

## Open MPI 4.0.0

### Webpage

<https://www.open-mpi.org/>

### Version

4.0.0

### Build Environment

gcc 4.8.5  
Intel Compiler 18.0.2  
PBS Pro 14.1.0  
libpsm2 10.3.3  
libpsm2-devel 10.3.3

### Files Required

openmpi-4.0.0.tar.bz2

### Build Procedure

```
#!/bin/sh

VERSION=4.0.0
WORKDIR=/work/users/${USER}
TARBALL=/home/users/${USER}/openmpi-${VERSION}.tar.bz2
PBSROOT=/local/apl/lx/pbs14

PARALLEL=12

#-----
umask 0022

cd ${WORKDIR}
if [ -d openmpi-${VERSION} ]; then
  mv openmpi-${VERSION} openmpi_erase
  rm -rf openmpi-${VERSION} &
fi

tar jxf ${TARBALL}
cd openmpi-${VERSION}

# GCC
INSTALLDIR=/local/apl/lx/openmpi400
mkdir rccs-gcc && cd rccs-gcc
./configure --prefix=${INSTALLDIR} \
  --with-tm=${PBSROOT} \
  --enable-mpi-cxx \
  --with-psm2
make -j ${PARALLEL} && make install && make check
cd ../

# INTEL
INSTALLDIR=/local/apl/lx/openmpi400-intel
mkdir rccs-intel && cd rccs-intel
CC=icc CXX=icpc FC=ifort \
./configure --prefix=${INSTALLDIR} \
  --with-tm=${PBSROOT} \
  --enable-mpi-cxx \
  --with-psm2
make -j ${PARALLEL} && make install && make check
cd ../
```

## Notes

- --enable-mpi-cxx option is added to install libmpi\_cxx.