BRIAR Client Documentation

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Chapter 1

BRIAR Command Line Interface (CLI) and Client

Command Line Interface (CLI)

The command line interface provides a terminal based method of interacting with algorithms developed using the BRIAR API and unifies the commands given to the services into a set of universal commands shared across all projects developed using the API. It is the method of interfacing with any service built using the BRIAR framework as it shares the method calls assigned to the service and provides callable methods which invoke service functions. The client and the associated command line tools will be shared across all algorithms created with BRIAR and should not be modified, ensuring the Evaluation Harness and other sets of tests can be run across algorithms created by different sets of developers and generate comparable sets of results.

Like most command line toos, the command line interface can be scripted to act as part of a larger task. The client in briar_client.py (which the command line interface is an interface for) can also be imported into a python project

Usage

After running `setup.py`, the briar command line can be run by entering `python -m briar` anywhere. This will print a help statement showing the different functions made available by the command line tool.

Before running any of these functions, however, you will need to first start the provided example service, so it can reply to the commands. This is done by either directly calling the service python file `python service.py` or calling it as a module `python -m briar.service`. This will start the service, and it will run until you forcefully exit it.

You can get the status and version of the example service with `python -m briar status` and you should see the results printed by the client. Attempting to run any of the other functions with the example service in service.py will raise a "NotImplementedError".

More Details

The stubs and protobuf files which the client uses are detailed more thouroughly in the briar protobuf and stubs documentation

Chapter 2

Namespace Index

2.1 Packages

Here are the packages with brief descriptions (if available):

Chapter 3

Hierarchical Index

3.1 Class Hierarchy

This inheritance list is sorted roughly, but not completely, alphabetically:

Chapter 4

Class Index

4.1 Class List

Here are the classes, structs, unions and interfaces with brief descriptions:

Chapter 5

File Index

5.1 File List

Here is a list of all files with brief descriptions:

Chapter 6

Namespace Documentation

6.1 briar Namespace Reference

Namespaces

- __main__
- briar_cli
- briar_client
- briar_media
- cli
- functions
- grpc_json
- ibriar
- media
- media_converters
- sigset
- timing

Classes

- class Rect

Functions

- def dyn_import (name)
- def serve (serviceClass, options=None, serve_port=None)

  Initialize and run the BRIARService.

Variables

- string __version__ = '1.2.4'
- int DEFAULT_MAX_MESSAGE_SIZE = 64∗1024∗1024
- string DEFAULT_PORT = "0.0.0.0:50051"
- string DEFAULT_SERVE_PORT = '[::]:50051'

6.1.1 Function Documentation

6.1.1.1 dyn_import()

```
def briar.dyn_import (
              name )
```

6.1.1.2 serve()

```
def briar.serve (
              serviceClass,
              options = None,
              serve_port = None )
```

Initialize and run the BRIARService.

Runs until killed

Returns

:

6.1.2 Variable Documentation

6.1.2.1 __version__

```
string __version__ = '1.2.4'  [private]
```

6.1.2.2 DEFAULT_MAX_MESSAGE_SIZE

```
int DEFAULT_MAX_MESSAGE_SIZE = 64*1024*1024
```

6.1.2.3 DEFAULT_PORT

```
string DEFAULT_PORT = "0.0.0.0:50051"
```

6.1.2.4 DEFAULT_SERVE_PORT

```
string DEFAULT_SERVE_PORT = '[::]:50051'
```

6.2 briar.__main__ Namespace Reference

6.3 briar.briar_cli Namespace Reference

Functions

- def briar_command_line ()

  Entry point for the CLI - switches on the first command line argument (such as 'status', 'detect', etc) and builds the parser and help messages based upon the callback defined in COMMANDS.
- def briar_database_command_line ()

  Entry point for the Database CLI - switches on the second command line argument (such as 'delete', 'merge', etc) and builds the parser and help messages based upon the callback defined in COMMANDS.
- def briar_test_command_line ()

  Entry point for the Test CLI - switches on the second command line argument (such as 'delete', 'merge', etc) and builds the parser and help messages based upon the callback defined in COMMANDS.
- def incomplete ()

Variables

- dictionary COMMANDS
- dictionary DATABASE_COMMANDS
- string DETECTION_FILE_EXT = ".detection"
- int FACE_COUNT = 0
- string MATCHES_FILE_EXT = '.matches'
- string TEMPLATE_FILE_EXT = '.template'

6.3.1 Detailed Description

Created on 2021 at Oak Ridge National Laboratory

The Briar Command Line Interface (Briar CLI) provides a universal method to interface with different gRPC created with the compiled protobuf stubs. It provides a series of common functions to run detection and identification on faces, whole bodies, and walking gaits, as well as various database enrollment and search functions. Briar does not implement these detect, extract, enroll, etc functions itself, but rather acts as a means for connecting with servers (outlined with service.py)

Author

: qdb

6.3.2 Function Documentation

6.3.2.1 briar_command_line()

```
def briar.briar_cli.briar_command_line ( )
```

Entry point for the CLI - switches on the first command line argument (such as 'status', 'detect', etc) and builds the parser and help messages based upon the callback defined in COMMANDS.

Each 'command' should be treated as a 'switch' which defines additional command line arguments.

Returns

:

6.3.2.2 briar_database_command_line()

```
def briar.briar_cli.briar_database_command_line ( )
```

Entry point for the Database CLI - switches on the second command line argument (such as 'delete', 'merge', etc) and builds the parser and help messages based upon the callback defined in COMMANDS.

Each 'command' should be treated as a 'switch' which defines additional command line arguments.

Returns

:

6.3.2.3 briar_test_command_line()

```
def briar.briar_cli.briar_test_command_line ( )
```

Entry point for the Test CLI - switches on the second command line argument (such as 'delete', 'merge', etc) and builds the parser and help messages based upon the callback defined in COMMANDS.

Each 'command' should be treated as a 'switch' which defines additional command line arguments.

Returns

:

6.3.2.4 incomplete()

```
def briar.briar_cli.incomplete ( )
```

6.3.3 Variable Documentation

6.3.3.1 COMMANDS

dictionary COMMANDS

Initial value:

```
{
    '! annotate' : ['Run detection and annotation models and save the results.',incomplete],
    'detect' : ['Run detection on media files.',detect],
    'track' : ['Run tracking on media files (videos only).',track],
    'enhance' : ['Run tracking on media files (videos only).',enhance],
    'extract': ['Run feature extraction to generate templates or embeddings.', extract],
    'enroll' : ['Scan media files and enroll templates into a database.',enroll],
    'finalize' : ['Finalize a database.', database_finalize],
    '! template-fuse' : ['Fuse two templates into a single database entry.', incomplete],
     'search' : ['Search a database for an example identity.',search],
     'sigset-stats' : ['Convert a sigset to a csv file and compute statistics.', sigset_stats],
     'sigset-enroll' : ['Process a sigset and enroll in a database.', sigset_enroll],
     'status' : ['Connects to the server and displays version and status information.',status],
     '! test-verify': ['Compare two databases and create a verification score matrix.',incomplete],
     '! test-search': ['Compare two databases and create search results.',incomplete],
     'database' : ['Base call for database-related functions',briar_database_command_line],
     'vis' : ['Visualize saved results output from API Calls',viz],
     'test' : ['Base call for API test functions',briar_test_command_line]
     }
```

6.3.3.2 DATABASE_COMMANDS

dictionary DATABASE_COMMANDS

Initial value:

```
{
    '!create': ['Create and initialize a new database.',incomplete],
    'delete': ['Delete a database from the service.',database_delete],
    'rename': ['Rename a database from the service.',database_rename],
    '!insert': ['Insert templates directly into a database.',incomplete],
    '!load': ['Load database onto the server.',incomplete],
    'list': ['List the names of the databases on this service.',database_list],
    'ls': ['List the names of the databases on this service.',database_list],
    'info': ['List information about a given database.', database_info],
     'list-entries': ['List the entries contained within a database stored on this
     service.',database_list_entries],
    '!remove': ['Remove entries from the database',incomplete],
    'merge': ['Merge a list of existing databases together',database_merge],
    }
```

6.3.3.3 DETECTION_FILE_EXT

string DETECTION_FILE_EXT = ".detection"

6.3.3.4 FACE_COUNT

int FACE_COUNT = 0

6.3.3.5 MATCHES_FILE_EXT

```
string MATCHES_FILE_EXT = '.matches'
```

6.3.3.6 TEMPLATE_FILE_EXT

```
string TEMPLATE_FILE_EXT = '.template'
```

6.4 briar.briar_client Namespace Reference

Classes

- class BriarClient

  Provide a client to a BRIAR service.

6.4.1 Detailed Description

The BRIAR API is divided into two primary parts, the client and the service. This, the client, is the part which interfaces with grpc servers based off briar.service.BRIARService using the BRIARServiceStub. The service stub contains the same methods contained in the service which, when invoked with the appropriate request, sends said request to the service which the client is connected to, and accepts the reply containing processed detections, extracts, templates, etc...

The BRIAR client is designed to serve as a unified interface with gRPC services which are designed after BRI↩ ARService and implement various performer algorithms for face and body detection/extraction. From a performer standpoint, The BRIAR client can be used as either part of the command line tools, or invoked alone as a module

6.5 briar.briar_media Namespace Reference

Classes

- class BriarMedia
- class MediaStream

Functions

- def briar_media_from_pb2 (pb2_object)
- def briar_media_to_pb2 (media)
- def load_media_from_folder (folder_path, recursive=False)
- def load_media_from_image (image_path)
- def load_media_from_numpy (numpy_array)

6.5.1 Detailed Description

Defines a media class which acts as a wrapper for image and video files.

6.5.2 Function Documentation

6.5.2.1 briar_media_from_pb2()

```
def briar.briar_media.briar_media_from_pb2 (
              pb2_object )
```

6.5.2.2 briar_media_to_pb2()

```
def briar.briar_media.briar_media_to_pb2 (
              media )
```

6.5.2.3 load_media_from_folder()

```
def briar.briar_media.load_media_from_folder (
              folder_path,
              recursive = False )
```

6.5.2.4 load_media_from_image()

```
def briar.briar_media.load_media_from_image (
              image_path )
```

6.5.2.5 load_media_from_numpy()

```
def briar.briar_media.load_media_from_numpy (
              numpy_array )
```

6.6 briar.cli Namespace Reference

Namespaces

- annotate
- connection
- database
- detect
- enhance
- enroll
- extract
- finalize
- media
- search
- sigset
- status
- test
- track
- viz

6.6.1 Detailed Description

The modules contained in the CLI package each contain a function (detect, extract, enroll, etc.) which is a command within the broader CLI toolkit along with the assorted helper functions.

The briar_cli file has each of these important functions mapped in a dictionary which accesses them based off of user commands. The module functions then add additional command line options which can be parsed into options or displayed as part of a help message. From there, the module functions will connect to the specified service and send it messages and receive replies based off of the arguments passed in through the command line.

6.7 briar.cli.annotate Namespace Reference

Functions

- def annotate ()

6.7.1 Function Documentation

6.7.1.1 annotate()

```
def briar.cli.annotate.annotate ( )
```

6.8 briar.cli.connection Namespace Reference

Functions

- def addConnectionOptions (parser)

  Accumulatively add options for connecting to the Briar API service.

Variables

- int DEFAULT_MAX_ASYNC = 8
- int DEFAULT_MAX_MESSAGE_SIZE = 64∗1024∗1024∗8

6.8.1 Function Documentation

6.8.1.1 addConnectionOptions()

```
def briar.cli.connection.addConnectionOptions (
              parser )
```

Accumulatively add options for connecting to the Briar API service.

Modifiers the parser in plase

Parameters

parser	optparse.OptionParser: A parser to modify in place by adding connection options

6.8.2 Variable Documentation

6.8.2.1 DEFAULT_MAX_ASYNC

```
int DEFAULT_MAX_ASYNC = 8
```

6.8.2.2 DEFAULT_MAX_MESSAGE_SIZE

```
int DEFAULT_MAX_MESSAGE_SIZE = 64∗1024∗1024∗8
```

6.9 briar.cli.database Namespace Reference

Functions

- def database_delete ()
- def database_info ()
- def database_list ()
- def database_list_entries ()
- def database_merge ()
- def database_rename ()
- def database_retrieve ()
- def db_no_exist (name)
- def parseDatabaseDeleteOptions ()

  Generate options for Deleting a pre-existing database and parse command line arguments into API call.
- def parseDatabaseInfoOptions ()

  Generate options for getting information about a pre-existing database and parse command line arguments into an API call.
- def parseDatabaseListEntriesOptions ()

  Generate options for Listing entries within a pre-existing database and parse command line arguments into an API call.
- def parseDatabaseListOptions ()

  Generate options for listing all pre-existing databases and parse command line arguments into them.
- def parseDatabaseMergeOptions ()

  Generate options for merging databases and parse command line arguments into the API call.
- def parseDatabaseRenameOptions ()

  Generate options for Renaming a pre-existing database to a new name and parse command line arguments into API call.
- def parseDatabaseRetrieveOptions ()

  Generate options for retrieving a pre-existing database and parse command line arguments API call.

