

# Addressing Modes

CSC231

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# Immediate

**mov ax, 0x1122**

Before...

eax

XXXXXXXXXX

After...

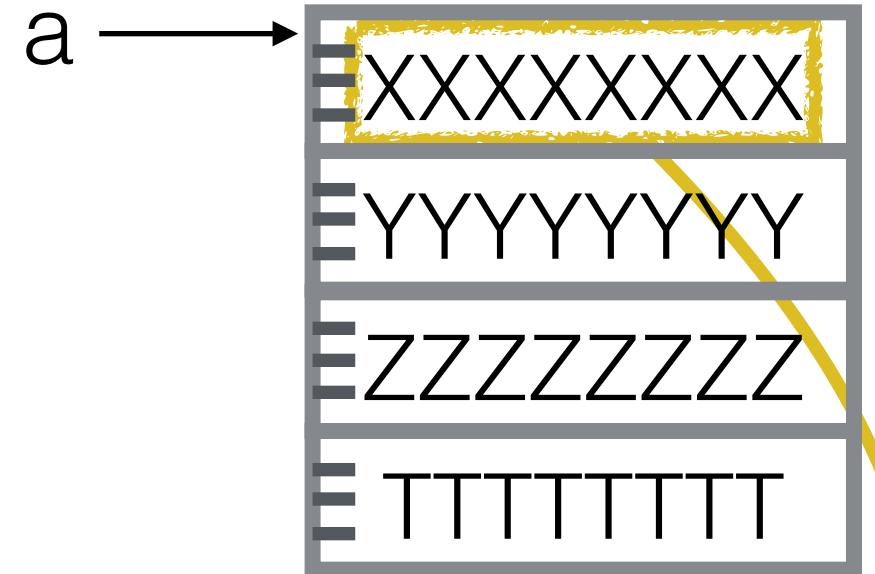
eax

XXXX1122



# Direct

```
mov eax, dword[a]
```



Before...

eax

00000000

After...

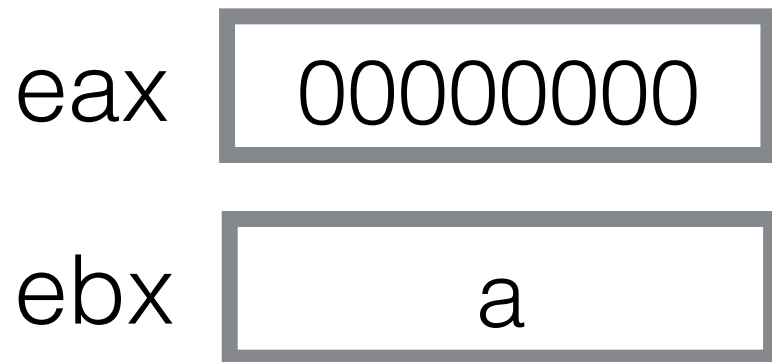
eax

XXXXXXXXXX

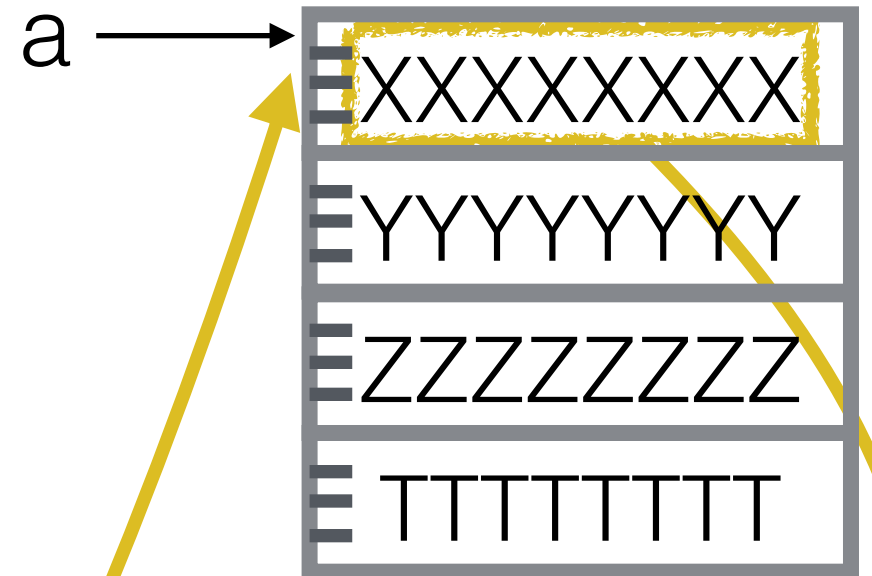
# Indirect Based Indexed

```
mov ebx, a  
mov eax, dword[ebx]
```

