

# ModuleSource

## Scratchpad component

A `ModuleSource` reads from streams and strings found by using an input module. It can among other things replace the `StreamGenerator` and the `PartSource`.

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Readable source that are accessed with URI:s like:

```
module:<input-module>:<attribute-name>[#xpath]
```

For reading the object that is found by applying the XPath (`JXPath`), on the attribute from the input-module. If the object is a `String` or an `InputStream`, it made available in form of an `InputStream` otherwise an exception is thrown.

The module source can be used for various things e.g. instead of the `StreamGenerator`:

```
<map:generate type="file" src="module:request:inputStream"/>
```

For reading html from a input field in a form:

```
<map:generate type="html" src="module:request-param:html-field"/>
```

Instead of the `PartSource` for reading multi part mime data:

```
module:raw-request-param:foo
```

To use this uploads must be enabled in `web.xml`.

It can also be used for more advanced things like reading Wiki content from a textarea

```
<map:generate type="text"      src="module:request-param:wiki-field"/>
<map:transform type="lexer"    src="cocoon:/wiki.xlex"/>
<map:transform type="parser"   src="cocoon:/wiki.xgrm"/>
<map:transform                  src="stylesheets/wiki2xdoc.xsl"/>
```

I didn't made the module source modifiable as I had no clear use cases for it, nor was it obvious to me in what form to save the input.

## Relation to other Cocoon components

### StreamGenerator

The `StreamGenerator` can generate xml from the request input stream or from xml in request parameters, these cases can be replaced by:

```
<map:generate type="file" src="module:request:inputStream"/>
```

and

```
<map:generate type="file" src="module:request-param:form-name"/>
```

respectively.

There are no downsides of replacing the `StreamGenerator` that I know of. On the upside reading is not limited to XML anymore, and the source can be used in `[[C|X]IncludeTransformer` and `flowscripts` as well, and also read from other places than the request parameters and input stream.

### PartSource

For `PartSource` the URI:

```
upload://formField1
```

can be replaced by:

```
module:raw-request-param:formField1
```

the mime type and content length will not be given from the module source though. I don't know if there are use cases where this information is necessary.