



Elastic B(y|i)te

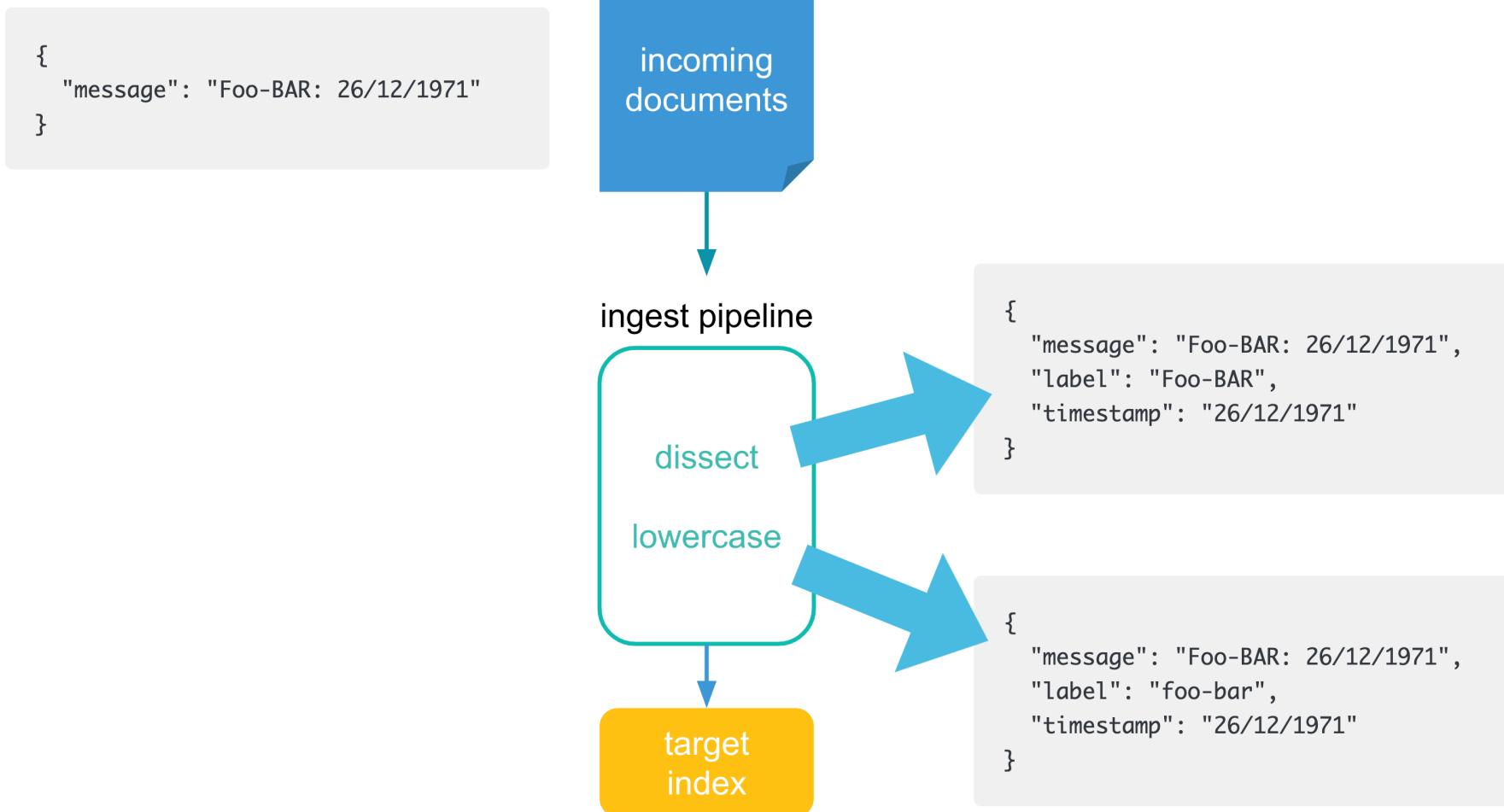
Ingest Processors

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Developer | Evangelist



Ingest pipeline



Ingest processors

<https://www.elastic.co/guide/en/elasticsearch/reference/current/processors.html>

- Append
- Bytes
- Circle
- **Convert**
- **CSV**
- **Date**
- Date index name
- **Dissect**
- Dot expander
- Drop
- Enrich
- Fail
- Foreach
- **GeoIP**
- Grok
- Gsub
- HTML strip
- Inference
- Join
- JSON
- KV
- **Lowercase**
- Pipeline
- **Remove**
- **Rename**
- **Script**
- **Set**
- Set security user
- Sort
- Split
- Trim
- **Uppercase**
- URL decode
- URI parts
- **User agent**