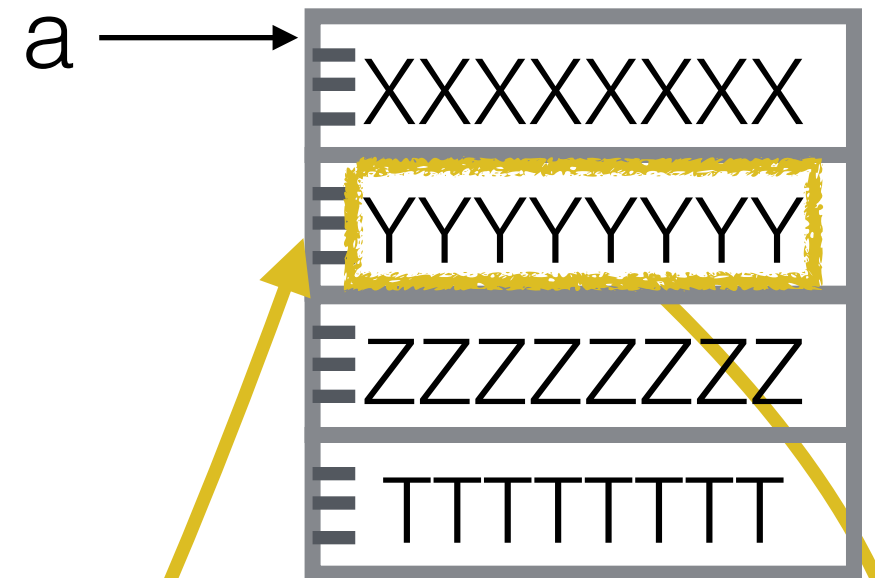
Before...



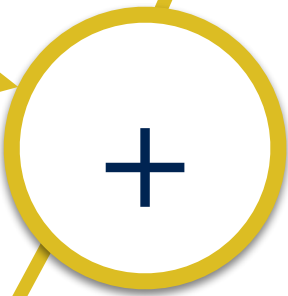
After...



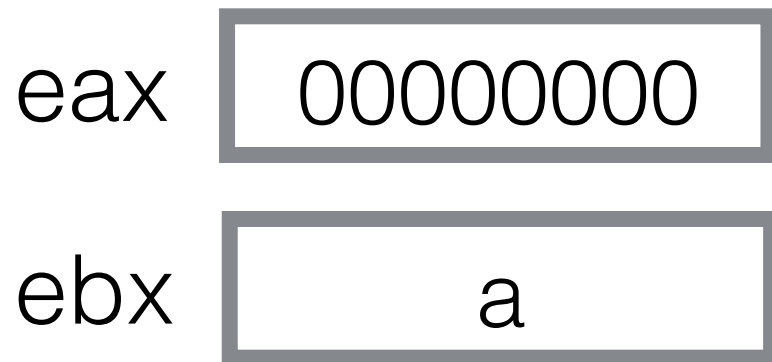
Indirect plus Dispt.  
Based plus Dispt.



