**DigitalRing**

# Руководство пользователя

# DigitalRing Multivisor

## *Система многоканального многооконного видеомониторинга*

**1**

"DigitalRing Multivisor" , ,

IP- "DigitalRing".

**: 3.0.0**
**© 2009 DigitalRing.**

. **DigitalRing**

. "DigitalRing Multivisor"
**DigitalRing** .
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**Windows 95, Windows 98, Windows 2000, Windows XP, Windows VISTA, Windows Server 2003, Windows Server 2008, Windows 7,**
**Microsoft** ( ).

**Intel, Celeron, Pentium, Xeon, Core Duo, Core Quad**
Intel.

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**Microsoft Windows 2000 / XP / Vista**
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, "DigitalRing Multivisor" ( ,
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"DigitalRing Multivisor" ,
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**DigitalRing** "DigitalRing Multivisor"
. "DigitalRing
Multivisor", , .

-     DigitalRing: http://www.d-ring.ru/
-     DigitalRing Multivisor: http://www.d-ring.ru/products/video/multivisor
: support@d-ring.ru

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"**DigitalRing Multivisor**"
**MS Windows**      .

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**DigitalRing Multivisor**,
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## 4.1 DigitalRing Multivisor

**DigitalRing Multivisor**

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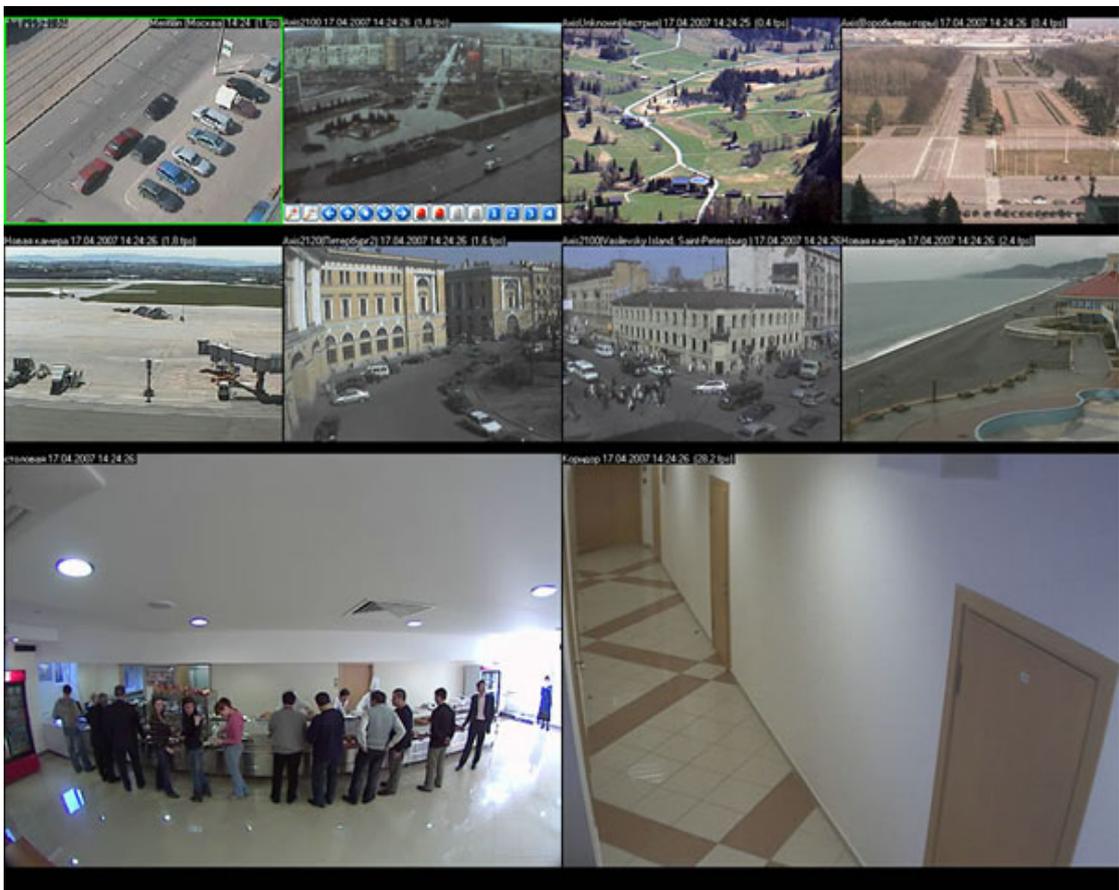(            )        .
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DigitalRing Multivisor

**DigitalRing Multivisor**
IP-                                        "**DigitalRing**".

"**DigitalRing**"
IP-
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"**DigitalRing**" :

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"**DigitalRing**" ,
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**DigitalRing**", , :
http://www.d-ring.ru/

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## 4.2

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## 4.3

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**DigitalRing**",

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**IP-**

IP- ,

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IP- ' WEB ,
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"**DigitalRing Multivisor**"
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IP- .

**IP**

IP-
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WEB- .

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**DigitalRing Multivisor**".

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**MotionJPEG**

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JPEG, - .

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**FPS**

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## 4.4

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IP- IP- ,
**MotionJPEG JPEG**. MPEG2/
MPEG4/H264 .

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AVI
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HTTP .
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## 4.5

IP- , ( , ).

Windows 2000, Windows XP, Windows 2003, Windows Vista, Windows 7.

"**DigitalRing Multivisor**"
IP- , **HTTP** **JPEG** **MotionJPEG**.
MPEG2, MPEG4, H264,
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## 4.6

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- USB .

# 5 DigitalRing Multivisor

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## 5.1

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### 5.1.1

"**DigitalRing Multivisor**" 32-
Windows 2000 ( Service Pack 3),
Windows XP (Service Pack 2), Windows 2003 Server, Windows Vista, Windows 2008

Server, Windows 7.

64-                                                                  Windows.

## 5.1.2

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| | (FPS) | 1 | 2 | 4 | 6 | 8 | 12 | 16 | 20 | 24 | 32 | 48 | 64 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **A** (1 / ) | 320x240 | | | | | | | | | | P4 | P4 | P4 |
| | 352 288 | | | | | | | | | P4 | P4 | P4 | P4 |
| | 640x480 | | | | | | | | P4 | P4 | P4 | P4 | P4 |
| | 704 576 | | | | | | | P4 | P4 | P4 | P4 | P4 | PD-X |
| **B** (2 / ) | 320x240 | | | | | | | | | | P4 | P4 | P4 |
| | 352 288 | | | | | | | | | P4 | P4 | P4 | PD-X |
| | 640x480 | | | | | | | | P4 | P4 | P4 | PD-X | PD-X |
| | 704 576 | | | | | | | P4 | P4 | P4 | PD-X | PD-X | PD-X |
| **C** (3 / ) | 320x240 | | | | | | | | | | P4 | P4 | PD-X |
| | 352 288 | | | | | | | | P4 | P4 | P4 | PD-X | PD-X |
| | 640x480 | | | | | | | P4 | P4 | P4 | PD-X | PD-X | PD-X |
| | 704 576 | | | | | | P4 | P4 | P4 | PD-X | PD-X | PD-X | 2X2 |
| **D** (4 / ) | 320x240 | | | | | | | | P4 | P4 | P4 | PD-X | PD-X |
| | 352 288 | | | | | | | | P4 | P4 | P4 | PD-X | PD-X |
| | 640x480 | | | | | | P4 | P4 | P4 | PD-X | PD-X | PD-X | 2X2 |
| | 704 576 | | | | | P4 | P4 | P4 | PD-X | PD-X | PD-X | 2X2 | 2X2 |
| **E** (5 / ) | 320x240 | | | | | | | P4 | P4 | P4 | PD-X | PD-X | NA |
| | 352 288 | | | | | | P4 | P4 | P4 | PD-X | PD-X | PD-X | NA |
| | 640x480 | | | | | P4 | P4 | P4 | PD-X | PD-X | PD-X | 2X2 | NA |
| | 704 576 | | | | P4 | P4 | P4 | PD-X | PD-X | PD-X | 2X2 | 2X2 | NA |
| **F** (7 / ) | 320x240 | | | | | | | P4 | P4 | PD-X | PD-X | PD-X | NA |
| | 352 28 | | | | | | P4 | P4 | PD-X | PD-X | PD-X | NA | NA |

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| | **8** | | | | | | | | | | | | |
| | **640x480** | | | | P4 | P4 | PD-X | PD-X | 2X2 | 2X2 | NA | NA | |
| | **704 576** | | | | P4 | P4 | PD-X | PD-X | 2X2 | 2X2 | 2X2 | NA | NA |
| | **320x240** | | | | | P4 | P4 | PD-X | 2X2 | NA | NA | NA | NA |
| | **352 288** | | | | | P4 | P4 | PD-X | PD-X | 2X2 | NA | NA | NA |
| **G (15 / )** | **640x480** | | | P4 | P4 | PD-X | PD-X | 2X2 | NA | NA | NA | NA | NA |
| | **704 576** | | | P4 | PD-X | PD-X | 2X2 | 2X2 | NA | NA | NA | NA | NA |
| | **320x240** | | | | P4 | PD-X | PD-X | 2X2 | NA | NA | NA | NA | NA |
| **H (25 / )** | **352 288** | | | P4 | P4 | PD-X | PD-X | 2X2 | NA | NA | NA | NA | NA |
| | **640x480** | | | P4 | PD-X | PD-X | 2X2 | 2X2 | NA | NA | NA | NA | NA |
| | **704 576** | | PD-X | PD-X | 2X2 | 2X2 | NA | NA | NA | NA | NA | NA | NA |

| | | |
|---|---|---|
| | Celeron D 2,5 . | Intel® Celeron® D 326 2.53 GHz Socket 775; |
| **P4** | P4 3 . | Intel® Pentium® 4 641 Socket 775, 3.2GHz; AMD Athlon 64 4000+ Socket 939, 2.4GHz; |
| **PD-X** | 2-х | Intel® Pentium® D 945 3.4GHz Socket 775 ; Intel Xeon 5060A 3.2GHz; Intel® Core 2 Duo E6600 2.4GHz; AMD Athlon 64 X2 5600+ AM2; |
| **2X2** | 4-х 2 2- | 2 * Xeon 5060P 3.2GHz, 1066MHz, 2x2048K; Intel® Core 2 Quad Q6600 2.4GHz; Xeon 5335A 2.0Hz, 1333MHz, 4x2048K; |
| **NA** | 1 | — |

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Pentium 4 .

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Windows 2000 / XP

128 . 512

"**DigitalRing Multivisor**", - , .

## 5.1.3

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**1.**

SATA, SATAII,
SAS (      SCSI-      ).                                          (     )
IDE          .

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RAID              ,                                  .

SCSI                                                                      (
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**,      SATA   IDE**

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MJPEG                 640x480         ):

| | FPS | |
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| | 20 | 1 |
| | 5 | 2 |
| **< 10** | 10 | 2 |
| | 20 | 2 |
| | 5 | 2 |
| **< 15** | 10 | 3 |
| | 20 | 3 |

| | 5 | 3 |
|---|---|---|
| **< 20** | 10 | 4 |
| | 20 | 4 |
| | 5 | 3 |
| **< 25** | 10 | 4 |
| | 20 | 4 |

( ) RAID

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- 320x240 - 15360 (15 );

- 352x288 - 20480 (20 );

- 640x480 - 46080 (45 );

- 704x576 - 61440 (60 );

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5 20 , . . 4(!) .
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| FPS | | 1 | 2 | 3 | 4 | 5 | 7 | 14 | 21 | 30 |
|---|---|---|---|---|---|---|---|---|---|---|
| 1 / | 320x240 | 1,25 | 2,47 | 3,71 | 4,94 | 6,18 | 8,65 | 17,3 | 25,96 | 37,08 |
| | 352 288 | 1,65 | 3,3 | 4,94 | 6,59 | 8,24 | 11,54 | 23,07 | 34,61 | 49,44 |
| | 640x480 | 3,71 | 7,42 | 11,12 | 14,83 | 18,54 | 25,96 | 51,91 | 77,87 | 111,24 |
| | 704 576 | 4,94 | 9,89 | 14,83 | 19,78 | 24,72 | 34,61 | 69,21 | 103,82 | 148,32 |
| 2 / | 320x240 | 2,5 | 4,94 | 7,42 | 9,88 | 12,36 | 17,3 | 34,6 | 51,92 | 74,16 |
| | 352 288 | 3,3 | 6,6 | 9,88 | 13,18 | 16,48 | 23,08 | 46,14 | 69,22 | 98,88 |
| | 640x480 | 7,42 | 14,84 | 22,24 | 29,66 | 37,08 | 51,92 | 103,82 | 155,74 | 222,48 |
| | 704 576 | 9,88 | 19,78 | 29,66 | 39,56 | 49,44 | 69,22 | 138,42 | 207,64 | 296,64 |
| 3 / | 320x240 | 3,75 | 7,41 | 11,13 | 14,82 | 18,54 | 25,95 | 51,9 | 77,88 | 111,24 |
| | 352 288 | 4,95 | 9,9 | 14,82 | 19,77 | 24,72 | 34,62 | 69,21 | 103,83 | 148,32 |
| | 640x480 | 11,13 | 22,26 | 33,36 | 44,49 | 55,62 | 77,88 | 155,73 | 233,61 | 333,72 |
| | 704 576 | 14,82 | 29,67 | 44,49 | 59,34 | 74,16 | 103,83 | 207,63 | 311,46 | 444,96 |
| 4 / | 320x240 | 5 | 9,88 | 14,84 | 19,76 | 24,72 | 34,6 | 69,2 | 103,84 | 148,32 |
| | 352 288 | 6,6 | 13,2 | 19,76 | 26,36 | 32,96 | 46,16 | 92,28 | 138,44 | 197,76 |
| | 640x480 | 14,84 | 29,68 | 44,48 | 59,32 | 74,16 | 103,84 | 207,64 | 311,48 | 444,96 |
| | 704 576 | 19,76 | 39,56 | 59,32 | 79,12 | 98,88 | 138,44 | 276,84 | 415,28 | 593,28 |
| 5 / | 320x240 | 6,25 | 12,35 | 18,55 | 24,7 | 30,9 | 43,25 | 86,5 | 129,8 | 185,4 |
| | 352 288 | 8,25 | 16,5 | 24,7 | 32,95 | 41,2 | 57,7 | 115,35 | 173,05 | 247,2 |

| | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | 640x480 | 18,55 | 37,1 | 55,6 | 74,15 | 92,7 | 129,8 | 259,55 | 389,35 | 556,2 |
| | 704 576 | 24,7 | 49,45 | 74,15 | 98,9 | 123,6 | 173,05 | 346,05 | 519,1 | 741,6 |
| 7 / | 320x240 | 8,75 | 17,29 | 25,97 | 34,58 | 43,26 | 60,55 | 121,1 | 181,72 | 259,56 |
| | 352 288 | 11,55 | 23,1 | 34,58 | 46,13 | 57,68 | 80,78 | 161,49 | 242,27 | 346,08 |
| | 640x480 | 25,97 | 51,94 | 77,84 | 103,81 | 129,78 | 181,72 | 363,37 | 545,09 | 778,68 |
| | 704 576 | 34,58 | 69,23 | 103,81 | 138,46 | 173,04 | 242,27 | 484,47 | 726,74 | 1038,24 |
| 15 / | 320x240 | 18,75 | 37,05 | 55,65 | 74,1 | 92,7 | 129,75 | 259,5 | 389,4 | 556,2 |
| | 352 288 | 24,75 | 49,5 | 74,1 | 98,85 | 123,6 | 173,1 | 346,05 | 519,15 | 741,6 |
| | 640x480 | 55,65 | 111,3 | 166,8 | 222,45 | 278,1 | 389,4 | 778,65 | 1168,05 | 1668,6 |
| | 704 576 | 74,1 | 148,35 | 222,45 | 296,7 | 370,8 | 519,15 | 1038,15 | 1557,3 | 2224,8 |
| 25 / | 320x240 | 31,25 | 61,75 | 92,75 | 123,5 | 154,5 | 216,25 | 432,5 | 649 | 927 |
| | 352 288 | 41,25 | 82,5 | 123,5 | 164,75 | 206 | 288,5 | 576,75 | 865,25 | 1236 |
| | 640x480 | 92,75 | 185,5 | 278 | 370,75 | 463,5 | 649 | 1297,75 | 1946,75 | 2781 |
| | 704 576 | 123,5 | 247,25 | 370,75 | 494,5 | 618 | 865,25 | 1730,25 | 2595,5 | 3708 |

## 5.1.4

- NVidia GeForce 4 MX 440.

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640x480        ,
640x480       .                                                          1280x1024
4-              .
320x240       ,
16       .
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|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 320x240 | | A | A | A | A | A | A | A | 2xA | 2xA 1xD | 2xA | 3xA 2xD | 4xA |
| 352 288 | | A | A | A | A | A | 2xA | 2xA | 1xF | 1xG | 4xA | 2xG | 3xG |
| 640x480 | | A | A | A | 2xA 1xG | 2xA 1xG | 4xA | 4xA | 3xG | 3xG | 4xG | NA | NA |
| 704 576 | | A | D | D | 2xD | 2xD | 3xD | 4xD | NA | NA | NA | NA | NA |

| | | | | |
|---|---|---|---|---|
| A | 17 | LCD | 1280*1024 | Samsung 710N |

| B | 19 | LCD | 1400*900 | Samsung 940BW CSH |
| C | 20 | LCD | 1400*1050 | Samsung 203B ESQ |
| D | 20 | LCD | 1600*1200 | ViewSonic VP2030b |
| E | 21 | LCD | 1680x1050 | Samsung 215TW (PWASQ) |
| F | 24 | LCD | 1920*1200 | ACER AL2423W |
| G | 19 | CRT | 1920 x 1440 | Samsung SyncMaster 997MB |

1X … 2X – 1                PCI-E c                          ,                        ASUSTeK
EN7300GS

4X – 2                PCI-E c                          ,                ASUSTeK
EN7300GS +                                          2            ,              , ASUSTeK
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## 5.1.5

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Multivisor**"                              IP-
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                        IP-        ,
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    •                        320x240            - 15360        (15          );

- 352x288        - 20480        (20        );

- 640x480        - 46080        (45        );

- 704x576        - 61440        (60        );

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16                    704x576                    7 FPS            :

61440 * 7 * 16 = 6881280                    6881280 * 8 = 55050240                    , . .
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704x576
        7 FPS                    100
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70            (    70 * 1024 * 1024 / 8 = 9175040            ) -
        100        .        :

9175040 / (61440 * 7) = 9175040 / 430080 =            21, . . 21        .

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| 320x240 | 15360 | 5697 | 570 |
| 352x288 | 20480 | 4272 | 427 |
| 640x480 | 46080 | 1899 | 190 |
| 704x576 | 61440 | 1424 | 142 |

## 5.1.6

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   •                   nVidia                                              .

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                                 Firewall.
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       -          –          HTTP          ).

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## 5.1.7

         "**DigitalRing Multivisor**"                                  IP-          ,
                     HTTP              JPEG    MotionJPEG.
MPEG2/MPEG4/h264,
                     (              ,                                             ).

                                                 "**DigitalRing Multivisor**"
              IP-     .
       ,                                                        .
                              : http://www.d-ring.ru/support/hardware_list

### Axis Communications

Axis 200+, Axis 205, Axis 206, Axis 206M, Axis 206W, Axis 207, Axis 207W, AXIS 209FD-R,
Axis 210, Axis 2100, Axis 210A, Axis 211, Axis 2110, Axis 211A, Axis 212, Axis 2120, Axis
213 PTZ, Axis 2130 PTZ, Axis 214 PTZ, Axis 215 PTZ, Axis 216 FD, Axis 221, AXIS 223M,
Axis 225 FD, Axis 231D PTZ, Axis 232D PTZ, Axis 233D, Axis 2400 Server, Axis 2400+
Server PTZ, Axis 2401 Server, Axis 2411 Server, Axis 241Q or QA Server PTZ, Axis 241S or
SA Server PTZ, Axis 2420 PTZ, Axis 247S, Axis 207MW, Axis M1011, Axis M1011-W, Axis
M1031-W, Axis P1311, Axis 211M, Axis 211W, Axis Q1755, Axis 209FD, Axis 209MFD, Axis
209MFD-R, Axis 216FD-V, Axis 216MFD, Axis 216 MFD-V, Axis P3301, Axis P3301-V, Axis

M3011, Axis 212 PTZ-V, Axis 215 PTZ-E, Axis 231D+, Axis232D+, Axis 243SA, Axis Q7401, Axis M7001, Axis 240Q, Axis 243Q Blade, Axis Q7406 Blade.

### Airlink101

Airlink101 AIC250, Airlink101 AIC250W, Airlink101 AICAP650, Airlink101 AICAP650W, Airlink101 AICN500, Airlink101 AICN500W, Airlink101 AICN777W, Airlink101 AICN747W, Airlink101 AICN747.

### Avermedia

AVerMedia NC100 IP Camera

### 4XEM Corporation

4XEM IPCAMW40, 4XEM IPCAMW45, 4XEM IPCAMW50, 4XEM IPCAMWLPTG, 4XEM IPCAMWLPTZ, 4XEM IPCAMWPT, 4XEM IPCAMWPTZ

### Arecont Vision

Arecont 1300, Arecont 2100, Arecont 3100, Arecont 3130, Arecont 5100, Arecont 8180, Arecont 8360

### AVIOSYS International

Aviosys IP Kamera 9060, Aviosys IP Kamera

### Bosch Group

Bosch NWC-0455-10P, Bosch NWC-0495-10P, Bosch NWC-0700, Bosch NWC-0800, Bosch NWC-0900, Bosch NWD-455, Bosch NWD-495

### Canon Inc.

Canon Network Camera

### D-Link Corporation

D-Link DCS-2000, D-Link DCS-2100, D-Link DCS-2100+, D-Link DCS-2100G, D-Link DCS-3000 series, D-Link DCS-5300, D-Link DCS-5300G, D-Link DCS-5300W, D-Link DCS-6000 series, D-Link DCS-6112, D-Link DCS-6620, DLink DCS-900, DLink DVS-104

### Intellinet

CCD Camera (550796,503181), CCD Camera (550796,503181), CCD IR Night Visio Camera (550291,550314), CCD IR Night Visio Camera (550291,550314), CMOS 1_3 Megapixel Camera Digital PTZ (550338), CMOS 1_3 Megapixel Camera Digital PTZ (550338), CMOS 2_0 Megapixel Camera Digital PTZ (550468), CMOS 2_0 Megapixel Camera Digital PTZ (550468), CMOS Camera (503365), High Speed Dome 30x (550260,550277), Mini Speed Dome 10x (550437,550451), Vandal Proof Fixed Dome (550406,550420), Vandal Proof Fixed Dome (550406,550420), Vandal Proof Fixed Dome IR Day-Night (550413,550444), Vandal Proof Fixed Dome IR Day-Night (550413,550444), Wireless CCD Camera (550178,550253), Wireless CCD Camera (550178,550253), Wireless CCD IR Night Visio Camera (550307,550321), Wireless CCD IR Night Visio Camera (550307,550321), Wireless CMOS 1_3 Megapixel Camera Digital PTZ (550345), Wireless CMOS 1_3 Megapixel Camera Digital PTZ (550345), Wireless CMOS 2_0 Megapixel Camera Digital PTZ (550482), Wireless CMOS 2_0 Megapixel Camera Digital PTZ (550482)

**IQinVision**

IQeye300 Series IP Camera, IQeye501 Series IP Camera, IQeye600 Series IP Camera

**JVC Corporation**

JVC Network Camera

**Merit Lilin Ent. Co., Ltd.**

Meritlilin PIH 7625 IP, Meritlilin PIH-7000, Meritlilin PIH-7622, Meritlilin PIH-7625

**LevelOne**

LevelOne FCS-1010

**Linksys**

Linksys pvc2300, Linksys wvc200, Linksys wvc2300, Linksys wvc54g

**Lumenera Corporation**

Lumenera Le045, Lumenera Le075, Lumenera Le075C-DN, Lumenera Le11059, Lumenera Le165, Lumenera Le165C-DN, Lumenera Le175, Lumenera Le175C-DN, Lumenera Le259, Lumenera Le275, Lumenera Le275C-DN, Lumenera Le375, Lumenera Le375C-DN, Lumenera Le575, Lumenera Le575C-DN

**MOBOTIX AG**

D12Di-IT, D12Di-Sec, D22M-IT-Night, D22M-IT, D22M-Sec-Night, D22M-Sec, D22Mi-Basic, M1, M10, M12D-IT-DNight, M12D-Sec-DNight, M12D-Sec, M22, M22M-IT, M22M-Sec-CSVario, M22M-Sec-Night-CSVario, M22M-Sec-Night, M22M-Sec, V10, V12D-Sec, V12M-Sec

**Panasonic**

BB-HCE481, BB-HCM110, BB-HCM311, BB-HCM331, BB-HCM371, BB-HCM381, BB-HCM403, BB-HCM481, BB-HCM511, BB-HCM515, BB-HCM531, BL-C1, BL-C10, BL-C11, BL-C111, BL-C131, BL-C20, BL-C30, KX-HCM1, KX-HCM10, KX-HCM130, KX-HCM170, KX-HCM180, KX-HCM2, KX-HCM230, KX-HCM250, KX-HCM270, KX-HCM280, KX-HCM8, WV-NF284, WV-NM100, WV-NP1004, WV-NP472, WV-NS202, WV-NS324, WV-NW474S

**PiXORD Corporation**

Pixord 100, Pixord 120, Pixord 200, Pixord 205, Pixord 240, Pixord 241, Pixord Video Server 1000, Pixord Video Server 2000, Pixord Video Server 4000

**PLANET Technology Corporation**

Planet ICA-210, Planet IVS-100, Planet ICA-100, Planet ICA-100PE, Planet ICA-108, Planet ICA-100W, Planet ICA-110, Planet ICA-110W, Planet ICA-150, Planet ICA-300, Planet ICA-310, Planet ICA-312, Planet ICA-350, Planet ICA-500, Planet ICA-501, Planet ICA-525, Planet ICA-530, Planet ICA-600, Planet ICA-601, Planet ICA-651, Planet ICA-700, Planet ICA-M230, Planet IVS-110, Planet ICA-750, Planet ICA-120, Planet ICA-230.

**Sony Corporation**

Sony SNC-CS10, Sony SNC-CS11, Sony SNC-CS3N, Sony SNC-CS3P, Sony SNC-CS50N, Sony SNC-CS50P, Sony SNC-DF40N, Sony SNC-DF40P,  Sony SNC-DF70N, Sony SNC-DF70P, Sony SNC-M1, Sony SNC-M1W, Sony SNC-M3, Sony SNC-M3W, Sony SNC-P1, Sony SNC-P5, Sony SNC-RX550N, Sony SNC-RX550P, Sony SNC-RZ25N, Sony SNC-RZ25P, Sony SNC-RZ30N, Sony SNC-RZ30P, Sony SNC-RZ50N, Sony SNC-RZ50P, Sony SNC-Z20N, Sony SNC-Z20P

**Toshiba Inc.**

Toshiba IK-WB02A, Toshiba IK-WR01A

**TRENDnet**

TRENDnet TV-IP100, TRENDnet TV-IP100W, TRENDnet TV-IP201, TRENDnet TV-IP201P, TRENDnet TV-IP201W, TRENDnet TV-IP300, TRENDnet TV-IP301, TRENDnet TV-IP301W, TRENDnet TV-IP400, TRENDnet TV-IP400W, TRENDnet TV-IP410.

