Getting started with myWMS LOS Release 1.4 Programing Environment

This is a description how to set up myWMS LOS. For the other releases have a look to the installation instructions of that release.

Requirements

- Download and unpack myWMS LOS 1.4 Source (myWMS-LOS-1.4-source.zip).

  You will find it on sourceforge.net/projects/mywmslos/files/.

  Copy the content of this archive to any preferred directory. Have a look that there are no spaces inside the directory name. This could lead to errors. Below we will call it **`$media`**.

- Download and install the Java SDK.
  You will find it on java.sun.com.
  The checked version is 'SUN JAVA SDK version **1.6**'.

  Beware that we need the **SDK**, not the JRE.

- Download and unpack the JBoss application server.
  You will find it on www.jboss.org.
  The checked version is 4.2.3 for jdk-1.6.

  Copy the content of the JBoss archive to the directory **`$media/`**`jboss-4.2.3.GA`.
  Below we will call it **`$jboss.`** It is necessary to use this path, because it is referenced by the build-scrips.

- Download and install the Eclipse programming IDE.
  You will find it on www.eclipse.org.
  The checked version is Eclipse Indigo Service Release 1 'Eclipse IDE for Java EE Developers'.

  It is important that eclipse uses jdk-1.6 as default jdk. You can check this in eclipse by opening the preferences (Window->Preferences), then navigating to 'Java - Installed JREs'. If jdk1.6 is not listed here click Add, select Standard VM and click next. Now click directory, navigate to your jdk1.6 installation directory (default: C:\Program Files\Java\jdk1.6) and press 'Ok'. Now just check the box next to jdk-1.6 in 'Installed JREs'.

- Download and install the Netbeans programming IDE.
  You will find it on www.netbeans.org.
  The currently used version is Netbeans 6.8.

  Again it is **important** that netbeans uses jdk-**1.6** as default jdk. Enter this in installation process.

  If this is not done on installation, you can change it later on. To change the netbeans default jdk open 'netbeans installation directory/etc/netbeans.conf' and change 'netbeans_jdkhome' to point to your java jdk1.6 installation directory. You may not be able to save the changes made in 'netbeans.conf', in that case just copy 'netbeans.conf' to your desktop, make the needed changes and copy it back to 'netbeans installation directory/etc'.

- Download and Install the PostgreSQL database.
  You will find it on www.postgres.org.

Checked versions are 8.2, 8.3, 8.4, 9.1

Setup Server

- Configure database.
    - Create a new role named 'jboss' with password 'jboss'
    - Create a new database named 'los.reference' with owner 'jboss'

  These names and passwords are used in some scripts. If you use different names, you have to change the login and data-source scripts.
- Configure JBoss

  We have a set of configuration files to set up JBoss to handle myWMS.
    - Copy **$media**`/config/jboss/login-config.xml` to **$jboss**`/server/default/conf/`
    - Copy **$media**`/config/jboss/postgres-ds.xml` to **$jboss**`/server/default/deploy/`
    - Copy **$media**`/config/jboss/jms/*` to **$jboss**`/server/default/deploy/jms/`

      Make sure to delete all files with names like hsql* in this folder. These are configurations for JMS connetions using a hypersonic database. It will not work to use two different databases.
    - Copy **$media**`/config/jboss/bin/*` to **$jboss**`/bin/`
    - Copy **$media**`/database/lib/postgresql-9.0-801.jdbc4.jar` to **$jboss**`/server/default/lib/`

      Maybe that it is necessary to use a different appropriate driver for your version of the database server.
- Create a folder workspace for an Eclipse and Netbeans workspace in **$media**.
- Start Eclipse and select created folder workspace as Eclipse Workspace. (If 'Selecting workspace dialog' is not shown on startup choose switch workspace command in 'File' - Menu.)
- Open 'Servers' view with 'Window - Show View' or 'Window - Show View - Others'.
- Create a new server runtime.
  Open context menu in 'Server'-view, choose 'New'. Choose 'Jboss - JBoss v4.2', browse to your JBoss directory within the project (**$jboss**).
- Right click on the JBoss server and choose open.
    - Open 'Timeouts' and set 'Start'-parameter to 500.
    - Open 'Open launch configuration'. In the 'Arguments'-Tab add ' -Xms128m -Xmx1024m -XX:PermSize=256m' to the VM arguments.
    - Close the tab and confirm to save the changes.
- Setup mywms.as module in Eclipse.
    - Create a new Project (Menu 'File - New - Project') and select 'Java Project'. Click 'Next' and choose option 'Create project from existing source' or disable 'Use default location'. Browse to **$media**`/server.app/mywms.as`. It is important to choose 'Next', not 'Finish'.
    - Assign a new folder as the 'Default output folder' of the Eclipse project. To do so

click 'Browse', then check the root of the directory-tree and select 'Create New Folder ...' and name it eclipse-out. Press 'OK'.

