CS 472 Jason Ngo Assignment 1 28 September 2022

Figures 1 and 2 show the output results for ex2b/ex2w and ex3b/ex3w, respectively. As expected, the results of the word arrays are mixed up just as they had been for ex1w.

- 1. The incorrect output may be a result of the machine's endianness. Most computers are little-endian, so the least significant byte is stored at the smallest address value.
- 2. A simple solution to this incorrect output would be to swap the bytes in the word array. An implementation can be found in this answer on StackOverflow, specifically for the 16-bit case: https://stackoverflow.com/a/2182184.

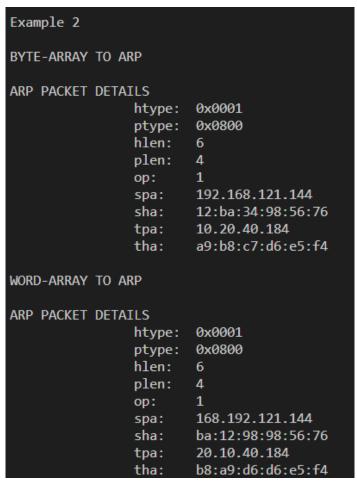


Figure 1: Example 2 byte and word array outputs

```
Example 3
BYTE-ARRAY TO ARP
ARP PACKET DETAILS
                       0x0001
               htype:
               ptype: 0x0800
               hlen: 6
               plen:
                       4
               op:
                       1
                      137.140.50.6
               spa:
               sha:
                       00:40:05:56:4c:00
                     137.140.50.7
               tpa:
               tha:
                       00:00:00:00:00:00
WORD-ARRAY TO ARP
ARP PACKET DETAILS
               htype: 0x0001
               ptype: 0x0800
               hlen:
                       6
               plen:
                       4
               op:
                       1
               spa:
                      140.137.50.6
               sha:
                       40:00:56:56:4c:00
               tpa:
                       140.137.50.7
                       00:00:00:00:00:00
               tha:
```

Figure 2: Example 3 byte and word array outputs