**VIVOTEK Inc**

Vivotek FD6111V, Vivotek FD6112V, Vivotek FD6121V, Vivotek FD6122V, Vivotek FD7131, Vivotek IP2111, Vivotek IP2112, Vivotek IP2121, Vivotek IP2122, Vivotek IP3111, Vivotek IP3112, Vivotek IP3121, Vivotek IP3122, Vivotek IP3132, Vivotek IP3133, Vivotek IP3135, Vivotek IP3136, Vivotek IP6112, Vivotek IP6117, Vivotek IP6122, Vivotek IP6127, Vivotek IP7131, Vivotek IP7132, Vivotek IP7135, Vivotek IP7137, Vivotek IP7138, Vivotek IP7139, Vivotek IP7151, Vivotek IP7152, Vivotek PT3112(22), Vivotek PT3114(24), Vivotek PZ6112(22), Vivotek PZ6114(24), Vivotek SD6112V, Vivotek SD6122V, Vivotek VS2101, Vivotek VS2402, Vivotek VS2403, Vivotek VS3100, Vivotek VS3102, Vivotek VS7100

## 5.2

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### 5.2.1

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#### 5.2.1.1

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##### 5.2.1.1.1

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"           "
.                              ,
-          ,
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, RJ-45:



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PCI- , RJ-
45:



- ,
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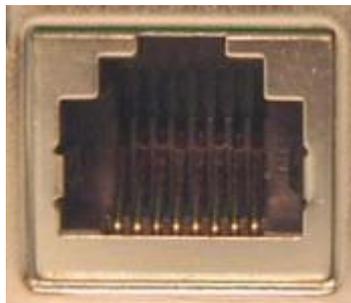
» 1. , ,
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» 2. PCI-

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» 3. ,
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» 4. .

» 5. .

» 6.
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(                                                                ).

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(
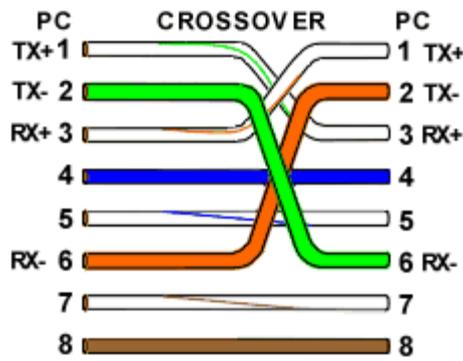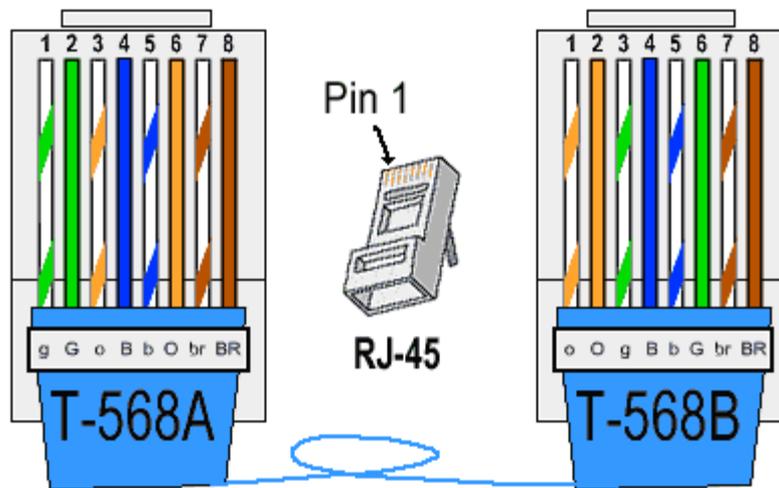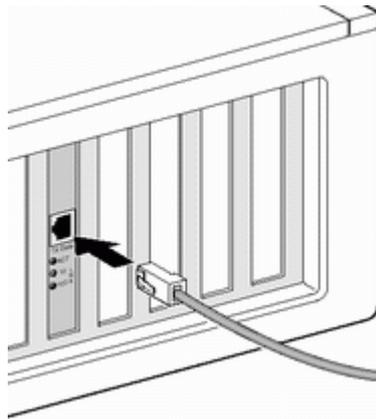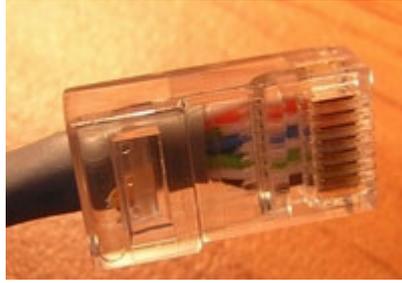-    )                                    RJ-45                    :



UTP cable

,                                                          :                              ,
UTP                      ,                                              RJ-45.                              ,
- T 568A   T 568B.
,
:



,
(                                                    T 568B)

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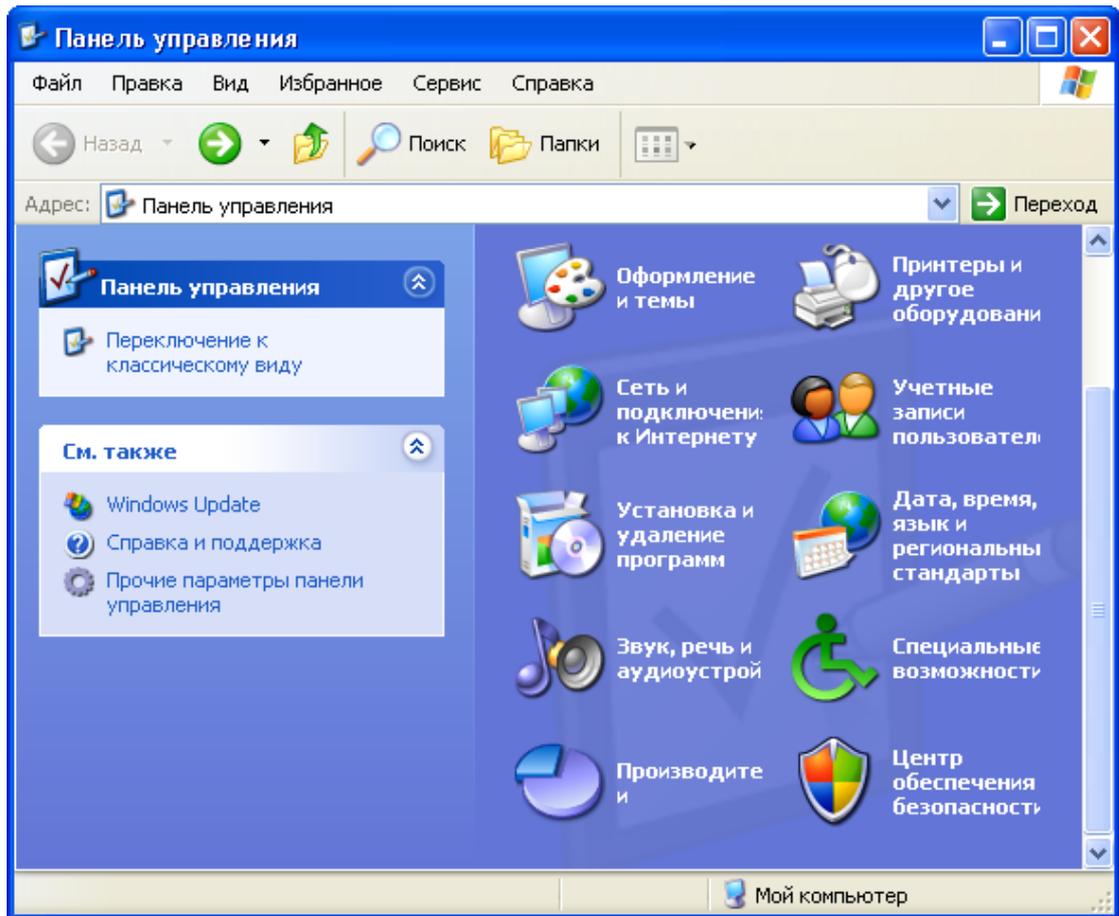( ) .

5.2.1.1.2

, , IP- .

≫ **1.** Windows.
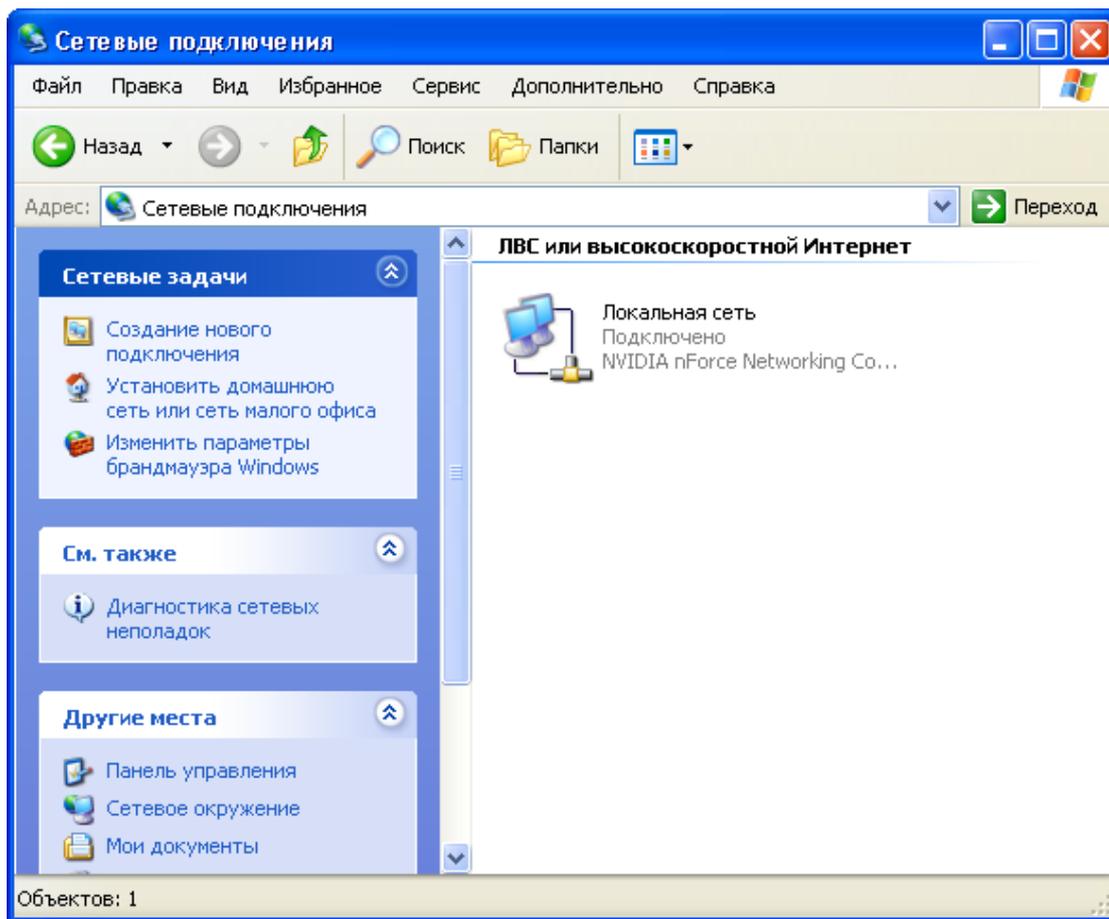" " > " " > " ".
Windows:
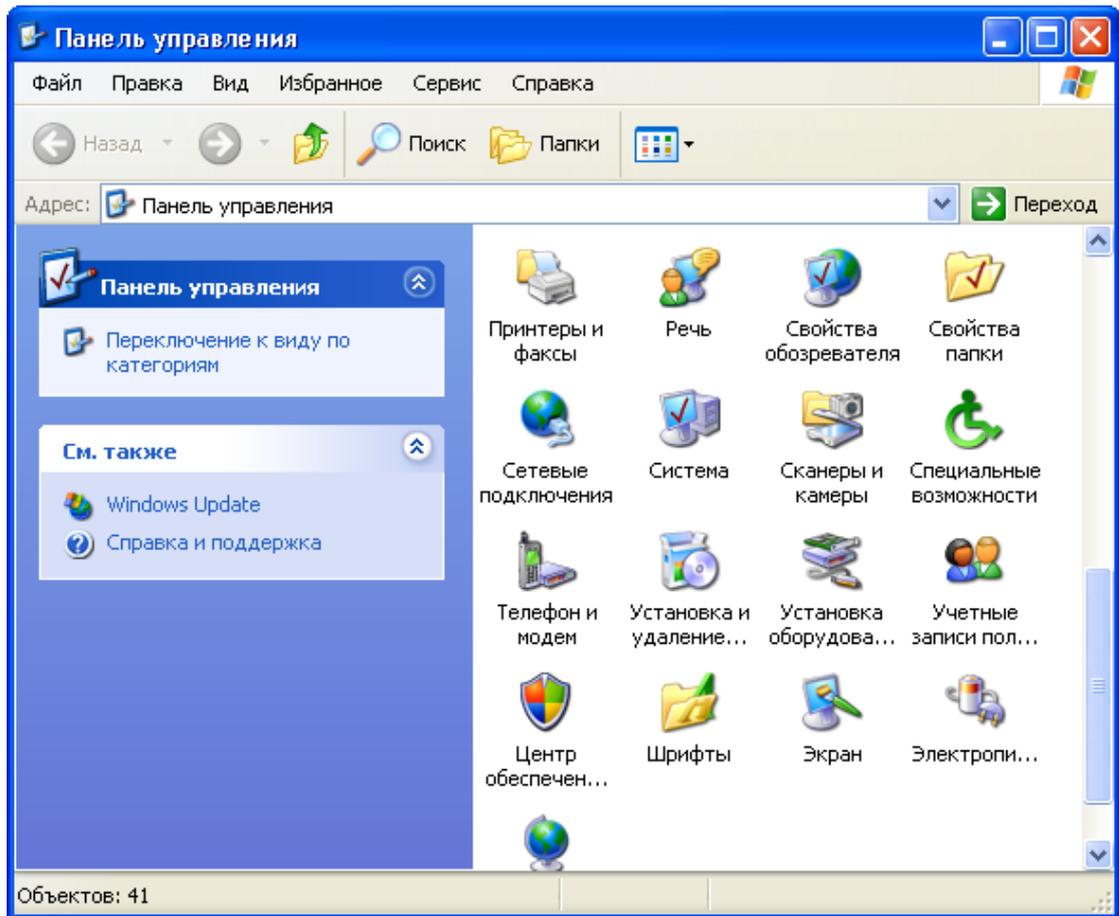
Windows XP (                    )

"
"

» **2.** " "
. :

»      **3.**
.                                    -
.                                         "
" -                                                                         .
,                                    ,
,

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»      **4.**
"          ".
:
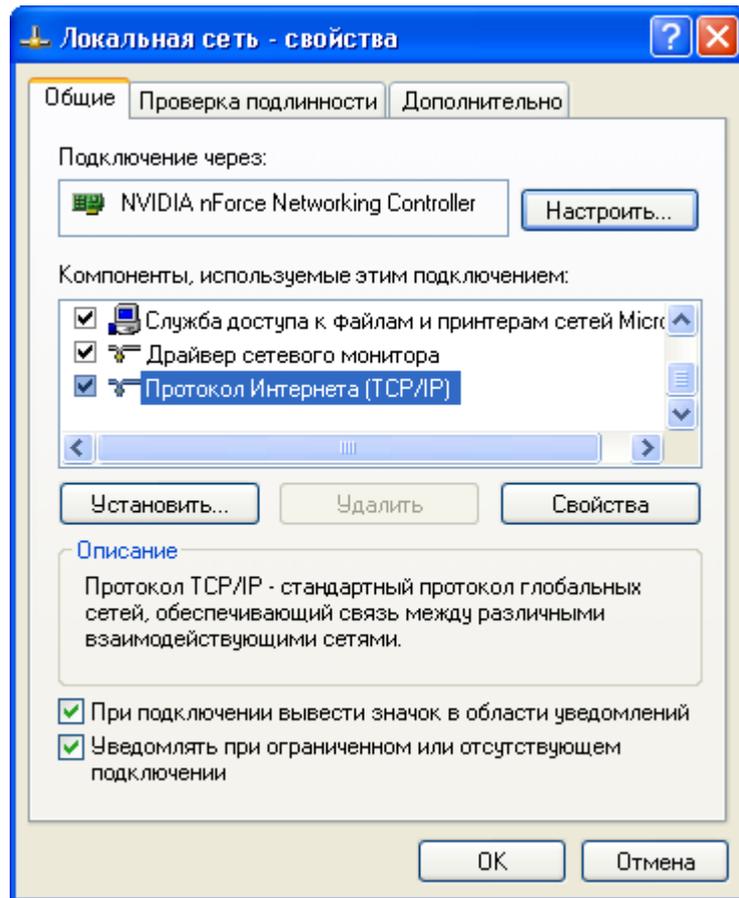
» **5.** " **(TCP/IP)**" "
"
.
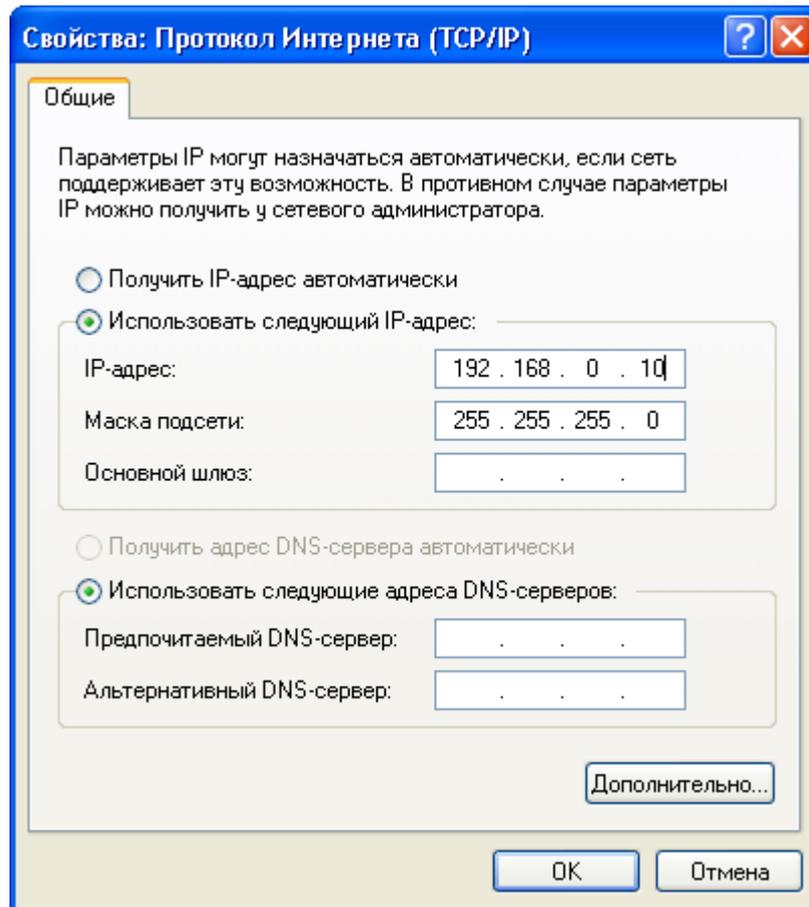
» **6.** ... IP ... .
... IP- ... IP- ,
... .
... , 192.168.0.10,
192.168.0.11, 192.168.0.12, . . .

... , ... ,
... .
. .

» **7.** "**OK**" ... . " "
. .

» **8.** ... , ... ,
. .

**5.2.1.2** **IP-**

( )
UTP . ... ,
( ).

" ".
. .
:

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IP-                                                                                     IP-
.

IP-          IP-
,
.

Axis                                        Axis IP Utility:



Planet, Aviosys                                            IPEdit:

**IPEditV3**

Camera lists:

```
IVS-100...............192.168.90.210
IVS-100...............192.168.90.150
```

Name

Gateway

IP

Netmask

HTTP Port1

HTTP Port2

MAC

Update    Submit    Exit

You can change camera name, IP address, and Gateway Address:
1) Select the Camera you want to make change
2) Change name, Gateway, IP address, and Netmask on right edit box
3) Press Submit button or Enter
4) Press Update to rescan the installed IPCams

.

IP-
,                                       .

◩                                                                    :

1. IP                                           "                "  ,                    .                    ,
192.168.0.10,
192.168.0.11, 192.168.0.12,  . . .
!

2.
.
"DigitalRing"                                                                          ,
.
,
.

.

3.
,                                    (50      60      ).
.

4.                                                                             JPEG/
MotionJPEG   MPEG2/4            MotionJPEG      JPEG.

5.                                                       .

,
.
640x480 , ' 1280x1024
16 .

320x240
( ) .
.

6. , ,
,
"DigitalRing", . .
.

7. !

## 5.2.2

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### 5.2.2.1

<div style="background-color: yellow">

**!**

</div>

,
. .

» **1.** - "
**DigitalRing Multivisor**" - .

» **2.**
, .

» **3.** ,

**autorun.exe**.

» **4.** " ".

» **5**.
. ,
, .
" ". " " -
. **Windows Vista**
,
.
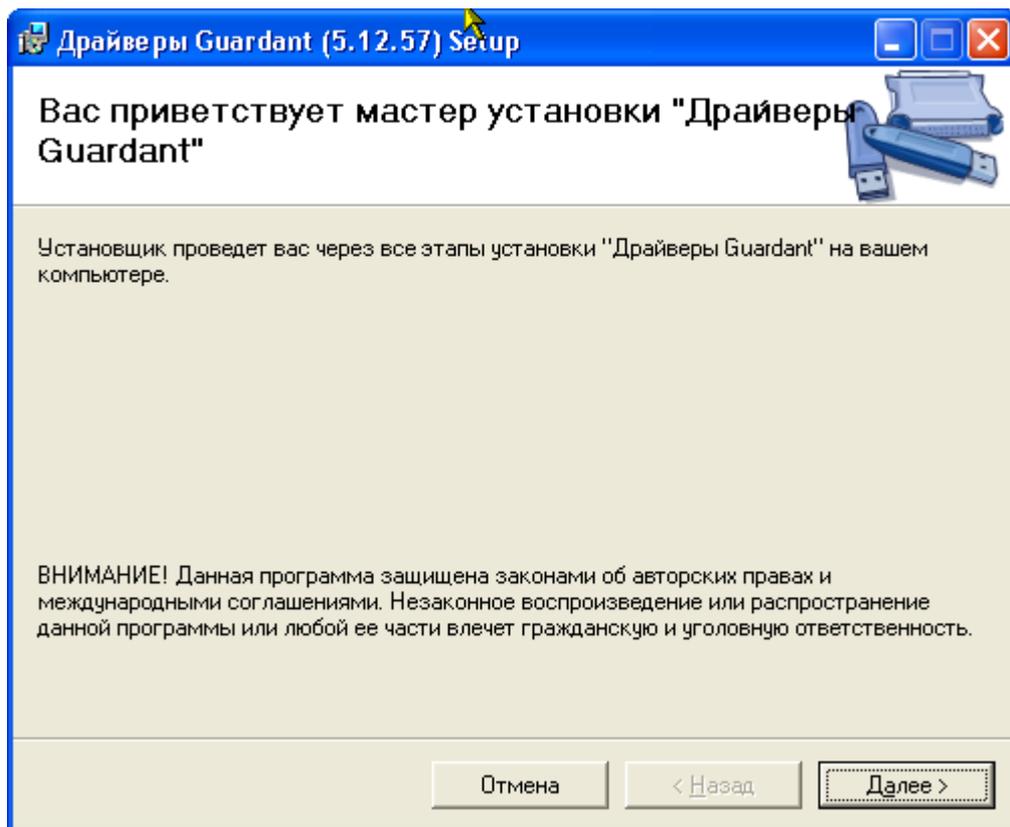
» **6**.                                   "          "                              .
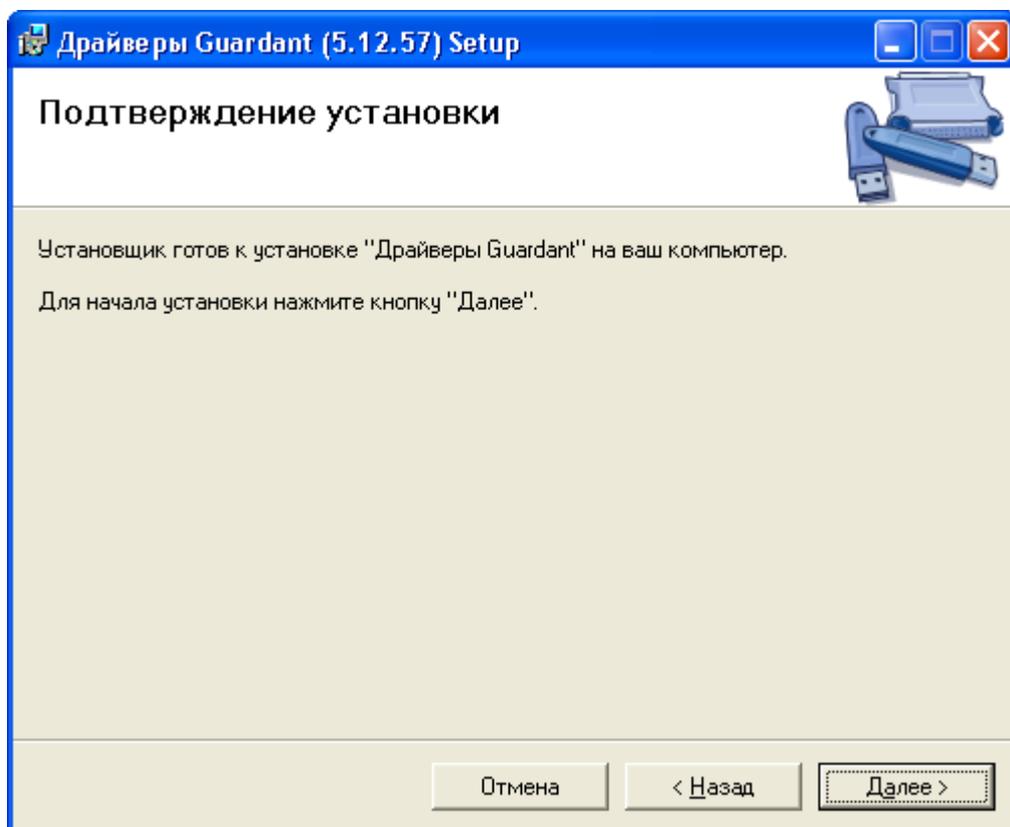
»     **7**.                    . "        " -                  .
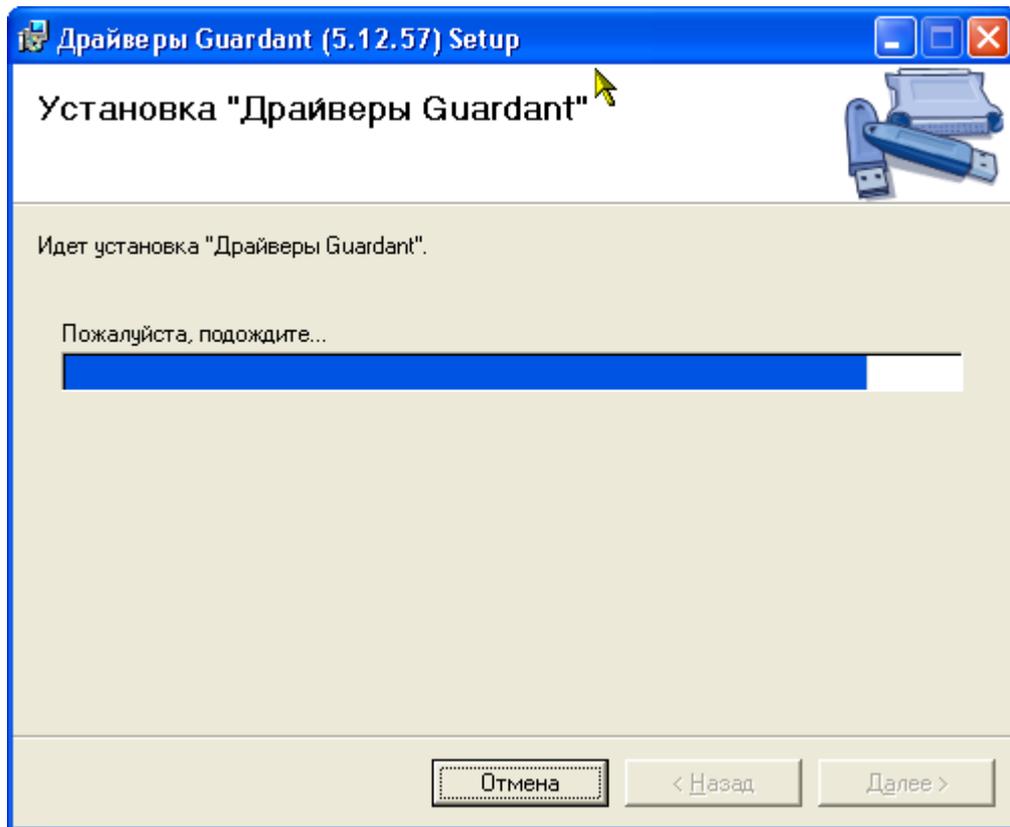


**Windows Vista**

            "                           ":



»     **8**.                      .                 "        ".

