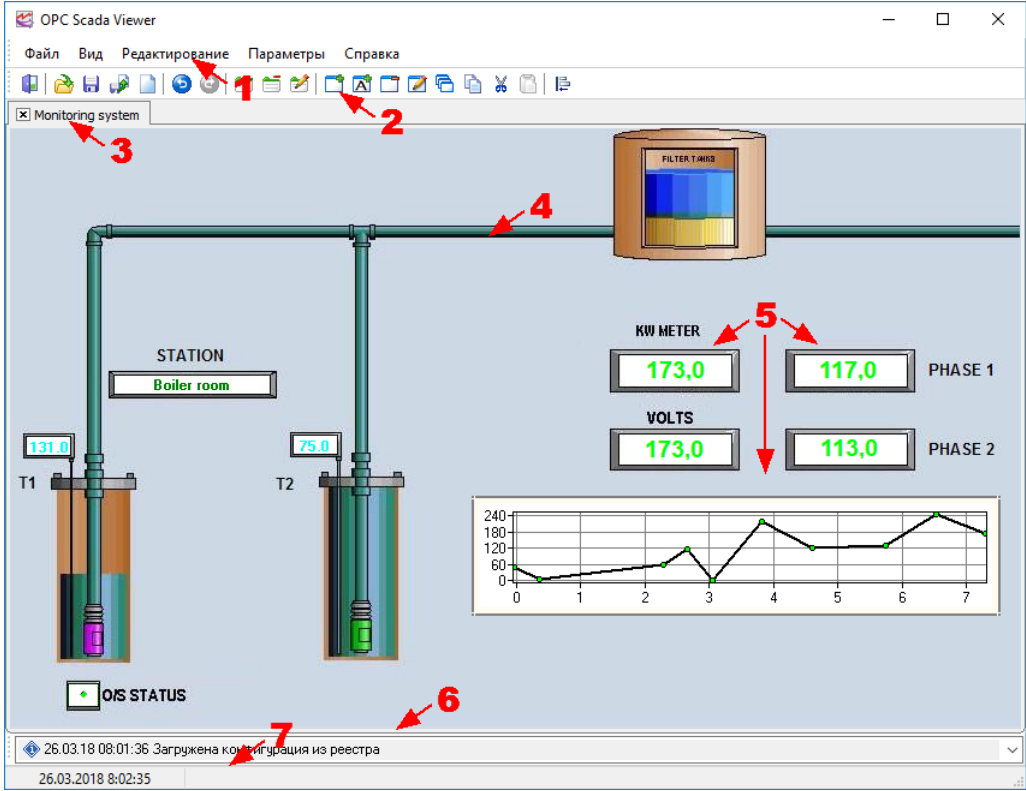
4. , ;

5. - OPC " 12";

6. , ;

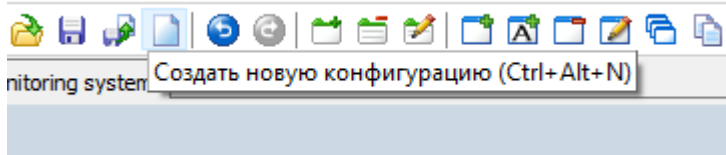
7. - ,





.1

(.2).



.2

1. \_\_\_\_\_ 9);

2. \_\_\_\_\_ 11);

3. \_\_\_\_\_ 12);

## 4.2

### 4.2.1

Ctrl "Ctrl+N" N.

### 4.2.2

: Ctrl+O



".xml".

: Ctrl+S



".xml"

: Ctrl+N



: Alt+F4



### 4.2.3

### 4.2.4

: *Ctrl+Z*



100

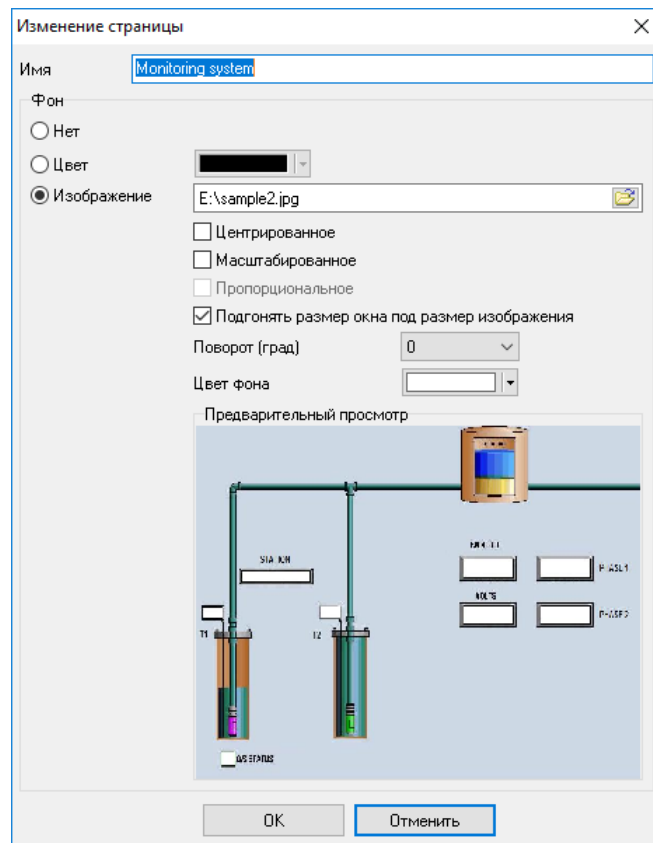
: *Ctrl+R*



: *Ctrl+T*



( .1).



.1.

1. -
2. -
3. -

GIF.

: BMP, JPG, PNG

- 
- 
- 

"

"

"

"

"

"

"

- - , ;
- - ;
- - , ;



" ' "



" ' " (.1)

: Ctrl+N



" ' "

).

OPC (OPC  
" \_\_\_\_\_ [12]



" \_\_\_\_\_ [12]

: Ctrl+Shift+C

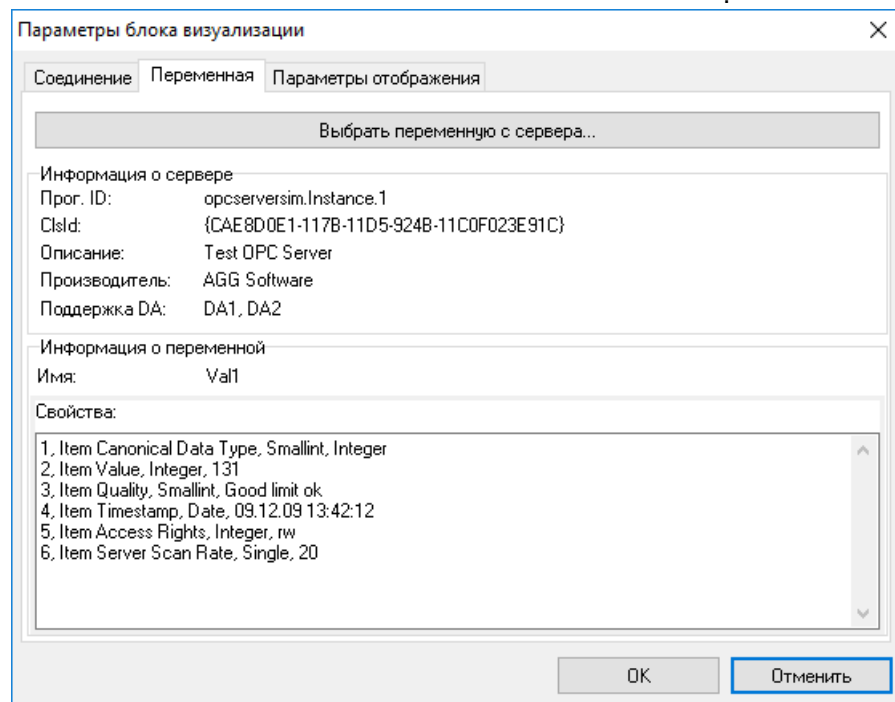


## 4.2.5

),

OPC

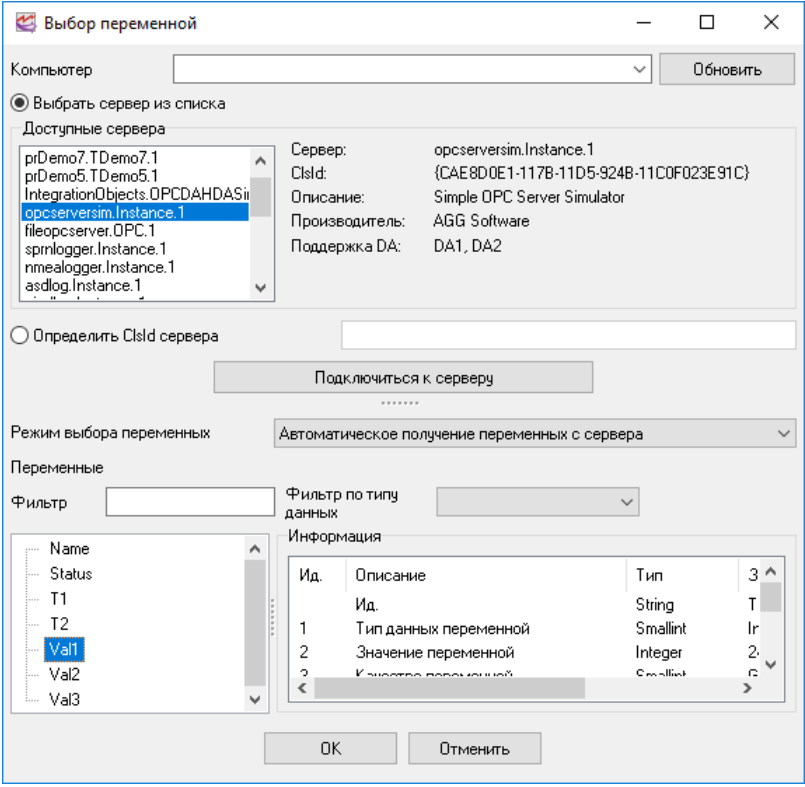
(.1).



