

Allow Dumped Memory Region to Wrap Around

We're almost ready to iterate.

But we have a problem:

- what **if a caller specifies**
- **0xF000 through 0x1000**
($\text{addr_e} < \text{addr_s}$)?

Do we

- refuse (return an error)?
- Or wrap around?

Let's **wrap around**.



Can We Use Just One Iteration?

Notice that

- we end just before **addr_e**.
- (So using the same address shows all of memory.)

How can we iterate over addresses in the case shown?

Do we need two iterations for the two yellow regions?



Leverage 32-bit Integer to Create a Virtual Copy

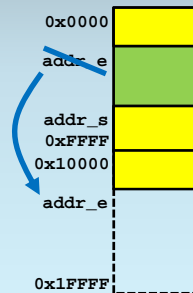
Can we make it simple?

What if we add 0x10000 to addr_e?

Now we can use our loop "address" AND'd with 0xFFFF.

Effectively, we have a virtual copy of the address space.

Our loop "address" just goes up!



Let's Design the First Iteration

Now it's time to iterate.

The output format appears below.

```
01F8:                                     E002 F022 F025 000A
0204: 0057 0065 006C 0063 006F 006D 0065 0020 0074 006F 0020 0074
0210: 0068 0065 0020 004C 0043 002D 0033 0020 0073 0069 006D 0075
021C: 006C 0061 0074 006F 0072
```

0. What is the task that you're repeating?

Print one row.