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1 Introduction

**Mobile TV Viewer** is an easy to use software for simultaneous playback of up to 9 Mobile DTV and/or Digital TV services of a received multiplex.

**Mobile TV Viewer** is available in three variants:

1. **ATSC**
   - watching up to 9 ATSC TV programs received via a legacy ATSC receiver

2. **DVB**
   - watching up to 9 DVB-T/-T2 TV programs received via a legacy DVB-T/-T2 receiver

3. **ISDB**
   - watching up to 9 ISDB-T/-Tb and/or 1Seg TV programs received via a legacy ISDB-T receiver.

**Mobile TV Viewer** will fascinate you with its straight forward use, its ability of watching a program service while further program services run in background and its ability to display also the mobile TV programs beside the legacy digital TV programs.

![Diagram](image)

**Figure 1 : Overview - Mobile TV Viewer**

Figure 1 illustrates the principle work as well as the components of the Mobile TV Viewer. The Control application controls the tuning of the receiver and after successful tuning the receiver sends the received data to the Control application. The Control application does de-multiplex the incoming data and sends the Audio/Video content via IP to the Monitor application. Up to 3 Monitor application instances can be opened simultaneously. The Monitor application does playback the Audio/Video content.
Figure 2: Example - watching one program and observe 4 further programs

Mobile TV Viewer is capable to run as multi-instance, i.e. several multiplexes can be received via several tuner devices simultaneously – on one single machine!

!!! Note !!!
Mobile TV Viewer does not support watching of encrypted TV programs!
2 System Requirements

- DirectX 9 or higher
- ATSC or DVB-T or ISDB-T receiver with BDA driver

3 Installation

(1) Download Mobile TV Viewer:

(2) Start the appropriate 'setup_Mobile_TV_Viewer_xxx.exe' and follow the instructions.

After successful installation a desktop icon appears as shown in Figure 3.

![Desktop Icon](image)

**Figure 3 : Desktop Icon**

Additionally there is an appropriate entry in the Windows Start Menu.
4 Operation

4.1 Start

Before starting the Mobile TV Viewer application ensure that:
- an appropriate TV receiver is connected
- the BDA drivers are installed properly
- the device is currently not used by another application

Start Mobile TV Viewer from Windows Start Menu or by double click the desktop icon. As long as the software is not registered the registration window opens at first.

![Registration Window](image)

**Figure 4 : Registration Window**

If you have already purchased a license, then click 'Enter License' and enter the license key in the following dialog window. The application has to be re-started. If the license key is valid, the registration window will no longer appear after starting the software.

If you want to purchase a license the click 'Buy License'. You will forwarded to the Share-It on-line portal where you can buy a license. The license key will be sent via email.

**Note: An Internet connection is necessary.**

If you want test the application without valid license then enter the displayed characters and then click 'Continue'.

**Note:**

Mobile TV Viewer is shareware and must be licensed if being used beyond the trial period of 30 days. During the trial period there are no further restrictions.
4.2 Controller

4.2.1 Overview

Figure 5: Controller Main Window

(1) Caption bar

Figure 6: Controller – Caption bar

[1] Settings+Tools
   - click to open the dialog 'Settings + Tools' which provides following functions:
     - Tuning
     - Scanning
     - Recording
     - Options
     - Log

   - Click to open the online help.

   - Click to open the 'About' box which provides version and license information. If Mobile TV Viewer is not licensed there is a button to open the registration dialog.

   - click to minimize the Controller

[5] Exit
   - Click to exit the controller. All open Monitors are closed automatically.
(2) Tool bar

![Tool bar diagram]

**Figure 7**: Controller – Tool bar

[1] **Favorite Monitors 1..3**  
Define up to three monitors as favorites and use the buttons for fast re-assignments.  
**Note**: this feature is only available if MonitorDX gets used as monitor application

[2] **Show/Hide Service Guide**  
Click to show or hide the service guide (EPG or ESG) for the selected program entry. Note, it does only work if an appropriate service guide is available, indicated in the status bar.

[3] **Reset Channel**  
Click to reset the program information for the selected channel.

[4] **Reset All**  
Click to reset all channels, i.e. the channel/program list will be cleared completely.

[5] **Delete Selected Channel**  
Click to delete the selected channel.  
**Note**: in case the active channel gets deleted then the first channel of the list - if exists - gets activated automatically.

[6] **Tuning**  
Click to open the tuning tool.

[7] **Scanning**  
Click to open the scanning tool.

