Configuration file for SDPC replay providers

The configuration file is used to configure the player to print, send, and plot data from the Connected Vehicle SDPC warehouse.

All sections (top level members) are optional and all fields have defaults.

Source information is always needed while all other sections are truly optional.

If destination section is not present then data will not be sent.

If other.verbose is set to false (default) then data will not be printed.

If renderer is not specified (set to null) when the replay-provider class is instantiated, the data will not be plotted.

Configuration files fields:

source	specifies source for the data such as host, port, Mongo database, collection, query, and query options
host	Mongo database server name. Default: *localhost*
port	Mongo database port. Default: *27017*
database	Mongo database name. Default: *cvdb*
collection	Mongo database collection. Default: *vehSitDataMessage*
queryStr	Mongo query as string. Fallback for *query* or *queryFile* if any
query	inline query. Default: *{"$query":{},"$orderby":{"deCreatedAt":-1}}*
queryFile	Name of file containing Mongo query. Fallback for *query* or *queryFile*
skip	Number of records to skip before processing. Default: *0*
limit	Max of records to process. Default: *-1* (unlimited)
destination	specifies target host, port, and reply port for trust establishment
host	target server name or IPv4/IPv6 address. Default: *localhost*
port	target port. Default: *46751*
replyPort	reply to port. Default: *46752*
trust	provides disposition for trust establishment
ignore	ignore trust establishment failure. Default: *true*
attempts	maximum trust establishment retries. Default: *3*
timeout	socket receive timeout in milliseconds. Default: *3000* (3 seconds)
other	miscellaneous options
processor	Mongo database record processor subsection
className	fully qualified class name of the record processor class. Default: *gov.usdot.desktop.apps.provider.sdpc.MongoDbSdpcDbRecordProcessor*
config	provider specific configuration options. Default: null (none, n/a)
delay	delay between sent messages in milliseconds. Default: *500* (.5 sec)
verbose	pretty print messages being sent. Default: *false*
groupID	groupID to use in dialogs. Default: *0* (i.e. unused or undefined)

The sender class is *gov.usdot.desktop.apps.provider.sdpc.MongoDbSdpcSenderProvider*.

Records fetched from Mongo database are processed via a database record processor that is specified by *other.processor.className* option.

The default record processor uses database record *encodeMsg* value that contains the original BER message as a source for messages being printed or sent out. Additionally, for plotting, *lat* and *long* fields from the record are used to create a geo point that is fed into renderer (if any).

Custom database record processor that allows changing original record's requestID is *gov.usdot.desktop.apps.provider.sdpc.MongoDbSdpcCustomRequestIdDbRecordProcessor*. Configuration JSON field *other.processor.config.requestID* can be used to specify the desired ID. Default is *0xA0A0A0A0*.

Example: Replay data using sdpc_veh_sit_data_config.json configuration file:

```
java -cp fedgov-cv-desktop-apps-1.0.0-SNAPSHOT-jar-with-dependencies.jar
    gov.usdot.desktop.apps.provider.sdpc.MongoDbSdpcSenderProvider
    sdpc_veh_sit_data_config.json
```

Several sample batch and configuration files are available under:

```
fedgov-cv-desktop-apps/src/test/resources/
```

To run replay with mapping using desktop mapping application use run_replay_demo.bat. When running with the mapping application a new simple query for all collection data in a specific region may be requested by drawing a rectangle on the map using the left mouse button press-and-drag. This dynamic query is not persisted on exit. To use the dynamic query: click stop button, then draw a rectangle, then click start button.

Sample configuration file sdpc_veh_sit_data_request_id_config.json:

```
{
   "source":{
      "host":"10.118.209.100",
      "port":27017,
      "database":"cvdb",
      "collection":"vehSitDataMessage",
      "query":{
         "$query":{
            "location":{
               "$geoWithin":{
                  "$box":[
                     [
                        -83.49163055419922,
                        42.47678161860101
                     ],
                     [
                        -83.4550666809082,
                        42.49589666159403
                     ]
                  ]
               }
            }
         },
         "$orderby":{
            "deCreatedAt":-1
         }
      },
      "skip":5,
      "limit":10000
   },
   "destination":{
      "host":"10.98.65.120",
      "port":46751,
```

```
      "replyPort":46752
   },
   "trust":{
      "ignore":true,
      "attempts":3,
      "timeout":3000
   },
   "other":{
      "processor":{

"className":"gov.usdot.desktop.apps.provider.sdpc.MongoDbSdpcCustomRequestIdDbRecordP
rocessor",
         "config":{
            "requestID":3735928559
         }
      },
      "delay":500,
      "verbose":true
   }
}
```