

```
#pragma omp parallel [clause[ [, ]clause] ...] new-line
    structured-block
```

```
clause:  if (scalar-expression)
         num_threads (integer-expression)
         default (shared | none)
         private (list)
         firstprivate (list)
         shared (list)
copyin (list)
         reduction (operator: list)
```

```
#pragma omp for [clause[[ , ] clause] ...] new-line
    for-loops
```

```
clause:  private (list)
         firstprivate (list)
         lastprivate (list)
         reduction (operator: list)
         schedule (kind[, chunk_size])
         collapse (n)
         ordered
         nowait
```

The most common form of the for loop is shown below.

```
for(var = lb;
    var relational-op b;
    var += incr)
```

```
#pragma omp sections [clause[[ , ] clause] ...] new-line
```

```
{
  [#pragma omp section new-line]
  structured-block
  [#pragma omp section new-line]
  structured-block ]
  ...
}
```

```
clause:  private (list)
         firstprivate (list)
         lastprivate (list)
         reduction (operator: list)
         nowait
```

```
#pragma omp parallel for [clause[[ , ] clause] ...] new-line
    for-loop
```

```
#pragma omp parallel sections [clause[ [, ]clause] ...]
    new-line
```

```
{
  [#pragma omp section new-line]
  structured-block
  [#pragma omp section new-line]
  structured-block ]
  ...
}
```

```
#pragma omp single [clause[[ , ] clause] ...] new-line
    structured-block
```

```
clause:  private (list)
         firstprivate (list)
copyprivate (list)
         nowait
```

```
#pragma omp task [clause[ [, ]clause] ...] new-line
structured-block
clause:  if (scalar-expression)
         untied
         default(shared | none)
         private(list)
         firstprivate(list)
         shared(list)
```

Data Sharing Attribute Clauses

Data-sharing attribute clauses apply only to variables whose names are visible in the construct on which the clause appears.

default (shared|none) ;

Controls the default data-sharing attributes of variables that are referenced in a **parallel** or **task** construct.

shared (list) ;

Declares one or more list items to be shared by tasks generated by a **parallel** or **task** construct.

private (list) ;

Declares one or more list items to be private to a task.

firstprivate (list) ;

Declares one or more list items to be private to a task, and initializes each of them with the value that the corresponding original item has when the construct is encountered.

lastprivate (list) ;

Declares one or more list items to be private to an implicit task, and causes the corresponding original item to be updated after the end of the region.

reduction (operator:list) ;

Declares accumulation into the list items using the indicated associative operator. Accumulation occurs into a private copy for each list item which is then combined with the original item.