



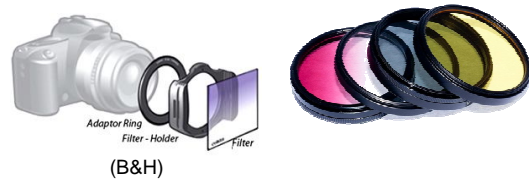
Lens Filters

Formats
Common Types
Some Uses

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Filters

- Formats
 - Screw-on Circular Lens
 - Rectangular



Common Use Filters

- Most Important
 - Clear, Protective
 - Neutral Density
 - Circular Polarizing
- Others
 - Creative/Special Effects - Ex: Star
 - Color Correcting: Not needed with digital

Coated and Non-Coated

- Non-coated
 - Less expensive
 - May have light reflections, flares
- Coated
 - Slightly more expensive
 - Reduces extraneous light artifacts
 - Provides better light transmission

Screw-On Filters

- Fixed Size - Screws on Lens
- For Multiple Size Lenses
 - Buy Filter for each lens size
 - Or Buy largest filter with adapters
- Fixed Filtering
 - Cannot reposition filter (ex: vertically)

B&W Neutral Density



Filter Wrenches

- Filters can be thin - difficult to grip
- Filter wrench helps easily remove filter from your lens



(B&H)

Filter Wrench

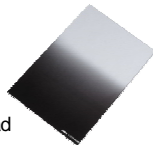


Rectangular Filters

- Mount in Front of Lens
- 1 Filter fits all your lenses
- Common filter size useful up to 82mm
- Can be rotated and adjusted vertically



Cokin
ND Grad



Software Filters

- Some filters can be simulated in SW
 - Example: Day for Night filter
 - Used during daylight imaging
 - Produces image that appears to be night
- Some filters cannot be simulated in SW
 - Example: Polarizer
- Important “technical” filters are best done with lens filters

Clear, Protective, UV Filters

- Clear, Protective Filters: Protect Lens
- UV Filters
 - Remove distant “Haze”
 - Not normally needed with today’s cameras
 - Digital cameras have UV built-in
 - Can protect lens

B&W UV



Neutral Density Filters

- Important: Built into some cameras
- Used to control light entering lens
- Extends camera’s exposure range
- Available in multiple strengths
- Provides freedom to choose desired exposure (Aperture & Shutter) in bright lighting

B&W ND



Variable ND Filters

- Variable Strength ND Filter (w/limits)
- Built into some cameras
- Rotate rim to change strength
- Typical range 2 - 6 stops

Tiffin
Variable ND Filter
(from B&H)



