

Visualizing Assignment Statements

On the Resources page is a link to a Python Visualizer that follows the model we use to draw pictures of computer memory.

Consider this code:

```
x = 1
y = x + 2
x = 7
```

When we trace this in the visualizer and click button Forward twice, this is the result:

Frames	Objects
Global variables	id1:int 1
x id1	
y id2	id2:int 3

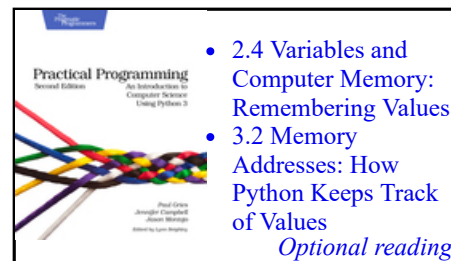
Clicking Forward once more results in this:

Frames	Objects
Global variables	id2:int 3
x id3	
y id2	id3:int 7

Notice that y's value did not change during this step.

Here is [a link to the Python Visualizer](#) containing this code so that you can explore this yourself. **We strongly encourage you to step forward and backward through this program until you understand every step of execution.**

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- 2.4 Variables and Computer Memory: Remembering Values
 - 3.2 Memory Addresses: How Python Keeps Track of Values
- Optional reading*