

Installing OpenMPI

The following instructions will help you install OpenMPI on your machine, for Linux, Unix and Mac operating systems.

1. Create a temporary directory for compiling OpenMPI. You can do this in a terminal by typing

```
mkdir $HOME/local/src
```

2. Download openmpi-1.6.5.tar.gz from <http://www.open-mpi.org/software/ompi/v1.6/>

3. Move the openmpi-1.6.5.tar.gz to the directory just created:

```
mv $HOME/Downloads/openmpi-1.6.5.tar.gz $HOME/local/src/
```

4. Change to the directory and extract the package using

```
cd $HOME /local/src
```

```
tar -xzf openmpi-1.6.5.tar.gz
```

5. Go into the source directory

```
cd openmpi-1.6.5
```

6. Configure, compile and install by executing the following commands

```
./configure --prefix=/usr/local
```

```
make all
```

```
make install
```

This will install OpenMPI in /usr/local. You can speed up the compilation by replacing the make all command with make -j4 all (this will compile using 4 cores).

To use MPI you will have to adapt your PATH and LD_LIBRARY_PATH environment variable:

```
echo "export PATH=$PATH: /usr/local/bin" >> $HOME/.bashrc
```

```
echo "export LD_LIBRARY_PATH=$LD_LIBRARY_PATH:/usr/local/lib" \
```

```
>> $HOME/.bashrc
```

This appends the two lines to your .bashrc file which is executed when starting a terminal session. To compile your MPI C programs you have to use mpicc with the same arguments as you would use for gcc.

You can find more information on <http://www.open-mpi.org>

For Windows users, see the following thread for instructions on how to build: <http://www.open-mpi.org/community/lists/users/2012/06/19553.php>