    - After clicking 'Finish' a dialog appears asking you to remove the old location `mywms.as/bin`.
      It is important to choose 'No'. Otherwise you will lose content of the 'bin'-folder.
    - You are maybe asked to change to a certain view. You can check the 'remember my decision'-box and press OK.
    - Open the context menu on 'mywms.as' project and choose 'Build Path / Add Libraries'. Choose 'Server Runtime' and select 'JBoss v4.2' and press 'Finish'.
    - Now the project should be shown without any errors. Any warnings can be ignored.
- Project setup for 'los.common-ejb'.
    - Repeat the first four steps from 'Setup mywms.as module in Eclipse' but choose 'los.common-ejb' instead of 'mywms.as'.
    - To configure the build path open the context menu on 'los.common-ejb'-project and choose 'Build Path - Configure Build Path'. Switch to the 'Libraries'-tab and choose 'Add Library' and add 'JBoss v4.2' as 'Server Runtime'. Press 'Finish'.
    - Choose 'Add' in 'Projects'-tab and add mywms.as project.
- Project setup for 'los.location-ejb'.
    - Repeat the first four steps from 'Setup mywms.as module in Eclipse' but choose 'los.location-ejb'.
    - Choose 'Add' in 'Projects'-tab and click 'select all'. Press 'OK'.
    - Switch to 'Libraries'-tab and click 'Add Library...'. First add 'Server Runtime - Jboss v4.2' and secondly add 'JUnit' and choose the 'JUnit 3' as 'JUnit library version'.
    - Lastly click 'Add JARs...' and select los.common-ejb/lib/jasperreports-xx.jar and click 'OK'.
- Project setup for 'los.inventory-ejb'.
    - Repeat all steps from Project setup for 'los.location-ejb' for 'los.inventory-ejb'.
- Project setup for 'los.stocktaking-ejb'.
    - Repeat all steps from Project setup for 'los.location-ejb' for 'los.stocktaking-ejb'.
- Repeat project setup for 'los.mobile'.
    - Repeat all steps from Project setup for 'los.location-ejb' for 'los.mobile'.
- There is another module for customization. So repeat project setup for 'project-ejb'.
    - Repeat all steps from Project setup for 'los.location-ejb' for 'los.project-ejb'.
- To access build file **`$media`**`/server.app/build.xml` it is necessary to create a new Project in Eclipse.
    - Choose 'File - New - Project'. In the project type selection wizard select 'General/Project'. It is important **not** to create a new 'Java Project'.
    - Name it 'LOS Reference Server App' and disable option 'Use default location'. Browse to and select **`$media`**`/server.app` and press 'Finish'.
    - Open Ant view with 'Window - Show View - Ant'. Drag 'build.xml' from newly created project into the 'Ant'-view.
    - Run target 'components.build', 'ear.package' and 'ear.deploy.local' . This will build

all LOS server modules and deploy them to JBoss. Maybe you have to grant JavaVM access to the internet.

- Create a new plain project, not a java-project, like the step before and name it 'LOS Reference DB'.
    - Disable 'Use default location' and browse to **`$media`**`/database/postgres` and check 'OK', then 'Finish'.
    - For advanced user: Maybe you want to check connection.properties to configure another database.
    - Drag 'build.xml' from the newly created project into the 'Ant'-view.
    - Run 'postgres.local.createSchema'.
    - Run 'postgres.local.init'.
- Start the server ('Window - Show View - Other - Server - Servers', right click in 'Server'-view on the 'Jboss v4.2 at localhost [Stopped]' and select 'Start').

  --- Now all LOS Server Modules are available to you.
- Point a web browser to 'http://localhost:8080/los-mobile'.
- Now you should be able to login with 'admin', 'admin'.

Setup Client (Netbeans)

- If you wish to work with workspaces in Netbeans too, you have to do a little workaround, because Netbeans is not aware of workspaces.
    - Start Netbeans with parameter `--userdir` **`$media`**`/workspace`
- Choose 'File / Open Project' and browse to **`$media`**`/rich.client/los.clientsuite`.
- You will get a project called 'LinogistiX LOS Client'. To see the content of the suite expand 'LinogistiX LOS Client / Modules'.
- Open context menu on the project and choose 'Build All'.
- There is another netbeans suite available called 'LOS Reference Client'
  This is a reference implementation of the basic 'LinogistiX LOS Client'. To start this application, you first have to create a netbeans platform based on the 'LinogistiX LOS Client' and than you can build and start the reference-implementation.
    - Open the context menu on the project 'Linogistix LOS Client'.
    - Select 'Build ZIP Distribution'.
    - Choose 'File / Open Project' and browse to **`$media`**`/rich.client/los.reference`.
    - You will get a project called 'LOS Reference Client'.
    - Open the context menu on the project 'LOS Reference Client'. And choose 'Properties'.

      Navigate to the Libraries category and select 'Manage Platforms...'.

      Choose 'Add Platform...'

      Navigate to **`$media`**`/rich.client/los.clientsuite/nbplatform/linogistix_clientsuite` and Choose 'Finish'.

      Now you are able to select the NetBeans Platform 'Linogistix LOS Client'

Make sure that all platform modules are included!

Finish this step with 'OK'.

- Open the context menu on the project 'LOS Reference Client'. Choose 'Run'. On start up a login dialog is displayed and you should be able to log in with 'admin', 'admin'