Title:	Day/Night Safe Mode Mechanism	**Version:**	v1.0	**Date:**	10/11/2016
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Action Required:	None, Information Only				

Summary

A camera may activate day/night safe mode under very specific scene conditions, when the ambient light is at a point where it causes the camera to vacillate between day mode and night mode. Day/night safe mode locks the camera into night mode to prevent the distractive switching of image modes from occurring, allowing for a more consistent live stream and smooth recording. This function is implemented on all cameras. The possibility of a camera entering this safe mode without the user's intention is very rare.

The camera exits this mode and functions normally after remaining locked in night mode for 90 minutes. Day/night mode may be changed manually or the camera may be rebooted to exit the safe mode. Because of the rareness of entering day/night safe mode, R&D engineers are now under discussion to remove this mechanism.

Algorithm

The algorithm consists of two counters:

1. The oscillation counter, which keeps track of the number of switches between day and night modes.
2. The time counter to keep track of the amount of time between each switch.

Conditions

- An IP PTZ will activate the safe mode when it switches the day/night mode 10 times and the interval between each switch is less than two minutes. To be specific, a counter can be initialized for two minutes when a day/night switch occurs. All counters will be reset if no other switching occurs within two minutes. To activate the safe mode, there must be 10 sequential day/night switches, and the interval between each switch must be less than two minutes.

- An IPC will activate the safe mode when it switches the day/night mode five times within 10 minutes. To be specific, a counter can be initialized for 10 minutes when a day/night switch occurs. All counters will be reset if no other switch occurs within 10 minutes. To activate the safe mode, there must be five sequential day/night switches within 10 minutes.

  NOTE: The 10-minute interval does not mean the interval between each switch, but means the interval between the first switch and the last switch.

- A TVI camera will activate the safe mode when it switches the day/night mode five times within 10 minutes.

  NOTE: Refer to the IPC for details.
  For newer TVI cameras, the safe mode function is off by default, and you can call preset 150 to enable this function.

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- A TVI PTZ camera will activate the safe mode when it switches the day/night mode 10 times and the interval between each switch is less than two minutes.

  NOTE: Refer to the IP PTZ camera for details.

Variations

The safe mode algorithm is not identical on all cameras, for the safe mode implementation is limited to the cameras' hardware. For example, the PTZ algorithm requires modification because the PTZ hardware is different from the standard IPC hardware.

Taking the hardware differences into account, the conditions stated above are minimum requirements. That is, a camera can also enter the safe mode after continuing to operate the normal day/night switch for more than the number of oscillations stated.

Cancelling Day/Night Safe Mode Once It Is Running

- Wait for the camera to be de-activated from the safe mode automatically (about 90 minutes)
- Change the day/night settings manually
- Reboot the camera