

```
1 MPI_TOPO_TEST(comm, status)
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```
2     IN          comm          communicator (handle)
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```
3     OUT        status        topology type of communicator comm (state)
```

```
5
6 int MPI_Topo_test(MPI_Comm comm, int *status)
```

```
7 MPI_TOPO_TEST(COMM, STATUS, IERROR)
```

```
8     INTEGER COMM, STATUS, IERROR
```

```
9 {int MPI::Comm::Get_topology() const (binding deprecated, see Section 15.2) }
```

11 The function MPI_TOPO_TEST returns the type of topology that is assigned to a
12 communicator.

13 The output value `status` is one of the following:

```
15 MPI_GRAPH          graph topology
```

```
16 MPI_DIST_GRAPH    distributed graph topology
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```
17 MPI_CART          Cartesian topology
```

```
18 MPI_UNDEFINED     no topology
```

```
21 MPI_GRAPHDIMS_GET(comm, nnodes, nedges)
```

```
23     IN          comm          communicator for group with graph structure (handle)
```

```
24     OUT        nnodes        number of nodes in graph (integer) (same as number  
25                               of processes in the group)
```

```
26     OUT        nedges        number of edges in graph (integer)
```

```
28
29 int MPI_Graphdims_get(MPI_Comm comm, int *nnodes, int *nedges)
```

```
30 MPI_GRAPHDIMS_GET(COMM, NNODES, NEDGES, IERROR)
```

```
31     INTEGER COMM, NNODES, NEDGES, IERROR
```

```
32 {void MPI::Graphcomm::Get_dims(int nnodes[], int nedges[]) const (binding  
33 deprecated, see Section 15.2) }
```

35 Functions MPI_GRAPHDIMS_GET and MPI_GRAPH_GET retrieve the graph-topology
36 information that was associated with a communicator by MPI_GRAPH_CREATE.

37 The information provided by MPI_GRAPHDIMS_GET can be used to dimension the
38 vectors `index` and `edges` correctly for the following call to MPI_GRAPH_GET.

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