Login to Summit

To log into the system, open a terminal of your choice. The envelope you received will have a username and the project ID on it. To log into Summit type the following command:

```
ssh <username>@summit.olcf.ornl.gov
```

You will be prompted for a PASSCODE, this is the 6-digit number on the RSA token in the envelope. Once the passcode is entered press return. The system will ask you to enter a new pin, please follow the instructions.

We recommend using tmux or screen to keep your session active in case of connectivity issues.

Setting up the SPEC ACCEL suite

After successful login, you will be in your home directory.

Change the directory:

```
cd $MEMBERWORK/trn001
```

Create a new directory to install the benchmark suite:

```
mkdir accel && cd accel
```

To install the spec suite into your scratch space, please run the following command:

```
/ccs/proj/trn001/accel-1.2/install.sh -d $PWD
```

You will be prompted if the source and destination directory are correct.

The destination directory should look something like this:

```
Installing TO /gpfs/alpine/scratch/csepXXX/trn001/accel
```

Type 'yes' if you want to proceed hit return (Don't hesitate to ask if you are unsure).

We provided a configuration file for you to start in '/ccs/proj/trn001/pearc19tut/config/'. Copy it into your install directories config directory:

```
cp /ccs/proj/trn001/pearc19tut/config/* ./config
cd ..
cp /ccs/proj/trn001/pearc19tut/scripts/* .
```

Running SPEC Accel

```
  1) Run benchmark a portion of OpenACC suite on GPU, train workload:

Check runspec command in jobscript accel-pgi.bsub:
runspec --config=pearc19tut-openacc-pgi --tune=base --size=train 353
     370
```

Submit your job:
bsub accel-pgi.bsub

2) Run the same portion of OpenACC suite on CPU:

   You can either edit create your own config by changing the OpenACC target from "-ta=tesla" to "-ta=multicore" in the config above, or use the existing config we provided: pearc19tut-openacc-pgi-multicore.cfg

   Then, create a new jobscript to reflect the config file you are using (or use the one provided).

   Submit your job:
   bsub accel-pgi-multicore.bsub

3) Run full SPEC OpenACC suite, ref workload:

   runspec --config=pearc19tut-openacc-pgi --tune=base --size=ref **openacc**

4) You can check published SPEC OpenACC results at https://www.spec.org/accel/results

5) A SPEC OpenACC run generates the raw file *.rsf and report in chosen format. You can reformat the report from *.rsf using rawformat command:
   e.g.

   rawformat --output_format=rsf,txt,pdf --flagsurl=path/to/flag.xml