CHC-NSC 2018
www.chc-nsc2018.ca
Victoria, B.C.
March 26-29, 2018
Victoria, C.B.
26 au 29 mars 2018
Land and Sea Shaping the World
Terre et Mer Façonnant le Monde

Charlene and Automated Hydrographic Data Processing

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#chcnsc2018

Charlene - Concept

- Data management is hard….Automate!
- Monitoring processing is time consuming….Automate!
- Managing multiple software packages….Automate!
- Complicated procedures....Automate!
- Training on complicated procedures….Automate!

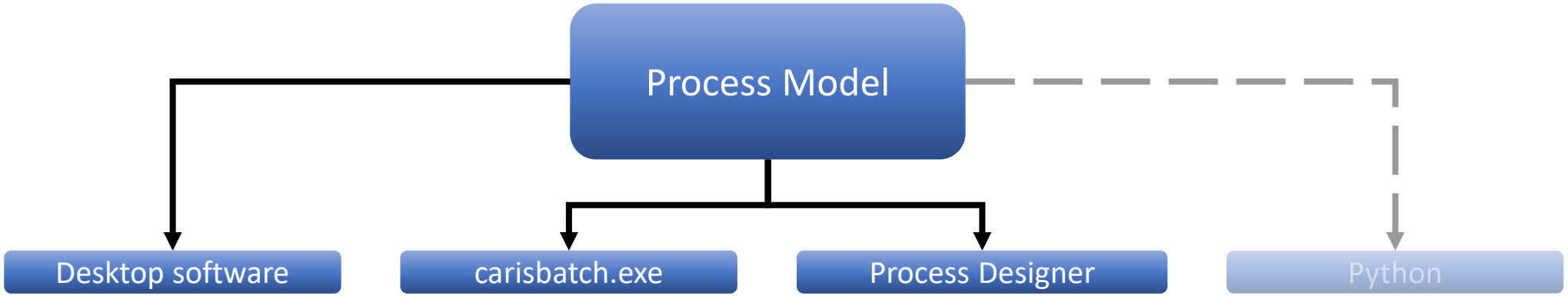
Charlene - Concept

With Charlene…

- Automated data management
- Set-and-forget processing
- Single interface for user
- 40 page SOP encompassed in 5 dropdown boxes
- Training can be done from a screenshot

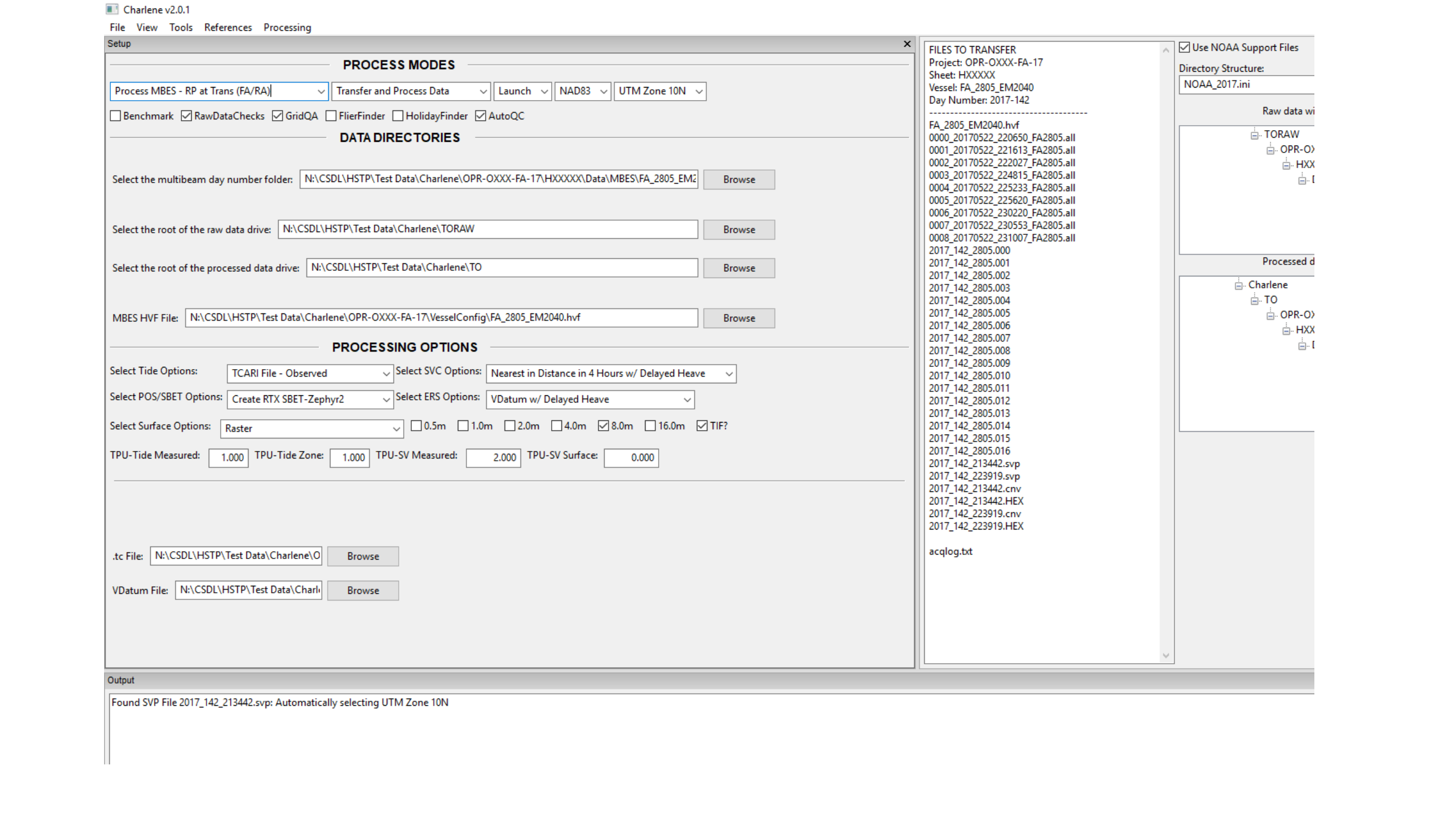
CARIS Automation

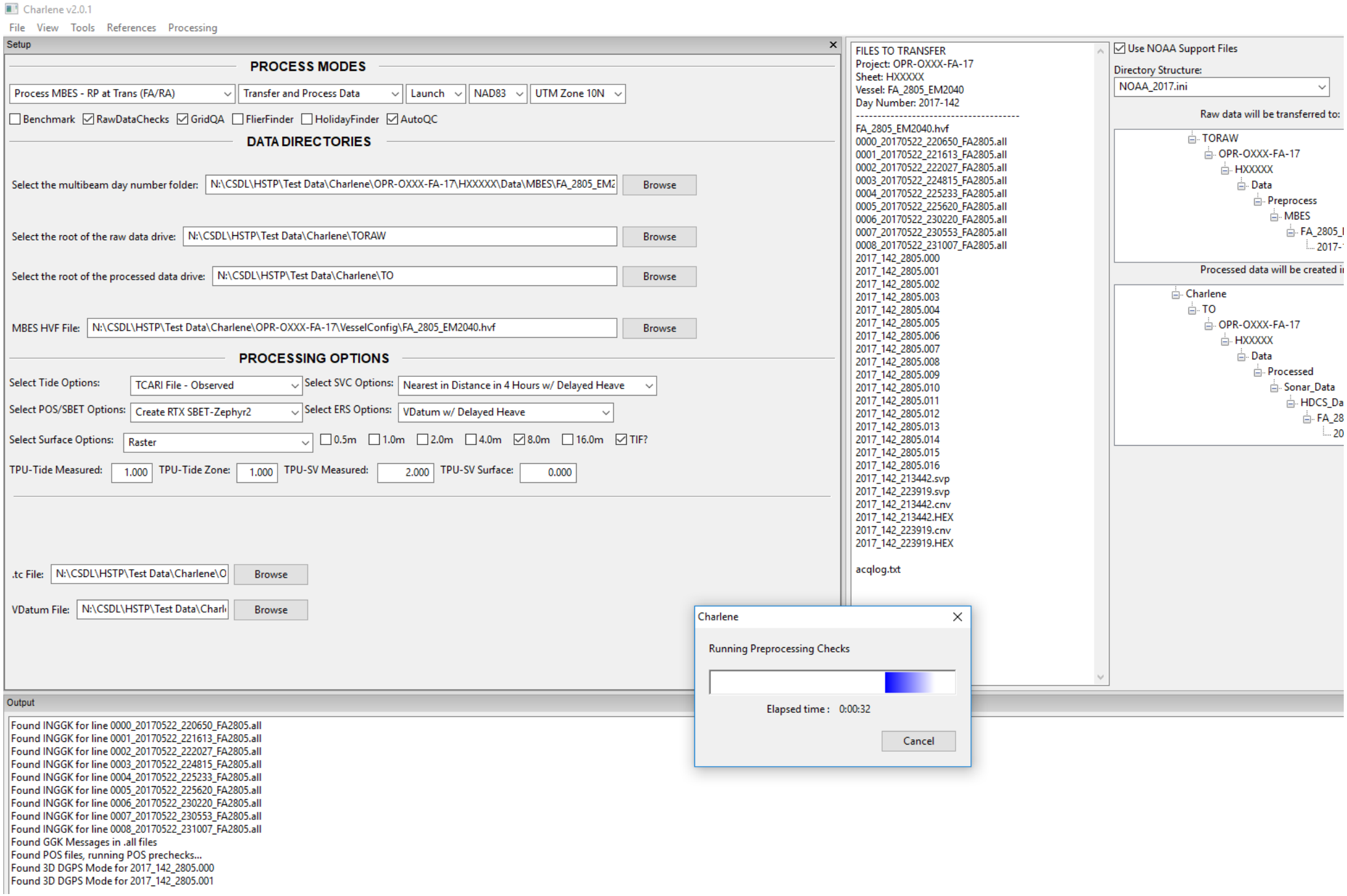
- User need: Incorporate CARIS processing with other tools
- Problem: Functions tied to desktop program
- Solution: Separate functions from interface