(3) Channel / Program List-Panel

Panel for showing the current channel and program list in a tree-view.

![Channel/Program List panel]

**Figure 8**: Controller – Channel-/Program-List (example)
(4) Status panel

Figure 9: Controller – Status panel

[1] Tuner
The tuner LED lights if the tuner has been tuned successfully on the selected frequency.

[2] Data
The data LED flashes if data are received and processed by the Controller.

[3] Signal
Indication of the signal level of the current input signal.

Note: Some receivers do not provide proper values for the signal level or it takes a few seconds before the level gets displayed. That means not that in case of no signal level no data are received. In that case check the ‘Data’ LED whether data are received and processed.

[4] EPG / ESG
EPG: indicates that an EPG is available
ESG: indicates that an ESG (ATSC-M/H or DVB-H) is available.

[5] ON / OFF
Switch the Controller ON or OFF.

4.2.2 Controller System Tray Icon

Figure 10: Controller System Tray Icon
If it has been configured, an icon gets displayed in the system tray. Via right mouse-button click a pop-up menu gets opened. A double click on the icon shows/hides the controller application.
4.2.3 Tuning

After starting the Mobile TV Viewer, the main window of the Controller gets shown.

Figure 11: Controller Main Window

Click the button 'Settings + Tools' or click the button 'Tuning' in the tool-bar to open the appropriate dialog window and select the 'Tuning' tab to prepare the tuning as follows:

Figure 12: Settings Dialog – Tuning

1. Select the Tuner Device
   - setup a time for checking a valid signal
   Note: this parameter strongly dependent on the used tuning device. i.e. how long it can take before the tuner recognizes a valid signal after it has been tuned
2. Select a frequency plan
3. Enter the tuning parameters or select a channel or frequency
4. Click 'Start Tuning' to start the tuning process
After the tuning has been finished a list of TV programs of the current channel gets displayed.

![Image](image_url)

**Figure 13 : New channel added**

In case there are several channels in the list, just select the appropriate entry to switch to another channel. The tuning process starts automatically.

<table>
<thead>
<tr>
<th>Icon</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td><img src="image_url" alt="Icon" /></td>
<td>Mobile DTV - TV program with ESG reference / free to air</td>
</tr>
<tr>
<td><img src="image_url" alt="Icon" /></td>
<td>Mobile DTV - Radio program with ESG reference / free to air</td>
</tr>
<tr>
<td><img src="image_url" alt="Icon" /></td>
<td>Mobile DTV - program without ESG reference</td>
</tr>
<tr>
<td><img src="image_url" alt="Icon" /></td>
<td>Digital TV – TV program</td>
</tr>
<tr>
<td><img src="image_url" alt="Icon" /></td>
<td>Digital TV – Radio program</td>
</tr>
<tr>
<td><img src="image_url" alt="Icon" /></td>
<td>Encrypted service – NOTE: cannot be decoded!</td>
</tr>
</tbody>
</table>

**Table 1 : Program Entry Icons**

The tuning process can be started again for a new frequency/channel as already described above. The new channel is added to the Channel/Program list.
### 4.2.4 Watching TV

To watch a TV program select it in the program list by click with the left mouse button on the corresponding checkbox. The current configured Monitor application gets started automatically. A small icon beside the program entry indicates which monitor instance has been opened for this program.

![TV Program Selection](image1)

**Figure 14 : TV Program Selection**

Up to 9 TV program services can be watched simultaneously, i.e. up to 9 program entries can be selected in the program list.

To stop the watching of a particular program, click with left mouse button on the appropriate checkbox. The program entry gets de-selected and the corresponding Monitor gets closed automatically.

**Note: In case the Monitor application gets closed manually, i.e. not via de-selection the program entry in the list, the program entry remains selected.**

![Monitor Tool Buttons](image2)

**Figure 15 : Monitor Tool Buttons**

Use the favourite monitor tool buttons for fast changing the Monitor assignment to a particular program. E.g. select the program entry assigned to Monitor I and click the tool...
DVB-T2

For DVB-T2 channels the information about the PLP gets displayed in the Program-List.

Figure 16: DVB-T2 program entry

(1) PLP: 1 [2] means – current PLP-ID = 1 and number of PLPs of the channel = 2
4.2.5 EPG / ESG

EPG – Electronic Program Guide

Figure 17: EPG display

The EPG is the service guide provided with Digital TV programs. It offers a preview as well as additional information to a program.