.1.

"

(.2).



.2.

LOCALHOST.

IP

OPC

"OPC Core Components

Redistributable" [www.opcfoundation.org](http://www.opcfoundation.org)

OPC

OPC

( )

DA - DA.

" "

/

1.

2.

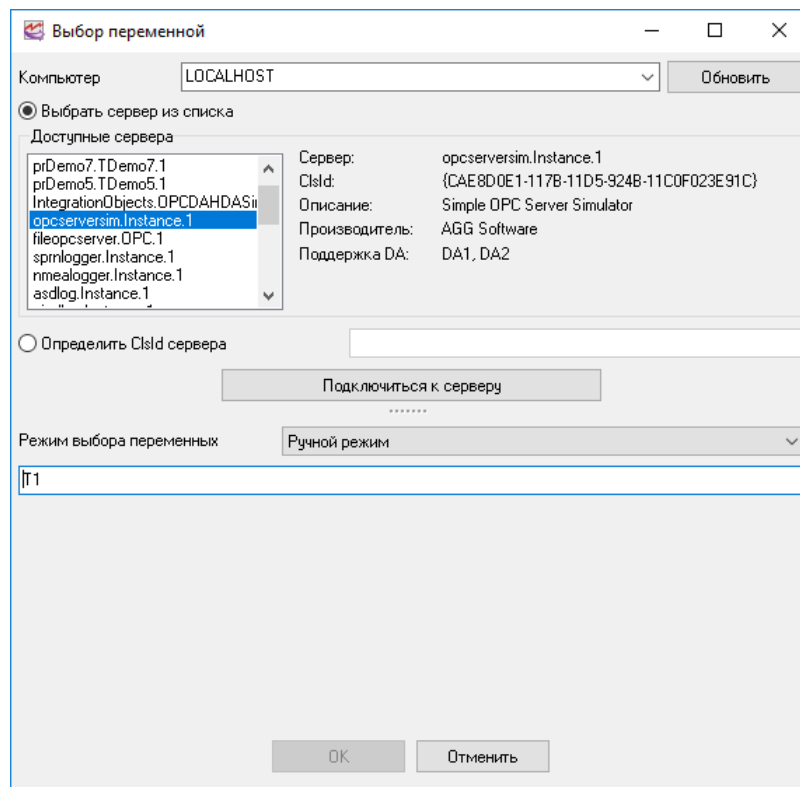
OPC

- ID ( ) -

•

•

•



. 3.

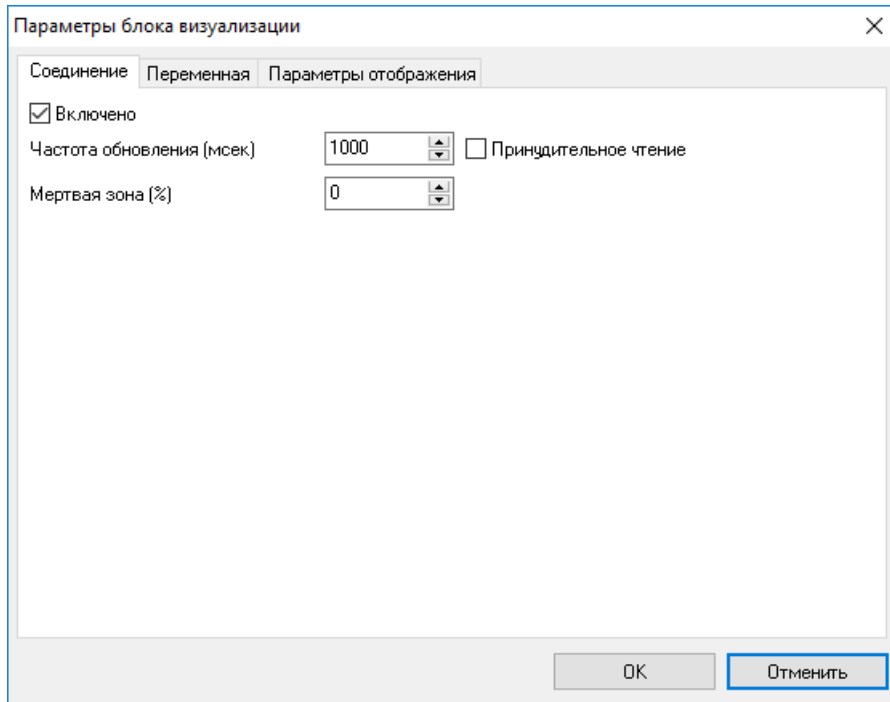


"OK",

( .1).

OPC

" ( .4)



.4.

OPC

OPC

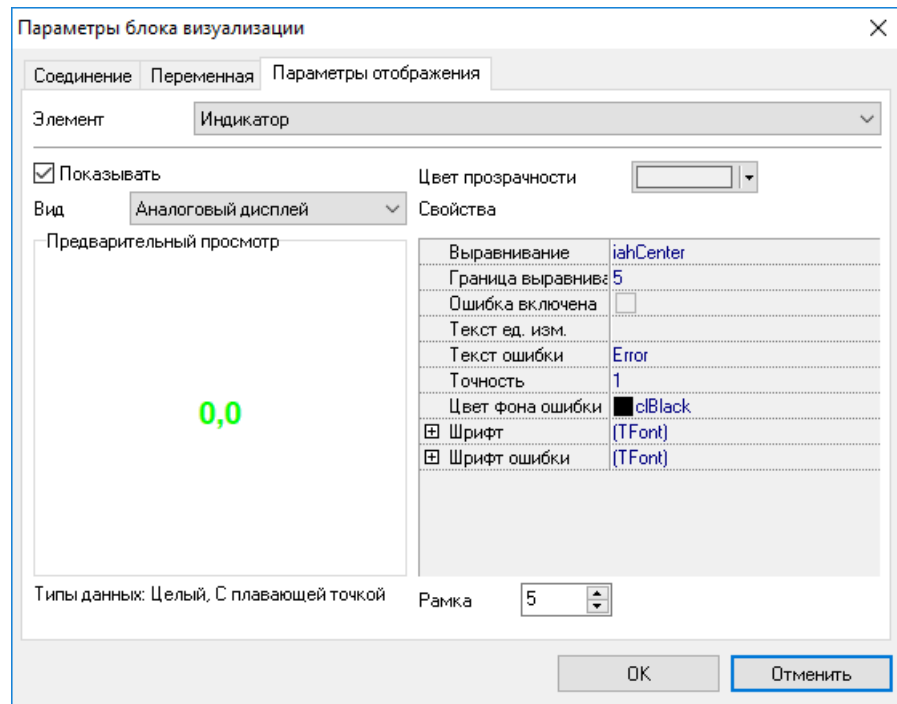
- 0

OPC

OPC

OPC

" ( .5).



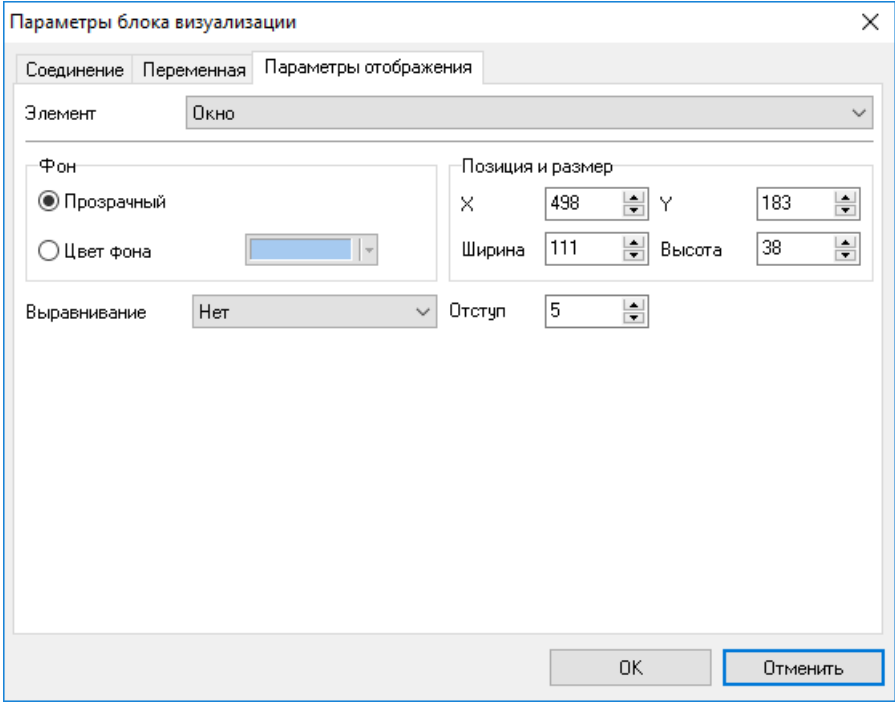
. 5.

