

## Setting the Gap Count for Long Cables

*Technical Application Note TAN2008003*

*Revised June 23, 2015*

### 1.1 Subject

Technical Application Note (TAN2008003): Setting the Gap Count for Long Cables

### 1.2 Applicable Product(s)

- FlyCapture SDK
- Point Grey FireWire cameras

### 1.3 Application Note Description

This application note explains the procedures to increase the gap count on the FireWire bus. This is a requirement for cables longer than 10 meters. If gap counts are not increased appropriately, errors such as bus resets, dropped data, and poor performance can occur.

[Options for Setting the Gap Count](#)

[Using the FlyCapture RegistryControlUtility to Set Gap Count](#)

[Using the Windows Registry Editor to Set Gap Count](#)

[Additional Downloads and Support](#)

## 1.4 Options for Setting the Gap Count

There are two methods for setting the gap count:

- The RegistryControlUtility (recommended)
- The Windows Registry Editor

There are three gap count options:

- Normal: The gap count is controlled by the MS driver. (Default)
- Automatic: The gap count is controlled by the FirePro driver.
- Manual: The gap count is set by the user.



*The FirePro driver (PGR1394.sys) must be installed on your 1394 card(s) for automatic and manual options to work.*



*The gap count is maintained through reboots. However, the user must set the gap count every time a new card is installed.*

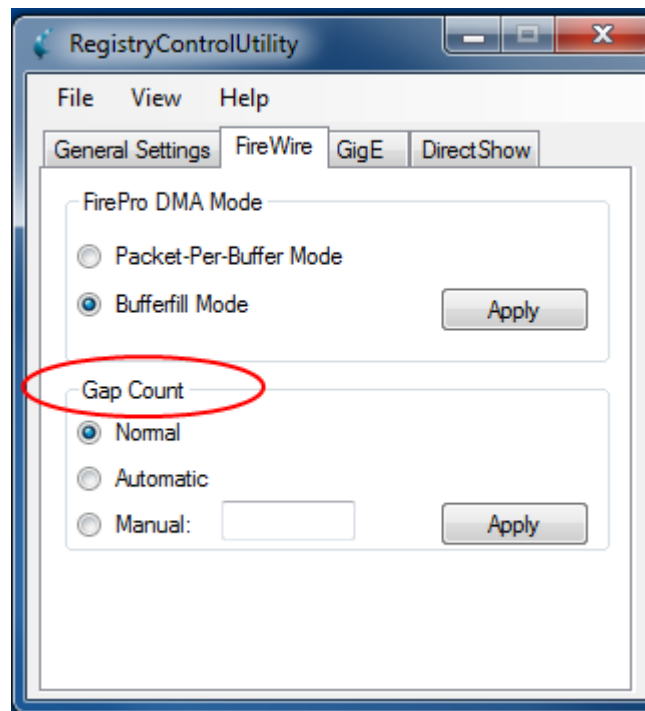
## 1.5 Using the FlyCapture RegistryControlUtility to Set Gap Count

To access the RegistryControlUtility tab and change the gap settings:

1. Open Registry Control Utility.

**Start Menu → All Programs → Point Grey FlyCapture2 → Utilities → Registry Control Utilities**

2. Under General Settings, select the FireWire tab.
3. Under Gap Count, select:
  - a. Automatic, then click Apply.OR
  - b. Manual: then enter a decimal value (recommended: 63) and click Apply.OR
  - c. Normal if returning to default and click Apply.