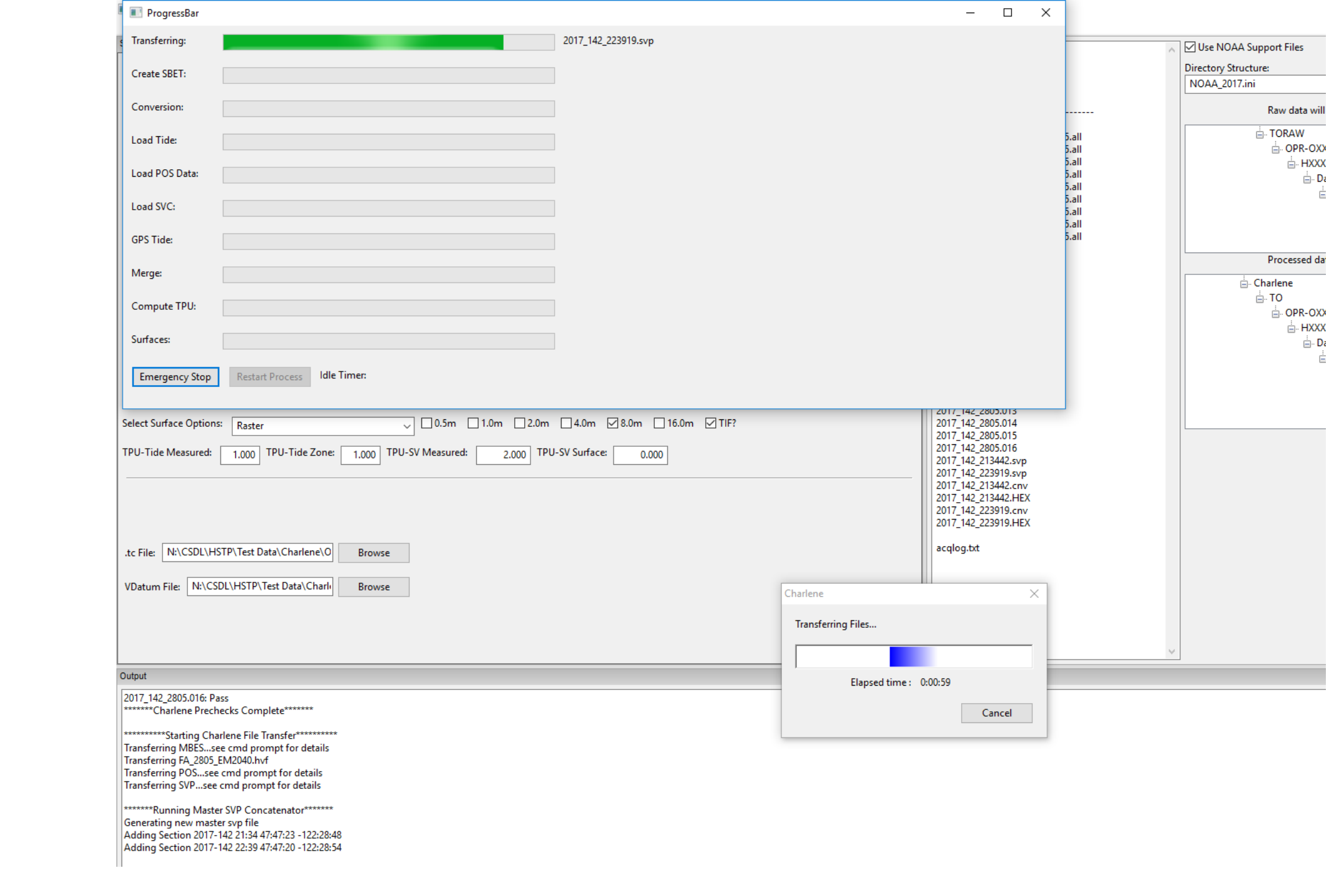


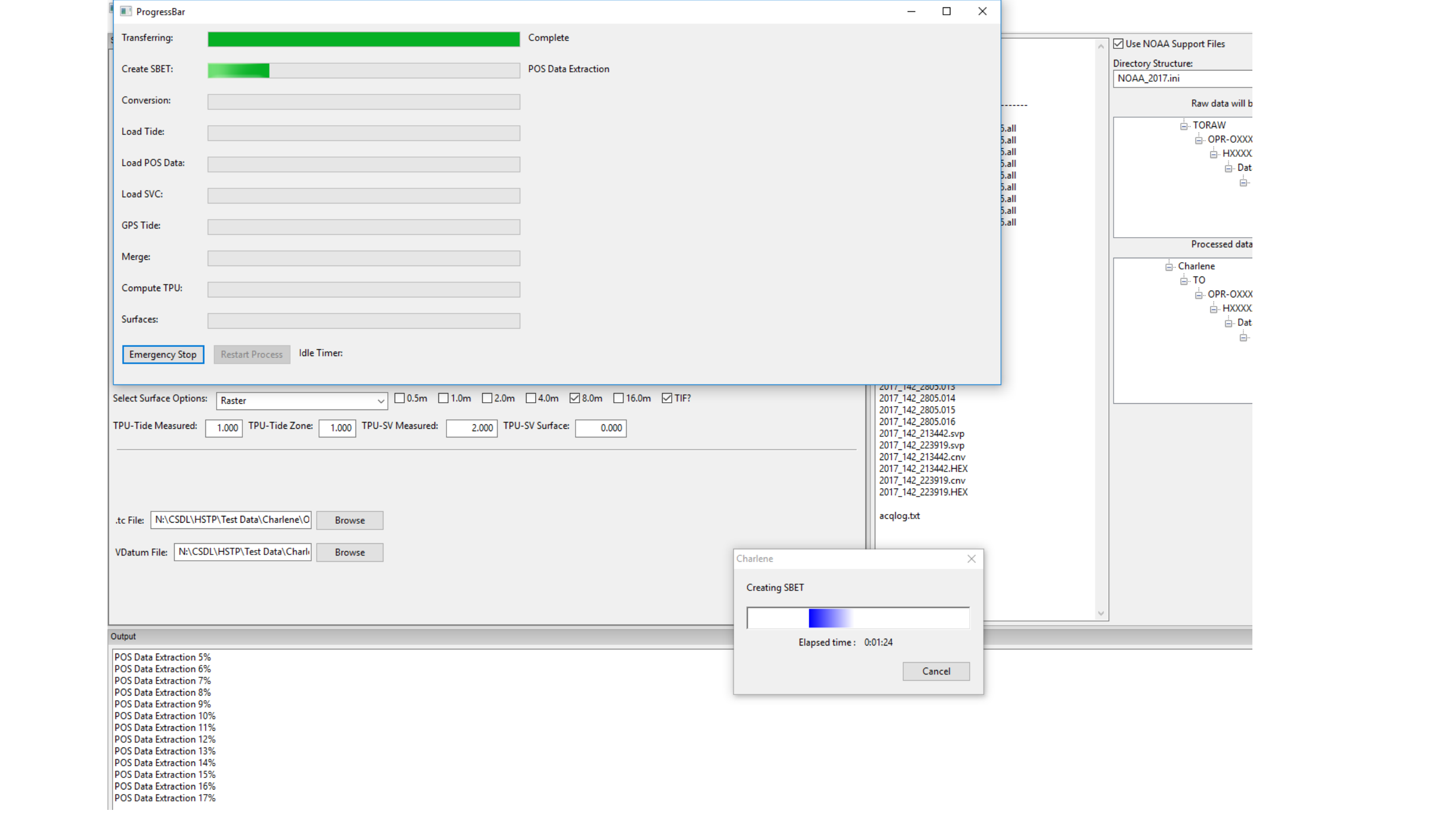
Batch processing in POSPac

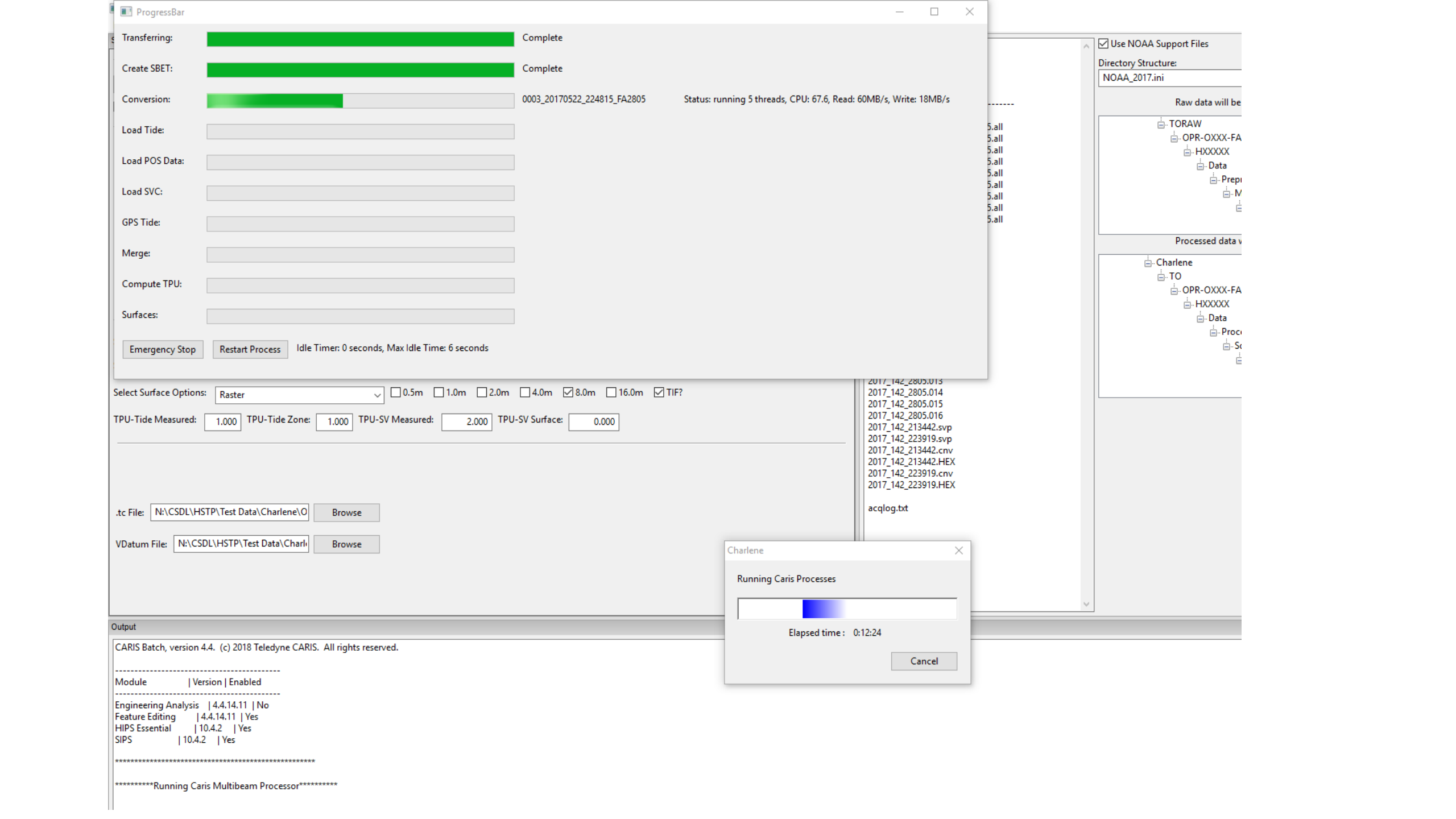
- Batch processing allows the POSPac user to run multiple projects sequentially in an unattended mode
- Batch processes may be created either via the POSPac GUI or independently using XML files
- The batch process defines
  - Data locations (input and output)
  - Processing mode (SingleBase, SmartBase, PP-RTX)
  - Base station coordinates and reference frames
  - Lever Arms
  - Geodetic parameters for output

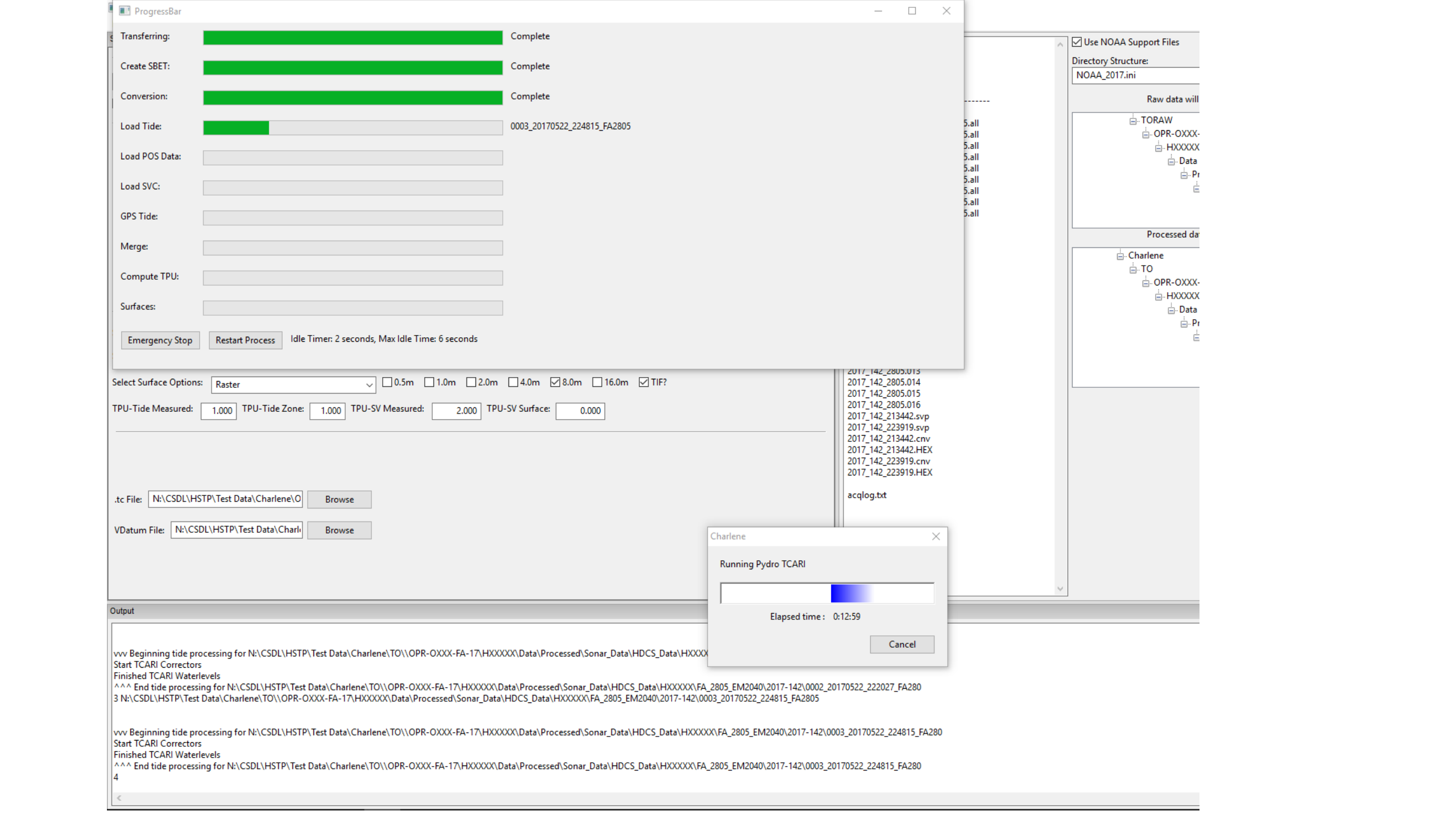

Charlene v2.0.1
File View Tools References Processing
Setup
PROCESS MODES
Process MBES - RP at Trans (FA/RA)
Transfer and Process Data
Launch
NAD83
UTM Zone 10N
Benchmark RawDataChecks GridQA FlierFinder HolidayFinder AutoQC
DATA DIRECTORIES
Select the multibeam day number folder:
N:\CSDL\HSTP\Test Data\Charlene\OPR-OXXX-FA-17\HXXXXX\Data\MBES\FA_2805_EM2
Browse
Select the root of the raw data drive:
N:\CSDL\HSTP\Test Data\Charlene\TORAW
Browse
Select the root of the processed data drive:
N:\CSDL\HSTP\Test Data\Charlene\TO
Browse
MBES HVF File:
N:\CSDL\HSTP\Test Data\Charlene\OPR-OXXX-FA-17\VesselConfig\FA_2805_EM2040.hvf
Browse
PROCESSING OPTIONS
Select Tide Options:
TCARI File - Observed
Select SVC Options:
Nearest in Distance in 4 Hours w/ Delayed Heave
