SCS1312 Operating System Concepts

Dr. Chamath Keppitiyagama

University of Colombo School of Computing

f.c

```
int f()
{
// Some stuff here

   f();

   return 0;
}
```

f.s

```
f:
        movl  $20, %eax
        movl  $10, %ebx
        ....
        ....
        ret
```

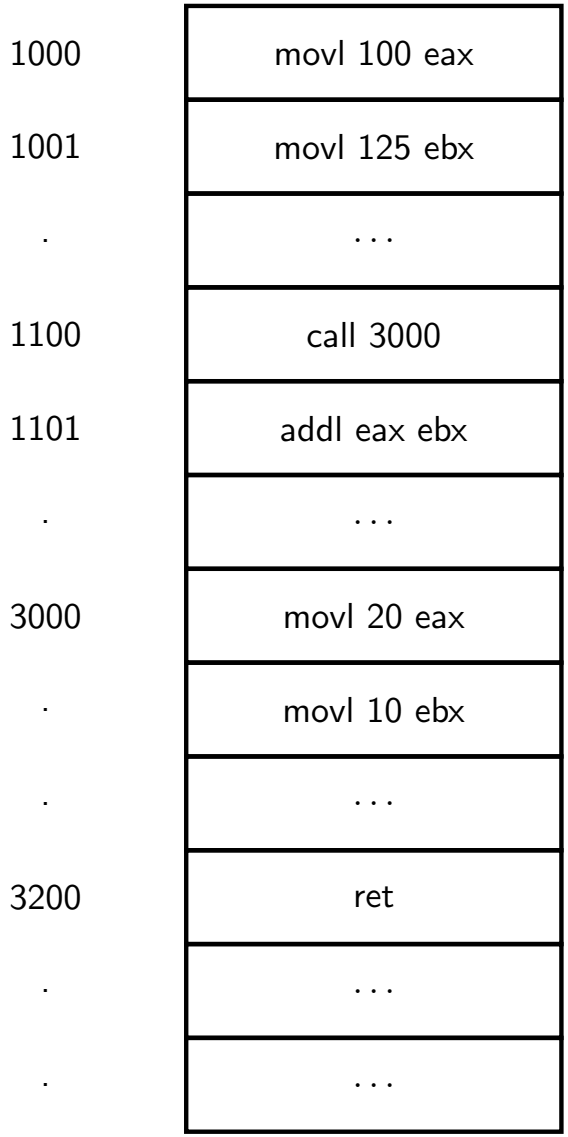
main.c

```
int main(void)
{
// Some stuff here

   f();

// Some other stuff here
   return 0;
}
```

main.s

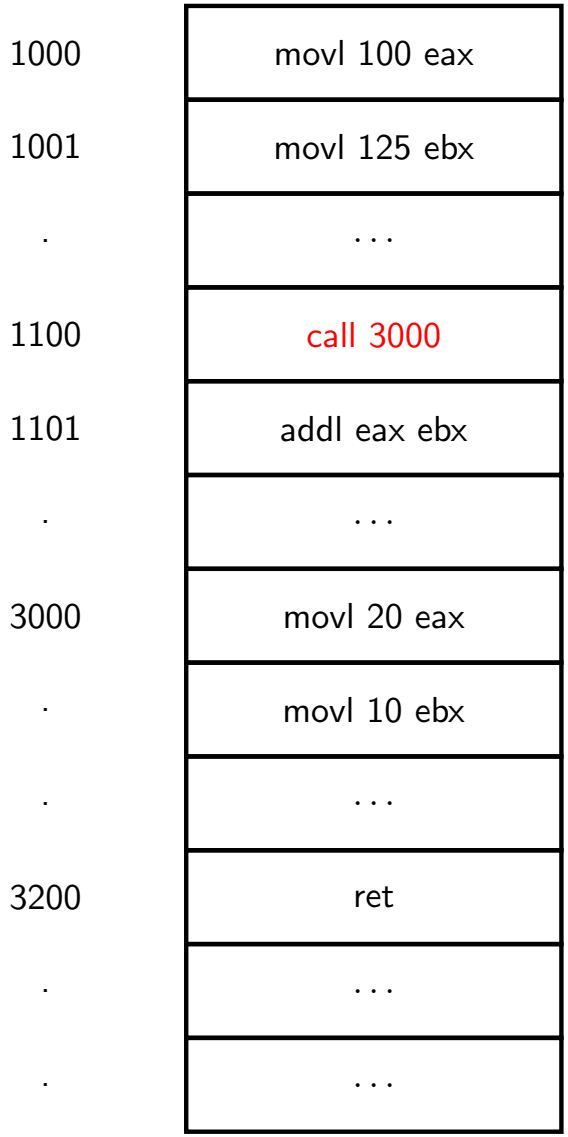
```
main:
        movl  $100, %eax
        movl  $125, %ebx
        ....
        ....
        call  _f
        addl   %eax, %ebx
        ...
        ...
        ...
```