6.9.1 Function Documentation

6.9.1.1 database_delete()

```
def briar.cli.database.database_delete ( )
```

```
delete a database
```

6.9.1.2 database_info()

```
def briar.cli.database.database_info ( )
```

```
list the information pertaining to a database
```

6.9.1.3 database_list()

```
def briar.cli.database.database_list ( )
```

list the names of the databases

6.9.1.4 database_list_entries()

```
def briar.cli.database.database_list_entries ( )
```

list the entries in a database

6.9.1.5 database_merge()

```
def briar.cli.database.database_merge ( )
```

Merge a set of databases

6.9.1.6 database_rename()

```
def briar.cli.database.database_rename ( )
```

rename a database

6.9.1.7 database_retrieve()

```
def briar.cli.database.database_retrieve ( )
```

list the entries in a database

6.9.1.8 db_no_exist()

```
def briar.cli.database.db_no_exist (
              name )
```

6.9.1.9 parseDatabaseDeleteOptions()

```
def briar.cli.database.parseDatabaseDeleteOptions ( )
```

Generate options for Deleting a pre-existing database and parse command line arguments into API call.

Returns

: 2 element Tuple of (optparse.Values, list) containing the parsed options and parameters respectively

6.9.1.10 parseDatabaseInfoOptions()

```
def briar.cli.database.parseDatabaseInfoOptions ( )
```

Generate options for getting information about a pre-existing database and parse command line arguments into an API call.

Returns

: 2 element Tuple of (optparse.Values, list) containing the parsed options and parameters respectively

6.9.1.11 parseDatabaseListEntriesOptions()

```
def briar.cli.database.parseDatabaseListEntriesOptions ( )
```

Generate options for Listing entries within a pre-existing database and parse command line arguments into an API call.

Returns

: 2 element Tuple of (optparse.Values, list) containing the parsed options and parameters respectively

6.9.1.12 parseDatabaseListOptions()

```
def briar.cli.database.parseDatabaseListOptions ( )
```

Generate options for listing all pre-existing databases and parse command line arguments into them.

Returns

: 2 element Tuple of (optparse.Values, list) containing the parsed options and parameters respectively

6.9.1.13 parseDatabaseMergeOptions()

```
def briar.cli.database.parseDatabaseMergeOptions ( )
```

Generate options for merging databases and parse command line arguments into the API call.

Returns

: 2 element Tuple of (optparse.Values, list) containing the parsed options and parameters respectively

6.9.1.14 parseDatabaseRenameOptions()

```
def briar.cli.database.parseDatabaseRenameOptions ( )
```

Generate options for Renaming a pre-existing database to a new name and parse command line arguments into API call.

Returns

: 2 element Tuple of (optparse.Values, list) containing the parsed options and parameters respectively

6.9.1.15 parseDatabaseRetrieveOptions()

```
def briar.cli.database.parseDatabaseRetrieveOptions ( )
```

Generate options for retrieving a pre-existing database and parse command line arguments API call.

Returns

: 2 element Tuple of (optparse.Values, list) containing the parsed options and parameters respectively

6.10 briar.cli.detect Namespace Reference

Functions

- def addDetectorOptions (parser)

  Add options for running detections to the parser.
- def addTrackingOptions (parser)

  Add options for running detections to the parser.
- def detect (options=None, args=None)

  Using the options specified in the command line, runs a detection on the specified files.
- def detect_file_iter (media_files, detect_options=None, verbose=False, request_start=-1)

  Iterates the paths in the media file list, loading them one by one and yielding grpc detect requests.
- def detect_options2proto (options)
- def detectParseOptions (inputCommand=None)

  Generate options for running detections and parse command line arguments into them.
- def save_detections (media_file, reply, options, i, modality=None)
- def tracking_options2proto (options)

Variables

- string DETECTION_FILE_EXT = ".detection"

6.10.1 Function Documentation

6.10.1.1 addDetectorOptions()

```
def briar.cli.detect.addDetectorOptions (
              parser )
```

Add options for running detections to the parser.

Modifiers the parser in plase

Parameters

parser	optparse.OptionParser: A parser to modify in place by adding options

6.10.1.2 addTrackingOptions()

```
def briar.cli.detect.addTrackingOptions (
              parser )
```

Add options for running detections to the parser.

Modifiers the parser in place

Parameters

parser	optparse.OptionParser: A parser to modify in place by adding options

6.10.1.3 detect()

```
def briar.cli.detect.detect (
              options = None,
              args = None )
```

Using the options specified in the command line, runs a detection on the specified files.

Writes results to disk to a location specified by the cmd arguments

Returns

: No return - Function writes results to disk

6.10.1.4 detect_file_iter()

```
def briar.cli.detect.detect_file_iter (
              media_files,
              detect_options = None,
              verbose = False,
              request_start = -1 )
```

Iterates the paths in the media file list, loading them one by one and yielding grpc detect requests.

Parameters

media_files	list(str): Paths to the media files to enroll from
options	briar_pb2.DetectionOptions: Command line options in protobuf format which control detection functionality

@yield: briar_service_pb2.DetectRequest

6.10.1.5 detect_options2proto()

```
def briar.cli.detect.detect_options2proto (
              options )
```

```
Parse command line options and populate a proto object for grpc
```

6.10.1.6 detectParseOptions()

```
def briar.cli.detect.detectParseOptions (
              inputCommand = None )
```

Generate options for running detections and parse command line arguments into them.

Returns

: 2 element Tuple of (optparse.Values, list) containing the parsed options and parameters respectively

6.10.1.7 save_detections()

```
def briar.cli.detect.save_detections (
              media_file,
              reply,
              options,
              i,
              modality = None )
```

6.10.1.8 tracking_options2proto()

```
def briar.cli.detect.tracking_options2proto (
              options )

Parse command line options and populate a proto object for grpc
```

6.10.2 Variable Documentation

6.10.2.1 DETECTION_FILE_EXT

```
string DETECTION_FILE_EXT = ".detection"
```

6.11 briar.cli.enhance Namespace Reference

Functions

- def addEnhanceOptions (parser)

  Add options for running detections to the parser.
- def enhance (options=None, args=None)

  Using the options specified in the command line, runs a detection on the specified files.
- def enhance_file_iter (media_files, enhance_options=None, verbose=False, request_start=-1)

  Iterates the paths in the media file list, loading them one by one and yielding grpc detect requests.
- def enhance_options2proto (options)
- def enhanceParseOptions (inputCommand=None)

  Generate options for running enhancement and parse command line arguments into them.
- def save_Enhancement (media_file, reply, options, i, modality=None)

6.11.1 Function Documentation

6.11.1.1 addEnhanceOptions()

```
def briar.cli.enhance.addEnhanceOptions (
              parser )
```

Add options for running detections to the parser.

Modifiers the parser in plase

Parameters

parser	optparse.OptionParser: A parser to modify in place by adding options

6.11.1.2 enhance()

```
def briar.cli.enhance.enhance (
              options = None,
              args = None )
```

Using the options specified in the command line, runs a detection on the specified files.

Writes results to disk to a location specified by the cmd arguments

Returns

: No return - Function writes results to disk

6.11.1.3 enhance_file_iter()

```
def briar.cli.enhance.enhance_file_iter (
              media_files,
              enhance_options = None,
              verbose = False,
              request_start = -1 )
```

Iterates the paths in the media file list, loading them one by one and yielding grpc detect requests.

Parameters

media_files	list(str): Paths to the media files to enroll from
options	briar_pb2.DetectionOptions: Command line options in protobuf format which control detection functionality

@yield: briar_service_pb2.DetectRequest

6.11.1.4 enhance_options2proto()

```
def briar.cli.enhance.enhance_options2proto (
              options )
```

```
Parse command line options and populate a proto object for grpc
```

6.11.1.5 enhanceParseOptions()

```
def briar.cli.enhance.enhanceParseOptions (
              inputCommand = None )
```

Generate options for running enhancement and parse command line arguments into them.

Returns

: 2 element Tuple of (optparse.Values, list) containing the parsed options and parameters respectively

6.11.1.6 save_Enhancement()

```
def briar.cli.enhance.save_Enhancement (
              media_file,
              reply,
              options,
              i,
              modality = None )
```

6.12 briar.cli.enroll Namespace Reference

Functions

- def addEnrollOptions (parser)

  Add options for enrollment into a database.
- def enroll (options=None, args=None)

  Using the options specified in the command line, runs an enroll on the specified files.
- def enroll_options2proto (options)
- def enrollParseOptions (inputCommand=None)

  Generate options for running enrollments and parse command line arguments into them.

6.12.1 Function Documentation

6.12.1.1 addEnrollOptions()

```
def briar.cli.enroll.addEnrollOptions (
              parser )
```

Add options for enrollment into a database.

Parameters

parser	optparse.OptionParser: A parser to modify in place by adding options

6.12.1.2 enroll()

```
def briar.cli.enroll.enroll (
              options = None,
              args = None )
```

Using the options specified in the command line, runs an enroll on the specified files.

Can enroll media files (runs auto detection), detections (auto extracts ROI defined by detects) or templates (skips detect/extract)

Writes results to disk to a location specified by the cmd arguments.

Returns

: No return - Function writes results to disk

6.12.1.3 enroll_options2proto()

```
def briar.cli.enroll.enroll_options2proto (
              options )
```

6.12.1.4 enrollParseOptions()

```
def briar.cli.enroll.enrollParseOptions (
              inputCommand = None )
```

Generate options for running enrollments and parse command line arguments into them.

Returns

: 2 element Tuple of (optparse.Values, list) containing the parsed options and parameters respectively

6.13 briar.cli.extract Namespace Reference

Functions

- def addExtractOptions (parser)

  Add options for extractions to the parser.
- def extract (options=None, args=None)

  Using the options specified in the command line, runs an extract on the specified files.
- def extract_options2proto (options)
- def extractParseOptions (inputCommand=None)

  Generate options for running extracts and parse command line arguments into them.
- def save_extractions (media_file, templates, options, i, modality=None)

Variables

- string TEMPLATE_FILE_EXT = '.template'

6.13.1 Function Documentation

6.13.1.1 addExtractOptions()

```
def briar.cli.extract.addExtractOptions (
              parser )
```

Add options for extractions to the parser.

@type parser: optparse.OptionParser

Parameters

parser	A parser to modify in place by adding options

6.13.1.2 extract()

```
def briar.cli.extract.extract (
              options = None,
              args = None )
```

Using the options specified in the command line, runs an extract on the specified files.

Writes results to disk to a location specified by the cmd arguments

Returns

: No return - Function writes results to disk

6.13.1.3 extract_options2proto()

```
def briar.cli.extract.extract_options2proto (
              options )
```

6.13.1.4 extractParseOptions()

```
def briar.cli.extract.extractParseOptions (
              inputCommand = None )
```

Generate options for running extracts and parse command line arguments into them.

Returns

: 2 element Tuple of (optparse.Values, list) containing the parsed options and parameters respectively

6.13.1.5 save_extractions()

```
def briar.cli.extract.save_extractions (
              media_file,
              templates,
              options,
              i,
              modality = None )
```

6.13.2 Variable Documentation

6.13.2.1 TEMPLATE_FILE_EXT

```
string TEMPLATE_FILE_EXT = '.template'
```

6.14 briar.cli.finalize Namespace Reference

Functions

- def database_finalize (options=None, args=None)

  Parses the command line options and saves the database to disk.
- def finalizeParseOptions (inputCommand=None)

  Generate options for running 'finalize' (saving the loaded databases) and parse command line arguments into them.

6.14.1 Function Documentation

6.14.1.1 database_finalize()

```
def briar.cli.finalize.database_finalize (
              options = None,
              args = None )
```

Parses the command line options and saves the database to disk.

Returns

: None - results are written to disk to a location specified by options

6.14.1.2 finalizeParseOptions()

```
def briar.cli.finalize.finalizeParseOptions (
              inputCommand = None )
```

Generate options for running 'finalize' (saving the loaded databases) and parse command line arguments into them.

Returns

: 2 element Tuple of (optparse.Values, list) containing the parsed options and parameters respectively

6.15 briar.cli.media Namespace Reference

Functions

- def addMediaOptions (parser)

  Add options for running detections to the parser.
- def collect_files (args, options, extension=None)

  Take the paths specified by 'args' and find all the media files that they define: folders will be searched for all media files contained inside.
- def hasExtension (f, extension)

Variables

- int DEFAULT_MAX_SIZE = 1920

6.15.1 Function Documentation

6.15.1.1 addMediaOptions()

```
def briar.cli.media.addMediaOptions (
              parser )
```

Add options for running detections to the parser.

Modifiers the parser in plase

Parameters

parser	optparse.OptionParser: A parser to modify in place by adding options

6.15.1.2 collect_files()

```
def briar.cli.media.collect_files (
              args,
              options,
              extension = None )
```

Take the paths specified by 'args' and find all the media files that they define: folders will be searched for all media files contained inside.

Parameters

args	list(str): List of paths to add as/search for media files
options	optparse.Values: Command line options which dictate collect behavior
extension	str: A specific extension which defines the csv files associated with media.