≫ **. 9**.
USB .
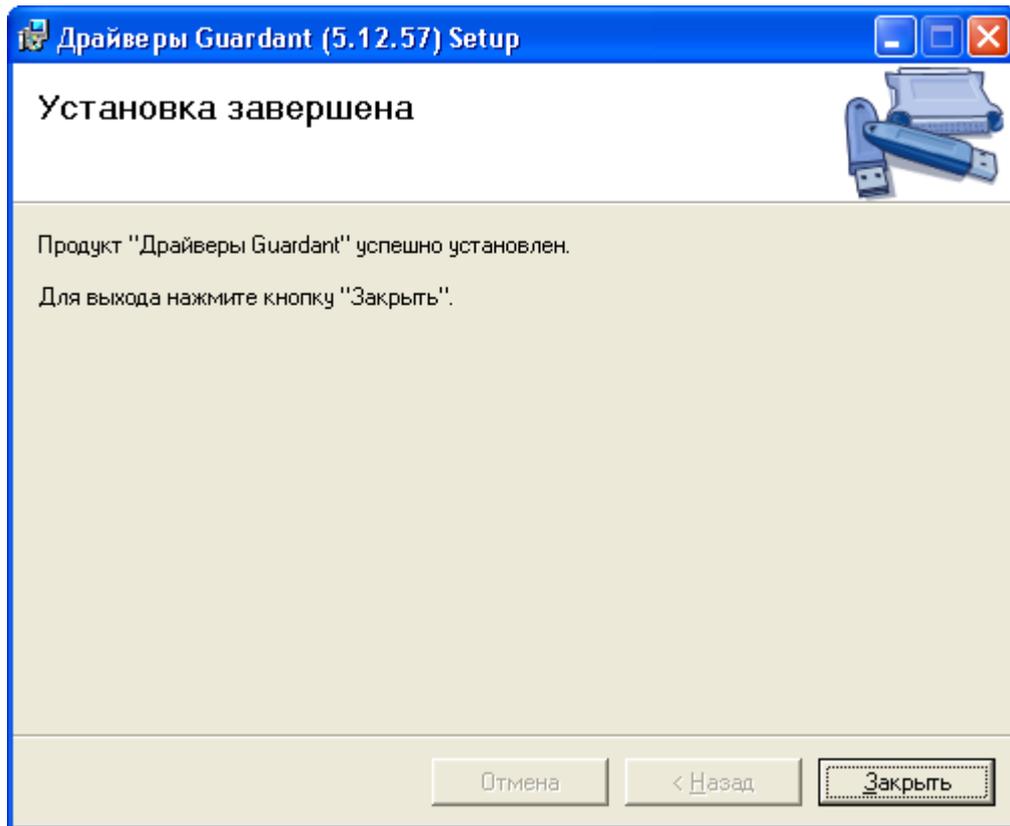
<mark>**10-14 USB- OC Windows XP/2003.**</mark>

≫ **. 10**. USB " ,
" " ".
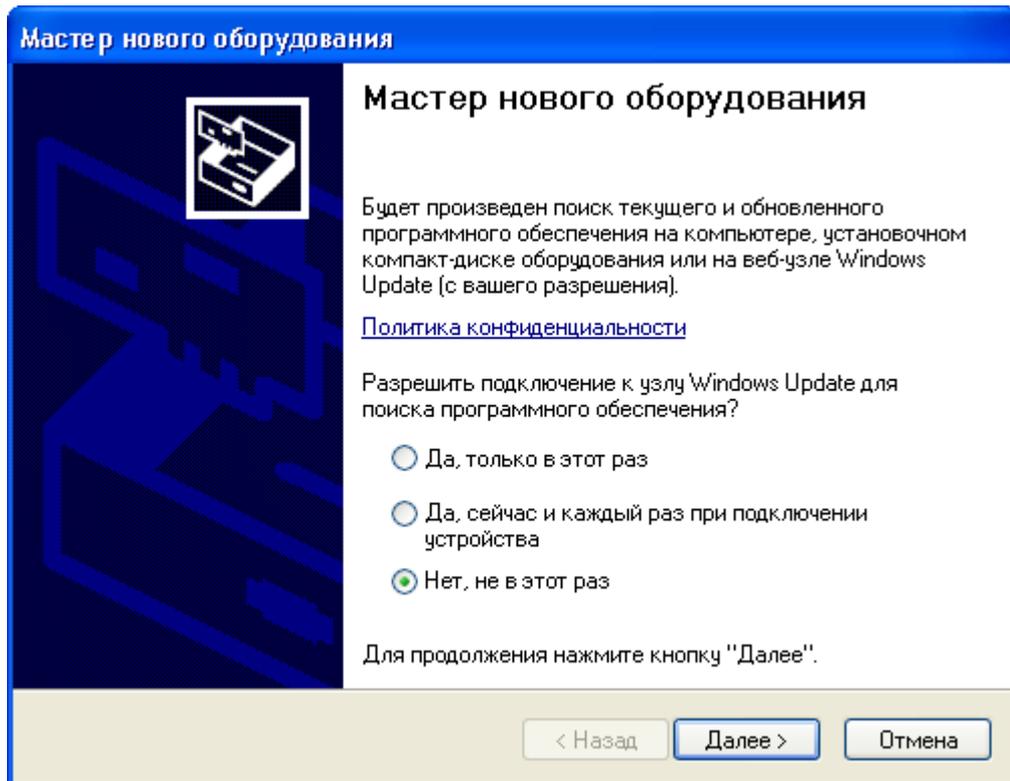
»     **. 11**.                             "       ".



»     **. 12**.          .
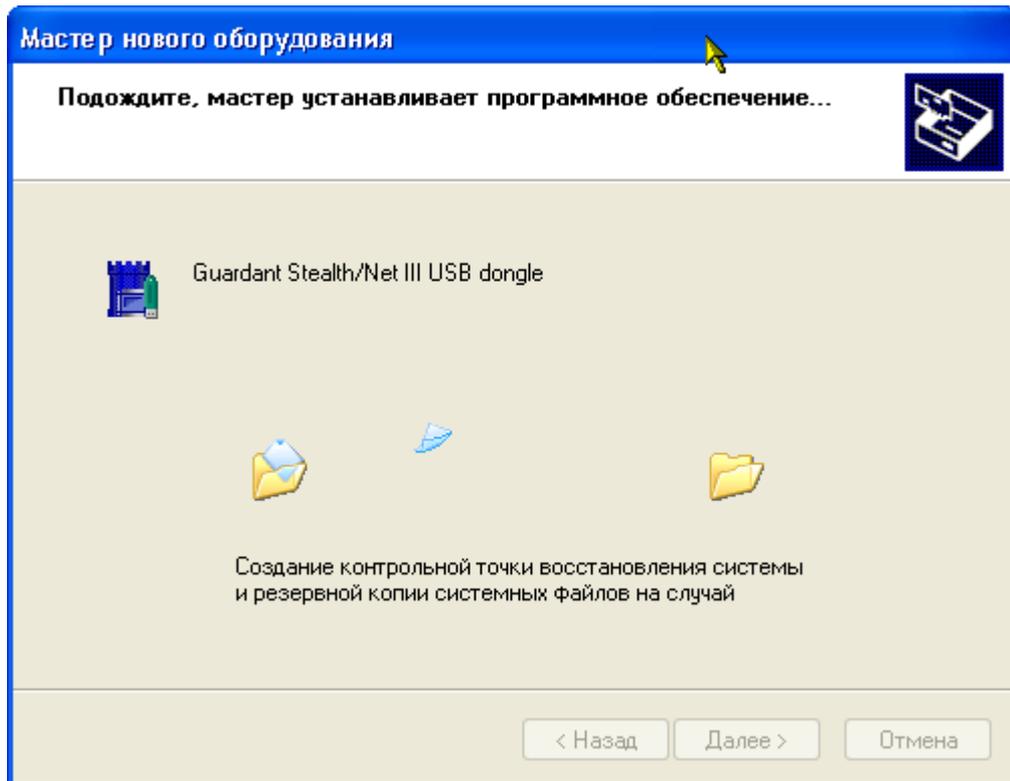
≫ . **13**.
.                                   "              "                                              .



≫ . **14**.                                          ,          USB

,                                                                                    .                              ,
Windows.
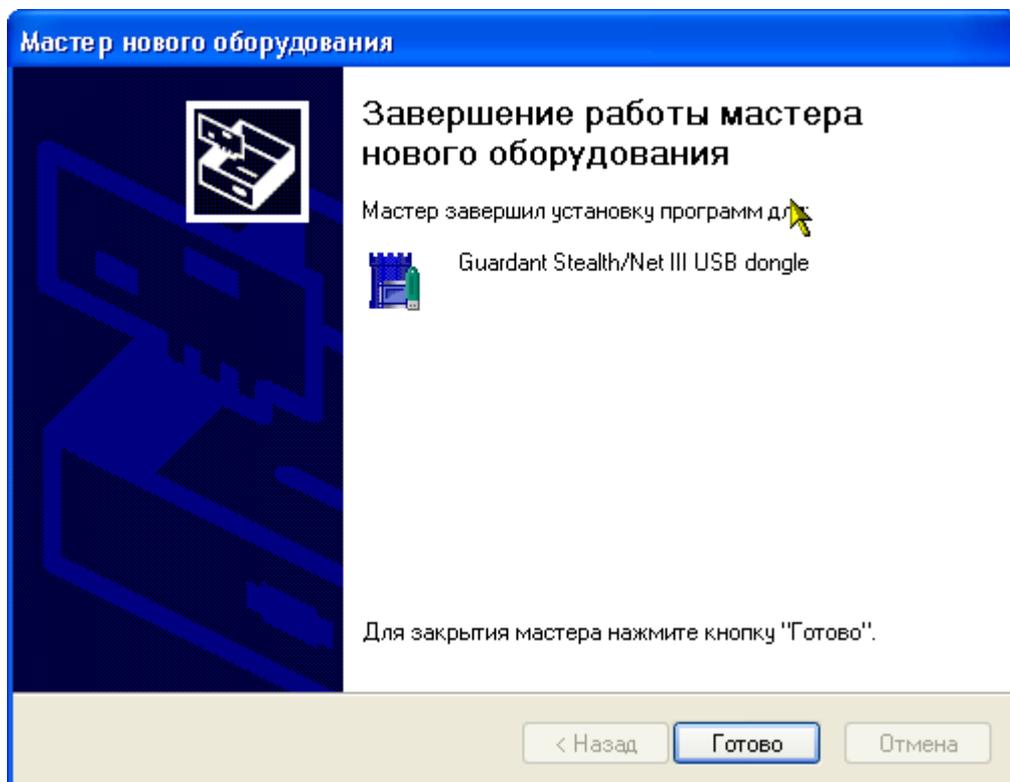
⏩          **. 15**.                                                                                    **Windows Vista**
:



,                                        ,          USB
,
Windows.

**5.2.2.2**                                        **DigitalRing Multivisor**

,

.                                                                                                                      .

⏩          **1.**                                        -                                                                      "
**DigitalRing Multivisor**"                                                        -              .

⏩          **2.**
,                                                                                    .

⏩          **3.**                                                                                          ,

**autorun.exe**.

⏩          **4.**                              "                                                  **Multivisor**".

⏩          **5.**                                                                                                              .
,                                                                                    ,
.
"          ".
"          " -                                                              .

**Windows Vista**
,                                                                            .
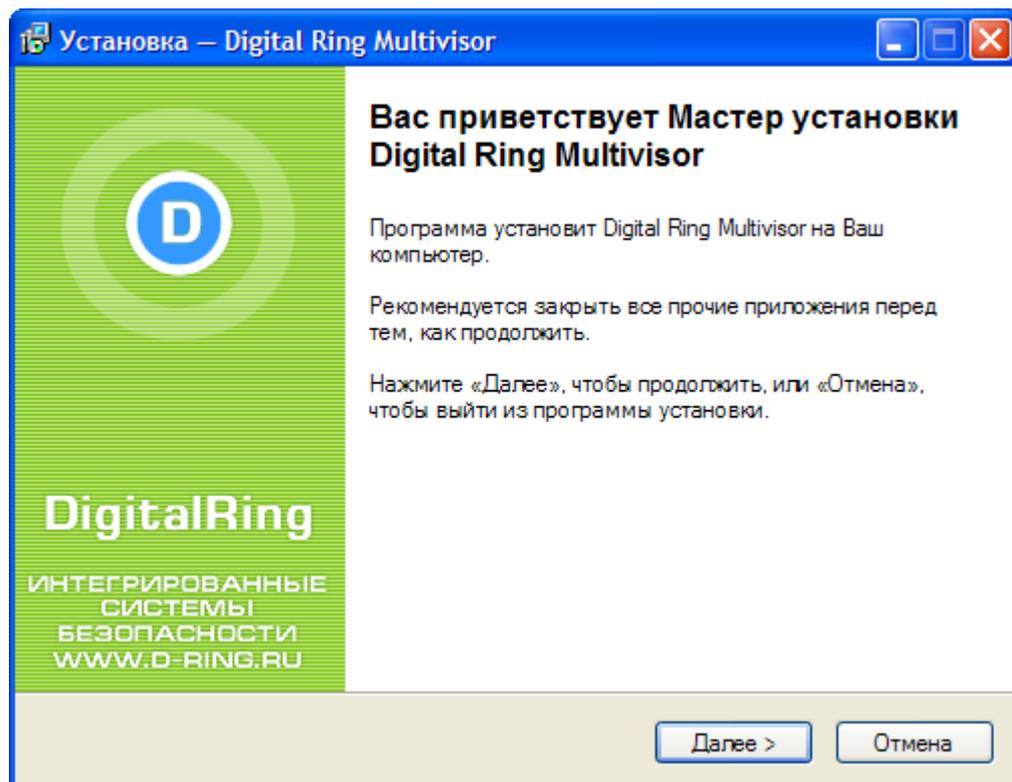
⟫     **6.**
        "**DigitalRing**".
                                                                                   .
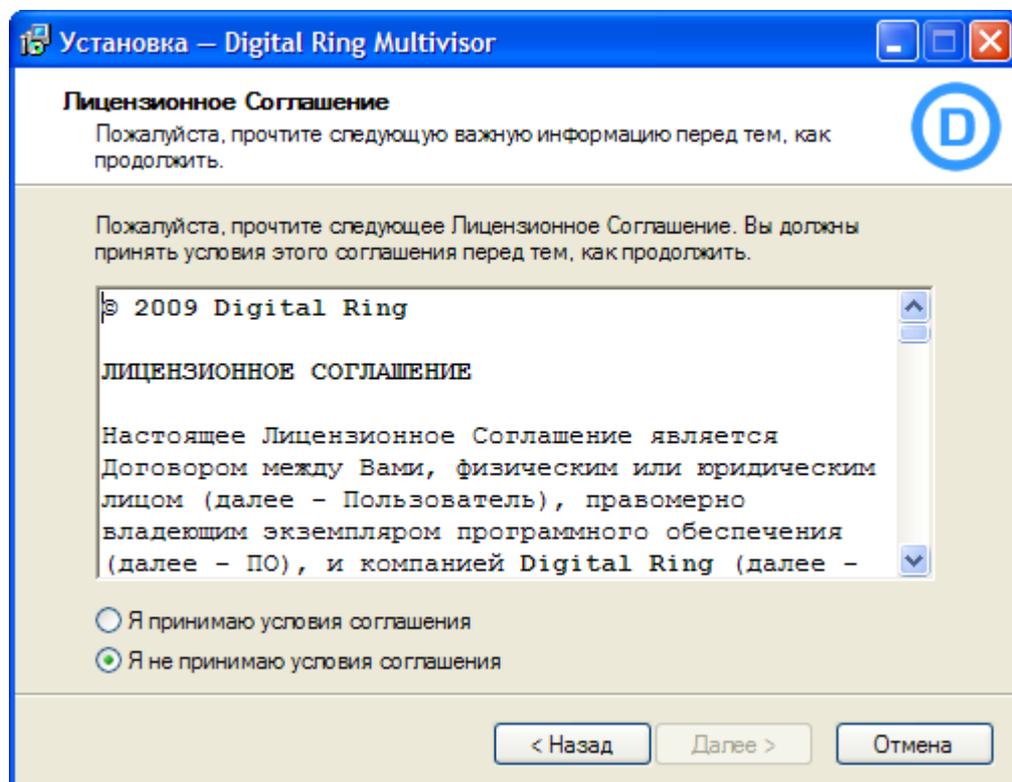
» **7.**                                                                                  ,
                                                                     "**DigitalRing**".
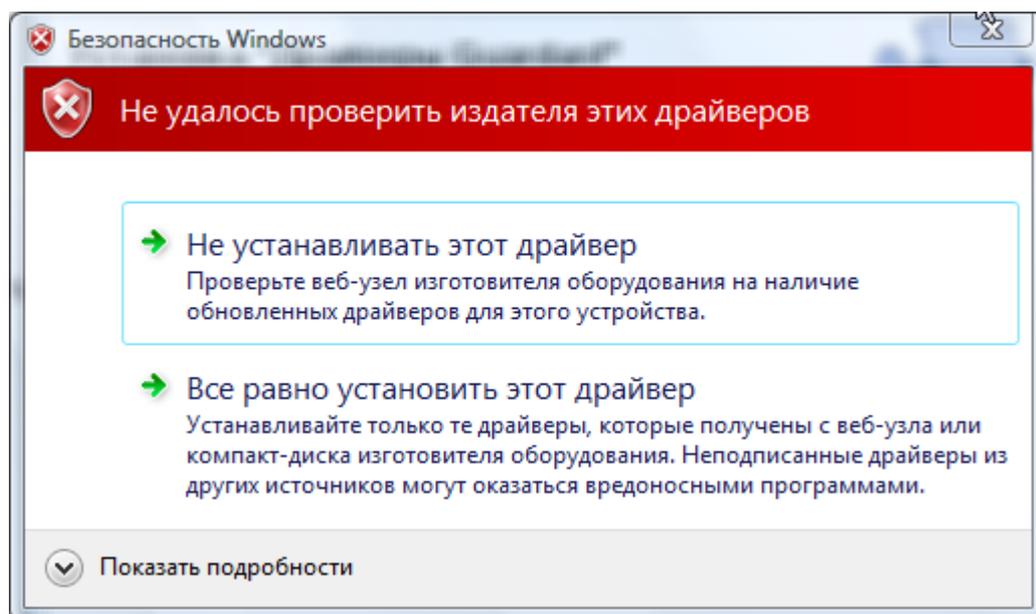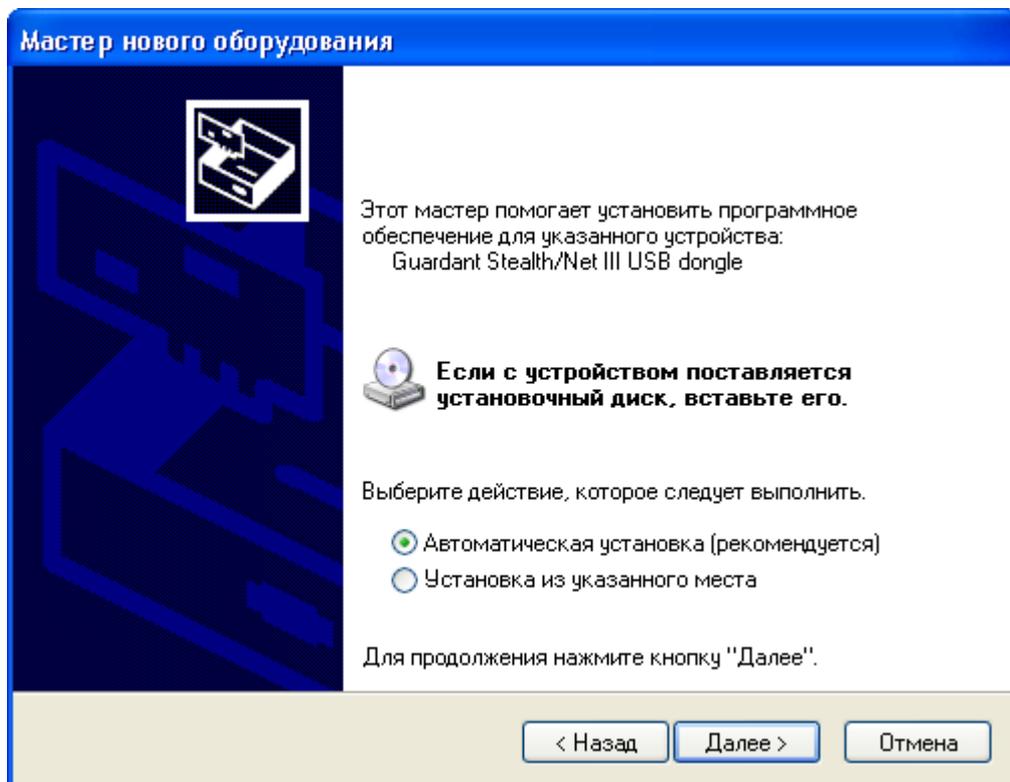                                                                                        Program Files
                                                              .
      "          ",                                                        .
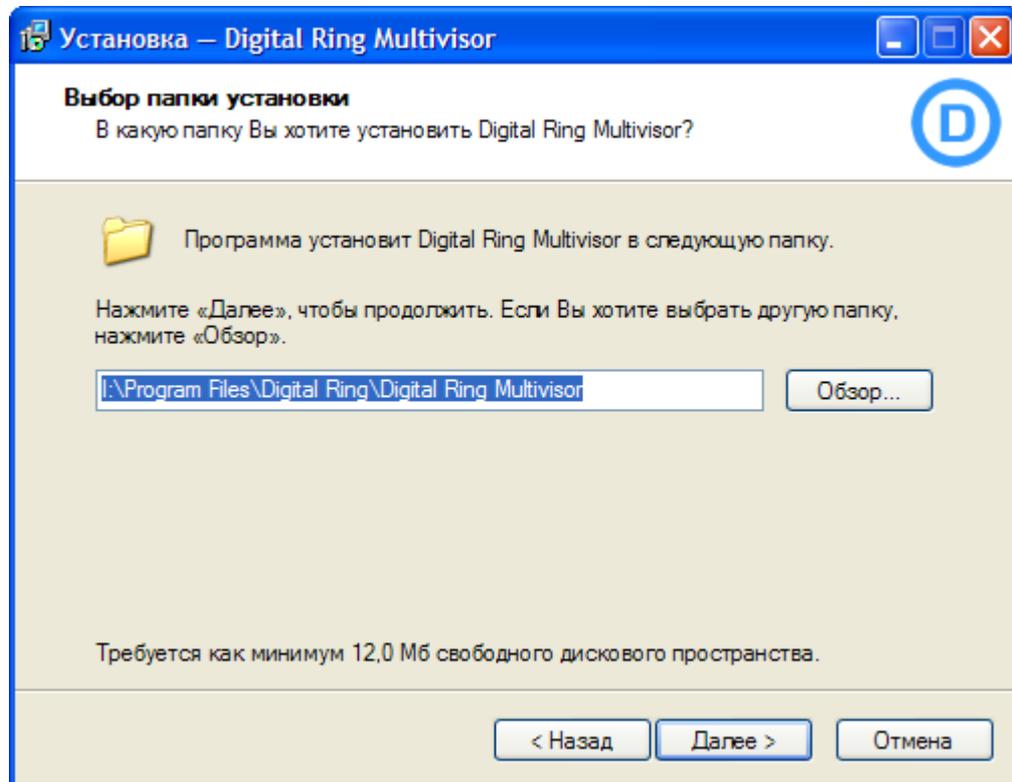


» **8.**                                                                                               ,
                                                                                     "     "  -->  "                    "
("**Start**" --> "**All programs**")                                                      .
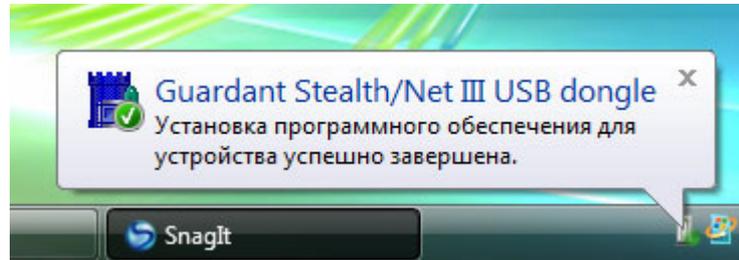                                              ,                                                          .

≫      **9.**              ,                                                                                          .



≫      **10.**                                                                        .                 "
        "

.



