EasyWatch Player – v.3.0 User Guide

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Sometimes, people on TV speak so quickly that it is difficult to understand what is being said. The fast dialog undermines comprehension and enjoyment of our favorite programs. This is further complicated with the fact that different shows or movies have distinct acoustic profiles or are in a second (foreign) language which results in varying intelligibility. With so many variables, it befits TV manufacturers to offer features allowing TV viewers to personalize the audio-video to enhance understanding of what they hear and watch.

EasyWatch™ improves intelligibility of speech for all viewers, and particularly those with disadvantaged auditory or cognitive function. Problems of understanding speech occur more frequently while viewing movies and talk shows versus newscasts and documentaries which place a priority on speech cadence and annunciation. Hence, EasyWatch may be especially beneficial for comprehending movies and talk shows. It is language independent and works equally well with Western and Eastern tonal languages.

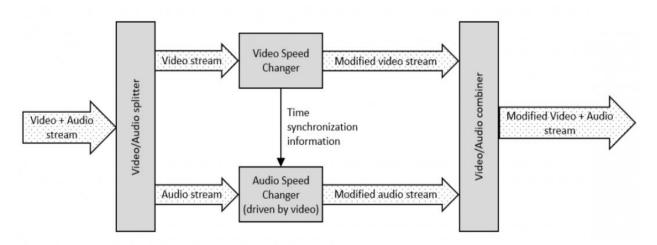
1. EasyWatchTM technology

1.1. Synchronization of audio/video

In today's systems the speed of video playback defines the speed of the audio. In other words, video is the master (see **Figure 1** below). Almost all video players and online video services allow the user to change the video playback speed relative to the original video speed. The audio speed is modified according to the video playback speed.

In a system where video is the master, the audio content is not analyzed. Silence, noise, and music are treated with equal merit to speech. To improve intelligibility, we need only slow down the speech segments. Slowing down of irrelevant sounds unnecessarily increases the duration and may even produce artifacts on music and other non-speech segments. Humans are more sensitive to audio artifacts than video artifacts. Speed change with audio as slave will exacerbate distortions and degrade intelligibility.

Figure 1

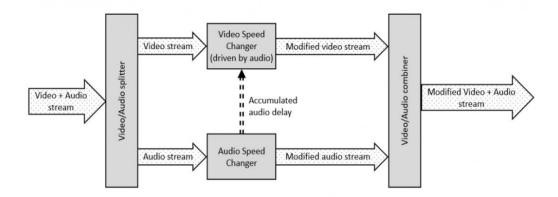


With *EasyWatch*™ the audio is the master (see **Figure 2**). Audio and the corresponding video speed can be controlled according to the audio content. The audio and video streams are split, the audio is analyzed and adjusted, the video (the slave) is correspondingly adjusted, and then the streams are recombined into the modified audio/video stream. This allows for flexible speed modifications:

- Only segments of the audio/video stream containing voice can be slowed.
- Non-voice segments of the video can be sped while voice can remain unaltered for instances when one desires to speed up a program without compromising dialog clarity.
- Voice segments of the audio/video can be slowed while non-voice segments can be sped up
 to compensate for the delay accumulated during the voice segments. This enables improved
 intelligibility of real time video streaming without accumulating large delays.

Furthermore, the algorithm will only slow-down audio and voice segments where there is no danger of producing artifacts.

Figure 2



1.2. Adjusting audio speed

The Audio Speed Changer block is shown in **Figure 2**. This block is expanded to show its constituent parts in **Figure 3**: Audio Content Analyzer, Audio Speed Controller, and Time-scale Audio Processor.

The purpose of *Audio Content Analyzer* is to detect and identify time segments corresponding to different types of the audio signal or their mixture (e.g., silence, noise, music, voice). This classification may be extended. For example, voice segments can be subdivided on monologs and dialogs. New segment types such as "sound effect" may be introduced. And a special "unknown" type can be used to designate segments that cannot be clearly identified and labelled. The *Audio Content Analyzer* receives the pure original audio signal extracted from the video and produces time stamps designating the beginning, ending and type of the segment.

The Audio Speed Controller determines what time scale modification shall be performed by the Audio Speed Changer block. For example, silence or noise segments can be sped up (shortened), voice segments slowed down (stretched), and music segments preserved in their duration. The decision may depend on the user preference, type of application, and the accumulated delay produced by the Audio Speed Changer block.

The purpose of the *Time-scale Audio Processor* block is to speed or slow an input audio signal without affecting the frequency content, such as the perceived pitch of any tonal components.

For example, the output of speech should sound like the speaker is talking at a slower or faster pace, without distortion of the spoken vowels.