Select POS/SBET Options:
Create RTX SBET-Zephyr2
Select ERS Options:
VDatum w/ Delayed Heave
Select Surface Options:
Raster
0.5m 1.0m 2.0m 4.0m 8.0m 16.0m TIF?
TPU-Tide Measured:
1.000
TPU-Tide Zone:
1.000
TPU-SV Measured:
2.000
TPU-SV Surface:
0.000
.tc File:
N:\CSDL\HSTP\Test Data\Charlene\O
Browse
VDatum File:
N:\CSDL\HSTP\Test Data\Charl
Browse
FILES TO TRANSFER
Project: OPR-OXXX-FA-17
Sheet: HXXXXX
Vessel: FA_2805_EM2040
Day Number: 2017-142
FA_2805_EM2040.hvf
0000_20170522_220650_FA2805.all
0001_20170522_221613_FA2805.all
0002_20170522_222027_FA2805.all
0003_20170522_224815_FA2805.all
0004_20170522_225233_FA2805.all
0005_20170522_225620_FA2805.all
0006_20170522_230220_FA2805.all
0007_20170522_230553_FA2805.all
0008_20170522_231007_FA2805.all
2017_142_2805.000
2017_142_2805.001
2017_142_2805.002
2017_142_2805.003
2017_142_2805.004
2017_142_2805.005
2017_142_2805.006
2017_142_2805.007
2017_142_2805.008
2017_142_2805.009
2017_142_2805.010
2017_142_2805.011
2017_142_2805.012
2017_142_2805.013
2017_142_2805.014
2017_142_2805.015
2017_142_2805.016
2017_142_213442.svp
2017_142_223919.svp
2017_142_213442.cnv
2017_142_213442.HEX
2017_142_223919.cnv
2017_142_223919.HEX
acqlog.txt
Use NOAA Support Files
Directory Structure:
NOAA_2017.ini
Raw data wi
TORAW
OPR-O
HXX
Processed d
Charlene
TO
OPR-O
HXX
Output
Found SVP File 2017_142_213442.svp: Automatically selecting UTM Zone 10N

