

Prototype Scripts for Running PGE's on SGE

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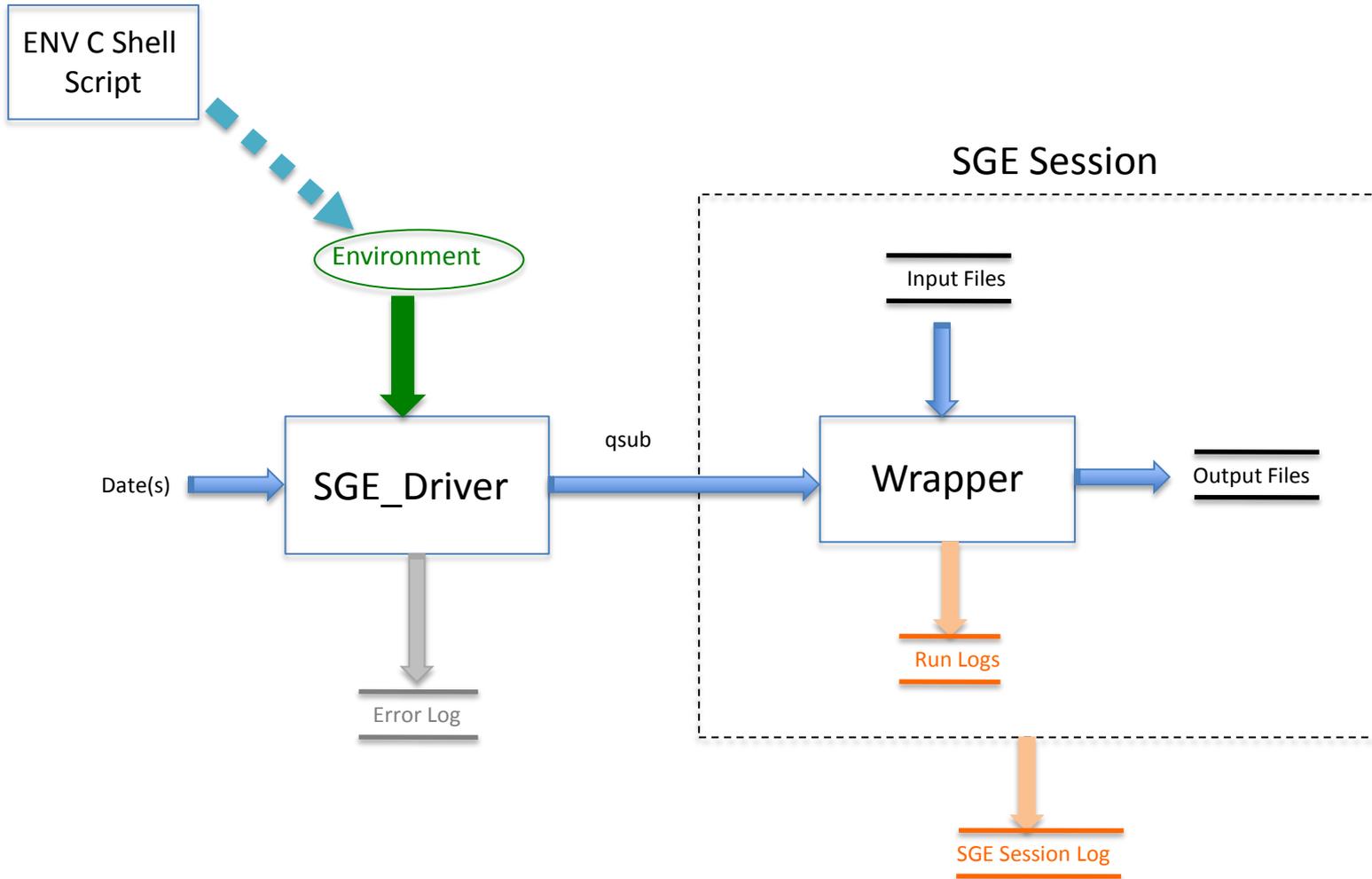
Introduction

- *Need to run PGE's on SGE independent of platform submitted to*
- *Develop scripts to setup for either environment on the fly*
- *Currently in prototype phase*
 - *Development process tried on several PGE's to get a feel*
 - *Currently Focused on Instrument Subsystem Delivery*
 - *Initial PGE sent to SSIT is CER1.1P7*
 - *Still needs feedback from SSIT and Operations*
 - *Nothing is set in stone*
- *Design by Scott Zentz*
- *Documentation by Brian Magill*

Current Features

- Can process data for a single date or multiple dates
- Jobs will run on the appropriate Platforms
- Input file existence checked before jobs submitted to SGE
- Scripts have a consistent naming convention across PGE's and subsystems:
<PGE name>-SGE_Driver.pl, <PGE name>-Wrapper.pl, etc.

