

[illegible]

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Diagram illustrating the horizontal sync area of a video signal, showing the distribution of horizontal sync pulses (hum bars) across the frame.

The diagram shows 10 rows of horizontal sync pulses. The first row contains 28 pulses. The second row contains 32 pulses. The third row contains 16 pulses. The fourth row contains 32 pulses. The fifth row contains 32 pulses, with the text "(hum bars)" centered between the 16th and 17th pulses. The sixth row contains 32 pulses. The seventh row contains 32 pulses. The eighth row contains 32 pulses, with the text "50" centered between the 16th and 17th pulses. The ninth row contains 32 pulses, with the text "60" centered between the 16th and 17th pulses. The tenth row contains 32 pulses, with the text "PAL" centered between the 16th and 17th pulses. The text "NTSC" is at the bottom left.

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Written by Administrator

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A grid consisting of four horizontal rows of rectangular boxes. Each row contains exactly 15 boxes, for a total of 60 boxes.

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60

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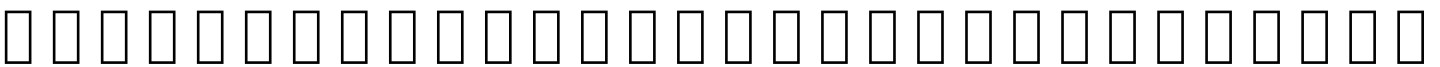
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## 24fps Why so Complicated

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NTSC 30 fps  
(frame per second )

)

29.97  
fps

30fps 60

FCC

(compatible)



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Written by Administrator

(synchronous)

NTSC

A grid of 30 empty rectangular boxes arranged in two rows of 15.







15.2 ( )

1080000 samples per second

1080000 samples per second

1080000 samples per second

1080000 samples per second

1080000 samples per second

00:00:00:00

1 second

01:00:00:00

30x60x60 =

108000

1080000 samples per second

NTSC 29.97

fps

1080000 samples per second

$1080000/29.97 = 1$  second

3.6 seconds

1080000 samples per second





Written by Administrator

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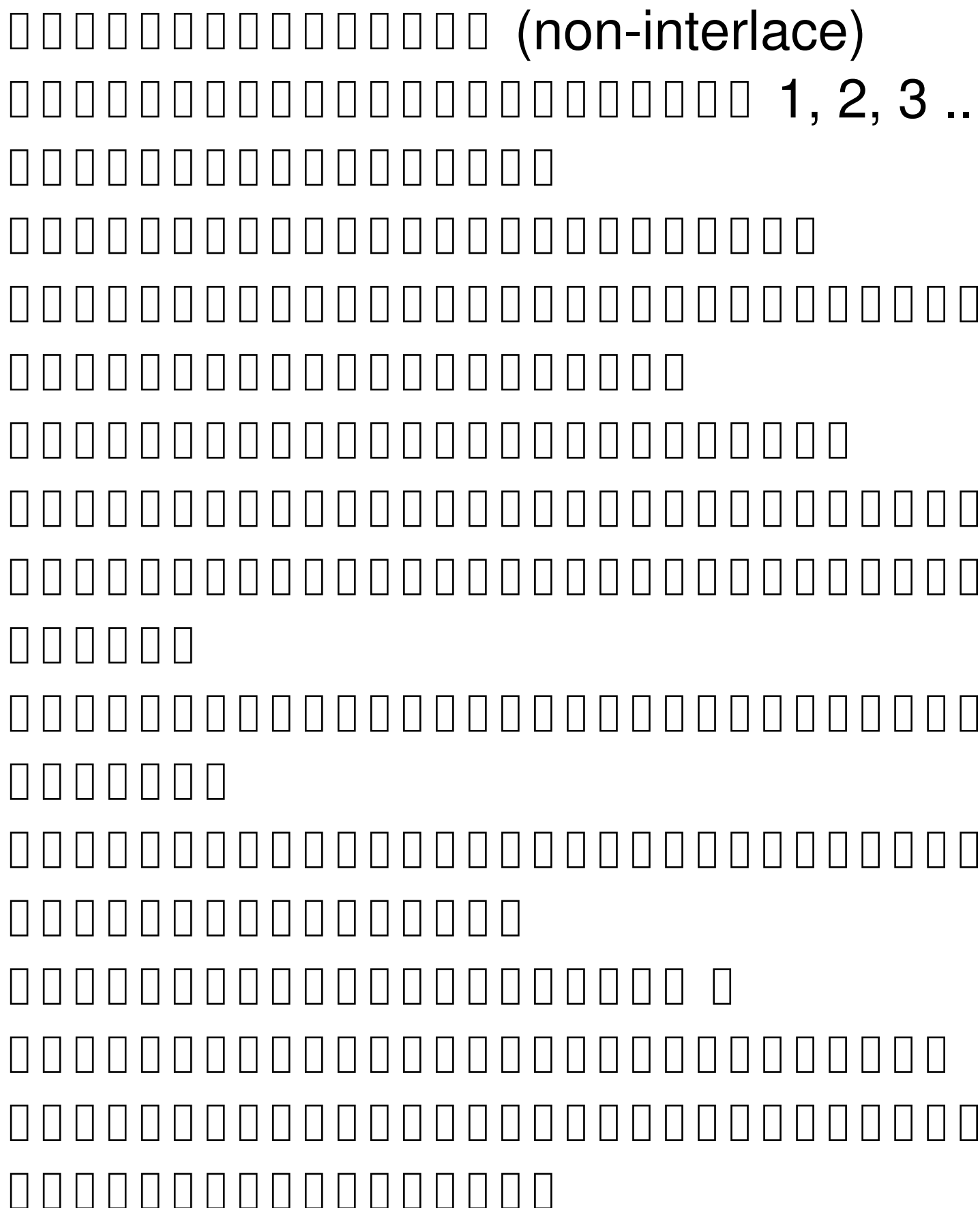
□ □ □ □ □ □ □ □ □ □ 24fps

