
Invenio-Query-Parser Documentation

Release 0.2.0

Invenio collaboration

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Search query parser supporting Invenio and SPIRES search syntax.

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1.1 Installation

Invenio-Query-Parser is on PyPI so all you need is:

```
$ pip install invenio-query-parser
```

1.2 Usage

The easiest way is to use *pypeg2* directly with `Main`.

```
import pypeg2
from invenio_query_parser.parser import Main
pypeg2.parse('author:"Ellis"', Main)
```

1.3 API

API for Invenio-Query-Parser. Define abstract classes.

```
class invenio_query_parser.ast.AndOp(left, right)
class invenio_query_parser.ast.BinaryKeywordBase(left, right)

    keyword
class invenio_query_parser.ast.BinaryOp(left, right)
```

```

    accept (visitor)
class invenio_query_parser.ast.DoubleQuotedValue (value)
class invenio_query_parser.ast.EmptyQuery (value)
class invenio_query_parser.ast.GreaterEqualOp (op)
class invenio_query_parser.ast.GreaterOp (op)
class invenio_query_parser.ast.Keyword (value)
class invenio_query_parser.ast.KeywordOp (left, right)
class invenio_query_parser.ast.Leaf (value)

```

```

    accept (visitor)
class invenio_query_parser.ast.ListOp (children)

```

```

    accept (visitor)
class invenio_query_parser.ast.LowerEqualOp (op)
class invenio_query_parser.ast.LowerOp (op)
class invenio_query_parser.ast.NotOp (op)

```

```

    keyword
class invenio_query_parser.ast.OrOp (left, right)
class invenio_query_parser.ast.RangeOp (left, right)
class invenio_query_parser.ast.RegexValue (value)
class invenio_query_parser.ast.SingleQuotedValue (value)
class invenio_query_parser.ast.UnaryOp (op)

```

```

    accept (visitor)
class invenio_query_parser.ast.Value (value)
class invenio_query_parser.ast.ValueQuery (op)

```

Define parsers.

```

class invenio_query_parser.parser.And

```

```

    grammar = (-6, [<_sre.SRE_Pattern object at 0x7f5fd68f2030>, Literal('+')])
class invenio_query_parser.parser.AndQuery

```

```

    grammar = [((-6, <class 'invenio_query_parser.parser.And'>), [((-6, <class 'invenio_query_parser.parser.Whitespace'>), A
class invenio_query_parser.parser.BinaryRule
class invenio_query_parser.parser.DoubleQuotedString

```

```

    grammar = (Literal(''), Attribute(name='value', thing=<_sre.SRE_Pattern object at 0x7f5fd64b0258>, subtype=None), L

```



```
class invenio_query_parser.parser.EmptyQueryRule
```

```
    grammar = Attribute(name='value', thing=<_sre.SRE_Pattern object at 0x7f5fd6958c68>, subtype=None)
```

```
class invenio_query_parser.parser.ImplicitAndQuery
```

```
    grammar = [Attribute(name='op', thing=<class 'invenio_query_parser.parser.ParenthesizedQuery'>, subtype=None), At
```

```
class invenio_query_parser.parser.KeywordQuery
```

```
    grammar = [(Attribute(name='left', thing=<class 'invenio_query_parser.parser.KeywordRule'>, subtype=None), (-6, ((0,
```

```
class invenio_query_parser.parser.KeywordRule
```

```
    grammar = Attribute(name='value', thing=<_sre.SRE_Pattern object at 0x7f5fd656c490>, subtype=None)
```

```
class invenio_query_parser.parser.LeafRule
```

```
class invenio_query_parser.parser.ListRule
```

```
class invenio_query_parser.parser.Main
```

```
    grammar = [((-6, (0, <class 'invenio_query_parser.parser.Whitespace'>)), Attribute(name='op', thing=<class 'invenio_qu
```

```
class invenio_query_parser.parser.NestableKeyword
```

```
    grammar = Attribute(name='value', thing=[<_sre.SRE_Pattern object at 0x7f5fd65d2c90>, <_sre.SRE_Pattern object at
```

```
class invenio_query_parser.parser.Not
```

```
    grammar = (-6, [(-6, <_sre.SRE_Pattern object at 0x7f5fd64af288>), <_sre.SRE_Pattern object at 0x7f5fd68f2b58>, Liter
```

```
class invenio_query_parser.parser.NotQuery
```

```
    grammar = [((-6, <class 'invenio_query_parser.parser.Not'>), [((-6, <class 'invenio_query_parser.parser.Whitespace'>), A
```

```
class invenio_query_parser.parser.Number
```

```
    grammar = Attribute(name='value', thing=<_sre.SRE_Pattern object at 0x7f5fd6c7a160>, subtype=None)
```

```
class invenio_query_parser.parser.Or
```

```
    grammar = (-6, [<_sre.SRE_Pattern object at 0x7f5fd64a0330>, Literal('I')])
```

```
class invenio_query_parser.parser.OrQuery
```

```
    grammar = [((-6, <class 'invenio_query_parser.parser.Or'>), [((-6, <class 'invenio_query_parser.parser.Whitespace'>), At
```

```
class invenio_query_parser.parser.ParenthesizedQuery
```

```
    grammar = ((-6, (Literal('('), (0, <class 'invenio_query_parser.parser.Whitespace'>))), Attribute(name='op', thing=<class
```

```
class invenio_query_parser.parser.Query
```

```

    grammar = Attribute(name='children', thing=[<class 'invenio_query_parser.parser.ParenthesizedQuery'>, <class 'invenio_query_parser.parser.RangeOp'>])
class invenio_query_parser.parser.RangeOp

