

Application note: How to correct distortion in images

The application note describes how to correct the distortion in images acquired by a Sequoia camera.

Useful information regarding the formalism can be found on the Pix4D support website [1]: <https://support.pix4d.com/hc/en-us/articles/202559089-How-are-the-Internal-and-External-Camera-Parameters-defined-#label101>

For Sequoia, the information are stored in the following tags:

| | | | |
|-----------------------------------|---------|----|--|
| Xmp.Camera.ModelType | String | | Camera model type: one of "perspective", "fisheye" |
| Xmp.Camera.PrincipalPoint | String | mm | cx, cy in millimeters separated by comma |
| Xmp.Camera.PerspectiveFocalLength | Double | mm | For perspective camera: Optimized focal length in millimeters |
| Xmp.Camera.PerspectiveDistortion | String | | For perspective camera: R1, R2, R3, T1, T2 separated by comma as defined in [1] |
| Xmp.Camera.FisheyeAffineMatrix | String | | For fisheye camera: Affine matrix: C, D, E, F separated by comma as defined in [1] |
| Xmp.Camera.FisheyeAffineSymmetric | Boolean | | For fisheye camera: If symmetric affine matrix should be used |
| Xmp.Camera.FisheyePolynomial | String | | For fisheye camera: Polynomial separated by comma as defined in [1] |

Due to continuous updates of our products, some tags may be missing in your images.

If so please check that you updated your camera to the latest firmware available.

If the problem persists, contact us at sequoia@parrot.com to discuss recalibration options.