

Jadepix3 FW and SW Status

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DAQ Transfer Speed

Transfer Speed: *50Mbps -> 750Mbps*

IPbus block read return: <uint32_vector>

The magic:

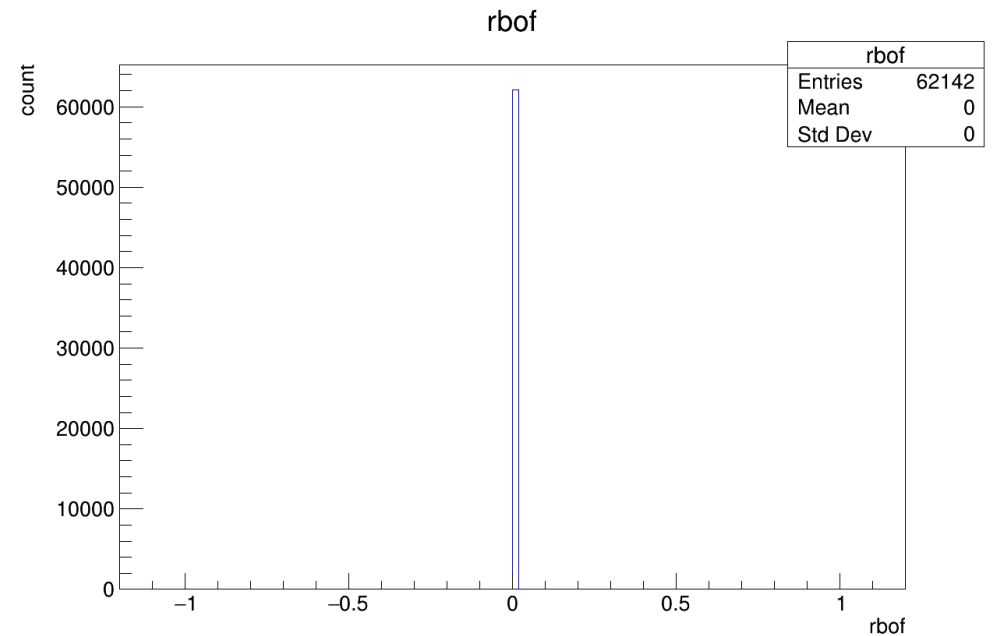
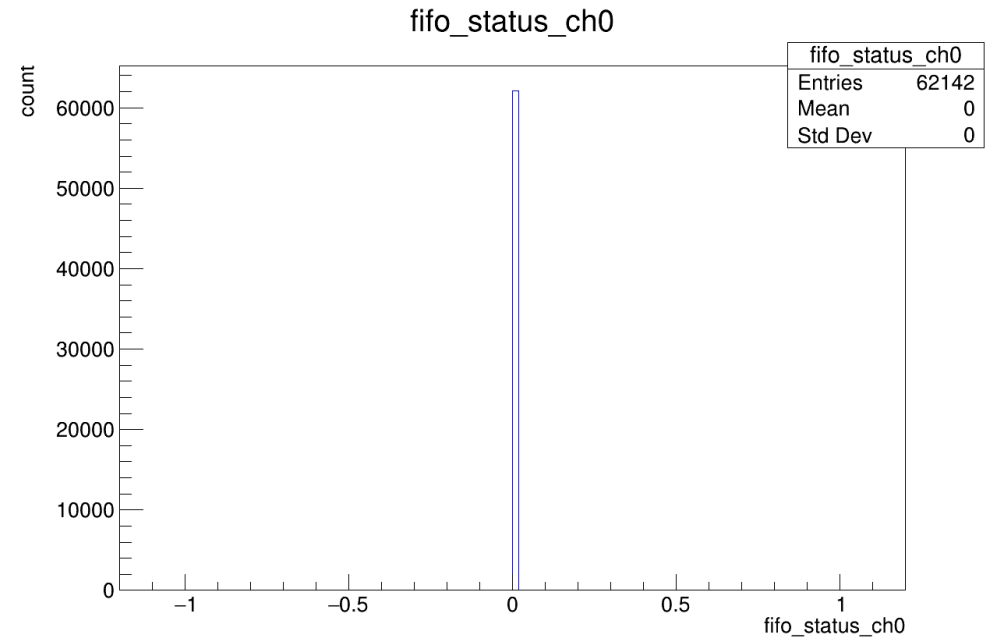
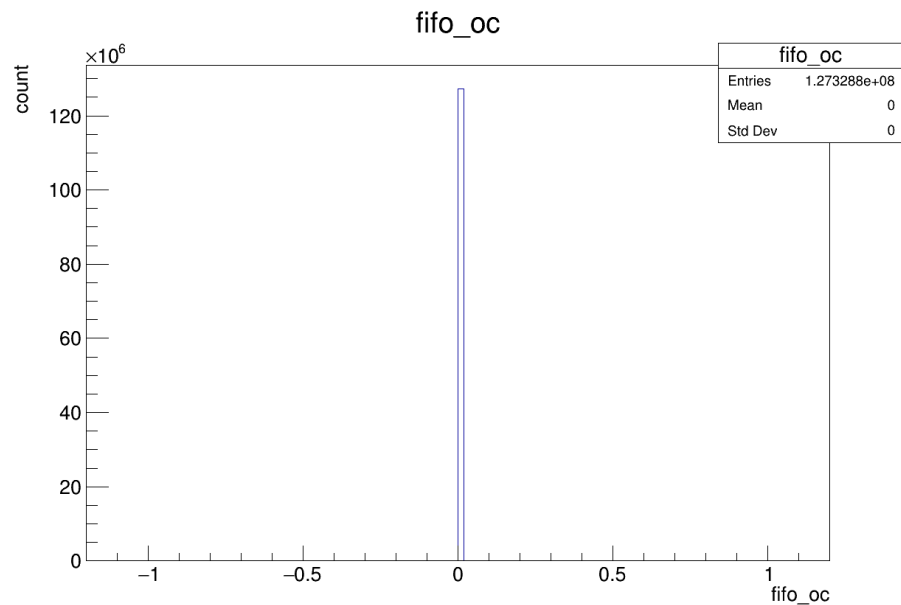
<list>.**extend** -> Extends list by appending elements from the iterable.

