The file dma_w.c describes how data is transferred from processnig system to

FPGA. The basic idea of how to control DMA can be found at

Lauri's blog (http://lauri.xn--vsandi-pxa.com/hdl/zynq/xilinx-dma.html)

The dma_write_simple() method will transfer the data from physcical address handle to

FPGA. The datasheet of DMA can be found at

http://www.xilinx.com/support/documentation/ip_documentation/axi_dma/v7_1/pg021_axi_dma.pdf

dma_init does necessary initialization of dma controller. When allocating a memory in kernel, use dma_alloc-coherent() as this file does. Don't use kmalloc(), since it will cache data between virtual addr and physical addr. dma_exit does necessary clean up. dma_write_simple transfers data from physical address handle and of length buff_len to FPGA.

The file is compiled together with arq.c and eth2dma.c to form the module of transmitter. Below is picture that shows the transmitter's C files together with a Makefile.