Audio Speed Changer

Content
Analyzer

Audio Speed
Controller

Time-scale
Audio Processor

Modified audio stream

Figure 3

2. VoiceFirstTM technology

EasyWatch[™] technology, described in the previous section, is based on Alango **EasyListen**[™] technology. In **EasyWatch Player** V.3.0 one more Alango technology was integrated. It is called **Voice First** (VF for short). Similar to **EasyListen**[™] technology, **VoiceFirst**[™] is designed for improving intelligibility of a human dialog in video.

VoiceFirst™ technology is based on suppressing stereo sound effects while preserving the speech. It leverages the fact that within a stereo mix, the main voice or dialogue is positioned in the center, while sound effects are panned to the sides (or move spatially across the mix).

VoiceFirst™ is designed to work with stereo sound. It works under assumption of typical film soundtrack mixing techniques and conversions, where speech is typically placed as a mono signal in the center channel, while sound effects (except for the LFE), ambiences and music are panned out to other channels. When such a soundtrack is downmixed to stereo (for instance, for television), this results in perfectly correlated mono speech (identical signals for left and right channels) and less correlated ambiences and stereo sound effects that are panned out to the sides.

3. EasyWatch Player

3.1. Main window

EasyWatch Player is the video player developed for testing technologies described in <u>section 1</u> and <u>section 2</u>. The main window of this application is shown below.

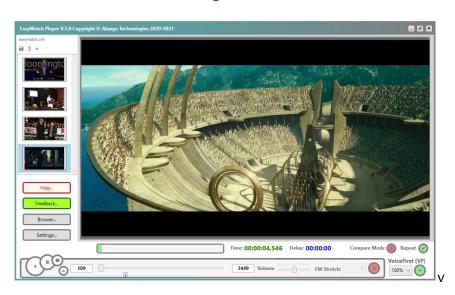


Figure 4

The central part of this window is the **video viewer**:



Figure 5



At the left side of the main window (see **Figure 6**) is the **list of media items** with **configuration file controls** (see <u>section</u> <u>3.6</u> for more details).

Media items list helps you to get video from the set of video files that you selected for using. Each media item has a button with a small video viewer placed on top of it. When you push one of these buttons the corresponding video is placed in the main video viewer (see Figure 5). The active media item has a blue frame (the first media item in the Figure 6).

You can **save/load** all the information about the list of video items in **configuration file** (see <u>section 3.6</u>). At the top of **media items list** (see **Figure 6**) you can find three small icons – **Save**, **Load** and **Delete**.

Save button (with *diskette* icon) is for saving current configuration into **configuration file**. If you want to load configuration that you saved in some **configuration file**, click **Load** button (with *hourglass* icon). To clean up all video items from current configuration, click **Delete** button (with *cross* icon). If you want to delete one media item, select it and use **Ctrl+Delete** keys.

The default **configuration file** is the file **easywatch.xml**. It is placed in the main folder of **EasyWatch Player**. However, you can save/load your configurations in any other file wherever you like. See more information about **EasyWatch Player** configuration in <u>section 3.5</u> and <u>3.6</u>.

Below the media items list there are four buttons – **Help, Feedback, Browse** and **Settings** (see **Figure 7**).

Help button opens **EasyWatch Player User Guide** in you default **pdf**-viewer (if you don't have pdf-viewer on your computer you can download free *Acrobat Reader* from *Adobe* website).

Feedback button launches your default web browser to show you **Feedback Page** on **Alango** website. Please, share with us your opinion about the technologies implemented in **EasyWatch Player**. We need you feedback.

The other two buttons - **Browse** and **Settings** – are related to functionality of **EasyWatch Player**.

If you push **Browse** button you launch **Load File Dialog**, which can be used to add video file (or files) to **media items list**.

If you push **Settings** button you launch **Settings Dialog**. In this dialog you can set all parameters of the algorithms mentioned in <u>section 1</u> and <u>section 2</u>. These parameters are described in more details in section 3.5.

Help...
Feedback...

Browse...

Settings...

Figure 7

At the bottom of the main window (see **Figure 4**) there are principal controls for working with the application.

Figure 8

2 3 4 5 6 7 8

Main Setings...

Main Time: 00:00:04.546 Delay: 00:00:00 Compare Mode Repeat Output Plants (VF) R

Let's list these main controls (more detailed description see in sections 3.7 and 3.8):

- 1. Start button use this button to start playing video.
- 2. Pause button use it to pause video that is playing. Click **Start** button to continue.
- **3. Stop** button this button stops movie and returns slider **10** to the beginning.
- **4. Progress bar** indicates (in green) the part of the video that was already played and the delay (in blue) comparing to the video that is running without the **EasyListen** delay.
- **5. Current time** of the running movie (hours : minutes : seconds . milliseconds).
- **6.** Accumulated **delay time** at the current video position.
- **7. Switch on/off Compare** mode.