Returns

: Return value depends on 'extension' If 'extension' is None, Tuple will be two elements (list of str, list of str) representing lists of image paths and video paths respectively

If 'extension' is not None, returns a single list of csv files with extensions matching 'extension'

6.15.1.3 hasExtension()

```
def briar.cli.media.hasExtension (
              f,
              extension )
```

6.15.2 Variable Documentation

6.15.2.1 DEFAULT_MAX_SIZE

```
int DEFAULT_MAX_SIZE = 1920
```

6.16 briar.cli.search Namespace Reference

Functions

- def addSearchOptions (parser)

  Add options for search of a database.
- def search (options=None, args=None)

  Using the options specified in the command line, runs a search within the specified database using specified probe template(s).
- def search_options2proto (options)
- def searchParseOptions (inputCommand=None)

  Generate options for running searches and parse command line arguments into them.

Variables

- string MATCHES_FILE_EXT = '.matches'

6.16.1 Function Documentation

6.16.1.1 addSearchOptions()

```
def briar.cli.search.addSearchOptions (
              parser )
```

Add options for search of a database.

Parameters

parser	optparse.OptionParser: A parser to modify in place by adding options

6.16.1.2 search()

```
def briar.cli.search.search (
              options = None,
              args = None )
```

Using the options specified in the command line, runs a search within the specified database using specified probe template(s).

Writes results to disk to a location specified by the cmd arguments

Returns

: No return - Function writes results to disk

6.16.1.3 search_options2proto()

```
def briar.cli.search.search_options2proto (
              options )
```

```
Parse command line options and populate a proto object for grpc
```

6.16.1.4 searchParseOptions()

```
def briar.cli.search.searchParseOptions (
              inputCommand = None )
```

Generate options for running searches and parse command line arguments into them.

Returns

: 2 element Tuple of (optparse.Values, list) containing the parsed options and parameters respectively

6.16.2 Variable Documentation

6.16.2.1 MATCHES_FILE_EXT

```
string MATCHES_FILE_EXT = '.matches'
```

6.17 briar.cli.sigset Namespace Reference

Functions

- def parseSigsetEnrollOptions (inputCommand=None)
- def parseSigsetStatsOptions (inputCommand=None)
- def sigset_enroll ()
- def sigset_stats (options=None, args=None)

6.17.1 Function Documentation

6.17.1.1 parseSigsetEnrollOptions()

```
def briar.cli.sigset.parseSigsetEnrollOptions (
              inputCommand = None )
```

Parse command line arguments.

6.17.1.2 parseSigsetStatsOptions()

```
def briar.cli.sigset.parseSigsetStatsOptions (
              inputCommand = None )
```

Parse command line arguments.

6.17.1.3 sigset_enroll()

```
def briar.cli.sigset.sigset_enroll ( )
```

6.17.1.4 sigset_stats()

```
def briar.cli.sigset.sigset_stats (
              options = None,
              args = None )
```

6.18 briar.cli.status Namespace Reference

Functions

- def status (options=None, args=None)

  Conects to the server and gets status information.
- def statusParseOptions (inputCommand=None)

  Generate options for getting status and parse command line arguments into them.

6.18.1 Function Documentation

6.18.1.1 status()

```
def briar.cli.status.status (
              options = None,
              args = None )
```

Conects to the server and gets status information.

Print results.

Returns

: None - results are printed

6.18.1.2 statusParseOptions()

```
def briar.cli.status.statusParseOptions (
              inputCommand = None )
```

Generate options for getting status and parse command line arguments into them.

Returns

: 2 element Tuple of (optparse.Values, list) containing the parsed options and parameters respectively

6.19 briar.cli.test Namespace Reference

Classes

- class BriarTest
- class BriarTestResult
- class DatabaseTest
- class DetectTest
- class EnrollTest
- class ExtractTest

Functions

- def detection_output_tests (detection_obj_loaded, testimage, return_media)
- def extraction_output_tests (template_obj_loaded, testimage, return_media)

6.19.1 Function Documentation

6.19.1.1 detection_output_tests()

```
def briar.cli.test.detection_output_tests (
              detection_obj_loaded,
              testimage,
              return_media )
```

6.19.1.2 extraction_output_tests()

```
def briar.cli.test.extraction_output_tests (
              template_obj_loaded,
              testimage,
              return_media )
```

6.20 briar.cli.track Namespace Reference

Functions

- def save_tracklets (media_file, tracklets, options, i, verbose=False, modality=None)
- def track (options=None, args=None)

  Using the options specified in the command line, runs a detection on the specified files.

Variables

- string TRACKLET_FILE_EXT = ".tracklet"

6.20.1 Function Documentation

6.20.1.1 save_tracklets()

```
def briar.cli.track.save_tracklets (
              media_file,
              tracklets,
              options,
              i,
              verbose = False,
              modality = None )
```

6.20.1.2 track()

```
def briar.cli.track.track (
              options = None,
              args = None )
```

Using the options specified in the command line, runs a detection on the specified files.

Writes results to disk to a location specified by the cmd arguments

Returns

: No return - Function writes results to disk

6.20.2 Variable Documentation

6.20.2.1 TRACKLET_FILE_EXT

```
string TRACKLET_FILE_EXT = ".tracklet"
```

6.21 briar.cli.viz Namespace Reference

Functions

- def viz ()

  Using the options specified in the command line, runs a detection on the specified files.
- def vizParseOptions ()

  Generate options for running detections and parse command line arguments into them.

6.21.1 Function Documentation

6.21.1.1 viz()

```
def briar.cli.viz.viz ( )
```

Using the options specified in the command line, runs a detection on the specified files.

Writes results to disk to a location specified by the cmd arguments

Returns

: No return - Function writes results to disk

6.21.1.2 vizParseOptions()

```
def briar.cli.viz.vizParseOptions ( )
```

Generate options for running detections and parse command line arguments into them.

Returns

: 2 element Tuple of (optparse.Values, list) containing the parsed options and parameters respectively

6.22 briar.functions Namespace Reference

Functions

- def new_uuid ()

  Create and return a new, 36 character unique id.

6.22.1 Function Documentation

6.22.1.1 new_uuid()

```
def briar.functions.new_uuid ( )
```

Create and return a new, 36 character unique id.

Returns

: str

6.23 briar.grpc_json Namespace Reference

Classes

- class GrpcDecoder

  Object which extends the JSONDecoded to allow it to read saved gRPC files.
- class GrpcEncoder

  Encoder class which extends the normal JSON encoder to allow the encoding of gRPC objects.

Functions

- def dict_to_proto_obj (obj_dict, options=None)

  *Take the object dictionary, read the dict which is saved in in the '**class**' key, and initialize it with values stored in the dictionary's key/value pairs.*
- def load (load_path, options=None)

  Load the json file at the given directory, reloading dictionaries with "__class__" fields into the specified objects and initializing them with values defined by key/value pairs within the dictionary.
- def proto_obj_to_dict (obj, options=None)

  Takes a general gRPC/protobuf object, eliminates the unnecessary fields, and stores the data in a dict.
- def save (json_obj, save_path, options=None)

  Save a list or dictionary containing protobuf classes to a json file.

Variables

- list ATTRIB_IGNORE

6.23.1 Detailed Description

I couldn't find a good library to write gRPC/protobuf objects to disk so this is my own implementation of a generalized json converter for said objects. Good for writing the objects themselves but be aware that it will write any vectors/matrixes/images stored within the objects to disk so it may be a good idea to remove said data before converting to json if you care about performance in your implementations.

6.23.2 Function Documentation

6.23.2.1 dict_to_proto_obj()

```
def briar.grpc_json.dict_to_proto_obj (
              obj_dict,
              options = None )
```

Take the object dictionary, read the dict which is saved in in the '**class**' key, and initialize it with values stored in the dictionary's key/value pairs.

Parameters

obj_dict	dict: A dictionary specifically containing a '**class**' key/value pair storing the full module path to the object.

Returns

: A gRPC object defined by '**class**'

6.23.2.2 load()

```
def briar.grpc_json.load (
              load_path,
              options = None )
```

Load the json file at the given directory, reloading dictionaries with "__class__" fields into the specified objects and initializing them with values defined by key/value pairs within the dictionary.

Parameters

load_path	str: Path to the json file to load

Returns

: The contents of the json file deserialized into the appropriate objects

6.23.2.3 proto_obj_to_dict()

```
def briar.grpc_json.proto_obj_to_dict (
              obj,
              options = None )
```

Takes a general gRPC/protobuf object, eliminates the unnecessary fields, and stores the data in a dict.

Classes will be saved as dictionaries with a "__class__" attribute. This should be the full import path to the class within its module.

Parameters

obj	Any gRPC object generated by protobuf files

Returns

: A dictionary representing the object

6.23.2.4 save()

```
def briar.grpc_json.save (
              json_obj,
              save_path,
              options = None )
```

Save a list or dictionary containing protobuf classes to a json file.

Parameters

json_obj	list||dict: List or dict containing data to save
save_path	str: Path to the file to save

Returns: None

6.23.3 Variable Documentation

6.23.3.1 ATTRIB_IGNORE

```
list ATTRIB_IGNORE
```

Initial value:

```
1 =  ['ByteSize', 'Clear', 'ClearExtension', 'ClearField', 'CopyFrom',
2                  'DESCRIPTOR', 'DiscardUnknownFields', 'Extensions',
3                  'FindInitializationErrors', 'FromString', 'HasExtension',
4                  'HasField', 'IsInitialized', 'ListFields', 'MergeFrom',
5                  'MergeFromString', 'ParseFromString', 'RegisterExtension',
6                  'SerializePartialToString', 'SerializeToString',
7                  'SetInParent','UnknownFields', 'WhichOneof',
8                  '_CheckCalledFromGeneratedFile', '_SetListener',
9                  '__deepcopy__', '__delattr__', '__dir__', '__doc_',
10                  '_extensions_by_name', '_extensions_by_number', 'EnumTypeWrapper']
```

6.24 briar.ibriar Namespace Reference

Classes

- class BriarCLI
- class BriarCLICompleter
- class CLICommands

Variables

- bcl = BriarCLI()
- dictionary DEFAULT_ARGS = {"in_path":str, "out_path":str, "":"", }

6.24.1 Variable Documentation

6.24.1.1 bcl

```
bcl = BriarCLI()
```

6.24.1.2 DEFAULT_ARGS

```
dictionary DEFAULT_ARGS = {"in_path":str, "out_path":str, "":"", }
```

6.25 briar.media Namespace Reference

Namespaces

- visualize

Classes

- class BriarProgress
- class ImageIterator
- class VideoIterator

Functions

- def decodeMedia (media_pb)

  Convert protobuf media into a numpy array.
- def ImageGenerator (filepath, start=None, stop=None, unit=None)

6.25.1 Function Documentation

6.25.1.1 decodeMedia()

```
def briar.media.decodeMedia (
              media_pb )
```

Convert protobuf media into a numpy array.

Parameters

media_pb	briar_pb2.BriarMedia

return: numpy.array

6.25.1.2 ImageGenerator()

```
def briar.media.ImageGenerator (
              filepath,
              start = None,
              stop = None,
              unit = None )
```

6.26 briar.media.visualize Namespace Reference

Functions

- def visualize_detection (detection_path)
- def visualize_matches (matches_path)
- def visualize_track (track_path, options)

Variables

- string fdir = "/Users/2r6/Projects/briar/briar-api/media/test_probe/clinton3.matches"
- list files = [os.path.join(fdir,f) for f in os.listdir(fdir)]

6.26.1 Function Documentation

6.26.1.1 visualize_detection()

```
def briar.media.visualize.visualize_detection (
              detection_path )
```

6.26.1.2 visualize_matches()

```
def briar.media.visualize.visualize_matches (
              matches_path )
```

6.26.1.3 visualize_track()

```
def briar.media.visualize.visualize_track (
              track_path,
              options )
```

6.26.2 Variable Documentation

6.26.2.1 fdir

```
string fdir = "/Users/2r6/Projects/briar/briar-api/media/test_probe/clinton3.matches"
```

6.26.2.2 files

```
list files = [os.path.join(fdir,f) for f in os.listdir(fdir)]
```

6.27 briar.media_converters Namespace Reference

Functions

- def image_cv2proto (im, compression='uint8', quality=99)

  Convert a cv2 numpy array to a protobuf format.
- def image_np2proto (im, compression='uint8', quality=99)

  Convert a numpy array to a protobuf format.
- def image_proto2cv (pb_data)

  Convert a protobuf BriarMedia image to a cv2 numpy array.
- def image_proto2np (pb_data)

  Convert a protobuf image to a numpy array.
- def matrix_np2proto (mat)

  Convert a numpy matrix into a BriarMatrix.
- def matrix_proto2np (protomat)

  Convert a protobuf matrix into a numpy matrix.
- def modality_proto2string (modality)
- def modality_string2proto (modality)
- def vector_np2proto (vec)

  Convert a 1 dimensional np array into a BriarVector.
- def vector_proto2np (protovec)

  Convert a protobuf vector into a numpy array.

Variables

- dictionary modalityDict
- dictionary reverseModalityDict = {modalityDict[k]:k for k in modalityDict}

6.27.1 Detailed Description

Contained in this are functions for converting numpy arrays into various protobuf objects and back again since numpy arrays cannot be sent directly over gRPC.