<list>.**append** -> Appends object at the end.

```
start = time.process_time()
for i in range(new_num_token):
    mem = jadepix_dev.read_ipb_data_fifo(slice_size, safe_style=False)
    data_list.append(mem)
trans_speed = int(data_size / (time.process_time() - start)) # Unit: bps
log.info("Transfer speed: {:f} Mbps".format(trans_speed / pow(10, 6)))
```

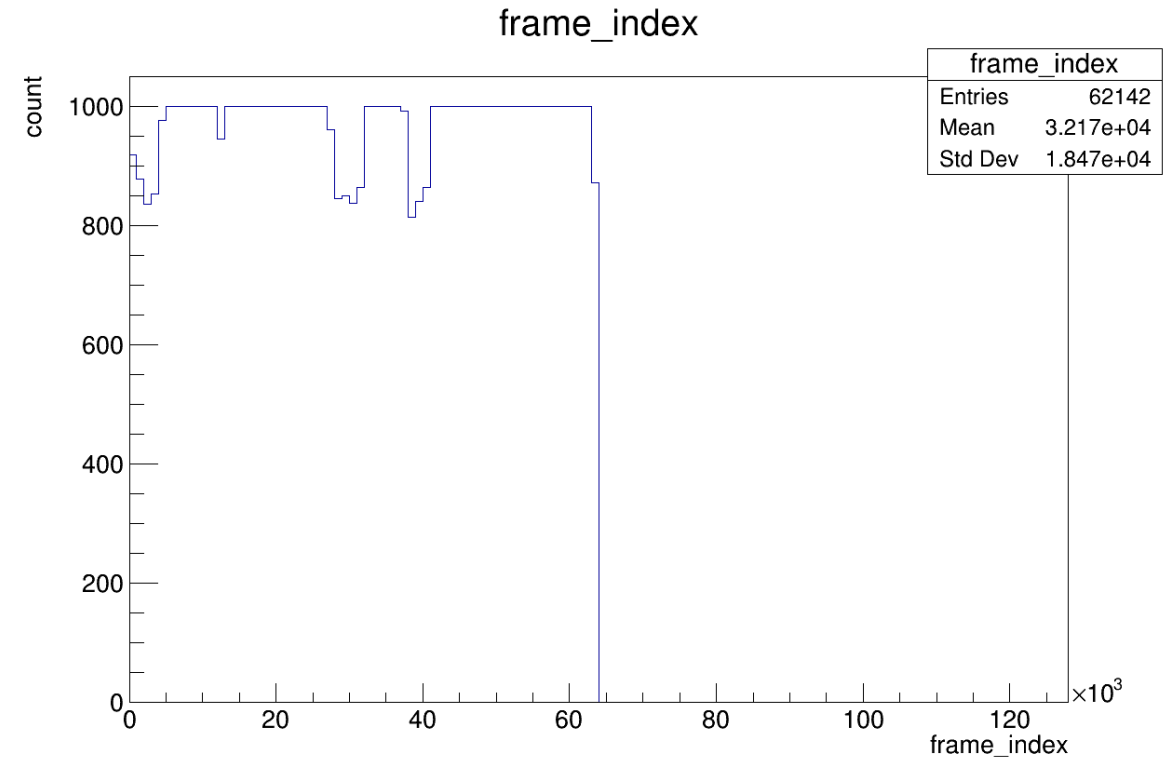
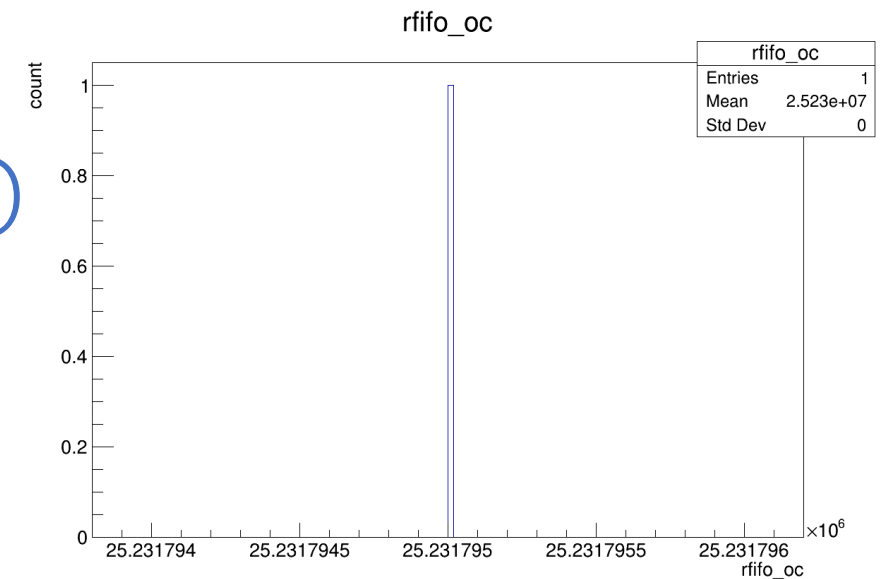
Data Loss Tests

- Data loss disappeared, **mostly**.
 - FIFO OC count: **0**
 - FIFO status: **0** (means the valid data number in FIFO is less than $\frac{1}{4}$ of the depth)
 - Ring-Buffer overflow count: **0**
 - L3 IPBUS RFIFO overflow: **found sometimes**



Data Loss Tests – IPbus FIFO

- Found some rfifo_oc entries.
- The test result is slightly different.
- I think it's still **the software issue** (like memory handling?)
- The frame index histogram is not fully understood.
 - The count vs the Entries



BACKUP (More histograms)

