Upgrading From 1.3.2 to 1.4.x

In the notes below `[dspace]` refers to the install directory for your existing DSpace installation, and *[dspace-1.4.x-source]* to the source directory for DSpace 1.4.x. Whenever you see these path references, be sure to replace them with the actual path names on your local system.

Upgrade Steps

1. First and foremost, **make a complete backup** of your system, including:
   - A snapshot of the database
   - The asset store (*[dspace]/assetstore* by default)
   - Your configuration files and localized JSPs
2. Download the latest DSpace 1.4.x source bundle and unpack it in a suitable location (*not* over your existing DSpace installation or source tree!)
3. Copy the PostgreSQL driver JAR to the source tree. For example:

```
cd  [dspace]/lib
cp postgresql.jar  [dspace-1.4.x-source]/lib
```

4. **Note:** Licensing conditions for the *handle.jar* file have changed. As a result, the latest version of the *handle.jar* file is not included in this distribution. It is recommended you read the new license conditions and decide whether you wish to update your installation's *handle.jar*. If you decide to update, you should replace the existing *handle.jar* in *[dspace-1.4.x-source]*/lib with the new version.
5. Take down Tomcat (or whichever servlet container you're using).
6. Your DSpace configuration will need some updating:
   - In *dspace.cfg*, paste in the following lines for the new stackable authentication feature, the new method for managing Media Filters, and the Checksum Checker.

```
#### Stackable Authentication Methods #####
# Stack of authentication methods
#  (See org.dspace.eperson.AuthenticationManager)
plugin.sequence.org.dspace.eperson.AuthenticationMethod = \
          org.dspace.eperson.PasswordAuthentication

#### Example of configuring X.509 authentication
#### (to use it, add org.dspace.eperson.X509Authentication to stack)

## method 1, using keystore
#authentication.x509.keystore.path = /var/local/tomcat/conf/keystore
#authentication.x509.keystore.password = changeit

## method 2, using CA certificate
#authentication.x509.ca.cert = ${dspace.dir}/config/mitClientCA.der

## Create e-persons for unknown names in valid certificates?
#authentication.x509.autoregister = true


#### Media Filter plugins (through PluginManager) ####

plugin.sequence.org.dspace.app.mediafilter.MediaFilter = \
    org.dspace.app.mediafilter.PDFFilter,
        org.dspace.app.mediafilter.HTMLFilter, \
    org.dspace.app.mediafilter.WordFilter,
        org.dspace.app.mediafilter.JPEGFilter
# to enable branded preview: remove last line above, and uncomment 2
        lines below
#   org.dspace.app.mediafilter.WordFilter,
        org.dspace.app.mediafilter.JPEGFilter, \
#   org.dspace.app.mediafilter.BrandedPreviewJPEGFilter

filter.org.dspace.app.mediafilter.PDFFilter.inputFormats = Adobe PDF
filter.org.dspace.app.mediafilter.HTMLFilter.inputFormats = HTML,
        Text
filter.org.dspace.app.mediafilter.WordFilter.inputFormats = Microsoft
        Word
filter.org.dspace.app.mediafilter.JPEGFilter.inputFormats = GIF,
        JPEG, image/png
filter.org.dspace.app.mediafilter.BrandedPreviewJPEGFilter.inputFormat
s = GIF, JPEG, image/png
```

```
#### Settings for Item Preview ####
webui.preview.enabled = false
# max dimensions of the preview image
webui.preview.maxwidth = 600
webui.preview.maxheight = 600
# the brand text
webui.preview.brand = My Institution Name
# an abbreviated form of the above text, this will be used
# when the preview image cannot fit the normal text
webui.preview.brand.abbrev = MyOrg
# the height of the brand
webui.preview.brand.height = 20
# font settings for the brand text
webui.preview.brand.font = SansSerif
webui.preview.brand.fontpoint = 12
#webui.preview.dc = rights


#### Checksum Checker Settings ####
# Default dispatcher in case none specified
plugin.single.org.dspace.checker.BitstreamDispatcher=org.dspace.checke
r.SimpleDispatcher
# Standard interface implementations. You shouldn't need to tinker
        with these.
plugin.single.org.dspace.checker.ReporterDAO=org.dspace.checker.Report
erDAOImpl

# check history retention
checker.retention.default=10y
checker.retention.CHECKSUM_MATCH=8w
```

- If you have customized advanced search fields (*search.index.n* fields, note that you now need to include the schema in the values. Dublin Core is specified as *dc*. So for example, if in 1.3.2 you had:

  ```
  search.index.1 = title:title.alternative
  ```

  That needs to be changed to:

  ```
  search.index.1 = title:dc.title.alternative
  ```

- If you use LDAP or X509 authentication, you'll need to add *org.dspace.eperson.LDAPAuthentication* or *org.dspace.eperson.X509Authentication* respectively. See also configuring custom authentication code.
- If you have custom Media Filters, note that these are now configured through *dspace.cfg* (instead of *mediafilter.cfg* which is obsolete.)
- Also, take a look through the default *dspace.cfg* file supplied with DSpace 1.4.x, as this contains configuration options for various new features you might like to use. In general, these new features default to 'off' and you'll need to add configuration properties as described in the default 1.4.x *dspace.cfg* to activate them.

7. Your 'localized' JSPs (those in jsp/local) now need to be maintained in the *source* directory. If you have locally modified JSPs in your *[dspace]/jsp/local* directory, you will need to merge the changes in the new 1.4.x versions into your locally modified ones. You can use the *diff* command to compare your JSPs against the 1.4.x versions to do this. You can also check against the DSpace CVS.
8. In *[dspace-1.4.x-source]* run:

   ```
   ant -Dconfig= [dspace]/config/dspace.cfg update
   ```

9. The database schema needs updating. SQL files containing the relevant file are provided. If you've modified the schema locally, you may need to check over this and make alterations.
   - **For PostgreSQL**: *[dspace-1.4.x-source]/etc/database_schema_13-14.sql* contains the SQL commands to achieve this for PostgreSQL. To apply the changes, go to the source directory, and run:*psql -f etc/database_schema_13-14.sql [DSpace database name] -h localhost*
   - **For Oracle**: *[dspace-1.4.x-source]/etc/oracle/database_schema_13-14.sql* should be run on the DSpace database to update the schema.
10. Rebuild the search indexes: *[dspace]/bin/index-all*
11. Copy the *.war* Web application files in *[dspace-1.4-source]/build* to the *webapps* sub-directory of your servlet container (e.g. Tomcat). e.g.:

```
cp  [dspace-1.4-source]/build/*.war
        [tomcat]/webapps
```

If you're using Tomcat, you need to delete the directories corresponding to the old *.war* files. For example, if *dspace.war* is installed in *[tomcat]/webapps/dspace.war*, you should delete the *[tomcat]/webapps/dspace* directory. Otherwise, Tomcat will continue to use the old code in that directory.

12. Restart Tomcat.