⟫ **11.** . " " - .
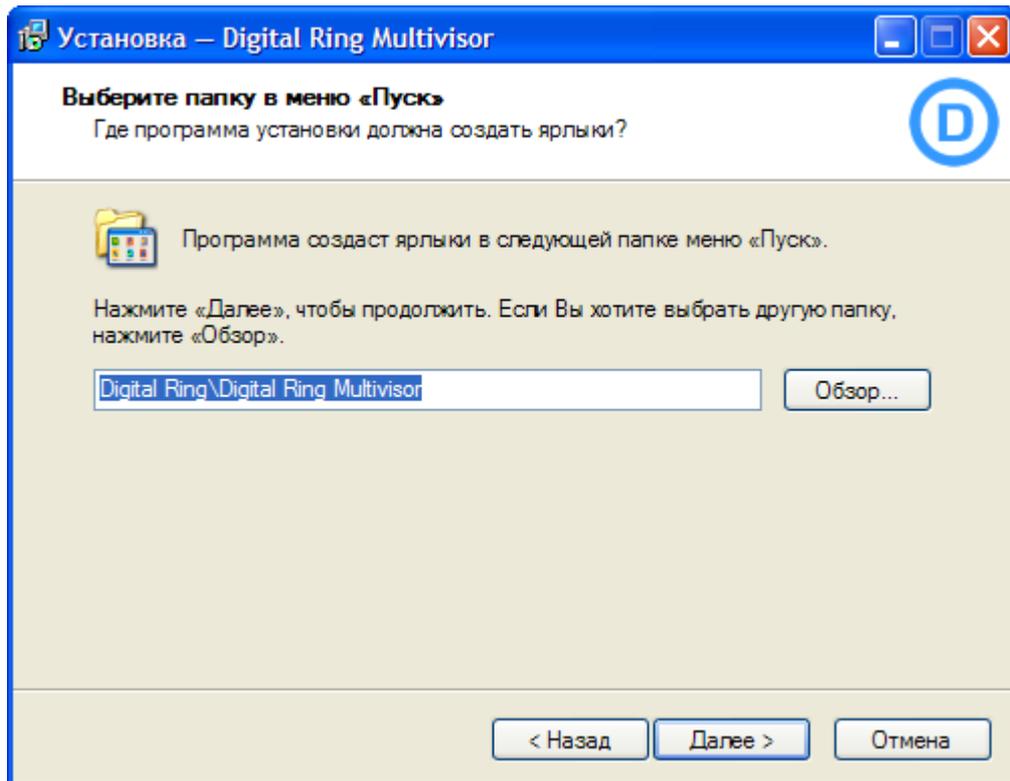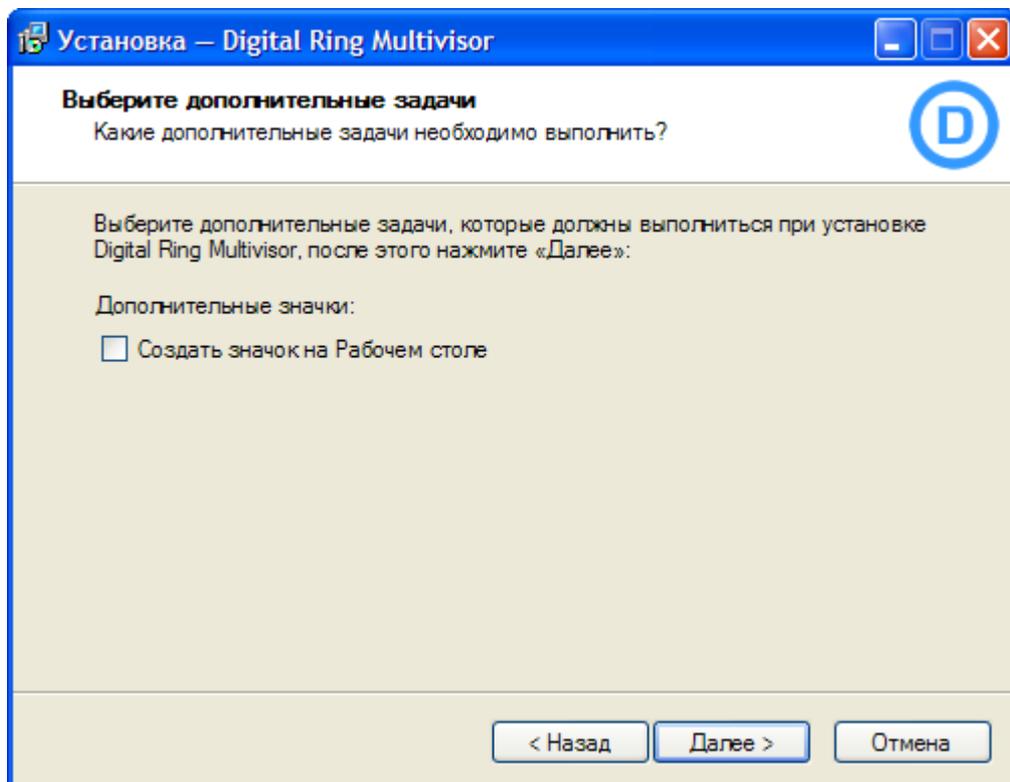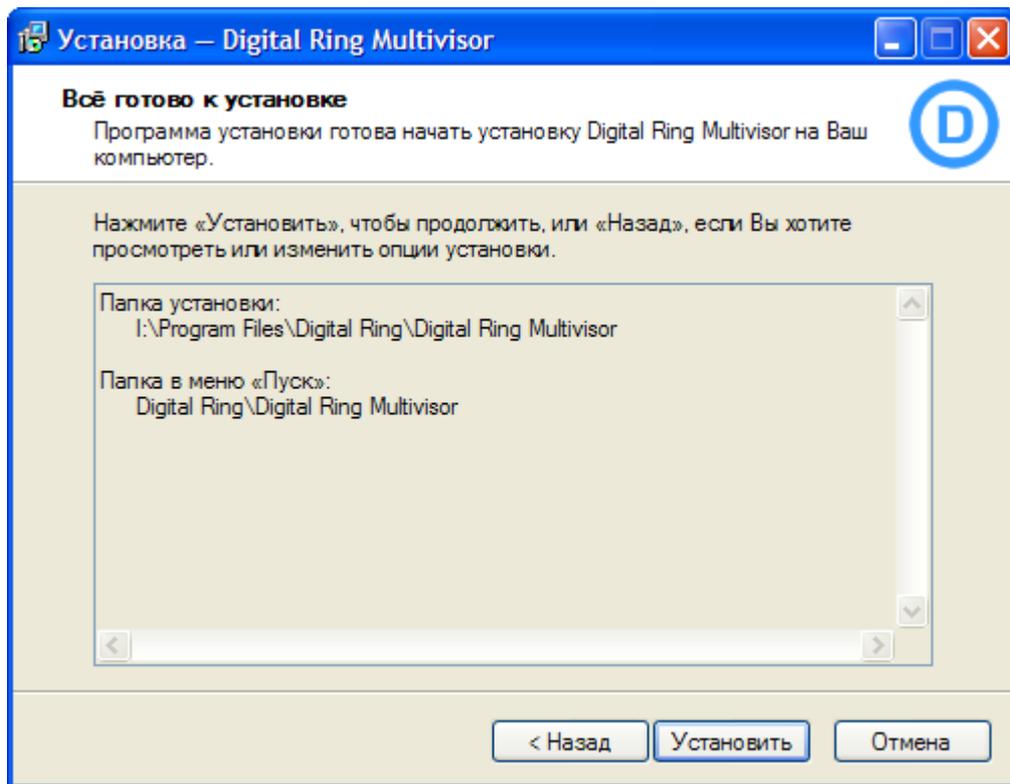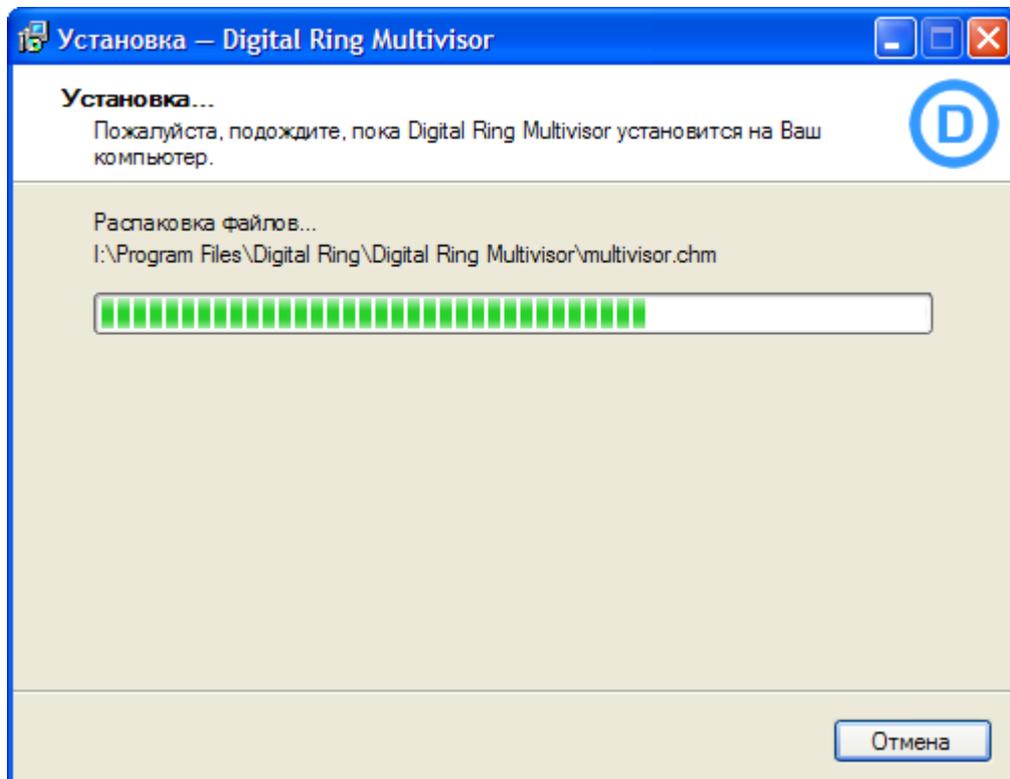
» **12.** . " " .
"**Multivisor
Configurator**" "
 "
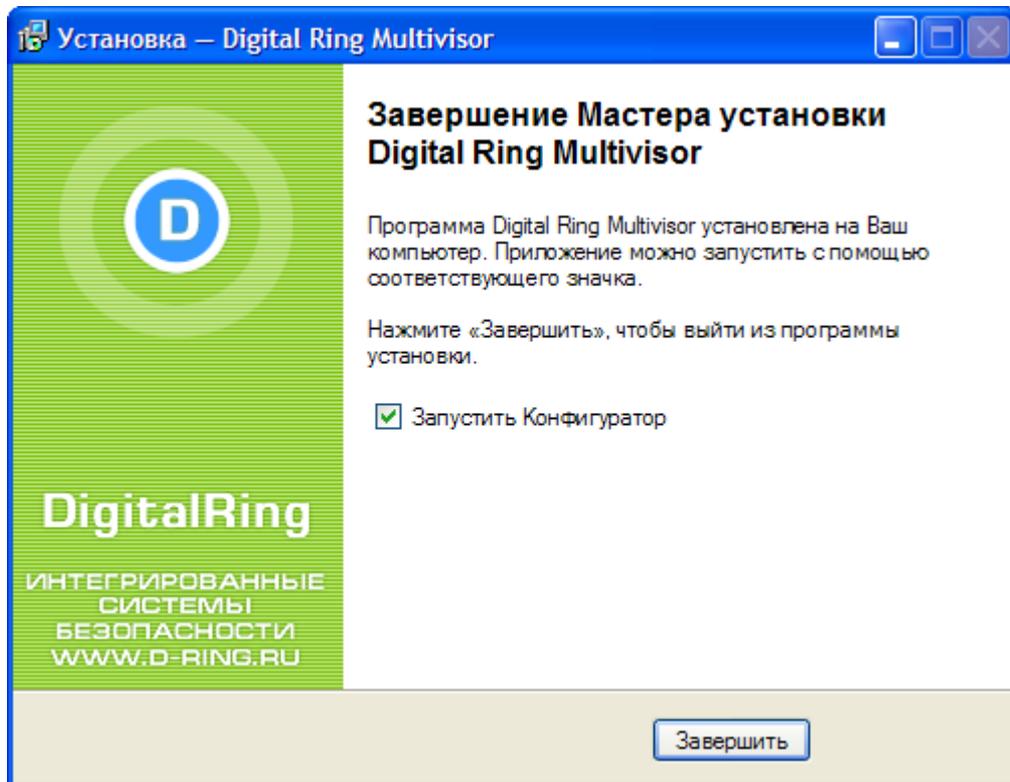


## 5.3

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### 5.3.1

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.

» **1.** " "
**Guardant**". " ". " " >
" " > " " > "
".
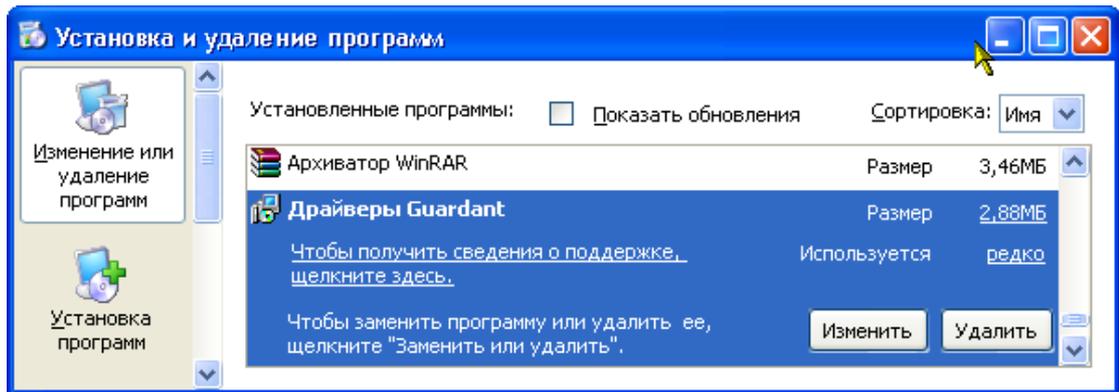
» **2**.                                                             "   ".
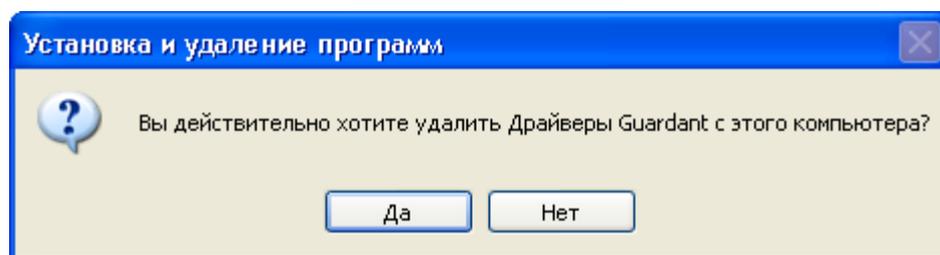


» **3**.                                                       .
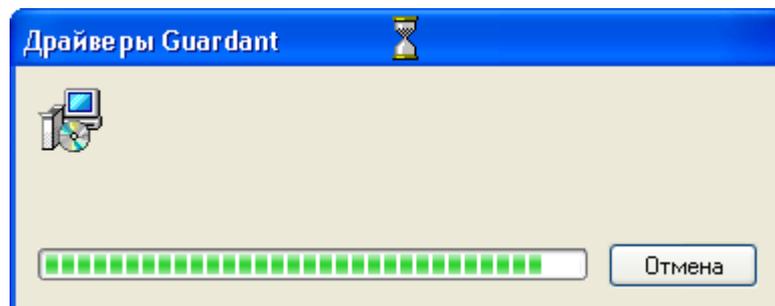


**5.3.2** **DigitalRing Multivisor**

,

.                                                                                     .

» **1**.                                            "**DigitalRing Multivisor**"
"        " > "                   " > "**DigitalRing**" > "**DigitalRing Multivisor**",
                                                                  "
**DigitalRing Multivisor**".

» **2**.                                                                                                            "    "
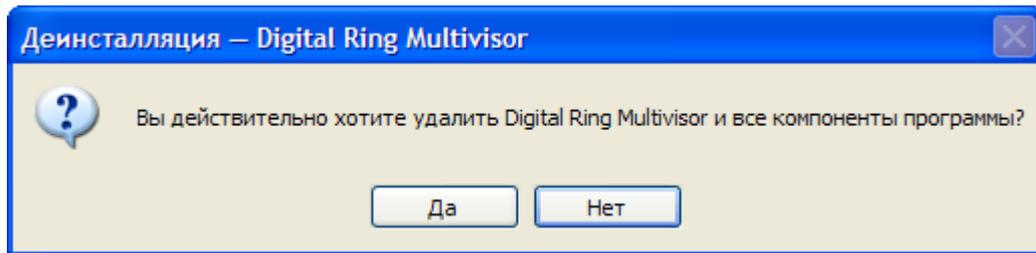
≫    **3.**

≫    **4.**      " "
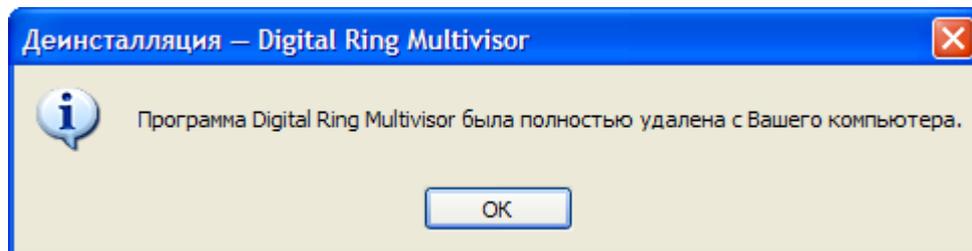


## 5.4

**DigitalRing**
"**DigitalRing Multivisor**",

     -          : http://www.d-ring.ru/

# 6                   **DigitalRing Multivisor**

## 6.1

### 6.1.1

       "**DigitalRing Multivisor**"        " "
Windows.

<span style="color:red">**USB**</span>

**"DigitalRing Multivisor"** **"      " (Start) >**
**"        " (All Programs) > "DigitalRing" >  DigitalRingMultivisor.**

,

**"DigitalRing Multivisor".**

Multivisor

**"                    ".**

**"DigitalRing Multivisor"**
**"DigitalRing Multivisor Configurator"** (    .        "                                **DigitalRing**
**Multivisor"**).

**"DigitalRing Multivisor Configurator"** **"      " (Start) >**
**"           " (All Programs) > "DigitalRing" >  DigitalRingMultivisor Configurator.**

,
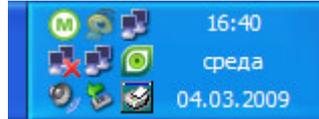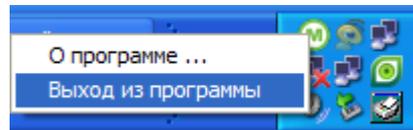
**"DigitalRing Multivisor"**                           (                 ,
).

### 6.1.2

Windows                      **"DigitalRing Multivisor"**

#### 6.1.2.1                                              **Windows**

,
Windows.

:

-                                ,
,                                              AutoAdminLogon   0,
.
(StartUp)       :

*.reg                                     :

```
REGEDIT4
[HKEY_LOCAL_MACHINE\SOFTWARE\Microsoft\Windows NT\CurrentVersion\Winlogon]
"AutoAdminLogon"="1"
```
,                                                                                          .

,              , **Microsoft TweakUI**,
                    **UTILS.**
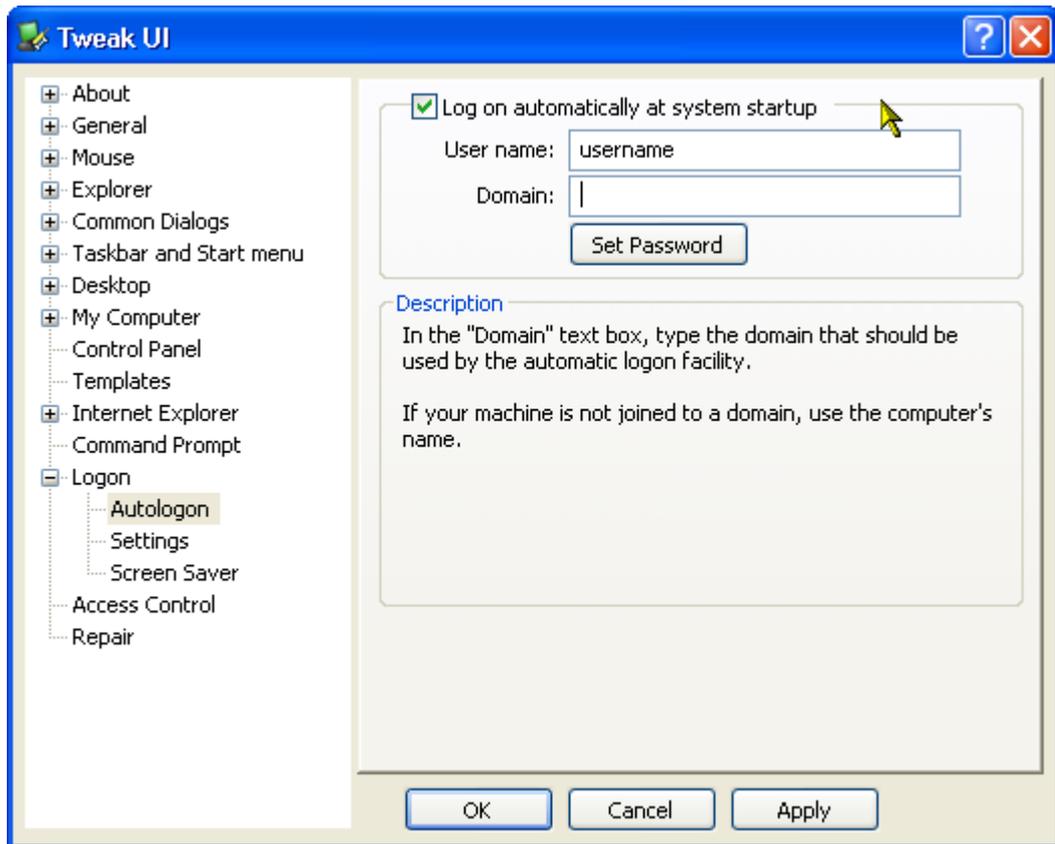


**6.1.2.2**                                                    **Securika Multivisor**


                                    **1.**


                              **"DigitalRing Multivisor"**
                    "              " (StartUp)              "        -              " (Start -
**Programs)**              **mvisor.exe**
**"DigitalRing Multivisor"** (              **"C:\Program Files\DigitalRing\DigitalRing**
**Multivisor\mvisor.exe"**).
                              (    .        ).


                              **2.**
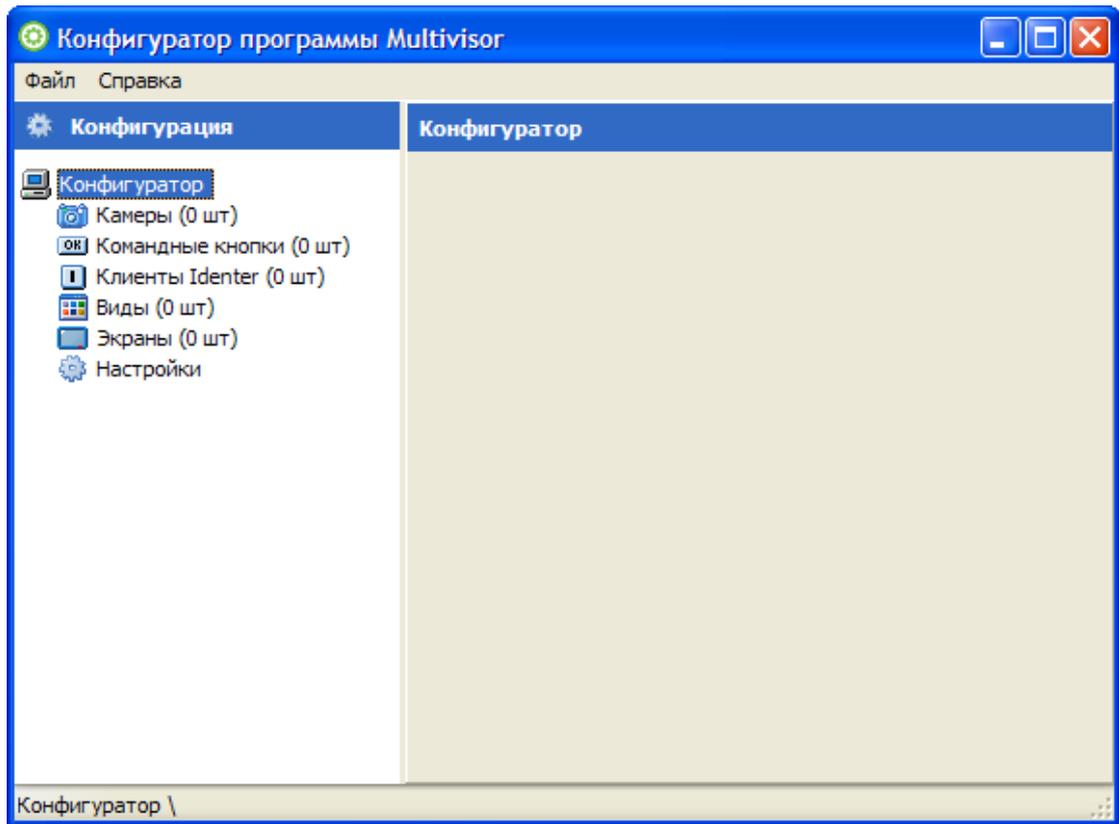

                              Multivisor: "        " (Start) --> "                    " (All
**Programs) --> "DigitalRing" --> "DigitalRing Multivisor Configurator".**
                              :

**3.**
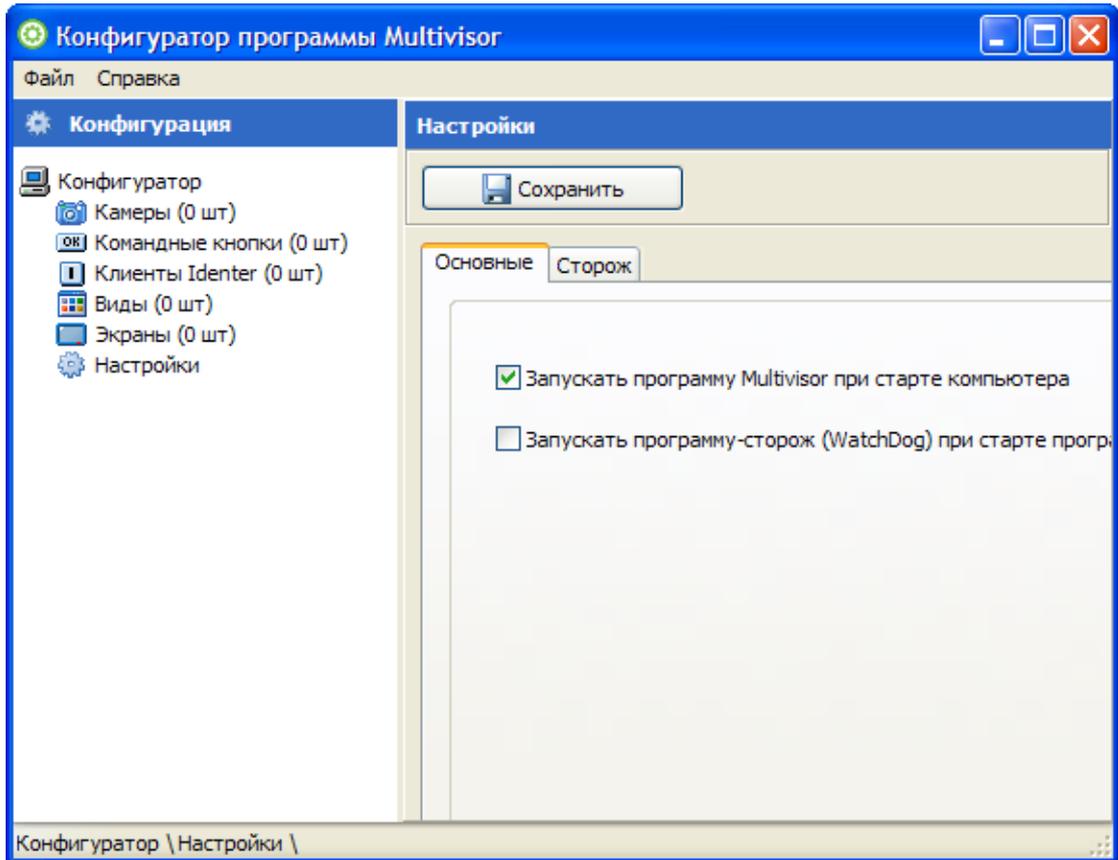
"**DigitalRing Multivisor**"
"              " **(Explorer).**

"**DigitalRing Multivisor**"
       "              " (**Explorer**),
Windows.

              :

<mark>HKEY_LOCAL_MACHINE\SOFTWARE\Microsoft\Windows NT\CurrentVersion\Winlog</mark>on


              **Shell** -                                                   cterm.exe,
       : "**C:\Program Files\DigitalRing\DigitalRing Multivisor\mvisor.exe**"


                     (                              Windows,         Ctrl+Shift
+Esc,                     "regedit")                              Shell
       ,           "Explorer".


                  ,                                    Windows
                                              ,
"              (StartUP)"                                              (Run
RunOnce)!                                                        .