( .6).



. 6.

" ( .7).



.7.

1.

2.

3.

1.

2.

3.

.5.

4.

5.

**OPC**

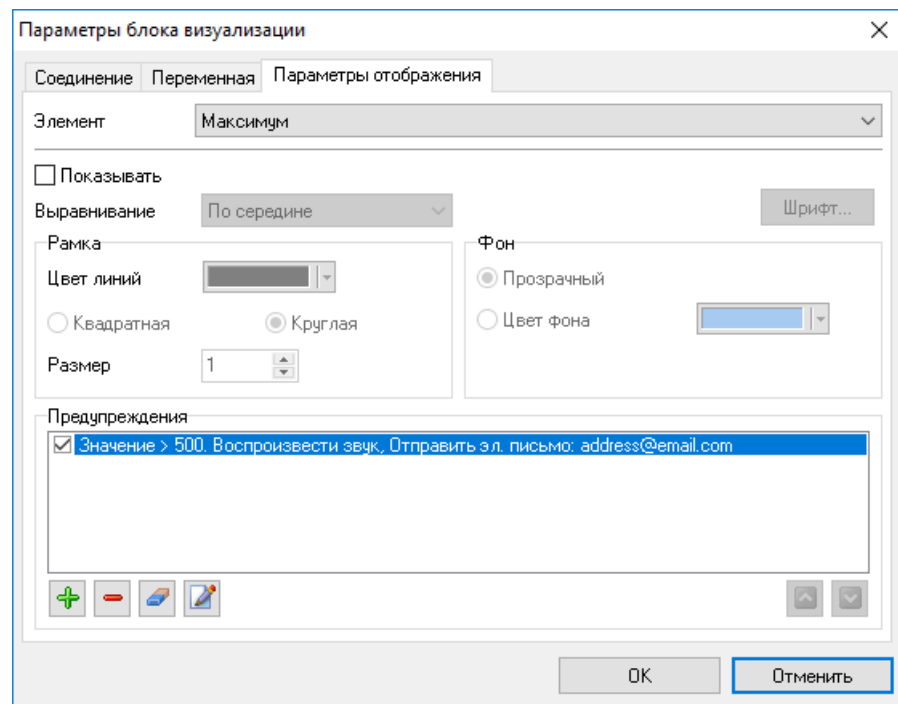
**OPC**

20

6.

OPC

( .8),



. 8.

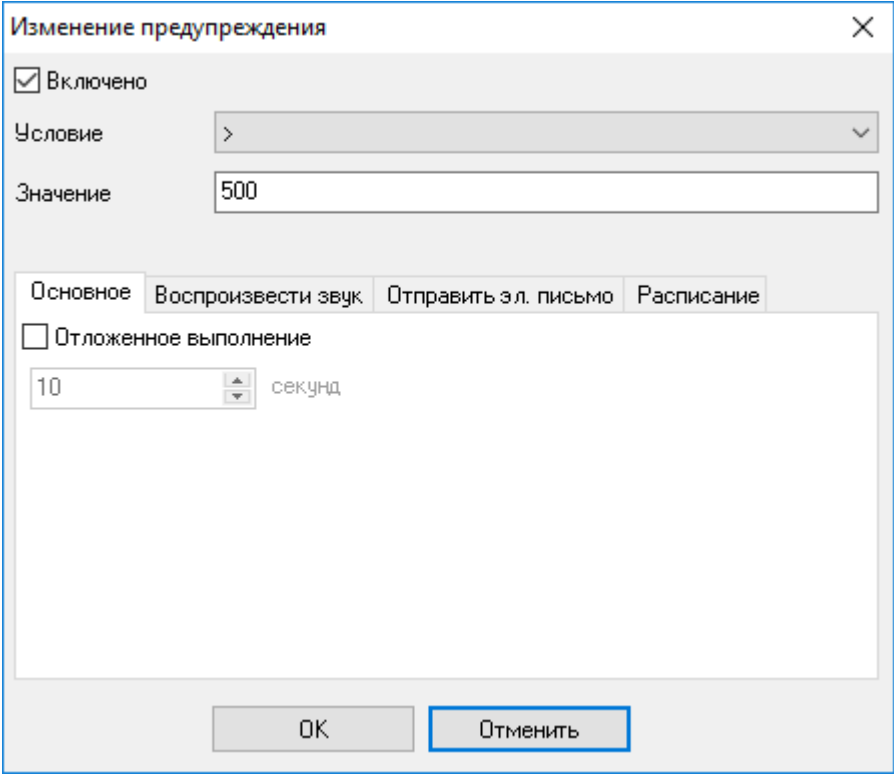
( .9):

- 
- 
- 
- 
- 

( .8),

- 1.
- 2.
- 3.
- 4.
- 5.
- 6.

( .9).



. 9.

1.

2.

3.

1.

Изменение предупреждения

Включено

Условие >

Значение 500

Основное Воспроизвести звук Отправить эл. письмо Расписание

Воспроизвести звук

chimes.wav

Воспроизводить

Один раз  Постоянно

Воспроизводить Стоп

OK Отменить

. 10.

2. ( . 11) -

, %VALUE%.

%FULL-DATE% -  
 %DATE% -  
 %TIME% -  
 %VALUE% -

Изменение предупреждения

Включено

Условие >

Значение 500

Основное Воспроизвести звук Отправить эл. письмо Расписание

Отправить эл. письмо

address@email.com

Alarm!

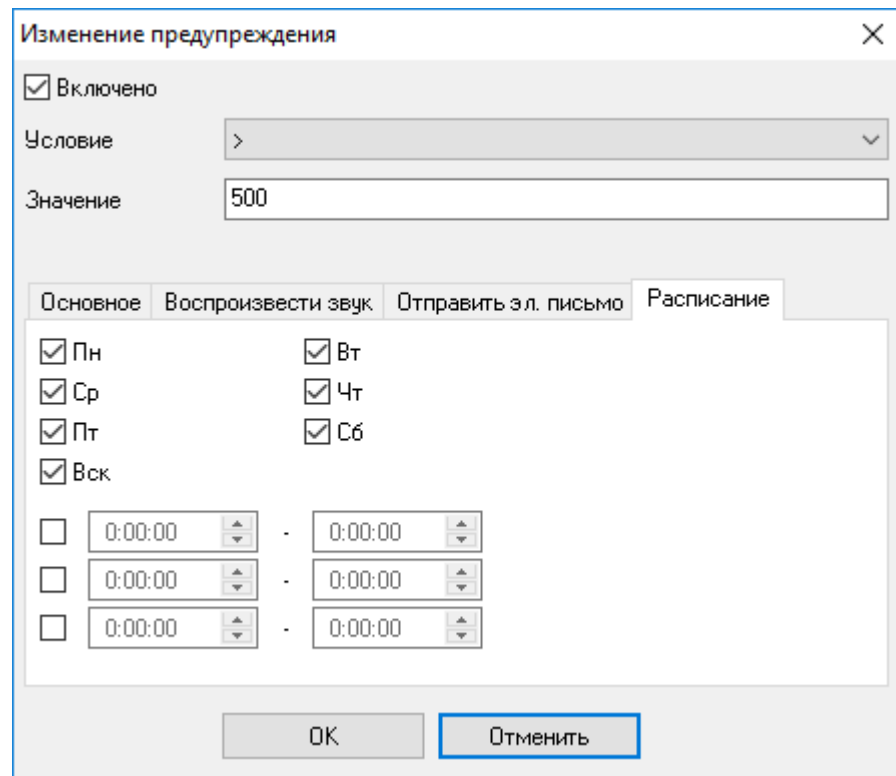
%FULL-DATE%: Alarm! %VALUE% is greater than 100!

OK Отменить

. 11.

1. ( . 12) -

24



Изменение предупреждения

Включено

Условие >

Значение 500

Основное Воспроизвести звук Отправить эл. письмо **Расписание**

Пн  Вт

Ср  Чт

Пт  Сб

Вс

0:00:00 - 0:00:00

0:00:00 - 0:00:00

0:00:00 - 0:00:00

ОК Отменить

. 12.

