



# **Advanced USB Port Monitor**

Watch It!

<b>1</b>		<b>1</b>
1	.....	1
2	.....	2
<b>2</b>	,	<b>4</b>
1	.....	4
2	.....	5
3	.....	5
4	.....	6
<b>3</b>		<b>6</b>
1	.....	6
2	.....	7
<b>4</b>		<b>7</b>
1	.....	7
2	.....	8
	.....	8
	.....	10
USB	.....	16
	.....	19
	.....	19
	.....	22
	.....	25
	.....	27
	.....	31
<b>3</b>	.....	<b>34</b>
	.....	34
	.....	34
	.....	36
	.....	37
<b>5</b>		<b>38</b>
1	.....	38
2 FAQ	.....	39

# 1

## 1.1

Advanced USB Port Monitor USB  
 , . Advanced USB Port Monitor ,  
 , USB .  
 USB searching  
 High (480Mbps), Full (12Mbps) Low (1.5Mbps) .

Advanced USB Port Monitor USB  
 , USB , USB .  
 - USB ,  
 - USB .

Advanced USB Port Monitor , .

Advanced USB Port Monitor , , .

- USB ;
- : WDM, WMI, Power Management, PNP, .;
- USB (USB 2.0 );
- ( );
- - ;
- - URB USB IRP
- PnP , Power management . .;
- USB ;
- USB ( , !);
- USB ;
- ;
- URB IRP;
- (USB , , . .);
- USB ;

- USB ;
- ;
- ;
- ;
- (MDI );
- (PDF, XML, Microsoft Word).

Advanced USB Port Monitor

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

: <http://www.aggsoft.ru/usb-port-monitor.htm>

## 1.2

**(Binary File) -**

ASCII

**ASCII -** American Standard Code for Information Interchange. ASCII

Windows  
ASCII . ASCII TXT ( , README.TXT).

**(Byte) -**

8

**USB (Universal Serial Bus) -** "plug and play"

( , )

. USB 1.1,

USB  
12 Mbps ( )

— 480 Mbps! , USB 2.0

IBM- , USB Mac) Windows® 98, 98SE, 2000, 2000SE, ME USB ;

Mac OS 8.6.  
USB 2.0.

**ACK -**

USB.

USB

**(Active device) -**

**(Asynchronous Data) -**

USB

(isochronous)

**Babble** - USB

**(Bandwidth)** -  
(bps).  
1 0.

**(Bit)** - ( USB ),

**(Buffer)** - USB

**(Bulk transfer)** -  
USB ( ).

**(Bus enumeration)** - USB

**(Characteristics)** - USB

**(Client)** -  
USB

**(Control pipe)** - (pipe)  
USB

**(Control transfer)** -  
USB

**CRC** - Cyclic redundancy check ( );  
. CRC

**(Default address)** - USB

**(Default pipe)** -  
USB (endpoint zero)

**(Device)** -

**(Device address)** -  
USB USB.

(Hubs) USB.

**(Device endpoint)** -  
USB

(Downstream) -

(Driver) -

(Interrupt transfer) -

USB,

(Isochronous transfer) -

USB

(Upstream) -

## 2

### 2.1

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1. Advanced USB Port Monitor

2.

3. Advanced USB Port Monitor

4.

5. Advanced USB Port Monitor

sales@aggsoft.ru

6. Advanced USB Port Monitor

Advanced USB Port Monitor

7. Advanced USB Port Monitor

"AS IS".

8.

9.

Advanced USB Port Monitor

10.

Advanced USB Port Monitor  
Advanced USB Port Monitor.

## 2.2

shareware-

[5](#)

- 21
- 
- XML 100

## 2.3

shareware-

[4](#)

Internet,

2.00,

2.xx

## 2.4

Advanced USB Port Monitor	<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

: Intel® x86 CPU

:

- Windows 2000;
- Windows XP (Professional or Home Edition);
- Windows 2003 Server;
- Windows Vista.

#### Windows 9x, Me NT!

**USB** : 1 USB 1.1 2.0

: 1 GHz -

: 256 MB.

: 100 MB  
 . Advanced USB Port Monitor 10 MB

Windows



### 3.2

aumon20.exe.

Advanced USB Port Monitor.

, Advanced USB Port Monitor  
Files/Advanced USB Port Monitor"

"/Programs

## 4

### 4.1

#### USB

USB,

1995

USB

PC.

USB  
USB

127

: 1.5 Mbps, 12 Mbps

USB

480 Mbps.

USB

USB 2.0 High-speed  
High-speed USB,

12 Mbps

USB 1.1

480 Mbps

USB

USB 1.

. High-speed

High-speed USB  
High-speed USB

USB 1.

. USB High-speed,

PC.

#### USB?

USB

1995

PC

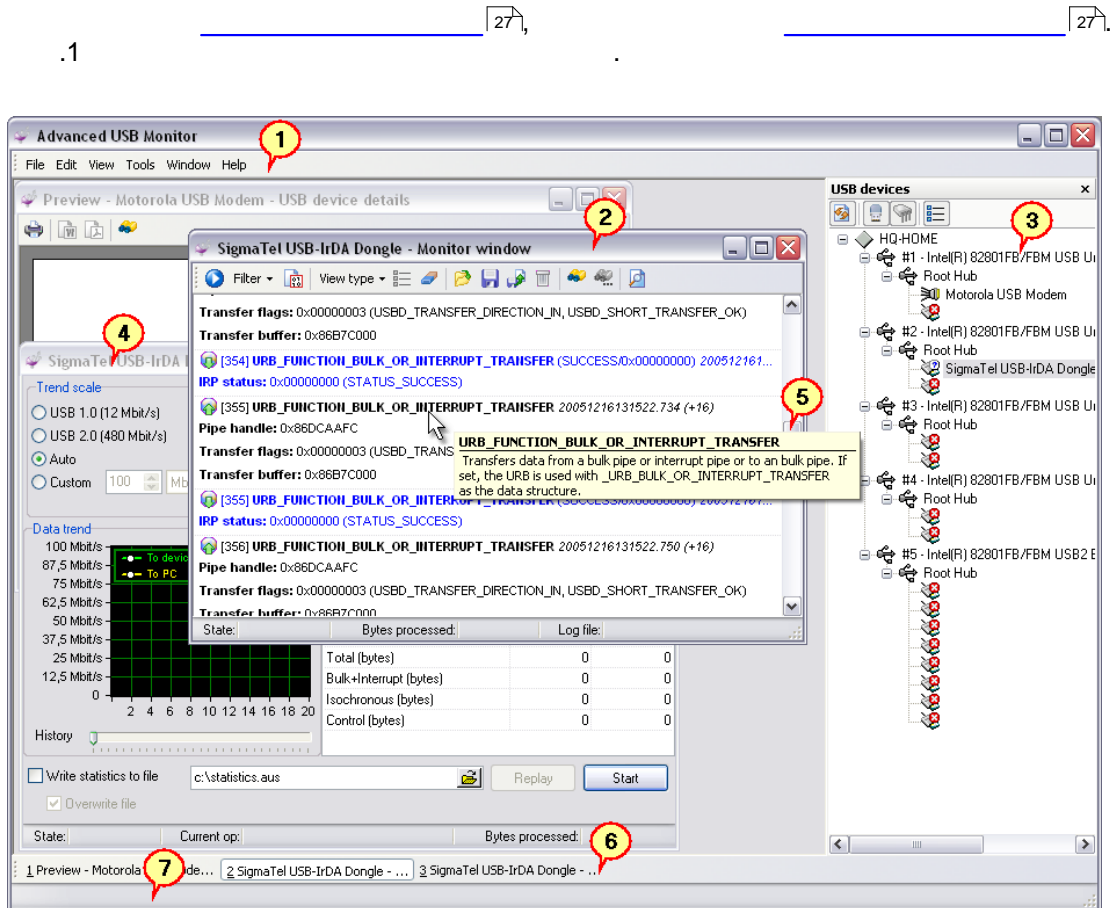
, USB

. USB

- ;
- ;
- ;
- PC ;
- USB 2.0 / USB 1.1 USB 2.0;
- " , " , PC,
- USB ;
- 127 ;
- 1.5, 12 480 Mbps.

