SR-Lite Software Task Template

Version: 1.0.0

# Overview

SRLite refers to an algorithm to estimate surface reflectance (SR) of multispectral very high resolution (VHR) input (eg, Maxar). The SRLite workflow (Figure 1) is formalized in containerized code that returns SR estimates for VHR imagery (including WorldView-2/3/4 and GeoEye-1) at 2 m spatial resolution from input top-of-atmosphere (TOA) reflectance estimates and spatially and temporally coincident reference Landsat estimates of SR. Results are derived per-band using a linear model where SR = m(TOA) + b, and returned as Cloud Optimized GeoTIFFs. Version 1 of SRLite uses the continuous change detection and classification (CCDC) algorithm (Zhu and Woodcock 2014) to generate modeled reference SR for the day corresponding to the input VHR dataset.

Text

Description automatically generated

Figure 1. The SRLite workflow models land surface reflectance using cloud-masked input top-of-atmosphere VHR reflectance and coincident reference surface reflectance estimates from Landsat. This workflow is run in containerized code to produce 2 m Cloud-Optimized GeoTIFFs.

**Dependencies (list software packages):**

SR-Lite depends on the following linux packages, all available from pip3 and apt-get. The excerpt below is taken directly from the definition file (*https://github.com/nasa-nccs-hpda/srlite/blob/main/srlite/container/srlite\_1.0.0.def*) that was used to build the development container. This can be used as the definition for the Prod SR-Lite container.

# System Dependencies

#-------------------------------------------------------------------------------

apt-get update && DEBIAN\_FRONTEND=noninteractive apt-get -y dist-upgrade && \

DEBIAN\_FRONTEND=noninteractive apt-get install -y --no-install-recommends \

python3-tk tk-dev libgdbm-dev libc6-dev libbz2-dev \

libffi-dev zlib1g-dev liblzma-dev libgirepository1.0-dev libcairo2-dev \

pkg-config python3-dev gir1.2-gtk-3.0 && \

DEBIAN\_FRONTEND=noninteractive apt-get -y autoremove && \

rm -rf /var/lib/apt/lists/\* /var/cache/apt

#-------------------------------------------------------------------------------

# SRLITE Git Dependencies

#-------------------------------------------------------------------------------

pip3 install --upgrade **pygeotools # Utilities to warp and re-project images**

pip3 install --upgrade **plotnine # Plotting tools for scatter plots, etc.**

pip3 install --upgrade **pylr2 # RMA regression**

mkdir -p ${PROJECT\_PATH}

# RECOMMENDED LOCATION - CURRENTLY INCLUDED IN CORE

git clone --single-branch --branch srlite-1.0.0 https://github.com/nasa-nccs-hpda/srlite.git \

${PROJECT\_PATH}/srlite

chmod a+rwx -R ${PROJECT\_PATH}/\*

# Repository

* https://github.com/nasa-nccs-hpda/srlite

# Branch Name

* Main
  + Tag = srlite\_1.0.0

# Container

* /explore/nobackup/people/iluser/ilab\_containers/dev/srlite\_1.0.0-dev.sif
* *NOTE: This development container was generated from this definition file:* 
  + *https://github.com/nasa-nccs-hpda/srlite/blob/main/srlite/container/srlite\_1.0.0.def*

# Software Design

(base) gtamkin@ilab209:/explore/nobackup/people/gtamkin/dev/srlite/src$ **ls -ltR . |more**

./srlite/**view**:

-rw-rw-r--. 1 gtamkin ilab 7683 Nov 11 21:13 SrliteWorkflowCommandLineView.py

./srlite/**model**:

-rw-rw-r--. 1 gtamkin ilab 57418 Nov 11 21:13 RasterLib.py

-rw-rw-r--. 1 gtamkin ilab 9524 Nov 11 21:13 PlotLib.py

-rw-rw-r--. 1 gtamkin ilab 23042 Nov 11 21:13 Context.py

# Tests

*List the unit or application tests that validate the code in this task.*

## Application Tests:

SRLite runs in a container, on a per-TOA basis, and requires 3 inputs:

1. VHR TOA geotiff
2. VHR TOA cloudmask geotiff
3. Reference surface reflectance multispectral geotiff

The SRLite *Python* application is called using a *Singularity* container from a Linux terminal with the following general format:

|  |
| --- |
| *$ singularity run -B <local path(s) to mount> <container name> python <python application> <runtime parameters>* |