- 8. Switch on/off Repeat mode.
- 9. Set bookmark button.
- **10.** Current **video frame number**. It may be used to set start frame number.
- **11.** Progress slider to show current **video position** (or to set start video position).
- **12. Bookmarks** (there may be up to 9 bookmarks for each media item).
- 13. Total number of video frames in current movie.
- **14.** Slider to set **volume of the sound**.
- **15. EW Stretch** to define maximal limit of slowing down voice segments.
- **16. Switch on/off EasyWatch** slowing down process.
- **17. VF Factor** to define **VoiceFirst** level (100% is the maximum effect).
- **18.** Switch on/off VoiceFirst process.

3.2. Install/uninstall

To install **EasyWatch Player** V.3.0 you should use installer file **EasyWatch Player V.3.0.exe**. Run this installer and start with the **Welcome** dialog presented below:

Welcome to the EasyWatch Player Setup
Wizard

This will install EasyWatch Player version V.3.0 on your computer.

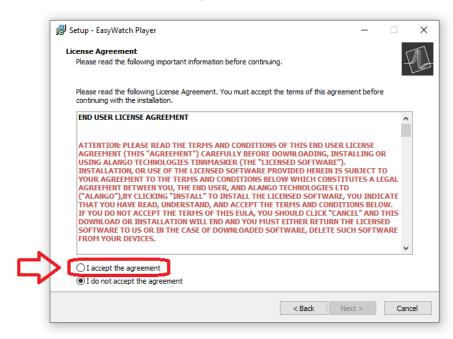
It is recommended that you dose all other applications before continuing.
Click Next to continue, or Cancel to exit Setup.

Figure 9

Then follow instructions of this **Setup Wizard**.

The first dialog after **Welcome** dialog is the **License** dialog (see **Figure 10**). Read **End-User License Agreement**, click **Accept** radio button and push **Next** button.

Figure 10



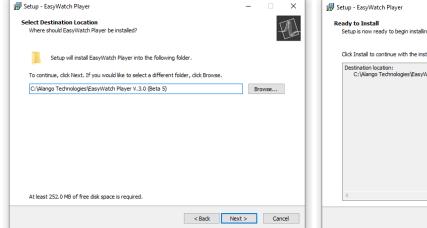
The next to License dialog is the Folder dialog (see Figure 11), where you can set the folder to install Easy Watch Player.

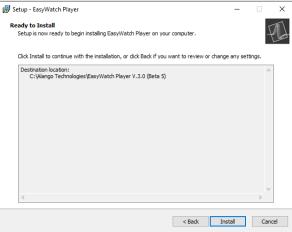
This dialog is followed by the **Select Additional Tasks** dialog (where you can select whether to create the desktop icon).

The next dialog is **Ready to Install** dialog (see **Figure 12**).

Click **Install** button to start installation.

Figure 11 Figure 12





After few seconds you receive **Information** dialog (where you can read content of the **ReadMe** file), and at last you receive **Exit** dialog (see **Figure 13**).

Figure 13



Click Finish button to finish installation.



After installation is finished you have the **EasyWatch Player** icon

on your **desktop**,

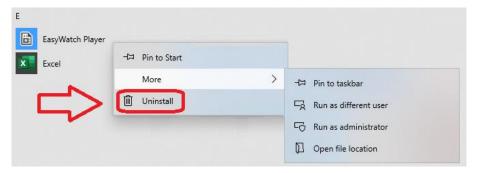


and EasyWatch Player item

added items of the Windows Startup menu.

Besides this, the same menu item will be on the letter **E** in Windows **Startup menu**.

Figure 14



If you decide to uninstall **EasyWatch Player**, click the **Uninstall** item from the Windows **Startup menu**. (see **Figure 14**). Thus, you launch standard Windows uninstall tool. You just need to

select **EasyWatch Player** item in the list of installed programs and then click **Uninstall** button at the top.