### 4.2

#### 4.2.1



.1

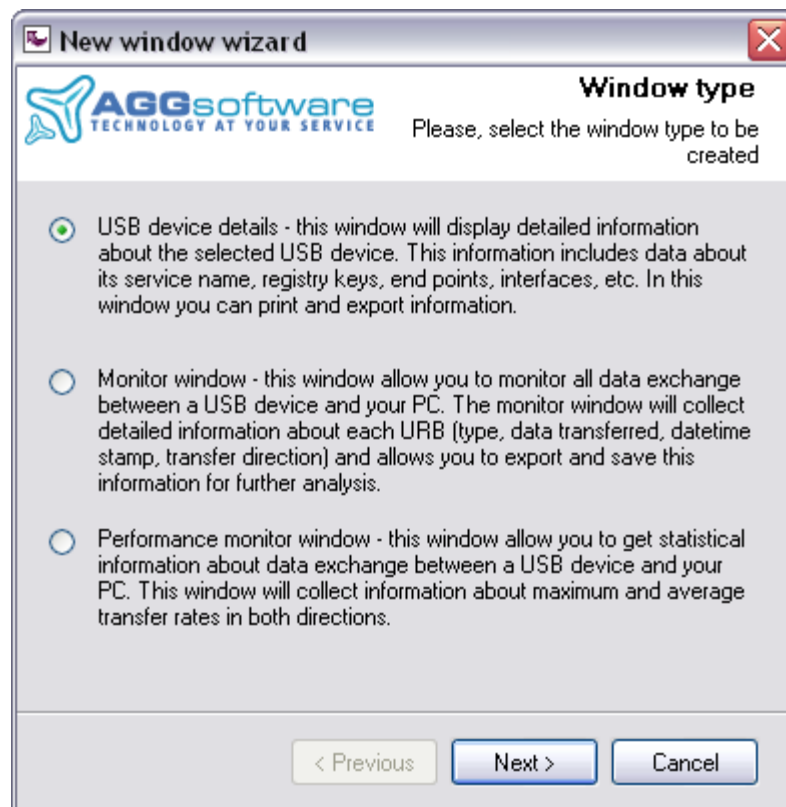
1. \_\_\_\_\_ [10] -
2. \_\_\_\_\_ [19] -
3. **USB** [16] -
4. \_\_\_\_\_ [22] -
5. \_\_\_\_\_
6. \_\_\_\_\_ [19] -
7. \_\_\_\_\_ [19] -

USB

1.

File | New.

.2.



.2

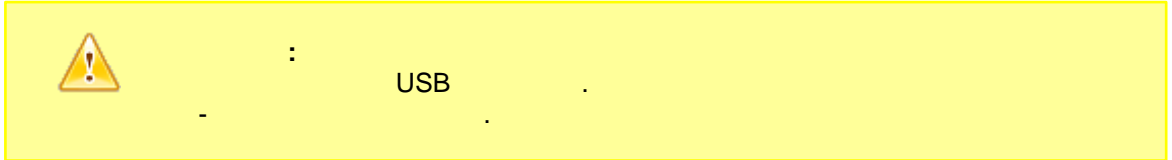
Next.

2.

USB



Tools).



3.

USB

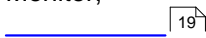
### 4.2.2

File ( )

File | New (Ctrl+N) -



File | Open (Ctrl+O) -  
Monitor,



Advanced USB Port

File | Save (Ctrl+S) -

File | Save as -

XML

**File | Close -**

**File | Close all -**

**File | Open workspace -** \_\_\_\_\_ 

\_\_\_\_\_ 

**File | Save workspace -**  
- \_\_\_\_\_ 

**File | Save workspace as -** \_\_\_\_\_ 

**File | Delete workspaces -** \_\_\_\_\_ 

**File | Open workspace in file -** \_\_\_\_\_ 

**File | Save workspace to file -** \_\_\_\_\_ 

**File | Open last workspace on startup -**

**File | Print -**  
( \_\_\_\_\_ , URB . . )

**File | Print setup -** \_\_\_\_\_  
Print.

**File | Exit -**



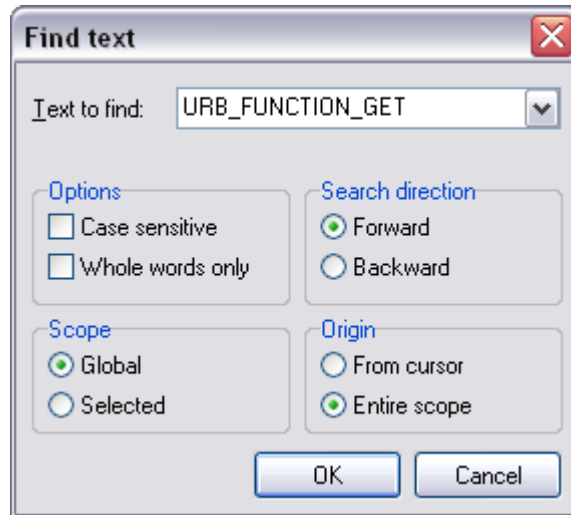
**Edit**

**Edit | Copy (Ctrl+C) -**  
\_\_\_\_\_ (Clipboard).

Edit | Select all (Ctrl+A) -

Edit | Find (Ctrl+F) -

( .1)



.1

Text to find -

Options -

- Case sensitive -
- Whole words only -

Direction -

- Forward -
- Backward -

Scope -

- Global -
- Selected -

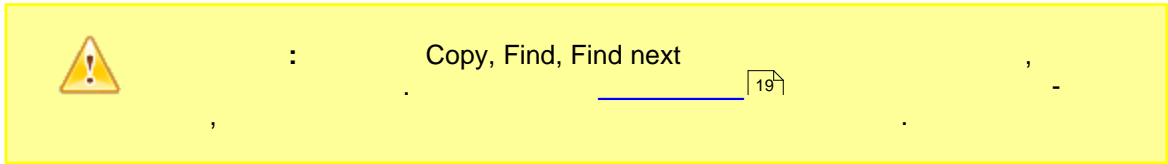
Origin -

- From cursor -
- Entire scope -

OK

F3. 


