

## Instructions on running Periscope on Cluster-beta (RWTH) NPB-MPI BT benchmark

### 0. Prepare your account for running Periscope

```
% module load UNITE
% module load periscope
% cp $PERISCOPE_ROOT/etc/periscope.sample ~/.periscope
```

#### check ~/.periscope file:

```
MACHINE = localhost
SITE = RWTH Cluster-beta
REGSERVICE_HOST = localhost
REGSERVICE_PORT = 50051
APPL_BASEPORT = 51000
AGENT_BASEPORT = 50002
```

### 1. Prepare your tutorial folder and cd to it:

```
% cp -r ~hpclab01/tutorial/NPB3.3-MPI/ ~/tutorial_psc
% cd ~/tutorial_psc
```

### 2. prepare makefile (config/make.def:37):

```
MPIF77 = psc_instrument -i -s ${PROGRAM}.sir -t user,mpi mpif77
```

### 3. clean up BT and recompile:

```
% make clean && make bt CLASS=B NPROCS=16
```

### 4. go to bin.periscope directory

```
% cd bin.periscope
```

### 5. Copy Periscope batch script to bin.periscope:

```
% cp ../jobscript/psc.lsf .
```

#### Check the script:

```
% less psc.lsf
#!/usr/bin/env zsh
# submit this job with "bsub < psc.lsf"
#BSUB -J mpibt-B_psc
#BSUB -o mpibt-B_psc.%J
#BSUB -W 5
#BSUB -M 512
#BSUB -n 16
#BSUB -a openmpi
#BSUB -x
# specify a queue OR use the "vihps" workshop reservation
###BSUB -m mpi-s
###BSUB -U vihps
```

```
module swap openmpi openmpi/1.5.3
module load UNITE periscope
module list
```

```
psc_regsrv&
sleep 10
```

```
psc_frontend --apprun=./bt_B.16 --mpinumprocs=16 -strategy=MPI
```

### 6. submit your job:

```
% bsub < psc.lsf
```

## Instructions on running Periscope on Juropa (JSC) NPB-MPI BT benchmark

### 0. Prepare your account for running Periscope

```
% module load UNITE
% module load periscope
% cp $PERISCOPE_ROOT/etc/periscope.sample ~/.periscope
```

#### check ~/.periscope file:

```
MACHINE = localhost
SITE = JSC Juropa
REGSERVICE_HOST = localhost
REGSERVICE_PORT = 50051
APPL_BASEPORT = 51000
AGENT_BASEPORT = 50002
```

### 1. Prepare your tutorial folder and cd to it:

```
% cp -r ~hpclab01/tutorial/NPB3.3-MPI/ ~/tutorial_psc
% cd ~/tutorial_psc
```

### 2. prepare makefile (config/make.def:37):

```
MPIF77 = psc_instrument -i -s ${PROGRAM}.sir -t user,mpi mpif77
```

### 3. clean up BT and recompile:

```
% make clean
% make bt CLASS=W NPROCS=16
```

### 4. Copy Periscope batch script to bin.periscope:

```
% cp ../jobscript/psc.msub .
```

#### Check the script:

```
% vim bin.periscope/psc.msub
#!/bin/bash -x
#MSUB -l nodes=1:ppn=16
#MSUB -l walltime=0:15:00
#MSUB -j oe
#MSUB -N psc-bt16w-mpi
### start of jobscript
module load UNITE
module load periscope/1.4b

#Start registry server
echo "Starting registry server..."
psc_regrsrv&
sleep 10

cd $PBS_O_WORKDIR
psc_frontend --apprun=./bt_W.16 --mpinumprocs=16 --strategy=MPI
```

### 5. go to bin.periscope directory

```
% cd bin.periscope
```

### 6. submit your job:

```
% msub psc_bt_batch.msub
```