6.27.2 Function Documentation

6.27.2.1 image_cv2proto()

```
def briar.media_converters.image_cv2proto (
              im,
              compression = 'uint8',
              quality = 99 )
```

Convert a cv2 numpy array to a protobuf format.

Parameters

img	numpy.array: array containing the image to convert to BriarMedia
compression	str: What compression to use. Can be 'uint8', 'png', 'jpg'
quality	int: 0-100 How much do you want to mutilate the image in the name of saving memory?

return: briar_pb2.BriarMedia

6.27.2.2 image_np2proto()

```
def briar.media_converters.image_np2proto (
              im,
              compression = 'uint8',
              quality = 99 )
```

Convert a numpy array to a protobuf format.

Parameters

img	numpy.array: array containing the image to convert to BriarMedia
compression	str: What compression to use. Can be 'uint8', 'png', 'jpg'
quality	int: 0-100 How much do you want to mutilate the image in the name of saving memory?

return: briar_pb2.BriarMedia

6.27.2.3 image_proto2cv()

```
def briar.media_converters.image_proto2cv (
              pb_data )
```

Convert a protobuf BriarMedia image to a cv2 numpy array.

Parameters

pb_data	briar_pb2.BriarMedia: Protobuf object containing image data

Returns

: numpy.array cv2 formatted np array containing image

6.27.2.4 image_proto2np()

```
def briar.media_converters.image_proto2np (
              pb_data )
```

Convert a protobuf image to a numpy array.

Parameters

pb_data	briar_pb2.BriarMedia: Protobuf object containing image data

Returns

: np.array

6.27.2.5 matrix_np2proto()

```
def briar.media_converters.matrix_np2proto (
              mat )
```

Convert a numpy matrix into a BriarMatrix.

Parameters

mat	numpy.array: Matrix to convert

Returns

: briar_pb2.BriarMatrix

6.27.2.6 matrix_proto2np()

```
def briar.media_converters.matrix_proto2np (
              protomat )
```

Convert a protobuf matrix into a numpy matrix.

Parameters

protomat	briar_pb2.BriarMatrix: Protobuf matrix to convert

Returns

: numpy.array

6.27.2.7 modality_proto2string()

```
def briar.media_converters.modality_proto2string (
              modality )
```

6.27.2.8 modality_string2proto()

```
def briar.media_converters.modality_string2proto (
              modality )
```

6.27.2.9 vector_np2proto()

```
def briar.media_converters.vector_np2proto (
              vec )
```

Convert a 1 dimensional np array into a BriarVector.

Parameters

vec	numpy.array: Numpy array contaiing vector data

Returns

: briar_pb2.BriarVector

6.27.2.10 vector_proto2np()

```
def briar.media_converters.vector_proto2np (
              protovec )
```

Convert a protobuf vector into a numpy array.

Parameters

protovec	briar_pb2.BriarVector: Protobuf object containing vector info

Returns

: numpy.array

6.27.3 Variable Documentation

6.27.3.1 modalityDict

```
dictionary modalityDict
```

Initial value:

```
1 =  {'whole_body':briar_pb2.WHOLE_BODY,
2                 'wholeBody':briar_pb2.WHOLE_BODY,
3                 'wholebody':briar_pb2.WHOLE_BODY,
4                     'face':briar_pb2.FACE,
5                     'gait':briar_pb2.GAIT,
6                     'unspecified':briar_pb2.UNSPECIFIED}
```

6.27.3.2 reverseModalityDict

```
dictionary reverseModalityDict = {modalityDict[k]:k for k in modalityDict}
```

6.28 briar.sigset Namespace Reference

Namespaces

- parse

6.29 briar.sigset.parse Namespace Reference

Functions

- def expandTree (root, level=0, spaces=3)
- def parseBriarSigset (filename)

6.29.1 Function Documentation

6.29.1.1 expandTree()

```
def briar.sigset.parse.expandTree (
              root,
              level = 0,
              spaces = 3 )
```

6.29.1.2 parseBriarSigset()

```
def briar.sigset.parse.parseBriarSigset (
              filename )
```

6.30 briar.timing Namespace Reference

Functions

- def end_duration (reply)
- def generate_progress (frame_id, media)
- def print_duration (name, duration)
- def print_durations (durations)
- def save_durations (media_file, durations_list, options, operation, modality=None)
- def start_duration (request, reply)
- def timeElapsed (duration)
- def timestamp ()

Variables

- string DURATION_FILE_EXT = ".durations"

6.30.1 Function Documentation

6.30.1.1 end_duration()

```
def briar.timing.end_duration (
              reply )
```

6.30.1.2 generate_progress()

```
def briar.timing.generate_progress (
              frame_id,
              media )
```

6.30.1.3 print_duration()

```
def briar.timing.print_duration (
              name,
              duration )
```

6.30.1.4 print_durations()

```
def briar.timing.print_durations (
              durations )
```

6.30.1.5 save_durations()

```
def briar.timing.save_durations (
              media_file,
              durations_list,
              options,
              operation,
              modality = None )
```

6.30.1.6 start_duration()

```
def briar.timing.start_duration (
              request,
              reply )
```

6.30.1.7 timeElapsed()

```
def briar.timing.timeElapsed (
              duration )
```

6.30.1.8 timestamp()

```
def briar.timing.timestamp ( )
```

6.30.2 Variable Documentation

6.30.2.1 DURATION_FILE_EXT

```
string DURATION_FILE_EXT = ".durations"
```

Chapter 7

Class Documentation

7.1 BriarCLI Class Reference

Public Member Functions

- def __init__ (self)

Private Member Functions

- def _cmd_line (self)

Private Attributes

- _base_promppt_text
- _completer
- _prompt_hist_path

Static Private Attributes

- string _PROMPT_TXT = ">"

7.1.1 Constructor & Destructor Documentation

7.1.1.1 __init__()

```
def __init__ (
              self )
```

7.1.2 Member Function Documentation

7.1.2.1 _cmd_line()

```
def _cmd_line (
              self )  [private]
```

7.1.3 Member Data Documentation

7.1.3.1 _base_promppt_text

```
_base_promppt_text  [private]
```

7.1.3.2 _completer

```
_completer  [private]
```

7.1.3.3 _prompt_hist_path

```
_prompt_hist_path  [private]
```

7.1.3.4 _PROMPT_TXT

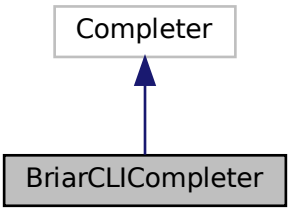
```
string _PROMPT_TXT = ">"  [static], [private]
```

The documentation for this class was generated from the following file:

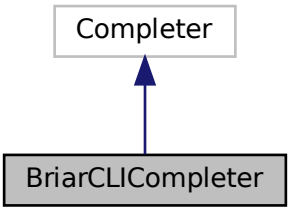
- ibriar.py

7.2 BriarCLICompleter Class Reference

Inheritance diagram for BriarCLICompleter:



Collaboration diagram for BriarCLICompleter:



Public Member Functions

- def __init__ (self)
- def get_completions (self, document, complete_event)

Private Member Functions

- def _complete_base_cmd (self, word_to_complate)
- def _complete_cmds (self, word_to_complate, base_cmd)
- def _complete_from_schema (self, cmd_to_cmplt, split_cmds, d)
- def _complete_kwargs (self, word_to_complete, base_cmd, sub_cmd)
- def _get_completions (self, document, complete_event, word, suggestions)
- def _suggest_cmds (self, base_cmd)
- def _suggest_kwargs (self, base_cmd, sub_cmd)

7.2.1 Constructor & Destructor Documentation

7.2.1.1 __init__()

```
def __init__ (
              self )
```

7.2.2 Member Function Documentation

7.2.2.1 _complete_base_cmd()

```
def _complete_base_cmd (
              self,
              word_to_complate )  [private]
```

7.2.2.2 _complete_cmds()

```
def _complete_cmds (
              self,
              word_to_complate,
              base_cmd )  [private]
```

7.2.2.3 _complete_from_schema()

```
def _complete_from_schema (
              self,
              cmd_to_cmplt,
              split_cmds,
              d )  [private]
```

7.2.2.4 _complete_kwargs()

```
def _complete_kwargs (
              self,
              word_to_complete,
              base_cmd,
              sub_cmd )  [private]
```

7.2.2.5 _get_completions()

```
def _get_completions (
              self,
              document,
              complete_event,
              word,
              suggestions )  [private]
```

7.2.2.6 _suggest_cmds()

```
def _suggest_cmds (
              self,
              base_cmd )  [private]
```

7.2.2.7 _suggest_kwargs()

```
def _suggest_kwargs (
              self,
              base_cmd,
              sub_cmd )  [private]
```

7.2.2.8 get_completions()

```
def get_completions (
              self,
              document,
              complete_event )
```

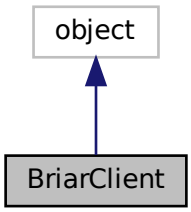
The documentation for this class was generated from the following file:

- ibriar.py

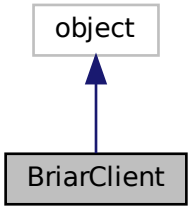
7.3 BriarClient Class Reference

Provide a client to a BRIAR service.

Inheritance diagram for BriarClient:



Collaboration diagram for BriarClient:



Public Member Functions

- def __init__ (self, options=None)

  Initialize the client and connect it to the specified server.
- def database_create (self, database_name)

  Creates an empty database of the given name.
- def database_insert (self, database_name, template_list, template_ids)

  Database functions: Insert.
- def database_list_templates (self, database_name)

  Lists the templates stored inside the given database name.
- def database_remove_templates (self, database_name, template_ids)

  Remove templates matching the ids from the database.
- def database_retrieve (self, database_name, template_ids)

  Iteratively grab and return templates matching template_ids from the database.
- def detect (self, detect_requests, options=None)

Run detection on media contained in detect_requests.

- def detect_files (self, media_file_list, options=None)

  Iterator which runs detections on the given file paths, automatically creating and yielding to detect requests initialized from the read images.

- def detect_frames (self, frames, options=None)

  Runs detection on an iterable containing pyvision images.

- def enhance (self, enhance_requests, options=None)

  Enhancement Functions.

- def enroll (self, enroll_iter)

  Enroll images contained in the enroll iterator.

- def enroll_file_iter (self, database_name, media_files, detect_options=None, extract_options=None, enroll↩ _options=None, det_list_list=None, whole_image=False, request_start=-1)

  Enroll Functions.

- def enroll_files (self, database, file_list, detect_options=None, extract_options=None, enroll_options=None, det_list_list=None, whole_image=False, request_start=-1)

  Iterator which enrolls images from the given file paths, automatically creating and yielding enroll requests initialized from the read images.

- def enroll_frames (self, database_name, frame_list, subject_name=None, subject_id=None, media_id=None, options=None)

  Iterator which runs enrolls on the included frames, automatically creating and yielding enroll requests initialized from the read images.

- def enroll_frames2 (self, frame_iter, database_name, subject_id, media_id, entity_type, detect_options, extract_options, enroll_options, subject_name=None, record=None)

  Iterator which runs enrolls on the included frames, automatically creating and yielding enroll requests initialized from the read images.

- def enroll_frames_iter (self, database_name, video, detect_options=None, extract_options=None, enroll_↩ options=None, det_list_list=None, whole_image=False, request_start=-1)

  Enroll Functions.

- def extract (self, extract_iter)

  Extract images contained in the extract iterator.

- def extract_file_iter (self, media_files, det_list_list=None, detect_options=None, extract_options=None, whole_image=False, request_start=-1)

  Extract Functions.

- def extract_files (self, media_list, det_list_list=None, detect_options=None, extract_options=None, whole_↩ image=False, request_start=-1)

  Iterator which runs extracts on the given file paths, automatically creating and yielding extract requests initialized from the read images.

- def extract_frames (self, frame_list, det_list_list, whole_image)

  Iterator which runs extracts on the given frames, automatically creating and yielding extract requests initialized from the read images.

- def extract_frames_iter (self, frame_list)

  Iterates the PyVision frames, yielding extract requests.

- def finalize (self, database_name)

  Write the given database to disk on the server on which it is running.

- def get_database_names (self)

  Database functions.

- def get_status (self, options=None)

  Service Functions.

- def load_database (self, database_name)

  Database functions: Load/Create.

- def print_verbose (self, ∗args)

  Utility Functions:

- def retrieve_req_iter (self, database_name, template_ids)

Database functions: Retrieve.

- def search (self, search_iter)

  Search Functions.

- def search_file_iter (self, database_name, media_files, detect_options=None, extract_options=None, search_options=None, search_templates=None, det_list_list=None, whole_image=False, request_start=-1)

  Iterates the paths in the media file list, loading them one by one and yielding grpc search requests.

- def search_files (self, database, file_list, detect_options=None, extract_options=None, search_↩ options=None, search_templates=None, det_list_list=None, whole_image=False, request_start=-1)

  Iterator which searches images or videos from the given file paths, automatically creating and yielding enroll requests initialized from the read images.

- def track (self, track_iter)

  Tracking Functions.

- def track_file_iter (self, media_files, detect_options=None, request_start=-1)

  Iterates the paths in the media file list, loading them one by one and yielding grpc extract requests.

