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Sync-unit User Guide (Draft)

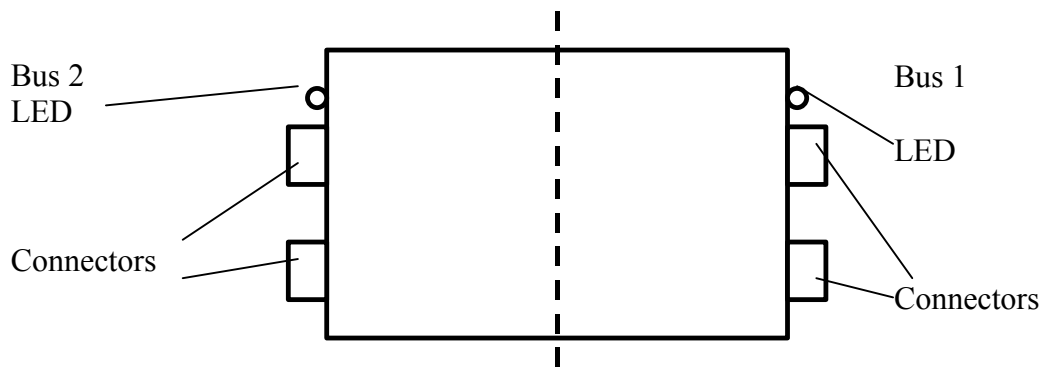
June 12, 2001

Point Grey Research

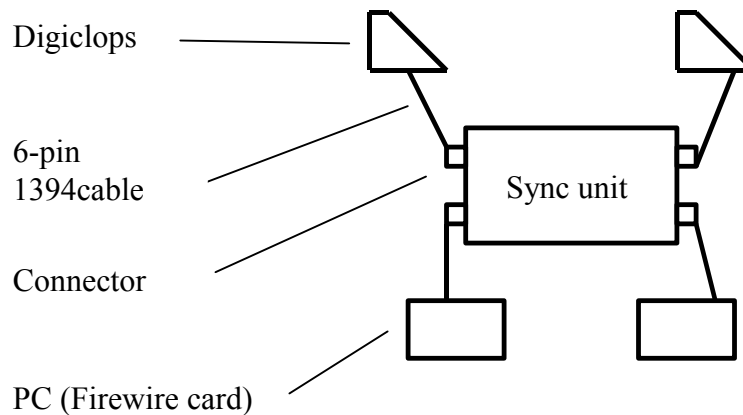
Features of the Sync Unit

- The Sync Unit is designed to work with the firewire card to synchronize the use of many Point Grey cameras at once. Presently, the cameras to be used with the Sync Unit are the Digiclops™ and the Dragonfly™
- By connecting the Sync Units in parallel, one can achieve greater bandwidth
- The cameras (with upgraded firmware) have an offset register that will correct the timing of the two buses so that they are synchronized.
- The Sync Unit updates periodically to compensate for any disparity between the source and the destination.

How to Set Up the Sync Unit

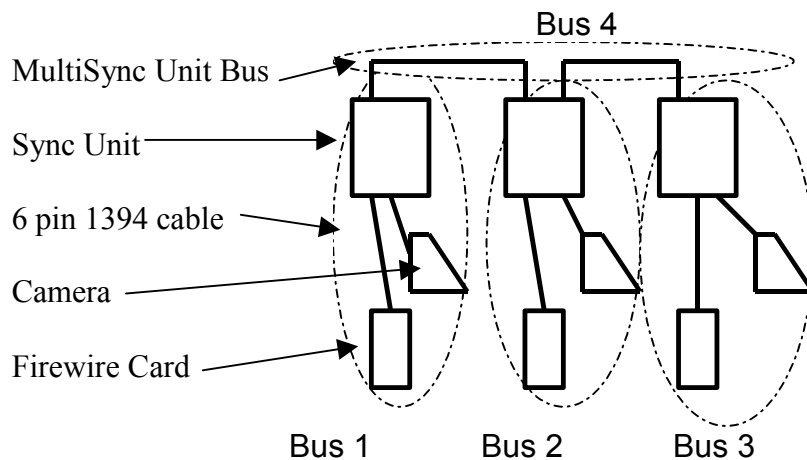


Each side of the unit corresponds to one bus.



One connector will be connected to the Firewire card while the other can be connected to a camera or to another sync unit.

It is important that the buses are not interconnected, for example, do not have one camera plugged into both buses at the same time



In order to use multiple sync units together (to increase the bandwidth), the sync units must be connected to each other to create an independent bus as shown in the diagram above. This bus will be the source for synchronizing the timing.

Important Notes

- The cameras being used must have their firmware upgraded before using the Sync Unit(s). Firmware 3 or higher should be used.
- You will need as many sync units as there are Firewire cards.
- Currently no driver is needed for the device. When the hardware is being detected, the option to not install a driver for the hardware will be presented. Click OK on this and then follow the directions until the process is finished. The device will show up as "Other Device" with a yellow question mark under "Device Manager", but will function properly.

Troubleshooting

The LEDs on the sync unit flash to communicate different messages to the user:

- Fast flashing light: indicates that the unit is busy or that there is an error
- Short slow flashing light: indicates that the unit is idle
- Steady light: indicates that the unit is functioning properly
- Short bright light with increasing intensity: the unit is operating as a multisync unit bus
- Slow flashing light: indicates a camera with firmware that has not been updated.