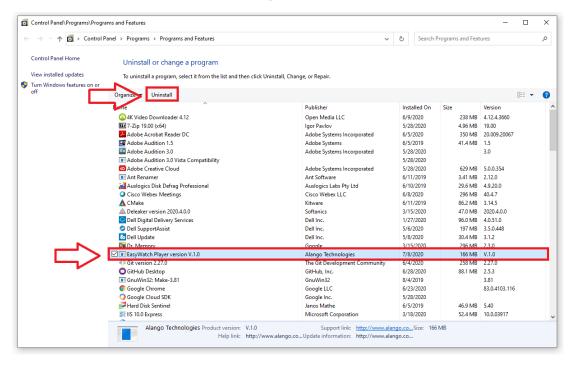


Figure 15

3.3. Start using EasyWatch Player

EasyWatch Player

To launch **EasyWatch Player** you can either use corresponding desktop icon or use **EasyWatch Player** item from the Windows **Startup menu** (see **Figure 14**).

After the first launch of **EasyWatch Player** you receive the main window of the application with the default **list of media items** and empty **main viewer** (see

Figure 16). These are three sample movies you get with installation (see <u>section 3.4</u>).

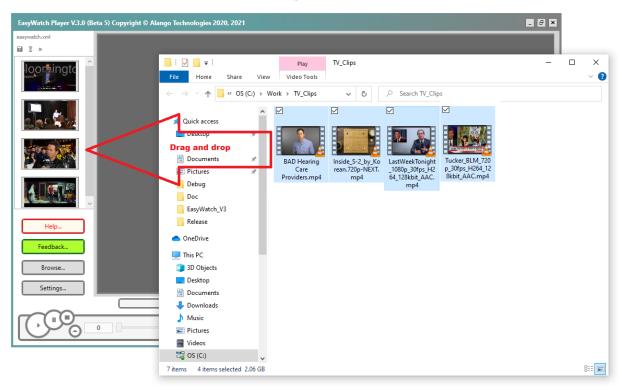
To add more movies to the **list of media items** (see **Figure 7**) you can either use **Browse** button (see **Figure 7**) or just drag some video file (mp4 video type is supported) either into the **media items area** at the left side of the application or to the **main viewer** area (see **Figure 17**).

You can drag either single file or select in some folder a group of files and drag all of them at once. Similarly, if you use **Browse** dialog, you can select there either a single video file or a group of video files.

Figure 16



Figure 17



The current version of **EasyWatch Player** has some limitations. One of them is that application **works only with mp4-files** and video **must have frame rate not more than 60 fps** (60 frames per second).

When you added some video file (or files) to the **media items list**, this file appears in the **main video viewer** (see **Figure 5**). You can select some other video in the **media items list** to make this video ready for running. After that click **Start** button (see **Figure 8**) to play movie.

3.4. Sample video files

Installing EasyWatch Player you also install some sample video files that you can use for testing EasyListen™ and VoiceFirst™ technologies. They are in the video subfolder of the main folder, where you installed EasyWatch Player.

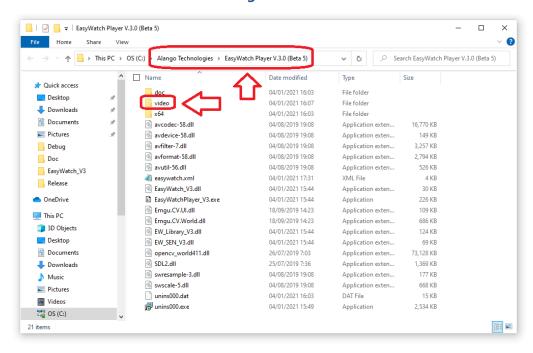


Figure 18

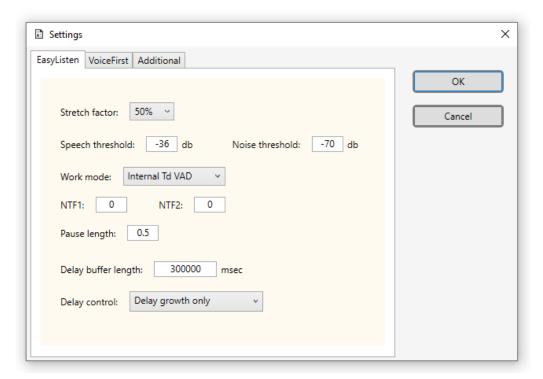
3.5. Settings

When you create a new media item, as it is described in <u>section 3.3</u>, this media item receives **default set of parameters**. You can change each of these parameters in the **Settings dialog**.

This dialog has three tabs.