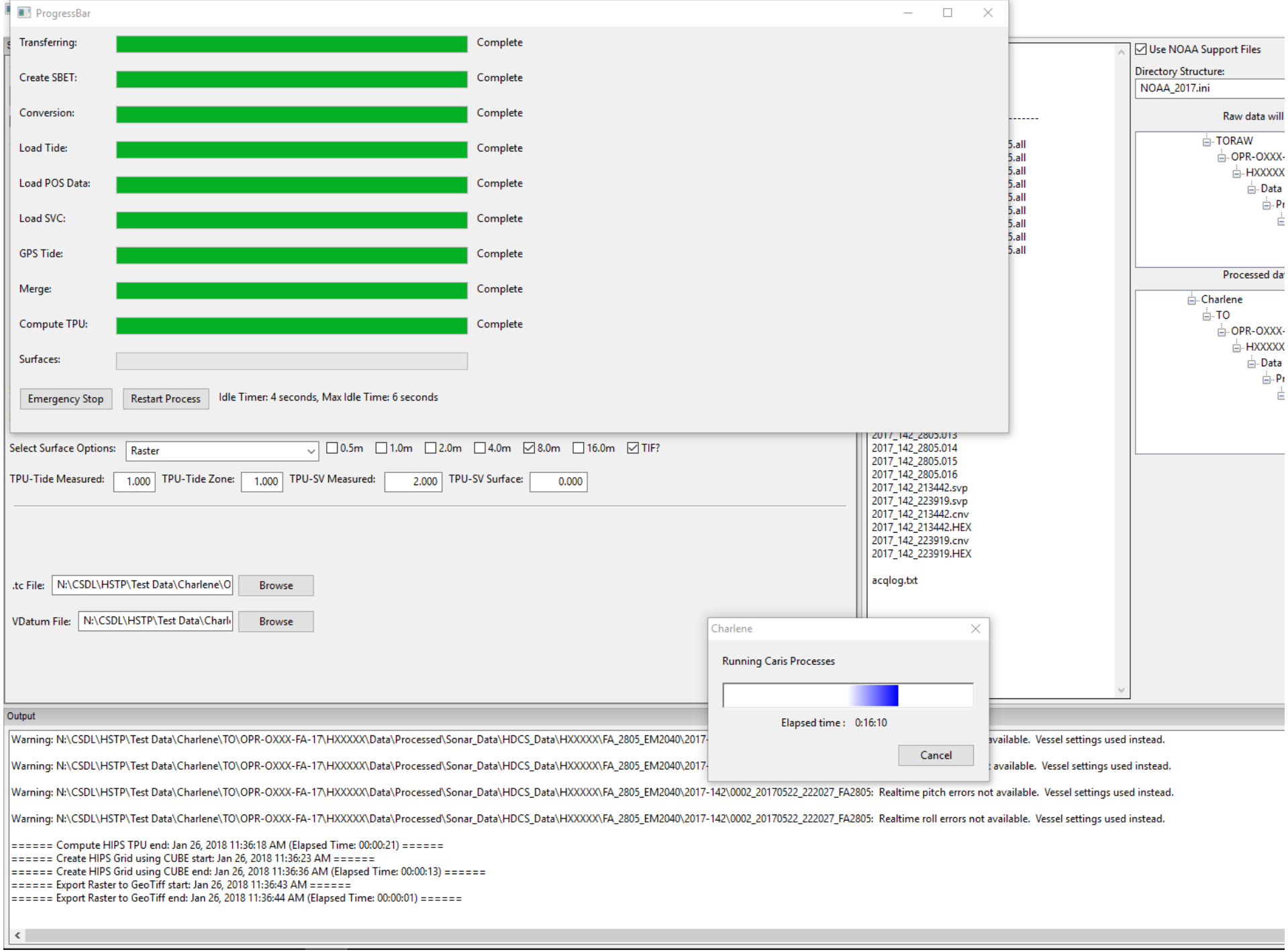

Charlene v2.0.1
File View Tools References Processing
Setup
PROCESS MODES
Process MBES - RP at Trans (FA/RA)
Transfer and Process Data
Launch
NAD83
UTM Zone 10N
Benchmark RawDataChecks GridQA FlierFinder HolidayFinder AutoQC
DATA DIRECTORIES
Select the multibeam day number folder: N:\CSDL\HSTP\Test Data\Charlene\OPR-OXXX-FA-17\HXXXXX\Data\MBES\FA_2805_EM2
Browse
Select the root of the raw data drive: N:\CSDL\HSTP\Test Data\Charlene\TORAW
Browse
Select the root of the processed data drive: N:\CSDL\HSTP\Test Data\Charlene\TO
Browse
MBES HVF File: N:\CSDL\HSTP\Test Data\Charlene\OPR-OXXX-FA-17\VesselConfig\FA_2805_EM2040.hvf
Browse
PROCESSING OPTIONS
Select Tide Options: TCARI File - Observed
Select SVC Options: Nearest in Distance in 4 Hours w/ Delayed Heave
Select POS/SBET Options: Create RTX SBET-Zephyr2
Select ERS Options: VDatum w/ Delayed Heave
Select Surface Options: Raster
0.5m 1.0m 2.0m 4.0m 8.0m 16.0m TIF?
TPU-Tide Measured: 1.000 TPU-Tide Zone: 1.000 TPU-SV Measured: 2.000 TPU-SV Surface: 0.000
.tc File: N:\CSDL\HSTP\Test Data\Charlene\O
Browse
VDatum File: N:\CSDL\HSTP\Test Data\Charl
Browse
FILES TO TRANSFER
Project: OPR-OXXX-FA-17
Sheet: HXXXXX
Vessel: FA_2805_EM2040
Day Number: 2017-142
FA_2805_EM2040.hvf
0000_20170522_220650_FA2805.all
0001_20170522_221613_FA2805.all
0002_20170522_222027_FA2805.all
0003_20170522_224815_FA2805.all
0004_20170522_225233_FA2805.all
0005_20170522_225620_FA2805.all
0006_20170522_230220_FA2805.all
0007_20170522_230553_FA2805.all
0008_20170522_231007_FA2805.all
2017_142_2805.000
2017_142_2805.001
2017_142_2805.002
2017_142_2805.003
2017_142_2805.004
2017_142_2805.005
2017_142_2805.006
2017_142_2805.007
2017_142_2805.008
2017_142_2805.009
2017_142_2805.010
2017_142_2805.011
2017_142_2805.012
2017_142_2805.013
2017_142_2805.014
2017_142_2805.015
2017_142_2805.016
2017_142_213442.svp
2017_142_223919.svp
2017_142_213442.cnv
2017_142_213442.HEX
2017_142_223919.cnv
2017_142_223919.HEX
acqlog.txt
Use NOAA Support Files
Directory Structure:
NOAA_2017.ini
Raw data will be transferred to:
TORAW
OPR-OXXX-FA-17
HXXXXX
Data
Preprocess
MBES
Processed data will be created i
Charlene
TO
OPR-OXXX-FA-17
HXXXXX
Data
Processed
Sonar_Data
Charlene
Running Preprocessing Checks
Elapsed time : 0:00:32
Cancel
Output
Found INGGK for line 0000_20170522_220650_FA2805.all
Found INGGK for line 0001_20170522_221613_FA2805.all
Found INGGK for line 0002_20170522_222027_FA2805.all
Found INGGK for line 0003_20170522_224815_FA2805.all
Found INGGK for line 0004_20170522_225233_FA2805.all
Found INGGK for line 0005_20170522_225620_FA2805.all
Found INGGK for line 0006_20170522_230220_FA2805.all
Found INGGK for line 0007_20170522_230553_FA2805.all
Found INGGK for line 0008_20170522_231007_FA2805.all
Found GGK Messages in .all files
Found POS files, running POS prechecks...
Found 3D DGPS Mode for 2017_142_2805.000
Found 3D DGPS Mode for 2017_142_2805.001