- def track_files (self, media_list, detect_options=None, request_start=-1)

  Iterator which runs extracts on the given file paths, automatically creating and yielding track requests initialized from the read videos.

- def verify (self, flag, reference_media=None, verification_media=None, reference_dets=None, verification↩ _dets=None, reference_tmpls=None, verification_tmpls=None)

  Verify Functions.

Static Public Member Functions

- def detect_files_iter (media_file_list)

  Detection functions.

- def detect_frames_iter (frames)

  Iterates the PyVision frames, yielding detect requests.

Public Attributes

- channel
- options
- stub

Static Public Attributes

- string DEFAULT_PORT = "127.0.0.1:50051"

Static Private Member Functions

- def _enroll_frames_iter (frame_list, database_name, subject_name, subject_id, media_id)

  Iterates the PyVision frames, yielding enroll requests.

- def _enroll_frames_iter2 (frame_iter, database_name, subject_id, media_id, detect_options, extract_options, enroll_options, subject_name=None, record=None)

  Iterates the PyVision frames, yielding enroll requests.

7.3.1 Detailed Description

Provide a client to a BRIAR service.

It defines and sends the messages which are sent to the connected server

7.3.2 Constructor & Destructor Documentation

7.3.2.1 __init__()

```
def __init__ (
              self,
              options = None )
```

Initialize the client and connect it to the specified server.

Attempts a connection to localhost by default

Parameters

options	optparse.Values: Options which define the connection being established

7.3.3 Member Function Documentation

7.3.3.1 _enroll_frames_iter()

```
def _enroll_frames_iter (
              frame_list,
              database_name,
              subject_name,
              subject_id,
              media_id )  [static], [private]
```

Iterates the PyVision frames, yielding enroll requests.

Parameters

frame_list	list(pyvision.Image): Raw image data stored in a pyvision object - directly populates requests yielded
database_name	str: Database to enroll int
subject_name	str: Name of subject to enroll
subject_id	str: Uid of subject to enroll
media_id	str: Uid of media being enrolled # TODO media id does nothing

@yield: briar_service_pb2.EnrollRequest

7.3.3.2 _enroll_frames_iter2()

```
def _enroll_frames_iter2 (
              frame_iter,
              database_name,
              subject_id,
              media_id,
              detect_options,
              extract_options,
              enroll_options,
              subject_name = None,
              record = None )  [static], [private]
```

Iterates the PyVision frames, yielding enroll requests.

Parameters

frame_list	list(pyvision.Image): Raw image data stored in a pyvision object - directly populates requests yielded
database_name	str: Database to enroll int
subject_name	str: Name of subject to enroll
subject_id	str: Uid of subject to enroll
media_id	str: Uid of media being enrolled # TODO media id does nothing

@yield: briar_service_pb2.EnrollRequest

7.3.3.3 database_create()

```
def database_create (
              self,
              database_name )
```

Creates an empty database of the given name.

Parameters

database_name	str: Name of database to create

Returns

: briar_pb2.BriarDurations

7.3.3.4 database_insert()

```
def database_insert (
              self,
```

```
              database_name,
              template_list,
              template_ids )
```

Database functions: Insert.

Insert the given templates and ids into the database

TODO remove template_ids: is superfluous - template_list is all that is needed

TODO Insert should automatically generate template ids for templates with no ids and return new ids

Parameters

database_name	str: Name of the database to insert into
template_list	List of briar_pb2.Template
template_list	Templates to insert into database
template_ids	List of str
template_ids	IDs of templates being inserted

Returns

: 2 element Tuple (list of str, briar_pb2.BriarDurations

7.3.3.5 database_list_templates()

```
def database_list_templates (
              self,
              database_name )
```

Lists the templates stored inside the given database name.

Parameters

database_name	str: Name of the database to get the templates from

Returns

: 2 element tuple (list of str, briar_pb2.Durations)

7.3.3.6 database_remove_templates()

```
def database_remove_templates (
              self,
```

```
                database_name,
                template_ids )
```

Remove templates matching the ids from the database.

Parameters

database_name	str: Name of the database to remove from
template_ids	list(str): Ids of the templates to remove

Returns

: briar_pb2.BriarDurations

7.3.3.7 database_retrieve()

```
def database_retrieve (
                self,
                database_name,
                template_ids )
```

Iteratively grab and return templates matching template_ids from the database.

Parameters

database_name	str: Name of the database to retrieve from
template_ids	list(str): List of ids to retrieve from the database

Returns

: 2 element Tuple (briar_pb2.Template, briar_pb2.BriarDurations

7.3.3.8 detect()

```
def detect (
                self,
                detect_requests,
                options = None )
```

Run detection on media contained in detect_requests.

Parameters

detect_requests	Iterator yielding briar_service_pb2.DetectRequest: gRPC communication packet containing the data to run the detections on along with any additional options
options	optparse.Values
~~*options*~~	~~Additional options to feed to control the detect functions~~

yield: briar_service_pb2.DetectReply containing results

7.3.3.9 detect_files()

```
def detect_files (
              self,
              media_file_list,
              options = None )
```

Iterator which runs detections on the given file paths, automatically creating and yielding to detect requests initialized from the read images.

Parameters

media_file_list	list(str): List of paths to the image and video files to detect on.
	optparse.Values
options	Additional options to feed to control the detect functions

yield: briar_service_pb2.DetectReply containing results

7.3.3.10 detect_files_iter()

```
def detect_files_iter (
              media_file_list )  [static]
```

Detection functions.

Iterates the paths in the media file list, loading them one by one and yielding grpc detect requests

Parameters

media_file_list	list of strings @yield: briar_service_pb2.DetectRequest

7.3.3.11 detect_frames()

```
def detect_frames (
              self,
              frames,
              options = None )
```

Runs detection on an iterable containing pyvision images.

Parameters

frames	pyvision.Video||list(pyvision.Image): Iterable which yields pyvision.Images to run detections on
options	optparse.Values
options	Additional options to feed to control the detect functions

yield: briar_service_pb2.DetectReply containing results

7.3.3.12 detect_frames_iter()

```
def detect_frames_iter (
              frames )  [static]
```

Iterates the PyVision frames, yielding detect requests.

Parameters

frames	list(pyvision.Image): Raw image data stored in a pyvision object - directly populates yield requests

@yield: briar_service_pb2.DetectRequest

7.3.3.13 enhance()

```
def enhance (
              self,
              enhance_requests,
              options = None )
```

Enhancement Functions.

Run enhancement on media contained in enhance_requests.

Parameters

enhance_requests	Iterator yielding briar_service_pb2.EnhanceRequest: gRPC communication packet containing the data to run the detections on along with any additional options
options	optparse.Values
options	Additional options to feed to control the enhance functions

yield: briar_service_pb2.EnhanceReply containing results

7.3.3.14 enroll()

```
def enroll (
              self,
              enroll_iter )
```

Enroll images contained in the enroll iterator.

Parameters

enroll_iter	Generator: Generator object which yields enroll requests

Returns

: briar_service_pb2.ExtractReply

7.3.3.15 enroll_file_iter()

```
def enroll_file_iter (
              self,
              database_name,
              media_files,
              detect_options = None,
              extract_options = None,
              enroll_options = None,
              det_list_list = None,
              whole_image = False,
              request_start = -1 )
```

Enroll Functions.

Iterates the paths in the media file list, loading them one by one and yielding grpc enroll requests

Parameters

database_name	str: Name of the database to enroll templates in
media_files	list(str): Paths to the media files to enroll from
options	briar_pb2.DetectionOptions: Command line options in protobuf format which control detection functionality
options	briar_pb2.ExtractOptions: Command line options in protobuf format which control extraction functionality
options	briar_pb2.EnrollOptions: Command line options in protobuf format which control enrollment functionality
det_list_list	list(list(briar_pb2.Detection)): If not None, it will contains 1 list of detections per media file
boolean	Ignore detections and run an extract on the whole image

@yield: briar_service_pb2.EnrollRequest

7.3.3.16 enroll_files()

```
def enroll_files (
              self,
              database,
              file_list,
              detect_options = None,
              extract_options = None,
              enroll_options = None,
              det_list_list = None,
              whole_image = False,
              request_start = -1 )
```

Iterator which enrolls images from the given file paths, automatically creating and yielding enroll requests initialized from the read images.

Parameters

database	str: Specifies which database to enroll in
file_list	list(str): List of paths to the image and video files to extract on.
options	optparse.Values: Command line options which control enrollment functionality
det_list_list	list(list(briar_pb2.Detection)): If not None, it will contains 1 list of detections per media file
boolean	Ignore detections and run an extract on the whole image

yield: briar_service_pb2.ExtractReply containing results

7.3.3.17 enroll_frames()

```
def enroll_frames (
              self,
              database_name,
              frame_list,
              subject_name = None,
              subject_id = None,
              media_id = None,
              options = None )
```

Iterator which runs enrolls on the included frames, automatically creating and yielding enroll requests initialized from the read images.

Parameters

database_name	str: Name of the database to enroll into
frame_list	list(pyvision.Image) or other iterable which yields pyvision.Image: List containing data to extract on.
subject_name	str: Name of subject to enroll
subject_id	str: Uid of the subject to enroll
media_id	str: Uid of the media
options	optparse.Values: Command line options which control enrollment functionality

yield: briar_service_pb2.EnrollReply containing results

7.3.3.18 enroll_frames2()

```
def enroll_frames2 (
              self,
              frame_iter,
              database_name,
              subject_id,
              media_id,
              entity_type,
              detect_options,
              extract_options,
              enroll_options,
              subject_name = None,
              record = None )
```

Iterator which runs enrolls on the included frames, automatically creating and yielding enroll requests initialized from the read images.

Parameters

database_name	str: Name of the database to enroll into
frame_iter	list(pyvision.Image) or other iterable which yields pyvision.Image: List containing data to extract on.
subject_name	str: Name of subject to enroll
subject_id	str: Uid of the subject to enroll
media_id	str: Uid of the media
options	optparse.Values: Command line options which control enrollment functionality

yield: briar_service_pb2.EnrollReply containing results

7.3.3.19 enroll_frames_iter()

```
def enroll_frames_iter (
              self,
              database_name,
              video,
              detect_options = None,
              extract_options = None,
              enroll_options = None,
              det_list_list = None,
              whole_image = False,
              request_start = -1 )
```

Enroll Functions.

Iterates the paths in the media file list, loading them one by one and yielding grpc enroll requests

@type database_name: str

Parameters

database_name	Name of the database to enroll templates in

@type video: an iterator that generates cv2 frames

Parameters

media_files	Paths to the media files to enroll from

@type detect_options: briar_pb2.DetectionOptions

Parameters

options	Command line options in protobuf format which control detection functionality

@type optons: briar_pb2.ExtractOptions

Parameters

options	Command line options in protobuf format which control extraction functionality

@type optons: briar_pb2.EnrollOptions

Parameters

options	Command line options in protobuf format which control enrollment functionality

@type det_list_list: List of list of briar_pb2.Detection

Parameters

det_list_list	If not None, it will contains 1 list of detections per media file

@type whole_image: boolean

Parameters

	Ignore detections and run an extract on the whole image

@yield: briar_service_pb2.EnrollRequest

7.3.3.20 extract()

```
def extract (
              self,
              extract_iter )
```

Extract images contained in the extract iterator.

Parameters

extract_iter	Generator: Generator object which yields extract requests

Returns

: briar_service_pb2.ExtractReply

7.3.3.21 extract_file_iter()

```
def extract_file_iter (
              self,
              media_files,
```

```
                det_list_list = None,
                detect_options = None,
                extract_options = None,
                whole_image = False,
                request_start = -1 )
```

Extract Functions.

Iterates the paths in the media file list, loading them one by one and yielding grpc extract requests

Parameters

media_file_list	list of strings @yield: briar_service_pb2.ExtractRequest

7.3.3.22 extract_files()

```
def extract_files (
                self,
                media_list,
                det_list_list = None,
                detect_options = None,
                extract_options = None,
                whole_image = False,
                request_start = -1 )
```

Iterator which runs extracts on the given file paths, automatically creating and yielding extract requests initialized from the read images.

Parameters

media_list	list(str): List of paths to the image and video files to extract on.
det_list_list	list(list(briar_pb2.Detection)): If not None, it will contains 1 list of detections per media file
boolean	Ignore detections and run an extract on the whole image

yield: briar_service_pb2.ExtractReply containing results

7.3.3.23 extract_frames()

```
def extract_frames (
                self,
                frame_list,
                det_list_list,
                whole_image )
```

Iterator which runs extracts on the given frames, automatically creating and yielding extract requests initialized from the read images.

Parameters

frame_list	list(pyvision.Image): List containing data to extract on.
det_list_list	list(list(briar_pb2.Detection): If not None, it will contains 1 list of detections per media file
boolean	Ignore detections and run an extract on the whole image

yield: briar_service_pb2.ExtractReply containing results

7.3.3.24 extract_frames_iter()

```
def extract_frames_iter (
              self,
              frame_list )
```

Iterates the PyVision frames, yielding extract requests.

