

Reading Variables

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Reading Variables

- C has very powerful I/O capabilities
 - Reading a variable is relatively simple

command: `scanf()`

format to read Value associated
with format

format: “%**type**”, &**variable**

More on the & later

The diagram illustrates the components of a `scanf()` format string. It shows the string “%**type**”, &**variable**. A bracket above “%type” is labeled “format to read”. Another bracket above “&variable” is labeled “Value associated with format”. A green arrow points from the text “More on the & later” to the ampersand (&) symbol in the format string.

types: **i** → int
f → float
c → char

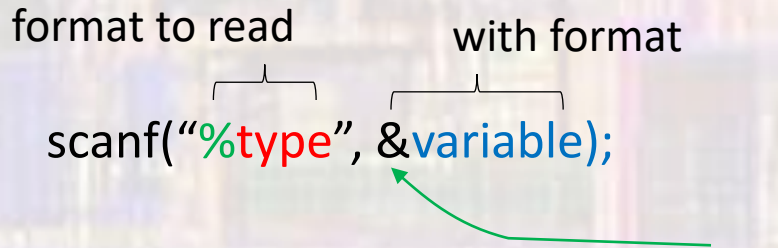
Reading Variables

- Reading variables examples

format to read

Value associated
with format

```
scanf("%type", &variable);
```



```
int ave;
```

```
scanf("%i", &ave); //reads from the keyboard and stores the value in ave
```

```
float foo;
```

```
scanf("%f", &foo); //reads from the keyboard and stores the value in foo
```

```
char initial;
```

```
scanf(" %c", &initial); //reads from the keyboard and stores the value in initial
```

note the space before %c – it is critical



Reading Variables

- Each variable in a single scanf statement needs its own format descriptor

```
int count;
```

```
float ave;
```

```
char month;
```

```
printf("Enter an int for count, float for ave and character for month");
```

```
scanf("%i %f %c", &count, &ave, &month);
```