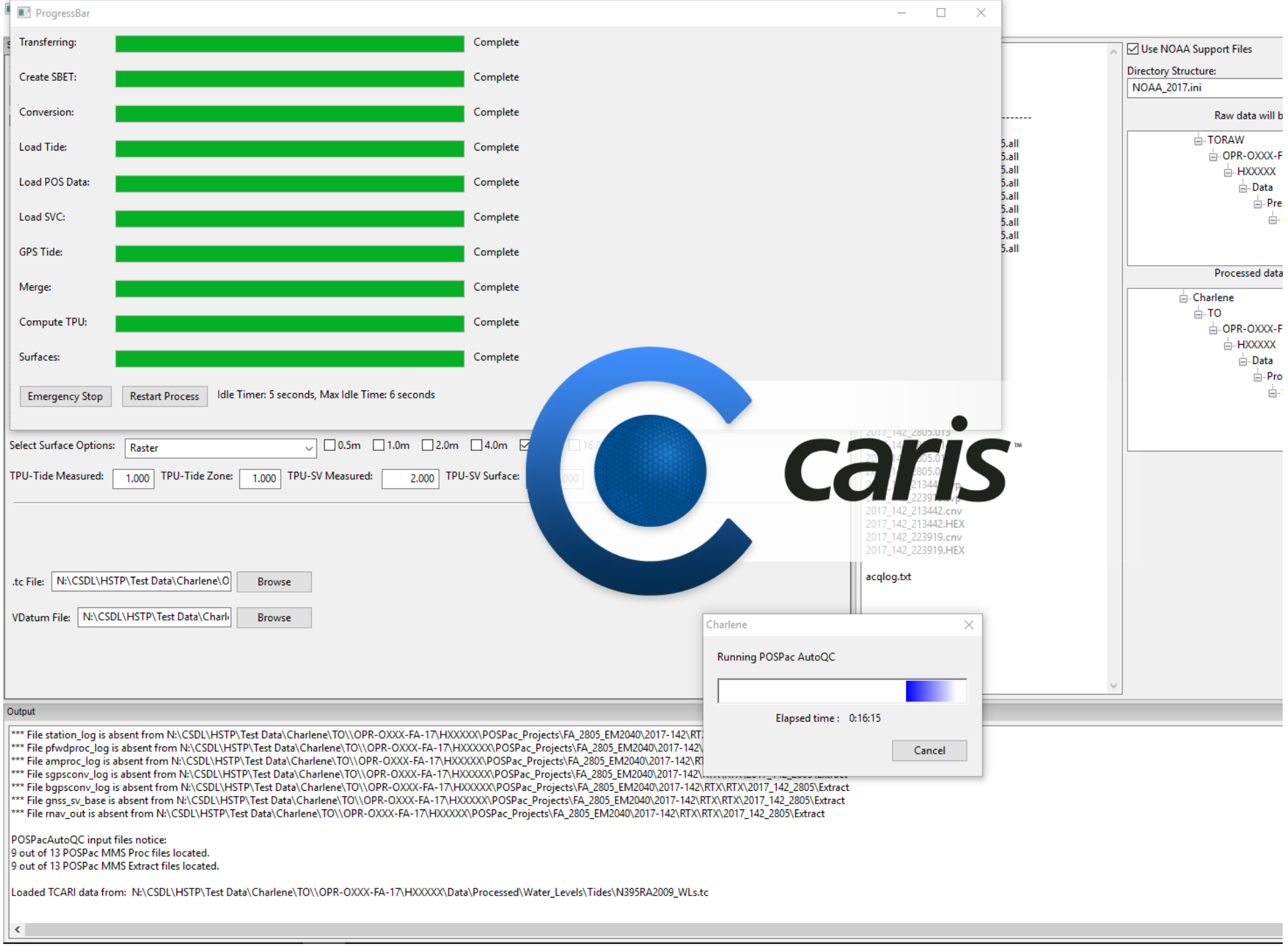

ProgressBar
Transferring:
2017_142_223919.svp
Create SBET:
Conversion:
Load Tide:
Load POS Data:
Load SVC:
GPS Tide:
Merge:
Compute TPU:
Surfaces:
Emergency Stop
Restart Process
Idle Timer:
Use NOAA Support Files
Directory Structure:
NOAA_2017.ini
Raw data will
TORAW
Processed da
Charlene
TO
Select Surface Options:
Raster
0.5m
1.0m
2.0m
4.0m
8.0m
16.0m
TIF?
TPU-Tide Measured:
1.000
TPU-Tide Zone:
1.000
TPU-SV Measured:
2.000
TPU-SV Surface:
0.000
.tc File:
N:\CSDL\HSTP\Test Data\Charlene\O
Browse
VDatum File:
N:\CSDL\HSTP\Test Data\Charl
Browse
2017_142_2805.014
2017_142_2805.015
2017_142_2805.016
2017_142_213442.svp
2017_142_223919.svp
2017_142_213442.cnv
2017_142_213442.HEX
2017_142_223919.cnv
2017_142_223919.HEX
acqlog.txt
Charlene
Transferring Files...
Elapsed time : 0:00:59
Cancel
Output
2017_142_2805.016: Pass
*******Charlene Prechecks Complete*******
**********Starting Charlene File Transfer**********
Transferring MBES...see cmd prompt for details
Transferring FA_2805_EM2040.hvf
Transferring POS...see cmd prompt for details
Transferring SVP...see cmd prompt for details
*******Running Master SVP Concatenator*******
Generating new master svp file
Adding Section 2017-142 21:34 47:47:23 -122:28:48
Adding Section 2017-142 22:39 47:47:20 -122:28:54