**Edit | Find next (F3) -**



**Edit | Properties -** 

**View**



**View | Show connected devices only -** /


USB  USB

**View | Hide host controllers without devices -** /

USB  USB

**View | Auto refresh USBs tree -** /

USB  USB " " 

**View | Auto scroll -** / 



**View | Toolbars -** /

**View | Toolbars | Task bar -** / 

**View | Toolbars | Status bar -** / 

## Tools

Tools | Open monitor window -



Tools | Open waiting monitor window -



Tools | Open performance monitor window -



Tools | Show details -



Tools | Fast replug -



Advanced SUB Monitor.



USB  
USB.

Tools | Save as Microsoft Word document -

( Microsoft Word document, URB . . )

Tools | Save as PDF file -

( Adobe PDF, URB . . )

Tools | Export to XML -

File | Save XML XML

Advanced features -



90%

Tools | Install driver service -



(filter driver).

**Tools | Remove driver service -**

USB  
USB  
USB

**Remove class filter driver Remove device filter driver**

**Tools | Install class filter driver -**

USB  
USB  
USB  
USB

**Tools | Remove class filter driver -**

USB  
USB  
USB  
USB



**Tools | Install device filter driver -**

USB  
USB  
USB  
USB  
USB  
USB

**Tools | Fast replug,**

USB

**Tools | Remove device filter driver -**

USB  
USB  
USB

**Tools | Fast replug,**

USB



:

(

)

,

.

## Window

Window | USB devices - / USB

Window | Cascade -

Window | Tile vertically -

Window | Tile horizontally -

Window | Minimize all -

Window | Arrange icons -

## Help

Help | Content -

Help | Tip of day -

Help | About - " "

Help | Registration online -

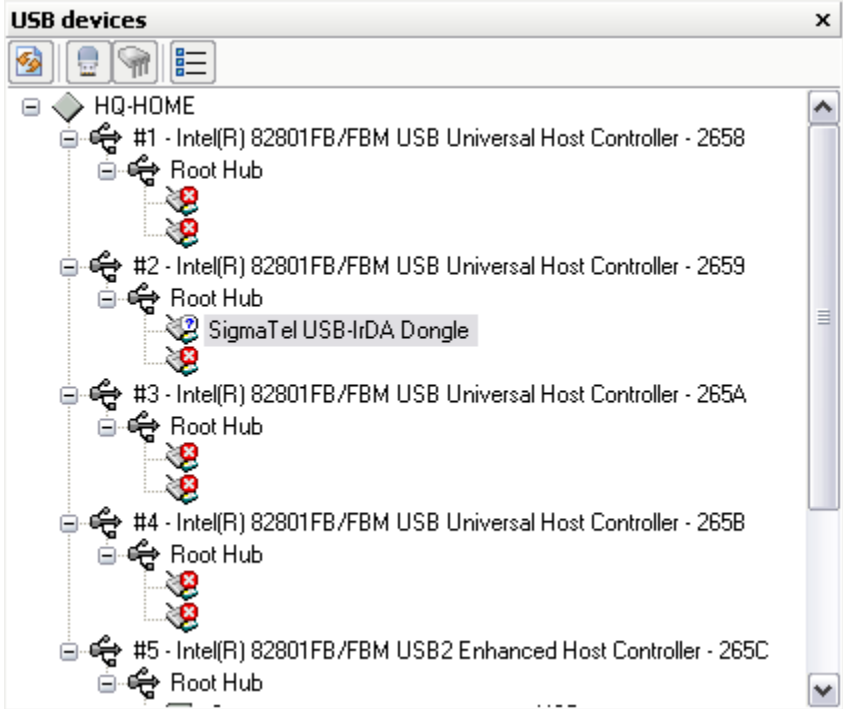
### 4.2.3 USB

USB (.1)

USB

( - , . .)

Windows.



.1 USB

USB

:

- Audio
- Communications
- HID
- Monitor
- Physical interface
- Power
- Printer
- Storage
- Hub
- Vendor specific
- External hub
- Host controller
- Not connected
- Error icon.

Windows

Refresh -

USB

USB

(View | Auto refresh USBs tree)

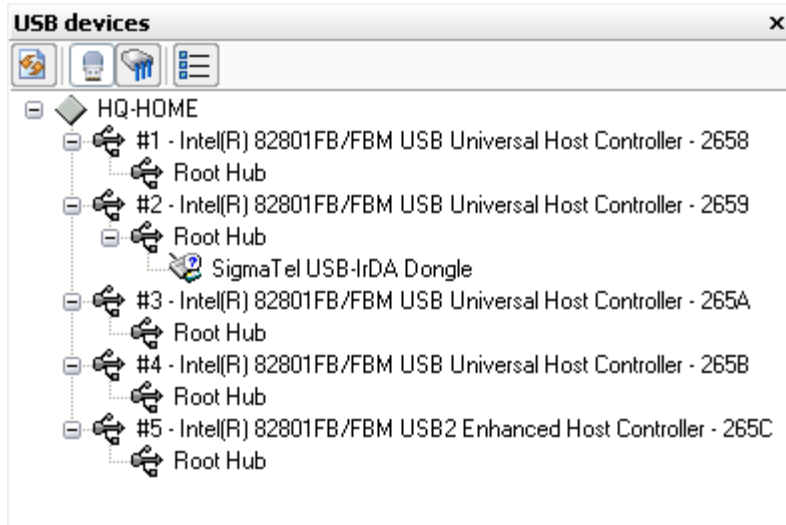
**Show connected devices only -**

View.

USB

USB

(.2).



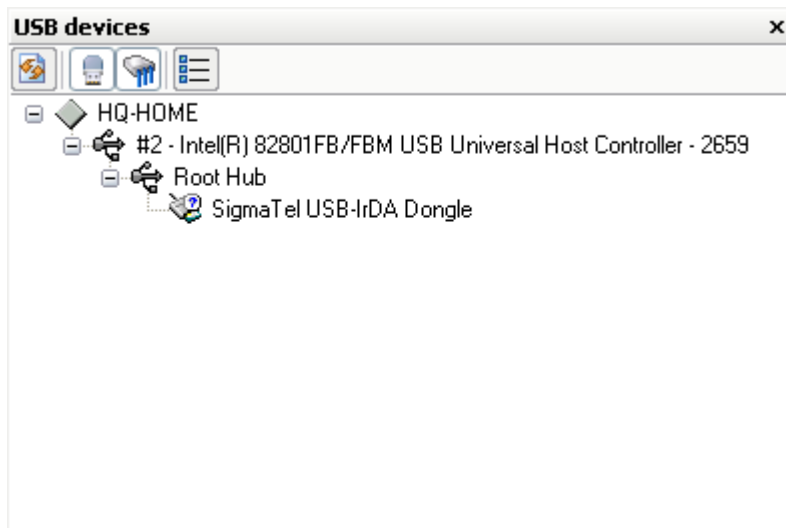
.2 USB

USB

**Hide host controllers without devices -**

USB

(.3).



