CERNServiceXML Documentation

Release 0.2.1

CERN

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CERNServiceXML is a small library to generate a CERN XSLS Service XML.

CHAPTER 1

Installation

The CERNServiceXML package is on PyPI so all you need is:

```
$ pip install cernservicexml
```

CHAPTER 2

Usage

Creation of XSLS service documents.

Usage:

```
>>> from cernservicexml import ServiceDocument, Status
>>> doc = ServiceDocument('zenodo', status=Status.available)
>>> doc.add_numericvalue('users', 1000, desc="Number of users")
>>> xml = doc.to_xml()
```

Publishing of service documents.

Usage:

```
>>> from cernservicexml import ServiceDocument, XSLSPublisher
>>> doc = ServiceDocument('myserviceid')
>>> XSLSPublisher.send(doc)
<Response [200]>
```

CHAPTER 3

API

class cernservicexml.document.**ServiceDocument**(*service_id*, *status=None*, *timestamp=None*, *availabilitydesc=None*, *contact=None*, *webpage=None*, *availabilityinfo=None*, *availability=None*)

XSLS Service Document class.

Parameters

- **service_id** – A unique service id.
- **availability** – An integer 0-100 indicating availability of service (*deprecated*, use `status` instead). Default: 100.
- **status** – Status of the service. Allowed values: `available`, `degraded` or `unavailable`. Default: `available`.
- **timestamp** – Timestamp when the availability was calculated. Must be a datetime object. Default: now.
- **availabilitydesc** – Information about the availability.
- **contact** – Service contacts a string.
- **webpage** – Service website (any URI)
- **availabilityinfo** – Information about the service. Can contain HTML.

Changed in version 0.2: Added `status` parameter. Deprecated `availability` parameter.

STATUSES = [u'available', u'degraded', u'unavailable']

Allowed status values.

add_numericvalue(*name*, *value*, *desc=None*)

Add a numeric value metric.

Parameters

- **name** – Numeric value id.
- **value** – An integer, float or Decimal object.
- **desc** – A description.

availability

Get status as legacy availability percentage.

Deprecated since version 0.2: Use of availability as percentage is deprecated. Please use `status` instead. Attribute will be removed in v0.3.

to_xml()
Serialize service document to XML.

class cernservicexml.publisher.**XSLSPublisher**
Publish a service document to an XSLS service.

classmethod send(*document*, *api_url=u'http://xsls.cern.ch'*)
Send service document to XSLS.

CHAPTER 4

Changes

Version 0.2.1 (released 2015-07-24)

- Relaxes Requests library version requirement from v2.3 to v1.1 to support CERN SLC6/CentOS 7 distributions. Note, Python 3.4 requires Requests v2+.
- Adds Travis test matrix to test multiple versions of the Requests library.
- Standardises software name (CERNServiceXML) and package name (cernservicexml) following usual inveniosoftware practices.
- Fixes reST headline formatting in *RELEASE-NOTES.rst*.

Version 0.2.0 (released 2015-07-16)

- Adds support for service status parameter in `ServiceDocument`.
- Deprecates use of service availability percentage in `ServiceDocument`. Please use service status parameter instead.
- Changes documentation theme to the standard non-Flask RTD one.
- Initial release of Docker configuration suitable for local developments. *docker-compose build* rebuilds the image, *docker-compose run –rm web python setup.py test* runs the test suite.

Version 0.1.2 (released 2015-06-17)

- Adds support for long (Python 2) integers.

Version 0.1.1 (released 2015-06-17)

- Fixes issues with POST request for sending the service XML to XSLS.
- Adds doctests to ensure documentation examples works.
- Adds XML validation tests according to XSD Schema.

Version 0.1.0 (released 2015-06-16)

- Initial public release.

CHAPTER 5

Contributing

Bug reports, feature requests, and other contributions are welcome. If you find a demonstrable problem that is caused by the code of this library, please:

1. Search for already reported problems.
2. Check if the issue has been fixed or is still reproducible on the latest *master* branch.
3. Create an issue with **a test case**.

If you create a feature branch, you can run the tests to ensure everything is operating correctly:

```
$ ./run-tests.sh
```

You can also test your feature branch using Docker:

```
$ docker-compose build
$ docker-compose run --rm web /code/run-tests.sh
```

CHAPTER 6

License

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