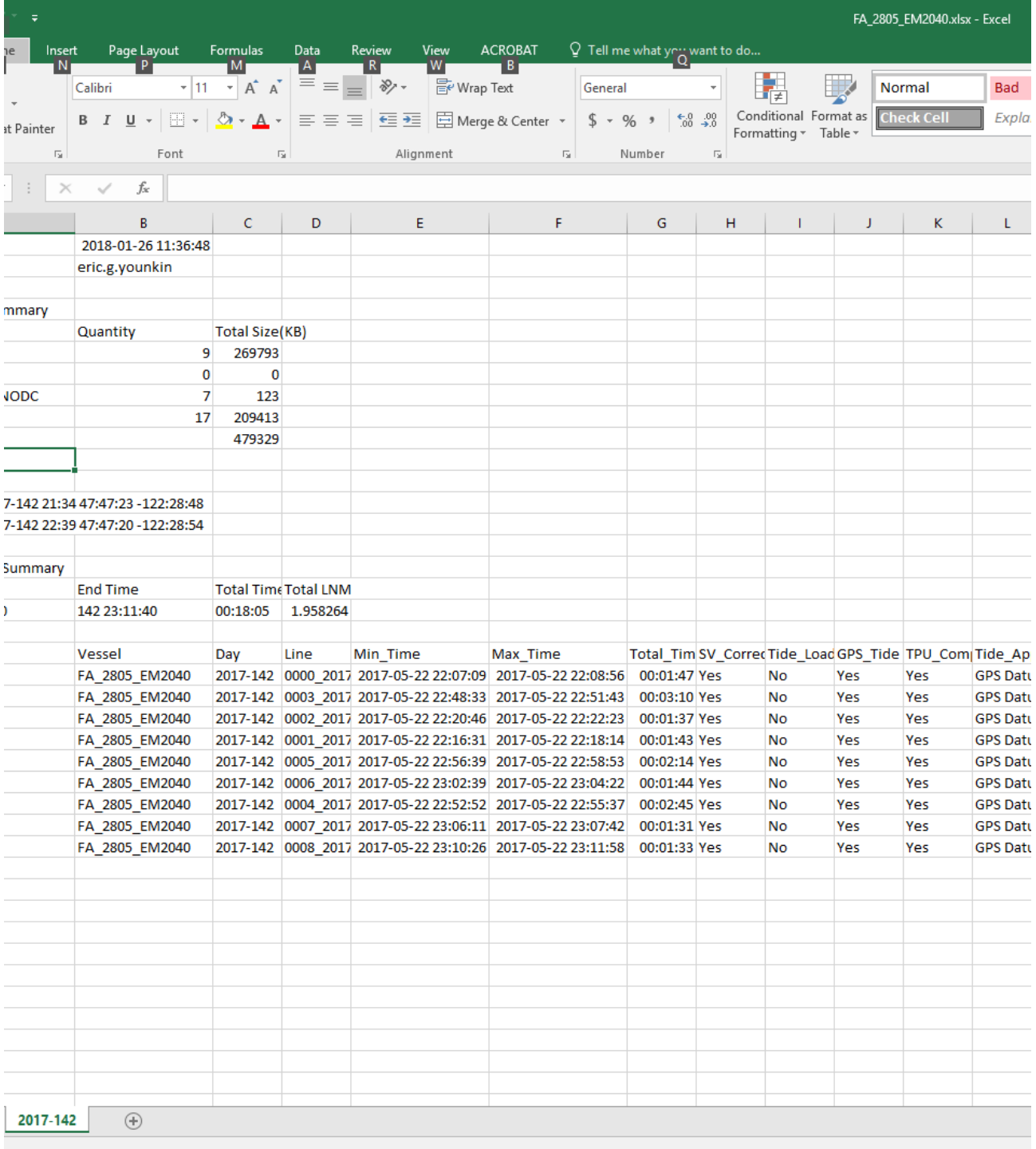

ProgressBar
Transferring:
Complete
Create SBET:
POS Data Extraction
Conversion:
Load Tide:
Load POS Data:
Load SVC:
GPS Tide:
Merge:
Compute TPU:
Surfaces:
Emergency Stop
Restart Process
Idle Timer:
Use NOAA Support Files
Directory Structure:
NOAA_2017.ini
Raw data will b
TORAW
OPR-OXXX
HXXXX
Dat
Processed data
Charlene
TO
OPR-OXXX
HXXXX
Dat
Select Surface Options:
Raster
0.5m
1.0m
2.0m
4.0m
8.0m
16.0m
TIF?
TPU-Tide Measured:
1.000
TPU-Tide Zone:
1.000
TPU-SV Measured:
2.000
TPU-SV Surface:
0.000
.tc File:
N:\CSDL\HSTP\Test Data\Charlene\O
Browse
VDatum File:
N:\CSDL\HSTP\Test Data\Charl
Browse
2017_142_2805.013
2017_142_2805.014
2017_142_2805.015
2017_142_2805.016
2017_142_213442.svp
2017_142_223919.svp
2017_142_213442.cnv
2017_142_213442.HEX
2017_142_223919.cnv
2017_142_223919.HEX
acqlog.txt
Charlene
Creating SBET
Elapsed time : 0:01:24
Cancel
Output
POS Data Extraction 5%
POS Data Extraction 6%
POS Data Extraction 7%
POS Data Extraction 8%
POS Data Extraction 9%
POS Data Extraction 10%
POS Data Extraction 11%
POS Data Extraction 12%
POS Data Extraction 13%
POS Data Extraction 14%
POS Data Extraction 15%
POS Data Extraction 16%
POS Data Extraction 17%


ProgressBar
Transferring:
Complete
Create SBET:
Complete
Conversion:
0003_20170522_224815_FA2805
Status: running 5 threads, CPU: 67.6, Read: 60MB/s, Write: 18MB/s
Load Tide:
Load POS Data:
Load SVC:
GPS Tide:
Merge:
Compute TPU:
Surfaces:
Emergency Stop
Restart Process
Idle Timer: 0 seconds, Max Idle Time: 6 seconds
Use NOAA Support Files
Directory Structure:
NOAA_2017.ini
Raw data will be
TORAW
OPR-OXXX-FA
HXXXXX
Data
Processed data
Charlene
TO
OPR-OXXX-FA
HXXXXX
Data
Select Surface Options:
Raster
0.5m
1.0m
2.0m
4.0m
8.0m
16.0m
TIF?
TPU-Tide Measured:
1.000
TPU-Tide Zone:
1.000
TPU-SV Measured:
2.000
TPU-SV Surface:
0.000
2017_142_2805.013
2017_142_2805.014
2017_142_2805.015
2017_142_2805.016
2017_142_213442.svp
2017_142_223919.svp
2017_142_213442.cnv
2017_142_213442.HEX
2017_142_223919.cnv
2017_142_223919.HEX
acqlog.txt
.tc File:
N:\CSDL\HSTP\Test Data\Charlene\O
Browse
VDatum File:
N:\CSDL\HSTP\Test Data\Charl
Browse
Charlene
Running Caris Processes
Elapsed time : 0:12:24
Cancel
Output
CARIS Batch, version 4.4. (c) 2018 Teledyne CARIS. All rights reserved.
Module | Version | Enabled
Engineering Analysis | 4.4.14.11 | No
Feature Editing | 4.4.14.11 | Yes
HIPS Essential | 10.4.2 | Yes
SIPS | 10.4.2 | Yes
**********Running Caris Multibeam Processor**********


ProgressBar
Transferring:
Complete
Create SBET:
Complete
Conversion:
Complete
Load Tide:
0003_20170522_224815_FA2805
Load POS Data:
Load SVC:
GPS Tide:
Merge:
Compute TPU:
Surfaces:
Emergency Stop
Restart Process
Idle Timer: 2 seconds, Max Idle Time: 6 seconds
Use NOAA Support Files
Directory Structure:
NOAA_2017.ini
Raw data will
TORAW
OPR-OXXX-
HXXXXX
Data
Processed da
Charlene
TO
OPR-OXXX-
HXXXXX
Data
2017_142_2805.013
2017_142_2805.014
2017_142_2805.015
2017_142_2805.016
2017_142_213442.svp
2017_142_223919.svp
2017_142_213442.cnv
2017_142_213442.HEX
2017_142_223919.cnv
2017_142_223919.HEX
acqlog.txt
Select Surface Options:
Raster
0.5m
1.0m
2.0m
4.0m
8.0m
16.0m
TIF?
TPU-Tide Measured:
1.000
TPU-Tide Zone:
1.000
TPU-SV Measured:
2.000
TPU-SV Surface:
0.000
.tc File:
N:\CSDL\HSTP\Test Data\Charlene\O
Browse
VDatum File:
N:\CSDL\HSTP\Test Data\Charl
Browse
Charlene
Running Pydro TCARI
Elapsed time : 0:12:59
Cancel
Output
vvv Beginning tide processing for N:\CSDL\HSTP\Test Data\Charlene\TO\\OPR-OXXX-FA-17\HXXXXX\Data\Processed\Sonar_Data\HDCS_Data\HXXXX
Start TCARI Correctors
Finished TCARI Waterlevels
^^^ End tide processing for N:\CSDL\HSTP\Test Data\Charlene\TO\\OPR-OXXX-FA-17\HXXXXX\Data\Processed\Sonar_Data\HDCS_Data\HXXXXX\FA_2805_EM2040\2017-142\0002_20170522_222027_FA280
3 N:\CSDL\HSTP\Test Data\Charlene\TO\\OPR-OXXX-FA-17\HXXXXX\Data\Processed\Sonar_Data\HDCS_Data\HXXXXX\FA_2805_EM2040\2017-142\0003_20170522_224815_FA2805
vvv Beginning tide processing for N:\CSDL\HSTP\Test Data\Charlene\TO\\OPR-OXXX-FA-17\HXXXXX\Data\Processed\Sonar_Data\HDCS_Data\HXXXXX\FA_2805_EM2040\2017-142\0003_20170522_224815_FA280
Start TCARI Correctors
Finished TCARI Waterlevels
^^^ End tide processing for N:\CSDL\HSTP\Test Data\Charlene\TO\\OPR-OXXX-FA-17\HXXXXX\Data\Processed\Sonar_Data\HDCS_Data\HXXXXX\FA_2805_EM2040\2017-142\0003_20170522_224815_FA280
4


ProgressBar
Transferring:
Complete
Create SBET:
Complete
Conversion:
Complete
Load Tide:
Complete
Load POS Data:
Complete
Load SVC:
Complete
GPS Tide:
Complete
Merge:
Complete
Compute TPU:
Complete
Surfaces:
Emergency Stop
Restart Process
Idle Timer: 4 seconds, Max Idle Time: 6 seconds
Use NOAA Support Files
Directory Structure:
NOAA_2017.ini
Raw data will
TORAW
OPR-OXXX-
HXXXXX
Data
Processed da
Charlene
TO
OPR-OXXX-
HXXXXX
Data
2017_142_2805.013
2017_142_2805.014
2017_142_2805.015
2017_142_2805.016
2017_142_213442.svp
2017_142_223919.svp
2017_142_213442.cnv
2017_142_213442.HEX
2017_142_223919.cnv
2017_142_223919.HEX
acqlog.txt
Select Surface Options:
Raster
0.5m
1.0m
2.0m
4.0m
8.0m
16.0m
TIF?
TPU-Tide Measured:
1.000
TPU-Tide Zone:
1.000
TPU-SV Measured:
2.000
TPU-SV Surface:
0.000
.tc File:
N:\CSDL\HSTP\Test Data\Charlene\O
Browse
VDatum File:
N:\CSDL\HSTP\Test Data\Charl
Browse
Charlene
Running Caris Processes
Elapsed time : 0:16:10
Cancel
Output
Warning: N:\CSDL\HSTP\Test Data\Charlene\TO\OPR-OXXX-FA-17\HXXXXX\Data\Processed\Sonar_Data\HDCS_Data\HXXXXX\FA_2805_EM2040\2017-
available. Vessel settings used instead.
Warning: N:\CSDL\HSTP\Test Data\Charlene\TO\OPR-OXXX-FA-17\HXXXXX\Data\Processed\Sonar_Data\HDCS_Data\HXXXXX\FA_2805_EM2040\2017-
available. Vessel settings used instead.
Warning: N:\CSDL\HSTP\Test Data\Charlene\TO\OPR-OXXX-FA-17\HXXXXX\Data\Processed\Sonar_Data\HDCS_Data\HXXXXX\FA_2805_EM2040\2017-142\0002_20170522_222027_FA2805: Realtime pitch errors not available. Vessel settings used instead.
Warning: N:\CSDL\HSTP\Test Data\Charlene\TO\OPR-OXXX-FA-17\HXXXXX\Data\Processed\Sonar_Data\HDCS_Data\HXXXXX\FA_2805_EM2040\2017-142\0002_20170522_222027_FA2805: Realtime roll errors not available. Vessel settings used instead.
====== Compute HIPS TPU end: Jan 26, 2018 11:36:18 AM (Elapsed Time: 00:00:21) ======
====== Create HIPS Grid using CUBE start: Jan 26, 2018 11:36:23 AM ======
====== Create HIPS Grid using CUBE end: Jan 26, 2018 11:36:36 AM (Elapsed Time: 00:00:13) ======
====== Export Raster to GeoTiff start: Jan 26, 2018 11:36:43 AM ======
====== Export Raster to GeoTiff end: Jan 26, 2018 11:36:44 AM (Elapsed Time: 00:00:01) ======


