



Using Video To Instruct

April 1, 2019

- Why use video?
- What to expect
- What to avoid
- Most widely used video tools
- Tips and tricks
 - How you can use video as a tool to effectively communicate



Agenda: Video Examples

- Driving the line
- Consistency
- Smoothness
- “Indexing” with video
- Braking and Turn-in
- Throttle application
- Understeer
- Oversteer
- “Over driving”



Disclaimer - this presentation is not:

- A critique of the drivers
- A complete guide to instructing
- A substitute for in car instruction for a novice student



How Can Video Help Instruct?

Before Event

- Students can gain a better understanding of a track and the proper line from our website videos
- Student videos can be shared with instructors

Track Day

- Students observe their technique in stressless environment at their own speed
 - * Important - use video to reinforce “good” techniques

After Event

- Students videos can be reviewed with instructors comments



Why YOU need to know Video

- Inexpensive phone apps and action cameras are ubiquitous
 - Everyone will probably have one soon!
 - Most will have data overlays and track maps included
- Many new cars offer video-data systems
 - Porsche Track Precision App
 - BMW's M LapTimer
 - Corvette Performance Data Recorder / Lap Timer
 - Etc.
- The YouTube generation learns from video
 - Many of our members and students are already using it

But may not be getting good advice!

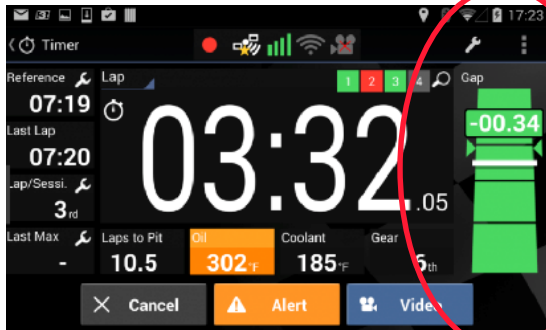


Getting started

In-Car “Rules”

- Camera must be set up and turned on before leaving pits
 - Avoid having set up issues creating the student to feel rushed or hurried before going on track
 - If the camera has auto start/stop, set and forget. If manual, start in the cold pit, turn off in the cold pit and trim the video later.
- **Please** NO interaction with camera during the run
 - If a camera fails to start, comes loose, stops functioning
 - Pit-in and remove it
- Your student is responsible to transferring video from car to their phone, tablet, computer

NJR In-Car “Rules”



For novice drivers, discourage use of “Predictive Lap Time” or realtime time “driver performance” data to gain a better lap time.

- Emphasize consistency, not speed
- Special mention of Apex dash.
 - Only review lap time after start/finish

If an upper run group driver wants to learn how to safely use these advanced features, find an instructor that has the correct level of experience that can help.



Video Review Mechanics

- Student should have familiarity with their camera and software - but **you should know how** to use a standard media player's playback features
- Teaching via video takes time
 - Watch a few laps and look for consistency
 - You can spend 10 minutes on 1 lap - try not to.
 - Allow at least 15 minutes for a decent review
 - Use fast forward where possible (examples to come)
 - Limit to one hot track review session per day - save longer reviews for cold track periods

NJR Common Camera Apps

All these apps capture video and data

- Harry's LapTimer
- TrackAddict
- RaceChrono
- GoPro +
- Advice
 - Phones need a good mount
 - Best to review video on a tablet
 - or computer