Address Binding

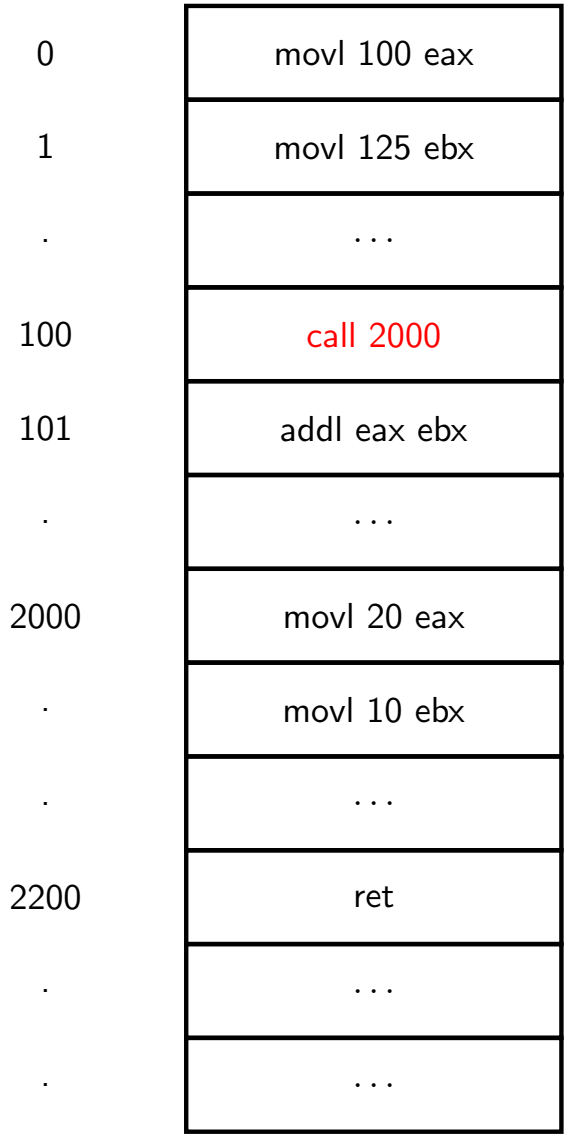


Compile-Time Address Binding

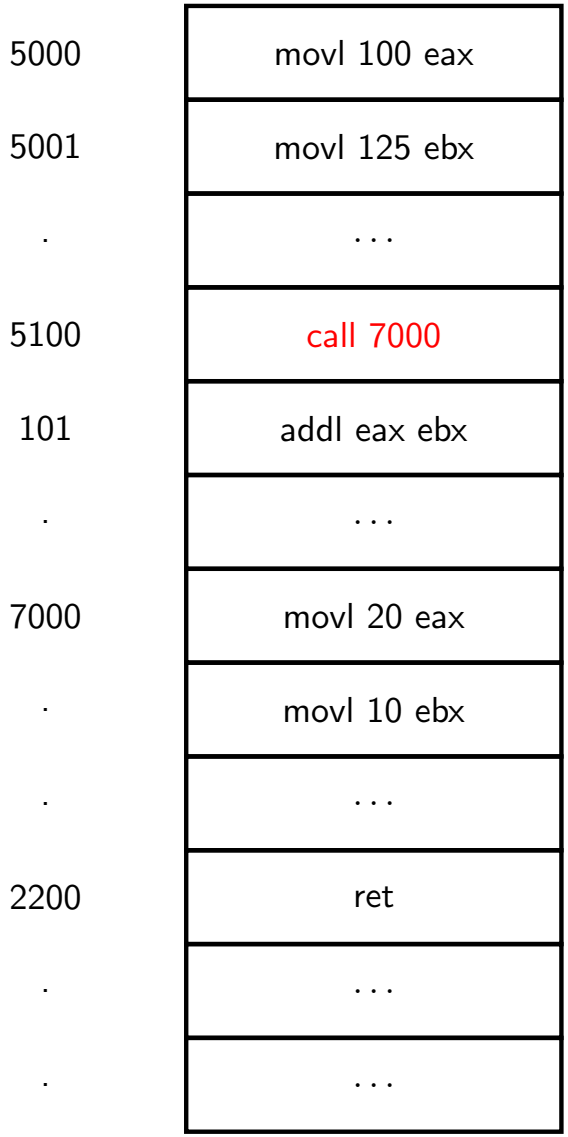
Address Binding



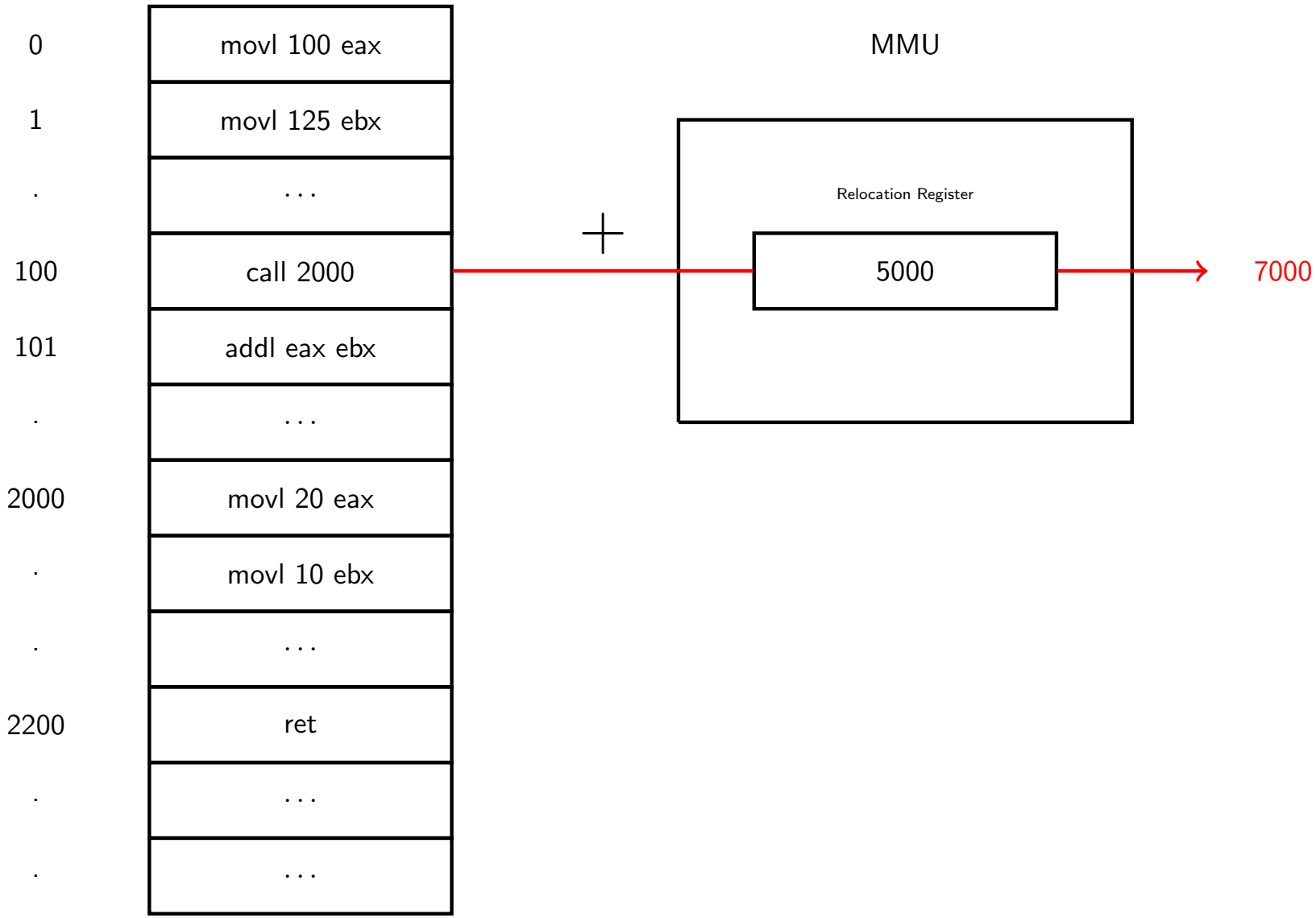
Address Binding



Load-Time Address Binding



