## **WritingPlugins**

Nutch's plugin system is based on the one used in Eclipse 2.x. Plugins are central to how nutch works. All of the parsing, indexing and searching that nutch does is actually accomplished by various plugins.

In writing a plugin, you're actually providing one or more *extensions* of the existing *extension-points*. The core Nutch *extension-points* are themselves defined in a plugin, the NutchExtensionPoints plugin (they are listed in the NutchExtensionPoints plugin.xml file). Each *extension-point* defines an interface that must be implemented by the *extension*. The core extension points are:

- OnlineClusterer An extension point interface for online search results clustering algorithms (from javadoc).
- IndexingFilter Permits one to add metadata to the indexed fields. All plugins found which implement this extension point are run sequentially on the parse (from javadoc).
- Ontology
- Parser Parser implementations read through fetched documents in order to extract data to be indexed. This is what you need to implement if
  you want Nutch to be able to parse a new type of content, or extract more data from currently parseable content.
- HtmlParseFilter Permits one to add additional metadata to HTML parses (from javadoc).
- Protocol Protocol implementations allow nutch to use different protocols (ftp, http, etc.) to fetch documents.
- QueryFilter Extension point for query translation. Permits one to add metadata to a query (from javadoc).
- URLFilter URLFilter implementations limit the URLs that nutch attempts to fetch. The RegexURLFilter distributed with Nutch provides a great deal of control over what URLs Nutch crawls, however if you have very complicated rules about what URLs you want to crawl, you can write your own implementation.
- NutchAnalyzer An extension point that provides some language specific analyzers (see MultiLingualSupport proposal). Since it is in development stage, it is not in released javadoc.

## Setup

Start by downloading the Nutch source code. Once you've got that make sure it compiles as is before you make any changes. You should be able to get it to compile by running ant from the directory you downloaded the source to. If you have trouble you can write to one of the Mailing Lists.

Use the source code for the plugins distrubuted with Nutch as a reference. They're in [!YourCheckoutDir]/src/plugin.

## **Required Files**

You'll need to create a directory inside of the plugin directory with the name of your plugin. Inside that directory you need the following:

- A plugin.xml file that tells nutch about your plugin.
- A build.xml file that tells ant how to build your plugin.
- The source code of your plugin.

## Getting Nutch to Use a Plugin

In order to get Nutch to a given plugin, you need to edit your conf/nutch-site.xml file and add the name of the plugin to the list of plugin.includes.

<<< See also: WritingPluginExample

<<< See also: WritingPluginExample for version 0.8

<<< See also: HowToContribute

<<< PluginCentral