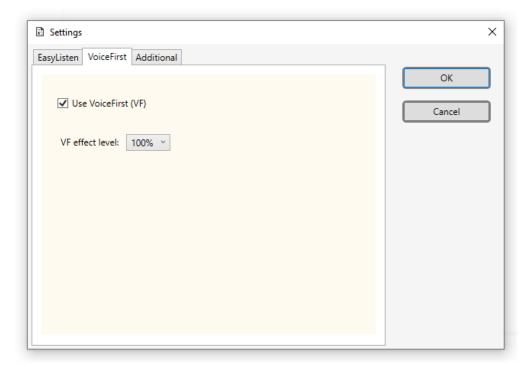
In the first one you can set all **EasyListen™** parameters.

Figure 19



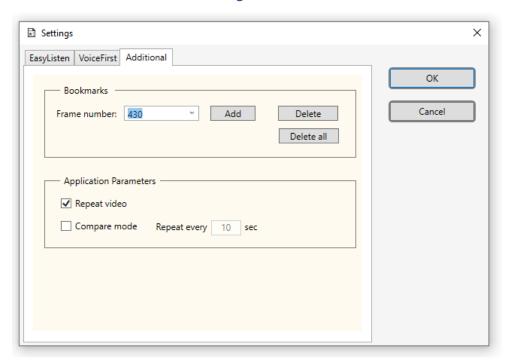
In the second tab you can set **VoiceFirst™** parameters.

Figure 20



In the third tab you can set some additional parameters.

Figure 21



The **Bookmarks** group of controls allows you manipulate with bookmarks (see <u>section 3.8</u> for more information about bookmarks).

The **Repeat video** check box defines whether you run video in infinite loop (if this check box is checked), or you want to stop it after the end and return to beginning (if it is not checked).

Compare mode check box defines a special mode that helps to demonstrate EasyListen™ and VoiceFirst™ technologies. To use this mode, you should check this checkbox and set *repeat interval* (in seconds). Next, set *start frame number* (either using textbox 10 or using slider 11 on Figure 8) and click Start button (button 1 on Figure 8). One of the technologies (or both) - EasyListen™ or VoiceFirst™ - should be activated (using buttons 16 and 18 on Figure 8).

After that, **EasyWatch Player** works in the following 2-step manner.

1-st step:

- It switches off both **EasyListen™** and **VoiceFirst™** (to show how the video looks like without these technologies).
- It plays the *compare interval* that you set before (by setting *start frame* number and *repeat interval* length).
- It stops and automatically returns to the start position.

2-nd step:

- It switches on **EasyListen™** and/or **VoiceFirst™** (according to the state they were before the start of the 1-st step).
- It plays again the same *demo interval* to show how the video looks when these technologies are enabled.
- After these two passes of the given video interval EasyWatch Player stops.

If you check not only the Compare mode checkbox, but also the Repeat video checkbox

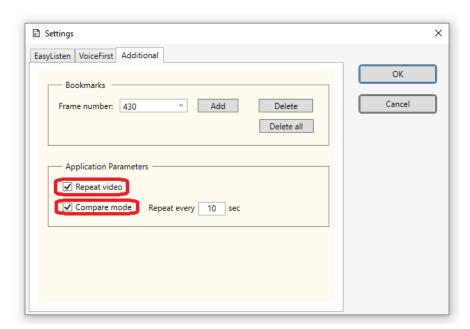


Figure 22

the *Compare* process will be repeated in infinite loop, i.e., the 1-st step will be started automatically each time after 2-nd step is finished.

3.6. Configuration file

When you launch **EasyWatch Player** it loads default configuration file **easywatch.xml** from the main application folder (the folder where you installed the application).

You can also load/save configuration using some other configuration file (with any name and any location). Use for this purpose **Save** and **Load** buttons (with *diskette* and *hourglass* icons) at the top of media items list (see **Figure 6**).

The **configuration file** is an XML file. The default configuration file **easywatch.xml** is presented in the following sample (see **Figure 23** below).