### **Mandatory runtime parameters:**

* -toa\_dir - directory containing TOA 2m (default suffix = toa.tif)
* -target\_dir - directory container model data (default suffix = ccdc.tif)
* -cloudmask\_dir - directory containing cloudmasks (default suffix = toa.cloudmask.v1.2.tif)
* -bandpairs - list of band pairs to be processed [(model band name B, TOA band name B), (model band name R, TOA band name R) …]
* -output\_dir - directory containing results for this specific invocation

### **Optional runtime parameters:**

* --regressor - Choose regression algorithm [‘rma’,'simple', 'robust']
* --cloudmask - Apply cloud mask values to common mask
* --csv - Generate comma-separated values (CSV) for output statistics
* --band8 - Create simulated bands for missing CCDC bands (C/Y/RE/N2)
* --xres - Specify target X resolution (default = 30.0).
* --yres - Specify target Y resolution (default = 30.0).
* --toa\_suffix - Specify TOA file suffix (default = -toa.tif').
* --target\_suffix - Specify TARGET file suffix (default = -ccdc.tif').
* --cloudmask\_suffix - Specify CLOUDMASK file suffix (default = -toa.cloudmask.v1.2.tif').
* --clean - Overwrite previous output
* --qfmask - Apply quality flag values to common mask
* --qfmasklist - Choose quality flag values to mask [default='0,3,4']
* --thmask - Apply threshold mask values to common mask
* --thrange - Choose quality flag values to mask [default='-100, 2000']
* --pmask - suppress negative values from common mask
* --debug - [0=None, 1=trace]

Sample Invocation:

|  |
| --- |
| ***$ singularity run -B /explore/nobackup srlite\_1.0.1-dev.sif python /usr/local/ilab/srlite/view/SrliteWorkflowCommandLineView.py -toa\_dir /explore/nobackup/projects/ilab/data/srlite/toa/Whitesands -target\_dir /explore/nobackup/people/mmacande/srlite/srlite\_shared/ccdc\_v20221001/Whitesands  -cloudmask\_dir /explore/nobackup/projects/ilab/projects/CloudMask/products/srlite/v1.2/Whitesands  -bandpairs "[['blue\_ccdc', 'BAND-B'], ['green\_ccdc', 'BAND-G'], ['red\_ccdc', 'BAND-R'], ['nir\_ccdc', 'BAND-N']]"  -output\_dir /explore/nobackup/projects/ilab/data/srlite/products/srlite\_1.0.0/Whitesands  --regressor rma --debug 1 --pmask --cloudmask --clean --csv --band8*** |

The output data is delivered to a directory specified in the program call (-output\_dir). There are two outputs:

1. The image data is output in COG format with the following naming convention:  <SENSOR>\_<YYYYMMDD>\_<CATID>-sr-02m.tif.

The regression results are output as *.csv* files (see Table 1). They contain linear model (slope and intercept) coefficients along with SR-Lite performance statistics.

# 

See Appendix A for sample input/output.

# Files

Text

Description automatically generated

**Appendix A. SR-Lite CLI Application Invocation**

1. Run SR-Lite for baseline Whitesands scene on ADAPT using all three regressors (rma, huber, and ols).

(ilab-gt-dashboard) gtamkin@ilab207:/explore/nobackup/projects/ilab/data/srlite/products$ **singularity run -B /panfs/ccds02/nobackup/people/iluser/projects/srlite,/panfs/ccds02/nobackup/people/gtamkin,/home/gtamkin/.conda/envs,/run,/explore/nobackup/people/gtamkin/dev,/explore/nobackup/projects/ilab/data/srlite/products /explore/nobackup/people/iluser/ilab\_containers/dev/srlite\_1.0.0-dev.sif python /usr/local/ilab/srlite/srlite/view/SrliteWorkflowCommandLineView.py -toa\_dir /panfs/ccds02/nobackup/people/iluser/projects/srlite/test/input/baseline -target\_dir /panfs/ccds02/nobackup/people/iluser/projects/srlite/test/input/baseline -cloudmask\_dir /panfs/ccds02/nobackup/people/iluser/projects/srlite/test/input/baseline -bandpairs "[['blue\_ccdc', 'BAND-B'], ['green\_ccdc', 'BAND-G'], ['red\_ccdc', 'BAND-R'], ['nir\_ccdc', 'BAND-N'], ['blue\_ccdc', 'BAND-C'], ['green\_ccdc', 'BAND-Y'], ['red\_ccdc', 'BAND-RE'], ['nir\_ccdc', 'BAND-N2']]" -output\_dir /explore/nobackup/projects/ilab/data/srlite/products/srlite\_1.0.0-baseline/srlite\_1.0.0-ADAPT-cli/Whitesands/srlite-1.0.0-rma-baseline --regressor rma --debug 1 --pmask --cloudmask --clean --csv --band8**