Parameters

frame_list	list(pyvision.Image): Raw image data stored in a pyvision object - directly populates requests yielded

@yield: briar_service_pb2.ExtractRequest

7.3.3.25 finalize()

```
def finalize (
              self,
              database_name )
```

Write the given database to disk on the server on which it is running.

Parameters

database_name	str: Name of the database to write to disk

Returns

: briar_pb2.durations

7.3.3.26 get_database_names()

```
def get_database_names (
              self )
```

Database functions.

Gets a list of names from the service representing the databases human readable names

Returns

: 2 element Tuple (List of str, briar_pb2.Durations)

7.3.3.27 get_status()

```
def get_status (
              self,
              options = None )
```

Service Functions.

Initialize the client and connect it to the specified server. Attempts a connection to localhost by default

Parameters

options	optparse.↩ Values:

Returns

: 5 element Tuple of str

7.3.3.28 load_database()

```
def load_database (
              self,
              database_name )
```

Database functions: Load/Create.

Load the database from disk into memory

Parameters

database_name	str: Name of database to load

Returns

: 3 element Tuple(list of str, list of records, briar_pb2.BriarDurations)

7.3.3.29 print_verbose()

```
def print_verbose (
              self,
             * args )
```

Utility Functions:

Simple helper function to print only when the verbose client is given the verbose flag

Parameters

args	tuple(object): Arguments to get passed to print

Returns

: None - outputs to screen

7.3.3.30 retrieve_req_iter()

```
def retrieve_req_iter (
              self,
              database_name,
              template_ids )
```

Database functions: Retrieve.

Generator which yields retrieve requests

Parameters

database_name	str: Name of the database to retrieve from
template_ids	list(str): The templates to retrieve

Returns

: briar_service_pb2.DatabaseRetrieveRequest

7.3.3.31 search()

```
def search (
              self,
              search_iter )
```

Search Functions.

Given a probe, search the database and return matches

Parameters

database_name	str: Name of the database to search
media	briar_pb2.BriarMedia: Media to pull probes from
search_templates	briar_pb2.Template: Probe Template
detections	briar_pb2.Detection: Detections to extract probe templates from
flag	int, briar_pb2.SearchFlags: Tells search whether to use auto-detect, extract detections, or provided templates,

Returns

: briar_service_pb2.SearchReply

7.3.3.32 search_file_iter()

```
def search_file_iter (
              self,
              database_name,
              media_files,
              detect_options = None,
              extract_options = None,
              search_options = None,
              search_templates = None,
              det_list_list = None,
              whole_image = False,
              request_start = -1 )
```

Iterates the paths in the media file list, loading them one by one and yielding grpc search requests.

@type database_name: str

Parameters

database_name	Name of the database to enroll templates in

@type media_files: List of strings

Parameters

media_files	Paths to the media files to enroll from

@type detect_options: briar_pb2.DetectionOptions

Parameters

options	Command line options in protobuf format which control detection functionality

@type extract_optons: briar_pb2.ExtractOptions

Parameters

options	Command line options in protobuf format which control extraction functionality

@type earch_optons: briar_pb2.SearchOptions

Parameters

options	Command line options in protobuf format which control search functionality

@type det_list_list: List of list of briar_pb2.Detection

Parameters

det_list_list	If not None, it will contains 1 list of detections per media file

@type whole_image: boolean

Parameters

	Ignore detections and run an extract on the whole image

@yield: briar_service_pb2.EnrollRequest

7.3.3.33 search_files()

```
def search_files (
              self,
              database,
              file_list,
              detect_options = None,
              extract_options = None,
              search_options = None,
              search_templates = None,
              det_list_list = None,
              whole_image = False,
              request_start = -1 )
```

Iterator which searches images or videos from the given file paths, automatically creating and yielding enroll requests initialized from the read images.

@type database: str

Parameters

database	Specifies which database to enroll in

@type file_list: List of str

Parameters

file_list	List of paths to the image and video files to extract on.

@type options: optparse.Values

Parameters

options	Command line options which control enrollment functionality

@type det_list_list: List of list of briar_pb2.Detection

Parameters

det_list_list	If not None, it will contains 1 list of detections per media file

@type whole_image: boolean

Parameters

	Ignore detections and run an extract on the whole image

yield: briar_service_pb2.ExtractReply containing results

7.3.3.34 track()

```
def track (
              self,
              track_iter )
```

Tracking Functions.

Track person instances contained in the tracking iterator

Parameters

extract_iter	Generator: Generator object which yields extract requests

Returns

: briar_service_pb2.ExtractReply

7.3.3.35 track_file_iter()

```
def track_file_iter (
              self,
              media_files,
              detect_options = None,
              request_start = -1 )
```

Iterates the paths in the media file list, loading them one by one and yielding grpc extract requests.

Parameters

media_file_list	list of strings @yield: briar_service_pb2.ExtractRequest

7.3.3.36 track_files()

```
def track_files (
              self,
              media_list,
              detect_options = None,
              request_start = -1 )
```

Iterator which runs extracts on the given file paths, automatically creating and yielding track requests initialized from the read videos.

Parameters

media_list	list(str): List of paths to the video files to extract on.
detect_options	briar_grpc.DetectionOptions: Detection options proto message (contains TrackOptions

yield: briar_service_pb2.TrackReply containing results

7.3.3.37 verify()

```
def verify (
              self,
              flag,
              reference_media = None,
              verification_media = None,
              reference_dets = None,
              verification_dets = None,
              reference_tmpls = None,
              verification_tmpls = None )
```

Verify Functions.

Either takes probe templates or generates them from provided media and compares them against the 'verification' variables of a matching type. I.e. templates<->templates, media<->media, etc.

Parameters

flag	int briar_pb2.VerifyFlags: Tells the service details about the media it is going to verify perform detections on the images then extract and verify, should it use existing dets, or should it use the provided templates to verify
reference_media	briar_pb2.BriarMedia: This media is where the the probe templates will be pulled from
verification_media	briar_pb2.BriarMedia: This media is where the comparison templates will be pulled from
reference_dets	List of briar_pb2.Detection: These are the detections to extract probe templates from
verification_dets	List of briar_pb2.Detection: These are the detections to extract comparison templates from
reference_tmpls	list(briar_pb2.Template): Probe templates
verification_tmpls	list(briar_pb2.Template): Comparison Templates

Returns

: 2 element Tuple (briar_pb2.MatchSimilarities, briar_pb2.BriarDurations)

```
TODO Currently, this can only compare templates<->templates, detections<->detections, media<->media
TODO Ideally any combination should be able to be compared, i.e. template<->media, detection<->template,
```

7.3.4 Member Data Documentation

7.3.4.1 channel

```
channel
```

7.3.4.2 DEFAULT_PORT

```
string DEFAULT_PORT = "127.0.0.1:50051"  [static]
```

7.3.4.3 options

```
options
```

7.3.4.4 stub

```
stub
```

The documentation for this class was generated from the following file:

- briar_client.py

7.4 BriarMedia Class Reference

Public Member Functions

- def __init__ (self, media_input="", description="", datetime=None, metadata=None)

Public Attributes

- channels
- datetime
- description
- fps
- height
- len
- metadata
- source
- width

Static Public Attributes

- DATA_TYPES
- list IMAGE_FORMATS
- list VIDEO_FORMATS = ['.avi', '.mp4','.mov','.m4v']

7.4.1 Constructor & Destructor Documentation

7.4.1.1 __init__()

```
def __init__ (
              self,
              media_input = "",
              description = "",
              datetime = None,
              metadata = None )
```

7.4.2 Member Data Documentation

7.4.2.1 channels

```
channels
```

7.4.2.2 DATA_TYPES

```
DATA_TYPES  [static]
```

Initial value:

```
=  dict(UINT8=0, UINT16=1, FLOAT32=2, URL=3, PNG=4, JPG=5, MJPG=6,
                    H264=7, H265=8)
```

7.4.2.3 datetime

```
datetime
```

7.4.2.4 description

```
description
```

7.4.2.5 fps

```
fps
```

7.4.2.6 height

```
height
```

7.4.2.7 IMAGE_FORMATS

```
list IMAGE_FORMATS  [static]
```

Initial value:

```
=  ['.bmp', 'dib', '.jpeg', '.jpg', '.jpe', '.jp2', '.png',
                    '.webp', '.pbm', '.pgm', '.ppm', '.pxm', '.pnm', '.sr',
                    '.ras', '.tiff', '.tif', '.exr', '.hdr', '.pic']
```

7.4.2.8 len

```
len
```

7.4.2.9 metadata

```
metadata
```

7.4.2.10 source

```
source
```

7.4.2.11 VIDEO_FORMATS

```
list VIDEO_FORMATS = ['.avi', '.mp4','.mov','.m4v']  [static]
```

7.4.2.12 width

```
width
```

The documentation for this class was generated from the following file:

- briar_media.py

7.5 BriarProgress Class Reference

Public Member Functions

- def __init__ (self, options, desc=None, name=None, leave=True, position=None)
- def update (self, current=1, total=-1)

Public Attributes

- desc
- enabled
- leave
- name
- pbar
- position
- prevstep
- tqdm

7.5.1 Constructor & Destructor Documentation

7.5.1.1 __init__()

```
def __init__ (
              self,
              options,
              desc = None,
              name = None,
              leave = True,
              position = None )
```

7.5.2 Member Function Documentation

7.5.2.1 update()

```
def update (
              self,
              current = 1,
              total = -1 )
```

7.5.3 Member Data Documentation

7.5.3.1 desc

```
desc
```

7.5.3.2 enabled

```
enabled
```

7.5.3.3 leave

```
leave
```

7.5.3.4 name

```
name
```

7.5.3.5 pbar

```
pbar
```

7.5.3.6 position

```
position
```

7.5.3.7 prevstep

```
prevstep
```

7.5.3.8 tqdm

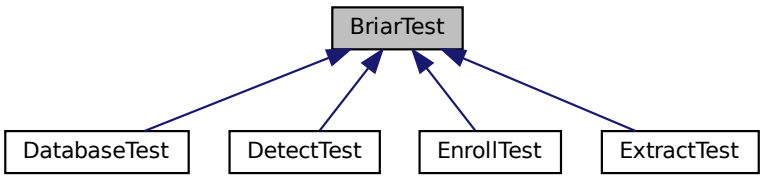
```
tqdm
```

The documentation for this class was generated from the following file:

- media/__init__.py

7.6 BriarTest Class Reference

Inheritance diagram for BriarTest:



Public Member Functions

- def __init__ (self)
- def description (self)
- def run (self)
- def test (self)

Public Attributes

- testdata_folder

7.6.1 Constructor & Destructor Documentation

7.6.1.1 __init__()

```
def __init__ (
              self )
```

7.6.2 Member Function Documentation

7.6.2.1 description()

```
def description (
              self )
```

Reimplemented in ExtractTest, and DetectTest.

7.6.2.2 run()

```
def run (
              self )
```

7.6.2.3 test()

```
def test (
              self )
```

Reimplemented in DatabaseTest, and EnrollTest.

7.6.3 Member Data Documentation

7.6.3.1 testdata_folder

```
testdata_folder
```

The documentation for this class was generated from the following file:

- cli/test.py

7.7 BriarTestResult Class Reference

Public Member Functions

- def __init__ (self, name, passed, reason=None, level=0)

Public Attributes

- level
- name
- passed
- reason

7.7.1 Constructor & Destructor Documentation

7.7.1.1 __init__()

```
def __init__ (
              self,
              name,
              passed,
              reason = None,
              level = 0 )
```

7.7.2 Member Data Documentation

7.7.2.1 level

```
level
```

7.7.2.2 name

```
name
```

7.7.2.3 passed

```
passed
```

7.7.2.4 reason

```
reason
```

The documentation for this class was generated from the following file:

- cli/test.py

7.8 CLICommands Class Reference

Static Public Attributes

- string ARGS = "ARGS"
- dictionary CMD_SCHEMA = {**DETECT, **EXTRACT, **ENROLL}
- list CMD_SYNTAX = [MODE, COMMAND, ARGS]
- string COMMAND = "COMMAND"
- dictionary DETECT
- dictionary ENROLL
- dictionary EXTRACT
- string MODE = "MODE"

7.8.1 Member Data Documentation

7.8.1.1 ARGS

```
string ARGS = "ARGS"  [static]
```

7.8.1.2 CMD_SCHEMA

```
dictionary CMD_SCHEMA = {**DETECT, **EXTRACT, **ENROLL}  [static]
```

7.8.1.3 CMD_SYNTAX

```
list CMD_SYNTAX = [MODE, COMMAND, ARGS]  [static]
```

7.8.1.4 COMMAND

```
string COMMAND = "COMMAND"  [static]
```

7.8.1.5 DETECT

```
dictionary DETECT  [static]
```

Initial value:

```
=  {
        "detect":
        {
            "run": {"args": ["input", "output"],
                    "kwargs": ["kwarg1", "kwarg2", "asdf", "foo", "bar"]}
        }
    }
```

7.8.1.6 ENROLL

```
dictionary ENROLL  [static]
```

Initial value:

```
=  {
        "enroll":
        {
            "run": {"args": ["input", "output"],
                    "kwargs": ["kwarg1", "kwarg2", "asdf", "foo", "bar"]}
        }
    }
```

7.8.1.7 EXTRACT

```
dictionary EXTRACT  [static]
```

Initial value:

```
=  {
        "extract":
        {
            "run": {"args": ["input", "output"],
                    "kwargs": ["kwarg1", "kwarg2", "asdf", "foo", "bar"]}
        }
    }
```

7.8.1.8 MODE

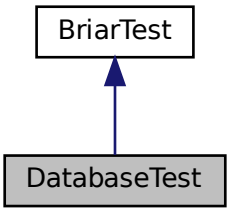
```
string MODE = "MODE"  [static]
```

The documentation for this class was generated from the following file:

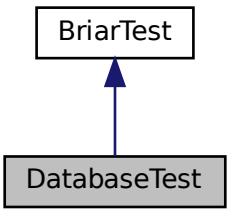
- ibriar.py

7.9 DatabaseTest Class Reference

Inheritance diagram for DatabaseTest:



Collaboration diagram for DatabaseTest:



Public Member Functions

- def test (self)

Additional Inherited Members

7.9.1 Member Function Documentation

7.9.1.1 test()

```
def test (
              self )
```

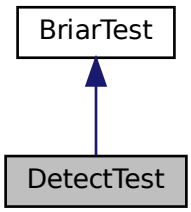
Reimplemented from BriarTest.

