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# **django-taxii-services Documentation**

*Release 0.6.dev0*

**The MITRE Corporation**

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**django-taxii-services** is an installable Django app that:

1. Demonstrates 100% of TAXII 1.0 and TAXII 1.1 functionality
2. Enables rapid prototyping of TAXII applications (if you're using Django, that is)
3. Enables 3rd party developers to extend built-in functionality

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## Getting Started

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This page gives an introduction to **django-taxii-services** and how to use it. Please note that this page is being actively worked on and feedback is welcome ([taxii@mitre.org](mailto:taxii@mitre.org)).

Note that the GitHub repository is named `django-taxii-services`, but once installed, the library is imported using the `import taxii_services` statement.

### Installation

There are two options for installation:

1. `pip install taxii_services --upgrade`
2. Download the latest zip from <https://pypi.python.org/pypi/taxii-services>

### Local YETI Deployment

This information is now available here: [http://yeti.readthedocs.org/en/latest/getting\\_started.html](http://yeti.readthedocs.org/en/latest/getting_started.html)

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## Handlers

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This page has documentation for two concepts specific to django-taxii-services: QueryHandlers and MessageHandlers.

### MessageHandlers

In django-taxii-services, MessageHandlers are how a TAXII Service handles a request and creates a response. Each TAXII Service can have one message handler per message exchange.

The `base_taxii_handlers.MessageHandler` class is the base class for all TAXII Message Handlers and has a single extension point – the `'handle_message'` function. Implementers who wish to have the most power over their MessageHandler should extend `MessageHandler` and implement the `'handle_message'` function. Implementers can also re-use django-taxii-service's built-in TAXII Message Handlers for less power, but more work already done for them.

Built-in TAXII Message Handlers have two goals: first, to provide correct functionality for the TAXII Message Exchange they support; second, to provide an extensible/reusable class where implementers can make (hopefully) simple modification(s) to a built-in MessageHandler to achieve functionality specific to their needs. Note that all built-in TAXII Message Handlers extend the `base_taxii_handlers.MessageHandler` class. To meet the second goal of extensibility/reusability, some built-in TAXII Message Handlers have extension points in addition to the `'handle_message'` function. These extension points (functions) are called by the `'handle_message'` function of the built-in TAXII Message Handler as part of the workflow for handling that message. One example of this is the `'save_content_block'` method of the `InboxMessage1Handler`, which allows implementers to override just the `InboxMessage1Handler`'s default logic for saving content without needing to re-implement the rest of the handler's processing logic.

### QueryHandlers

(TODO: Write this)

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## Release Notes

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### 0.5 (2017-11-20)

- #46 - Convert `longs` to `ints` (@AdamTheAnalyst)
- #44 - Use absolute imports (@gtback)
- #40 - Return full URLs in `<Address>` elements (@jasenj1)
- #30 - Drop support for Python 2.6 (@gtback)
- Start to align repository with other projects

### 0.4 (2015-03-26)

TODO: Fill this in

### 0.3 (2014-11-12)

TODO: Fill this in

### 0.2

The structure of Message Handlers and Query Handlers were significantly reorganized:

- Message Handlers used to be in `base_taxii_handlers.py` and `taxii_handlers.py`. They are now in the `message_handlers` module, which consists of the following files:
- `base_handlers.py` - Contains the `BaseMessageHandler` class. All Message Handler classes inherit from this class
- `collection_information_request_handlers.py` - Contains all Collection/Feed Information Request Handlers (TAXII 1.0 and 1.1)
- `discovery_request_handlers.py` - Contains all Discovery Request Handlers (TAXII 1.0 and 1.1)
- `inbox_message_handlers.py` - Contains all Inbox Message Handlers (TAXII 1.0 and 1.1)
- `poll_fulfillment_request_handlers.py` - Contains the Poll Fulfillment Request Handler (TAXII 1.1)
- `poll_request_handlers.py` - Contains all Poll Request Handlers (TAXII 1.0 and 1.1)

- `subscription_request_handlers.py` - Contains all Subscription Handlers (TAXII 1.0 and 1.1)

Note that each Message Handler, or `BaseMessageHandler`, can be extended and customized for custom TAXII Message Handling

- Query Handlers used to be in `base_taxii_handlers.py` and has been moved to the `query_handlers` module, which consists of the following files:
- `base_handlers.py` - Contains the `BaseQueryHandler` and `BaseXmlQueryHandler` class. The `BaseXmlQueryHandler` class is a general TAXII Query to XPath mapping class
- `stix_xml_111_handler.py` - Contains an incomplete STIX 1.1.1 Query Handler that is a subclass of `BaseXmlQueryHandler`.

Closed issues:

- #16 - <https://github.com/TAXIIPROJECT/django-taxii-services/issues/16>
- #17 - <https://github.com/TAXIIPROJECT/django-taxii-services/issues/17>
- #24 - <https://github.com/TAXIIPROJECT/django-taxii-services/issues/24>

Other changes

- Quite a few PEP8 changes
- Added testing and test content (see: `test/`)

## 0.1.2

The dependencies are now listed correctly, making it easier for people to use `django-taxii-services`

## 0.1.1

There was a critical bug in 0.1 that was somehow missed. (#13). This bug fix release is simply to fix that bug.

## 0.1

0.1 is the first version of `django-taxii-services`. Please note that since the version number is below 1.0, the API is unstable and may change in a future minor release.

The intent of this release is to gauge interest for `django-taxii-services` and determine whether it makes sense to keep working on future versions.

The major items accomplished in this release are:

- Established core concepts, paradigms, and structures of the library
- Set the technical direction of `MessageHandler` extension points
- Baseline API documentation: <http://taxii-services.readthedocs.org/en/latest/index.html>
- YETI 2.0a (An experimental release of YETI) now uses `django-taxii-services`.

There are some notable/major TBDs in this release of `django-taxii-services`:

- Non-API documentation (We tried to get API documentation at least usable)
- Logging (<https://github.com/TAXIIPROJECT/django-taxii-services/issues/5>)

- Testing (<https://github.com/TAXIIProject/django-taxii-services/issues/3>)
- QueryHandlers need to be fleshed out more (<https://github.com/TAXIIProject/django-taxii-services/issues/6>)
- Many portions of the library are experimental and untested



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## Indices and tables

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- `modindex`
- `search`