## 6.2 DigitalRing Multivisor

"DigitalRing Multivisor" "
**DigitalRing Multivisor Configurator**" ( . " **DigitalRing**
**Multivisor"**).

"DigitalRing Multivisor Configurator" " " (Start) -->
" " (All Programs) --> "DigitalRing" --> "DigitalRing Multivisor Configurator"
.

### 6.2.1

" " .
" . ".
" . ".



### 6.2.1.1

>> **1.**
"IP- " " ",
" ".

"                              ".

≫ **2.** " " **(2).**
. .
, , " ".

≫ **3.** **(1).**
IP- . **(5)**
.
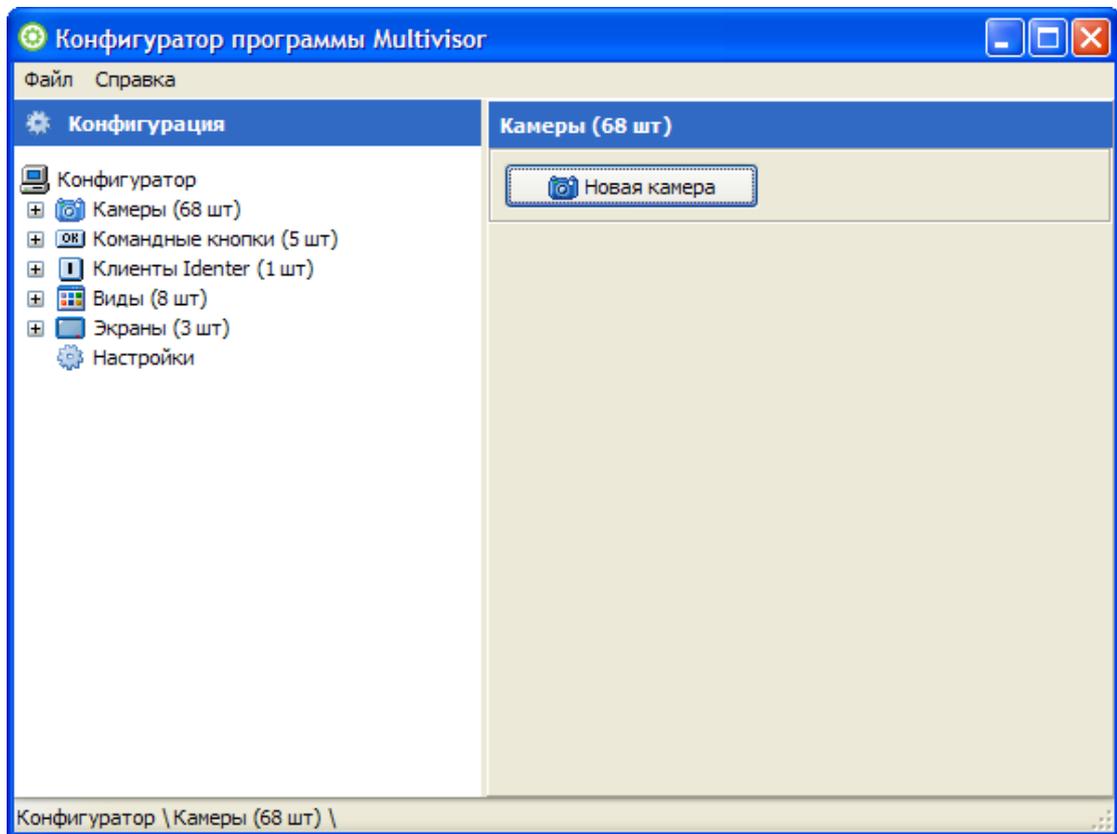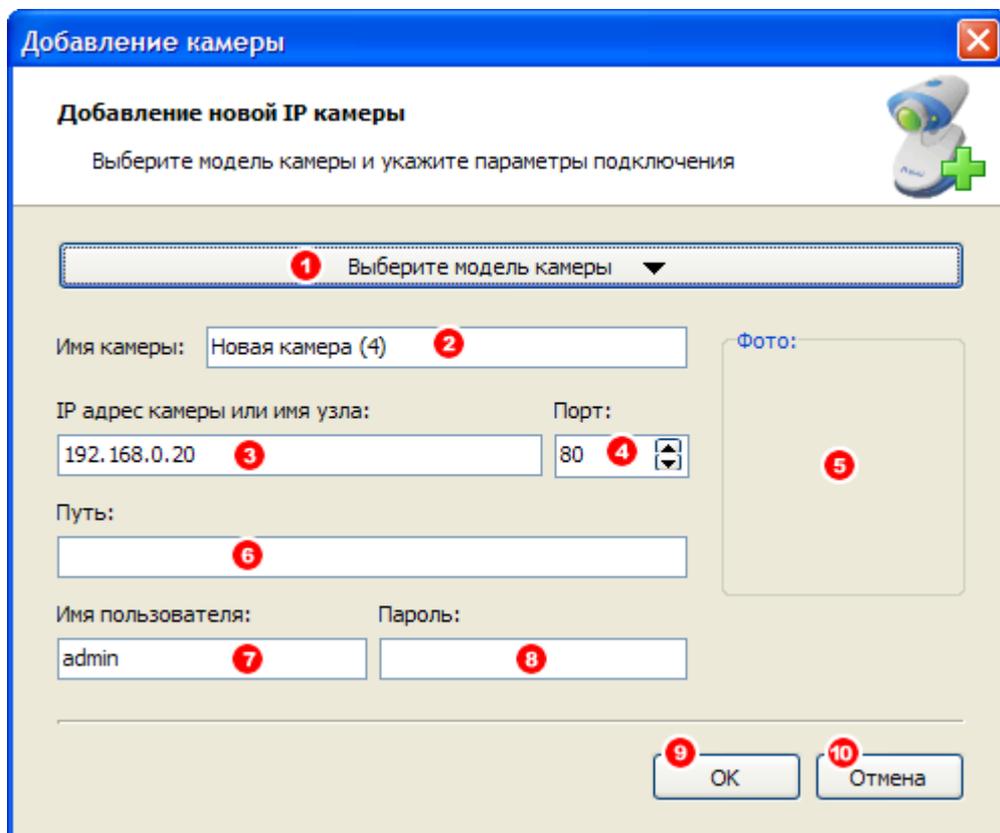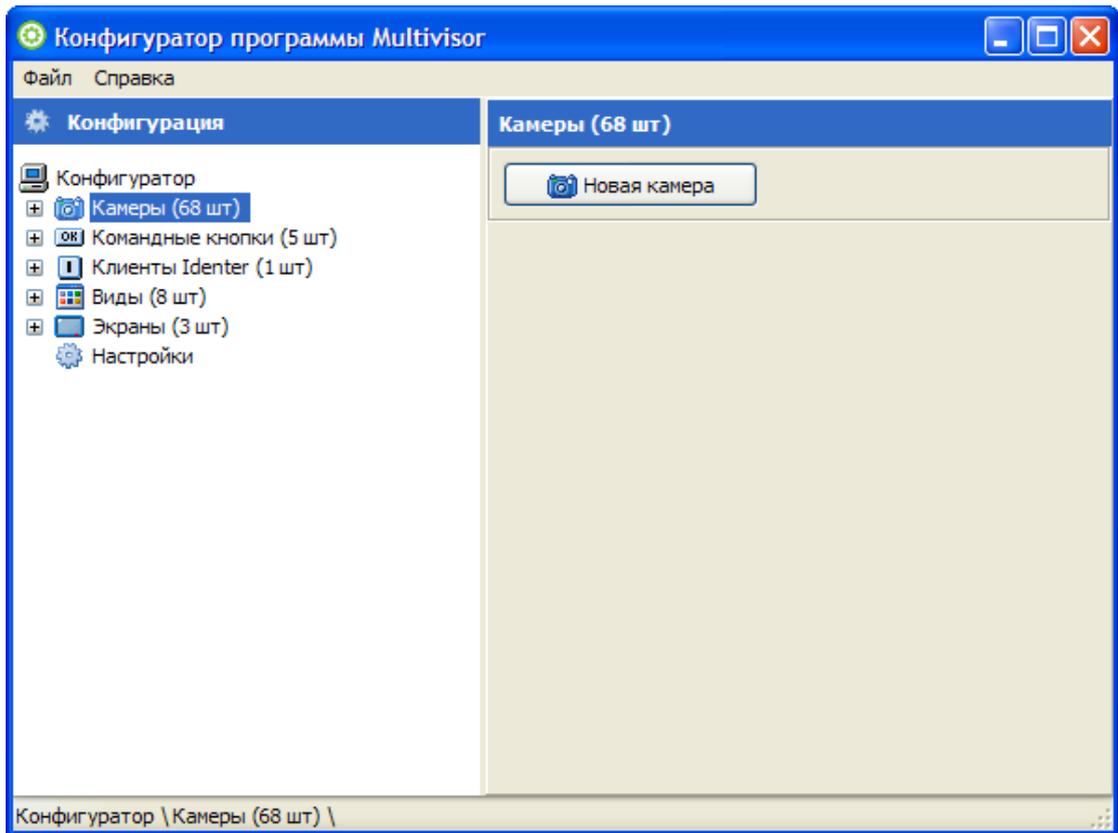
≫ **4.** IP- **(3).** IP-
, , , www.
mycamera12345.ru. http:// !.

≫ **5.** **(4).** 80.
88, 81, 8088, 8080, 8081.

≫ **6.** **(7)** **(8)**
. , .

≫ **7.** ,
**(6).**
.

≫ **8.** **"ОК" (9)** " " **(10)**
.
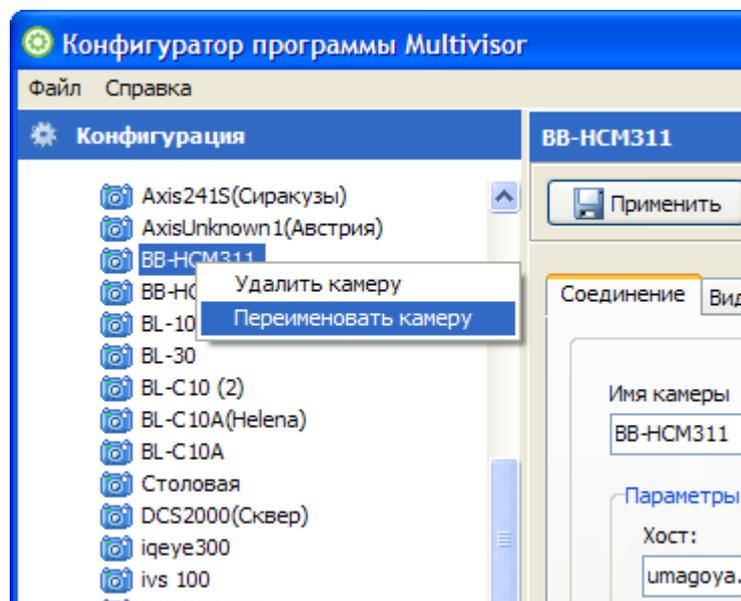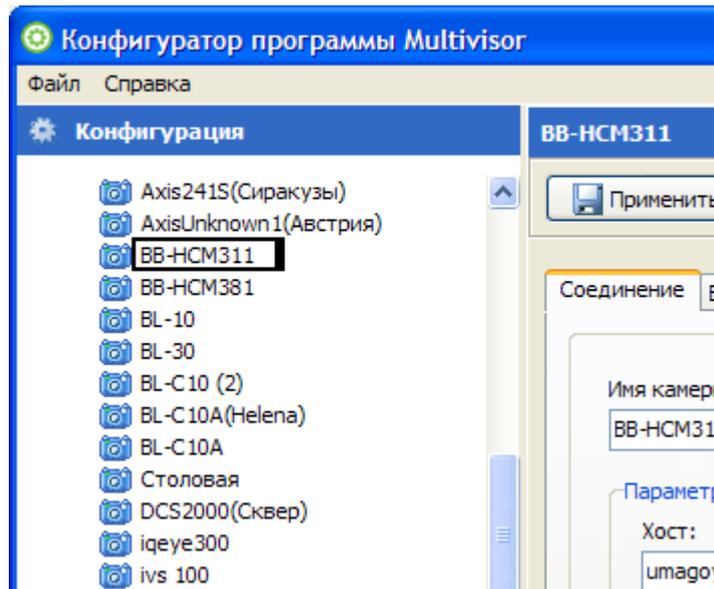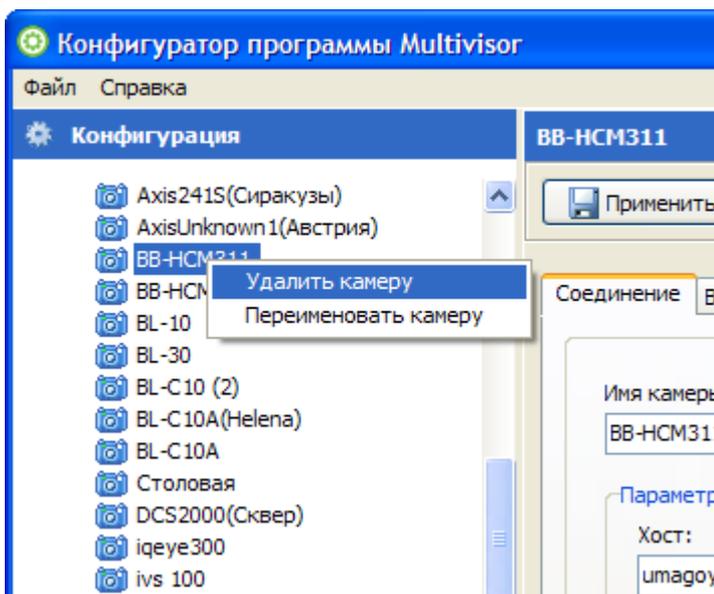
**6.2.1.2**

" ":



,
:

**6.2.1.3**

,                                                    "                          ".



"**Delete**"                          .

**6.2.1.4**

,

,                ,                                    ,
.

6.2.1.4.1

.               .
"           ":



&gt;&gt;           **(1)** -             .                  ,
"          ".

&gt;&gt;    **(2)** -  IP-         .         IP-
,             , www.mycamera12345.ru.        http://
           !. IP-

&gt;&gt;    **(3)** -          .          - 80.
     : 88, 81, 8088, 8080, 8081.              ee
Web-      .

&gt;&gt; **URI (4)** -            .          "/".
     ,         "/".
         .

     ,    ,    4-         Axis241Q
     : /axis-cgi/mjpg/video.cgi?camera=1.

IP-   .

&gt;&gt; **HTTP (5)** -        HTTP 1.0   1.1.         1.1

, .
1.0.

» **(6)** -
(1/1000 ).
. 5 10000 ,
0.1 FPS.
, ,
, , . , 100
. , 10. ,
7 FPS .
. (
WEB- ) , .
(5 ).
IP-
. , Axis
: /axis-cgi/mjpg/video.cgi?fps=7. ,
.
, (
).

» **(7)** - ,
30 . 100
, . . 7 . "
", 23 , ,
, . . .
30
. , 30
.

" " ,
100 ( (6))
.

,
( MotionJPEG), -
.

"
".

» **HTTP** **(8)** - ,
(11) (12)
, . . Basic HTTP-
. , .

» **(9)** -
, .

» **(10)** - " " - HTTP- ,
.
, , .

" "
, .
,

, " "
.

» **(11)** - .

» **(12)** - .

» **Proxy- (13)** - -
.

» **Proxy (15)** - IP- - ,
.

» **Proxy (16)** - ( , 3128 8080).

» **Proxy (14)** - -
.

Basic Proxy- .

» **Proxy (17)** - - .

» **Proxy (18)** - .

" " .

6.2.1.4.2

. .

" ".
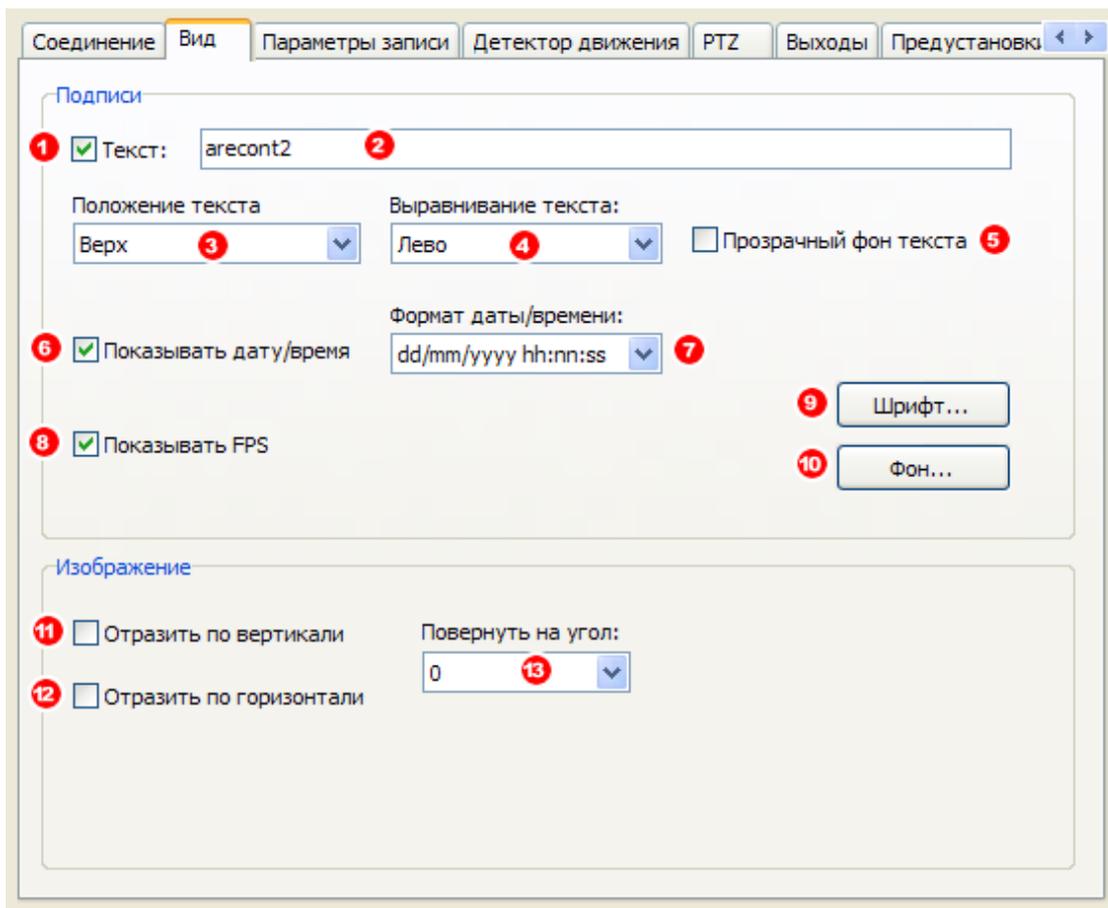
≫ **(1)** - .                                                                                                                    **(2)**.

(                              ):

- {HOST} - IP-                          ;

- {PORT} -                     ;

- {FPS} -                              ;

- {DATE} -                     ;

- {TIME} -                     ;

- {NOW} -                   ;

- {FRAMESIZE} -                            ;

- {MOTIONTIME} -           ,
                  ;

- {LASTMOTIONTIME} -                                        ;

- {USERNAME} -                       ;

- {PASSWORD} -             ;

- {PATH} -                        ;

- {FRAMELEN} -                   ;

- {MODE} -            (JPEG/MotionJPEG/          )

- {FRAMESCOUNT} -                               ;

- {TRAF} -                       ;

- {MOTION} -                          ;

- {LASTERR} -                    ;

» **(3)** -                                                                (     /
).

» **(4)** -
(      /        /        ).

» **(5)** -
.

» **/** **(6)** -                    ,
.

» **/** **(7)** -                                                .

» **FPS (8)** -
.

» **... (9)** -                                          .

» **... (10)** -                                         (                      ,
).

» **(11)** -                                        (
!).
,                                                              .

» **(12)** -                                       (
!).
,
.

» **(13)** -                                            90
(                                          !).
,
.

"                    "                                                            .

6.2.1.4.3

. . "
".

:                                                                                    ,
**Multivisor**                                                            .



≫                                    **(1)** -                          /
.

≫                          **(2)** -                                                                    .
.
.

≫                          **N-**          **(3)** -                                        .
N-                                        .                                   ,
,                                            .          ,                                                 7
,                                            ,      . .                      3.5                      .

:

(      ).

≫                                              **(4)** -
.

,
.

» **(5)** - ,
.
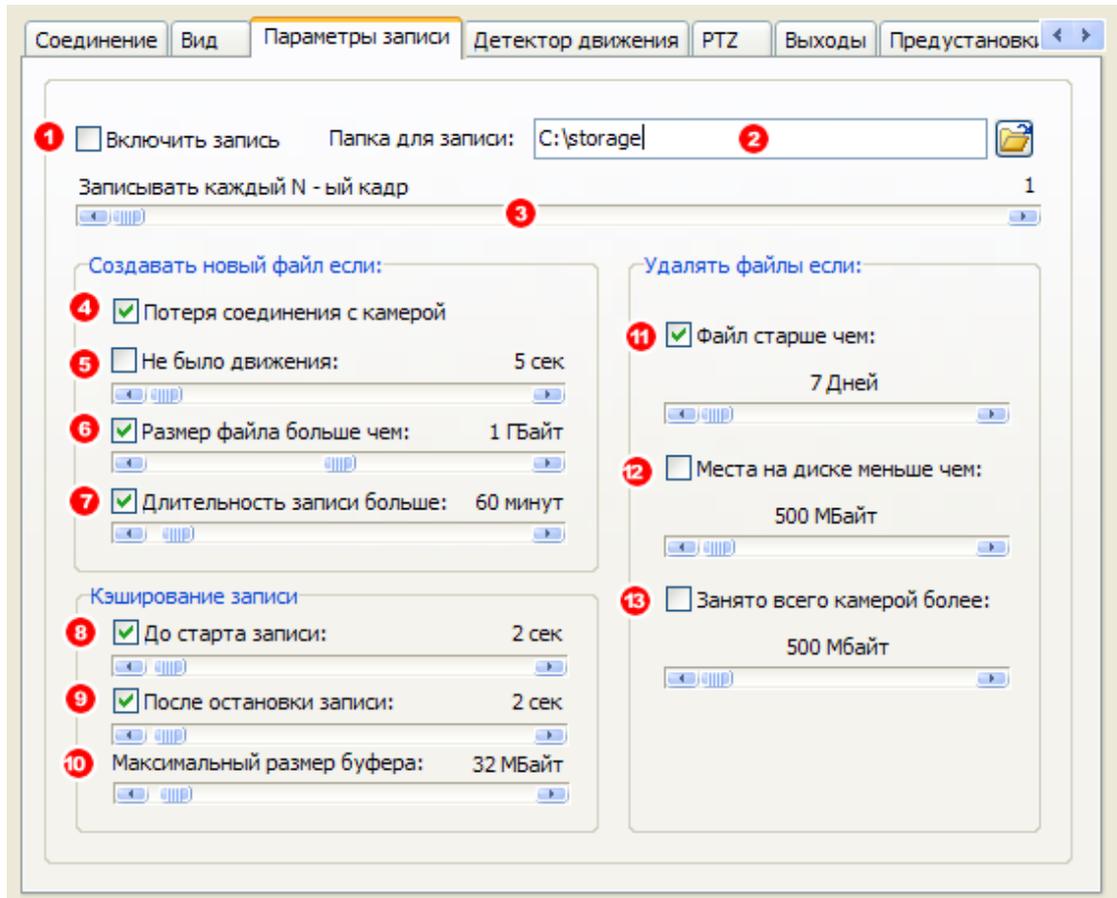
» **(6)** - ,
. FAT -
, 2
. NTFS ,
, -
, CD DVD . .

» **(7)** -
.
60 .

:

.

» **(8)** - ,
,
.
,
.

» **(9)** - ,
.

» **(10)** -
.

:

.

.

» **(11)** - ,
.

» **(12)** - ,
.

» **(13)** - ,
.

" " .

6.2.1.4.4

.

6.2.1.4.4.1

.
,                              ,            ,          .
,                                              .
(
,                    )                                    .
,                                                    ,
(            )                              .
,
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(          ,              ).

6.2.1.4.4.2

(                    ).
2     255        ,                              ,
.                              ,
,                                        .
,
.
,                                        ,            (          ).
(          ).          '                              '
(                          ),                ,                          .
.        ,
,
,  .  .                                              (
).

6.2.1.4.4.3

"                                ".

| Соединение | Вид | Параметры записи | Детектор движения | PTZ | Выходы | Предустановк |

**1** ☐ Включить детектор движения

Обработка каждого N-го кадра:
1
**2**

Порог сегмента:
5%
**3**

X сегментов:
32 шт
**4**

Y сегментов:
24 шт
**5**

Прочее:
**8** ☑ Отображать сегменты с движением
**9** ☐ Отображать сетку
**10** ☐ Изменить паузу между кадрами
при срабатывании детектора

Подавить сигнал движения, если:

Значение движения менее:
1.5 % (12 сегментов)
**6**

Новая пауза между кадрами:
5 мсек (< 200 fps)
**11**

Вернуть прежнее значение через:
5 секунд
**12**

Значение движения более:
90 % (1843 сегментов)
**7**

,                    ,                    .

(                              ,                                                                        . .).

,  . .                                                        .

⟫                                        ,                          **(1)**.                              **(2)**
.
, ,          ,                              .
,
.                              ,
,                    ,
,                                        .                    -
– 1.

⟫
**(4)   (5)**.  . .                                                                        .
–                                        ,
.                    320x240                              32
24                    .                              640x480          –
64   48                    .
,
10.
,  . .  ,                    ,
.                    ,

,

." **(9)**.

**(3)** –

. 2 4%,

.

." **(8)** -

. ( )

, .

(

, ).

. **(6)**

( . . )

( . . ). -

– 1.5%. .

, - .

**( 7)**.

. , . .

.

- 80%. .

, .

, .

**(10)** **(11)**

**(12)** "

. .

"

, . .

.

" " "

" .

" " .

6.2.1.4.5 / (PTZ)

IP- : ,

.

. .

"**PTZ**":

Соединение | Вид | Параметры записи | Детектор движения | PTZ | Выходы | Предустановки ◄ ►

Панорама:

Влево: /axis-cgi/com/ptz.cgi?move=left **(1)**

Вправо: /axis-cgi/com/ptz.cgi?move=right **(2)**

Наклон:

Вверх: /axis-cgi/com/ptz.cgi?move=up **(3)**

Вниз: /axis-cgi/com/ptz.cgi?move=dow **(4)**

Увеличение:

Ближе: /axis-cgi/com/ptz.cgi?rzoom=100 **(5)**

Дальше: /axis-cgi/com/ptz.cgi?rzoom=-10( **(6)**

Прочее:

В точку XY: /axis-cgi/com/ptz.cgi?center={X} **(7)**

Центр: /axis-cgi/com/ptz.cgi?move=hom **(8)**

Тип HTTP запроса:

GET **(9)**

**(10)** ☑ Отображать PTZ панель

**(11)** ☑ Использовать джойстик

HTTP
.
.

**DigitalRing Monocle**,                ,
.

» **(1)** -                                        .

» **(2)** -                                        .