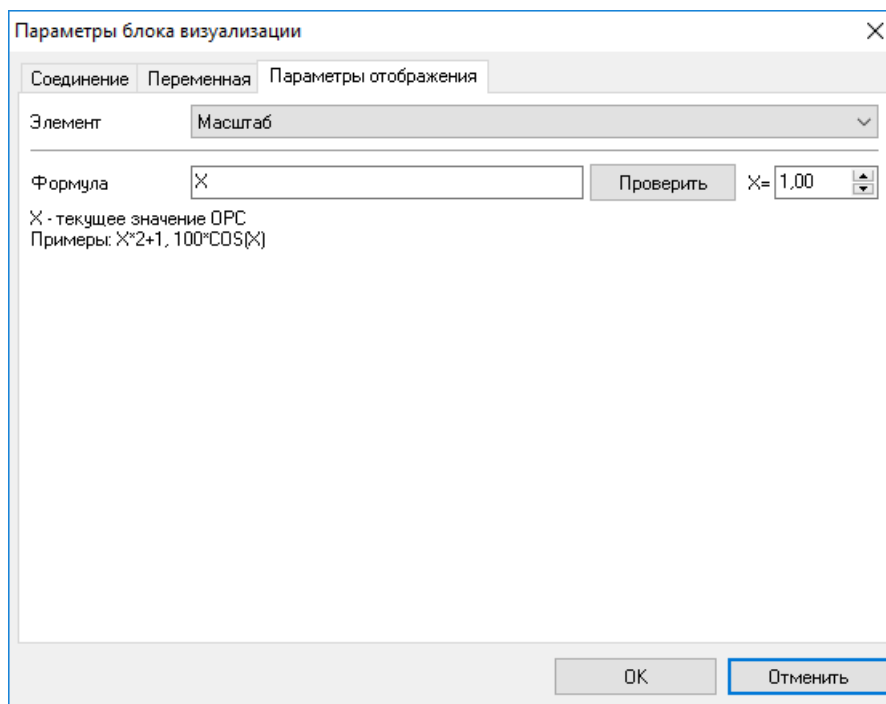
"OK".

"OK"

( . 13)  
OPC

X\*2-1  
100\*COS(X)





. 13.

( . 14, 15).

[BasicScript](#)<sup>[38]</sup>,  
Basic.

[BasicScript](#)<sup>[38]</sup>:

```
dim i, j = 0           //
function f1()         //
end function          //

sub p1()
end sub

//

for i = 0 to 10
  p1()
next
```

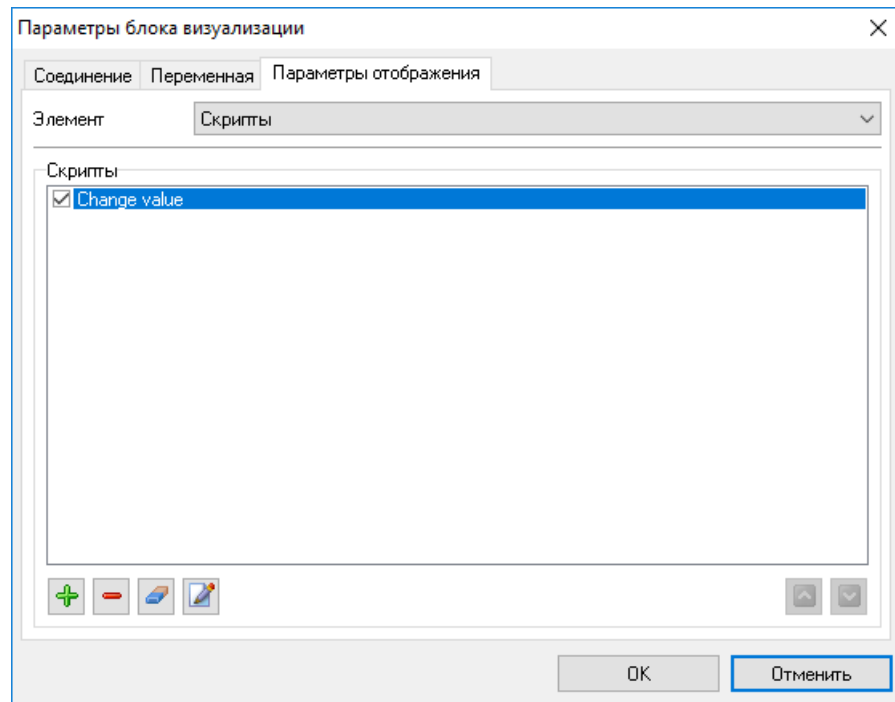
GetValue(Name) -

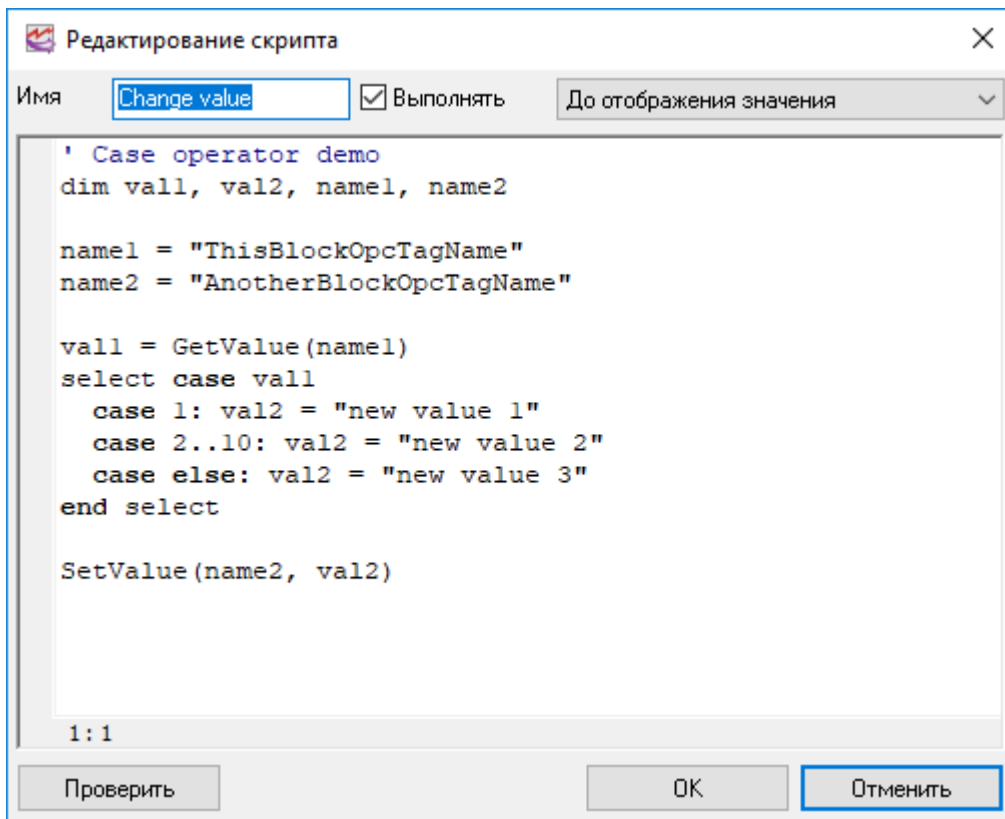
OPC

OPC

SetValue(Name, Value) -

```
    - " ( .1 | 12).  
:  
'  
Case  
dim val1, val2, name1, name2  
  
name1 = "ThisBlockOpcTagName"  
name2 = "AnotherBlockOpcTagName"  
  
val1 = GetValue(name1)  
select case val1  
  case 1: val2 = "new value 1"  
  case 2..10: val2 = "new value 2"  
  case else: val2 = "new value 3"  
end select  
  
SetValue(name2, val2)
```





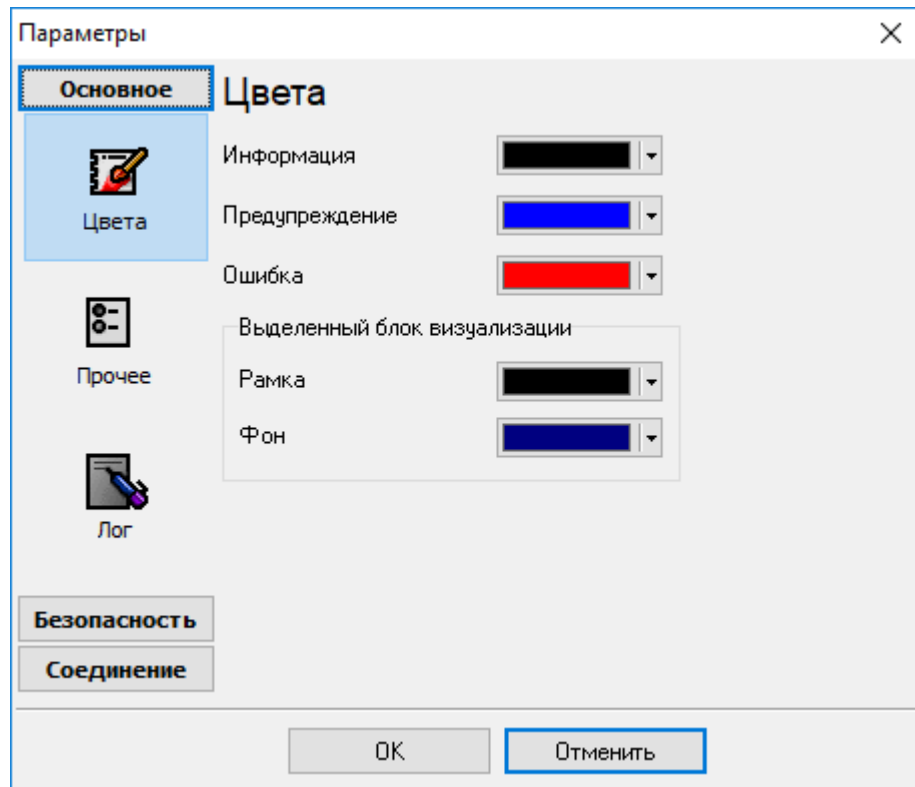
.15.