(ilab-gt-dashboard) gtamkin@ilab207:/explore/nobackup/projects/ilab/data/srlite/products$ **singularity run -B /panfs/ccds02/nobackup/people/iluser/projects/srlite,/panfs/ccds02/nobackup/people/gtamkin,/home/gtamkin/.conda/envs,/run,/explore/nobackup/people/gtamkin/dev,/explore/nobackup/projects/ilab/data/srlite/products /explore/nobackup/people/iluser/ilab\_containers/dev/srlite\_1.0.0-dev.sif python /usr/local/ilab/srlite/srlite/view/SrliteWorkflowCommandLineView.py -toa\_dir /panfs/ccds02/nobackup/people/iluser/projects/srlite/test/input/baseline -target\_dir /panfs/ccds02/nobackup/people/iluser/projects/srlite/test/input/baseline -cloudmask\_dir /panfs/ccds02/nobackup/people/iluser/projects/srlite/test/input/baseline -bandpairs "[['blue\_ccdc', 'BAND-B'], ['green\_ccdc', 'BAND-G'], ['red\_ccdc', 'BAND-R'], ['nir\_ccdc', 'BAND-N'], ['blue\_ccdc', 'BAND-C'], ['green\_ccdc', 'BAND-Y'], ['red\_ccdc', 'BAND-RE'], ['nir\_ccdc', 'BAND-N2']]" -output\_dir /explore/nobackup/projects/ilab/data/srlite/products/srlite\_1.0.0-baseline/srlite\_1.0.0-ADAPT-cli/Whitesands/srlite-1.0.0-huber-baseline --regressor huber --debug 1 --pmask --cloudmask --clean --csv --band8**

(ilab-gt-dashboard) gtamkin@ilab207:/explore/nobackup/projects/ilab/data/srlite/products$ **singularity run -B /panfs/ccds02/nobackup/people/iluser/projects/srlite,/panfs/ccds02/nobackup/people/gtamkin,/home/gtamkin/.conda/envs,/run,/explore/nobackup/people/gtamkin/dev,/explore/nobackup/projects/ilab/data/srlite/products /explore/nobackup/people/iluser/ilab\_containers/dev/srlite\_1.0.0-dev.sif python /usr/local/ilab/srlite/srlite/view/SrliteWorkflowCommandLineView.py -toa\_dir /panfs/ccds02/nobackup/people/iluser/projects/srlite/test/input/baseline -target\_dir /panfs/ccds02/nobackup/people/iluser/projects/srlite/test/input/baseline -cloudmask\_dir /panfs/ccds02/nobackup/people/iluser/projects/srlite/test/input/baseline -bandpairs "[['blue\_ccdc', 'BAND-B'], ['green\_ccdc', 'BAND-G'], ['red\_ccdc', 'BAND-R'], ['nir\_ccdc', 'BAND-N'], ['blue\_ccdc', 'BAND-C'], ['green\_ccdc', 'BAND-Y'], ['red\_ccdc', 'BAND-RE'], ['nir\_ccdc', 'BAND-N2']]" -output\_dir /explore/nobackup/projects/ilab/data/srlite/products/srlite\_1.0.0-baseline/srlite\_1.0.0-ADAPT-cli/Whitesands/srlite-1.0.0-ols-baseline --regressor ols --debug 1 --pmask --cloudmask --clean --csv --band8**

1. Compare AWS and Adapt results - All 3 equivalent (AWS, ADAPT CLI, and ADAPT Pycharm unit tests) for Whitesands images via diff. Some CSV values differ for *huber* regressor at the 5th decimal point [assume due to differences in Python versions, etc]