Figure 23

```
<?xml version="1.0"?>
- <AppConfig>

    <AppParameters>

         <X>300</X>
         <Y>185</Y>
         <Width>1058</Width>
         <Height>652</Height>
         <Volume>0.5</Volume>
         <RepeatVideo>False</RepeatVideo>
         <CompareMode>False</CompareMode>
          <RepeatSeconds>10</RepeatSeconds>
      </AppParameters>
    - <MediaItems>
      - <MediaItem>
           <UseVF>False</UseVF>
           <ItemUri>C:\Alango Technologies\EasyWatch Player V.3.0 (Beta 6)\video\ShawnAchor_2011X-480p-en-A-60fps.mp4</ItemUri>
           <EasyListenData>
               <FrameTime>8</FrameTime>
               <FrameLength>256</FrameLength>
               <DelayBufferLength>300000</DelayBufferLength>
               <StretchFactor>50</StretchFactor>
               <SpeechLevel>-36</SpeechLevel>
               <NoiseLevel>-70</NoiseLevel>
               <WorkMode>InternalTdVAD</WorkMode>
               <NTF1>0</NTF1>
               <NTF2>0</NTF2:
               <PauseLength>0.5</PauseLength>
               <ShrinkEna>DelayGrowthOnly</ShrinkEna>
           </EasyListenData>
          - <VfData>
               <VfFactor>1</VfFactor>
           </VfData>
        </MediaItem>
      - <MediaItem>
           <UseVF>False</UseVF>
           <ItemUri>C:\Alango Technologies\EasyWatch Player V.3.0 (Beta 6)\video\DavidSRose_2007U-480p-en-A-60fps.mp4</ItemUri>
           <EasyListenData>
              <FrameTime>8</FrameTime>
              <FrameLength>256</FrameLength>
              <pr
              <SpeechLevel>-36</SpeechLevel>
<NoiseLevel>-70</NoiseLevel>
              <WorkMode>InternalTdVAD</WorkMode>
              <NTF1>0</NTF1>
              <NTF2>0</NTF2>
              <PauseLength>0.5</PauseLength>
<ShrinkEna>DelayGrowthOnly</ShrinkEna>
           </EasyListenData>
           <VfData>
           <VfFactor>1</VfFactor>
</VfData>
        </MediaItem>
       - <MediaItem>
            <UseVF>False</UseVF>
            <ItemUri>C:\Alango Technologies\EasyWatch Player V.3.0 (Beta 6)\video\MarkWahlbergOnTNF_A-60fps.mp4</ItemUri>
            <EasvListenData>
                <FrameTime>8</FrameTime>
                <FrameLength>256</FrameLength>
                <DelayBufferLength>300000</DelayBufferLength>
                <StretchFactor>50</StretchFactor>
                <SpeechLevel>-36</SpeechLevel>
                <NoiseLevel>-70</NoiseLevel>
                <WorkMode>InternalTdVAD</WorkMode>
                <NTF1>0</NTF1>
                <NTF2>0</NTF2>
                <PauseLength>0.5</PauseLength>
                <ShrinkEna>DelayGrowthOnly</ShrinkEna>
            </EasyListenData>
            <VfData>
                <VfFactor>1</VfFactor>
            </VfData>
         </MediaItem>
```

```
- <MediaItem>
          <UseVF>False</UseVF>
          <ItemUri>C:\Alango Technologies\EasyWatch Player V.3.0 (Beta 6)\video\WonderWoman1984Trailer_720p_24fps_AAC192kbit.mp4</ItemUri>

    <EasyListenData>

              <FrameTime>8</FrameTime>
             <FrameLength> 256</FrameLength>
<DelayBufferLength> 300000 </DelayBufferLength>
<StretchFactor> 50 </StretchFactor>
              <SpeechLevel>-36</SpeechLevel>
              <NoiseLevel>-70</NoiseLevel>
              <WorkMode>InternalTdVAD</WorkMode>
              <NTF1>0</NTF1:
              <NTF2>0</NTF2>
              <PauseLength>0.5</PauseLength>
              <ShrinkEna>DelayGrowthOnly</ShrinkEna>
          </EasyListenData>
          <VfData>
              <VfFactor>1</VfFactor>
          </VfData>
      </MediaItem>
   </MediaItems>
</AppConfig>
```

The first group of parameters is *AppParameters*. These are parameters that corresponds to application, not to media items.

First four parameters of the *AppParameters* group are the coordinates (in pixels) of the application main window top left corner, and the width and height of this window. These parameters are saved to restore main window size and position to be the same as it was when application was closed last time.

Then follows the **sound volume**. The default value is 0.5 – the half of maximum.

The next parameter **RepeatVideo** defines whether to play video with **infinite loop** or stop it at the end.

The next two parameter define **CompareMode**. The first of these two parameters define whether this mode is switched on or off. The next parameter defines (in seconds) the length of time interval (see <u>section 3.5</u> for more information about *Compare Mode*).

After that, follows the *media items list*. In this configuration we have four media items.

The first one corresponds to the video file **ShawnAchor_2011X-480p-en-A-60fps.mp4**.

The second one corresponds to the video file DavidSRose_2007U-480p-en-A-60fps.mp4.

The third one corresponds to the video file MarkWahlbergOnTNF_A-60fps.mp4.

The fourth one corresponds to WonderWoman1984Trailer 1080p 24fps AAC128kbit.mp4.

All four video files are on the path

C:\Alango Technologies\EasyWatch Player V.3.0\video\.

No one media item has a bookmark.

