

multiple 1394 bus synchronization device

Synchronization of multiple 1394 buses

Camera synchronization at high frame rates

Automatic synchronization

Unlimited number of synchronized cameras

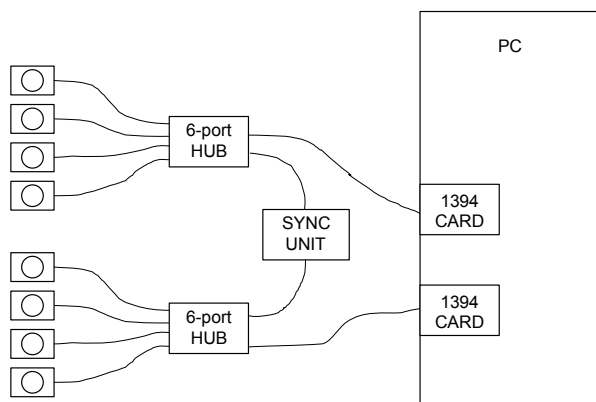
Simple installation

sync unit

POINT GREY RESEARCH

Point Grey has introduced the Sync unit, a product that extends the automatic camera synchronization feature of the Dragonfly camera. This unit is required when the number of synchronized cameras on the bus exceeds the bandwidth of the bus. The Sync unit allows Dragonfly cameras, on different 1394 buses, to be synchronized without reducing the bandwidth of each bus. The Sync unit allows having an unlimited number of synchronized cameras, while preserving the frame rate.

Consider the following example in which eight Dragonfly cameras are synchronized and running at 30 frames per second. Each cluster of four cameras is on one 1394 bus, synchronized and broadcasting at 30 FPS. The sync unit bridges the timing information between the buses, allowing all cameras to be synchronized.



Architecture for 8 synchronized cameras at 30FPS

This configuration can be achieved using off the shelf components, and no special programming or electrical wiring is required. The synchronization happens automatically.



sync unit

More than two buses can be synchronized by creating a series of buses with Sync units between them. The number of Sync units required is equal to the number of IEEE-1394 buses being synchronized. It should be noted that multiple PCs may be required if the PCI bus bandwidth is exceeded.

The Sync unit is NOT required for synchronizing Dragonfly cameras present on the same IEEE-1394 bus. Certain IEEE-1394 PCI cards such as Lucent will allow a maximum of 7 cameras to auto-synchronize without a Sync Unit.

The Sync unit is not a generic IEEE-1394 camera synchronization device. It has been designed to work specifically with these Point Grey cameras:

- * Dragonfly™
- * Bumblebee™
- * Digiclops®
- * Flea
- * Scorpion (select models-contact Sales@ptgrey.com for more details)

www.ptgrey.com

Point Grey Research (PGR) is a worldwide leader in the development of advanced digital camera technology products. Based in Vancouver, British Columbia, PGR designs, manufactures and distributes IEEE-1394 cameras, stereo vision cameras and spherical digital video cameras to a broad spectrum of industries. Through a close working relationship with its customers, PGR continues to be at the forefront of innovation.

