

# Data Management

- First we check system can handle bandwidths
- We then need to see if we can manage the data
- Atlas buffer manager (robin) splits management into two parts

# Atlas Robin Buffer Manager

- Buffer memory is split into pages
- Word Level Buffer Manager
- Page Level Buffer Manager

# Word Level Buffer Manager

- Writes data word by word into Buffer memory pages
- High rate requires this to be done in hardware
- Controlled by Page Level Buffer Manager

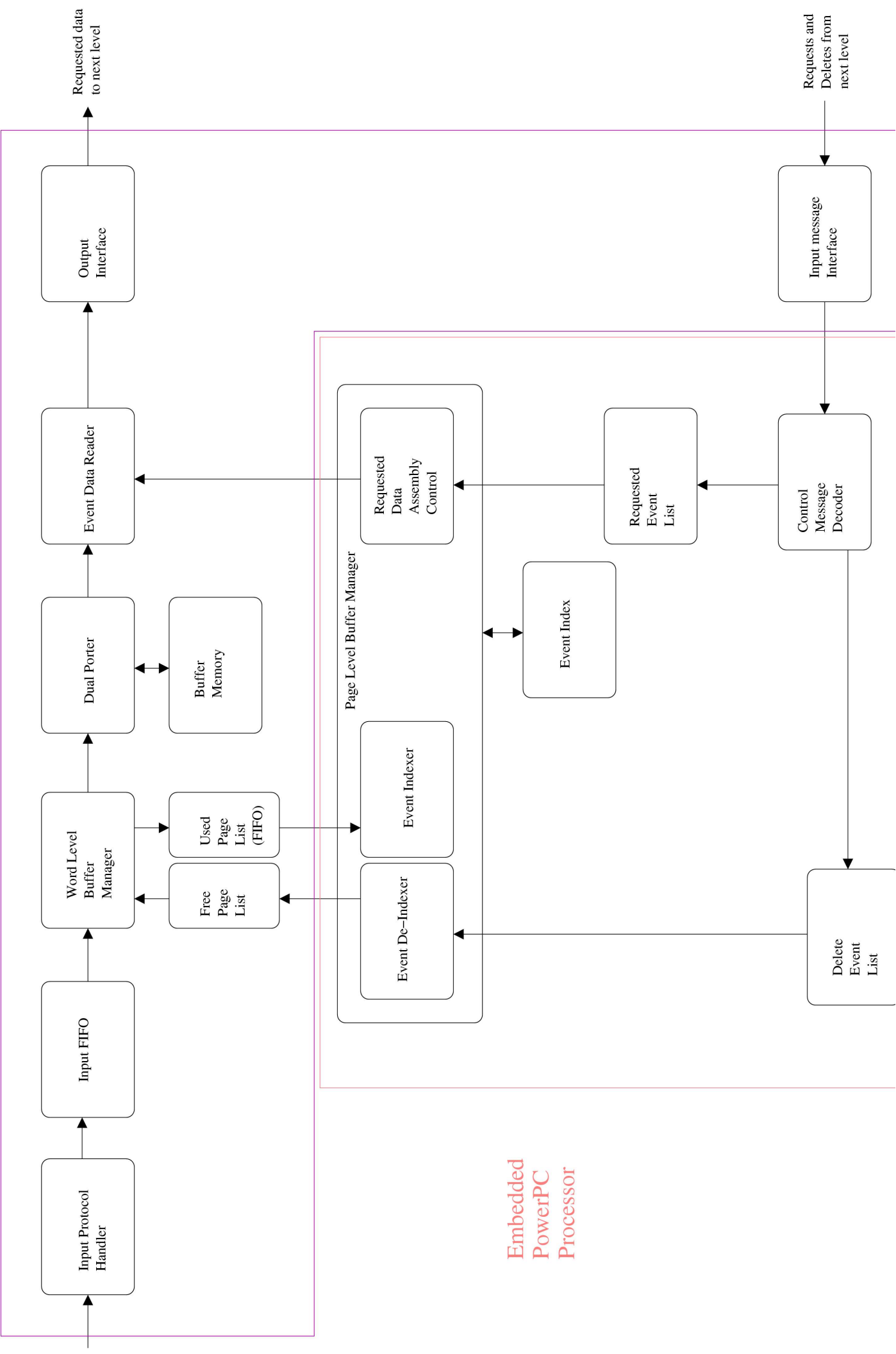
# Page Level Buffer Manager

- Supplies list of free pages to the Word Level Buffer Manager
- Indexes used pages in hash table
- Reallocates pages of deleted event data
- Supplies information of where to find needed event data (requests)
- Done by software