And all items have the default set of **EasyListen parameters** and the default set of **VoiceFirst parameters**.

All these parameters may be changed either directly in xml-file or in the **Settings Dialog**.

3.7. Playing with EasyWatch

Now let us play a little with **EasyWatch** application.



Figure 24

When you launch **EasyWatch Player** it reads its configuration from the default configuration file **easywatch.xml**. As a result, you see content of **media items list** at the left side of main windows (see **Figure 6**).

Suppose you click the first media item and loaded first video into the main viewer. Now you can push **Start** button (control **1** in **Figure 8**) and start playing this movie.

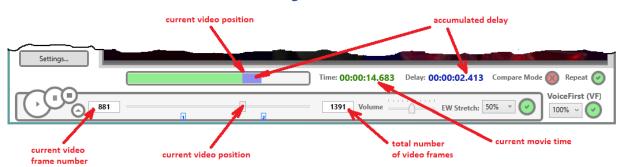
While playing video you can change **sound volume** (control **13** in **Figure 8**), change **stretch factor** (control **14** in **Figure 8**), and **switch on/off delay process** (control **15** in **Figure 8**). You can also use processing slider (control **11** in **Figure 8**) to change current video position.

You do not need to pause/stop video for using these controls.

Besides this, while playing video you can set **bookmarks** (see <u>section 3.8</u> for more details) by pushing **bookmark button** (control **8** in **Figure 8**).

During playing video you also get some information about video processing

Figure 25



Progress bar (control **4** in **Figure 8**) shows you current **video position** (the edge of green and blue) and current **accumulated delay** (in blue).

At the right of the progress bar you can see two time-controls (controls **5** and **6** in **Figure 8**). The green one shows the **current movie time**. The blue one shows the **accumulated delay**.

Below progress bar you can see **progress slider** (control **11** in **Figure 8**). While playing video its handle is moving from left to right synchronously with green progress bar.

At the left of the progress slider you can see current **video frame number**. At the right you can see the **total number of video frames**.

3.8. Bookmarks

EasyWatch Player provides useful functionality – **bookmarks**. This tool helps you to set some positions in video and switch easily from one position to another.

You can set a bookmark either while video is playing or while it is paused/stopped.

To set a bookmark you should push the bookmark button (control **9** in **Figure 8**). After that you will immediately see a small blue rectangle with a number inside it just below the handle of the **progress slider**.

The alternative way to set a bookmark is to use a **Settings dialog** (see **Figure 21**).

To add a bookmark in this dialog you should set the video **frame number** in corresponding combo box and push **Add** button at the right to this combo box.

In the same combo box, you can view the list of frame numbers corresponding to all bookmarks.

If you want to delete some bookmark, select corresponding frame number in this combo box and push **Delete** button (right to the **Add** button).

If you want to delete all bookmarks of the current media item, push **Delete all** button.

One more way to add/delete bookmarks is to use keyboard (see <u>section 3.9</u>). Key **Insert** adds new bookmark in the current video position. Key **Delete** deletes **all** bookmarks of the current media item.

3.9. Hotkeys

You can operate with **EasyWatch Player** not only using mouse but using the keyboard as well. Each function of this application has a corresponding **hotkey**.

The main four keys are:

F1 – launch Help dialog.

F2 – **start** video processing.

F3 - pause movie.

F4 – **stop** movie.

When video is running you can also *pause* it using **Space** key. With pressing **Space** key again, you continue running video.

If you press **F1** key on the keyboard, you get the **Help dialog** with the list of all hotkeys (see **Figure 26** below).

The next four buttons set the state of **EasyWatch Player**:

End – switch on/off **Repeat mode**. This is the same as using button **8** in **Figure 8**.

F8 – switch on/off **Compare mode**. This is the same as using button **7** in **Figure 8**.

F10 – switch on/off EasyListen processing. This is the same as using button 16 in Figure 8.

F12 – switch on/off SEN processing. This is the same as using button 18 in Figure 8.

The next four hotkeys **set focus** to corresponding controls, which allows to operate with them using keyboard:

- **F5** set focus to **current frame number** edit control (control **9** in **Figure 8**). After that you can set the video frame number you need.
- **F6** set focus to **video processing** slider (control **11** in **Figure 8**). After that you can move handle of this slider using **arrow** keys, **Page Up / Page Down** keys, and **Home / End** keys.
- F7 set focus to **sound volume** slider (control **13** in **Figure 8**). After that you can move handle of this slider using **arrow** keys, **Page Up / Page Down** keys, and **Home / End** keys.
- **F9** set focus to **stretch factor** combo box (control **14** in **Figure 8**). After that you can choose required stretch factor using **arrow** keys.
- **F11** set focus to **VF factor** combo box (control **16** in **Figure 8**). After that you can choose required VF factor using **arrow** keys.

