Advanced DSpace: plugins
wiki.dspace.org/PluginManager
Three types of plugin:

- singleton plugins
- named plugins
- sequence plugins
singleton plugins
key characteristic: only one implementing class
example: site authentication
example: site authentication

plugin.single.org.dspace.app.webui.SiteAuthenticator = com.hp.hpl.CustomAuthenticator
example: site authentication

plugin.single.org.dspace.app.webui.SiteAuthenticator = com.hp.hpl.CustomAuthenticator
dspace.cfg:
plugin.single.org.dspace.app.webui.SiteAuthenticator = com.hp.hpl.CustomAuthenticator

FooServlet.java:
SiteAuthenticator siteAuth = (SiteAuthenticator)
    PluginManager.getSinglePlugin(SiteAuthenticator.class);
when to use:
when to use:

When you need a uniform mechanism to perform a given function, but don't want to be constrained to that mechanism forever.
named plugins
key characteristic: multiple implementations available, app choses one by name
example: crosswalks
example: crosswalks

example: crosswalks

```java
```
dspace.cfg:

```
```

FooDisseminator.java

```
DisseminationCrosswalk xwalk = (DisseminationCrosswalk)
PluginManager.getNamedPlugin(DisseminationCrosswalk.class, "dc");
```
note:

named plugins must have names (keys) that are unique for the interface
note:

names may contain any characters other than ' , ' and ' = ', but alphanumeric is preferred
when to use:
when to use:

When you need multiple implementations to be available / supported throughout the application, leaving the implementing classes to choose which option to use.
sequence plugins
key characteristic: “stack of singletons”
example: stackable authentication
example: stackable authentication

plugin.sequence.org.dspace.authenticate.AuthenticationMethod = \
  org.dspace.authenticate.X509Authentication, \
  org.dspace.authenticate.PasswordAuthentication
example: stackable authentication

plugin.sequence.org.dspace.authenticate.AuthenticationMethod = \
    org.dspace.authenticate.X509Authentication, \
    org.dspace.authenticate.PasswordAuthentication
dspace.cfg:
    plugin.sequence.org.dspace.authenticate.AuthenticationMethod = \
        org.dspace.authenticate.X509Authentication, \
        org.dspace.authenticate.PasswordAuthentication

AuthenticationManager.java:
    private static AuthenticationMethod stack[] = (AuthenticationMethod[]) 
        PluginManager.getPluginSequence(AuthenticationMethod.class);
when to use:
When to use:

When you want to pass the responsibility for processing through a stack of implementing classes.
wiki.dspace.org/Category:HOWTO
wiki.dspace.org/Guide_to_Developing_with_DSpace
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