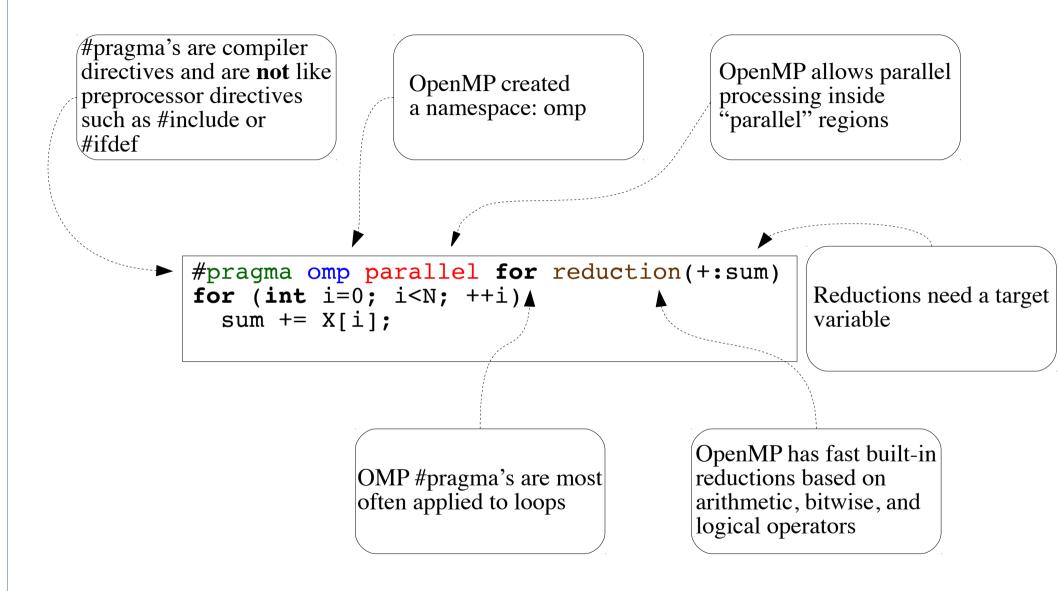


#### OpenMP Basics: Directive Syntax

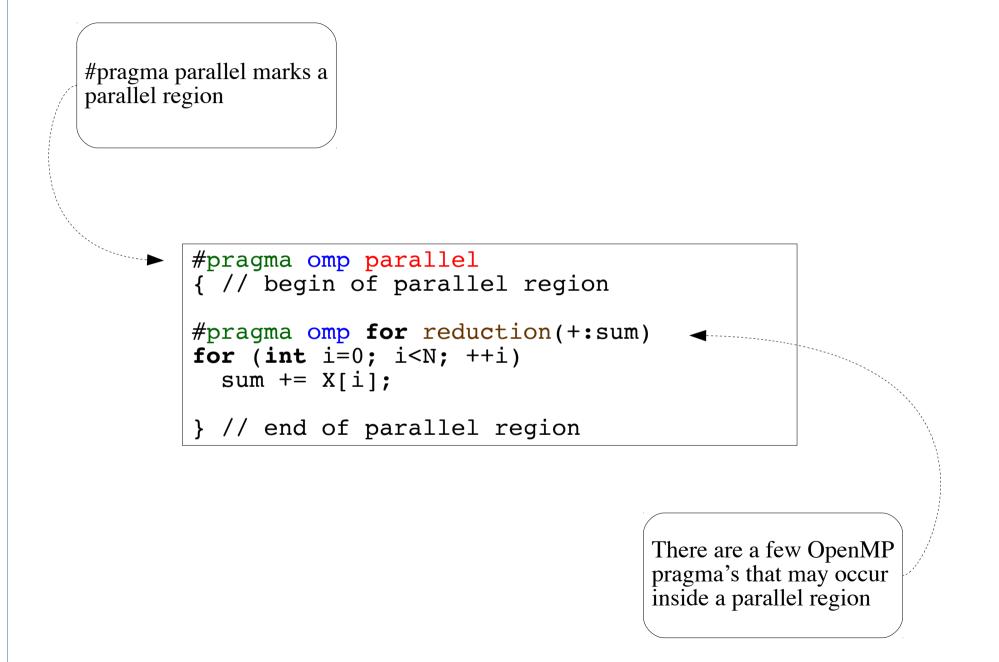
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October 3, 2016

# Example: Largest Value (OpenMP)



### Separate OpenMP Pragma's



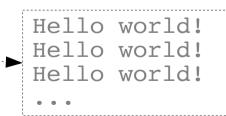


*parallel regions* don't have to use other OpenMP pragmas

```
#pragma omp parallel
{ // begin of parallel region
```

```
printf( "Hello world!\n" );
```

} // end of parallel region



The output may be **scrambled** and each thread will print once

## Dealing with I/O: One Thread for I/O

#pragma omp parallel { // begin of parallel region

```
#pragma omp single
printf( "Hello world!\n" );
```

```
} // end of parallel region
```



### Dealing with I/O: Mutual Exclusion

```
#pragma omp parallel
{ // begin of parallel region
    #pragma omp critical
    {
        printf( "Hello world!\n" );
        fflush( stdout );
      }
} // end of parallel region
```

```
Hello world!
Hello world!
Hello world!
```

The output will not be **scrambled** and each thread will print once in any order