The EPG analysis starts automatically after successful tuning a channel. If an EPG is available, the 'EPG' indication in the status bar lights. Click the 'Service Guide' button in the toolbar to open the preview. The availability of additional information to a specific program gets indicated by the blue 'Info' icon. Double click the appropriate entry to open the additional information. Press 'Esc' to close this window.

ESG – Electronic Service Guide

The ESG is the service guide provided with Mobile DTV programs. Beside a preview and additional information to a program it provides also important information for the Audio/Video decoding.

Note:
Especially for watching of DVB-H programs the ESG is essential. For the watching of ATSC M/H programs an ESG is mostly not necessary.
The ESG analysis starts automatically after successfully tuning a channel. Note: The reception of an ESG can take more than a minute. During the ESG analysis the Controller gets blocked.

If an ESG is available, the 'ESG' indication in the status bar lights. Click the 'Service Guide' button in the toolbar to open the preview. The availability of additional information to a specific program gets indicated by the blue 'Info' icon. Double click the appropriate entry to open the additional information. Press 'Esc' to close this window.

(1) In case the ESG gets provided in several languages, tool buttons for each language appear in the toolbar. The preferred language can be selected by click on the appropriate tool button.

**Note:**

**EPG and ESG data are not saved after closing the Controller.**

If no ESG has been received for the current channel then the following dialog appears after click the 'Service Guide' button.

Click 'OK' to start the ESG receiving process or click 'Cancel' to proceed without ESG.
Note: The ESG receiving process can take longer than a minute.

During the ESG reception and analysis process the following dialog appears. Click the 'Break' button to interrupt the process, the Controller will try to process all the ESG data which have been received so far.

![Waiting for ESG dialog]

Figure 20: waiting for ESG

In order to update the current ESG, the channel has to be re-tuned.

4.2.6 Closed Captioning [only ATSC and ATSC-M/H]

Closed Captioning is the subtitle service for ATSC digital TV and ATSC-M/H MDTV. The Controller of the Mobile TV Viewer supports both the CEA-708 standard and the CEA-608 standard.

![Controller Main Window]

Figure 21: Controller Main Window

In the EPG for a specific service the availability of a CC service gets indicated by a small icon. Click on this icon to get the information which CC services are announced for the selected program entry.

For more information especially about the viewing of the CC service, see the appropriate section in the Monitor part.
4.2.7 Scanning

The Controller of the Mobile TV Viewer provides a scanning function; this is the simplest way to detect all active channels and their programs which are available in the local area.

![Controller Main Window](image)

**Figure 22 : Controller Main Window**

Click the button 'Settings + Tools' or click the button 'scanning' in the tool-bar to open the appropriate dialog window and select the 'Scanning' tab and prepare the scanning as follows:

1. Select a frequency plan
2. Select the start frequency or channel
3. Select the end channel
4. Click 'Start Scan' to start the scanning process

![Settings Dialog – Scanning](image)

**Figure 23 : Settings Dialog – Scanning**

After the scanning gets finished, the results are listed in the 'Scanning Results'. Beside the channel descriptor little icons indicate whether Mobile DTV and/or Digital TV programs are contained.
### Figure 24: Scanning Results

#### Note:
In order to speed up the entire scanning process, no EPG or ESG data get received and analysed in that step. That will be done by the Controller at a later time.

Click 'Apply' to take over the entire list into the channel/program list of the Controller. A channel can be selected before, i.e. this channel is the active channel. If no channel is selected the first one becomes active automatically.

Click 'Cancel' to discard the scanning results, i.e. the current channel/program list of the Controller remains active.

### 4.2.8 Recording

#### Note:
The recording tool does not record the Audio/Video content of a single TV program but it records always the entire Transport Stream of the selected channel.

The recording tool shall be used for capturing a Transport Stream in case that something seems to be wrong in the operation of the Mobile TV Viewer. The captured Transport Stream can be sent to the Mobile TV Viewer developer team, together with a detailed description of the problem, for further analysis.
Click the button 'Settings + Tools' to open the appropriate dialog window and select the 'Recording' tab and prepare the scanning as follows:

1. Enter the tuning parameters for the channel where the TS shall be captured
2. Check the destination where the TS gets saved
3. Select how the capturing process shall be controlled:
   - **None** the capturing process has to be closed manually by click the 'Break' button
   - **Size** enter the maximum size of the TS file
   - **Time** enter a time for the capturing process
4. Click 'Start Recording' to start the recording process

(5) Click the button 'Explorer' to open an Explorer window which shows the content of TS file directory.
4.2.9 Options

Figure 27: Controller Main Window

Click the button 'Settings + Tools' to open the appropriate dialog window and select the 'Options' tab.