.3 USB

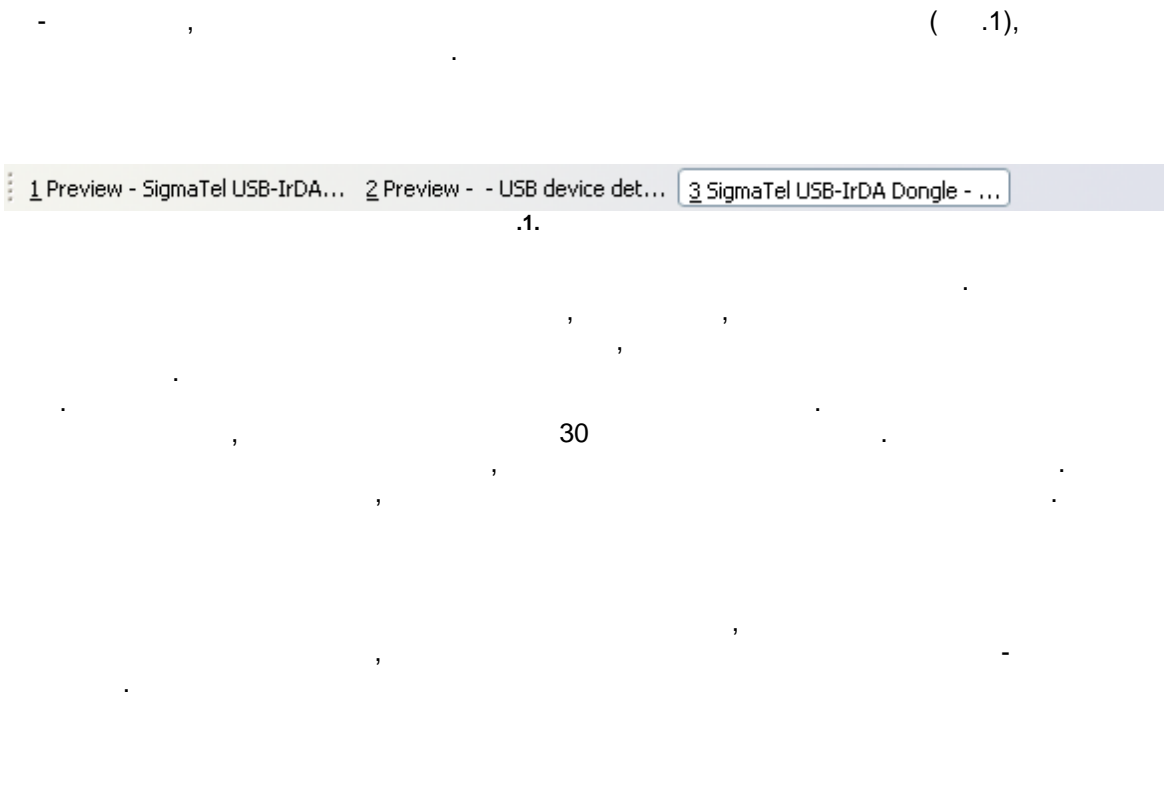
**Show device details -**

25

USB

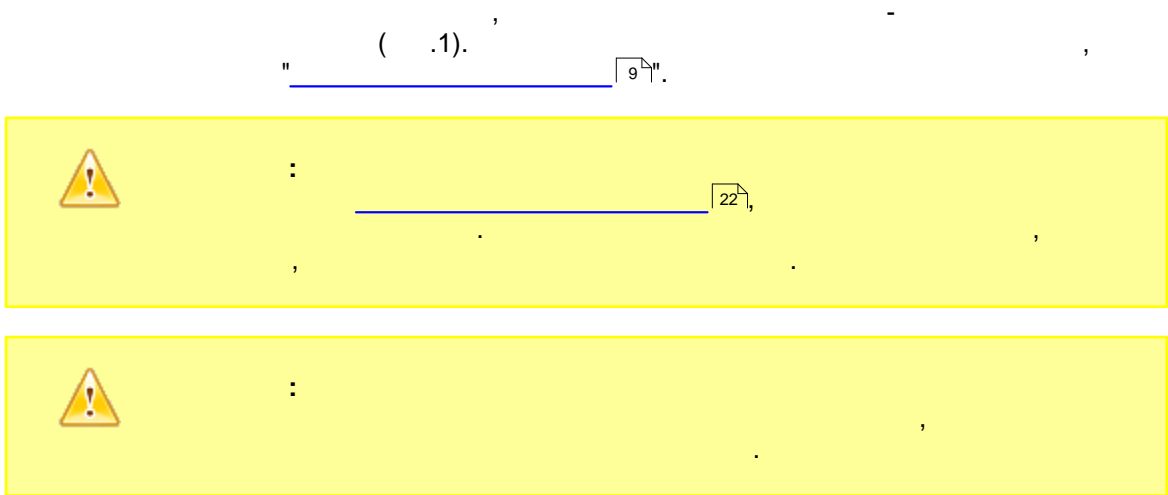
Tools | Show details

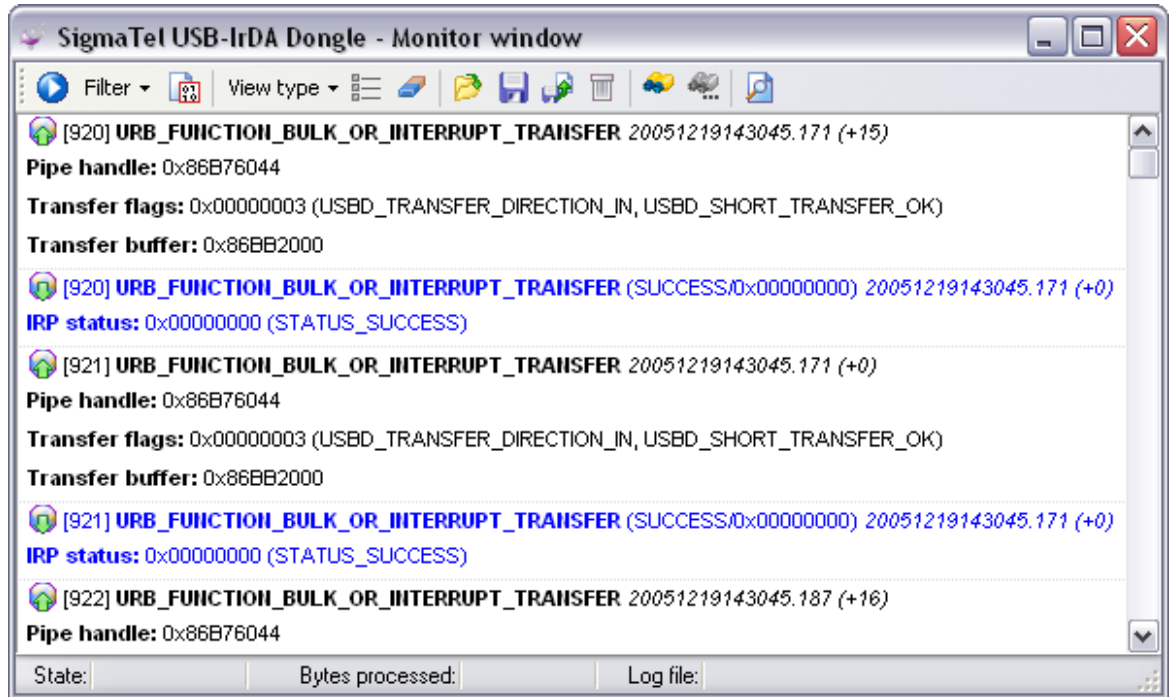
### 4.2.4



View | Toolbars.