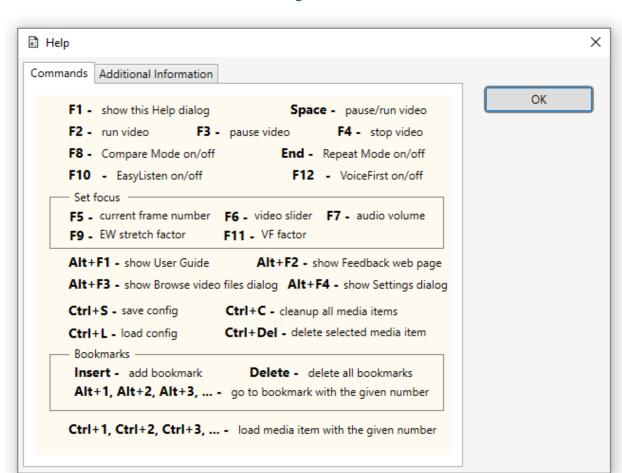


Figure 26

Four more **F**-commands are used in combination with **Alt**-key:

Alt+F1 – launch User Guide in you default pdf-viewer (the same as button Help in Figure 7).

Alt+F2 – launch Feedback page in your browser (the same as button Feedback in Figure 7).

Alt+F3 – launch **Settings dialog** (see <u>section 3.5</u>).

Alt+F4 – launch **Browse dialog** for loading new video file.

The next four hotkeys correspond to **media items list**. They use **Ctrl** key:

Ctrl + S – launch Save dialog to save media items list information in some configuration file.

Ctrl + L - launch Load dialog to read media items list from some configuration file.

Ctrl + C – clean up all media items.

Ctrl + Delete - remove selected video item from media items list

The next group of hotkeys corresponds to operations with **bookmarks**:

Insert – add bookmark in the current video position.

Delete – delete **all** bookmarks from the current video. If you want to remove some specific bookmark, do it in the **Settings dialog** (see <u>section 3.5</u>).

Alt + 1, Alt + 2, Alt + 3, ... - moves video position to the bookmark with the given number.

Note, that **not more than 9 bookmarks** are supported.

At last, you can use hotkeys Ctrl + 1, Ctrl + 2, Ctrl + 3, ... to switch from the current media item to media item with the given number.

3.10. Tooltips

Each control of **EasyWatch Player** has a **tooltip** – when mouse is above this control you can see a short explanation of this function.

At the beginning of each tooltip there is a reminder of its hotkey. Then follows short description.

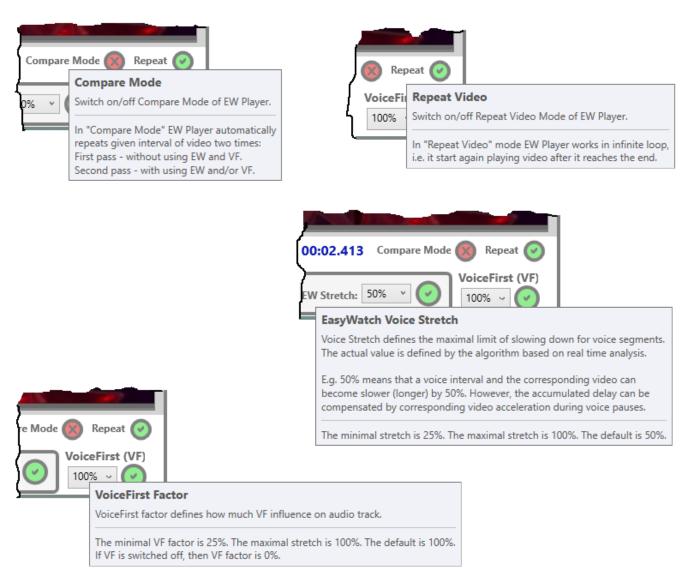
For instance, tooltip of the **Start** button is "F2 – Play".

Figure 27



The labels before *EW*, *VF*, *Compare Mode* and *Repeat Mode* buttons have tooltips that explains these modes:

Figure 28



Tooltips of media item buttons contains information of corresponding media item:

Figure 29



At the left of the tooltip, you can see the **index of media item**. At the right you see all **settings parameters** (see <u>section 3.5</u> and <u>3.6</u>) of this media item – the full path to corresponding **video file** is at the first line, **EL parameters** are at the second line, and **VF parameter** is on the third line.