

```
// How to install
$ sudo apt-get update
[$ sudo apt-get upgrade]
$ sudo apt-get install mpich

// How to compile
$ mpiCC (or mpicc) prog.cpp

// How to run
$ mpirun -np 4 ./a.out

// How to uninstall
$ sudo apt-get remove mpich
```

```
MPI_Init (&argc,&argv)
```

```
MPI_Comm_size (comm,&size)
```

```
MPI_Comm_rank (comm,&rank)
```

```
MPI_Finalize ()
```

```
int MPI_Send( void *buf, int count, MPI_Datatype datatype, int dest,
              int tag, MPI_Comm comm )
```

```
int MPI_Recv( void *buf, int count, MPI_Datatype datatype, int source,
              int tag, MPI_Comm comm, MPI_Status *status )
```

```
MPI_Get_count(MPI_Status *status, MPI_Datatype datatype, int *count )
```

```
int MPI_Isend( void *buf, int count, MPI_Datatype datatype, int dest, int tag,
               MPI_Comm comm, MPI_Request *request )
```

```
int MPI_Wait (MPI_Request *request, MPI_Status *status)
```

```
int MPI_Test (MPI_Request *request, int *flag, MPI_Status *status)
```

```
int MPI_Type_vector(int block_count, int block_length, int stride,
                    MPI_Datatype old_datatype, MPI_Datatype* new_datatype);
```

```
int MPI_Type_commit(MPI_Datatype* datatype);
```

```
int MPI_Type_free(MPI_Datatype* datatype);
```