4.2.9.1 General Options

Figure 28: Options

System Tray Icon
If checked then an icon gets displayed in the notification area of the Windows taskbar.

Figure 29: System Tray Icon
Double click on the icon brings the Controller window to foreground. Click with right mouse button to open a pop-up menu.

Auto Tune
If checked then the tuning process gets started automatically with starting the application.

Auto-Hide Menubar
If checked then the menu-bar in the main window gets minimized automatically.
Figure 30: Menu-Bar minimized

(1) - if the mouse cursor enter the colored panel then the menu-bar gets maximized
- if the mouse cursor leave the menu-bar then after few seconds it gets minimized automatically

**Auto-Start Monitor**
If checked then all Monitors of the last session are opened automatically.

**Monitor**
There are three option:
- MonitorDx - means the own decontvs monitor application (32bit) get used
- SAMplayer64 - the 64-bit application ‘SAMplayer64’ gets used. SAMplayer64 is part of the Mobile TV Viewer package.
  **Note:**
  (1) use this player especially for play-back of HD or 4k content 64 bit machines, because it uses 64bit DirectShow filters, which save a lot of CPU power in contrast of using 32bit filters
  (2) SAMplayer64 will not be used for play-back of ATSC-M/H
- IP Stream - no monitor application gets started, the selected program gets streamed via IP/UDP using the localhost (127.0.0.1) and the defined port (see Streaming Options)
  - see also chapter 4.2.12, to get PIDs for the streamed program service

4.2.9.2 ATSC-M/H Options

Figure 31: ATSC M/H specific settings
**ESG Auto Start**
If checked then the ESG reception and analysis gets started automatically.

*Note: In contrast to DVB-H for ATSC-M/H the reception of the ESG is not mandatory.*

**Emergency Alerts**
If checked then emergency alerts are displayed in a separate window.

### 4.2.9.3 ISDB Options

![ISDB Options](image)

**Figure 32 : ISDB specific settings**

**support Japanese character sets**
If checked then Japanese characters are supported.

![Japanese character set](image)

**Figure 33 : Japanese character set**

### 4.2.9.4 TS Options

![TS Options](image)

**Figure 34 : TS specific options**

**process error TS**
If checked then Transport Stream packets which are marked as 'faulty' are processed.
4.2.9.5 Streaming Options

![Streaming Options](image1)

**Figure 35 : Streaming Options**

**Port**
Define the Port number which gets used for IP/UDP streaming. Normally it should not be changed.

**Note :**
Monitor 1 uses defined port number
Monitor 2 uses defined port number + 1
Monitor 3 uses defined port number + 2

4.2.10 Log

![Controller Main Window](image2)

**Figure 36 : Controller Main Window**

Click the button 'Settings + Tools' to open the appropriate dialog window and select the 'Log' tab.

![Log](image3)

**Figure 37 : Log**
(1) Click the button 'Explorer' to open an Explorer window which shows the content of directory where the log files are saved.

All log entries are written into a file:

`decontvs_control.log`

Furthermore the log file of the last Mobile TV Viewer session gets saved as:

`decontvs_control_log.bak`

In case you want to report a problem or an error then you should always send these log files together with your detailed error report.

### 4.2.11 Emergency Alerts (only ATSC-M/H)

If 'Emergency Alerts' gets activated then all alerts are displayed in a separate window. The alert window gets opened automatically if an Alert or Update message has been received. If a 'Cancel' message has been received then the window gets closed automatically after few seconds. The whole history, i.e. all messages and all additional information files are still accessible.

![Emergency Alert Window](image)

**Figure 38 : Emergency Alert Window**

(1) current alarm

(2) list of additional info-files
4.2.11.1 History

Figure 39: Emergency Alert History

(1) Click to refresh the display
(2) Click to delete the entire history

4.2.11.2 Additional Info

Together with emergency alerts additional information in form of file can be transmitted. Possible are images, HTML sites or video clips which can provide e.g. forecasts, escape routes or contact information. All received files are listed in a separate window and can be displayed with an integrated file-viewer.

Figure 40: Emergency Alert – Additional Info

(1) List of additional files
   - double click to open the file-viewer
(2) Click to refresh the list
(3) Click to delete all files
Click to open the file

![Image](Coastal_Area_Under_Threat.jpg)

**Figure 41: File-View**

### 4.2.12 Display Program PID's

For displaying all PIDs which concern to a specific program, select the program entry in the tree and click the right mouse-button. Then click the pop-up menu item 'Display PIDs'.