# Buffer Managers Interaction

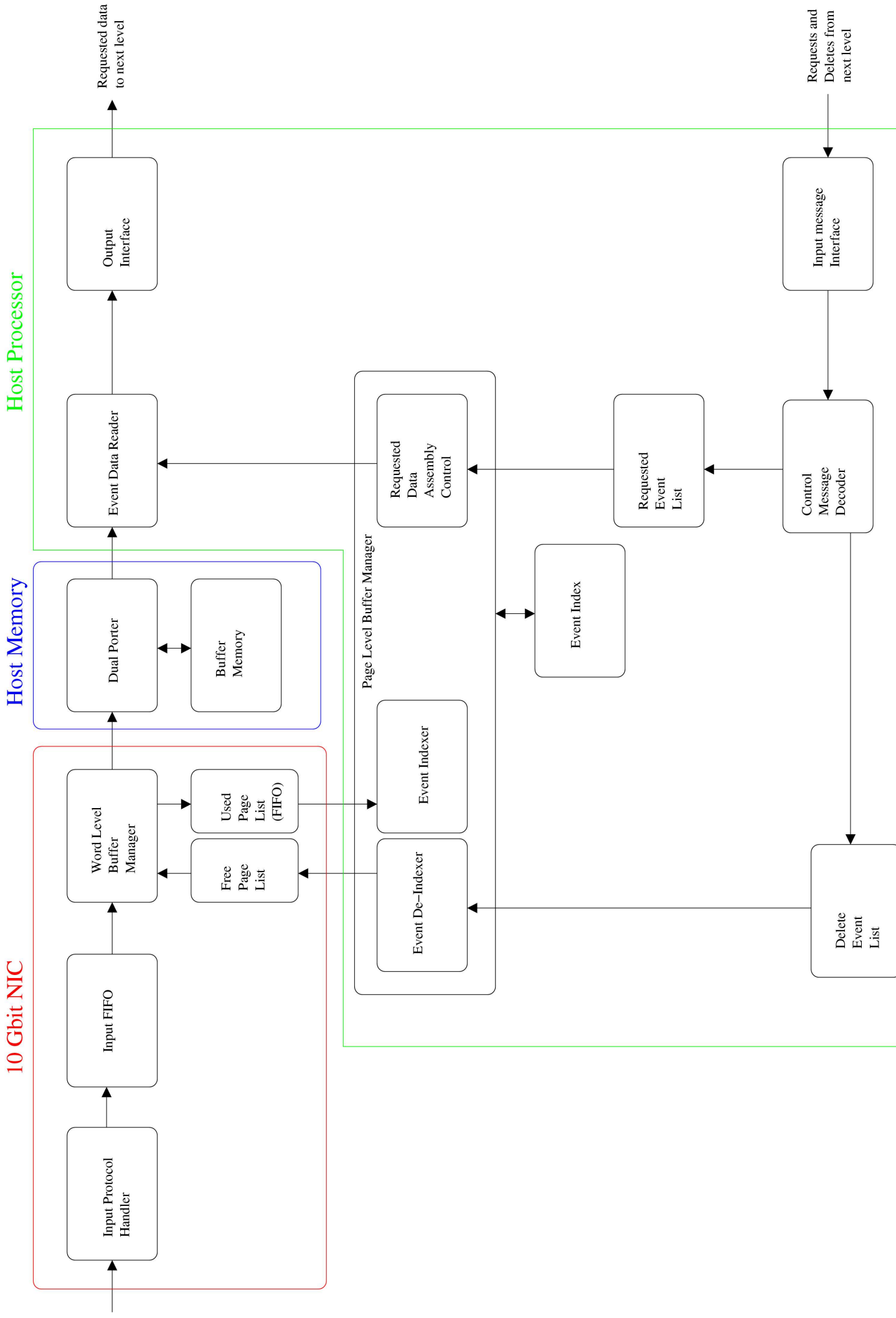
- Interaction via two FIFOs. Used Page FIFO and Free Page FIFO
- Word Level Buffer Manager reads Used Page FIFO and writes Free Page FIFO
- Page Level Buffer Manager writes Used Page FIFO and read Free Page FIFO

# FPGA



Embedded  
PowerPC  
Processor

# How the Off detector readout module might map on to buffer management functionality



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