Logical Vs Physical



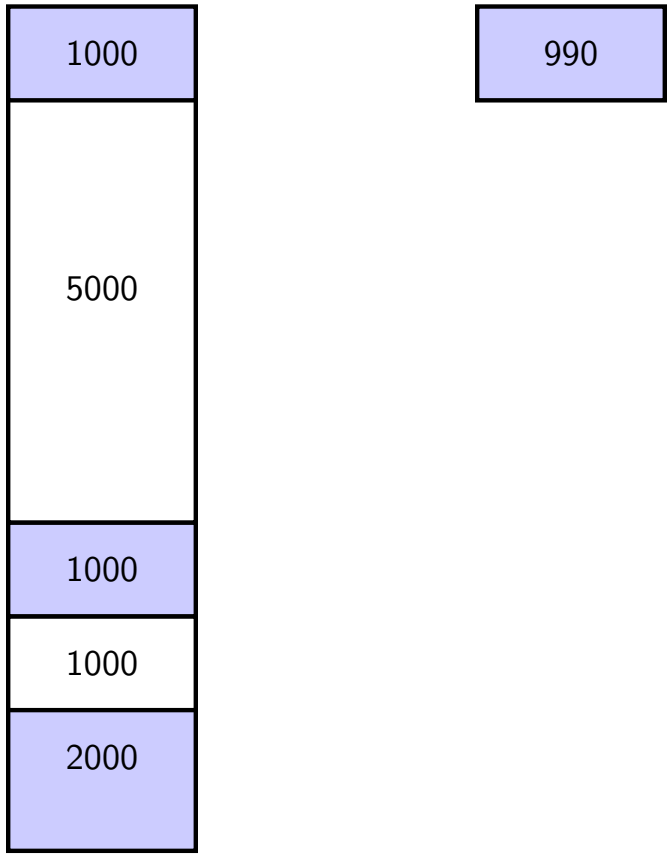
Runtime Address Binding ????

Swap-out and Swap-in

Addresses Inside Programs

```
int *p;

p = &x;
p++;
```

Allocating Memory



- Best fit
- Worst fit
- First Fit

Allocating Memory