Hi,

I need to use charm++ on a cluster that runs parallel jobs using mpirun. The cluster uses slurm to submit jobs, but for technical reasons slurm can’t be built to be aware of the mpi distribution we need to use, so srn does not correctly run jobs in parallel.

The trouble is charmrun always seems to try to use srn, even if I give it ++mpiexec as an option. But I can run jobs fine by hand by using mpirun directly in a script I pass to sbatch.

Is there a way to be sure charmrun uses mpirun? Either an option when calling charmrun or when compiling charm?

Can you try with this:

```
./charmrun ++mpiexec ++remote-shell "mpirun <mpirun_args>" ./pgm <application_args>
```

I tried this, and it still called srn. Might I need to build charm++ differently? I used

```
./build charm++ mpi-linux-x86_64 mpicxx smp -j16 --with-production
```

I'm using charm++ v6.8.

Is that v6.8.0 or v6.8.2? Can you try with v6.9.0? You shouldn't need to build Charm++ any differently.

It's v6.8.0. We're working on adding support for v6.9.0 to our code base (https://github.com/sxs-collaboration/spectre), but that will take us a bit. Is it normal for the ++mpiexec option to not work in version 6.8.0?

No, it's not. What MPI library are you using? And could you post the output of what happens when you try the "++mpiexec ++remote-shell" command I posted above?

It's v6.8.0. We're working on adding support for v6.9.0 to our code base (https://github.com/sxs-collaboration/spectre), but that will take us a bit. Is it normal for the ++mpiexec option to not work in version 6.8.0?

What MPI library are you using? And could you post the output of what happens when you try the "++mpiexec ++remote-shell" command I posted above?

01/03/2019 11:08 AM - Geoffrey Lovelace

It's v6.8.0. We're working on adding support for v6.9.0 to our code base (https://github.com/sxs-collaboration/spectre), but that will take us a bit. Is it normal for the ++mpiexec option to not work in version 6.8.0?

What MPI library are you using? And could you post the output of what happens when you try the "++mpiexec ++remote-shell" command I posted above?
For the mpi-... builds of Charm++ you can run the binary with mpirun/mpiexec/srun directly rather than via charmrun. In fact charmrun is just a script on these builds. The binary charmrun and ++mpiexec options are only needed for netlits-, verbs-, and similar builds.