KAYA's Frame Grabbers
PoCXP application notes
AN-121501

International Distributors

Sky Blue Microsystems GmbH
Geisenhausenerstr. 18
81379 Munich, Germany
+49 89 780 2970, info@skyblue.de
www.skyblue.de

In Great Britain:
Zerif Technologies Ltd.
Winnington House, 2 Woodberry Grove
Finchley, London N12 0DR
+44 115 855 7883, info@zerif.co.uk
www.zerif.co.uk

1 PoCXP control

1.1 Document purpose

The purpose of this document is to describe and demonstrate the control over PoCXP of KAYA's CoaXPress Frame Grabbers using KAYA's Frame Grabbers image acquisition software API and App.

1.2 PoCXP control for camera discovery

The Frame Grabber card will boot up with PoCXP disabled. PoCXP will be re-enabled during camera discovery process. After end of camera detection, links that no camera was detected for them will be disabled.

By default, camera discovery will be terminated a short while after first camera was detected. If multiple cameras are powered and wormed-up at the time of camera discovery, they will all be detected (up to 4 cameras can be connected and discovered simultaneously).

Different cameras may have different boot-up times until the cameras are warmed up and ready for operation. In order to successfully detect such cameras a discovery delay should be optimized to match cameras' boot-up time.

Discovery process might take up to a minute to complete, which might hang up host application. To avoid such behavior, one might first manually enable the PoCXP, wait for the cameras to boot-up and then execute camera detection process with short delay parameter.

1.3 PoCXP control from API

1.3.1 Setting camera discovery delay

In order for all cameras to be ready and warmed-up at camera discovery process initiation, a discovery delay should be optimized to match cameras' boot-up time.

To do so “CameraDiscoveryDelay” should be set to optimized value:

Example:

“CameraDiscoveryDelay” can be set to value 20,000(ms) which will delay camera discovery by 20 seconds in order to let all connected cameras to boot-up for successful operation.

KYFG_SetGrabberValueInt(GrabberHandle, “CameraDiscoveryDelay”, 20000);

1.3.2 PoCXP value settings

“PoCXP0” – “PoCXP7” grabber parameters should be used to turn “On”/”Off” the FG PoCXP using one of the API dedicated functions:

Example:

To turn on power of Frame Grabber channel 2, the following function call may be used:

KYFG_SetGrabberValueEnum_ByValueName(GrabberHandle, “PoCXP2”, “On”);

1.4 PredatorApp PoCXP control

1.4.1 Setting camera discovery delay

The camera discovery delay option in App is located in the following location:

“Frame Grabber” -> “Frame Grabber Control” -> “Camera Discovery Delay”

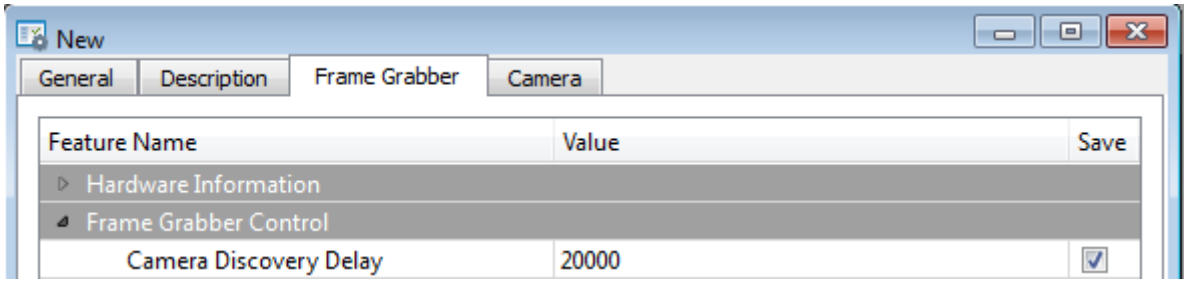

Figure 1 : Setting up Camera Discovery Delay in Predator App

1.4.2 PoCXP value settings

1. PoCXP control buttons for manual control of PoCXP can be found on main Toolbar Menu.

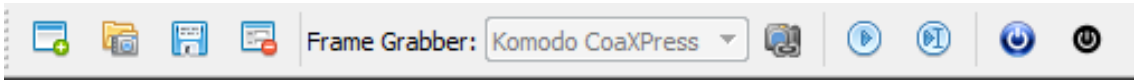

Figure 2 : PredatorApp PoCXP control on Toolbar Menu

To enable PoCXP press the button – this will enable PoCXP to all links
To disable PoCXP press the button – this will disable PoCXP to all links

2. To control individual PoCXP channel follow the PoCXP controls located under the "Frame Grabber Control" category as described in following Figure 3.

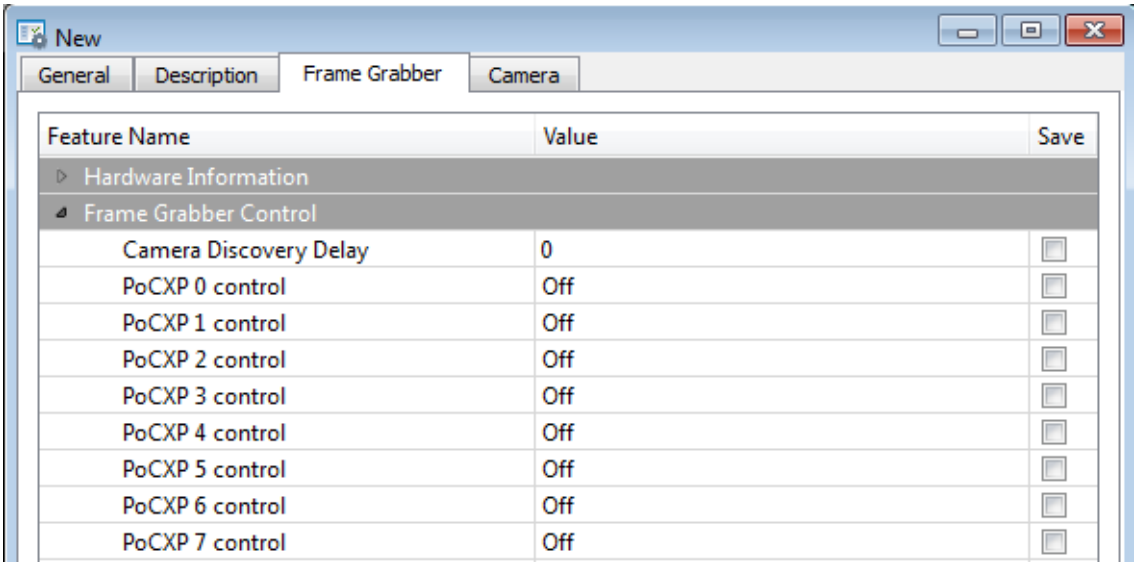

Figure 3 : PoCXP controls in **PredatorApp**

⚠Caution: Manually enabling PoCXP will drive 24V to all the frame grabber ports. Avoid hot plugging the camera while the PoCXP was manually enabled to reduce the risk of camera damage.