

# All Configuration Options

All options are to be placed into a YAML file provided as a command line argument at Station initialization time.

**experiment:** *<string value of experiment VO>*

**station:** *<string value denoting the name of this station>*

**station\_version:** *<string value denoting the version of SAM PyStation software>*

**sam\_base\_url:** *https://<SAMWeb server host FQDN>:8483/sam/<samweb instance name>/api*

**local\_db\_dir:** *<string value of path to local directory to contain the station state database>*

**schema\_mapping:** *<string value of path to the schema mapping JSON file>*

**stage\_locations:** *<list of strings denoting names of tape storage systems that may require prestaging>*

**state\_timeout:** *<integer value of the timeout for the stations knowledge of a files status (staged or not)>*

**location\_refresh\_period:** *<integer value denoting the interval at which file location knowledge will be refreshed>*

**process\_idle\_timeout:** *<integer value of the time before a consumer process with no activity will be marked idle>*

**poll\_staging\_file\_interval:** *<integer value of the interval at which files being staged from a stage\_location (above) will be polled for completion of the staging operation>*

**concurrent\_samweb\_requests:** *<integer value of the maximum number of simultaneous requests at a time to the SAMWeb instanced denoted via sam\_base\_url>*

**sam\_web\_registry\_url:** *<string value of the URI of the desired SAMWeb Registry (Default: http://samweb.fnal.gov:8480/sam\_web\_registry)>*

## authentication:

**x509-proxy:** *<string value of path to the X509 proxy to be used to authenticate (Most Preferred)>*

**x509-certificate:** *<string value of path to the X509 user certificate to be used to authenticate>*

**x509-ca-certificates:** *<string value of path to the directory containing CA certs (Default: /etc/grid-security/certificates)>*

## dcache:

**handler:** *<string value (http|dccp default: dccp) denoting which method to use to perform dCache operations>*

## monitoring:

**kafka\_cluster\_uris:** *<string of format "PLAINTEXT kafka://hostname:port, ..." denoting acceptable Kafka cluster hosts for delivery of monitoring messages>*

**kafka\_monitoring\_topic:** *<string value of name of the Kafka topic for monitoring messages to be published to>*

## logging:

**level:** *<string value of an appropriate logging level as documented in the Python logging module>*

**log\_dir:** *<string value of the path to the directory where log files are to be created>*

**console:** *<boolean value (True|False) denoting if log messages should also be published to stdout>*

## web\_server:

**listen\_host:** *<IP address of hosts to listen for connections from (Default 0.0.0.0)>*

**listen\_port:** *<integer value denoting the port that this station will listen for connections on>*

**external\_url:** *<string value of the form http://FQDN:listen\_port>*

**log\_http\_proxy:** *<boolean value (True|False) denoting if the true IP address of incoming requests through a proxy is to be logged>*

**projects:**

**location\_map\_file:** <string value of the path to the location map YAML file>  
**project\_idle\_timeout:** <integer value of the time before a project with no activity will be marked idle>  
**staged\_file\_limit:** <integer value of the base number of files to be prefetched at a time by a project (Can be modified to scale linearly with # of consumer processes with per\_process\_file\_stage\_limit)>  
**per\_process\_file\_stage\_limit:** <integer value of the number of extra files to prefetch for a project per consumer process started for a project>  
**metadata\_fetch\_limit:** <integer value of the maximum number of files to have their metadata fetched at any given time>

## Example Config

(Note: Not all values depicted here are actually sane for production usage)

**bjwhite\_test\_config.yaml**

```
experiment: samdev
station: bjwhite_python_station
sam_base_url: https://fermicloud091:8483/sam/sam_bjwhite/api

local_db_dir: /var/tmp/

schema_mapping: /cloud/login/bjwhite/dev/sam/test_env/sam_station_py36/sam-
station/bjwhite_test_file_schema_mapping.json
stage_locations: ['enstore', 'eos']
state_timeout: 10
location_refresh_period: 14400
poll_staging_file_interval: 10

dcache:
  handler: http

monitoring:
  kafka_cluster_uris: PLAINTEXT
kafka://lssrv03:9092,lssrv04:9092,lssrv05:9092
  kafka_monitoring_topic: 'ingest.sam.events'

logging:
  level: DEBUG
  log_dir: /cloud/login/bjwhite/dev/sam/test_env/sam_station_py36/sam-
station
  console: True

web_server:
  listen_port: 21000
  external_url: http://fermicloud172.fnal.gov:21000

projects:
  location_map_file:
/ccloud/login/bjwhite/dev/sam/test_env/sam_station_py36/sam-
station/bjwhite_test_location_map.yaml
  project_idle_timeout: 1800
```

per\_process\_file\_stage\_limit: 50