

# Search Generator (2.1 legacy document)

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**Warning:**

This document was copied as is from the Cocoon 2.1 documentation, but has not yet been fully reviewed or moved to its new home.

## 1. Search Generator

The search generator creates xml content resulting from an indexing search. Speaking simply, SearchGenerator takes a query-string passes it to search engine. The hits delivered by the search engine are wrapped into xml output and fed into the pipeline.

The xml content generated by SearchGenerator is described later.

- Name : search
- Class: org.apache.cocoon.generation.SearchGenerator
- Cacheable: no.

```
<map:generate type="search"/>
```

or

```
<map:generate type="search"> <query>your query string</query> </map:generate>
```

## 2. Configuration

Configuring of the SearchGenerator involves mainly setting up configuration needed by avalon component used for searching. As today SearchGenerator uses the Avalon component org.apache.cocoon.components.search.LuceneCocoonSearcher for searching, the configuration is tailored for this component.

Parameter Name	Default	Description
analyzer	org.apache.lucene.analysis.stand	This parameter defines the analyzer to use for searching. Take care to use a compatible analyzer as used when generating the index.
index	index	This parameter defines a filesystem directory, expecting to be the location of the lucene filesystem index directory. Relative directory names are resolved relative to Cocoon's working directory.
query-string	queryString	This parameter specifies the name of the query parameter name used for passing the query-string, eg. http://foo/bar?queryString=cocoon, for generating xml content for query "cocoon".
page-length	PageLength	This parameter specifies the name of the query parameter name used for passing the page length. The page length specifies the number of hits generated into the xml content. A negative page length value

		will generate all hits into the xml content.
start-index	StartIndex	This parameter specifies the name of the query parameter name used for passing the start index of the hits result. This query parameter has higher precedence than query parameter defined by start-next-index, and start-previous-index.
start-next-index	StartNextIndex	This parameter specifies the name of the query parameter name used for passing the start index of the hits result. Use this if you have a form defining both next and previous navigation control.
start-previous-index	StartPreviousIndex	This parameter specifies the name of the query parameter name used for passing the start index of the hits result. Use this if you have a form defining both next and previous navigation control.

### 3. Query Parameters

This generator accepts following query parameters, the table below assumes the default settings of the setup parameters.

Query Parameter Name	Default	Description
queryString	No default	Specifies the query string, parsable by the search engine.
pageLength	10	This value specifies the number of hits displayed per page.
startIndex	0	Start displaying hits starting from this index (counting starts at 0).
startNextIndex	0	Start displaying hits starting from this index (counting start at 0).
startPreviousIndex	0	Start displaying hits starting from this index (counting starts at 0).

### 4. Using SearchGenerator

Using the SearchGenerator needs some configuration steps regarding cocoon.xconf, and the sitemap mounting a pipeline defining a SearchGenerator generation step. Moreover you will have to define some XSLT processing for reendering the xml content of the SearchGenerator.

As SearchGenerator uses some avalon components be sure to configure your cocoon.xconf properly. The avalon component `org.apache.cocoon.components.search.LuceneCocoonSearcher` is used by the SearchGenerator. Usually this component is specified in `cocoon.roles` and the `cocoon.xconf` file for the default cocoon webapp.

Inside of a sitemap you have to define the SearchGenerator in the generator componenets section.

Moreover you have to match a URI to the SearchGenerator processing, the following example matches the URI `findIt` to the SearchGenerator processing. The stylesheet `search2html.xsl` transforms the xml content of SearchGenerator to html:

```
<map:match pattern="findIt"> <map:generate type="search"/> <map:transform type="log"/>
<map:transform src="stylesheets/search2html.xsl"/> <map:serialize/> </map:match>
```

## 5. DTD

XML generated by SearchGenerator uses namespace `http://apache.org/cocoon/search/1.0`. The DTD of XML generated by SearchGenerator:

```
<!ELEMENT results (hits,navigation)?> <!ATTLIST results date CDATA #IMPLIED
query-string CDATA #IMPLIED start-index CDATA #IMPLIED page-length CDATA #IMPLIED
> <!ELEMENT hits (hit)*> <!ATTLIST hits total-count CDATA #IMPLIED count-of-pages
CDATA #IMPLIED > <!ELEMENT hit (#PCDATA)> <!ATTLIST hit rank CDATA #REQUIRED
score CDATA #IMPLIED uri CDATA #IMPLIED > <!ELEMENT field (#PCDATA)> <!ATTLIST
field name CDATA #REQUIRED > <!ELEMENT navigation (navigation-page)*> <!ATTLIST
navigation total-count CDATA #IMPLIED count-of-pages CDATA #IMPLIED > <!ELEMENT
navigation-page EMPTY> <!ATTLIST navigation start-index CDATA #IMPLIED >
```

## 6. Example

The search generator generates following xml content, for the query `query-string=cocoon&start-index=0&page-length=10`.

```
<?xml version="1.0" encoding="UTF-8"?> <search:results date="1008437081064"
query-string="cocoon" start-index="0" page-length="10"
xmlns:search="http://apache.org/cocoon/search/1.0"
xmlns:xlink="http://www.w3.org/1999/xlink"> <search:hits total-count="125"
count-of-pages="13"> <search:hit rank="0" score="1.0"
uri="http://localhost:8080/cocoon/documents/hosting.html"/> <search:hit rank="1" score="1.0"
uri="http://localhost:8080/cocoon/documents/hosting.html"/> <search:hit rank="2" score="1.0"
uri="http://localhost:8080/cocoon/documents/hosting.html"/> <search:hit rank="3"
score="0.93121004"
uri="http://localhost:8080/cocoon/documents/userdocs/actions/actions.html"/> <search:hit
rank="4" score="0.93121004"
uri="http://localhost:8080/cocoon/documents/userdocs/actions/actions.html"/> <search:hit
rank="5" score="0.7112235"
uri="http://localhost:8080/cocoon/documents/mail-archives.html"/> <search:hit rank="6"
score="0.70967746" uri="http://localhost:8080/cocoon/documents/userdocs/
serializers/link-serializer.html"/> <search:hit rank="7" score="0.6881721"
uri="http://localhost:8080/cocoon/documents/userdocs/ serializers/text-serializer.html"/>
<search:hit rank="8" score="0.6881721"
uri="http://localhost:8080/cocoon/documents/userdocs/ serializers/vrml-serializer.html"/>
<search:hit rank="9" score="0.6666666"
```

```
uri="http://localhost:8080/cocoon/documents/userdocs/serializers/svgpng-serializer.html"/>
</search:hits> <search:navigation total-count="125" count-of-pages="13" has-next="true"
has-previous="false" next-index="10" previous-index="0"> <search:navigation-page
start-index="0"/> <search:navigation-page start-index="10"/> <search:navigation-page
start-index="20"/> <search:navigation-page start-index="30"/> <search:navigation-page
start-index="40"/> <search:navigation-page start-index="50"/> <search:navigation-page
start-index="60"/> <search:navigation-page start-index="70"/> <search:navigation-page
start-index="80"/> <search:navigation-page start-index="90"/> <search:navigation-page
start-index="100"/> <search:navigation-page start-index="110"/> <search:navigation-page
start-index="120"/> </search:navigation> </search:results>
```

## 1. Comments

add your comments