ProgressBar
Transferring:
Complete
Create SBET:
Complete
Conversion:
Complete
Load Tide:
Complete
Load POS Data:
Complete
Load SVC:
Complete
GPS Tide:
Complete
Merge:
Complete
Compute TPU:
Complete
Surfaces:
Complete
Emergency Stop
Restart Process
Idle Timer: 5 seconds, Max Idle Time: 6 seconds
Use NOAA Support Files
Directory Structure:
NOAA_2017.ini
Raw data will b
TORAW
OPR-OXXX-F
HXXXXX
Data
Pre
Processed data
Charlene
TO
OPR-OXXX-F
HXXXXX
Data
Pro
Select Surface Options:
Raster
0.5m
1.0m
2.0m
4.0m
TPU-Tide Measured:
1.000
TPU-Tide Zone:
1.000
TPU-SV Measured:
2.000
TPU-SV Surface:
2017_142_213442.cnv
2017_142_213442.HEX
2017_142_223919.cnv
2017_142_223919.HEX
acqlog.txt
.tc File:
N:\CSDL\HSTP\Test Data\Charlene\O
Browse
VDatum File:
N:\CSDL\HSTP\Test Data\Charl
Browse
caris
Charlene
Running POSPac AutoQC
Elapsed time : 0:16:15
Cancel
Output
*** File station_log is absent from N:\CSDL\HSTP\Test Data\Charlene\TO\\OPR-OXXX-FA-17\HXXXXX\POSPac_Projects\FA_2805_EM2040\2017-142\RT
*** File pfwdproc_log is absent from N:\CSDL\HSTP\Test Data\Charlene\TO\\OPR-OXXX-FA-17\HXXXXX\POSPac_Projects\FA_2805_EM2040\2017-142\
*** File amproc_log is absent from N:\CSDL\HSTP\Test Data\Charlene\TO\\OPR-OXXX-FA-17\HXXXXX\POSPac_Projects\FA_2805_EM2040\2017-142\RT
*** File sgpsconv_log is absent from N:\CSDL\HSTP\Test Data\Charlene\TO\\OPR-OXXX-FA-17\HXXXXX\POSPac_Projects\FA_2805_EM2040\2017-142\
*** File bgpsconv_log is absent from N:\CSDL\HSTP\Test Data\Charlene\TO\\OPR-OXXX-FA-17\HXXXXX\POSPac_Projects\FA_2805_EM2040\2017-142\RTX\RTX\2017_142_2805\Extract
*** File gnss_sv_base is absent from N:\CSDL\HSTP\Test Data\Charlene\TO\\OPR-OXXX-FA-17\HXXXXX\POSPac_Projects\FA_2805_EM2040\2017-142\RTX\RTX\2017_142_2805\Extract
*** File rnav_out is absent from N:\CSDL\HSTP\Test Data\Charlene\TO\\OPR-OXXX-FA-17\HXXXXX\POSPac_Projects\FA_2805_EM2040\2017-142\RTX\RTX\2017_142_2805\Extract
POSPacAutoQC input files notice:
9 out of 13 POSPac MMS Proc files located.
9 out of 13 POSPac MMS Extract files located.
Loaded TCARI data from: N:\CSDL\HSTP\Test Data\Charlene\TO\\OPR-OXXX-FA-17\HXXXXX\Data\Processed\Water_Levels\Tides\N395RA2009_WLs.tc



FA_2805_EM2040.xlsx - Excel

Insert Page Layout Formulas Data Review View ACROBAT Tell me what you want to do...

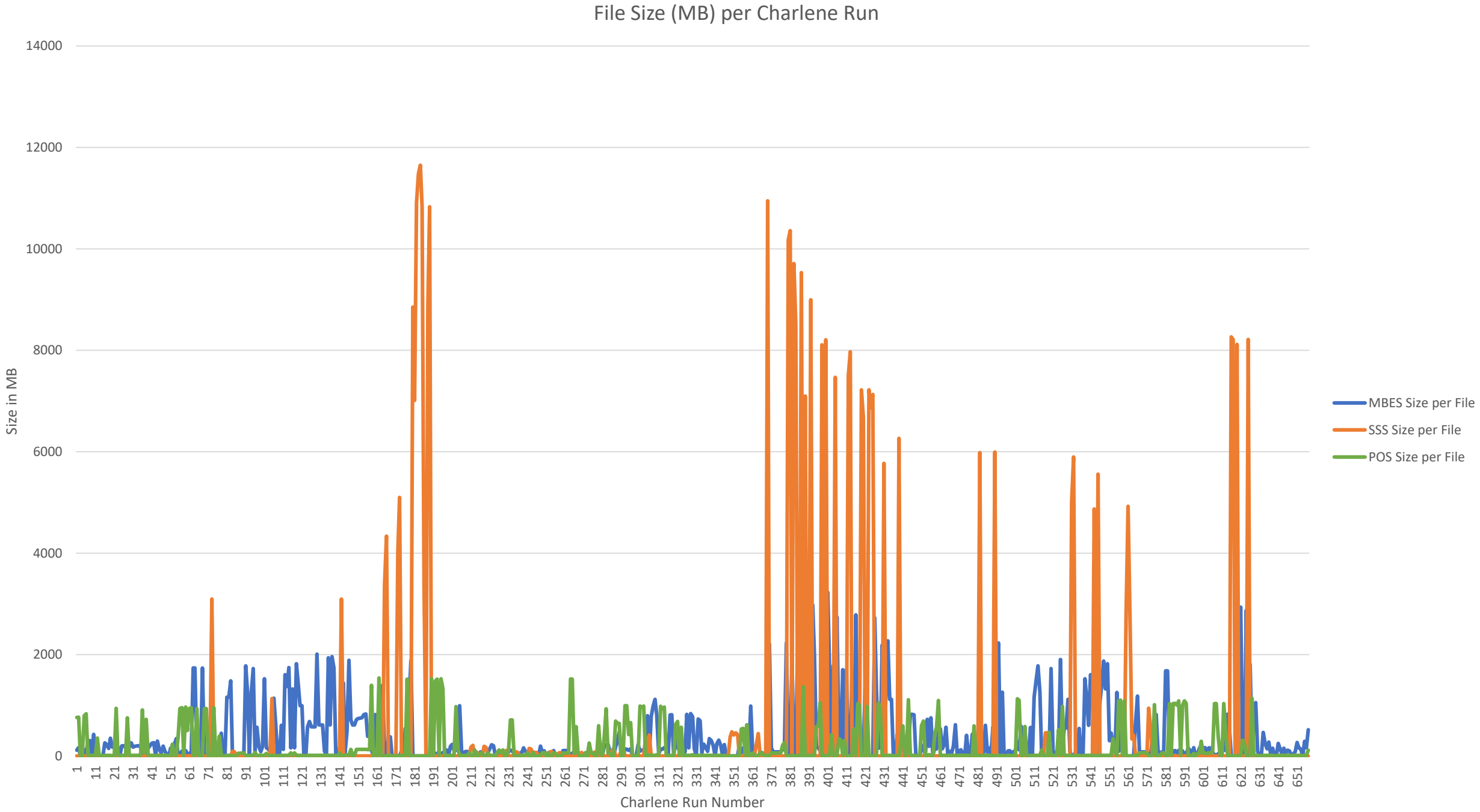
Calibri 11 Wrap Text General Normal Bad Check Cell Merge & Center Conditional Formatting Format as Table

