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# **pyTokenizer**

***Release v1.1***

**Patrick Lehmann**

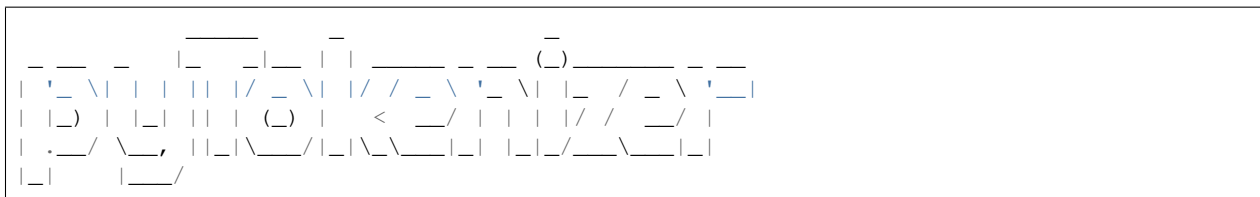
**Sep 06, 2020**



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A streaming tokenizer.



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CHAPTER  
**ONE**

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**INTRODUCTION**

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**Note:** Write documentation

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CHAPTER  
TWO

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EXAMPLE

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**Note:** Write documentation

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## CONTRIBUTORS

- [Patrick Lehmann](#) (Maintainer)



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## 4.1 Installation/Updates

### 4.1.1 Using PIP

#### Installation using PIP

```
pip3 install pyTokenizer
```

#### Updating using PIP

```
pip3 install -U pyTokenizer
```

## 4.2 Dependencies

*This package has no dependencies.*

## 4.3 Tokenizer

The `Tokenizer` generates a stream of double-linked `Token` objects.

```
class pyTokenizer.Tokenizer
```

```
    Bases: object
```

```
    class TokenKind(value)
```

```
        Bases: enum.Enum
```

```
        Enumeration of token kinds.
```

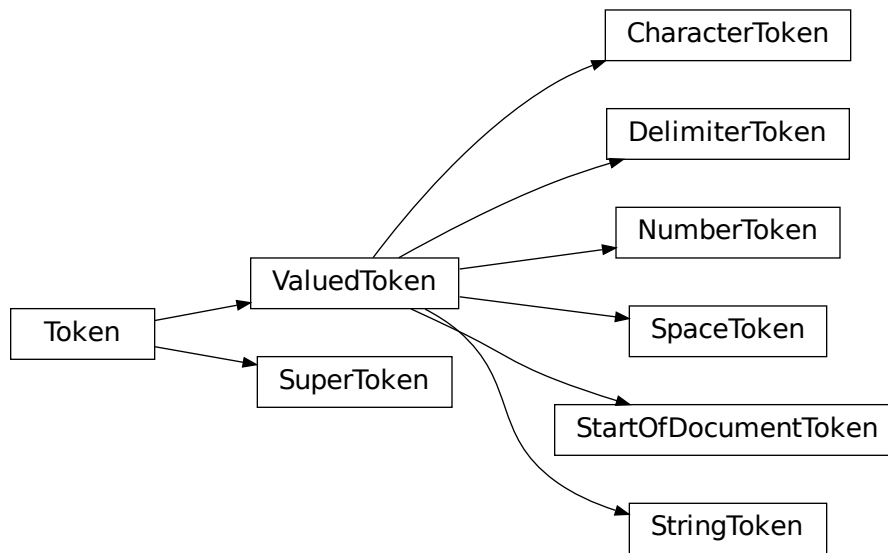
## 4.4 Tokens

A `Token` is a chain of characters forming a coherent text unit in a document.

### 4.4.1 Token

This class implements the base-class for all token classes.

**Inheritance diagram:**



```
class pyTokenizer.Token (previousToken, start, end=None)  
    Bases: object
```

### 4.4.2 SuperToken

```
class pyTokenizer.SuperToken (startToken, endToken=None)  
    Bases: pyTokenizer.Token
```

### 4.4.3 ValuedToken

```
class pyTokenizer.ValuedToken (previousToken, value, start, end=None)
    Bases: pyTokenizer.Token
```

### 4.4.4 StartOfDocumentToken

A token stream starts with a StartOfDocumentToken.

```
class pyTokenizer.StartOfDocumentToken
    Bases: pyTokenizer.ValuedToken
```

### 4.4.5 CharacterToken

```
class pyTokenizer.CharacterToken (previousToken, value, start)
    Bases: pyTokenizer.ValuedToken
```

### 4.4.6 SpaceToken

```
class pyTokenizer.SpaceToken (previousToken, value, start, end=None)
    Bases: pyTokenizer.ValuedToken
```

### 4.4.7 DelimiterToken

```
class pyTokenizer.DelimiterToken (previousToken, value, start, end=None)
    Bases: pyTokenizer.ValuedToken
```

### 4.4.8 NumberToken

A NumberToken represents a number (RegExp: [0-9]+).

```
class pyTokenizer.NumberToken (previousToken, value, start, end=None)
    Bases: pyTokenizer.ValuedToken
```

### 4.4.9 StringToken

A StringToken represents a word (RegExp: [a-zA-Z]+).

```
class pyTokenizer.StringToken (previousToken, value, start, end=None)
    Bases: pyTokenizer.ValuedToken
```

## 4.5 Exceptions

### 4.5.1 ParserException

A general exception representing an error in the Tokenizer.

```
class pyTokenizer.ParserException
    Bases: Exception
```

Base exception for all exceptions created by the Tokenizer.

### 4.5.2 MismatchingParserResult

```
class pyTokenizer.MismatchingParserResult
    Bases: StopIteration
```

### 4.5.3 EmptyChoiseParserResult

```
class pyTokenizer.EmptyChoiseParserResult
    Bases: pyTokenizer.MismatchingParserResult
```

### 4.5.4 MatchingParserResult

```
class pyTokenizer.MatchingParserResult
    Bases: StopIteration
```

### 4.5.5 GreedyMatchingParserResult

```
class pyTokenizer.GreedyMatchingParserResult
    Bases: pyTokenizer.MatchingParserResult
```

## 4.6 Auxiliary Classes

### 4.6.1 SourceCodePosition

This class represents a (source code) position in the original document where a Token starts (and ends).

```
class pyTokenizer.SourceCodePosition (row: int, column: int, absolute: int)
    Bases: object
```

Represents a position in a source code file.

The class offers a linear position: *Absolute* in bytes from document or snippet start and a ragged 2 dimensional *Row:Column* position.

**Row:**    *int* = None  
          Row or line in the document

**Column:** *int* = None  
          Column in the document



**Absolute:** `int = None`

Absolute character position (file offset) since document start.

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Version 2.0, January 2004

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