The documentation for this class was generated from the following file:

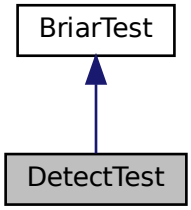
- cli/test.py

7.10 DetectTest Class Reference

Inheritance diagram for DetectTest:



Collaboration diagram for DetectTest:



Public Member Functions

- def description (self)
- def test_1_detection_image (self, testim_path=None, output_path=None, return_media=False)
- def test_2_detection_image_output (self, testim_path=None, output_path=None, return_media=False)
- def test_3_detection_image_withreturn (self)
- def test_4_detection_image_output_withreturn (self)

Public Attributes

- detection_file_path

Static Public Attributes

- string output_path = "./briar-integration-test-results"
- string testim_path = "testdata/BTS1/distractors/G00038/controlled/images_jpg/face/G00038_set2_face0_↩ 03_45_662fb70a.jpg"

7.10.1 Member Function Documentation

7.10.1.1 description()

```
def description (
              self )
```

Reimplemented from BriarTest.

7.10.1.2 test_1_detection_image()

```
def test_1_detection_image (
              self,
              testim_path = None,
              output_path = None,
              return_media = False )
```

7.10.1.3 test_2_detection_image_output()

```
def test_2_detection_image_output (
              self,
              testim_path = None,
              output_path = None,
              return_media = False )
```

7.10.1.4 test_3_detection_image_withreturn()

```
def test_3_detection_image_withreturn (
              self )
```

7.10.1.5 test_4_detection_image_output_withreturn()

```
def test_4_detection_image_output_withreturn (
              self )
```

7.10.2 Member Data Documentation

7.10.2.1 detection_file_path

```
detection_file_path
```

7.10.2.2 output_path

```
string output_path = "./briar-integration-test-results"  [static]
```

7.10.2.3 testim_path

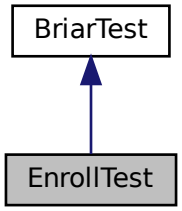
```
string testim_path = "testdata/BTS1/distractors/G00038/controlled/images_jpg/face/G00038_↩
set2_face0_03_45_662fb70a.jpg"  [static]
```

The documentation for this class was generated from the following file:

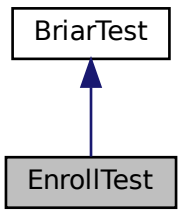
- cli/test.py

7.11 EnrollTest Class Reference

Inheritance diagram for EnrollTest:



Collaboration diagram for EnrollTest:



Public Member Functions

- def test (self)

Additional Inherited Members

7.11.1 Member Function Documentation

7.11.1.1 test()

```
def test (
              self )
```

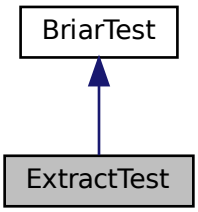
Reimplemented from BriarTest.

The documentation for this class was generated from the following file:

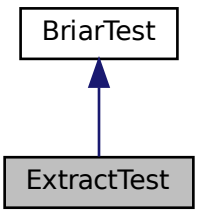
- cli/test.py

7.12 ExtractTest Class Reference

Inheritance diagram for ExtractTest:



Collaboration diagram for ExtractTest:



Public Member Functions

- def description (self)
- def test_1_extraction_image (self, testim_path=None, output_path=None, return_media=False)
- def test_2_extraction_image_output (self, testim_path=None, output_path=None, return_media=False)

Public Attributes

- detection_file_path
- template_file_path

Static Public Attributes

- string output_path = "./briar-integration-test-results"
- string testim_path = "testdata/BTS1/distractors/G00038/controlled/images_jpg/face/G00038_set2_face0_↩
  03_45_662fb70a.jpg"

7.12.1 Member Function Documentation

7.12.1.1 description()

```
def description (
              self )
```

Reimplemented from BriarTest.

7.12.1.2 test_1_extraction_image()

```
def test_1_extraction_image (
              self,
              testim_path = None,
              output_path = None,
              return_media = False )
```

7.12.1.3 test_2_extraction_image_output()

```
def test_2_extraction_image_output (
              self,
              testim_path = None,
              output_path = None,
              return_media = False )
```

7.12.2 Member Data Documentation

7.12.2.1 detection_file_path

```
detection_file_path
```

7.12.2.2 output_path

```
string output_path = "./briar-integration-test-results"  [static]
```

7.12.2.3 template_file_path

```
template_file_path
```

7.12.2.4 testim_path

```
string testim_path = "testdata/BTS1/distractors/G00038/controlled/images_jpg/face/G00038_↩
set2_face0_03_45_662fb70a.jpg"  [static]
```

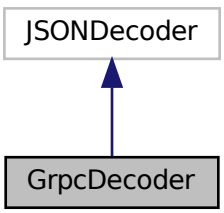
The documentation for this class was generated from the following file:

- cli/test.py

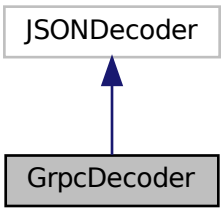
7.13 GrpcDecoder Class Reference

Object which extends the JSONDecoded to allow it to read saved gRPC files.

Inheritance diagram for GrpcDecoder:



Collaboration diagram for GrpcDecoder:



Public Member Functions

- def __init__ (self, options)
- def default (self, obj)

  Takes the given object and convert it into a gRPC object if its a dictionary.

Public Attributes

- options

7.13.1 Detailed Description

Object which extends the JSONDecoded to allow it to read saved gRPC files.

Applied as a hook in the json load function. Inherits from json.JSONDecoder

7.13.2 Constructor & Destructor Documentation

7.13.2.1 __init__()

```
def __init__ (
              self,
              options )
```

7.13.3 Member Function Documentation

7.13.3.1 default()

```
def default (
              self,
              obj )
```

Takes the given object and convert it into a gRPC object if its a dictionary.

Parameters

obj	object||dict: Dictionary which represents an object.

Returns

: object

7.13.4 Member Data Documentation

7.13.4.1 options

`options`

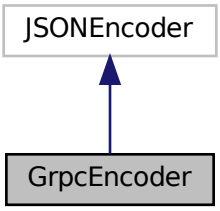
The documentation for this class was generated from the following file:

- grpc_json.py

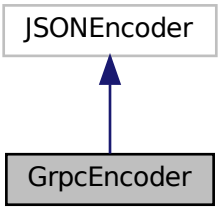
7.14 GrpcEncoder Class Reference

Encoder class which extends the normal JSON encoder to allow the encoding of gRPC objects.

Inheritance diagram for GrpcEncoder:



Collaboration diagram for GrpcEncoder:



Public Member Functions

- def __init__ (self, options=None)
- def default (self, obj)

  Json hook function to convert gRPC objects into a json-serializable object.

Public Attributes

- options

7.14.1 Detailed Description

Encoder class which extends the normal JSON encoder to allow the encoding of gRPC objects.

Inherits from json.JSONEncoder

7.14.2 Constructor & Destructor Documentation

7.14.2.1 __init__()

```
def __init__ (
              self,
              options = None )
```

7.14.3 Member Function Documentation

7.14.3.1 default()

```
def default (
              self,
              obj )
```

Json hook function to convert gRPC objects into a json-serializable object.

Parameters

obj	Any: General object to convert to a json-serializable object

Returns

: Json-Serializable object

7.14.4 Member Data Documentation

7.14.4.1 options

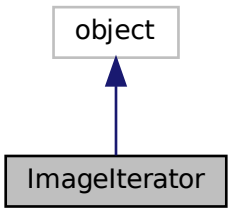
`options`

The documentation for this class was generated from the following file:

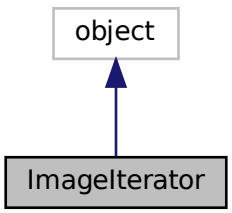
- grpc_json.py

7.15 ImageIterator Class Reference

Inheritance diagram for ImageIterator:



Collaboration diagram for ImageIterator:



Public Member Functions

- def __init__ (self, filepath, start=None, stop=None, unit=None)
- def __iter__ (self)
- def __len__ (self)
- def __next__ (self)

Public Attributes

- filepath
- fps
- frame
- frame_count
- frame_height
- frame_width
- i
- isOpened
- length
- msec
- pos
- processed
- start_frame
- stop_frame

7.15.1 Constructor & Destructor Documentation

7.15.1.1 __init__()

```
def __init__ (
              self,
              filepath,
              start = None,
              stop = None,
              unit = None )
```

7.15.2 Member Function Documentation

7.15.2.1 __iter__()

```
def __iter__ (
              self )
```

7.15.2.2 __len__()

```
def __len__ (
              self )
```

7.15.2.3 __next__()

```
def __next__ (
              self )
```

7.15.3 Member Data Documentation

7.15.3.1 filepath

```
filepath
```

7.15.3.2 fps

```
fps
```

7.15.3.3 frame

```
frame
```

7.15.3.4 frame_count

```
frame_count
```

7.15.3.5 frame_height

```
frame_height
```

7.15.3.6 frame_width

```
frame_width
```

7.15.3.7 i

```
i
```

7.15.3.8 isOpened

```
isOpened
```

7.15.3.9 length

```
length
```

7.15.3.10 msec

```
msec
```

7.15.3.11 pos

```
pos
```

7.15.3.12 processed

```
processed
```

7.15.3.13 start_frame

```
start_frame
```

7.15.3.14 stop_frame

```
stop_frame
```

The documentation for this class was generated from the following file:

- media/__init__.py

7.16 MediaStream Class Reference

Public Member Functions

- def __init__ (self, briar_media)
- def __iter__ (self, request_type)

Private Attributes

- _media_list

7.16.1 Constructor & Destructor Documentation

7.16.1.1 __init__()

```
def __init__ (
              self,
              briar_media )
```

7.16.2 Member Function Documentation

7.16.2.1 __iter__()

```
def __iter__ (
              self,
              request_type )
```

7.16.3 Member Data Documentation

7.16.3.1 _media_list

```
_media_list  [private]
```

The documentation for this class was generated from the following file:

- briar_media.py

7.17 Rect Class Reference

Public Member Functions

- def __init__ (self, x, y, width, height)

Public Attributes

- height
- width
- x
- y

7.17.1 Detailed Description

```
Basic rectangle for storing ROIs without needing to mess with the gRPC BriarRect
```

7.17.2 Constructor & Destructor Documentation

7.17.2.1 __init__()

```
def __init__ (
              self,
              x,
              y,
              width,
              height )
```

7.17.3 Member Data Documentation

7.17.3.1 height

```
height
```

7.17.3.2 width

```
width
```

7.17.3.3 x

```
x
```

7.17.3.4 y

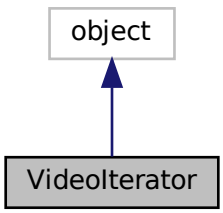
```
y
```

The documentation for this class was generated from the following file:

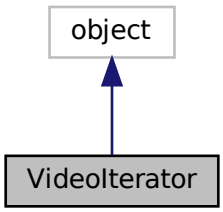
- __init__.py

7.18 VideoIterator Class Reference

Inheritance diagram for VideoIterator:



Collaboration diagram for VideoIterator:



Public Member Functions

- def __init__ (self, filepath, start=None, stop=None, unit=None)
- def __iter__ (self)
- def __len__ (self)
- def __next__ (self)

Public Attributes

- cap
- filepath
- fps
- frame_count
- frame_height
- frame_width
- i
- isOpened
- length
- msec
- pos
- processed
- start_frame
- stop_frame

7.18.1 Constructor & Destructor Documentation

7.18.1.1 __init__()

```
def __init__ (
              self,
              filepath,
              start = None,
              stop = None,
              unit = None )
```

7.18.2 Member Function Documentation

7.18.2.1 __iter__()

```
def __iter__ (
              self )
```

7.18.2.2 __len__()

```
def __len__ (
              self )
```

7.18.2.3 __next__()

```
def __next__ (
              self )
```

7.18.3 Member Data Documentation

7.18.3.1 cap

```
cap
```

7.18.3.2 filepath

```
filepath
```

7.18.3.3 fps

```
fps
```

7.18.3.4 frame_count

`frame_count`

7.18.3.5 frame_height

`frame_height`

7.18.3.6 frame_width

`frame_width`

7.18.3.7 i

`i`

7.18.3.8 isOpened

`isOpened`

7.18.3.9 length

`length`

7.18.3.10 msec

`msec`

7.18.3.11 pos

`pos`

7.18.3.12 processed

```
processed
```

7.18.3.13 start_frame

```
start_frame
```

7.18.3.14 stop_frame

```
stop_frame
```

The documentation for this class was generated from the following file:

- media/__init__.py

Chapter 8

File Documentation

8.1 __init__.py File Reference

Classes

- class Rect

Namespaces

- briar

Functions

- def dyn_import (name)
- def serve (serviceClass, options=None, serve_port=None)

  Initialize and run the BRIARService.