### 4.2.5





.1

**Start/Stop -**

waiting monitor window)

**Filter -**

\_\_\_\_\_ 32

**Write data to a binary log file -**

**View type -**

3

• **Short view** -

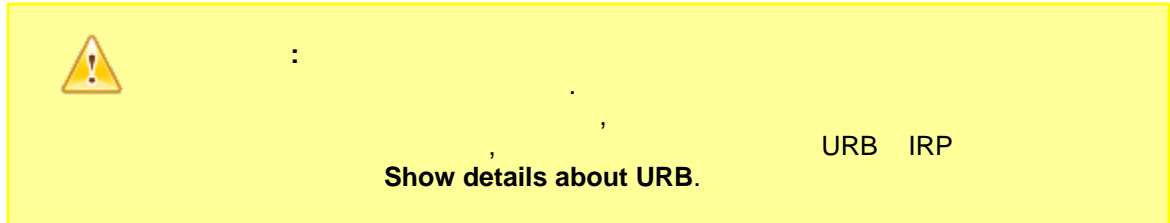
URB IRP. , ( URB IRP, , ;

• **Standard view** -

URB. Short view +

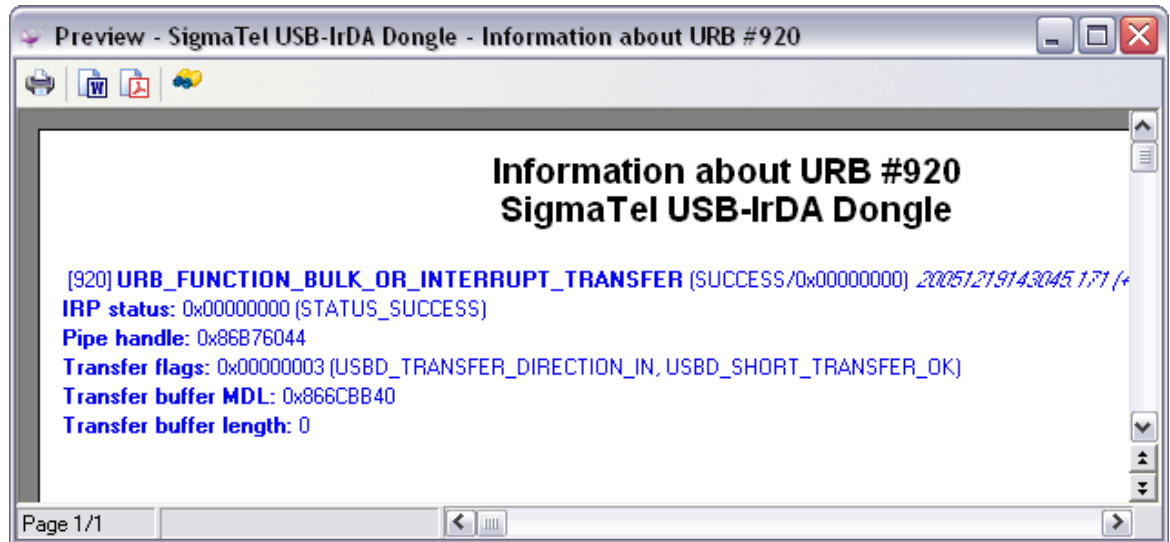
• **Full view** -

URB IRP. Standard view +



**Show details about URB -**

URB, ( .2).



**Clear data on the screen** -

**Open binary log file** -

**Save data to a binary log file** -

**File | Save.**

Copy all data to other binary file -

XML

File

| Save as.

Delete current log file -

Find -

[Edit | Find](#)

Find next -

[Edit | Find next](#)

Print preview -

[Print preview](#)

( , , , pipe handles),

- State - (OK - , Disabled - )
- Bytes processed - ;
- Log file - ( / ).

### 4.2.6

( .1).

[Print preview](#)



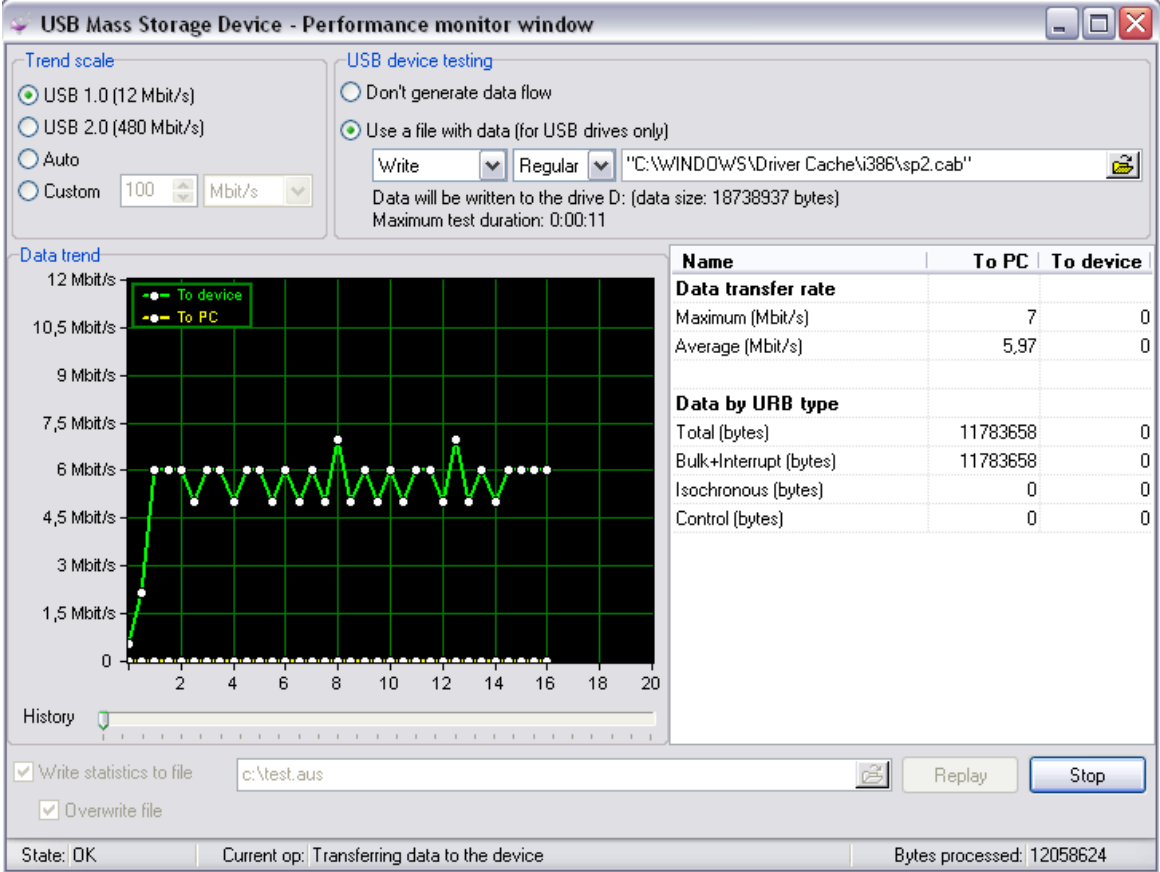
:

[Print preview](#)



:





.1

Trend scale -  
Y

"Auto",

Data trend -  
X

( / ), / . Y

- Shift
- Shift
- Ctrl

USB device testing -

USB

Don't generate data flow -

USB

USB

Use a file with data -

USB

USB

USB

USB

Data direction mode -

- Write - USB ;
- Read - USB ;

Transfer method -

- Regular - Windows, / ( );
- RAW - ;

File name -

USB

USB



USB

Data Transfer Rate

- Maximum - (data transfer rate)
- Average -

Data by URB type -

URB

- **Total** - ( . . . - URB);
- **Bulk+Interrupt** - URB\_FUNCTION\_BULK\_OR\_INTERRUPT\_TRANSFER ( , USB );
- **Isochronous** - URB\_FUNCTION\_ISOCH\_TRANSFER ( USB , USB );
- **Control** - URB\_FUNCTION\_CONTROL\_TRANSFER ( USB ).