"OK".

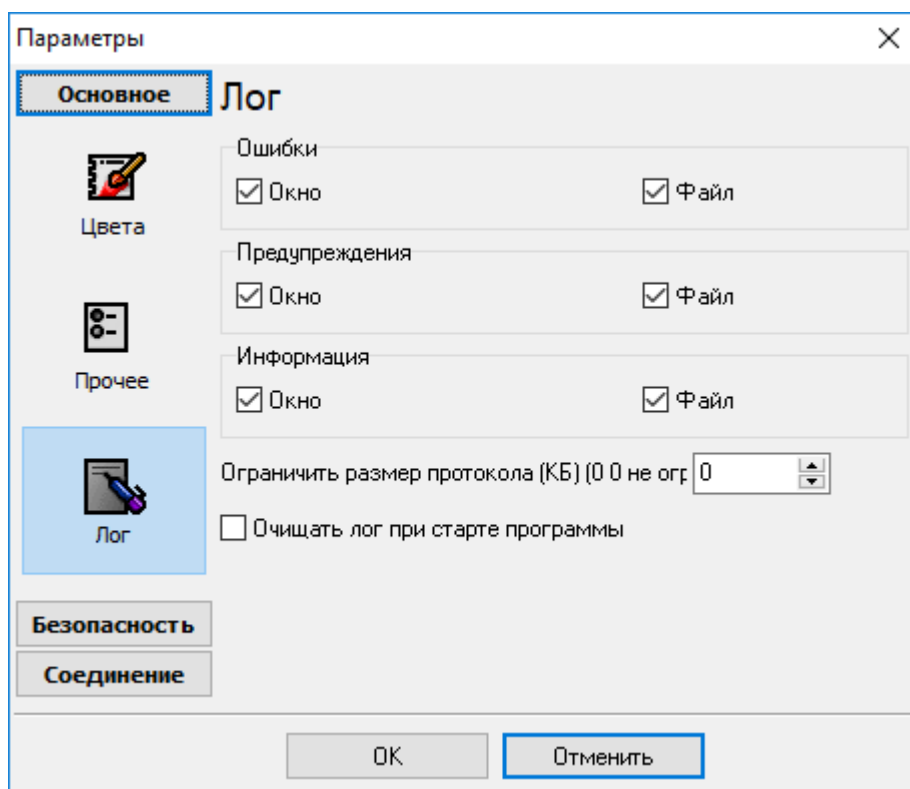
"OK"

#### 4.2.6

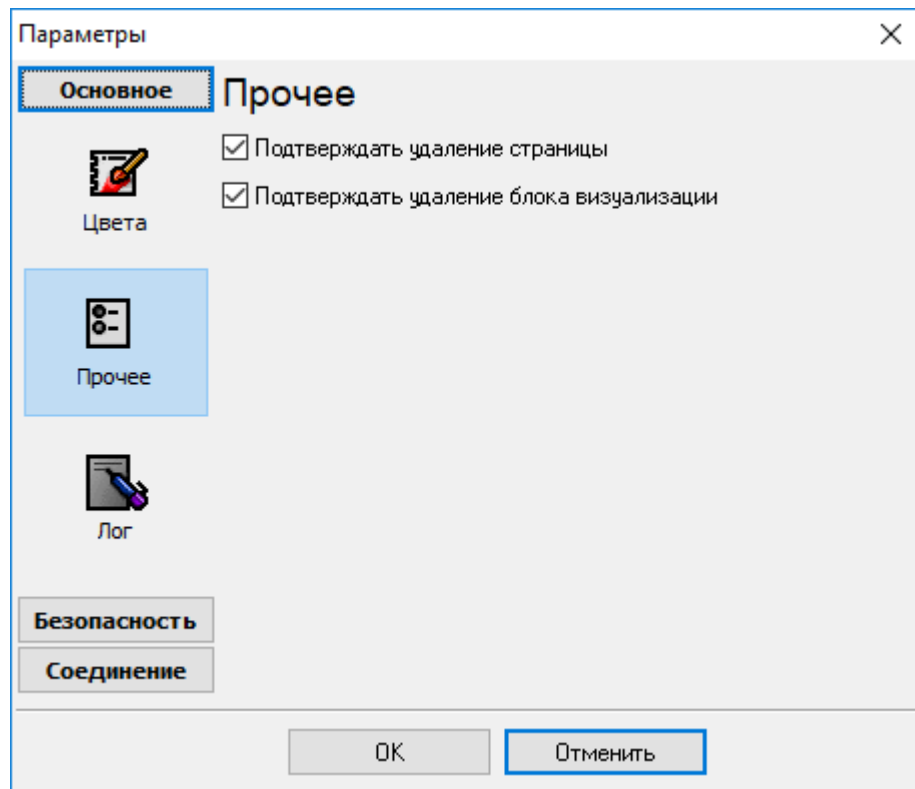
(.1).



.1.

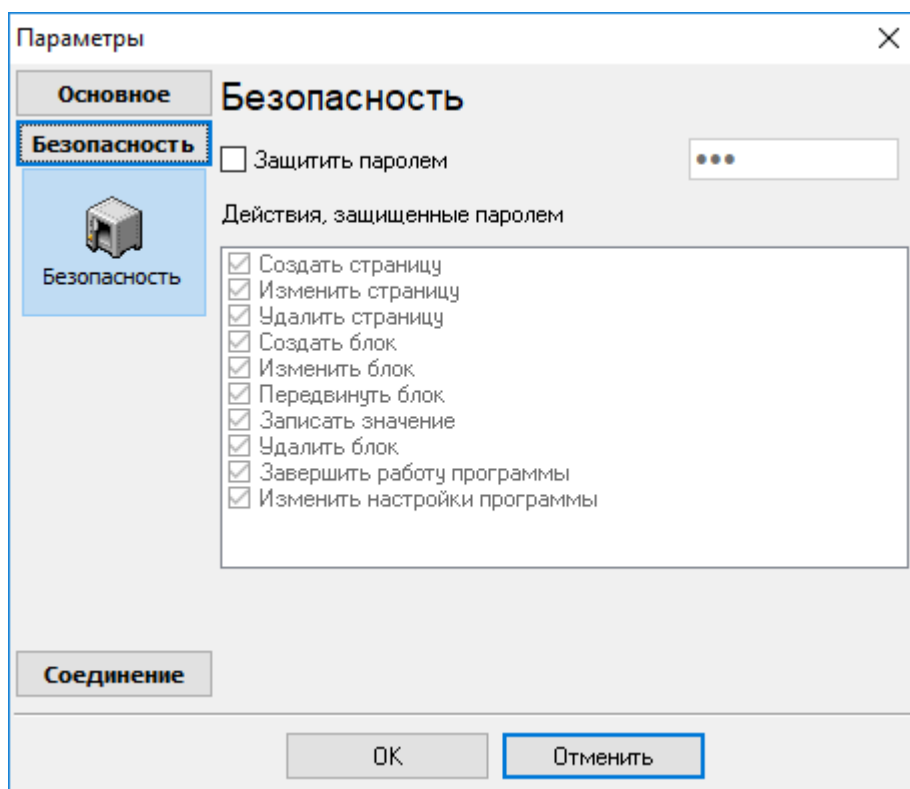


.2.



.3.

2



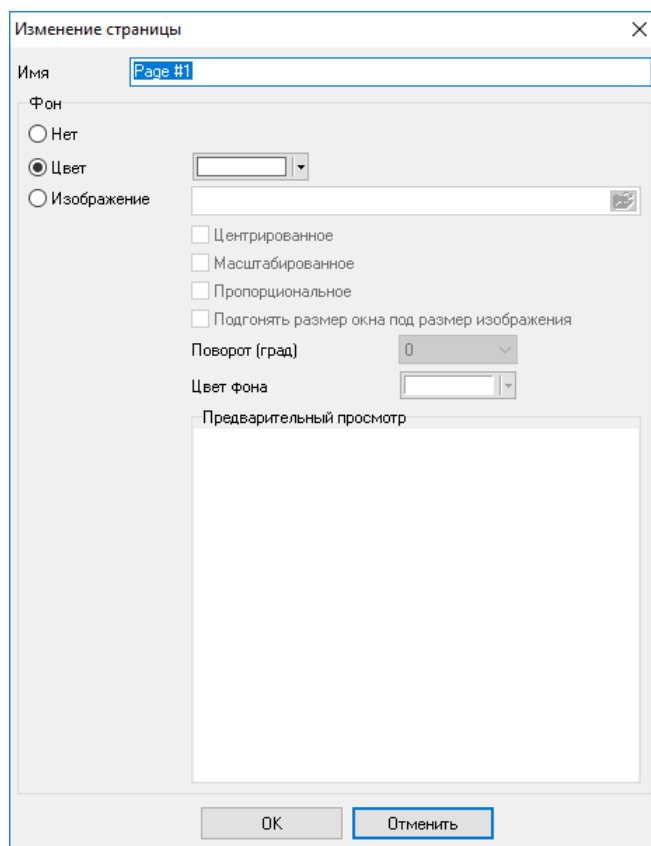
.4.

