

Video Zoom Modes

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MediaPortal allows you to choose between various zoom modes which manipulate the video in order to fit the format of your screen.

Zoom Modes or Aspect Ratio

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Every mode has pro's and con's, and might need to be chosen based on the video source.

The following description is based on viewing a 4:3 PAL video on a 16:9 display using 720p.

Original Source Format

The video is displayed in its original resolution without any zoom applied.



Pro:

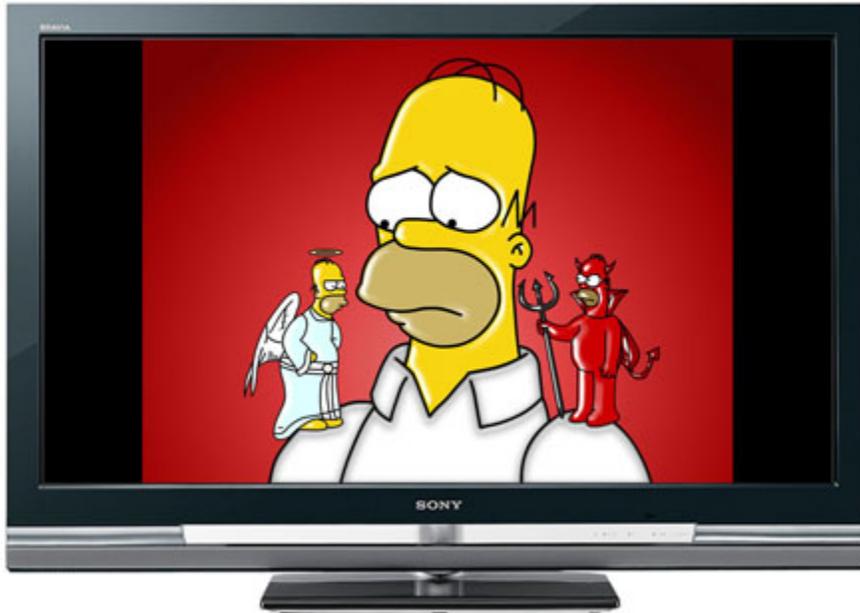
- + no distortion
- + no quality loss through resizing

Con:

- black borders if video resolution is lower than display resolution
- cropped image if video resolution is higher than display resolution

Normal

The 4:3 image gets zoomed until it matches along the vertical axis.



Pro:

- + maximum video size without cropping
- + aspect ratio is correct (no fat people)

Con:

- black borders

Stretch

The 4:3 image gets stretched along the vertical and horizontal axis until it fits the screen.



Pro:

+ no black borders

Con:

- no correct aspect ratio (people might look fat)

Non-linear stretch

The 4:3 image is zoomed until it is a bit larger than the visible screen. Then it is stretched along the horizontal axis to fill the screen. Contrary to the stretch zoom mode the center of the image is not stretched.



Pro:

- + no black borders
- + no distortion in the center of the image

Con:

- top and bottom area slightly cropped
- left and right areas of the image distorted
- may look disturbing on pans or tickers

Zoom

The smaller side of the image gets zoomed to fill the screen. The larger side will be cropped



Pro:

- + no black borders
- + no distortion

Con:

- if black borders are small then parts of the picture might be cropped
- decreased image quality of low resolution content

14:9 Zoom

Usually movies are shot in 21:9 (cinemascope), which results in very big black bars on 4:3 screens.

Some broadcasters try to make all their viewers happy by cutting the 21:9 source video to 14:9.

As result you see only small borders on the top and lower section on a 4:3 screen. On a 16:9 screen however, you will also see black borders on the left and the right side of your screen.

The 14:9 zoom is meant to remove these borders on 16:9 screens by zooming the image with a fixed value.



Broadcasted Image



Pro:

+ no distortion

Con:

- depending on the broadcaster there could still be some black bars left

4:3 Letterbox

This zoom mode is only useful on 4:3 screens! Watching a 16:9 video on your 4:3 TV this zoom mode adds letterboxes in order to display the image with the correct aspect ratio.



Broadcasted Image



Pro:

+ corrects distortion

Con:

- only useful on 4:3 TV's when watching 16:9 videos