"Write statistics to file" "Replay".

"Write statistics to file".

"Overwrite file".

- **State** - Disabled - (OK - );
  - **Current op(eration)** - ( USB );
  - **Bytes processed** - USB "Start".
- ( ).

USB

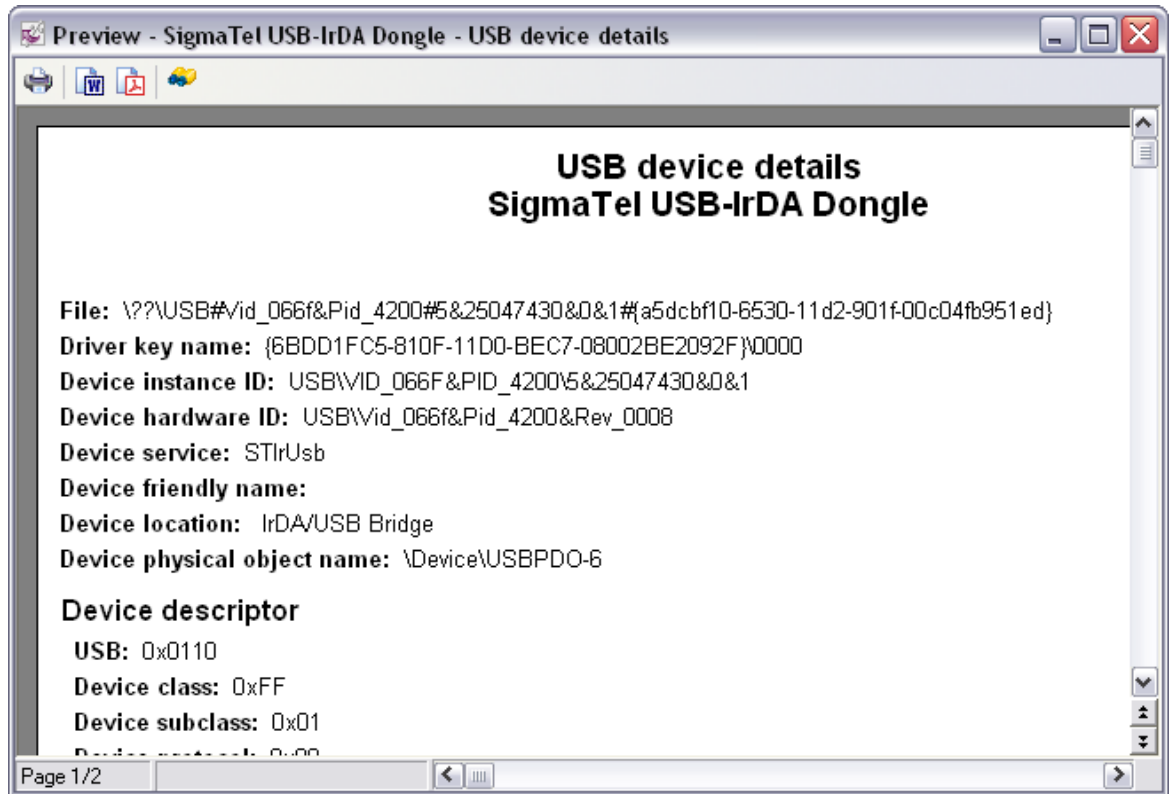
Stop".

### 4.2.7

. . .) ( .1). ( URB "

---

9".



.1

Print -

File | Print.  
File | Print setup.

Save as Microsoft Word document -  
Microsoft Word document.

Tools | Save

as Microsoft Word document.

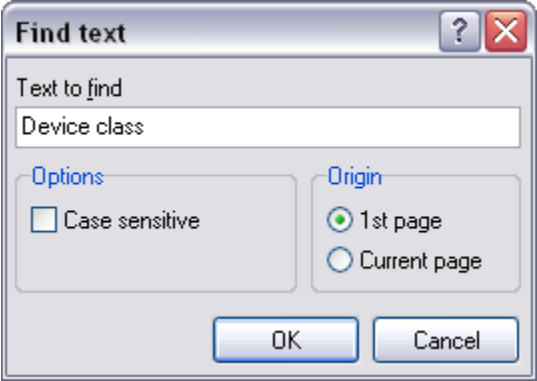
Save as PDF file -

Adobe PDF.

Tools | Save as PDF file

Find -

( .1)



.1

**Text to find** - , ;

**Options** -

- **Case sensitive** -

**Origin** -

- **1st page** - ;
- **Current page** -

OK

200% - 10% -

100%,

**Page width** -

**Whole page** -

**Two pages** - , Whole page,

**4.2.8**

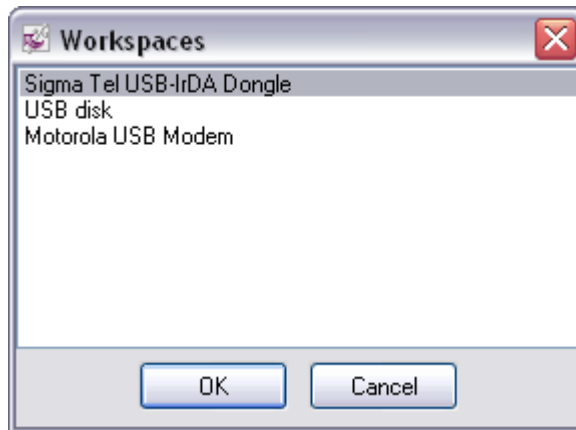
Advanced USB Port Monitor

Workspaces

File | Open workspace.

File | Open workspace -

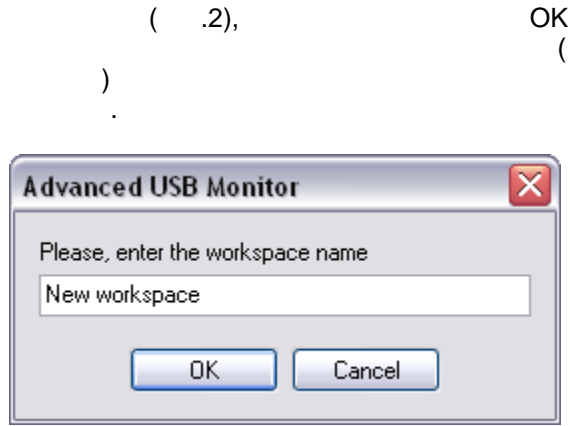
File | Save workspace to file.



OK.

