

S1 Text. Install of MPI

The following section described the steps that used to build parallel environment in LINUX- based system. We need the following prerequisites in advance.

- 1) The tar file mpich.tar.gz (which can be obtained from the official website)
- 2) A C compiler (A Fortran compiler if needed)

Step 1. Create a directory for MPI and add it in the home directory.

```
$ mkdir MPI
```

Step 2. Unpack the tar file.

```
$ tar xzf mpich.tar.gz
```

The directory MPI will contain a sub-directory named mpich.tar.gz.

Step 3. Choose tehe installation directory

```
$ mkdir mpich-install
```

Step 4. Choose a building directory

```
$ mkdir mpich
```

Now the MPI directory will contain three sub-directories named mpich.tar.gz, mpich and mpich-install.

Step 5. Configure MPICH, specifying the installation directory and running the configure script in the source directory.

```
$ cd
```

```
$ cd MPI/mpich
```

```
$/home/you/MPI/mpich.tar.gz/configure -prefix=/home/you/MPI/mpich-install
```

Step 6. Build MPICH

```
$ make
```

Step 7. Install the MPICH commands.

```
$ make install
```

Step 8. Add the bin directory to your path which you will use.

```
$ export PATH=/home/you/MPI/mpich-install/bin:$PATH
```

Based on the above 8 steps, the MPI will be successfully installed.