Video Camera Options

- GoPro, etc.
- Dedicated Track Camera
 - e.g. SmartyCam, Race Logic Vbox





In Car View





Windshield View



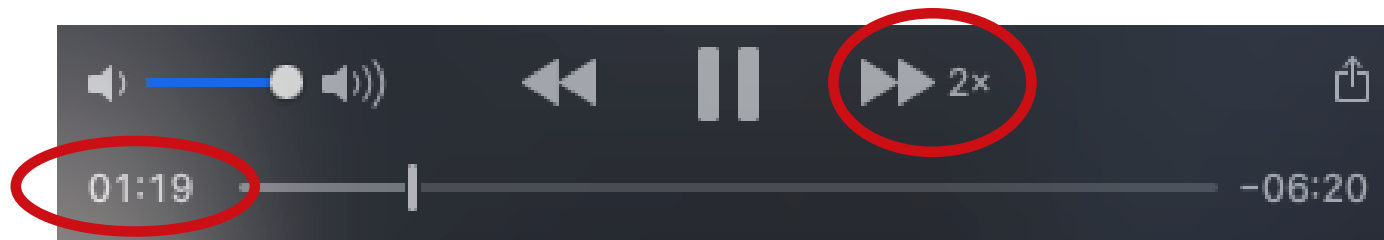


Multi Camera Views





Media Player Controls





Playback Trick #1

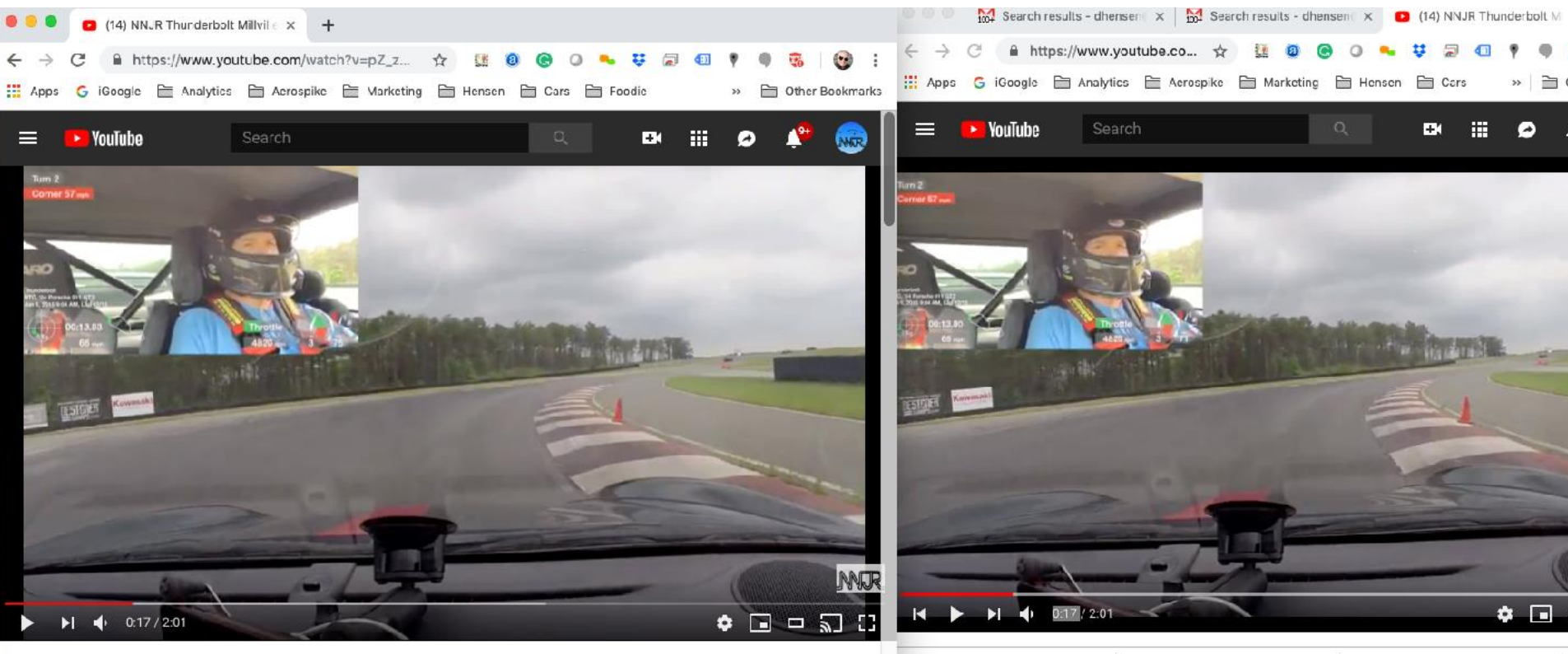
2 X Review Speed





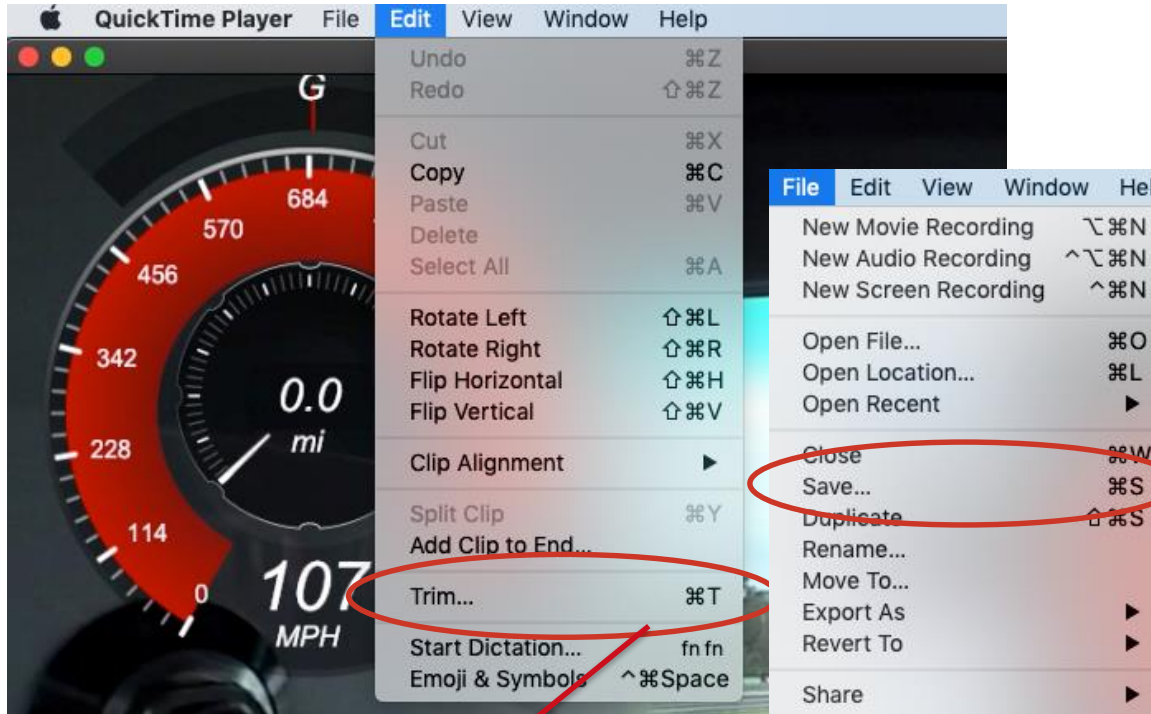
Playback trick #2

Side by side lap views and sync
Using two browser windows



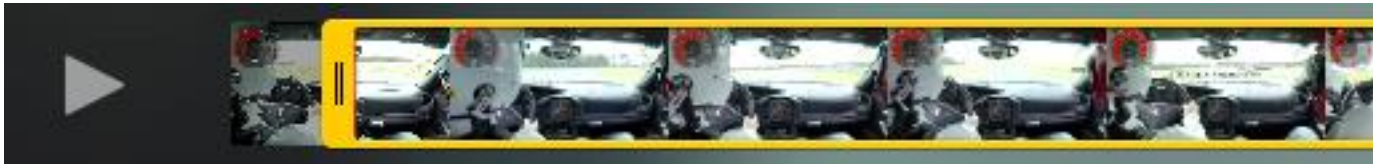


Quick Video editing and trimming #3



Tech Tip:

Use video player to trim front and end of clips and then “save”





Video Examples



NJR Video Test...what do you see?



- <https://youtu.be/60byFV6OpA8>
Shane WGI Start 1:31



Review- Use video for:

- The line - lap to lap
- Consistency
- Reference Points
- Looking ahead - Pause video - use pointer
- Data overlays - help pinpoint brake application, throttle application
- Proper steering technique - hand controls
- Pinpointing “over driving”
 - a. Over steer - traction control lights
 - b. Engine cut off - audio + traction control lights
- Highlight or reinforce one or two issues/topics from your in-car instruction or your student work on



Questions?

- » Important - use video to reinforce “good” techniques !!!
- » Questions?