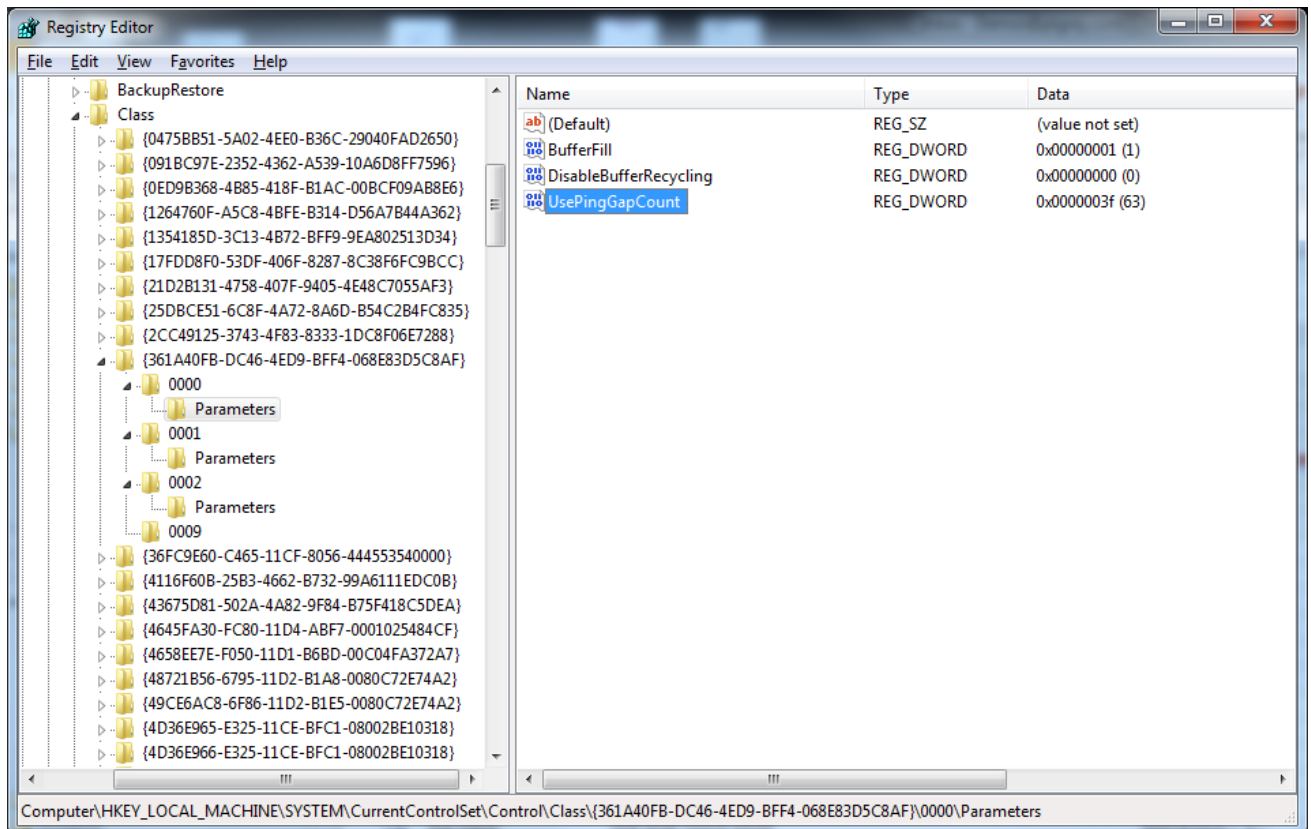


4. After you click Apply, this message appears: "Please disable/enable 1394 adaptors to let Gap Count change take effect." Click OK in the confirmation message.
5. Disable/enable the card in in the device manager.

## 1.6 Using the Windows Registry Editor to Set Gap Count

To access the Windows Registry Editor and change the gap settings:

1. From the Start menu, enter regit.
2. In the Registry Editor, search for:  
 HKEY\_LOCAL\_MACHINE\SYSTEM\CurrentControlSet\Control\Class\{361A40FB-DC46-4ED9-BFF4-068E83D5C8AF}\xxxx\Parameters  
 where 'xxxx' is the installed card number.



3. In the Parameters key, enter UsePingGapCount as a DWORD value:
  - a. For Automatic, set it to 1.
  - b. For Manual, set it to the required gap count (recommended: 63).
  - c. For Normal, set it to 0 or a value higher than 63 (0x3F). Removing UsePingGapCount also returns it to Normal.
4. Disable/enable the card in the device manager.

## Additional Downloads and Support

Point Grey endeavors to provide the highest level of technical support possible to our customers. Most support resources can be accessed through the [Support](#) section of our website.

### Creating a Customer Login Account

The first step in accessing our technical support resources is to obtain a Customer Login Account. This requires a valid name and email address. To apply for a Customer Login Account go to the [Downloads](#) page.

### Knowledge Base

Our [Knowledge Base](#) contains answers to some of the most common support questions. It is constantly updated, expanded, and refined to ensure that our customers have access to the latest information.

### Product Downloads

Customers with a Customer Login Account can access the latest software and firmware for their cameras from our [Downloads](#) page. We encourage our customers to keep their software and firmware up-to-date by downloading and installing the latest versions.

### Contacting Technical Support

Before contacting Technical Support, have you:

1. Read the product documentation and user manual?
2. Searched the Knowledge Base?
3. Downloaded and installed the latest version of software and/or firmware?

If you have done all the above and still can't find an answer to your question, contact our [Technical Support](#) team