

Using the SCC Cluster

This lecture is given by Katia Bulekova, Manager of Scientific Programming & Applications, Research Computing Services, IS&T at Boston University. This lecture is meant to give you some exposure on how a cluster is used to run jobs. Here are some helpful links that supplement the video lecture:

Linux cheat sheet (for SCC users): http://scv.bu.edu/documents/Linux_SCC_CheatSheet.pdf

SCC cheat sheet: http://scv.bu.edu/documents/SCC_CheatSheet.pdf

SCC OnDemand environment: <http://www.bu.edu/tech/support/research/system-usage/scc-ondemand/>

SCC docs about running jobs: <http://www.bu.edu/tech/support/research/system-usage/running-jobs/>

An example of tensorflow code for running on the SCC: http://rcs.bu.edu/examples/ML/tensorflow/test_tensorflow.py

The above example includes a few lines of code that will be useful for SCC users:

```
os.environ["TF_CPP_MIN_LOG_LEVEL"]="3" # suppress some warning
messages
nslots = os.getenv('NSLOTS') # Get the number of
CPU cores requested by the job:

# Set up tensorflow session according to the number of CPU cores
requested by the job (to make sure process reaper does not kill the
job)
session_conf = tf.compat.v1.ConfigProto(
    intra_op_parallelism_threads=get_n_cores()-1,
    inter_op_parallelism_threads=1,
    allow_soft_placement=True,
    log_device_placement=True)
```

More info can be found on the parent webpage (though we have not yet updated it with a newer tensorflow version) :

<http://rcs.bu.edu/examples/ML/tensorflow/>

An example of running a python notebook through the batch system (in non-interactive way):

http://rcs.bu.edu/examples/ML/batch_notebook/