(ilab-gt-dashboard) gtamkin@ilab207:/explore/nobackup/projects/ilab/data/srlite/products$ **ls -alRt srlite\_1.0.0-baseline/ | grep Whitesands**

dr-xr-sr-x. 5 gtamkin ilab 4096 Nov 11 22:21 Whitesands

srlite\_1.0.0-baseline/srlite\_1.0.0-ADAPT-cli/Whitesands:

srlite\_1.0.0-baseline/srlite\_1.0.0-ADAPT-cli/Whitesands/srlite-1.0.0-huber-baseline:

srlite\_1.0.0-baseline/srlite\_1.0.0-ADAPT-cli/Whitesands/srlite-1.0.0-huber-baseline/csv:

srlite\_1.0.0-baseline/srlite\_1.0.0-ADAPT-cli/Whitesands/srlite-1.0.0-rma-baseline:

srlite\_1.0.0-baseline/srlite\_1.0.0-ADAPT-cli/Whitesands/srlite-1.0.0-rma-baseline/csv:

srlite\_1.0.0-baseline/srlite\_1.0.0-ADAPT-cli/Whitesands/srlite-1.0.0-ols-baseline:

srlite\_1.0.0-baseline/srlite\_1.0.0-ADAPT-cli/Whitesands/srlite-1.0.0-ols-baseline/csv:

dr-xr-sr-x. 5 gtamkin ilab 4096 Nov 11 22:02 Whitesands

srlite\_1.0.0-baseline/srlite\_1.0.0-ADAPT/Whitesands:

srlite\_1.0.0-baseline/srlite\_1.0.0-ADAPT/Whitesands/srlite-1.0.0-ols-baseline:

srlite\_1.0.0-baseline/srlite\_1.0.0-ADAPT/Whitesands/srlite-1.0.0-ols-baseline/csv:

srlite\_1.0.0-baseline/srlite\_1.0.0-ADAPT/Whitesands/srlite-1.0.0-huber-baseline:

srlite\_1.0.0-baseline/srlite\_1.0.0-ADAPT/Whitesands/srlite-1.0.0-huber-baseline/csv:

srlite\_1.0.0-baseline/srlite\_1.0.0-ADAPT/Whitesands/srlite-1.0.0-rma-baseline:

srlite\_1.0.0-baseline/srlite\_1.0.0-ADAPT/Whitesands/srlite-1.0.0-rma-baseline/csv:

dr-xr-sr-x. 5 gtamkin ilab 4096 Nov 11 21:42 Whitesands

srlite\_1.0.0-baseline/srlite\_1.0.0-AWS/Whitesands:

srlite\_1.0.0-baseline/srlite\_1.0.0-AWS/Whitesands/srlite-1.0.0-rma-baseline:

srlite\_1.0.0-baseline/srlite\_1.0.0-AWS/Whitesands/srlite-1.0.0-rma-baseline/csv:

srlite\_1.0.0-baseline/srlite\_1.0.0-AWS/Whitesands/srlite-1.0.0-huber-baseline:

srlite\_1.0.0-baseline/srlite\_1.0.0-AWS/Whitesands/srlite-1.0.0-huber-baseline/csv:

srlite\_1.0.0-baseline/srlite\_1.0.0-AWS/Whitesands/srlite-1.0.0-ols-baseline:

srlite\_1.0.0-baseline/srlite\_1.0.0-AWS/Whitesands/srlite-1.0.0-ols-baseline/csv:

(ilab-gt-dashboard) gtamkin@ilab207:/explore/nobackup/projects/ilab/data/srlite/products/srlite\_1.0.0-baseline$ **diff -r srlite\_1.0.0-ADAPT srlite\_1.0.0-ADAPT-cli**

(ilab-gt-dashboard) gtamkin@ilab207:/explore/nobackup/projects/ilab/data/srlite/products/srlite\_1.0.0-baseline$ **diff srlite\_1.0.0/Whitesands/srlite-1.0.0-rma-baseline/WV02\_20150911\_M1BS\_1030010049148A00-sr-02m.tif srlite\_1.0.0-AWS/Whitesands/srlite-1.0.0-rma-baseline/WV02\_20150911\_M1BS\_1030010049148A00-sr-02m.tif**

(ilab-gt-dashboard) gtamkin@ilab207:/explore/nobackup/projects/ilab/data/srlite/products/srlite\_1.0.0-baseline$ **diff srlite\_1.0.0/Whitesands/srlite-1.0.0-rma-baseline/WV02\_20150911\_M1BS\_1030010049148A00-sr-02m.tif srlite\_1.0.0-AWS/Whitesands/srlite-1.0.0-rma-baseline/WV02\_20150911\_M1BS\_1030010049148A00-sr-02m.tif**