. 5

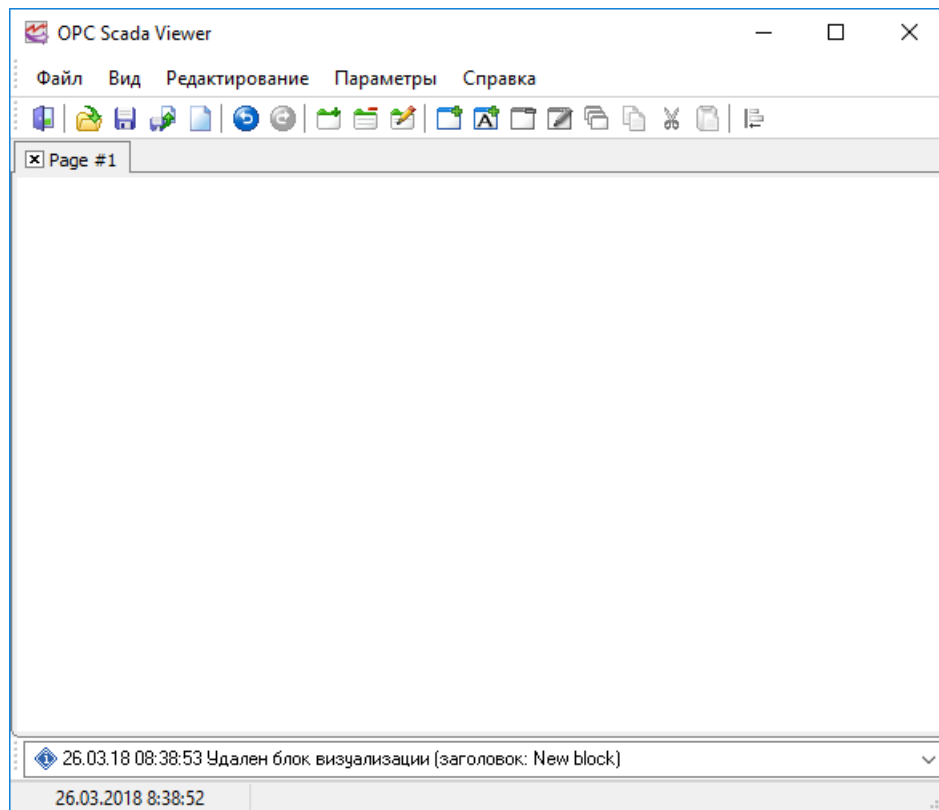
Google - GMail.







.1.



.2.

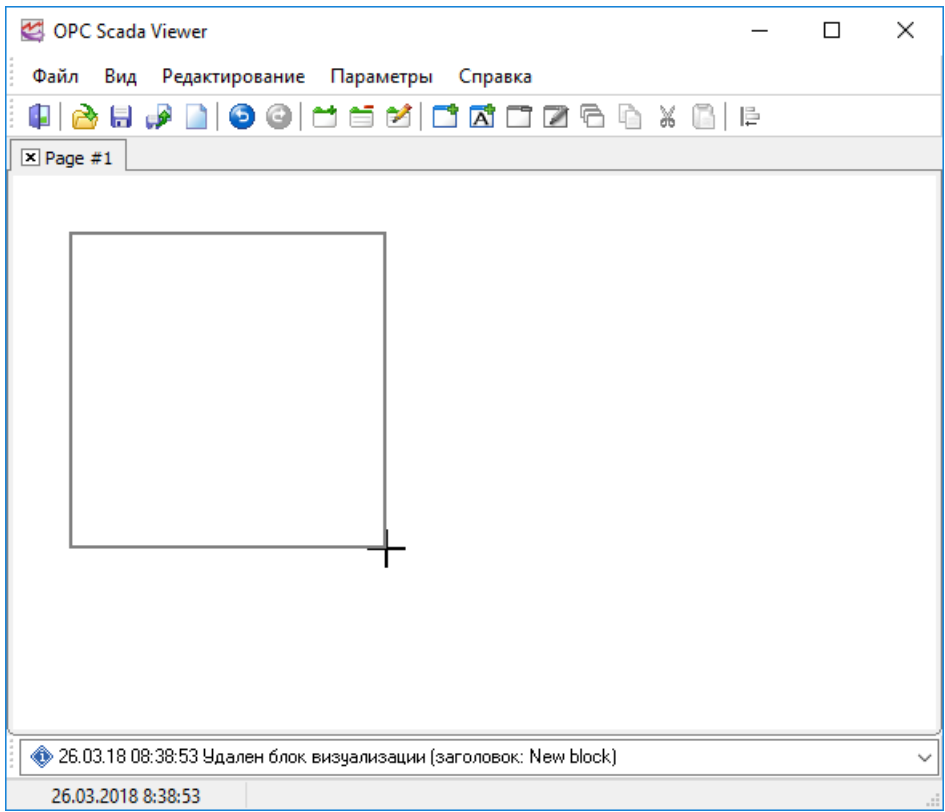
2.

"

" - "

"

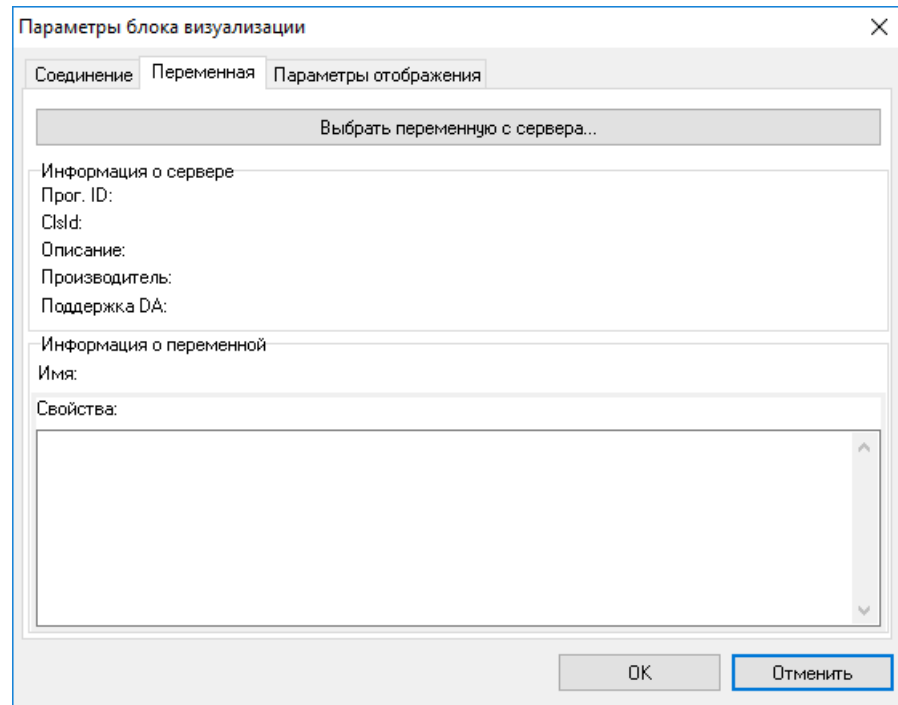
( .3),



.3.

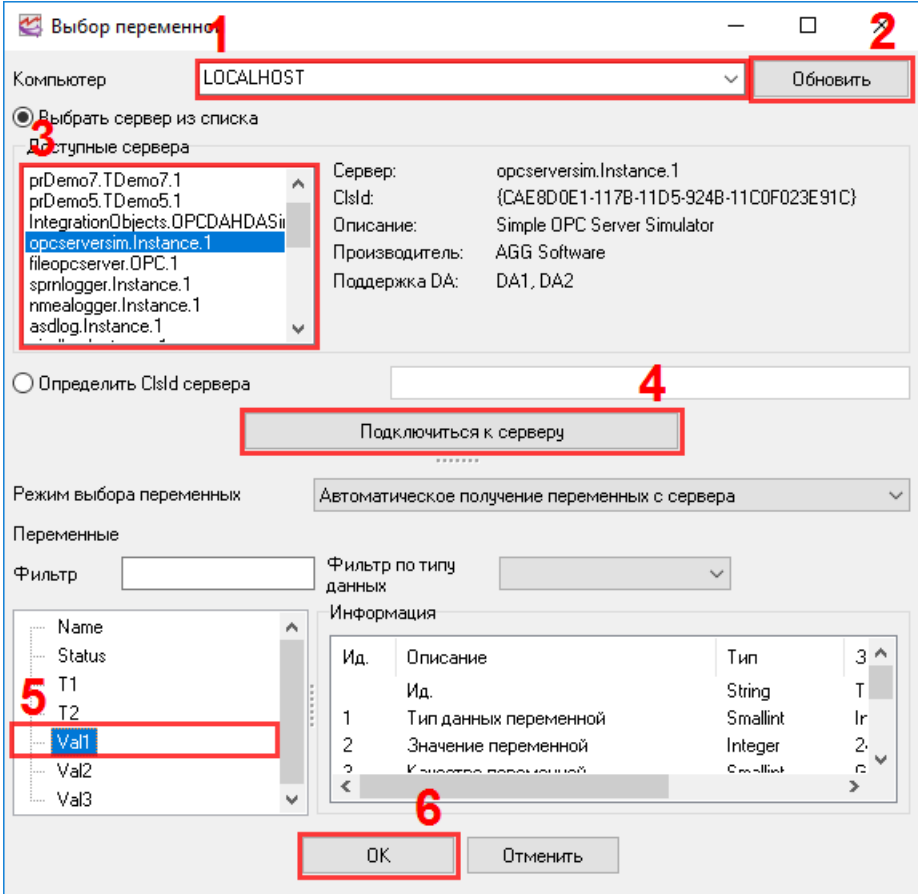
### 3. OPC

, ( .4). " " "



.4. OPC

1. . ( .5) , OPC
2. " " ;
3. ;
4. " " ;
5. ;
6. "OK".