File | Save workspace -

File | Save workspace as -



File | Delete workspaces -

| Open workspace



File | Open workspace in file -

workspace,  
Windows

File | Open

File | Save workspace to file -

File | Open last workspace on startup -



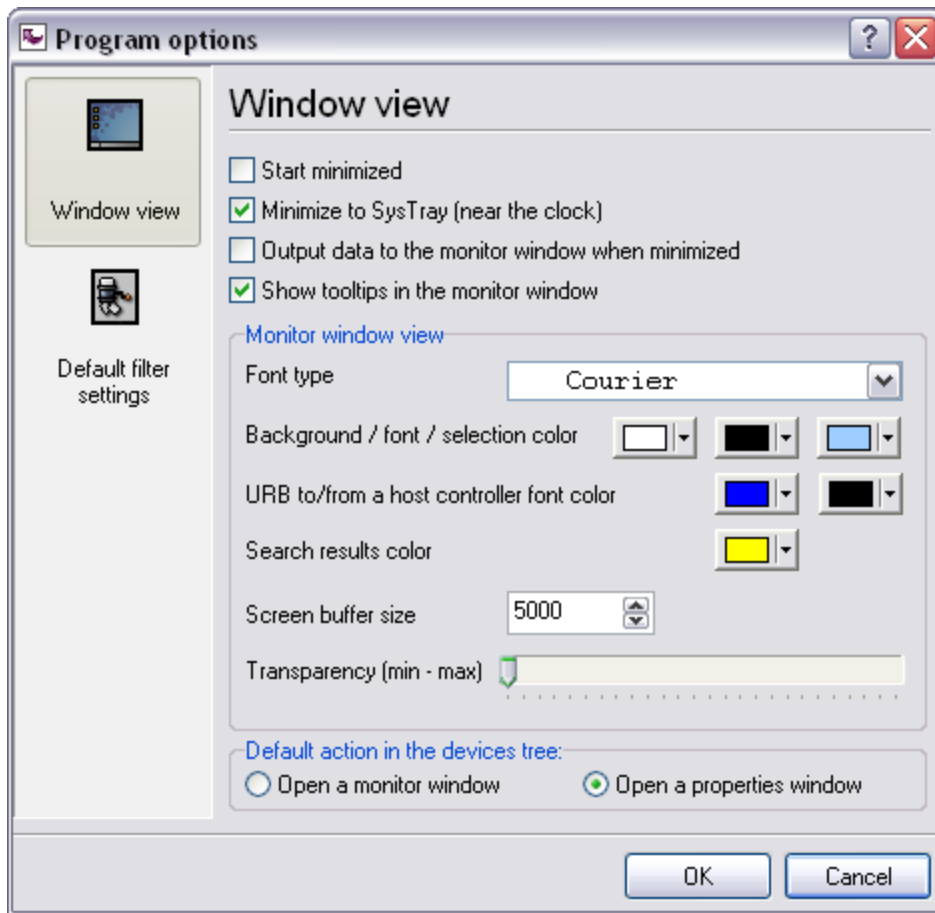
File.

- 
- 
- ( , . .);
  - 1.
  - 2.
  - 3.
- - 1.
  - 2.
  - 3.
  4. " / "
- - 1.
  2. " " "
  3. " "
  - 4.
  - 5.
  6. , .
- - 1.



4.2.9

.1



.1

**Start in minimized state -**

SysTray.

Windows

**Minimize to SysTray -**

Windows. (SysTray)

**Output data to a monitor window in minimized state -**

( ),

**Show tooltips in the monitor window -**

" ( . .1 . [5] 8") / " \_\_\_\_\_ [8]

"Monitor window view" -

Font type -

Background/font/selection color -

( . . .1 " \_\_\_\_\_ [20]).

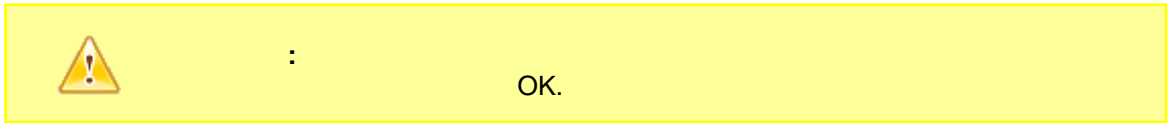
URB to/from a host controller font color -

.1 " \_\_\_\_\_ [20]).

Search results color -

Screen buffer size -

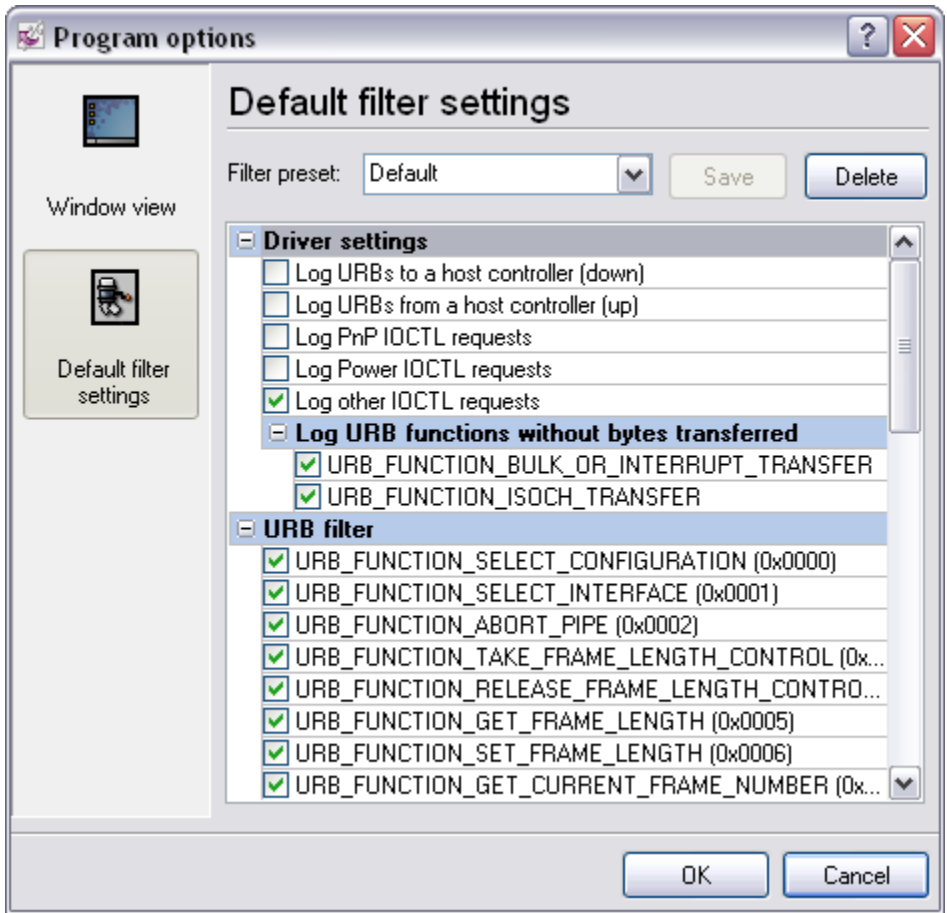
Transparency -



.2

Filter \_\_\_\_\_ [19].

"Filter preset".



.2

1. "Filter preset",
2. ;
3. ;
4. "Filter preset";
5. "Save";

1. "Filter preset" ;
2. ;
3. "Save";
4. "Filter preset",

1. "Filter preset" ;
2. "Delete" ;

3.

"Filter preset",

:

"Driver settings"

Log URBs to a host controller (down) -

Log URBs from a host controller (up) -

Log PnP IOCTL requests -

PnP, major control code = IRP\_MJ\_PNP.

