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# **JSON MDQ Server Documentation**

*Release 1.1.1*

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thiss-mdq is a minimal implementation of the metadata query protocol (MDQ) that only supports JSON data. Metadata in discojson format is loaded from a JSON-file referenced by \$METADATA. The file is watched for updates and is reloaded automatically. A server is started on \$HOST (0.0.0.0) and \$PORT (3000). Run it using “npm start” or the supplied Docker container.



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## Installing and Running thiss-mdq

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The recommended way to install thiss-mdq is via docker using the supplied Dockerfile:

```
# docker build -t thiss-mdq:latest
```

The docker-image can be run thus:

```
# docker run -d -p 3000:3000 -v /some/where/metadata.json:/etc/metadata.json thiss-  
↪mdq:latest
```

Verify that the container has started by cURL:ing:

```
# curl -s http://localhost:3000/
```

The result should include information about the version of thiss-mdq and the number of entities in the metadata set.

There are two backend options: the default lunr-based backend and the redis backend. Setting the environment variable INDEXER to 'redis' turns on the latter.





The thiss-mdq server implements the metadata query protocol (MDQ) along with a few extensions.

## 2.1 MDQ

The following endpoints are specified by MDQ (using GET requests)

- `/entities/` - returns all JSON metadata in a single array.
- `/entities/{sha1}<sha1 hash of entityID>` - returns a single entity in JSON format

The MDQ protocol specifies standard content negotiation but currently the Accept header is ignored and `application/json` is always returned. This may change in the future and clients should always set the Accept header to include `application/json`. An optional “.json” efile extension in the URL is ignored.

In addition to these endpoints thiss-mdq supports a couple of extensions:

- Search
- WebFinger
- Monitoring

## 2.2 Search

Issue a GET request to `/entities/?q=<search>`. The result is a (possibly empty) JSON list of entities matching the search query.

## 2.3 WebFinger

Issue a GET request to `/.well-known/webfinger`. The result is a list of all URIs (all the entities) included in the indexed metadata. This can be used together with curl/wget to mirror the `_static_` contents of the mdq instance. It

is of course not possible to mirror all possible searches this way.

## **2.4 Monitoring**

Issue a GET or HEAD request to `/status`. The result is a 200 if the metadata index is alive an well and 500 otherwise.

### 3.1 Version 1.1.4

- escape special characters in plain text queries

### 3.2 Version 1.2.0

- pluggable indexing and redis-support from Hannah Sebuliba

### 3.3 Version 1.2.1

- bugfixes

### 3.4 Version 1.2.2

- updates to the search algorithm to favor more exact searches over less

### 3.5 Version 1.2.3

- Integrate stopwords module instead of locally maintained stopwords

### 3.6 Version 1.2.4

- Enforce AND-logic for combining multiple search terms

### 3.7 Version 1.2.5

- Never treat the first token as a stopword

### 3.8 Version 1.2.6

- Reduce index memory footprint
- Use cluster controller for expressjs

### 3.9 Version 1.3.0

- Discontinue support for automatic restarts - rely on external restart
- Change tokenizer to split tokens on whitespace only
- Improved i18n-support
- Provide information about metadata mtime in monitor json

### 3.10 Version 1.3.1

- Updated and extended status json information: mtime and ctime for the metadata file is reported separately

### 3.11 Version 1.3.2

- Avoid including user-supplied data in header values

## CHAPTER 4

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### Indices and tables

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- `genindex`
- `search`