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Installation Discussion

Plugins in the NetarchiveSuite



What is plugins or pluggable settings?

- ❑ Some of our settings constitute plugins or pluggable settings, where the default java class can be replaced with a class of your choice. The only condition is that it implements the same Java interface
- ❑ In most cases, the class setting itself is only part of the plugin configuration



RemoteFile plugin(1)

- Function:

Designates the method of filetransfer between applications in the NetarchiveSuite

- Settings (for FTPRemoteFile)

`settings.common.remoteFile.class`

`settings.common.remoteFile.serverName`

`settings.common.remoteFile.serverPort`

`settings.common.remoteFile.userName`

`settings.common.remoteFile.userPassword`

`settings.common.remoteFile.retries`



RemoteFile plugin(2)

- Settings (for HTTPRemoteFile):
 - settings.common.remoteFile.port
- Default class:
 - *dk.netarkivet.common.distribute.FTPRemoteFile*
- Alternative classes:
 - *dk.netarkivet.common.distribute.HTTPRemoteFile*
- Implements:
 - *dk.netarkivet.common.distribute.RemoteFile*



Sitesection plugin(1)

- **Function:** Defines a part of the webinterface. The class `dk.netarkivet.common.webinterface.GUIWebserver` reads all the sitesections in the `settings.xml`. Each sitesection contains
 - A *class*. Encapsulates metadata about the sitesection, e.g (metadata about the sitesection, e.g. the title of the sitesection, and the subpages of the sitesection).
 - A *webapplication* (the directory or war-file containing the webapplication for this sitesection)
 - A *deployPath* (The URL path for this sitesection)
 - **Settings (for sitesection)**
 - `setting.common.webinterface.sitesection.class`
 - `setting.common.webinterface.sitesection.webapplication`
 - `setting.common.webinterface.sitesection.deployPath`
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Sitesection plugin(2)

□ Default classes:

- 1. *dk.netarkivet.harvester.webinterface.DefinitionsSiteSection*
Allows you to define and schedule harvests
- 2. *dk.netarkivet.harvester.webinterface.HistorySiteSection*
See the status of running and finished harvestjobs
- 3. *dk.netarkivet.archive.webinterface.BitPreservationSiteSection*
Allows you to check and correct data in our archive
- 4. *dk.netarkivet.viewerproxy.webinterface.QASiteSection*
Allows you to perform Quality Assurance
- 5. *dk.netarkivet.monitor.webinterface.StatusSiteSection*
Allows you to monitor the health of all machines and applications

□ Interface: *dk.netarkivet.common.webinterface.SiteSection*



arcrepositoryClient plugin(1)

- ❑ Function: Upload and download data to and from archive
- ❑ Settings:
 - settings.common.arcrepositoryClient.class
 - settings.common.arcrepositoryClient.getTimeout
 - settings.common.arcrepositoryClient.storeTimeout
 - settings.common.arcrepositoryClient.storeRetries



arcrepositoryClient plugin(2)

- Default class:
 - *dk.netarkivet.archive.arcrepository.distribute.JMSArcRepositoryClient*
 - This class uploads to and downloads files from an archive using JMS Messages and RemoteFiles.
- Alternative class:
 - *dk.netarkivet.common.distribute.TrivialArcRepositoryClient*
 - A minimal implementation of ArcRepositoryClient that just has one local directory that it keeps its files in, no checking nothing
- Implements:
 - *dk.netarkivet.common.distribute.ArcRepositoryClient*



indexClient plugin (1)

- **Function:**
 - Requests and receives harvest job indices.

- **Settings:**
 - *settings.common.indexClient.class*
 - *settings.common.indexClient.indexRequestTimeout* (only used by default class)

- **Default class:**
 - *dk.netarkivet.archive.indexserver.distribute.IndexRequestClient*

This class requests and receives the indices from a `IndexServerApplication`. The communication is done using JMS, and `RemoteFiles`.



indexClient plugin (2)

□ Alternative class:

- *dk.netarkivet.common.distribute.indexserver.TrivialJobIndexCache*

A trivial *JobIndexCache* implementation that just assumes somebody places the indices in a directory relative to the cache dir).

□ Implements:

- *dk.netarkivet.distribute.indexserver.JobIndexCache*



JMS broker plugin (1)

- ❑ Function: JMS (Java Message Service) Client
- ❑ Settings:
 - ❑ settings.common.jms.class (the plugin itself)
 - ❑ settings.common.jms.broker (the host where the JMS broker resides)
 - ❑ settings.common.jms.port (the port)
 - ❑ settings.common.jms.environment (Environment - common prefix to all JMS channels created by the NetarchiveSuite)
- ❑ Default class:
 - *SunMQ* (shorthand for `dk.netarkivet.common.distribute.JMSConnectionSunMQ`)



Notifications plugin (1)

- ❑ **Function:** Method of notification. In case of a serious problem, a notification is sent to a designated receiver.
- ❑ **Settings:**
 - ❑ settings.common.notifications.class (the plugin)
 - ❑ settings.common.notifications.receiver (the designated receiver)
 - ❑ settings.common.notifications.sender (the sender)
 - ❑ settings.common.mail.server (The mail-server to be used)
- ❑ **Default class:**
 - ❑ *dk.netarkivet.common.utils.EmailNotifications*
(Class using Email as notification method)



Notifications plugin (2)

- ❑ Alternative classes: None at this time
(However for testing purposes there is also the class RememberNotifications)
- ❑ Interface:
 - ❑ *dk.netarkivet.common.utils.Notifications*



Database plugin (1)

- ❑ Function: Selects the database of your choice; and encapsulates differences between databases; e.g. the JDBC drivers
- ❑ Settings:
 - ❑ `settings.harvester.datamodel.database.url`
The full JDBC URL for connecting to the database
 - ❑ `settings.harvester.datamodel.database.specificsclass`
The plugin itself
 - ❑ `settings.harvester.datamodel.database.backupInitHour`
The earliest hour for initiating DB backup



Database plugin (2)

❑ Default class:

- ❑ *dk.netarkivet.harvester.datamodel.DerbyEmbeddedSpecifics*
Derby as embedded database

❑ Alternative classes:

- ❑ *dk.netarkivet.harvester.datamodel.DerbyClientSpecifics*
External Derby databaseserver
- ❑ *dk.netarkivet.harvester.datamodel.MySQLSpecifics*
MySQL database (MySQL 5.0.x)

❑ Interface:

- ❑ *dk.netarkivet.harvester.datamodel.DBSpecifics*



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More information about plugins

- ❑ Installation Manual, Appendix C
- ❑ Developer Manual (Section 6: Pluggable parts)