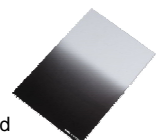
Neutral Density Graduated

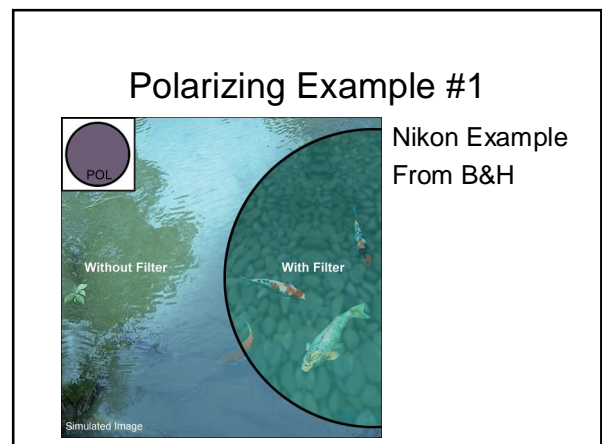
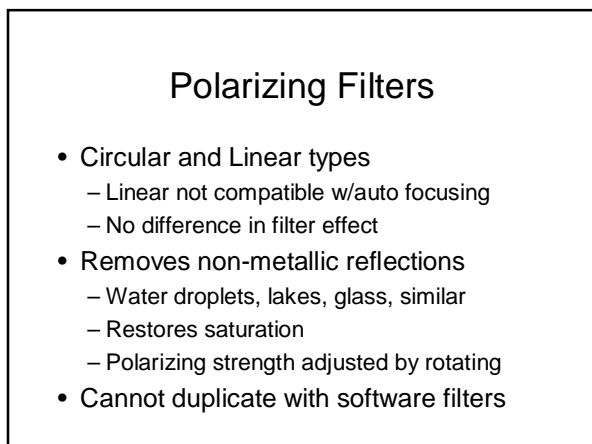
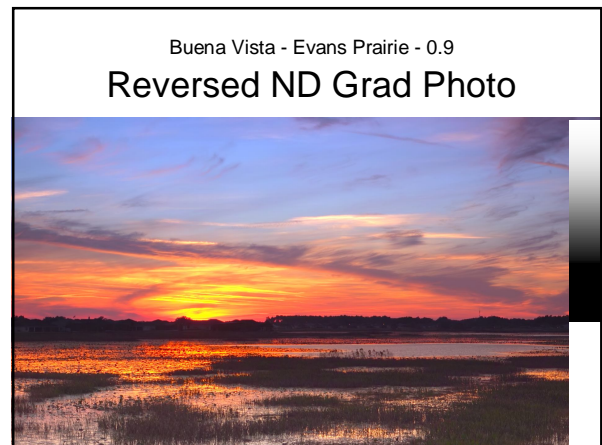
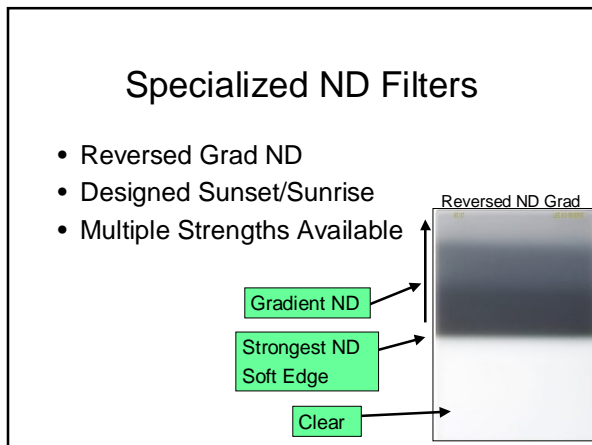
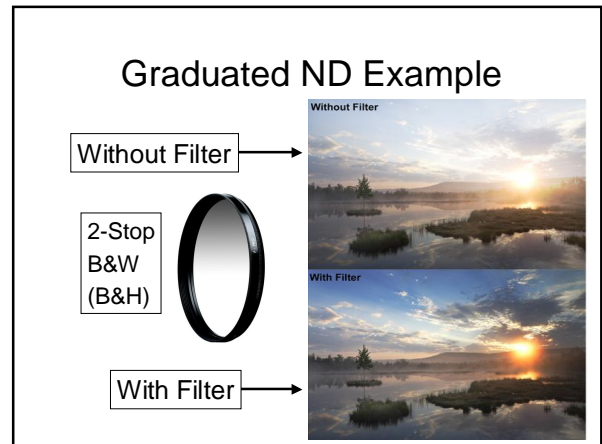
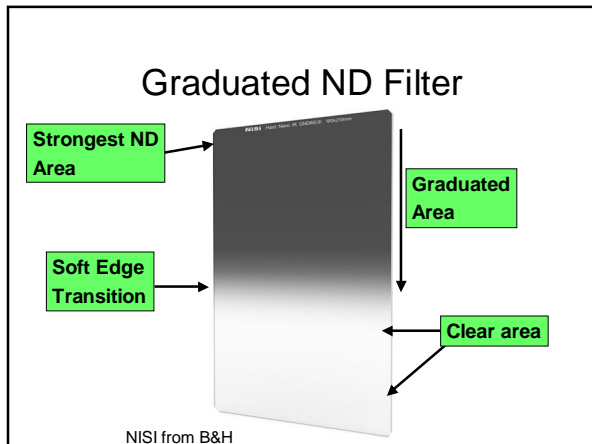
- Graduated from Dark Gray to clear
- Controls exposure in part of the frame
- Ex: Control over exposed bright sky
- Excellent for landscape type shots



Tiffin
ND Grad

Cokin
ND Grad





Polarizing Example #2

- Correct Sky Color - Remove "Cyan Look"

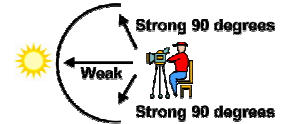
Without Polarizer

Using Polarizer



Using Polarizers

- Reduces exposure 1-2 Stops
- Variable effect based on angle to sun
 - Strongest effect at 90 degrees
 - Rotate filter to adjust effect
 - Wide lenses - effect may vary over the image



Special Effects Filters

- Creative Effect Filters
- Many Special Effect Filters
- Some can be done in software
- This example: Star Filters

Hoya Star-6



Q & A