» **(3)** -                                        .
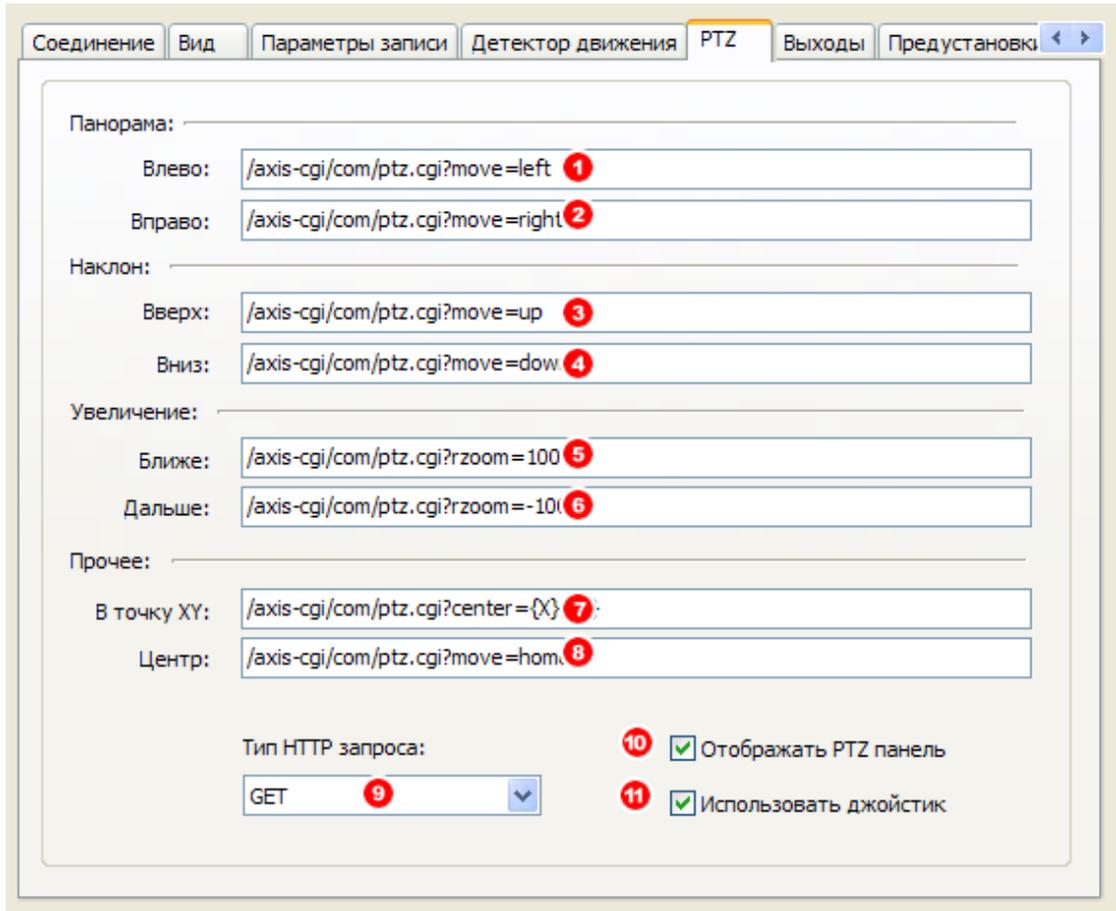
» **(4)** -                                        .

» **(5)** -                                        (ZOOM IN, ZOOM TELE)

» **(6)** -                                        (ZOOM OUT, ZOOM WIDE)

» **XY (7)** -                                        X, Y
.                                        ,
.

» **(8)** -                                        -            .

» **(9)** -        HTTP-                        IP-        .
IP-                HTTP GET                .
(        , Planet ICA-100                        )        HTTP POST

.                                ,                                           ,
                              ,                               GET,   .  .
                    "?"                                   "&".

              ,                             Axis: /axis-cgi/com/ptz.cgi?camera=1&move=left -
                    1         .

                                                                          GET-
POST-            ,                                    .

   ≫                **PTZ-             (10)** -
          .                                                                        ,                                ,
          .                .                                                                ,
                                                                    .


   ≫                                      **(11)** -
                    IP-                    .          c
                    (                             Z).
                              .
                    Windows.

                    "                    "                                                    .

6.2.1.4.6

              IP-
                                          ,                                        ,
                    .  .
                    HTTP            ,                                .

                              1-2          .
                    :                                        -                          ,             -
                    .
                                                                                    .


                                                            .                                  .
          "            ":

HTTP .
**DigitalRing Monocle** ,
.

» **1** **(1)** - 1.

» **1** **(2)** - 1.

» **2** **(3)** - 2.

» **2** **(4)** - 2.

" " .

6.2.1.4.7

(PTZ),
(Presets) - .

.
HTTP ,  .
**DigitalRing Monocle** 10
.
.

Web-                              .
                    ,
                                                        HTTP              .

                  .                                            "
          ":



                              Axis.                      ,                   ,
                        ,
1,2,3,4.

≫                              **1 (1)** -
    1 (                                      ).

≫                              **2 (2)** -
    2 (                                      ).

≫                              **3 (3)** -
    3 (                                      ).

≫                              **4 (4)** -
    4 (                                      ).

≫                              **5 (5)** -
    5 (                                      ).

>> **6 (6)** -
6 (                              ).

>> **7 (7)** -
7 (                              ).

>> **8 (8)** -
8 (                              ).

>> **9 (9)** -
9 (                              ).

>> **10 (10)** -
10 (                              ).

"                    "                                                    .

6.2.1.4.8          (              /          )

.                                    .                                        "
         ":



.

(            ).

>> **(1)** - .

>> **(2)** - .

>> **(3)** -
(AUTOFOCUS).

>> **(4)** - ( ).

>> **(5)** - ( ).

>> **(6)** -
(AUTOIRIS).

>> **(7)** - .

>> **(8)** - .

>> **(9)** - / .

>> **(10)** - .

" " .

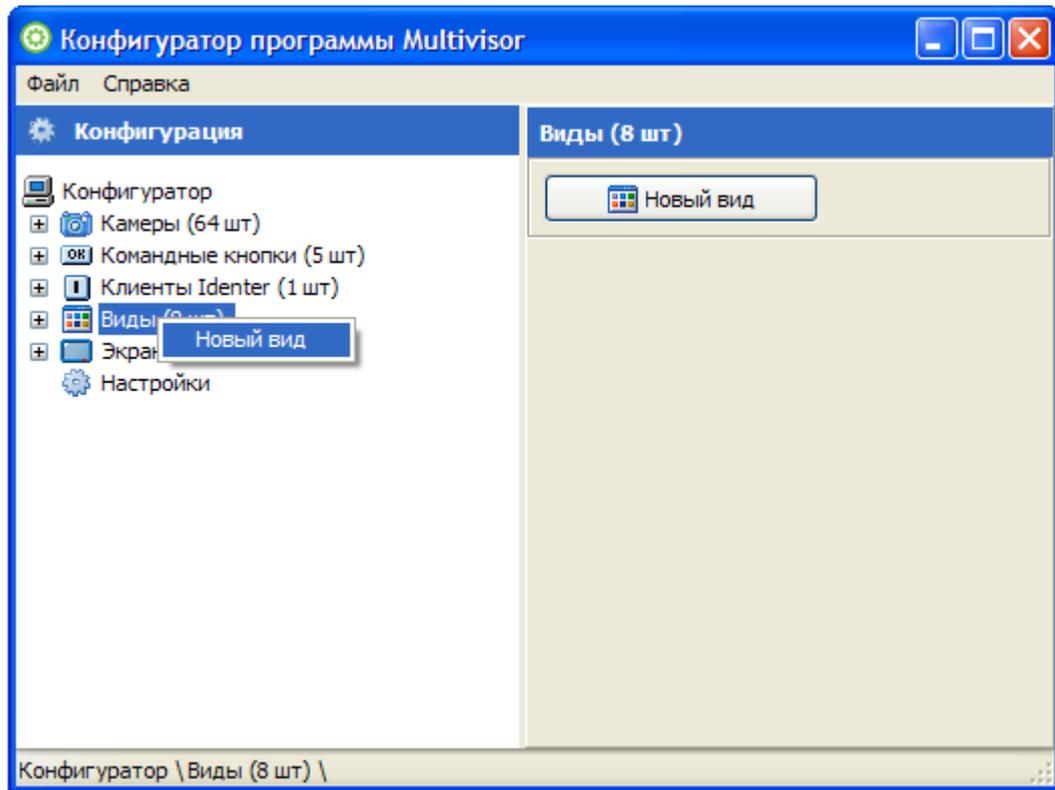### 6.2.2

.

" " .

" ".

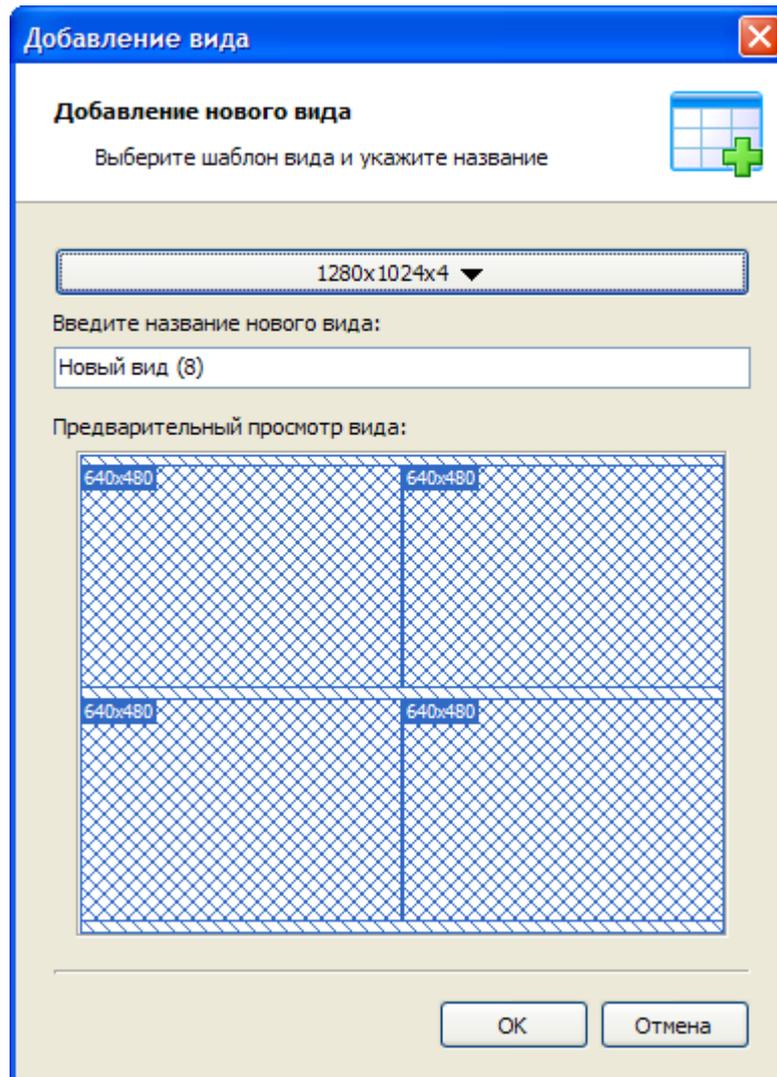**6.2.2.1**

"
"                                                                               "            ",                                    "
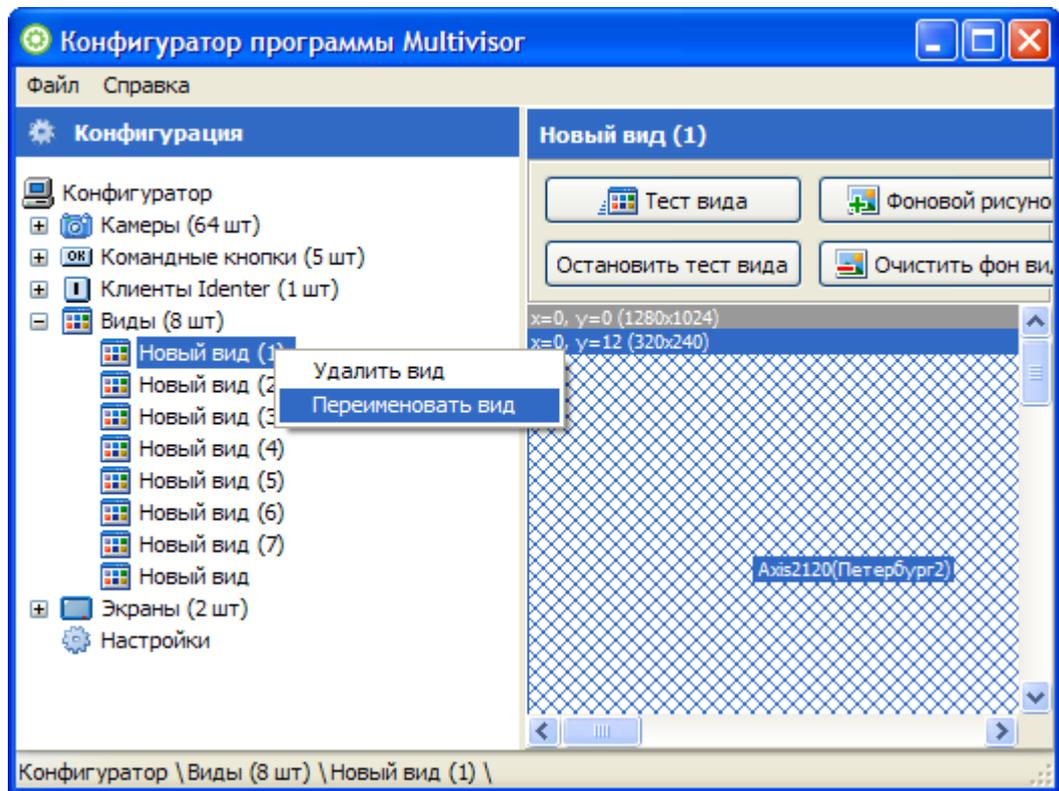".

"                        ".

.

.

"**ОК**"                 "     "

.
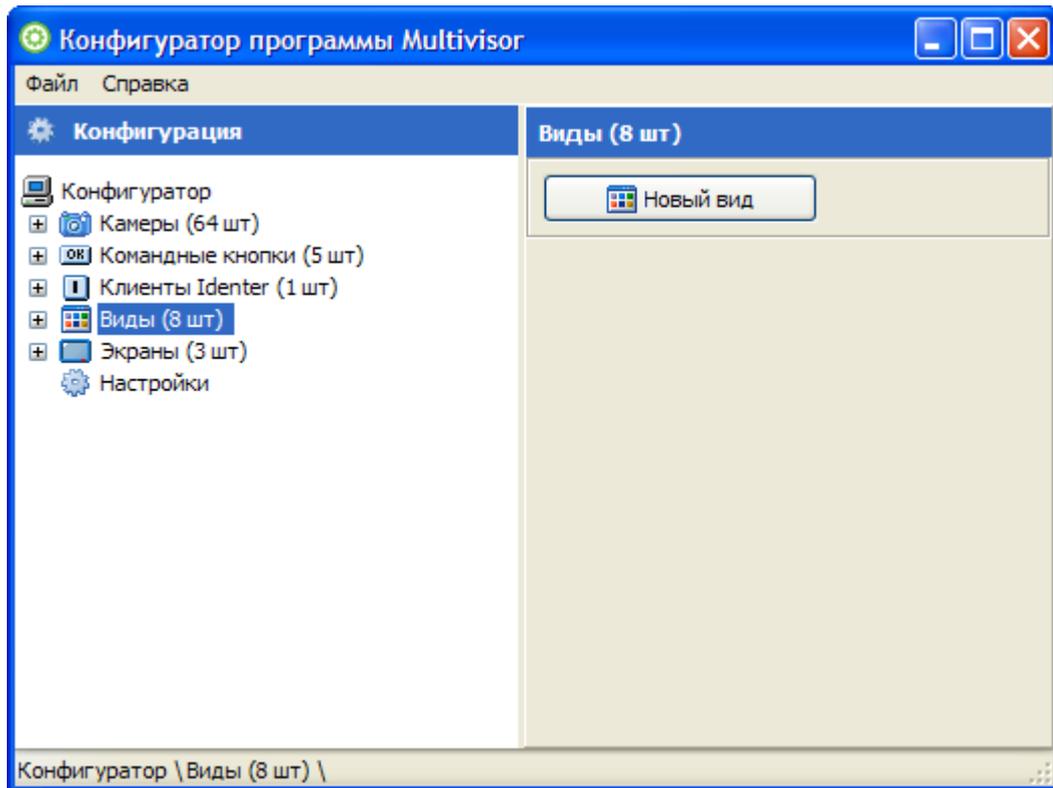
**6.2.2.2**

" ".



, :

**6.2.2.3**

.

6.2.2.3.1

, . .

,

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(                    )                                                              '
(                    )                                                              .

                                                          -                              ,
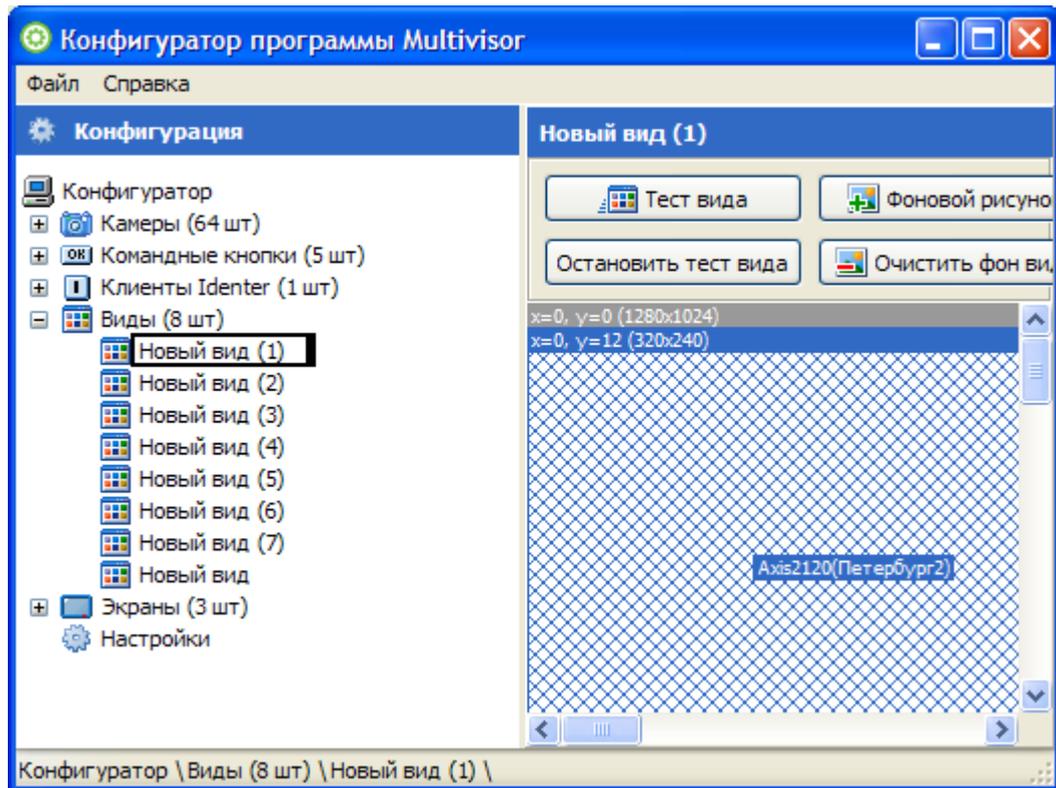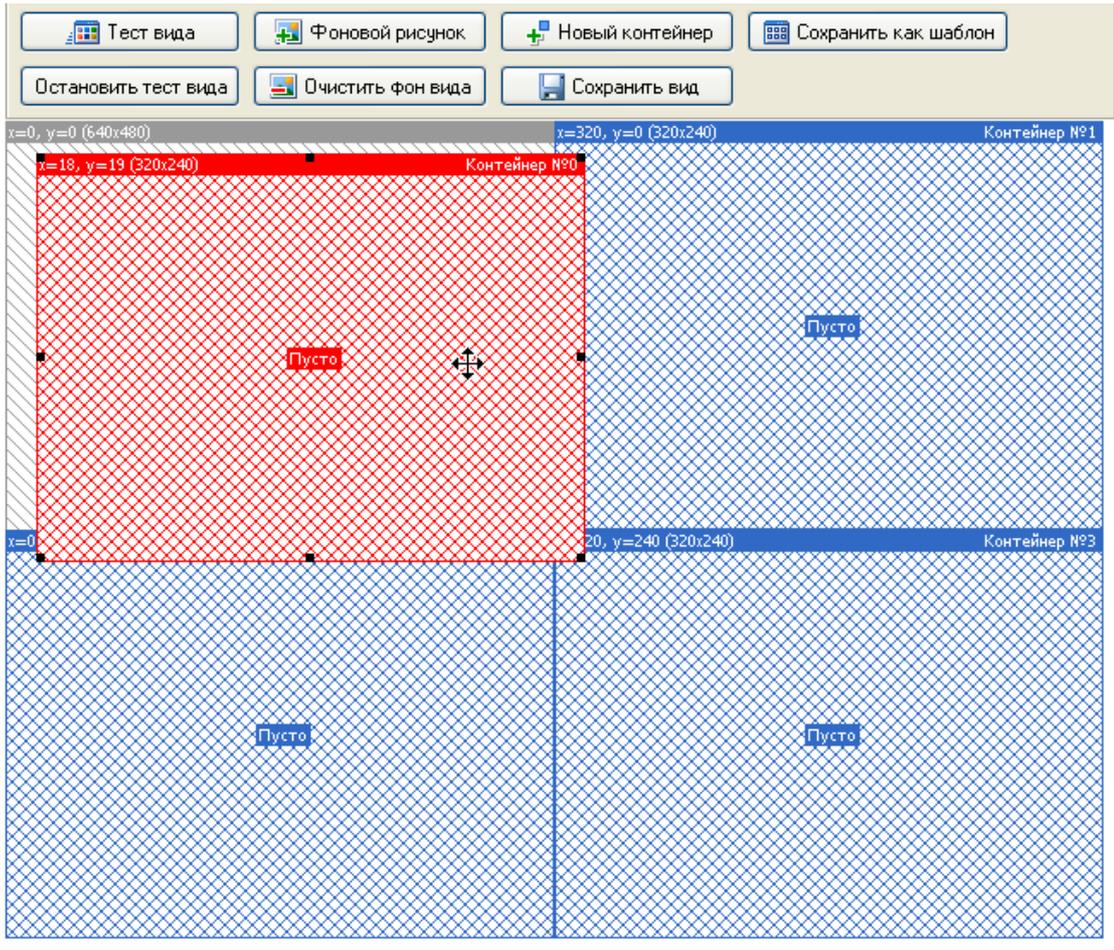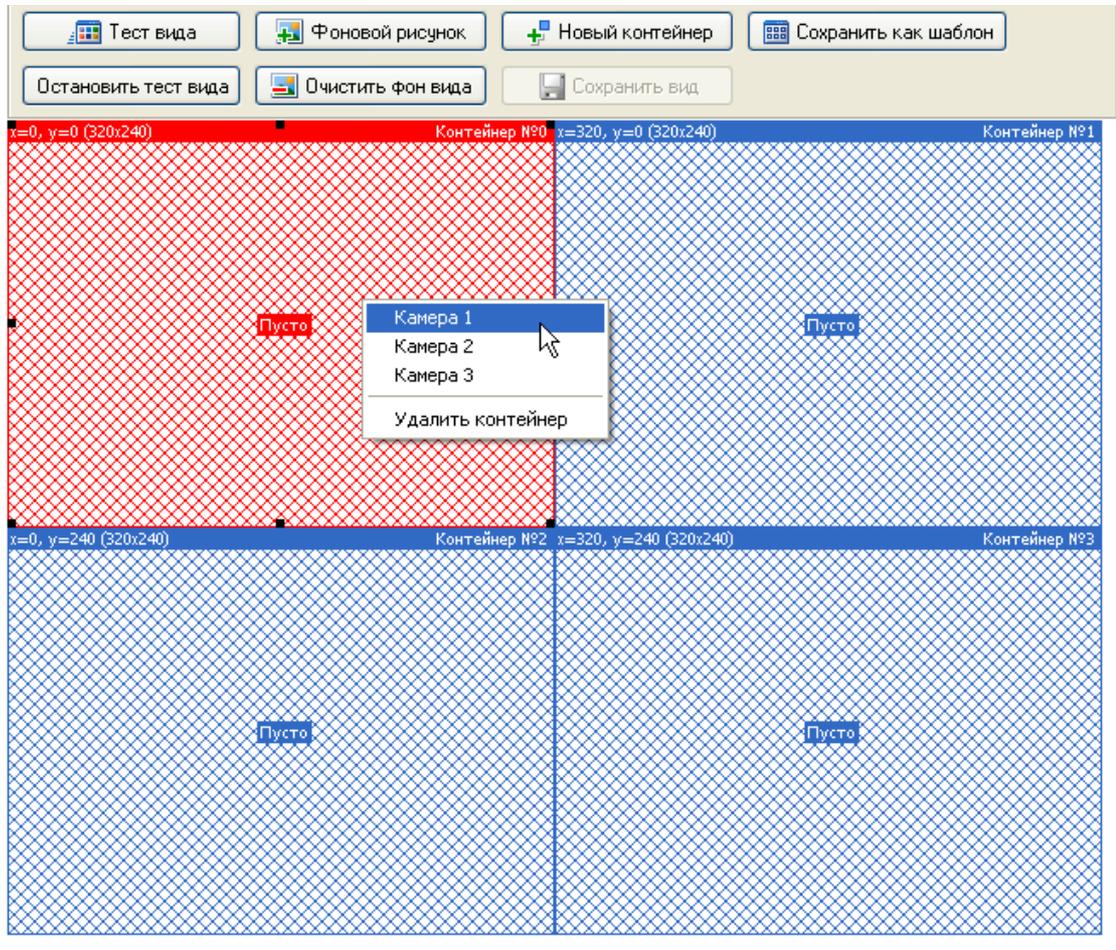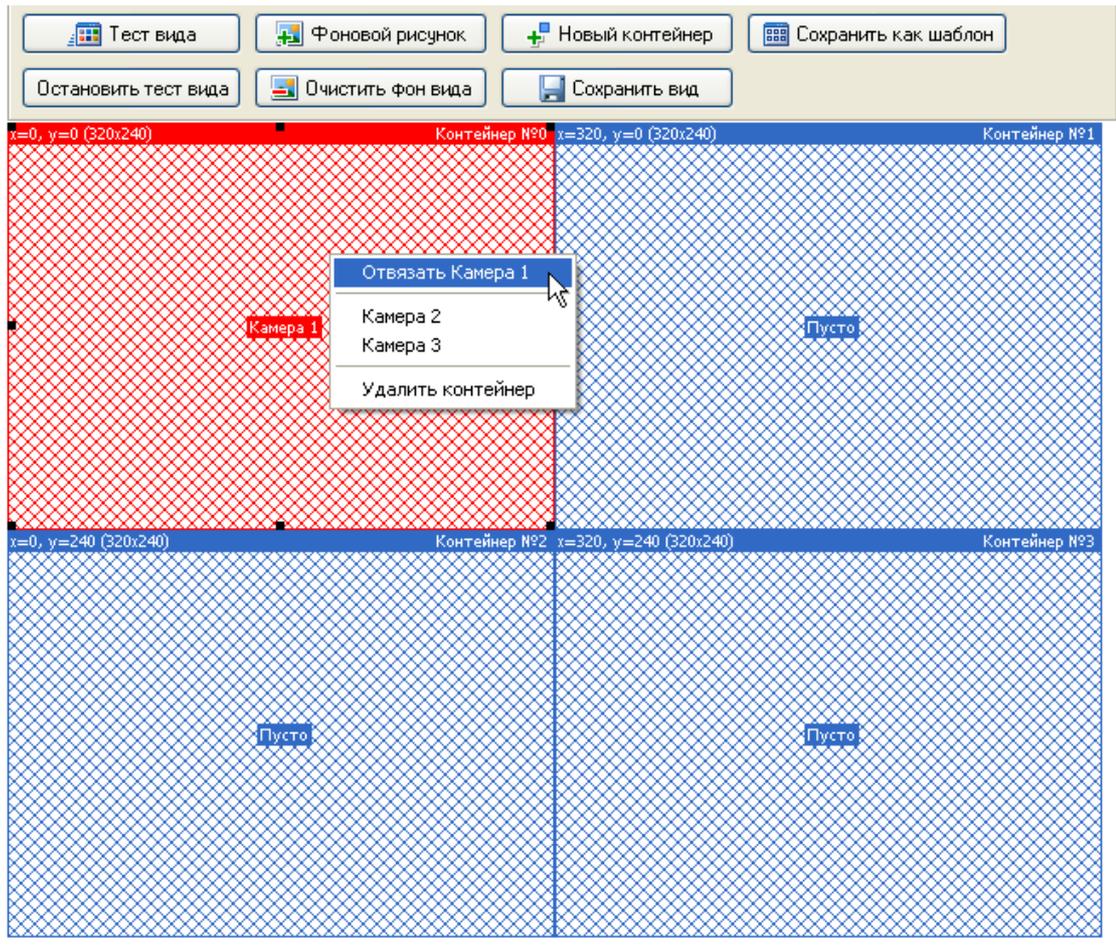                                                  .