Variables

- string __version__ = '1.2.4'
- int DEFAULT_MAX_MESSAGE_SIZE = 64∗1024∗1024
- string DEFAULT_PORT = "0.0.0.0:50051"
- string DEFAULT_SERVE_PORT = '[::]:50051'

8.2 cli/__init__.py File Reference

Namespaces

- briar.cli

8.3 media/__init__.py File Reference

Classes

- class BriarProgress
- class ImageIterator
- class VideoIterator

Namespaces

- briar.media

Functions

- def decodeMedia (media_pb)

  Convert protobuf media into a numpy array.
- def ImageGenerator (filepath, start=None, stop=None, unit=None)

8.4 sigset/__init__.py File Reference

Namespaces

- briar.sigset

8.5 timing/__init__.py File Reference

Namespaces

- briar.timing

Functions

- def end_duration (reply)
- def generate_progress (frame_id, media)
- def print_duration (name, duration)
- def print_durations (durations)
- def save_durations (media_file, durations_list, options, operation, modality=None)
- def start_duration (request, reply)
- def timeElapsed (duration)
- def timestamp ()

Variables

- string DURATION_FILE_EXT = ".durations"

8.6 __main__.py File Reference

Namespaces

- briar.__main__

8.7 briar_cli.py File Reference

Namespaces

- briar.briar_cli

Functions

- def briar_command_line ()

  Entry point for the CLI - switches on the first command line argument (such as 'status', 'detect', etc) and builds the parser and help messages based upon the callback defined in COMMANDS.
- def briar_database_command_line ()

  Entry point for the Database CLI - switches on the second command line argument (such as 'delete', 'merge', etc) and builds the parser and help messages based upon the callback defined in COMMANDS.
- def briar_test_command_line ()

  Entry point for the Test CLI - switches on the second command line argument (such as 'delete', 'merge', etc) and builds the parser and help messages based upon the callback defined in COMMANDS.
- def incomplete ()

Variables

- dictionary COMMANDS
- dictionary DATABASE_COMMANDS
- string DETECTION_FILE_EXT = ".detection"
- int FACE_COUNT = 0
- string MATCHES_FILE_EXT = '.matches'
- string TEMPLATE_FILE_EXT = '.template'

8.8 briar_client.py File Reference

Classes

- class BriarClient

  Provide a client to a BRIAR service.

Namespaces

- briar.briar_client

8.9 briar_media.py File Reference

Classes

- class BriarMedia
- class MediaStream

Namespaces

- briar.briar_media

Functions

- def briar_media_from_pb2 (pb2_object)
- def briar_media_to_pb2 (media)
- def load_media_from_folder (folder_path, recursive=False)
- def load_media_from_image (image_path)
- def load_media_from_numpy (numpy_array)

8.10 cli/annotate.py File Reference

Namespaces

- briar.cli.annotate

Functions

- def annotate ()

8.11 cli/connection.py File Reference

Namespaces

- briar.cli.connection

Functions

- def addConnectionOptions (parser)

  Accumulatively add options for connecting to the Briar API service.

Variables

- int DEFAULT_MAX_ASYNC = 8
- int DEFAULT_MAX_MESSAGE_SIZE = 64∗1024∗1024∗8

8.12 cli/database.py File Reference

Namespaces

- briar.cli.database

Functions

- def database_delete ()
- def database_info ()
- def database_list ()
- def database_list_entries ()
- def database_merge ()
- def database_rename ()
- def database_retrieve ()
- def db_no_exist (name)
- def parseDatabaseDeleteOptions ()

  Generate options for Deleting a pre-existing database and parse command line arguments into API call.
- def parseDatabaseInfoOptions ()

  Generate options for getting information about a pre-existing database and parse command line arguments into an API call.
- def parseDatabaseListEntriesOptions ()

  Generate options for Listing entries within a pre-existing database and parse command line arguments into an API call.
- def parseDatabaseListOptions ()

  Generate options for listing all pre-existing databases and parse command line arguments into them.
- def parseDatabaseMergeOptions ()

  Generate options for merging databases and parse command line arguments into the API call.
- def parseDatabaseRenameOptions ()

  Generate options for Renaming a pre-existing database to a new name and parse command line arguments into API call.
- def parseDatabaseRetrieveOptions ()

  Generate options for retrieving a pre-existing database and parse command line arguments API call.

8.13 cli/detect.py File Reference

Namespaces

- briar.cli.detect

Functions

- def addDetectorOptions (parser)

  Add options for running detections to the parser.
- def addTrackingOptions (parser)

  Add options for running detections to the parser.
- def detect (options=None, args=None)

  Using the options specified in the command line, runs a detection on the specified files.
- def detect_file_iter (media_files, detect_options=None, verbose=False, request_start=-1)

  Iterates the paths in the media file list, loading them one by one and yielding grpc detect requests.
- def detect_options2proto (options)
- def detectParseOptions (inputCommand=None)

  Generate options for running detections and parse command line arguments into them.
- def save_detections (media_file, reply, options, i, modality=None)
- def tracking_options2proto (options)

Variables

- string DETECTION_FILE_EXT = ".detection"

8.14 cli/enhance.py File Reference

Namespaces

- briar.cli.enhance

Functions

- def addEnhanceOptions (parser)

  Add options for running detections to the parser.
- def enhance (options=None, args=None)

  Using the options specified in the command line, runs a detection on the specified files.
- def enhance_file_iter (media_files, enhance_options=None, verbose=False, request_start=-1)

  Iterates the paths in the media file list, loading them one by one and yielding grpc detect requests.
- def enhance_options2proto (options)
- def enhanceParseOptions (inputCommand=None)

  Generate options for running enhancement and parse command line arguments into them.
- def save_Enhancement (media_file, reply, options, i, modality=None)

8.15 cli/enroll.py File Reference

Namespaces

- briar.cli.enroll

Functions

- def addEnrollOptions (parser)

  Add options for enrollment into a database.
- def enroll (options=None, args=None)

  Using the options specified in the command line, runs an enroll on the specified files.
- def enroll_options2proto (options)
- def enrollParseOptions (inputCommand=None)

  Generate options for running enrollments and parse command line arguments into them.

8.16 cli/extract.py File Reference

Namespaces

- briar.cli.extract

Functions

- def addExtractOptions (parser)

  Add options for extractions to the parser.
- def extract (options=None, args=None)

  Using the options specified in the command line, runs an extract on the specified files.
- def extract_options2proto (options)
- def extractParseOptions (inputCommand=None)

  Generate options for running extracts and parse command line arguments into them.
- def save_extractions (media_file, templates, options, i, modality=None)

Variables

- string TEMPLATE_FILE_EXT = '.template'

8.17 cli/finalize.py File Reference

Namespaces

- briar.cli.finalize

Functions

- def database_finalize (options=None, args=None)

  Parses the command line options and saves the database to disk.
- def finalizeParseOptions (inputCommand=None)

  Generate options for running 'finalize' (saving the loaded databases) and parse command line arguments into them.

8.18 cli/media.py File Reference

Namespaces

- briar.cli.media

Functions

- def addMediaOptions (parser)

  Add options for running detections to the parser.
- def collect_files (args, options, extension=None)

  Take the paths specified by 'args' and find all the media files that they define: folders will be searched for all media files contained inside.
- def hasExtension (f, extension)

Variables

- int DEFAULT_MAX_SIZE = 1920

8.19 cli/search.py File Reference

Namespaces

- briar.cli.search

Functions

- def addSearchOptions (parser)

  Add options for search of a database.
- def search (options=None, args=None)

  Using the options specified in the command line, runs a search within the specified database using specified probe template(s).
- def search_options2proto (options)
- def searchParseOptions (inputCommand=None)

  Generate options for running searches and parse command line arguments into them.

Variables

- string MATCHES_FILE_EXT = '.matches'

8.20 cli/sigset.py File Reference

Namespaces

- briar.cli.sigset

Functions

- def parseSigsetEnrollOptions (inputCommand=None)
- def parseSigsetStatsOptions (inputCommand=None)
- def sigset_enroll ()
- def sigset_stats (options=None, args=None)

8.21 cli/status.py File Reference

Namespaces

- briar.cli.status

Functions

- def status (options=None, args=None)

  Conects to the server and gets status information.
- def statusParseOptions (inputCommand=None)

  Generate options for getting status and parse command line arguments into them.

8.22 cli/test.py File Reference

Classes

- class BriarTest
- class BriarTestResult
- class DatabaseTest
- class DetectTest
- class EnrollTest
- class ExtractTest

Namespaces

- briar.cli.test

Functions

- def detection_output_tests (detection_obj_loaded, testimage, return_media)
- def extraction_output_tests (template_obj_loaded, testimage, return_media)

8.23 cli/track.py File Reference

Namespaces

- briar.cli.track

Functions

- def save_tracklets (media_file, tracklets, options, i, verbose=False, modality=None)
- def track (options=None, args=None)

  Using the options specified in the command line, runs a detection on the specified files.

Variables

- string TRACKLET_FILE_EXT = ".tracklet"

8.24 cli/viz.py File Reference

Namespaces

- briar.cli.viz

Functions

- def viz ()

  Using the options specified in the command line, runs a detection on the specified files.
- def vizParseOptions ()

  Generate options for running detections and parse command line arguments into them.

8.25 functions.py File Reference

Namespaces

- briar.functions

Functions

- def new_uuid ()

  Create and return a new, 36 character unique id.

8.26 grpc_json.py File Reference

Classes

- class GrpcDecoder

  Object which extends the JSONDecoded to allow it to read saved gRPC files.
- class GrpcEncoder

  Encoder class which extends the normal JSON encoder to allow the encoding of gRPC objects.

Namespaces

- briar.grpc_json

Functions

- def dict_to_proto_obj (obj_dict, options=None)

  *Take the object dictionary, read the dict which is saved in in the '**class**' key, and initialize it with values stored in the dictionary's key/value pairs.*
- def load (load_path, options=None)

  Load the json file at the given directory, reloading dictionaries with "__class__" fields into the specified objects and initializing them with values defined by key/value pairs within the dictionary.
- def proto_obj_to_dict (obj, options=None)

  Takes a general gRPC/protobuf object, eliminates the unnecessary fields, and stores the data in a dict.
- def save (json_obj, save_path, options=None)

  Save a list or dictionary containing protobuf classes to a json file.

Variables

- list ATTRIB_IGNORE

8.27 ibriar.py File Reference

Classes

- class BriarCLI
- class BriarCLICompleter
- class CLICommands

Namespaces

- briar.ibriar

Variables

- bcl = BriarCLI()
- dictionary DEFAULT_ARGS = {"in_path":str, "out_path":str, "":"", }

8.28 media/visualize.py File Reference

Namespaces

- briar.media.visualize

Functions

- def visualize_detection (detection_path)
- def visualize_matches (matches_path)
- def visualize_track (track_path, options)

Variables

- string fdir = "/Users/2r6/Projects/briar/briar-api/media/test_probe/clinton3.matches"
- list files = [os.path.join(fdir,f) for f in os.listdir(fdir)]

8.29 media_converters.py File Reference

Namespaces

- briar.media_converters

Functions

- def image_cv2proto (im, compression='uint8', quality=99)

  Convert a cv2 numpy array to a protobuf format.
- def image_np2proto (im, compression='uint8', quality=99)

  Convert a numpy array to a protobuf format.
- def image_proto2cv (pb_data)

  Convert a protobuf BriarMedia image to a cv2 numpy array.
- def image_proto2np (pb_data)

  Convert a protobuf image to a numpy array.
- def matrix_np2proto (mat)

  Convert a numpy matrix into a BriarMatrix.
- def matrix_proto2np (protomat)

  Convert a protobuf matrix into a numpy matrix.
- def modality_proto2string (modality)
- def modality_string2proto (modality)
- def vector_np2proto (vec)

  Convert a 1 dimensional np array into a BriarVector.
- def vector_proto2np (protovec)

  Convert a protobuf vector into a numpy array.

Variables

- dictionary modalityDict
- dictionary reverseModalityDict = {modalityDict[k]:k for k in modalityDict}

8.30 readme-cli.md File Reference

8.31 sigset/parse.py File Reference

Namespaces

- briar.sigset.parse

Functions

- def expandTree (root, level=0, spaces=3)
- def parseBriarSigset (filename)

Index