Currently How It Works



Processing Steps

- User sources environmental script for PGE
- User enters either a single date or a range of dates
- SGE Driver script
 - Checks the input's validity
 - If a range of dates is given, verifies that this is what the user wants
 - Checks input file existence
 - Submits job with Wrapper script to SGE
- Wrapper script controls all remaining processing
 - Generates PCF and PCF log files
 - Creates output data files
 - Writes run logs
 - All messages that used to be printed on the screen are written to the SGE log.

Example: CER1.4P1 (BDSI Subsetter)

- Creates BDSI files from internal calibration events in BDS files
- C++ replacement for CER1.3P1 (Ada version)
- Environmental Script for FM1: temp-fm1-env.csh
- Driver Script: CER1.4P1-SGE_Driver.pl
- Run directory: ../instrument/CER1.4P1/rcf
- Run logs located in: ../instrument/runlogs/
- SGE logs located in: ../instrument/sge_logs/
- Data located under: ../instrument/data/

Temp-fm1-env.csh Contents

```
#-----  
# temp-fm1-env.csh  
#  
#  
#  
# set up DAAC production environment variables  
  
setenv SS1          Terra-FM1  
setenv PS1_0        Edition1-CV  
setenv CC1          033033  
setenv CC1_3        000004  
setenv SW1          716  
setenv SW1_3        716  
setenv DATA1       716  
setenv DATA1_3     716  
setenv SAT          Terra  
setenv INST         FM1  
setenv PGSCONSDIR  $CERESLIB/data  
  
#  
#  
#
```

Sample Run for CER1.4P1

instrument1-blue 156% source temp-fm1-env.csh

instrument1-blue 157% ./CER1.4P1-SGE_Driver.pl -d 20020315

Your job 104469 ("CER1.4P1_Terra-FM1_Edition1-CV_033033_20020315") has been submitted

⋮

instrument1-blue 160% qacct -j 104469

=====

qname scf.q

hostname bb109

group instrument

owner bmagill

project NONE

department defaultdepartment

jobname CER1.4P1_Terra-FM1_Edition1-CV_033033_20020315

jobnumber 104469

taskid undefined

account sge

priority 0

qsub_time Fri May 7 14:21:14 2010

start_time Fri May 7 14:21:19 2010

end_time Fri May 7 14:23:45 2010

⋮

SGE Log File:

CER1.4P1_Terra-FM1_Edition1-CV_033033_20020315.o104469

Your job 104469 ("CER1.4P1_Terra-FM1_Edition1-CV_033033_20020315") has been submitted

Node = bb109

Compressing BDSI -- CER_BDSI_Terra-FM1_Edition1-CV_000004.2002031501

compressing a Internal_Cal_BDS file

.hdf file to be compressed: /homedir/bmagill/projects/ceres/instrument/data/BDSI/Terra-FM1_Edition1-CV/2002/03/CER_

compressed and reordered .hdf name /homedir/bmagill/projects/ceres/instrument/data/BDSI/Terra-FM1_Edition1-CV/20

CER1.4P1 SUCCESSFUL -- Exit Status = 0

tar: Removing leading `/' from member names

Instrument Subsystem PGE CER1.4P1 Complete for PCF file CER1.4P1_PCF_Terra-FM1_Edition1-CV_000004.20020315

Run Log CER1.4P1_LogStatus_Terra-FM1_Edition1-CV_000004.20020315

BEGIN_PGE: Thu May 6 14:03:19 2010

MSG_TAG: 1 1

FILE: /homedir/bmagill/projects/ceres/ProcessImprovement/ScriptsForSGE/Devel/instrument/runlogs/CER1.4P1_LogStatus_Terra-FM1_Edition

LOGGING: status message logging enabled

TRACE_LEVEL: tracing disabled

PID_LOGGING: disabled

DISABLED_LEVELS: none

DISABLED_SEEDS: none

DISABLED_CODES: PGSCSC_W_PREDICTED_UT1 PGSCSC_W_MISS_EARTH 110085

THREAD-SAFE MODE: disabled

TOOLKIT_VERSION: SCF TK5.2.16

!!

!! W A R N I N G !!

!! The Toolkit version found in the PCF does not !!
!! match the current Toolkit version. The PCF in use !!
!! should be replaced with a PCF constructed from the !!
!! template PCF delivered with THIS version of the !!
!! Toolkit (see TOOLKIT_VERSION in banner, above). !!
!!

PGS_MET_GetConfigByLabel():PGSMET_E_LABEL_NOT_FOUND:110094
Unable to find Imager in file PCS

PGS_MET_GetConfigDataF():PGSMET_E_CONFIG_VAL_STR_ERR:110095
Unable to obtain the value of configuration parameter Imager from the PCS file

PGS_MET_GetConfigByLabel():PGSMET_E_LABEL_NOT_FOUND:110094
Unable to find Sensor in file PCS

Requirement Questions

- *Cleaning scripts: Are they needed? If so, where and what PGE's?*
- *File checking: Output as well as input? For all subsystems or just certain ones?*
 - *Currently Instrument does not care about output file existence.*
 - *For other subsystems this is important, though.*
- *Any additional features or comments?*

Contact Information

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- More than happy to stop by and answer questions if need be.