(ilab-gt-dashboard) gtamkin@ilab207:/explore/nobackup/projects/ilab/data/srlite/products/srlite\_1.0.0-baseline$ **diff /explore/nobackup/projects/ilab/data/srlite/products/srlite\_1.0.0-ADAPT/Whitesands/srlite-1.0.0-rma-baseline/WV02\_20150911\_M1BS\_1030010049148A00-sr-02m.tif** **/explore/nobackup/projects/ilab/data/srlite/products/srlite\_1.0.0-AWS/Whitesands/srlite-1.0.0-rma-baseline/WV02\_20150911\_M1BS\_1030010049148A00-sr-02m.tif**

(ilab-gt-dashboard) gtamkin@ilab207:/explore/nobackup/projects/ilab/data/srlite/products/srlite\_1.0.0-baseline$ **diff -r /explore/nobackup/projects/ilab/data/srlite/products/srlite\_1.0.0-ADAPT/Whitesands/srlite-1.0.0-rma-baseline/WV02\_20150911\_M1BS\_1030010049148A00-sr-02m.tif /explore/nobackup/projects/ilab/data/srlite/products/srlite\_1.0.0-AWS/Whitesands/srlite-1.0.0-rma-baseline/WV02\_20150911\_M1BS\_1030010049148A00-sr-02m.tif**

(ilab-gt-dashboard) gtamkin@ilab207:/explore/nobackup/projects/ilab/data/srlite/products/srlite\_1.0.0-baseline$ **diff -r /explore/nobackup/projects/ilab/data/srlite/products/srlite\_1.0.0-ADAPT/Whitesands/srlite-1.0.0-rma-baseline /explore/nobackup/projects/ilab/data/srlite/products/srlite\_1.0.0-AWS/Whitesands/srlite-1.0.0-rma-baseline**

Only in /explore/nobackup/projects/ilab/data/srlite/products/srlite\_1.0.0-AWS/Whitesands/srlite-1.0.0-rma-baseline: WV02\_20150911\_M1BS\_1030010049148A00-sr-02m.tif.aux.xml

(ilab-gt-dashboard) gtamkin@ilab207:/explore/nobackup/projects/ilab/data/srlite/products/srlite\_1.0.0-baseline$ **diff -r /explore/nobackup/projects/ilab/data/srlite/products/srlite\_1.0.0-ADAPT/Whitesands/srlite-1.0.0-huber-baseline/ /explore/nobackup/projects/ilab/data/srlite/products/srlite\_1.0.0-AWS/Whitesands/srlite-1.0.0-huber-baseline**

(ilab-gt-dashboard) gtamkin@ilab207:/explore/nobackup/projects/ilab/data/srlite/products/srlite\_1.0.0-baseline$ **diff -r /explore/nobackup/projects/ilab/data/srlite/products/srlite\_1.0.0-ADAPT/Whitesands/srlite-1.0.0-huber-baseline/csv/WV02\_20150911\_M1BS\_1030010049148A00\_huber\_SRLite\_statistics.csv /explore/nobackup/projects/ilab/data/srlite/products/srlite\_1.0.0-AWS/Whitesands/srlite-1.0.0-huber-baseline/csv/WV02\_20150911\_M1BS\_1030010049148A00\_huber\_SRLite\_statistics.csv**

2,9c2,9

< 0,0,Blue,huber,-808.4643686531675,1.0991208841469138,0.947090836854504,0.9477888525156424,0.004102127105063243,0.02477118205158064,0.07220246401452984,0.01679999999999998,0.001275510245537571,0.03571428629466885,0.35648282456928354,0.35238069746422024,0.06948772940606647,0.10018515292516615

< 1,0,Green,huber,-392.0181754030924,1.1020325873401797,0.9750191696160853,0.9750789721093999,0.0012426058700558394,0.018748168726675875,0.04792626510347837,0.013700000000000045,0.0006449920789734889,0.02539669425286466,0.4192710431465186,0.4180284372764626,0.044716106759903604,0.06057345163231204