                ,                                                                              .

                                                                      (
        ),
                                      .
                    ,                                                      ,                      ,
        "                    "                                            .


                                        :

Ctrl +                -                                            , Shift +              -
        .

                "                            "                                                      .

                **Delete**                      -                                      .

                    "                        "                                                      .

6.2.2.3.2

.

.

,

.           (            ,                         ).

6.2.2.3.3

, " "

BMP.
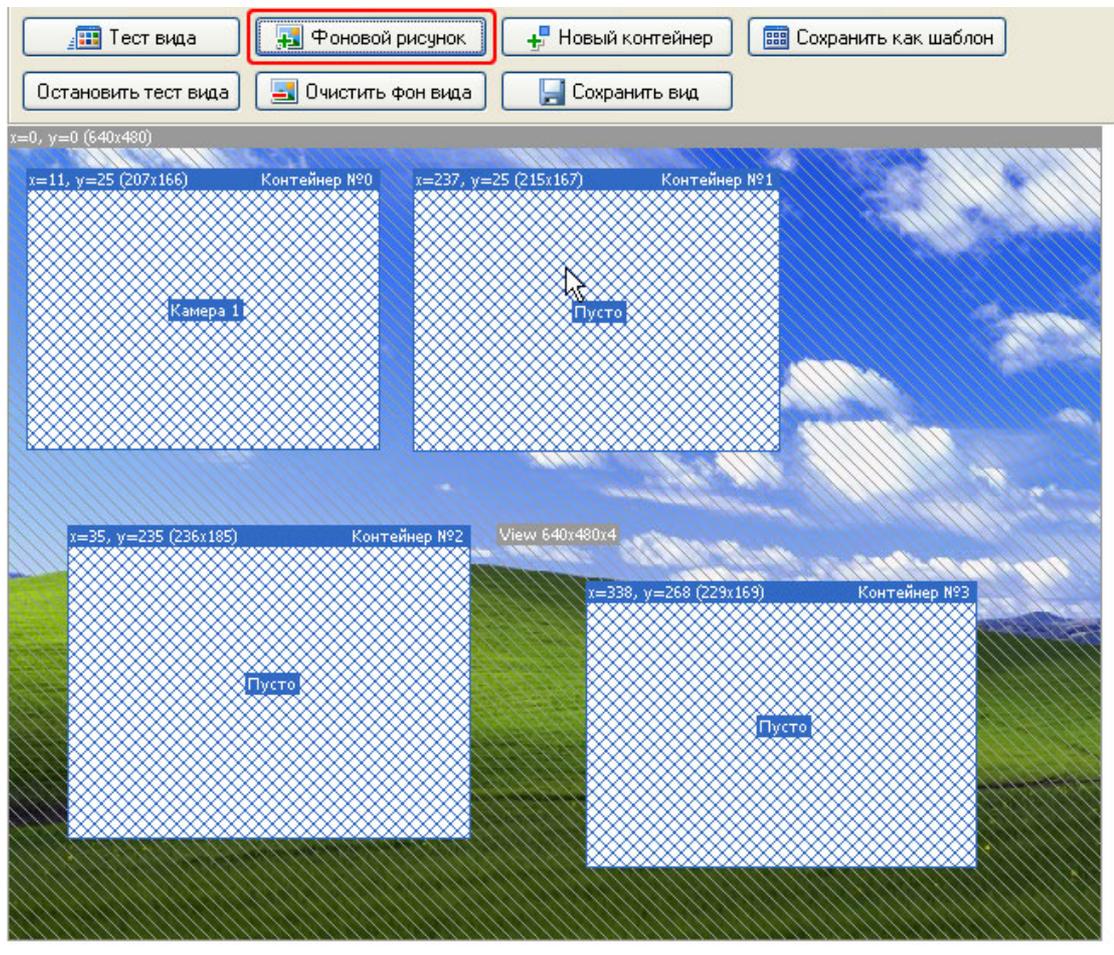


6.2.2.3.4

.             "       ".

.

,             "

".
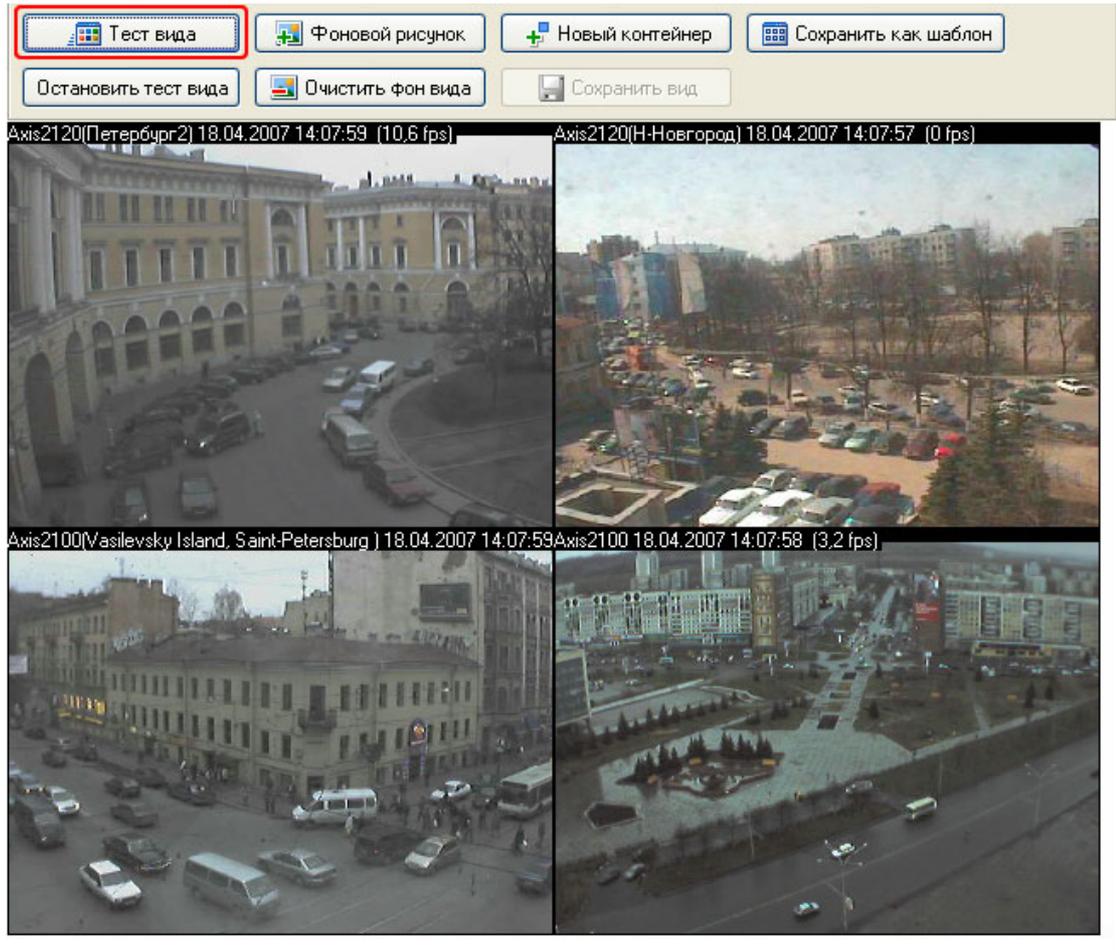
6.2.2.3.5

**6.2.2.4**

, " ".
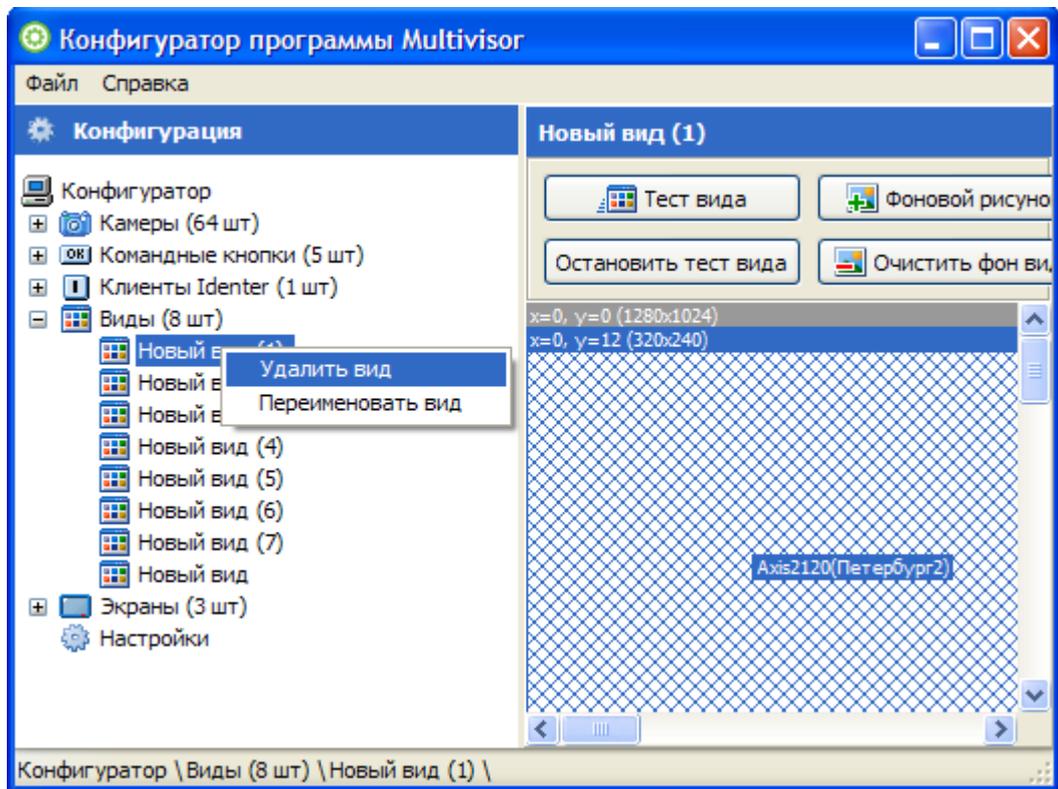


"**Delete**" .

**6.2.3**

,           .
"       "                                              .
"                    "                                .
"                    ".
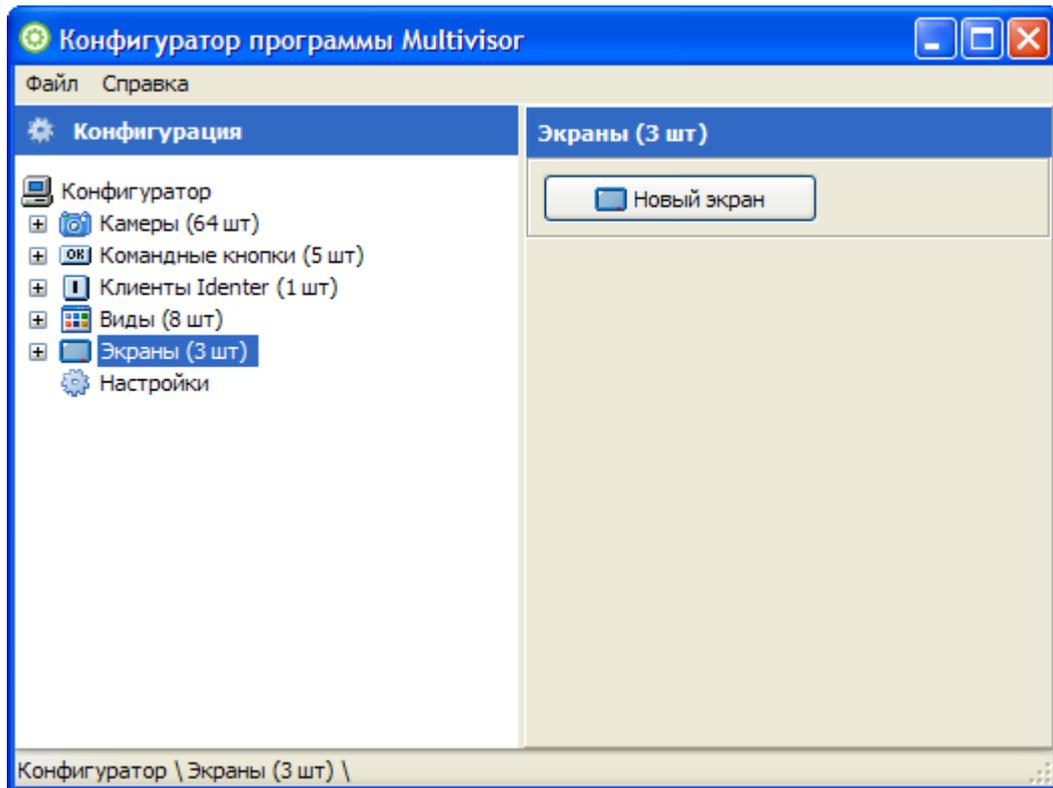
**6.2.3.1**

" "            " ,            "
"·

"                              ":
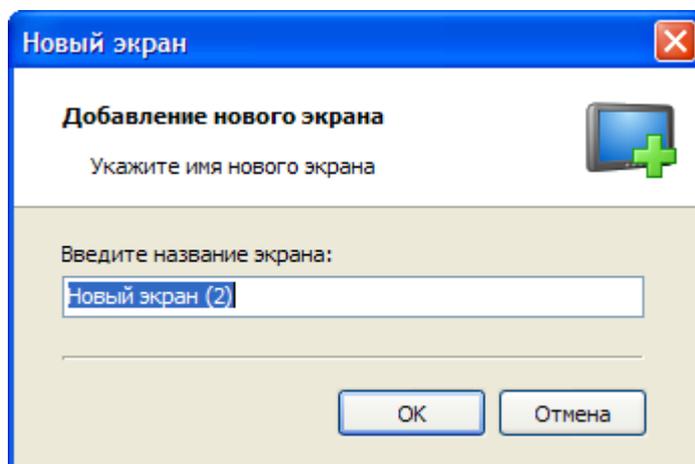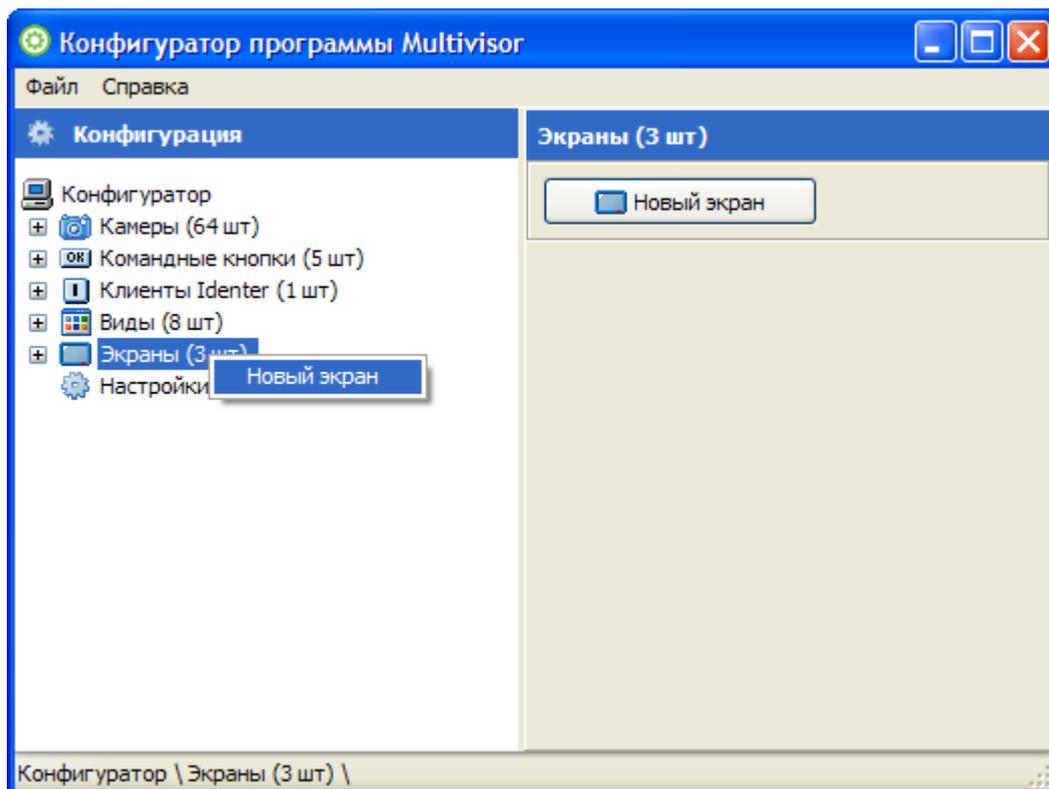
**6.2.3.2**

"                                                ".



,                                                                          :
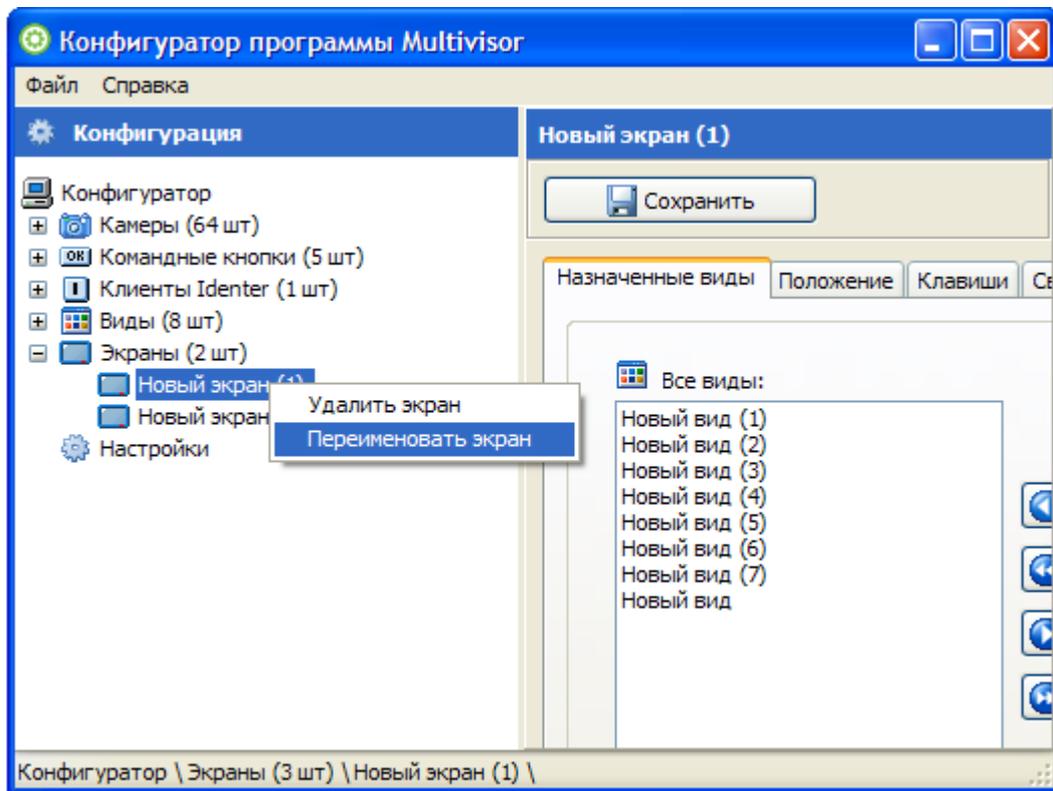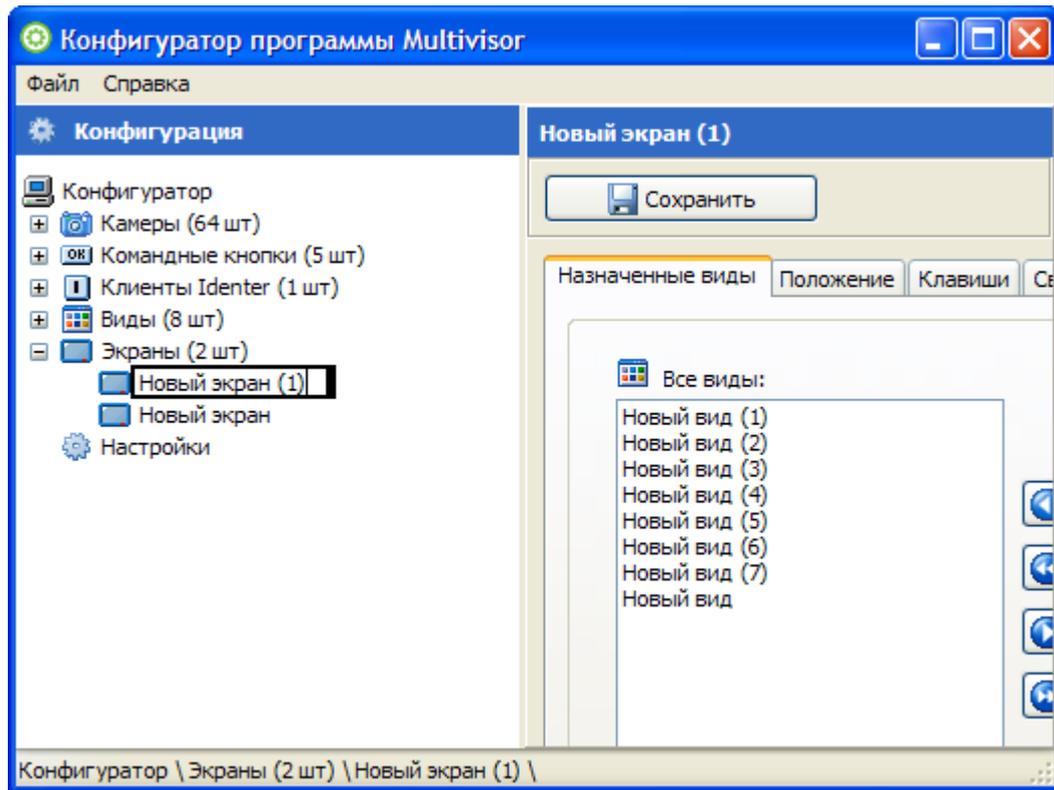
**6.2.3.3**

.

,
.

6.2.3.3.1
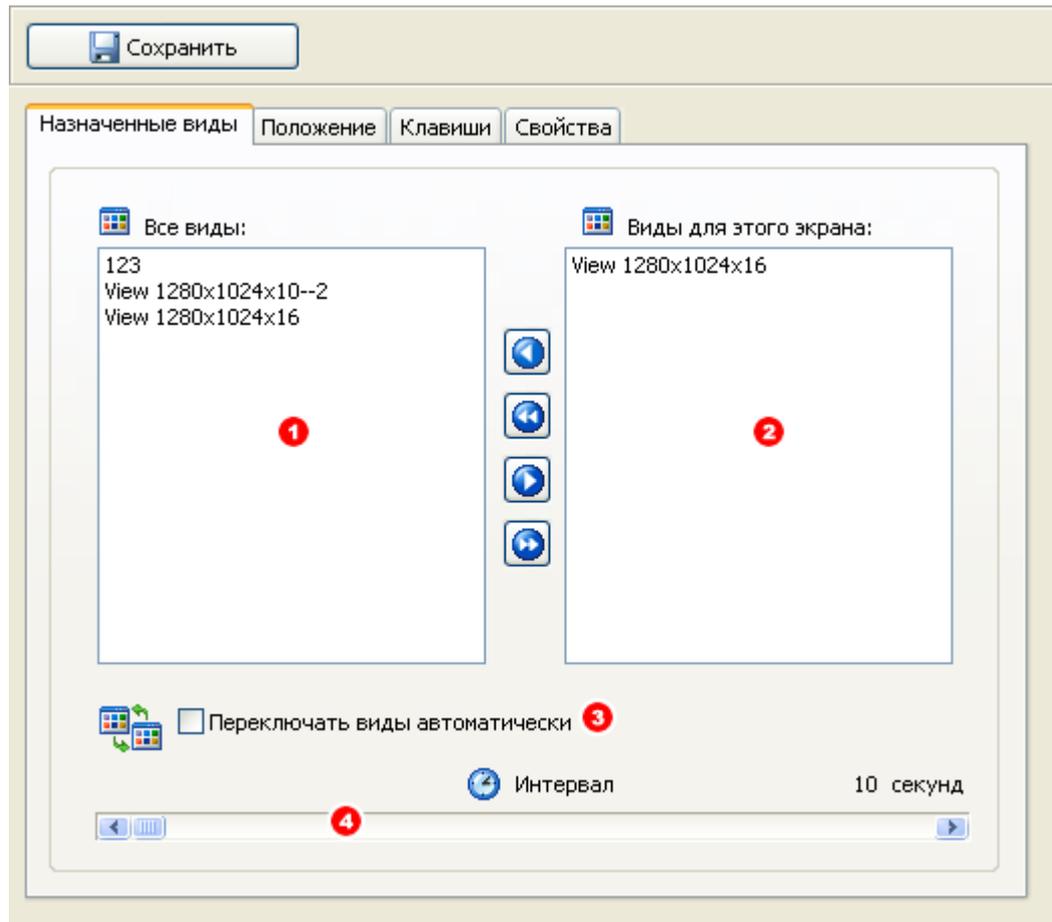
,
.     ,       .
"    .     ",

-                                           ,                                                       .
      -                      ,                                                  .
                                       .
            .

                                                        .
                        .                                                                ,     ,
            ,
                                          .