![Image](TreeView_DispPIDs.png)

**Figure 42: Display PIDs Pop-Up Menu**

A window gets opened which lists all PIDs for the selected program service. The Audio and Video PIDs are high-lighted and the corresponding coding type gets displayed.
<table>
<thead>
<tr>
<th>PID</th>
<th>Type</th>
<th>Coding</th>
</tr>
</thead>
<tbody>
<tr>
<td>0x0000 (0)</td>
<td>PAT</td>
<td></td>
</tr>
<tr>
<td>0x0200 (512)</td>
<td>PMT</td>
<td></td>
</tr>
<tr>
<td>0x0201 (513)</td>
<td>Video</td>
<td>HEVC</td>
</tr>
<tr>
<td>0x0202 (514)</td>
<td>Audio</td>
<td>EAC-3</td>
</tr>
<tr>
<td>0x0206 (518)</td>
<td>Teletext</td>
<td></td>
</tr>
</tbody>
</table>

**Figure 43 : PID List**
4.3 Monitor

4.3.1 Start

The Mobile TV Viewer Monitor application gets started automatically via selection a program entry in the Controller application as described in chapter 4.2.4.

![Monitor Status - Buffering](image)

**Figure 44 : Monitor Status - Buffering**

(1) After the Monitor has been started the Yellow LED indicates the Audio/Video Data buffering. After few seconds the Video play-back starts.

**Note: Especially for Mobile DTV programs it may take several seconds before the play-back starts.**

![Monitor Status - Play-back](image)

**Figure 45 : Monitor Status - Play-back**

(1) After the Video play-back has been started the Green LED gets switched on, the Yellow LED gets switched off.

![Monitor Status - Error](image)

**Figure 46 : Monitor Status - Error**

(1) The Red LED gets on if an error occurs - please check the Log for the reason.

![Monitor Log](image)

**Figure 47 : Monitor Log**
4.3.2 Overview

Figure 48: Monitor Application

(1) Caption bar

- **Settings**
  - click to open the 'Settings' dialog

- **About**
  - Click to open the 'About' box which provides version and license information.

- **Minimize**
  - click to minimize the Monitor

- **Exit**
  - Click to exit the Monitor.

(2) Video Window

- displays the current video

(3) Tool bar

- **Start/Stop**
  - click to start/stop the playback

- **Audio On/Off**
  - Click to switch On/Off the audio playback.

- **CC On/Off**
  - Click to switch On/Off Closed Captioning. (only ATSC)

  **Note:** The tool-button is only visible if CC data for the selected CC service are received. (see 4.3.4.3)

- **Volume**
  - Setup the volume of audio playback
4.3.3 Operation

Normally the Monitor should be started and stopped via selection an appropriate program entry in the Controller but it can also be started manually. In this case the Monitor uses the last MRL and settings.

Closed Captioning
Closed Captioning is the subtitle service in ATSC DTV and ATSC-M/H MDTV broadcasts, i.e. this feature is only available in the ATSC variant of Mobile TV Viewer.

The display of the CC service can be configured individually, see chapter 4.3.4.3.

Generally Closed Captions are displayed in a separate panel on the bottom of the monitor window, i.e. they are not embedded in the video. There are two possibilities to display Closed Captions:

- horizontal scrolling

![Figure 49: Monitor – Closed Captioning Display](image)

- vertical scrolling

![Figure 50: Monitor – Closed Captioning Display](image)

The speed of scrolling can be changed on the fly. Click with the right mouse button on the CC display to open a little pop-up menu. Now it can be selected whether speed the CC scrolling shall be increased or decreased.
Figure 51: Monitor – Closed Captioning Display

With right mouse-button click on the status panel a pop-up gets opened for selection of one of five pre-defined monitor sizes.

Figure 52: Monitor – pre-defined monitor size
4.3.4 Settings

4.3.4.1 A/V Codec's

Figure 53: Monitor - Settings Dialog

1. the green bubble indicates the current applied Audio / Video standard
2. click to apply all current settings for ALL decontvs monitors

The decontvs monitor application is based on Microsoft DirectX technology, i.e. for the decoding of audio and video content the appropriate codec's are used which are currently installed on the system. The monitor application checks the availability of codec's automatically and lists them for the specific audio video standards.

Select a preferred codec for each standard. If no codec is available for a specific standard then 'none' gets displayed in the corresponding box.

Note: The Mobile TV Viewer does not provide or install any Audio/Video codec's!