```

```

    grammar = (Attribute(name='left', thing=<class 'invenio_query_parser.parser.RangeValue'>, subtype=None), Literal('-', <class 'invenio_query_parser.parser.RangeValue'>))
class invenio_query_parser.parser.RangeValue

```

```

    grammar = Attribute(name='op', thing=[<class 'invenio_query_parser.parser.DoubleQuotedString'>, <class 'invenio_query_parser.parser.SimpleQuery'>])
class invenio_query_parser.parser.SimpleQuery

```

```

    grammar = Attribute(name='op', thing=[<class 'invenio_query_parser.parser.KeywordQuery'>, <class 'invenio_query_parser.parser.SimpleRangeValue'>])
class invenio_query_parser.parser.SimpleRangeValue

```

```

    grammar = Attribute(name='value', thing=<_sre.SRE_Pattern object at 0x7f5fd68f1880>, subtype=None)
class invenio_query_parser.parser.SimpleValue (values)

```

```

    grammar = (-2, <class 'invenio_query_parser.parser.SimpleValueUnit'>)
class invenio_query_parser.parser.SimpleValueUnit (args)

```

```

    grammar = [<_sre.SRE_Pattern object at 0x7f5fd64b03c8>, (<_sre.SRE_Pattern object at 0x7f5fd68f2cf0>, <class 'invenio_query_parser.parser.SingleQuotedString'>)]
class invenio_query_parser.parser.SingleQuotedString

```

```

    grammar = (Literal('"'), Attribute(name='value', thing=<_sre.SRE_Pattern object at 0x7f5fd64b01a0>, subtype=None), <class 'invenio_query_parser.parser.SlashQuotedString'>))
class invenio_query_parser.parser.SlashQuotedString

```

```

    grammar = (Literal('/'), Attribute(name='value', thing=<_sre.SRE_Pattern object at 0x7f5fd64b0310>, subtype=None), <class 'invenio_query_parser.parser.UnaryRule'>))
class invenio_query_parser.parser.UnaryRule
class invenio_query_parser.parser.Value

```

```

    grammar = Attribute(name='op', thing=[<class 'invenio_query_parser.parser.RangeOp'>, <class 'invenio_query_parser.parser.ValueQuery'>])
class invenio_query_parser.parser.ValueQuery

```

```

    grammar = Attribute(name='op', thing=<class 'invenio_query_parser.parser.Value'>, subtype=None)
class invenio_query_parser.parser.Whitespace

```

```

    grammar = Attribute(name='value', thing=<_sre.SRE_Pattern object at 0x7f5fd6c6d880>, subtype=None)
Store the actual visitor methods.

```

```

class invenio_query_parser.visitor.make_visitor (methods=None)
    Make a visitor decorator.

```

1.4 Changes

Version 0.2.0 (released 2014-12-10):

- Initial public release.
- Adds Python2/Python3 compatibility layer. (#2)
- Adds new Sphinx documentation page. (#3)
- Adds simple inheritance for visitor pattern and separates SPIRES syntax parser to contrib module. (#7)

Version 0.1.0 (release 2014-10-13):

- Initial private release. Includes code developed by Alessio Deiana and Federico Poli.

1.5 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:

```
$ python setup.py test

...

===== 146 passed in 1.90 seconds =====
```

1.6 Authors

Invenio-Query-Parser is developed for the [Invenio](#) digital library software.

Contact us at info@invenio-software.org.

- Alessio Deiana <<https://github.com/osso>>
- Federico Poli <<https://github.com/fpoli>>
- Jiri Kuncar <<https://github.com/jirikuncar>>
- Tibor Simko <<https://github.com/tiborsimko>>

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