< 2,0,Red,huber,-222.57589592178533,1.0382918070241236,0.9607756240997758,0.9612661327918026,0.003874832398981918,0.023808604350695078,0.052463199468964834,0.01639999999999997,0.0012006465557089703,0.034650347122488837,0.48157315195271144,0.47769831955372954,0.04943922694642451,0.07195240636232844

< 3,0,NIR,huber,17.021265079418086,1.042544064363994,0.9686023571278716,0.9687604761997343,0.0019621385279944997,0.019908998608176822,0.039164027436235004,0.014000000000000012,0.0007644905475243847,0.027649422191510346,0.5345345726659236,0.5325724341379291,0.037245483503308696,0.05172616254475804

< 4,0,Coastal,huber,-808.**46436**86531675,1.0991208841469138,NA,NA,NA,NA,NA,NA,NA,NA,NA,NA,NA,NA

< 5,0,Yellow,huber,-302.7220941164436,1.0684411961136182,NA,NA,NA,NA,NA,NA,NA,NA,NA,NA,NA,NA

< 6,0,RedEdge,huber,-131.76857190232923,1.0399034125559345,NA,NA,NA,NA,NA,NA,NA,NA,NA,NA,NA,NA

< 7,0,NIR2,huber,17.021265079418086,1.042544064363994,NA,NA,NA,NA,NA,NA,NA,NA,NA,NA,NA,NA

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> 0,0,Blue,huber,-808.4643702671686,1.0991208844913365,0.947090836854504,0.9477888525156424,0.004102127105063243,0.02477118205158064,0.07220246401452984,0.01679999999999998,0.001275510245537571,0.03571428629466885,0.35648282456928354,0.35238069746422024,0.06948772940606647,0.10018515292516615

> 1,0,Green,huber,-392.01817517902026,1.1020325872756263,0.9750191696160853,0.9750789721093999,0.0012426058700558394,0.018748168726675875,0.04792626510347837,0.013700000000000045,0.0006449920789734889,0.02539669425286466,0.4192710431465186,0.4180284372764626,0.044716106759903604,0.06057345163231204

> 2,0,Red,huber,-222.57589423614692,1.0382918066799893,0.9607756240997758,0.9612661327918026,0.003874832398981918,0.023808604350695078,0.052463199468964834,0.01639999999999997,0.0012006465557089703,0.034650347122488837,0.48157315195271144,0.47769831955372954,0.04943922694642451,0.07195240636232844

> 3,0,NIR,huber,17.021265079391217,1.0425440643639938,0.9686023571278716,0.9687604761997343,0.0019621385279944997,0.019908998608176822,0.039164027436235004,0.014000000000000012,0.0007644905475243847,0.027649422191510346,0.5345345726659236,0.5325724341379291,0.037245483503308696,0.05172616254475804

> 4,0,Coastal,huber,-808.**46437**02671686,1.0991208844913365,NA,NA,NA,NA,NA,NA,NA,NA,NA,NA,NA,NA

> 5,0,Yellow,huber,-302.722093122126,1.0684411959017255,NA,NA,NA,NA,NA,NA,NA,NA,NA,NA,NA,NA

> 6,0,RedEdge,huber,-131.76857085555798,1.039903412342227,NA,NA,NA,NA,NA,NA,NA,NA,NA,NA,NA,NA

> 7,0,NIR2,huber,17.021265079391217,1.0425440643639938,NA,NA,NA,NA,NA,NA,NA,NA,NA,NA,NA,NA

Only in /explore/nobackup/projects/ilab/data/srlite/products/srlite\_1.0.0-AWS/Whitesands/srlite-1.0.0-huber-baseline: WV02\_20150911\_M1BS\_1030010049148A00-sr-02m.tif.aux.xml

(ilab-gt-dashboard) gtamkin@ilab207:/explore/nobackup/projects/ilab/data/srlite/products/srlite\_1.0.0-baseline$ **diff -r /explore/nobackup/projects/ilab/data/srlite/products/srlite\_1.0.0-ADAPT/Whitesands/srlite-1.0.0-ols-baseline/ /explore/nobackup/projects/ilab/data/srlite/products/srlite\_1.0.0-AWS/Whitesands/srlite-1.0.0-ols-baseline**

Only in /explore/nobackup/projects/ilab/data/srlite/products/srlite\_1.0.0-AWS/Whitesands/srlite-1.0.0-ols-baseline: WV02\_20150911\_M1BS\_1030010049148A00-sr-02m.tif.aux.xml