PI_Update.exe is a 64-bit console utility used to upgrade camera firmware so that it is compatible with Princeton Instrument's data acquisition software, PICam. **You should NOT run the pi_update.exe without first contacting PI technical support.**

In order for firmware changes to properly take effect, you MUST cycle power on the camera before attempting to use it.

## INCLUDED FILES

Pi_update.exe: console application

PIONIR_InGaAs640.pionir: PIoNIR and NIRvana cameras

NIRVANALN_InGaAs640.nirvanaln: NIRvana-LN cameras

NIRVANAST_InGaAs640.nirvanast: NIRvana ST cameras

0309r3p0_small_shutter.pixis: Any Pixis that is not a 2Kx2K and doesn't have the custom fan option

0326r3p0_large_shutter.pixis: 2Kx2K Pixis

0349r3p0_fan_option.pixis: Non 2Kx2K Pixis WITH custom fan option

ProEM_CCD97.proem: ProEM: 512 family

ProEM_CCD201.proem: ProEM: 1024 family

ProEM_CCD207_200.proem: ProEM: $1600^{(2)}$ family

ProEM_CCD207_400.proem: ProEM: $1600^{(4)}$ family

ProEMPLUS_CCD97.proem: ProEM+: 512 family

ProEMPLUS_CCD201.proem: ProEM+: 1024 family

ProEMPLUS_CCD207_200.proem: ProEM+: $1600^{(2)}$ family

ProEMPLUS_CCD207_400.proem: ProEM+: $1600^{(4)}$ family

ProEMHS_CCD97.proem: ProEM-HS: 512 family

ProEMHS_CCD201.proem: ProEM-HS: 1024 family

ProEMHS_CCD351.proem: ProEM-HS: 1KB-10µm family

PIMAX3_KAI1003.pimax3: PI-MAX3 & 4: 1024i family (not MCP enabled)

PIMAX3M_KAI1003.pimax3: PI-MAX3 & 4: 1024i family (MCP enabled)

PIMAX3_CCD3011.pimax3: PI-MAX3: 1024x256 (not MCP enabled)

PIMAX3M_CCD3011.pimax3: PI-MAX3: 1024x256 (MCP enabled)

PIMAX4_CCD3011.pimax3: PI-MAX4: 1024s (not MCP enabled)

PIMAX4M_CCD3011.pimax3: PI-MAX4: 1024s (MCP enabled)

PIMAX4_CCD97B.pimax3: PI-MAX4: 512B/EM

PIMAX4_CCD97F.pimax3: PI-MAX4: 512EM

PIMAX4_CCD201B.pimax3: PI-MAX4: 1024B/EM

PIMAX4_CCD201F.pimax3: PI-MAX4: 1024EM

PIMAX4_CCD4710.pimax3: PI-MAX4: 1024f

PIMAX4RF_KAI1003.pimax3: PI-MAX4: 1024i-RF

PIMAX4_CCD4240F.pimax3: PI-MAX4: 2048f

PIMAX4_CCD4240B.pimax3: PI-MAX4: 2048B

PIMTE3_2048B.mte3: PI-MTE3: 2048B

Pylon_CCD36_100B.pylon: PyLoN: 100B family

Pylon_CCD36_100BR.pylon: PyLoN: 100BR family

Pylon_CCD36_400B.pylon: PyLoN: 400B family

Pylon_CCD36_400BR.pylon: PyLoN: 400BR family

Pylon_CCD36_1300B.pylon: PyLoN: 1300B family

Pylon_CCD36_1300R.pylon: PyLoN: 1300R

Pylon_CCD30E.pylon: PyLoN: 256E

Pylon_CCD4210B.pylon: PyLoN: 2KB family

Pylon_CCD4210F.pylon: PyLoN: 2KF family

PyLoN_ccd4240F.pylon: PyLoN: 2048F family

PyLoN_ccd4240B.pylon: PyLoN: 2048B family

PylonIR_1024-1.7.pylonir: PyLoN-IR: 1024-1.7

PylonIR_1024-2.2.pylonir: PyLoN-IR: 1024-2.2

Sophia_2048B.sophia: SOPHIA: 2048B family

Sophia_2048B_13_5.sophia: SOPHIA: 2048B-13.5µm family

Sophia_4096B_HDR.sophia: SOPHIA: 4096B-HDR family

Blaze_100B.blaze: BLAZE: 100B family

Blaze_400B.blaze: BLAZE: 400B family

Blaze_400BRLD.blaze: BLAZE: 400BR LD family

Blaze_100HR.blaze: BLAZE: 100HR family

Blaze_400HR.blaze: BLAZE: 400HR family

FERGIE81_256BRFT.fergie: FERGIE-ISO-81: 256BR/FT

## USAGE

Pi_update -iINTERFACE -aACTION <filename>

**INTERFACE** should be replaced by:

USB: if programming a Pixis

USB3: if programming a Sophia, Blaze, MTE3 or FERGIE-ISO-81

GIGE: if programming a ProEM, ProEM+, ProEM-HS, PI-MAX3, PI-MAX4, PyLoN, PIoNIR, NIRvana, NIRvana ST or PyLoN-IR.

**ACTION** should be replaced by:

PROGRAM: used for programming the camera

## EXAMPLES

Pi_update -iUSB -aPROGRAM 0309r3p0_small_shutter.pixis

Pi_update -iGIGE -aPROGRAM ProEM_CCD97.proem

Pi_update –aUPGRADE

## RUNNING WITH UPGRADE OPTION

If you run the pi_update.exe specifying -aUPGRADE, the utility will check the firmware in the attached camera to see if there is a more current version available. If there is a more current version of the firmware available, the camera will be upgraded to that version. You should only have ONE Princeton Instruments device attached to your computer when running the pi_update.exe.

When the update has completed, the user will be prompted to cycle power on the camera, and then press any key to close the command window.

Please note that specifying the interface is NOT necessary when running –aUPGRADE.

## WARNINGS

Once programming has been initiated, DO NOT cycle power until the operation has been completed. In the unlikely event of a programming failure, DO NOT cycle power immediately. Instead re-run PI_Update again.