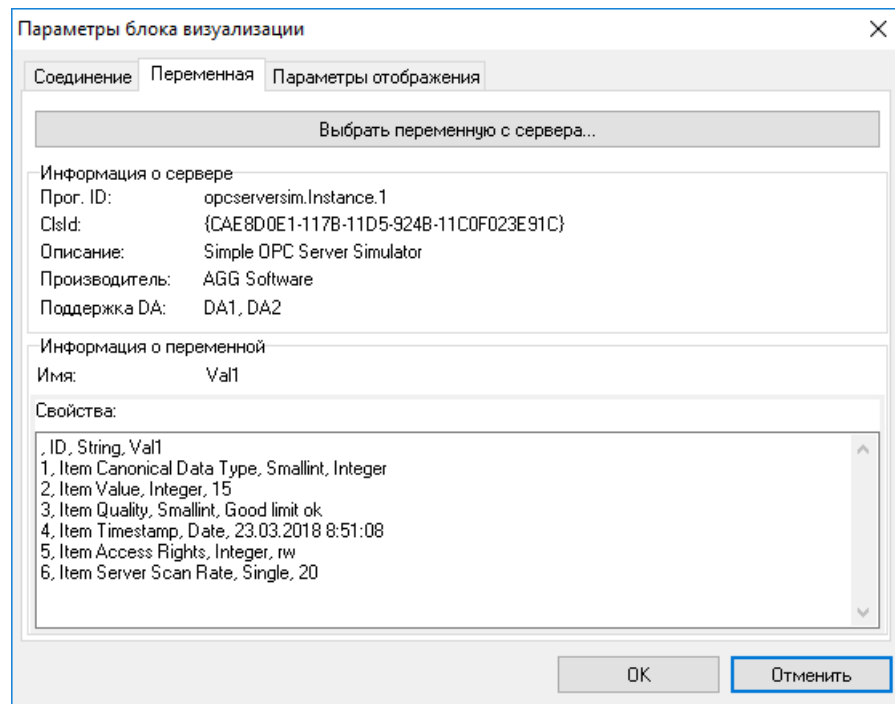


.5. OPC

"OK"

"

" (.6).



.6.

4.

" " , " "

5.

" "

( .7). :

1.

" " " " ;

2.

" " ;

3.

;

4.

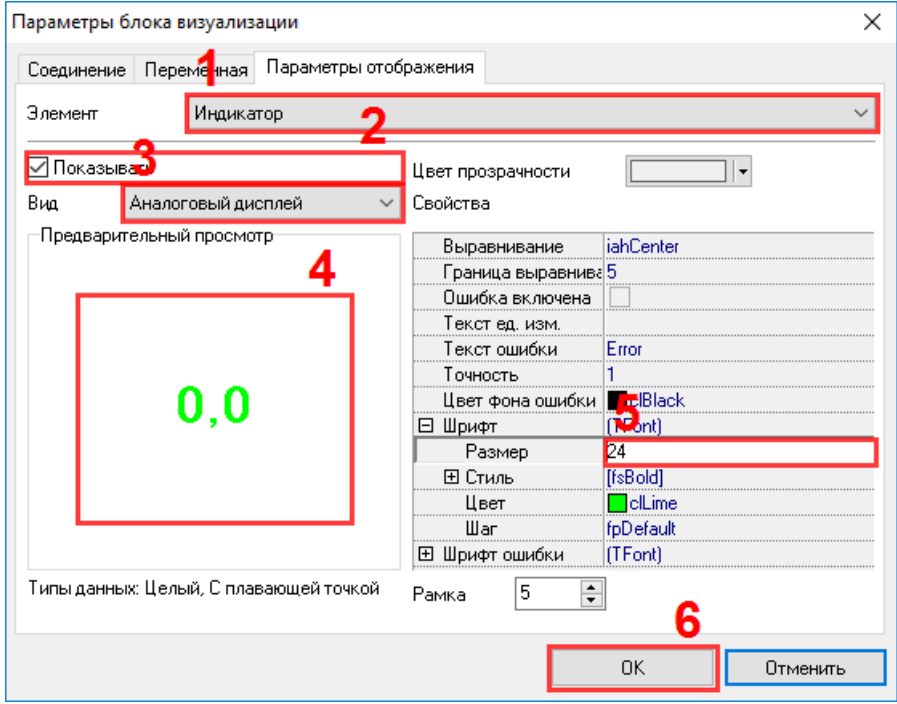
;

5.

, ,

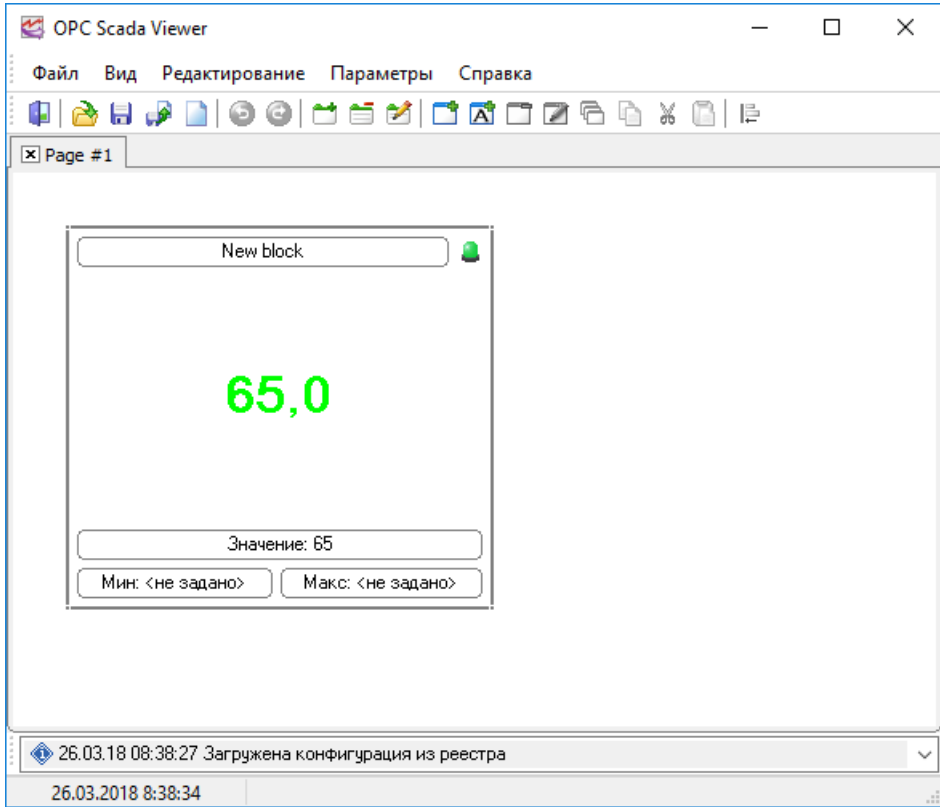
6.

; "OK",



.7.

(.8).



.8.

, " 8" .1.

