

```
1 void saxpy_serial(  
2     size_t n,           // the number of elements in the vectors  
3     float a,            // scale factor  
4     const float x[],    // the first input vector  
5     float y[]           // the output vector and second input vector  
6 ) {  
7     for (size_t i = 0; i < n; ++i)  
8         y[i] = a * x[i] + y[i];  
9 }
```

#### **LISTING 4.1**

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Serial implementation of SAXPY in C.