6.2.3.3.2
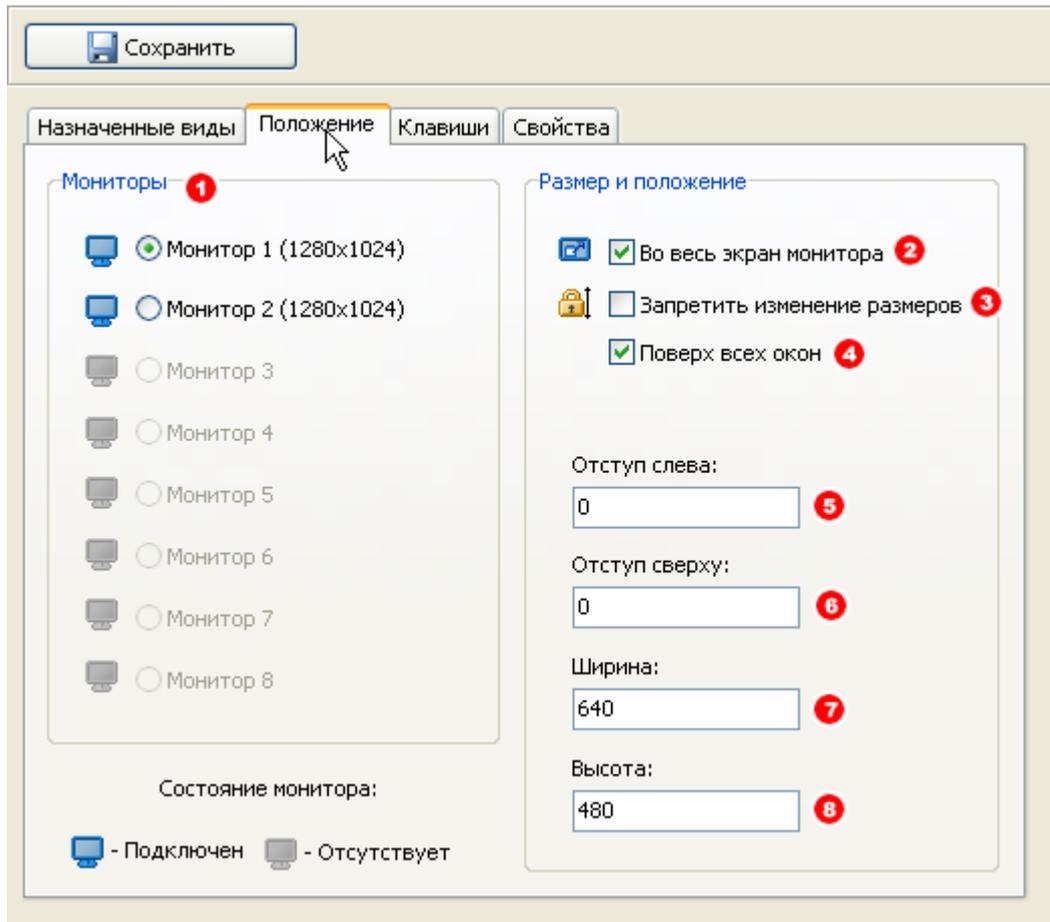
                                    ,
                              .                      ,                                               .
                      "                    ".

 

                                                       .
                                                "                " **(1)**.

**(2)**                                 .
                      .

**(3)**                                    .
               (                                         **(2)**).

**(4)**.                            .                                                    .

**(5)-(8)**.                                                         .
                         **(2)**,                                       .

6.2.3.3.3
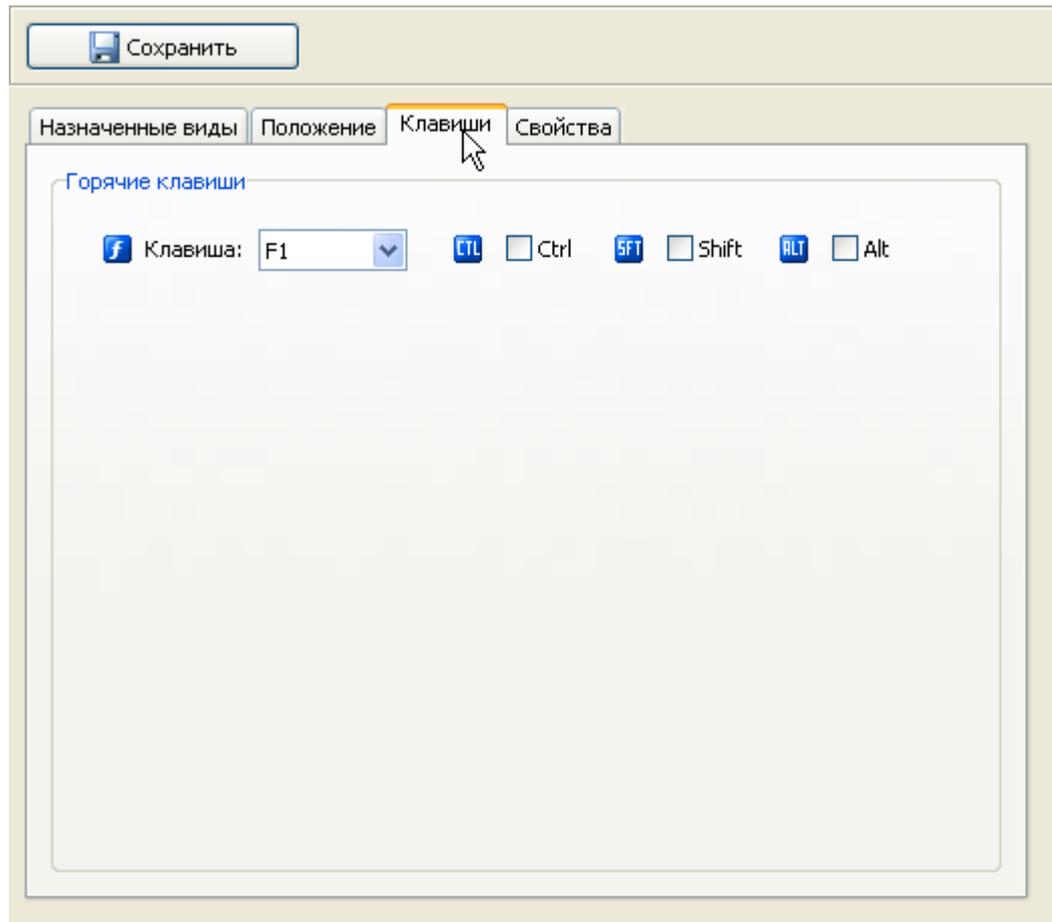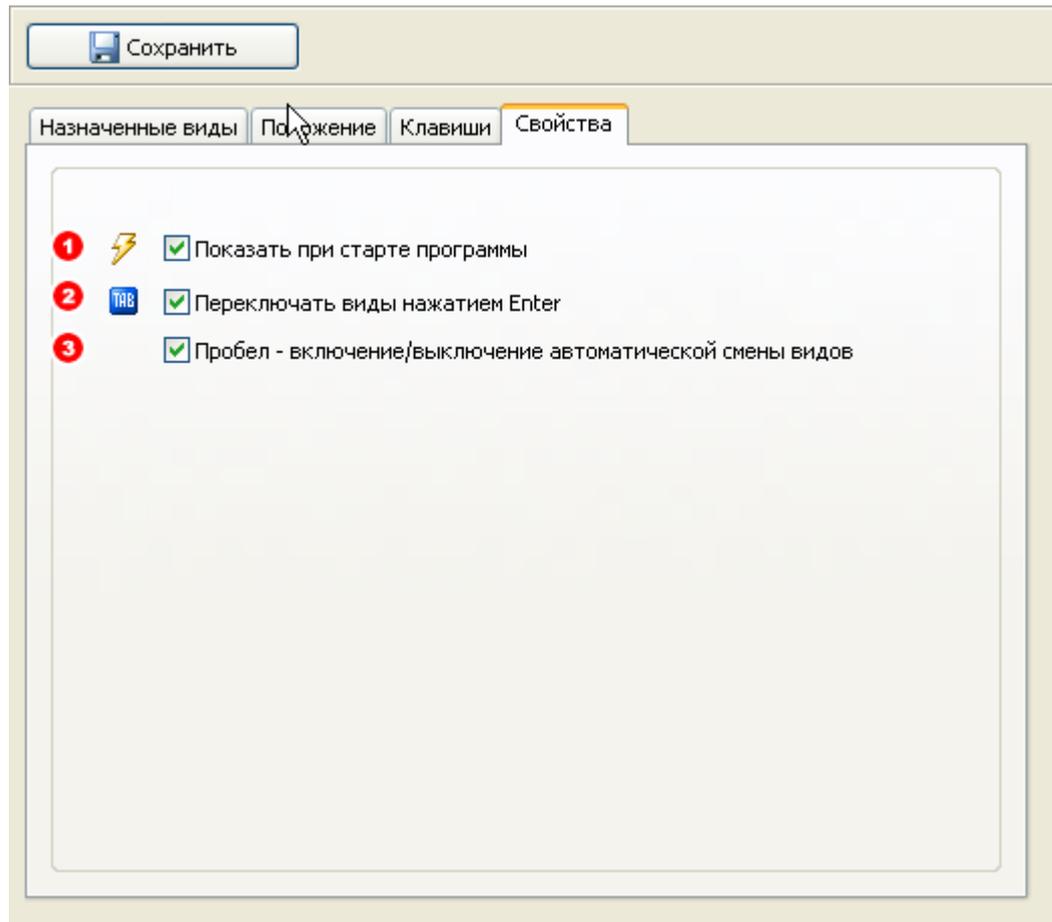
| | Сохранить |
|---|---|

Назначенные виды | Положение | Клавиши | Свойства

Горячие клавиши

Клавиша: F1 ▾ [CTL] ☐ Ctrl [SFT] ☐ Shift [ALT] ☐ Alt

, /
. F1-F12
CTRL, SHIFT, ALT. ,
.

6.2.3.3.4

,
. . ,
. " ".

**(1)**                                 .           ,
                              "**Multivisor**".

**(2)**                       **Enter**.
        ,
        "**Enter**".

**(3)**       -         /                         .
  /
     "      ".

**6.2.3.4**

                                       ,                                                       ".
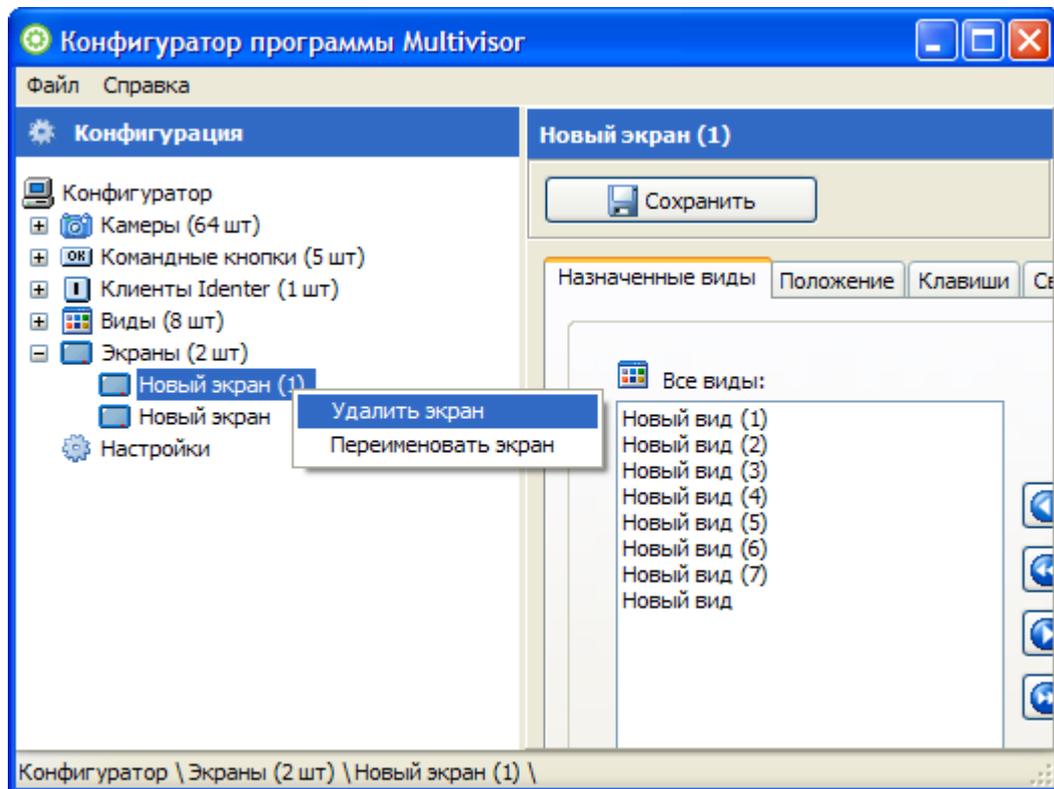


                    "**Delete**"                      .

**6.2.4**

                                                                                               "
**Multivisor**",                                                          -          .

**6.2.4.1**

                                     ,          "                   ".              ,
                  .                                "        ".
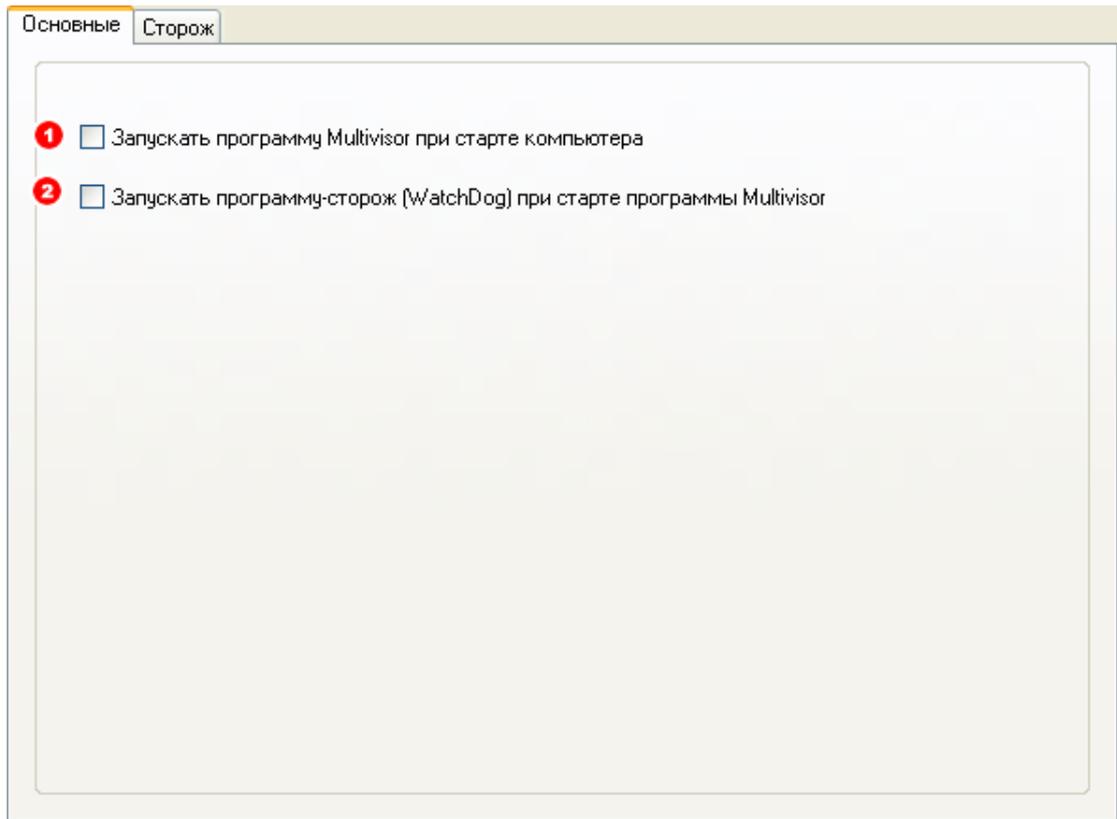
**(1)** -                                                                         "**Multivisor**"
                    Windows.                                                          "
**Multivisor**"                             "                         ".

**(2)** -                              "**Multivisor**"
                    -            (**Watchdog**),                                      "
**Multivisor**"                                              .

**6.2.4.2**

                                                    ,
                                    "                    ".                    ,
                        .                    "            ".
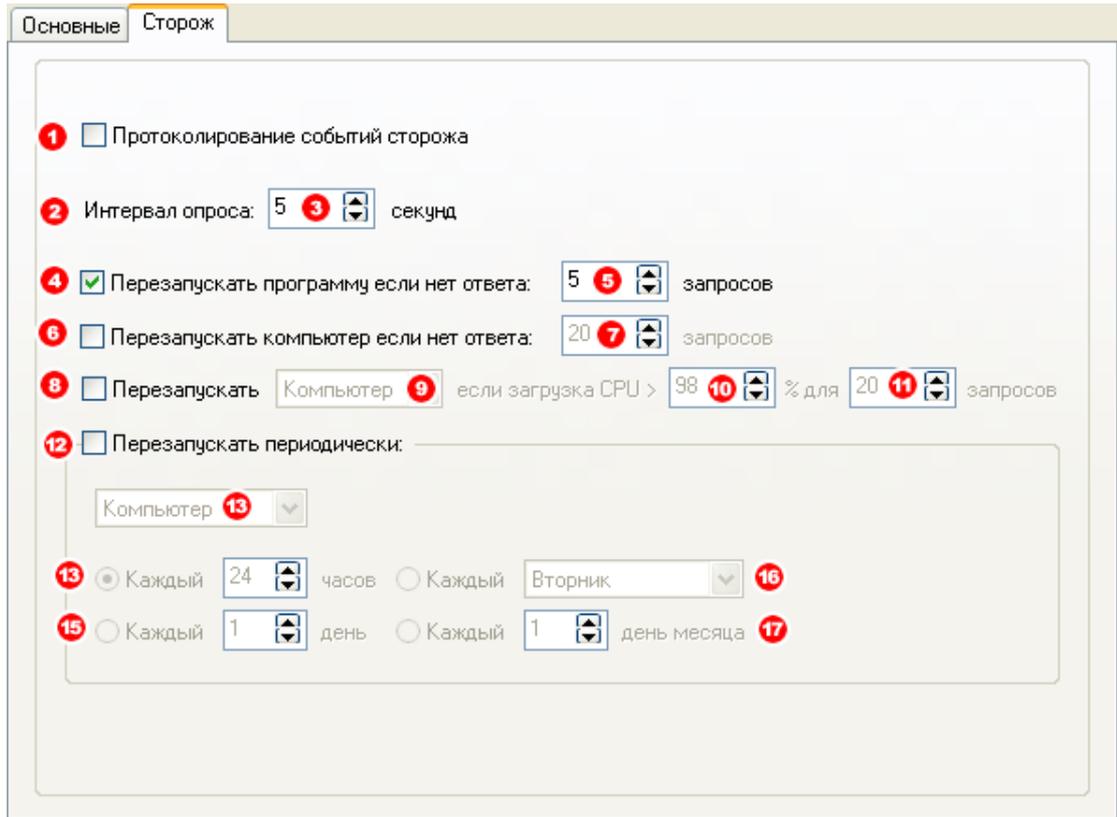
**(1)**

Log- .
WatchdogLog, .

**(2)**

Watchdog -
, . . .
"
" **(3)**. - 5 .
( 2-3 )
, ( 30 )
, , ,
.
.

**(4)** ,

**(5)**
, .

**(6)** ,

**(7)**
, .

**(8)**

**(9)**, **(11)**

**(10)**.

**(12)**

**Watchdog** c
: , , .

**(13)** .
: .

**(14)** **N** .
N ( , 2 ).

**(15)** **N** .
N ( , 5 ).

**(16)** .
( , ).

**(17)** **N** .
N- ( , 1- ) .

# 7 DigitalRing Multivisor

"DigitalRing Multivisor"
.
( ). .
, ( )
IP- .

,                                                                                                    "                         "

.

( )
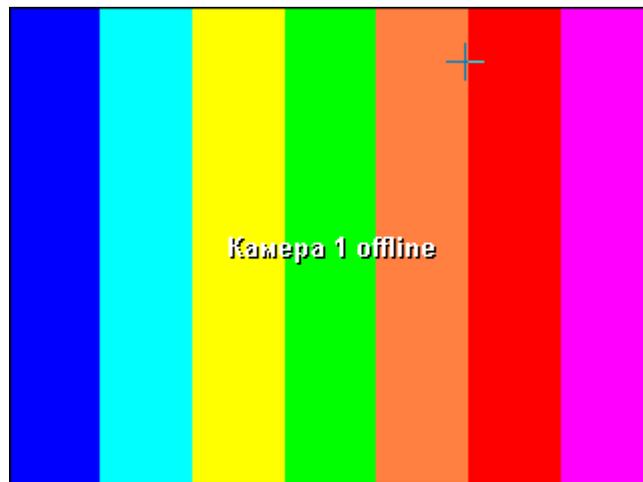
## 7.1

.

,
ALT+TAB.

, Windows.
Windows, .
. ALT+TAB. ,

/ . / "
".

## 7.2

.
. - , . . .
,
, ". "
". ,
.
.
, **ENTER**.

## 7.3

. (
) .
.
. TAB
,
.

.

.

.

.                                                                    /            /

,                                                                              ,
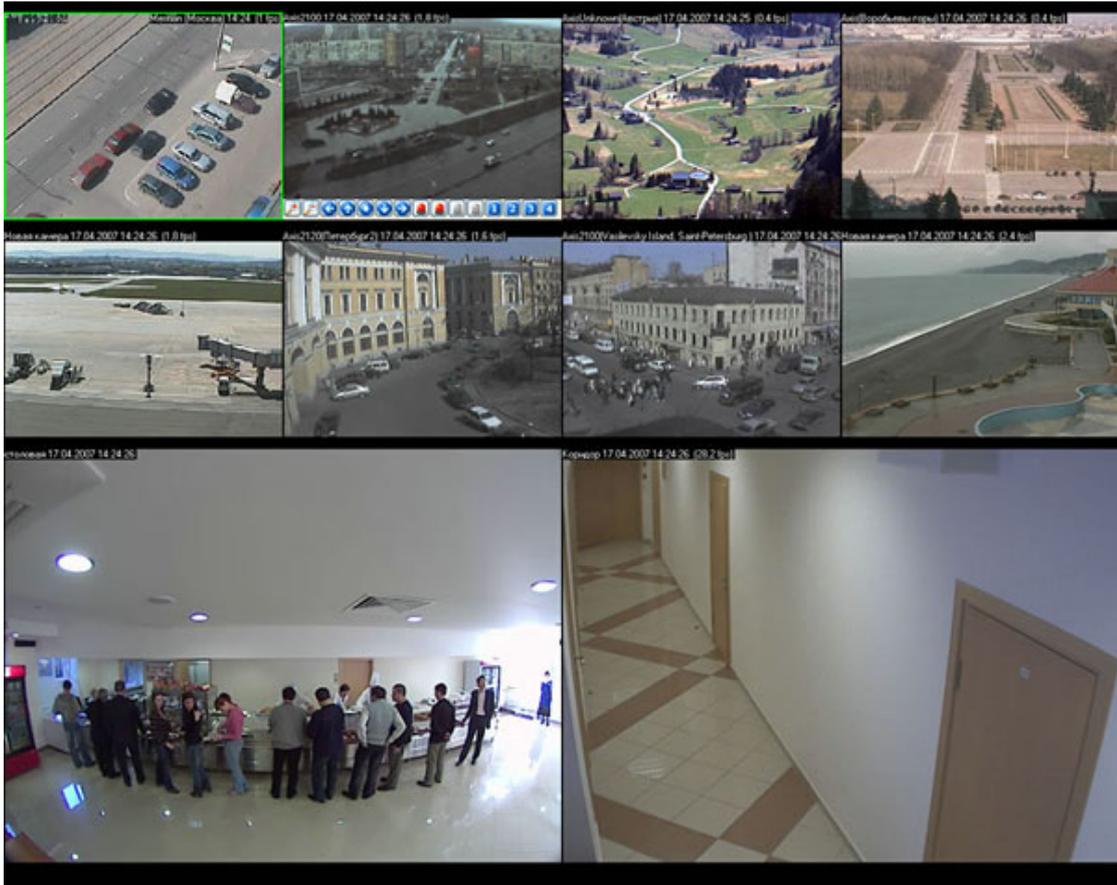
.

**/**        **.**                    /

,                          .

**1.**                          .                                                    ,

.                                              ,

.                                    .

,

,                                                                                      :



"      "                                                                  -                    .
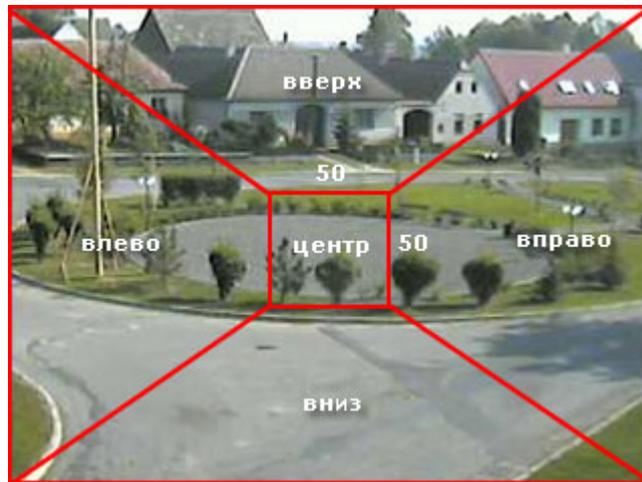
**2.**                              .                        /

:

- CTRL +                  -                    ;

- CTRL +                -                    ;

- CTRL +                -                ;

- CTRL +              -                ;

- CTRL + HOME -                                    -                ;

**3.**                                                    .

,                            :
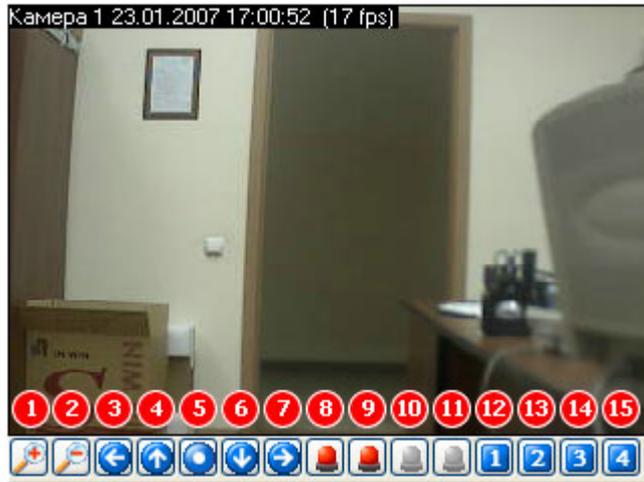
**(3)-(7)** / :

- **(3)** - ;

- **(7)** - ;

- **(4)** - ;

- **(6)** - ;

- **(5)** - - ;

/ . /
, .

1. . " "
" ' " - .

2. .

- CTRL + - ;

- CTRL + - ;

3. .

**(1),(2)** / :

- **(1)** - ;

- **(2)** - ;

. IP-
, . 2
, , . "
**DigitalRing**" .

**1.** .  /
:

- CTRL + Alt + F1 -                1;
- CTRL + Alt + F2 -                2;
- CTRL + Alt + F3 -                1;
- CTRL + Alt + F4 -                2;

**2.** .

- **(8)** -                1;
- **(9)** -                2;
- **(10)** -                1;
- **(11)** -                2;

.
(PRESET),                "
"                ,                ,                . .
,                .

**1.** .
:

- CTRL + 1 -                1;
- CTRL + 2 -                2;
- CTRL + 3 -                3;
- CTRL + 4 -                4;
- CTRL + 5 -                5;
- CTRL + 6 -                6;
- CTRL + 7 -                7;
- CTRL + 8 -                8;
- CTRL + 9 -                9;
- CTRL + 0 -                0;

**2.** .

- **(12)** -                1;
- **(13)** -                2;

- **(14)** -         3;

- **(15)** -         4;

                 **.**

      ,             :

- F -         ;

- CTRL + F -         ;

- ALT + CTRL + F -      ;

               **.**

        (     ),                     :

- I -         ;

- CTRL + I -         ;

- ALT + CTRL + I -      ;

             **/**    **.**

              /    ,

                 :

- D -        ;

- N -        ;

- A -     ;

## 7.4

              "**DigitalRing Multivisor**"                  "

    "

     ,            "**Multivisor**"               "

    ".

# 8

**DigitalRing Multivisor**.

## 8.1

Разрешение камеры:
320x240

Частота кадров:
7

Количество дней
1

Количество камер
1

**Необходимо:** 8,65 ГБайт

Рассчитать

**MotionJPEG**

IP- .

**(1)**,
**(2)**, **(3)** **(4)**.
" " **(6)**. " : " **(5)**

## 8.2

"**DigitalRing**"
DigitalRing - ,

IP- .

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- : support@d-ring.ru;

- : [http://www.d-ring.ru/support](http://www.d-ring.ru/support);

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