Ingest processors

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- **Circle**

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- CSV

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- Date index name

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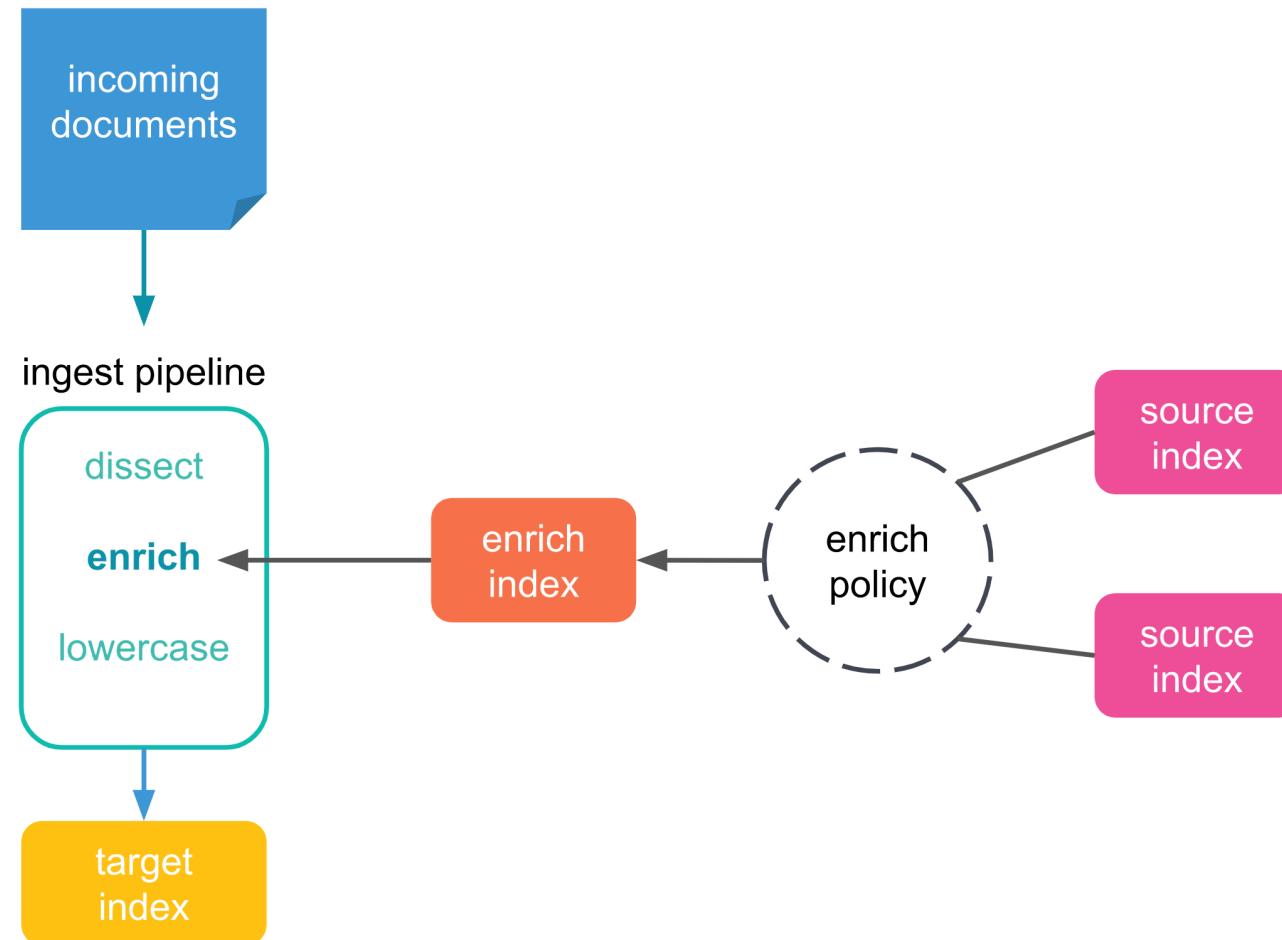
- Uppercase

- URL decode

- URI parts

- User agent

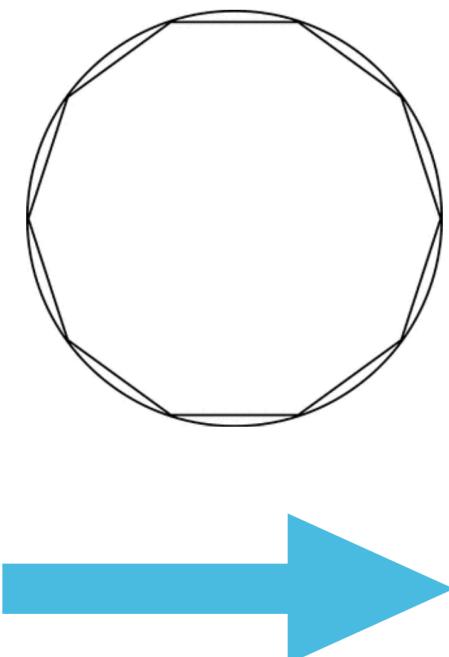
Enriching a dataset with an existing index



