

## **SOWFA CANNOT FIND ZEROMQ LIBRARIES**

### **Description:**

SOWFA cannot find the ZeroMQ libraries on your cluster

### **Error example:**

```
pisoFoamTurbine.ALMAAdvanced: error while loading shared libraries: libzmq.so.5: cannot open
shared object file: No such file or directory
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shared object file: No such file or directory
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shared object file: No such file or directory
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Primary job  terminated normally, but 1 process returned
a non-zero exit code.. Per user-direction, the job has been aborted.
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mpirun detected that one or more processes exited with non-zero status, thus causing
the job to be terminated. The first process to do so was:

    Process name: [[22822,1],0]
    Exit code:    127
-----
```

### **Solution:**

Make sure you have defined the ZeroMQ paths *in your runscript.solve* function. An example is given here:

```
#!/bin/bash
#PBS -l nodes=1:ppn=40
#PBS -N "naveenZmqWSE"
##PBS -q guest

# User input
startTime=0                # Start time
cores=40                    # Enter the number of cores you will preprocess on.
runNumber=1                 # Enter the run number (useful for keeping track of restarts).
solver=windPlantSolver.ALMAAdvanced # Enter the name of the flow solver.

cd $PBS_O_WORKDIR
echo "Starting OpenFOAM job at: " $(date)
echo "using " $cores " cores"

# Load the OpenFOAM module on the cluster
echo "Loading the OpenFOAM module..."
module load openfoam/2.4.0
module load matlab

# define the ZeroMQ paths
export ZEROMQ_INCLUDE=$HOME/OpenFOAM/zeroMQ/libzmq/install/include
export ZEROMQ_LIB=$HOME/OpenFOAM/zeroMQ/libzmq/install/lib64
export LD_LIBRARY_PATH=$HOME/OpenFOAM/zeroMQ/libzmq/install/lib:$LD_LIBRARY_PATH
export LD_LIBRARY_PATH=$HOME/OpenFOAM/zeroMQ/libzmq/install/lib64:$LD_LIBRARY_PATH

# Get the control dictionary for this particular run.
cp system/controlDict.$runNumber system/controlDict

# Run the solver.
(mpirun -np $cores $solver -parallel > log.$runNumber.$solver 2>&1) &
(cd ssc; matlab -nodisplay -noFigureWindows -logfile 'SSC_out.log' -r SSC)

echo "Ending OpenFOAM job at: " $(date)
```