By the end of this module you will:

- Understand how DSpace uses version numbers.
- Understand the upgrade path.
- Know how to upgrade a DSpace installation from version 1.4 to 1.5
**DSpace version numbers**

- **Major releases:**
  - 1.0 → 2.0
    - Requires lots of effort! (Code, Database schema, structural changes, architecture changes)

- **Minor releases:**
  - 1.1 → 1.2 → 1.3 → 1.4 → 1.5
    - Requires effort (Code, database schema, structural changes)

- **Sub-minor releases**
  - 1.4 → 1.4.1 → 1.4.2
    - Requires a bit of effort (Code)
DSpace upgrade path

- **Major version**
  - To upgrade to the next major version you must already be on the latest minor version (any sub-minor version)

- **Minor version**
  - To upgrade to the next minor version you must be running the previous minor version (any sub-minor version)

- **Sub-minor version**
  - To upgrade to the next sub-minor version you must be running the same minor version already
DSpace upgrade path - examples

- 1.3 to 1.4.2
  - 1.3 to 1.4
  - 1.4 to 1.4.2
- 1.3.1 to 1.5
  - 1.3.1 to 1.4
  - 1.4 to 1.5
- 1.1.1 to 1.5
  - 1.1.1 to 1.2
  - 1.2 to 1.3
  - 1.3 to 1.4
  - 1.4 to 1.5
Typical upgrade steps

- Upgrade the code
  - Get a new copy of the code
- Upgrade the configuration files
  - New features may require new configuration settings or files
- Upgrade the database
  - Run scripts to edit the database schema
- Upgrade any local customisations
  - Upgrade local changes you have made
Upgrade procedure

- Prepare:
  - Make a backup!
  - Perform a test upgrade on a test server
  - Test new version
  - Report bugs to DSpace

- Perform
  - Make a backup!
  - Perform the upgrade
  - Test new version
Upgrading 1.4 to 1.5

Instructions:
- [dspace-src]/docs/update.html

1. Backup your DSpace
   - Database
   - Asset store
   - Configuration files
   - Local customisations
   - Your statistics scripts
Upgrading 1.4 to 1.5

2. Download DSpace 1.5
   - Distribution from SourceForge
   - Directly from SVN
   - Unpack in new location, not over your old source

3. Build DSpace
   - cd [dspace-src]/dspace
   - mvn package
     - Set proxies if you need to (~/.m2/settings.xml)
4. Stop Tomcat
   - Stop your servlet container

5. Update dspace.cfg
   - Add new settings

6. Add xmlui.xconf Manakin configuration
   - `cp [dspace-source]/dspace/config/xmlui.xconf [dspace]/config/xmlui.xconf`
7. New item-submission files

- cp [dspace-source]/dspace/config/item-submission.xml [dspace]/config/item-submission.xml
- cp [dspace-source]/dspace/config/item-submission.dtd [dspace]/config/item-submission.dtd

8. New input-forms files

- cp [dspace-source]/dspace/config/input-forms.xml [dspace]/config/input-forms.xml (Merge)
- cp [dspace-source]/dspace/config/input-forms.dtd [dspace]/config/inputforms.dtd
9. New crosswalk files

- cp [dspace-source]/dspace/config/crosswalks/sword-swap-ingest.xsl [dspace]/config/crosswalks/sword-swap-ingest.xsl
- cp [dspace-source]/dspace/config/crosswalks/xhtml-head-item.properties [dspace]/config/crosswalks/xhtml-head-item.properties
10. Update the database

- For PostgreSQL

- For Oracle
  - Run
    `[dspace-source]/dspace/etc/oracle/database_schema_142-15.sql`
11. Apply any customisations

- If you have made any local customizations to your DSpace installation they will need to be migrated over to the new DSpace. Commonly these modifications are made to "JSP" pages located inside the [dspace 1.4.2]/jsp/local directory. These should be moved [dspace-source]/dspace/modules/jspui/src/main/webapp/ in the new build structure.
12. Update DSpace

- cd [dspace-source]/dspace/target/dspace-1.5-build.dir/
- ant -Dconfig=[dspace]/config/dspace.cfg update

13. Update the metadata registry for SWORD

- cp [dspace-source]/dspace/config/registries/sword-metadata.xml [dspace]/config/registries/sword-metadata.xml
- [dspace]/bin/dsrun org.dspace.administer.MetadataImporter -f [dspace]/config/registries/sword-metadata.xml
14. Rebuild browse and search indexes
   - [dspace]/bin/index-init

15. Update statistics scripts
   - cp [dspace-source]/dspace/bin/stat* [dspace]/bin/
   - Then edit your statistics configuration file with the start details. Add the following to [dspace]/conf/dstat.cfg
     - start.year = 2005
     - start.month = 1 (as noted from your old stats scripts)
16. Deploy web applications
   - `cp [dspace]/webapps/* [tomcat]/webapps/`
   - Or symbolically link them

17. Start Tomcat
   - Start your servlet container
These slides have been produced by:

- Stuart Lewis & Chris Yates
- Repository Support Project
  - http://www.rsp.ac.uk/
- Part of the RepositoryNet
- Funded by JISC
  - http://www.jisc.ac.uk/