PlaneWave AutoFocus COM Interface

ProgID: PlaneWave.AutoFocus

Properties

Version (int, read-only)
The version number of the AutoFocus API. The first publicly released version (bundled with PWI 3.3.0 Beta 4) is Version 1. As properties and methods are added, the version number will be incremented and the minimum version number will be noted in the documentation. Late-bound clients should query the version number before deciding whether to access a method or property included in version 2 or greater.

Host (string, read-write)
The name or IP address of the computer running the AutoFocus server. Normally this will be set to the default value, "127.0.0.1".

Port (int, read-write)
The TCP port number of the AutoFocus server. Normally this will be set to the default value, 55555.

ServerTimeoutMilliseconds (int, read/write)
The length of time (in msec) that the COM client will wait for a response from the AutoFocus server before throwing a TimeoutException. Note that because the PWI3 server is not currently multithreaded, it could potentially become unresponsive while PWI3 is downloading an image from a slow camera. This timeout should be at least long enough to compensate for these types of temporary slowdowns. Default: 60000 (60 seconds) to accommodate the lengthy readout of cameras such as the SBIG STL-11000.

IsPwiResponding (bool, read-only)
Returns true if the client is able to contact the PWI3 server and retrieve a valid status.

Returns false if there are any errors connecting to the PWI3 server (for example, if PWI3 is not running) or if the returned status cannot be parsed.

IsFocuserConnected (bool, read-only)
Returns true if the running PWI3 instance currently has an active connection to the focuser.

IsAutofocusDesired (bool, read-only)
Returns true if the PWI3 AutoFocus scheduler is disabled, or if it is enabled and enough time has passed since the last AutoFocus run to justify a new run.

This property might be used in a Maxim DL Autosave script that is called after every image to determine if a focus run should be requested.

Note that this is only an advisory result. A client may still request an AutoFocus run even if this property returns false.

IsAutofocusRunning (bool, read-only)
Returns true if an AutoFocus run has been requested and has not yet finished or been aborted.

Success (bool, read-only)
Returns true if the last requested AutoFocus run completed successfully.

BestPosition (int, read-only)
If Success = true, returns the best focus position that was determined from the most recent AutoFocus run.

Tolerance (double, read-only)
If Success = true, returns the tolerance determined from the most recent AutoFocus run. Tolerance is defined as the distance the focuser can move that will result in an estimated 3% growth of the RMS diameter of a star.

NextLogMessage (string, read-only)
Dequeues and returns the next log message produced by the AutoFocus routine.
If no log messages are pending, return null.

ExposureLengthSeconds (double, read-write)
The exposure length to use for each exposure, in seconds. If the value is less than or equal to 0, the default exposure length configured in the AutoFocus server will be used. This value is 0 by default.

PreventFilterChange (boolean, read-write)
If set to true, the AutoFocus routine will keep the filter current set in MaxIm DL rather than switching to the AutoFocus filter that may be configured in the AutoFocus server software.

Methods

StartPwiIfNeeded()
Determine if the PWI3 application is currently running, and launch it if needed.

ConnectFocuser()

Request that a running PWI3 instance connect to a Focuser device if it is not already connected.

StartAutofocus()
Request a new AutoFocus run.

StopAutofocus()
Abort any currently-running AutoFocus sequence.