
**CCA**  
Common Component Architecture

Caffeine Convenience Scripts

## run\_cmdline script


- Run a single interactive job using command line.
- Format: run\_cmdline <full\_path\_to\_rc\_file>

```
#!/bin/sh
export TUT_COMP_ROOT=/home/elwasif/CCA/tutorial/src/sidl
export CCAFE_HOME=/home/elwasif/CCA/ccaffeine

# setup paths
SIDL_DLL_PATH="" ;DL_PATH=/home/elwasif/babel7.4/lib
for i in `grep '\s*path' "$1" | awk '{print $3}'`; do
  DL_PATH=$DL_PATH:$i;
done
export LD_LIBRARY_PATH=$DL_PATH
export SIDL_DLL_PATH=`echo $DL_PATH | sed 's/:;/g'`

$CCAFE_HOME/cxx/dc/user_iface/ccafe-single --ccafe-rc $1
```

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## run\_gui script


- Run a single interactive job using the GUI
- Format: run\_gui <full\_path\_to\_gui\_rc\_file>

```
#!/bin/sh
export TUT_COMP_ROOT=/home/elwasif/CCA/tutorial/src/sidl
export CCAFE_HOME=/home/elwasif/CCA/ccaffeine

#setup paths (same as in run_cmdline)
... ..

$CCAFE_HOME/cxx/dc/user_iface/ccafe-single --type server
--port 3314 --ccafe-rc $1 &
sleep 2
$CCAFE_HOME/bin/runGUI --builderPort 3314
exit 0
```

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## run\_gui\_parallel script (1)

```
#!/bin/sh -f
# Format: run_gui_parallel <num_proc> <full_path_to_gui_rc_file>
# Configuration stuff
export mpirun=/usr/local/bin/mpirun
export CLASSPATH=$CCAFE_HOME/java:$CLASSIC_CCA_ROOT/java
export gui=$CCAFE_HOME/bin/runGUI
export TUT_COMP_ROOT=`pwd`

export javaopts="-Djava.compiler=NONE -classpath $CLASSPATH"
export CCAFFEINE_OUT_DIR=`pwd`
export procfile="/tmp/processors.$$"
export machfile="/tmp/machines.$$"

# This tells CCAFFEINE to put the frameworks output streams
# into the current directory, into files named pOutN and
# pErrN, where N is the process number (starting from 0).
echo "Look for application output in pOut[01] and pErr[01] in
this directory"
```

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## run\_gui\_parallel script (2)

```
# Create a 'processors' file to tell the framework where to
# find itself and the GUI.
echo 127.0.0.1 server > $procfile
i=0
while [ $i -lt $1 ]
do
  echo $i client >> $procfile
  i=`expr $i + 1`
done
# Create the mpirun machines file
echo 127.0.0.1 > $machfile
# Start the GUI and wait briefly to give it a chance to
# initialize
echo Launching multiplexer...
java $javaopts \
  gov.sandia.caffeine.dc.distributed.MuxingProcess \
  --name 127.0.0.1 --timeout 0 --file $procfile &
sleep 3
```

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run\_gui\_parallel script (3)

```


#Generate the setup_paths script

SIDL_DLL_PATH=""
DL_PATH=$BABEL_ROOT/lib
for i in `grep '\s*path' "$2" | awk '{print $3}'`; do
  DL_PATH=$DL_PATH:$i;
done
export SIDL_DLL_PATH=`echo $DL_PATH | sed 's/:/;/g'`

# Store commands into setup_paths file (to be included into
# scripts at target mpi nodes)
cat > $TUT_COMP_ROOT/setup_paths << EOF
export LD_LIBRARY_PATH=$DL_PATH
export SIDL_DLL_PATH="$SIDL_DLL_PATH"
EOF

```

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run\_gui\_parallel script (3)

```


# Launch the framework
echo Launching framework...
$mpirun -np $1 -machinefile $machfile $TUT_COMP_ROOT/run_client\
  --file $procfile --ccafe-rc $2 &

sleep 5
# Launch GUI
echo Launching GUI...
$gui

# Look for any stray files or processes
echo Cleaning up
rm -f $procfile $machfile
# This may be overkill
killall ccafe-client\
  gov.sandia.ccaffeine.dc.distributed.MuxingProcess \
  runGUI gov.sandia.ccaffeine.dc.user_iface.BuilderClient java

```

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run\_client script


```

#!/bin/sh
#### TUT_COMP_ROOT cannot be 'pwd' for mpirun reasons ####
export TUT_COMP_ROOT=/home/elwasif/CCA/tutorial/src/sidl
• $TUT_COMP_ROOT/setup_path

$CCAFE_HOME/cxx/dc/user_iface/ccafe-client $*

```

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tutorial\_rc\_gui Ccaffeine rc file


```

#!ccaffeine bootstrap file.
# ----- don't change anything ABOVE this line.-----
path set /home/elwasif/CCA/tutorial/src/sidl/random-component-c++
path append /home/elwasif/CCA/tutorial/src/sidl/function-component-c++
path append /home/elwasif/CCA/tutorial/src/sidl/integrator-component-c++
path append /home/elwasif/CCA/tutorial/src/sidl/driver-component-c++

repository get randomgen.RandRandomGenerator
repository get functions.LinearFunction
repository get functions.PiFunction
repository get functions.NonlinearFunction
repository get integrators.MonteCarloIntegrator
repository get integrators.MidpointIntegrator
repository get integrators.ParallelIntegrator
repository get tutorial.Driver

```

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run\_cmdline\_python file

```
#!/bin/sh
export TUT_COMP_ROOT=/home/elwasif/CCA/tutorial/src/sidl
export CCAFE_HOME=/home/elwasif/CCA/ccaffeine
export BABEL_ROOT=/home/elwasif/babel-0.8.4
PYTHON_VERSION=2.2
# setup paths
export SIDL_DEBUG_DLOPEN=1
SIDL_DLL_PATH=""
PYTHONLIB_PATH=/usr/lib/python2.2/config

DL_PATH=$PYTHONLIB_PATH:$BABEL_ROOT/lib
for i in `grep '^s*path' "$1" | awk '{print $3}'`; do
  DL_PATH=$DL_PATH:$i;
done
if [ ! $?LD_LIBRARY_PATH ]; then
  export LD_LIBRARY_PATH=$DL_PATH
else
  export LD_LIBRARY_PATH=$DL_PATH:$LD_LIBRARY_PATH
fi
export SIDL_DLL_PATH=`echo $DL_PATH | sed 's/:/;/g'`
```

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run\_cmdline\_python file (2)

```
PYTHON_DIRS="$PYTHONLIB_PATH \
/home/elwasif/babel-0.8.4/lib/python2.2/site-packages \
$TUT_COMP_ROOT/driver-python \
$TUT_COMP_ROOT/cca-stuff-python \
$TUT_COMP_ROOT/integrator-client-python"

if [ ! $?PYTHNOPATH ]; then
  PYTHONPATH=""
fi
for i in $PYTHON_DIRS; do
  PYTHONPATH=$i:$PYTHONPATH;
done
export PYTHONPATH

$CCAFE_HOME/bin/ccafe-single --ccafe-rc $1
```

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