The user itself is responsible to provide codec's for a specific standard.

Note: If there are problems with the current A/V playback then it can be that the current selected codec does not work properly. It should always be checked whether another codec works better.
4.3.4.2 General Options

**Monitor Frame**
If checked then an additional 3D frame gets displayed around the video.

![without Frame](image1) ![with 3D Frame](image2)

*Figure 55: Monitor Frame*

**use Unicode**
If checked then the Monitor caption gets displayed by using of Unicode characters.
Note: if Unicode is used then this part of the window caption cannot be used to move the window

![with Unicode](image3) ![without Unicode](image4)

*Figure 56: using Unicode*

**Auto-Restart**
If checked then the Monitor application gets re-started automatically after the specified time in case the play-back stops or freezes due to errors.
Play-back Options (only for Experts)

Note:
- the following settings should only be used if there are any problems with the Audio/Video play-back even though the reception signal is o.k.
- normally these settings must not be changed

Audio-Sync
If checked then the Audio Renderer gets used to synchronize Audio and Video otherwise the De-Multiplexer gets used.

Delay
Delay means the manipulation Audio/Video sample timestamps. The delay is important - especially for MDTV - to reach Audio-Video synchronization (lip-sync).

Buffer Time
The buffer time gets used to pre-buffer Audio/Video data, i.e. for this time the play-back gets delayed

No. of Buffers
Define the number of buffers. If 'Auto' is checked then it will be tried to determine the number of buffers automatically.

Note:
- if the No. of Buffers is too high then Audio/Video synchronization can be lost
- if the No. of Buffers is too low then samples can be lost

Use the button 'Reset Defaults' to get the default values.
4.3.4.3 Closed Captioning Settings

The tab 'CC' provides several settings to configure the display of the closed captioning service. Generally Closed Captions are displayed in a separate panel on the bottom of the monitor window, i.e. they are not embedded in the video.

![Monitor - Settings Dialog](image)

**Figure 57 : Monitor - Settings Dialog**

**Service**
The CC services which are currently available are listed. Select a service to activate the appropriate CC service.

*Note: If a service was selected which currently does not provide proper CC data then the CC tool-button in the Monitor window remains invisible, see also the 'Auto' setting below.*

**Auto**
If checked then the first CC service gets used which has been detected.

**Orientation**
Setup the scrolling orientation.

**CC panel below the video**
If checked then the display panel gets displayed below the video, i.e. the size of the video gets decreased according to the size of the panel.
If not checked then the display panel gets set over the video, i.e. a part of video gets covered by the display panel.

**Rows**
Setup the number of rows of the display panel, which are displayed simultaneously. This setting has only effect if a vertical orientation was selected.
**Background Color**
Setup the background color of the display panel.

**Scrolling**
Setup the speed of scrolling the captions.

**Font**
Setup the name, size, style and color of the caption font.

*Note: If the test-field does not show an 'eight note', then the selected font does not support special characters. In that case another font has to be selected.*

### 4.3.4.4 Log

(1) Click the button 'Explorer' to open an Explorer window which shows the content of directory where the log files are saved.

Each Monitor instance writes an own Log-File.

All log entries are written into a file:

```
decontvs_mon_0.log
```

Furthermore the log file of the last Monitor session gets saved as:

```
decontvs_mon_0.bak
```

In case you want to report a problem or an error then you should always send these log files together with your detailed error report.
5 Error Messages

5.1 Controller

No proper DirectX version installed!
DirectX 9 or higher is required!

Check the DirectX version installed on the current system. Get a proper DirectX version from the Microsoft download portal.

No BDA Tuner device found!

No proper receiver connected or the connected receiver does not support BDA (Microsoft Broadcast Driver Architecture).

You need Administrator rights for the first start of this application!

Ensure that administration rights are available.

BDA Initialization Error!

General BDA Error!

Try to update the BDA drivers for the current receiver.

It seems there is no active network adapter available.
For playback of Mobile DTV and Digital TV services you need an active network adapter, at least the Loop adapter.

See chapter 4.3.1

Your trial period is expired!
You must purchase a license to continue the use of this program!

You must purchase a license to continue the use of this program!

Register the Mobile TV Viewer.

Monitor could not be created!

The Mobile TV Viewer Monitor application could not be started. Check the installation of Mobile TV Viewer.
ESG Error! BIM encoded ESGs not supported!

An ESG entry was detected which has been encoded via BIM (binary interchange format for meta-data). BIM decoding is not supported because it is protected by patents.

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