Font Alignment Number

	B	C	D	E	F	G	H	I	J	K	L
	2018-01-26 11:36:48										
	eric.g.younkin										
mmary											
	Quantity	Total Size(KB)									
	9	269793									
	0	0									
NODC	7	123									
	17	209413									
		479329									
7-142 21:34 47:47:23 -122:28:48											
7-142 22:39 47:47:20 -122:28:54											
Summary											
	End Time	Total Time	Total LNM								
)	142 23:11:40	00:18:05	1.958264								
	Vessel	Day	Line	Min_Time	Max_Time	Total_Tim	SV_Correc	Tide_Load	GPS_Tide	TPU_Com	Tide_Ap
	FA_2805_EM2040	2017-142	0000_2017	2017-05-22 22:07:09	2017-05-22 22:08:56	00:01:47	Yes	No	Yes	Yes	GPS Datu
	FA_2805_EM2040	2017-142	0003_2017	2017-05-22 22:48:33	2017-05-22 22:51:43	00:03:10	Yes	No	Yes	Yes	GPS Datu
	FA_2805_EM2040	2017-142	0002_2017	2017-05-22 22:20:46	2017-05-22 22:22:23	00:01:37	Yes	No	Yes	Yes	GPS Datu
	FA_2805_EM2040	2017-142	0001_2017	2017-05-22 22:16:31	2017-05-22 22:18:14	00:01:43	Yes	No	Yes	Yes	GPS Datu
	FA_2805_EM2040	2017-142	0005_2017	2017-05-22 22:56:39	2017-05-22 22:58:53	00:02:14	Yes	No	Yes	Yes	GPS Datu
	FA_2805_EM2040	2017-142	0006_2017	2017-05-22 23:02:39	2017-05-22 23:04:22	00:01:44	Yes	No	Yes	Yes	GPS Datu
	FA_2805_EM2040	2017-142	0004_2017	2017-05-22 22:52:52	2017-05-22 22:55:37	00:02:45	Yes	No	Yes	Yes	GPS Datu
	FA_2805_EM2040	2017-142	0007_2017	2017-05-22 23:06:11	2017-05-22 23:07:42	00:01:31	Yes	No	Yes	Yes	GPS Datu
	FA_2805_EM2040	2017-142	0008_2017	2017-05-22 23:10:26	2017-05-22 23:11:58	00:01:33	Yes	No	Yes	Yes	GPS Datu

2017-142

```
**********Starting Charlene File Transfer**********
Transferring MBES...see cmd prompt for details
Transferring FA_2805_EM2040.hvf
Transferring POS...see cmd prompt for details
Transferring SVP...see cmd prompt for details

*******Running Master SVP Concatenator*******
Generating new master svp file
Adding Section 2017-142 21:34 47:47:23 -122:28:48
Adding Section 2017-142 22:39 47:47:20 -122:28:54
-----------------------------------
Found 2 casts
Added 2 casts to master
Excluded 0 casts
*******Master SVP Concatenator Complete*******

Adding to Sheet Master SVP File...
Sheet Master Updated Successfully!

Transferring Logs...see cmd prompt for details
**********File Transfer Complete**********

**********Verifying Transferred Files**********
MBES files verified
POS files verified
SVP RAW files verified
SVP files verified
ACQ LOG files verified
**********Verifying Transferred Files Complete**********

*******Charlene 2.0.1 Settings*******
Process MBES - RP at Trans (FA/RA), Transfer and Process Data, Launch
NAD83, UTM Zone 10N
Using NOAA_2017.ini and NOAA Support files
Project: OPR-OXXX-FA-17
Sheet: HXXXXX
Vessel: FA_2805_EM2040
Day: 2017-142
To (processed): N:\CSDL\HSTP\Test Data\Charlene\TO\\OPR-OXXX-FA-17\HXXXXX\Data\P
rocessed\Sonar_Data\HDCS_Data
To (raw): N:\CSDL\HSTP\Test Data\Charlene\TORAW\\OPR-OXXX-FA-17\HXXXXX\Data\Prep
rocess\MBES\FA_2805_EM2040\2017-142
---------------------------------
HVF: N:\CSDL\HSTP\Test Data\Charlene\OPR-OXXX-FA-17\VesselConfig\FA_2805_EM2040.
hvf
From: N:\CSDL\HSTP\Test Data\Charlene\OPR-OXXX-FA-17\HXXXXX\Data\MBES\FA_2805_EM
2040\2017-142
Tides: TCARI File - Observed
TCARI File: N:\CSDL\HSTP\Test Data\Charlene\OPR-OXXX-FA-17\Water_Levels\Prelimin
ary\N395RA2009.tc
POSMV: Create RTX SBET-Zephyr2
POS Files: N:\CSDL\HSTP\Test Data\Charlene\TORAW\\OPR-OXXX-FA-17\HXXXXX\Data\Pre
process\Positioning\FA_2805_EM2040\2017-142\*.*
SBET File(s): [u'E:\\BatchHydroData\\RA_H12850\\H12850\\Data\\2016_265_S221_A_SB
ET.out']
SMRMSG File(s): [u'E:\\BatchHydroData\\RA_H12850\\H12850\\Data\\2016_265_S221_A_
RMS.out']
SVC: Nearest in Distance in 4 Hours w/ Delayed Heave
GPS Tides: VDatum w/ Delayed Heave
```


File Size (MB) per Charlene Run
Size in MB
Charlene Run Number
MBES Size per File
SSS Size per File
POS Size per File
0
2000
4000
6000
8000
10000
12000
14000
1
11
21
31
41
51
61
71
81
91
101
111
121
131
141
151
161
171
181
191
201
211
221
231
241
251
261
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401
411
421
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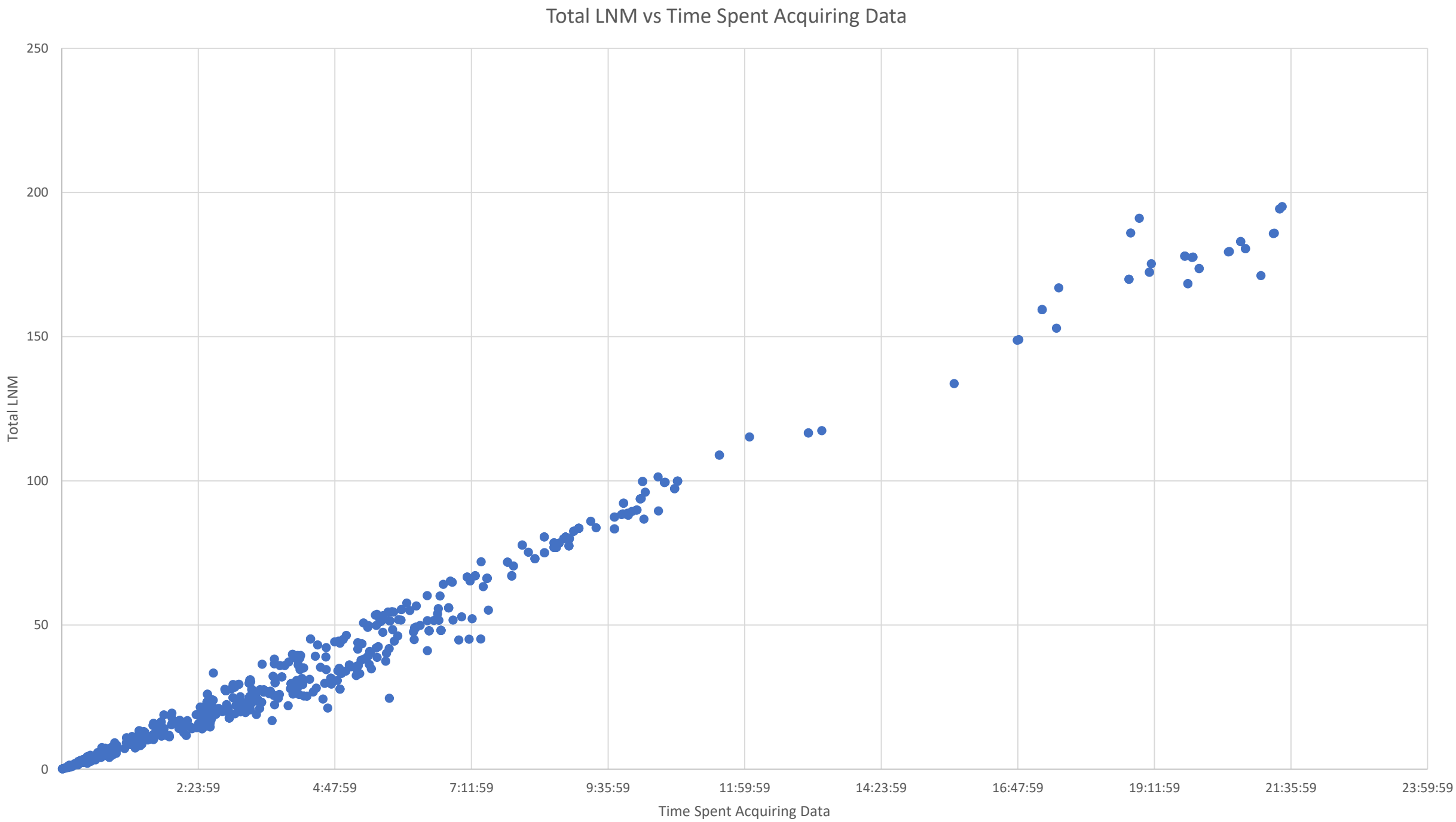
451
461
471
481
491
501
511
521
531
541
551
561
571
581
591
601
611
621
631
641
651


Total LNM vs Time Spent Acquiring Data
250
200
150
100
50
0
Total LNM
2:23:59
4:47:59
7:11:59
9:35:59
11:59:59
14:23:59
16:47:59
19:11:59
21:35:59
23:59:59
Time Spent Acquiring Data