Indexing Circles in Elasticsearch

From Prefix Trees (deprecated)

```
PUT /circle-old
{
  "mappings": {
    "properties": {
      "location": {
        "type": "geo_shape",
        "strategy": "recursive"
      }
    }
  }
}
POST /circle-old/_doc
{
  "location" : {
    "type" : "circle",
    "radius" : "40m",
    "coordinates" : [30, 10]
  }
}
```



To BKD trees

```
PUT /circles-new
{
  "mappings": {
    "properties": {
      "circle": {
        "type": "geo_shape"
      }
    }
  }
}
POST /circle-new/_doc
{
  "location" : {
    "type" : "polygon",
    "coordinates": [
      [
        [30.000365257263184, 10.0],
        [30.000111397193788, 10.00034284530941],
        [29.999706043744222, 10.000213571721195],
        [29.999706043744222, 9.999786428278805],
        [30.000111397193788, 9.99965715469059],
        [30.000365257263184, 10.0]
      ]
    ]
  }
}
```

Circle Processor

From `geo_shape` in **WKT**

```
{  
  "coordinates" : "CIRCLE (30 10 40)"  
}
```

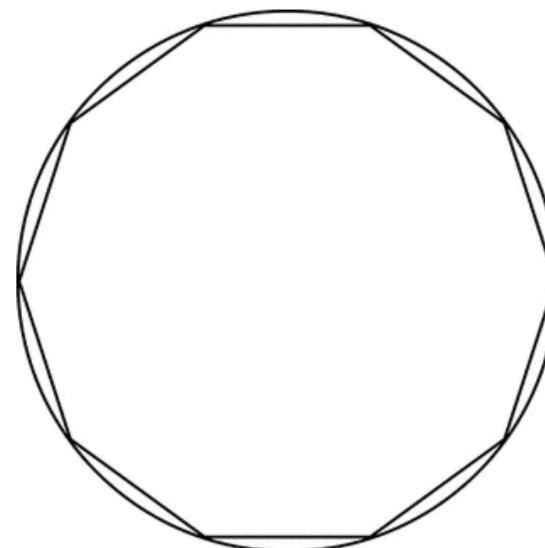


To `geo_shape` in **WKT**

```
{  
  "coordinates" : "POLYGON ((30.000365257263184  
}
```

or `geo_shape` in **GeoJSON**

```
{  
  "type": "circle",  
  "radius": "40m",  
  "coordinates": [30, 10]  
}
```



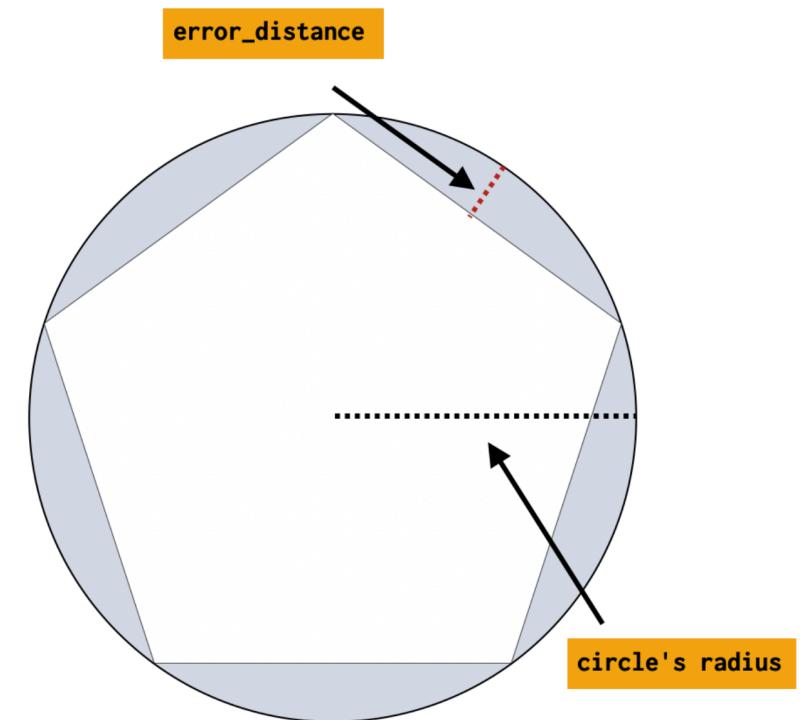
or `geo_shape` in **GeoJSON**

```
{  
  "coordinates": [  
    [  
      [30.000365257263184, 10.0],  
      [30.000111397193788, 10.00034284530941],  
      [29.999706043744222, 10.000213571721195],  
      [29.999706043744222, 9.999786428278805],  
      [30.000111397193788, 9.99965715469059],  
      [30.000365257263184, 10.0]  
    ]  
  ],  
  "type": "Polygon"  
}
```



Circle Processor

error_distance	radius in meters	number of sides of polygon
1.00	1.0	4
1.00	10.0	14
1.00	100.0	45
1.00	1000.0	141
1.00	10000.0	445
1.00	100000.0	1000



- Demo

cloud.elastic.co

[Ingest Node Pipelines](#)

[Dev Tools](#)

Code

github.com/dadoonet/demo-ingest-processors