## 4.4

### 4.4.1

```

BasicScript VBScript,
\ "ScriptSamples"

function GetValue(Name: string): Varinat
    OPC
    Name - OPC
    "@",
    :
    ' "Var" OPC "opcserver.OPC.1"
    v = GetValue("opcserver.OPC.1.var")
    ' "Var" OPC (
    v = GetValue("var")
    ' "MyBlock"
    v = GetValue("@MyBlock")

function SetValue(Name: string; Value: variant)
    OPC
    OPC
    Name - ( . ).
    Value -

function GetParam(BlockName, ParamName: string): Varinat
    BlockName - . Name
    ParamName -
    ind.visible - true/false, /
    ind.win.transparent - true/false,
    ind.win.backcolor.use - true/false,

```



```

ind.win.backcolor - integer,
ind.win.left - integer, X
ind.win.top - integer, Y
ind.win.width - integer,
ind.win.height - integer,
ind.win.align - integer, 0 - , 1 - , 2 - , 3 - , 4 -
, 5 - .
ind.win.indent - integer,

ind.border.show - true/false, /
ind.border.color - integer,
ind.border.width - integer,
ind.border.transparent - true/false,
ind.border.backcolor.use - .
ind.border.backcolor - .

ind.caption.show - true/false, /
ind.caption.text - text,
ind.caption.align - integer, 0 - , 1 -
, 2 - .
ind.caption.border.color - integer,
ind.caption.border.square - true/false,
ind.caption.border.round - true/false,
ind.caption.border.size - integer,
ind.caption.transparent - .
ind.caption.backcolor.use - .
ind.caption.backcolor - integer,

ind.state.show - ,

ind.ind.show
ind.ind.transparent
ind.ind.border.size

ind.value.show
ind.value.align
ind.value.border.color
ind.value.border.square
ind.value.border.round
ind.value.border.size
ind.value.border.transparent
ind.value.border.backcolor.use
ind.value.border.backcolor

ind.minvalue.show
ind.minvalue.align
ind.minvalue.border.color
ind.minvalue.border.square
ind.minvalue.border.round
ind.minvalue.border.size
ind.minvalue.border.transparent
ind.minvalue.border.backcolor.use
ind.minvalue.border.backcolor

ind.maxvalue.show

```

```

ind.maxvalue.align
ind.maxvalue.border.color
ind.maxvalue.border.square
ind.maxvalue.border.round
ind.maxvalue.border.size
ind.maxvalue.border.transparent
ind.maxvalue.border.backcolor.use
ind.maxvalue.border.backcolor

```

```
function SetParam(BlockName, ParamName: string; Value: variant)
```

```

    BlockName - .GetParam.
    ParamName - .GetParam.
    Value -

```

```
procedure ShowPage(Page: string)
```

```

    ( "Page" ).

```

```
function ExecuteFile(FileName, Parameters, WorkingDir: string; Options: integer): integer
```

```
    FileName -
```

```
    Parameters -
```

```
    WorkingDir - ( , ).
```

```
    Options
```

```
    0 -
```

```
    3 -
```

```
    6 -
```

```
    9 -
```

```
    5 -
```

```
    7 -
```

```
    8 -
```

```
    4 -
```

```
    1 -
```

```
function AppendFile(FileName, Data: string): boolean
```

```
function WriteFile(FileName, Data: string): boolean
```

---

```
function ReadFile(FileName: string): string
```

### GetValue/SetValue

```
dim val1, val2, name1, name2
```

```
name1 = "ThisBlockOpcTagName"  
name2 = "AnotherBlockOpcTagName"
```

```
val1 = GetValue(name1)  
select case val1  
  case 1: val2 = "new value 1"  
  case 2..10: val2 = "new value 2"  
  case else: val2 = "new value 3"  
end select
```

```
SetValue(name2, val2)
```

```
dim val1, name1  
dim working_dir = ""  
dim parameters = ""
```

```
name1 = "ThisBlockOpcTagName"  
val1 = GetValue(name1)
```

```
if val1 > 100 then  
  ExecuteFile("C:\alert.bat", parameters, working_dir, 0)  
end if
```

```
dim val1, name1, s
```

```
name1 = "ThisBlockOpcTagName"  
val1 = GetValue(name1)
```

```
if val1 > 100 then  
  s = "Value is too high"  
  AppendFile("C:\Logs\log.txt", s) '  
end if
```

## 4.4.2

```

        "onclick"
        :
        caption - text,
        shift - text,
        Control, "alt" - Alt.
        button - text,
        : "shift" - Shift, "ctrl" -
        : "left" - , "right" - , "double" -
        area - text,
        "state" - (
        "caption" -
        "minwarn" "maxwarn" -
        "minval" "maxval" -
        "ind" -
        "value" -
        "true",
        :
        function onclick(caption, shift, button, area) as boolean
            ShowMessage(caption & " " & button)
            ShowPage("2")
            return false
        end function

```

## 4.4.3

```

        :
        1.
        2.
        imports "@BlockName::ScriptName"
        "BlockName" "ScriptName"
        :
        imports "ScriptName.vb"
        "ScriptName.vb"

```

```
imports "c:\ScriptName.vb"
```

#### 4.4.4

```
function IntToStr(i: Integer): String
function FloatToStr(e: Extended): String
function DateToStr(e: Extended): String
function TimeToStr(e: Extended): String
function DateTimeToStr(e: Extended): String
function VarToStr(v: Variant): String

function StrToInt(s: String): Integer
function StrToFloat(s: String): Extended
function StrToDate(s: String): Extended
function StrToTime(s: String): Extended
function StrToDateTime(s: String): Extended

function Format(Fmt: String; Args: array): String
function FormatFloat(Fmt: String; Value: Extended): String
function FormatDateTime(Fmt: String; DateTime: TDateTime): String
function FormatMaskText(EditMask: string; Value: string): string

function EncodeDate(Year, Month, Day: Word): TDateTime
procedure DecodeDate(Date: TDateTime; var Year, Month, Day: Word)
function EncodeTime(Hour, Min, Sec, MSec: Word): TDateTime
procedure DecodeTime(Time: TDateTime; var Hour, Min, Sec, MSec: Word)
function Date: TDateTime
function Time: TDateTime
function Now: TDateTime
function DayOfWeek(aDate: DateTime): Integer
function IsLeapYear(Year: Word): Boolean
function DaysInMonth(nYear, nMonth: Integer): Integer

function Length(s: String): Integer
function Copy(s: String; from, count: Integer): String
function Pos(substr, s: String): Integer
procedure Delete(var s: String; from, count: Integer): String
procedure Insert(s: String; var s2: String; pos: Integer): String
function Uppercase(s: String): String
function Lowercase(s: String): String
function Trim(s: String): String
function NameCase(s: String): String
function CompareText(s, s1: String): Integer
function Chr(i: Integer): Char
function Ord(ch: Char): Integer
procedure SetLength(var S: String; L: Integer)

function Round(e: Extended): Integer
function Trunc(e: Extended): Integer
function Int(e: Extended): Integer
```

```
function Frac(X: Extended): Extended
function Sqrt(e: Extended): Extended
function Abs(e: Extended): Extended
function Sin(e: Extended): Extended
function Cos(e: Extended): Extended
function ArcTan(X: Extended): Extended
function Tan(X: Extended): Extended
function Exp(X: Extended): Extended
function Ln(X: Extended): Extended
function Pi: Extended

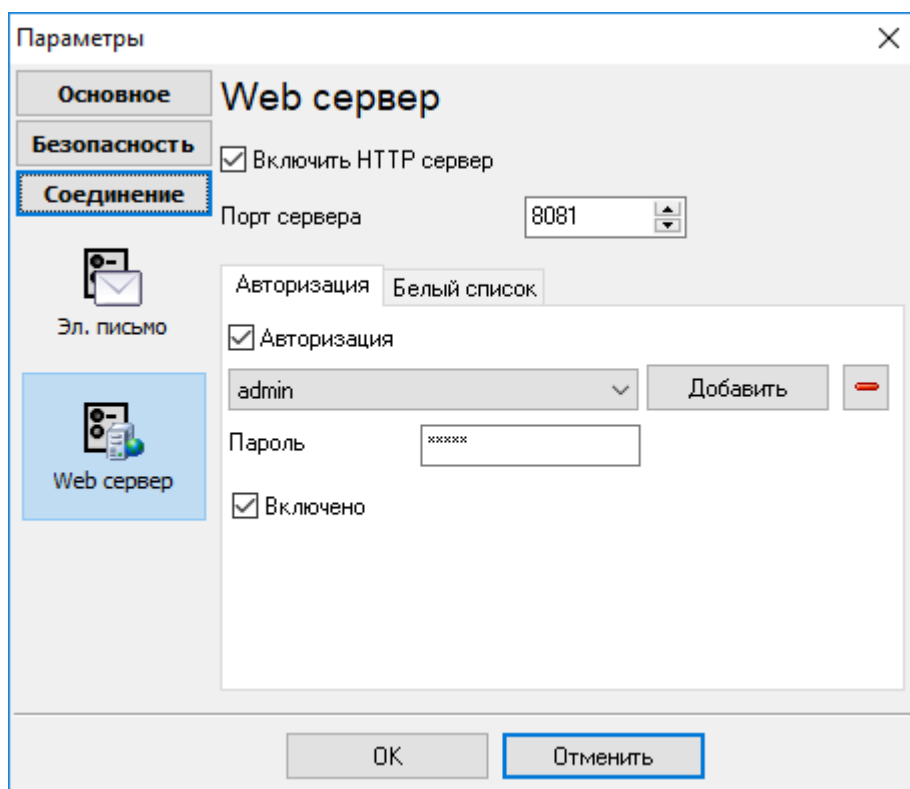
procedure Inc(var i: Integer; incr: Integer = 1)
procedure Dec(var i: Integer; decr: Integer = 1)
procedure RaiseException(Param: String)
procedure ShowMessage(Msg: Variant)
procedure Randomize
function Random: Extended
function ValidInt(cInt: String): Boolean
function ValidFloat(cFlt: String): Boolean
function ValidDate(cDate: String): Boolean
function CreateOleObject(ClassName: String): Variant
function VarArrayCreate(Bounds: Array; Typ: Integer): Variant
```

## 4.5

<http://127.0.0.1:8081>

<http://192.168.1.1:8081>

<http://11.22.33.44:8081>



.1.