Log Power IOCTL requests -

, major control code = IRP\_MJ\_POWER.

Log other IOCTL requests -

, major control code IRP\_MJ\_CREATE, IRP\_MJ\_CLOSE,  
IRP\_MJ\_CLEANUP . . .

URB

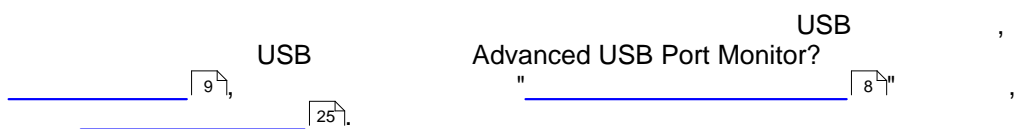
URB,

URB

Microsoft Windows Driver Development Kit.

## 4.3

### 4.3.1



### 4.3.2

?

USB

1.

:

1.

USB

USB

Windows -

2.

Windows (



3.

\_\_\_\_\_ ), <sup>14</sup>

2.

\_\_\_\_\_ <sup>8</sup> , \_\_\_\_\_ <sup>9</sup> , \_\_\_\_\_ <sup>19</sup> "

3.

"Filter"

4.



5.

"Start" 

- 
- 
- 

1.

USB

, USB

\_\_\_\_\_ <sup>38</sup>  
[support@aggsoft.com](mailto:support@aggsoft.com).

4.3.3

USB ? USB

1.

1. Windows -

2.

2.

3.

4.

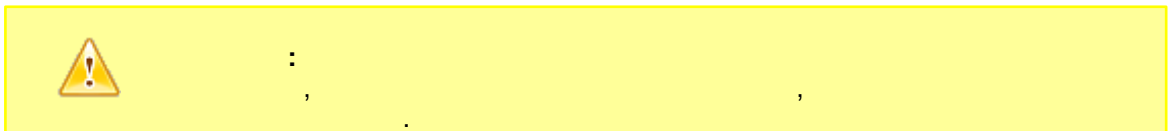
"Filter"

5.

6.

USB Windows USB

USB Advanced USB Port Monitor.



"Start" 


- 
- 
- 

1.

USB

, USB

(

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

### 4.3.4

- ?

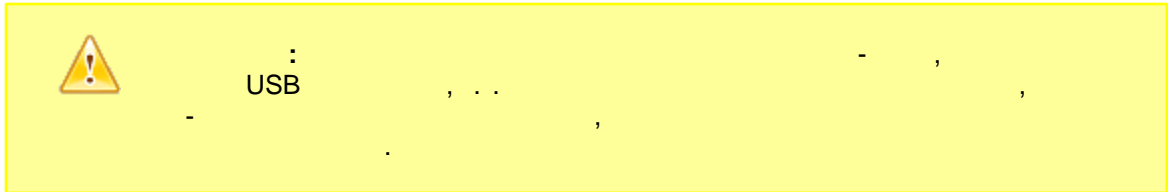
Windows

(

aum)

File | Open.

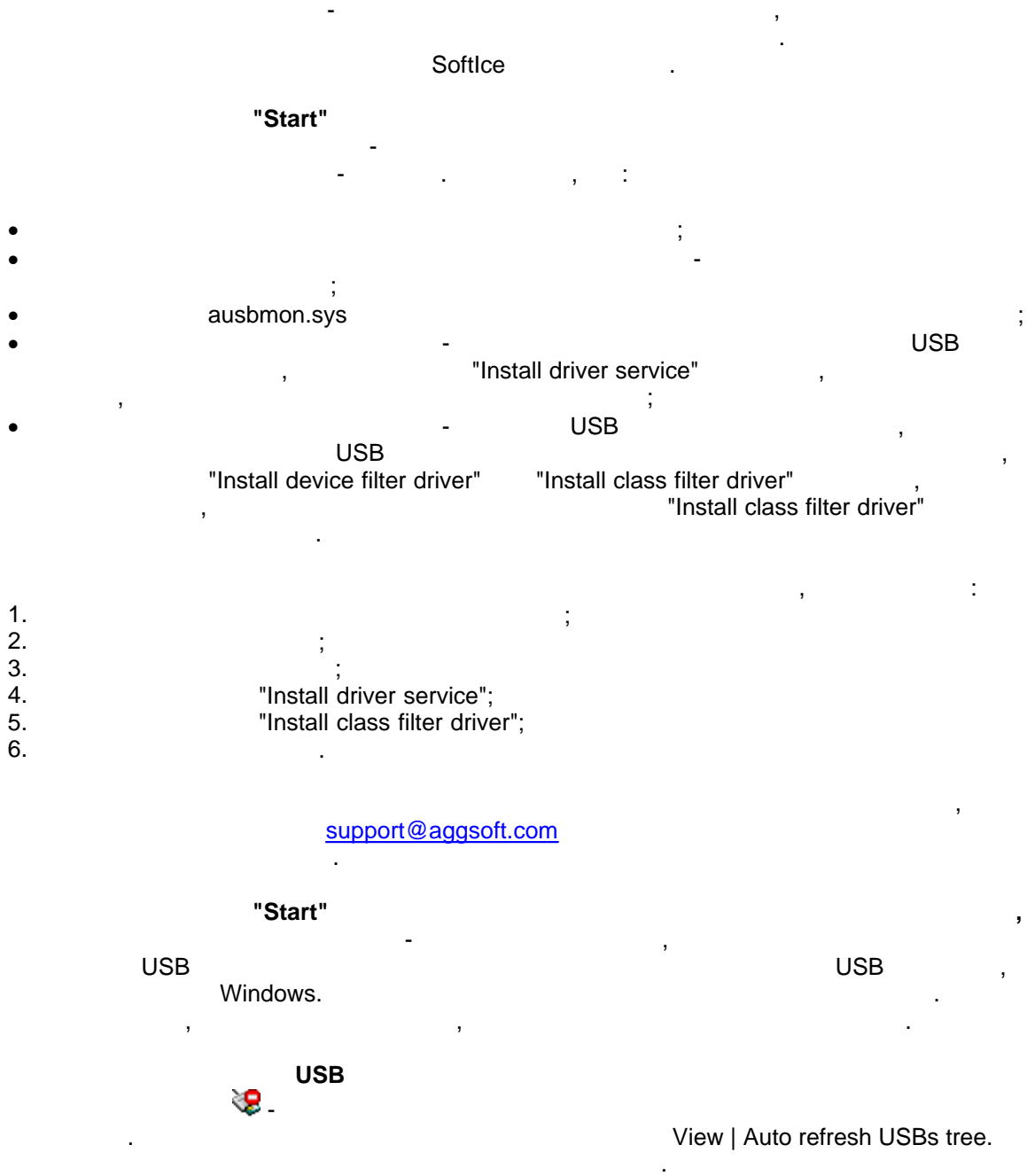
USB



 [" 19"](#)

# 5

## 5.1





## 5.2 FAQ

Q: - ?  
A: WDM filter driver

USB

Q: - ?  
A: HCT 12.10 (Hardware Compatibility Test) Microsoft verifier [\\* \[39\]](#)

Q: - ?  
A: .

Q: - ?  
A: .

Q: - , ?  
A: patch ( Microsoft , , ) , USB

 : 100%