**23.976** □□□□    **23.98** □□□□□□□□□□□□□□□□

□□□□□ 29.97fps □□□□□□□□ □□□ 24fps







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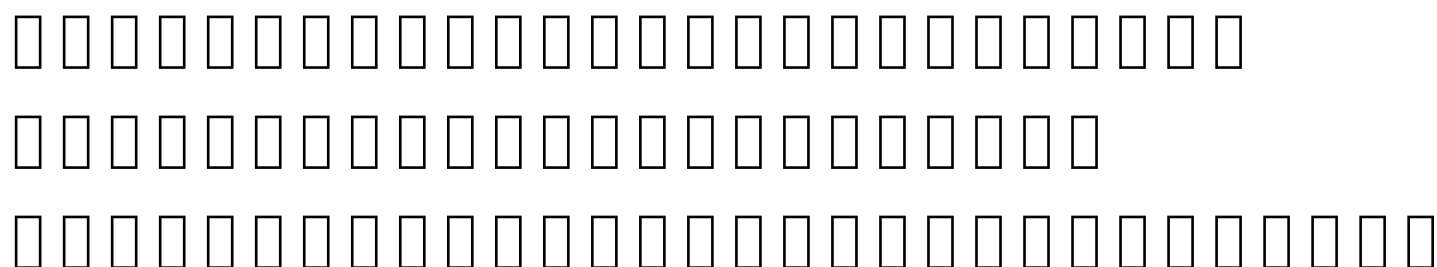
Written by Administrator







## - Basic Frame Rate Conversion



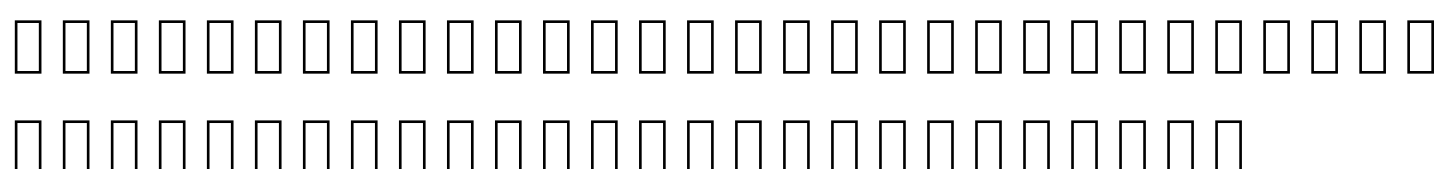




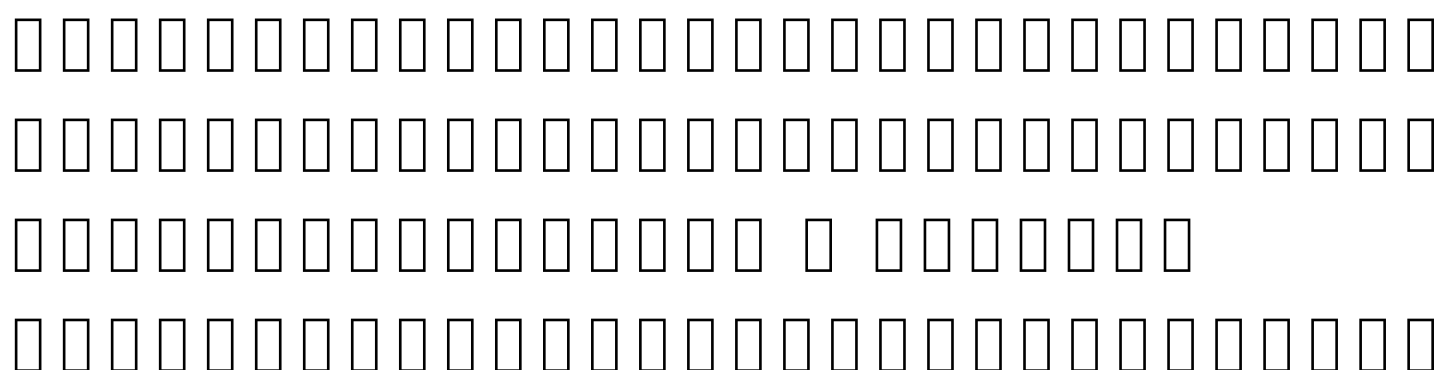


## Linear Frame Rate Conversion

### - Motion Compensated Frame Rate Conversion



## Motion Adaptive Frame Rate Conversion



Written by Administrator

A handwriting practice sheet featuring a grid of 7 rows and 25 columns of empty rectangular boxes. The boxes are arranged in a regular pattern, with some rows containing fewer boxes than others, creating a staggered effect. The boxes are intended for students to practice writing letters and words.

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## References

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