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# **pyiso8601 Documentation**

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This module parses the most common forms of ISO 8601 date strings (e.g. 2007-01-14T20:34:22+00:00) into datetime objects.

```
>>> import iso8601
>>> iso8601.parse_date("2007-01-25T12:00:00Z")
datetime.datetime(2007, 1, 25, 12, 0, tzinfo=<iso8601.Utc>)
>>>
```

See the LICENSE file for the license this package is released under.

If you want more full featured parsing look at:

- <https://arrow.readthedocs.io> - arrow
- <https://pendulum.eustace.io> - pendulum
- <https://labix.org/python-dateutil> - python-dateutil
- <https://docs.python.org/3/library/datetime.html#datetime.datetime.fromisoformat> - Yes, Python 3 has built in parsing too!



You can parse full date + times, or just the date. In both cases a datetime instance is returned but with missing times defaulting to 0, and missing days / months defaulting to 1.

### 1.1 Dates

- YYYY-MM-DD
- YYYYMMDD
- YYYY-MM (defaults to 1 for the day)
- YYYY (defaults to 1 for month and day)

### 1.2 Times

- hh:mm:ss.nn
- hhmmss.nn
- hh:mm (defaults to 0 for seconds)
- hhmm (defaults to 0 for seconds)
- hh (defaults to 0 for minutes and seconds)

### 1.3 Time Zones

- Nothing, will use the default timezone given (which in turn defaults to UTC).
- Z (UTC)
- +/-hh:mm

- +/-hhmm
- +/-hh



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### Where it Differs From ISO 8601

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Known differences from the ISO 8601 spec:

- You can use a " " (space) instead of T for separating date from time.
- Days and months without a leading 0 (2 vs 02) will be parsed.
- If time zone information is omitted the default time zone given is used (which in turn defaults to UTC). Use a default of None to yield naive datetime instances.



## CHAPTER 3

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### Installation

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To install simply use pip:

```
pip install iso8601
```



`iso8601.parse_date` (*datestring: str, default\_timezone: Optional[datetime.timezone] = datetime.timezone.utc*)  $\rightarrow$  `datetime.datetime`  
Parses ISO 8601 dates into datetime objects

The timezone is parsed from the date string. However it is quite common to have dates without a timezone (not strictly correct). In this case the default timezone specified in `default_timezone` is used. This is UTC by default.

**Parameters**

- **datestring** – The date to parse as a string
- **default\_timezone** – A datetime tzinfo instance to use when no timezone is specified in the datestring. If this is set to None then a naive datetime object is returned.

**Returns** A `datetime.datetime` instance

**Raises** `ParseError` when there is a problem parsing the date or constructing the datetime instance.

**exception** `iso8601.ParseError`

Raised when there is a problem parsing a date string



## CHAPTER 5

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### Authors

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`parse_date()` (*in module iso8601*), [9](#)  
`ParseError`, [9](#)