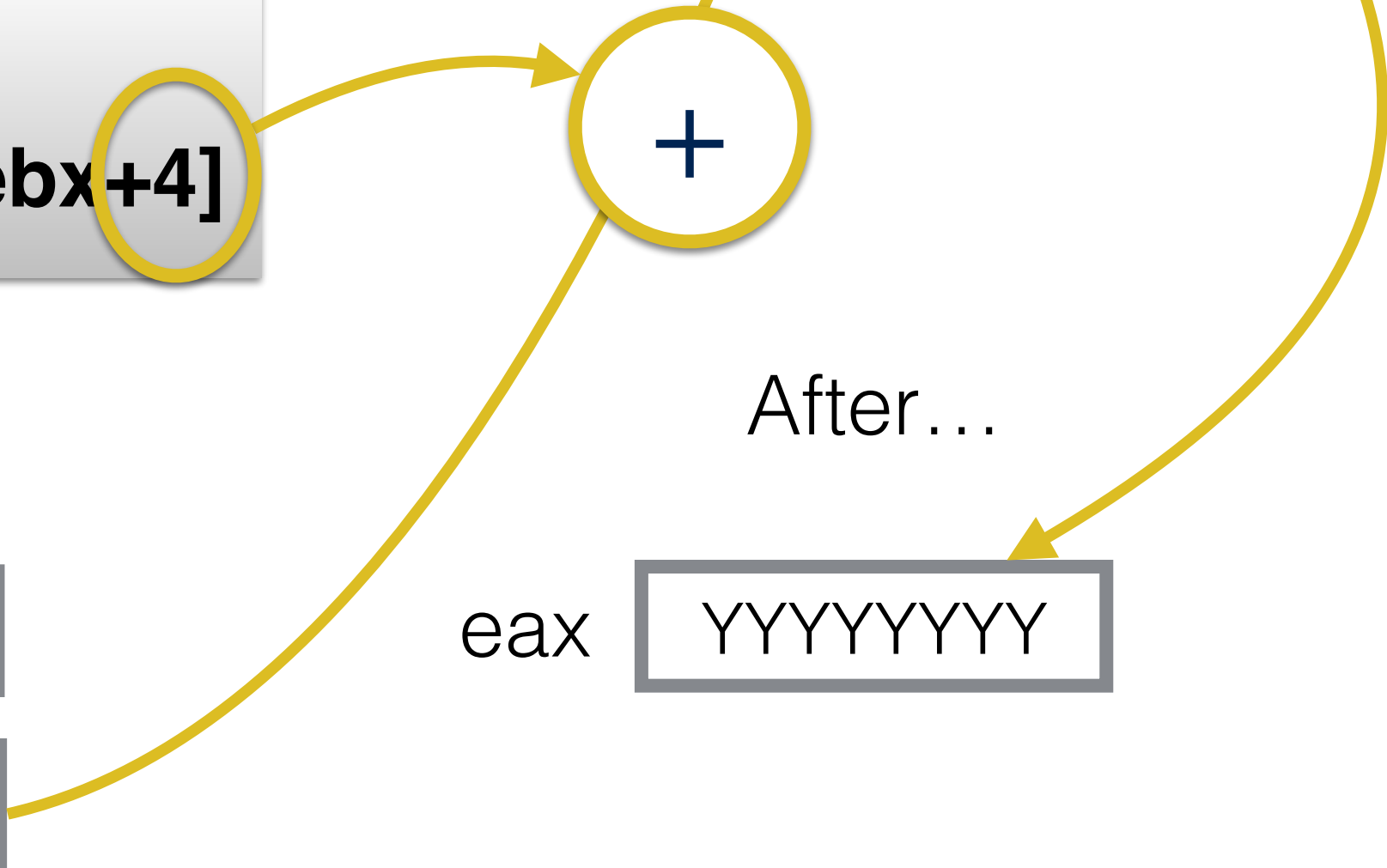
```
mov ebx, a  
mov eax, dword[ebx+4]
```



Before...



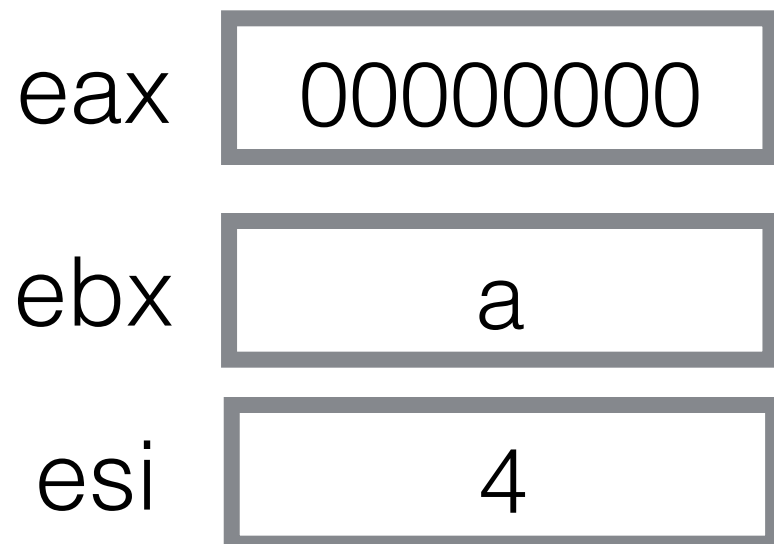
After...



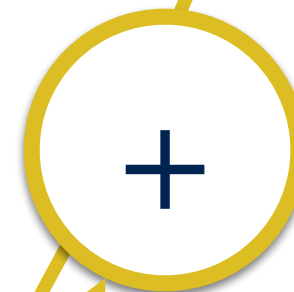
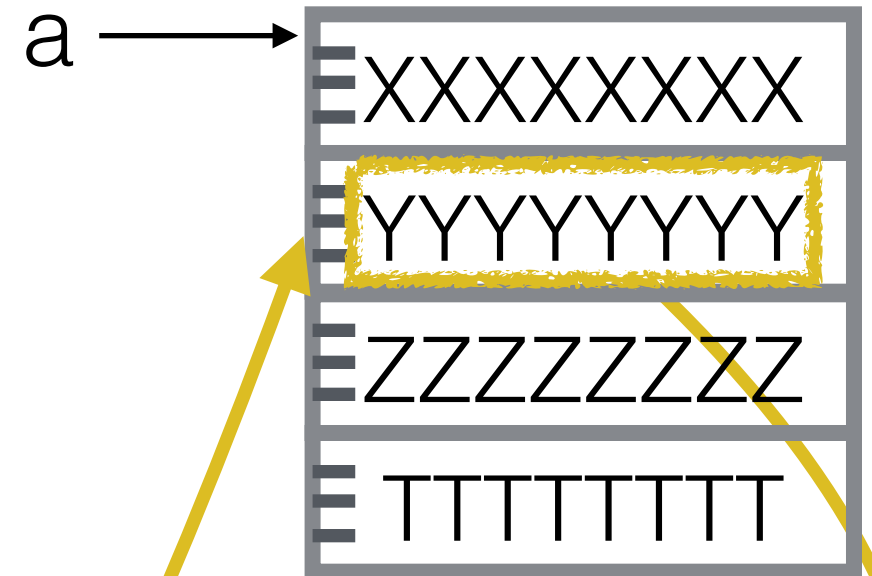
# Indirect Indexed Based Indexed

```
mov ebx, a  
mov esi, 4  
mov eax, dword[ebx+esi]
```

Before...

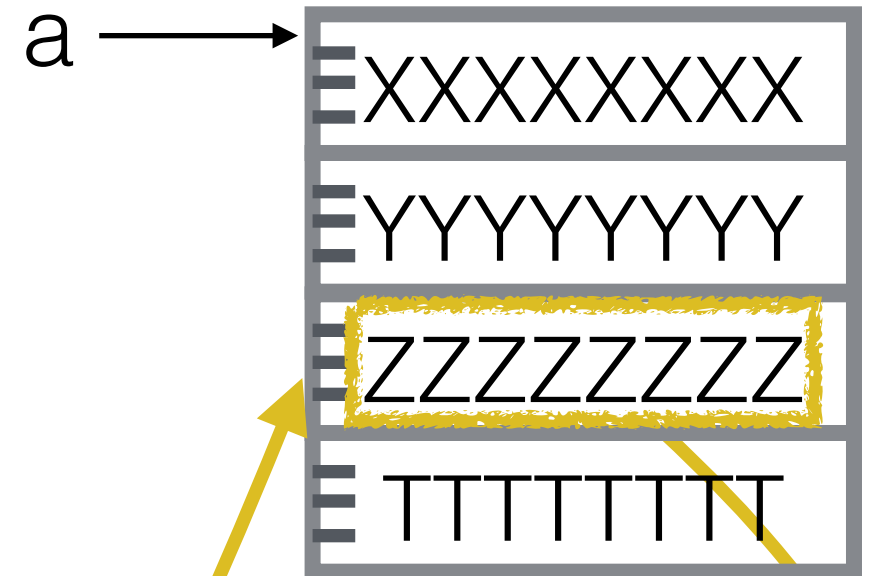


After...

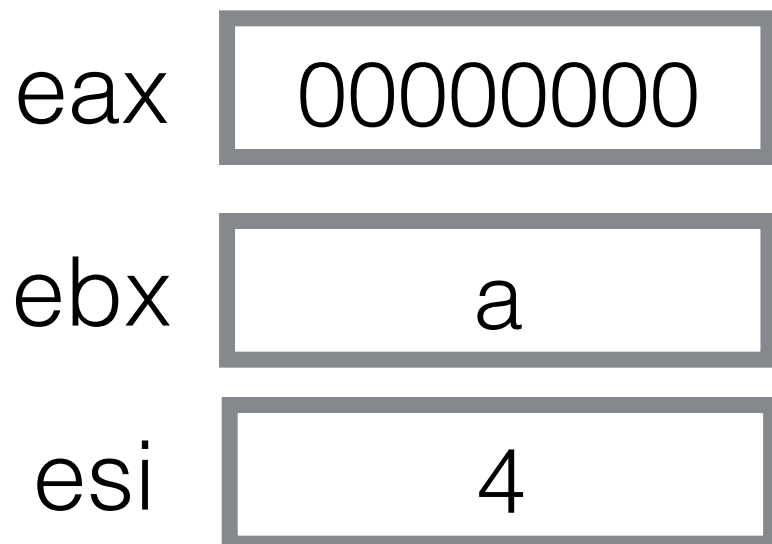


# Indirect Indexed + Dispt. Based Indexed + Dispt.

```
mov ebx, a  
mov esi, 4  
mov eax, dword[ebx+esi+4]
```



Before...



After...

