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SLP Dev Setup

Contents

Dependencies

Default Dev Environment Setup
Follow the instructions found at Development Support - Getting Started to ensure you have a standard dev environment.

Certificate Setup

- Install your user certificates found at \\devslo020\data\data\user_certs\
- Copy the 'truststore.jks' from \\devslo020\data\devsupport\Certificates\Servers\ and place in your ${tomcat_home}\conf folder.
- Optional: If you did not generate your own keystore Setup_Tomcat_For_SSL. Copy your keystore from \\devslo020\data\devsupport\Certificates\Servers\keystore\ to ${tomcat_home}\conf

Flash Builder

- The Flex 4.5.1 SDK is the current version used by SLP
- Create a WEBAPP_DIR variable in FlashBuilder
    - In FlashBuilder, open the preferences window (Window -> Preferences)
    - Navigate to "General" -> "Workspace" -> "Linked Resources"
    - Click on "New..."
    - For the name, Enter 'WEBAPP_DIR'

- For the value, enter the path to your deployed SLP directory in slp-war (e.g. 'Trunk\SLP\Java\slp-war\target\SLP'). You may need to build slp-war once before the directory will exist within slp-war.
- If you use Firefox to test the SLP client and plan to debug using FlashBuilder, you will need to change a setting so that the browser will not try to close the idle Flash plugin.
  - Open Firefox, type in 'about:config' in the address bar.
  - Type 'dom.ipc.plugins.timeoutSecs' in the filter.
  - Change the value in the entry from '45' to '-1'.

Eclipse Setup

Code Style

- Under Window->Preferences select Java->Code Style->Cleanup. Click Import... and import cadrc_cleanup.xml from <dev_root>/Trunk/SLP/Java/.eclipse/CodeFormat
- Still under the Code Style node, select Code Templates and import <dev_root>/Trunk/SLP/Java/.eclipse/CodeFormat/cadrc_templates.xml
- Still under the Code Style node, select Formatter and import <dev_root>/Trunk/SLP/Java/.eclipse/CodeFormat/cadrc_format.xml
- Under General->Editors->Text Editors, check the box next to "Insert spaces for tabs" and change the Displayed tab width to 3.

Setup Eclipse+Tomcat

- Ensure you have the tomcat JVM parameters found in the Setup_Tomcat_within_Eclipse for your current workspace.
- Optionally activate DevLoader Enable Tomcat DevLoader.

Additional Tomcat Jars
A few jars not included in the default tomcat installation are required when initializing the SLP context. They need to be added to your '${tomcat_home}/lib' directory.
  1. The following jars can be found in the nexus repository: https://nexus.devnet.local/nexus/

        ojdbc14 (com.oracle:ojdbc14)
        slf4j-api (org.slf4j:slf4j-api)
        log4j.jar (apache-log4j:log4j)
        ciw-crypto (com.cdmtech.ciw:ciw-crypto)

Optional: Setup Performance Analyzer: Java Interactive Profiler (JIP)

Installation

  1. Download Java Interactive Profiler from DevNet Software Repo.
  2. Extract jip-1.2 folder to **C:\jip-1.2**
  3. Edit the 'webapp.profile.properties' file in **C:\jip-1.2\profile** with the following:

        file=profile.txt -> file={profile_file_loc}\profile (Note: the file location needs to be an absolute path)

  4. To run profiler when Tomcat runs add the following to your Tomcat JVM parameters (Open Eclipse where you run Tomcat. Go to Window->Preferences->Tomcat->JVM Settings)
        -Dprofile.properties=C:\jip-1.2\profile\webapp.profile.properties

  5. Since the profiler needs the -javaagent parameter to run, you will not be able to debug reliably when it is running.
        To workaround this make a duplicate of the currently installed JRE and rename it (In

Windows->Preferences->Java->Installed JREs), edit the duplicate JRE and add **-javaagent:C:\jip-1.2\profile\profile.jar** to the 'Default VM Arguments'. To run Tomcat with the profiler use the duplicate JRE, setting it in Windows->Preferences->Tomcat->JVM Settings under JRE. To run Tomcat without profiler set default JRE in JVM Settings.

    6. Start Tomcat.

    7. You're done. The profiler is now connected to Tomcat. See the **How To Use** section for further instructions.

Verify

If everything is setup correctly you will see something like the following when you start Tomcat:

    profiler: off

    remote: on

    port: 15599

    thread-depth: compact

    ...

How To Use

    1. Start profiling by opening a Terminal, moving to **C:\jip-1.2\client** and running "start.bat localhost 15599"

    2. To finish profiling run the finish.bat file

    3. To view results you can either view the profile.txt file or run **C:\jip-1.2\client\jipViewer.bat** with the profile.xml file location as the argument to view the results in the JIP Viewer.

    4. Similarly if you want to make multiple runs you can run the "file.bat localhost 15599 filename" before running start.bat to change the filename of that current run.

Additional Help

- Optional: To save time you can modify the **C:\jip-1.2\client\start.bat** and **finish.bat** files to use 'localhost 15599' as the arguments by default, that way you don't have to pass them in every time you start/finish profiling.
- Optional: To save time modify the jipViewer.bat to use the default profile.xml location as the argument.
- Currently there is no known way to debug Tomcat and run the JIP at the same time. The best we have found makes switching easier (See step 5).
- For more information on the JIP, see the readme.html file located in **C:\jip-1.2\doc**

Configure SLP Context Generation

- Right-click on the slp-war project and select "Properties".
- Under "Tomcat", check that "Is a Tomcat Project" is selected.
- Enter "SLP" in the "Context name" field, and "/target/SLP" in the "Subdirectory to set as web application root (optional)" field.
- In the "Extra Information" block add the following configuration: (Be sure to replace {myMachineName})

```
<Parameter name="EIP"
          value="False"
          override="false"
          description="Enterprise or Standalone method 1" />
<Parameter name="serverName"
          value="https://{myMachineName}:443"
          override="false"
          description="blah" />
<Parameter name="installType"
```

```xml
                    value="ENTERPRISE"
                    override="false"
                    description="Enterprise or Standalone method 2" />
        <Parameter name="isMasterService"
                    value="False"
                    override="false"
                    description="Enterprise or Standalone method 3" />
        <Parameter name="isStandalone"
                    value="False"
                    override="false"
                    description="Enterprise or Standalone method 4" />
        <Parameter name="help_url_base"
                    value="https://fusion:443"
                    override="false"
                    description="base url to the help system" />
        <Parameter name="admin_guide_doc_url"
                    value= "https://fusion:443/ciwadmin/CIW Administrator_System Admin
Guide.pdf"
                    override="false"
                    description="blah" />
        <Parameter name="casServerLoginUrl"
                    value="https://fusion:443/cas/login"
                    override="false"
                    description="blah" />
        <Parameter name="casServerUrlPrefix"
                    value="https://fusion:443/cas"
                    override="false"
                    description="blah" />
        <Parameter name="ciw.url"
                    value="https://fusion:443/"
                    override="false"
                    description="blah" />
        <Parameter name="cmtEndpoint"
                    value="https://fusion:443/CMT/SoapInterface"
                    override="false"
                    description="blah" />

    <Parameter name="xtras_url"
                    value="https://fusion:443/CMT/SoapInterface"
                    override="false"
                    description="blah" />
        <Parameter name="conveyanceRepositoryMaster"
                    value="https://fusion:443/ConveyanceRepositoryMaster/ConveyanceRepository"
                    override="false"
                    description="blah" />
        <Parameter name="conveyanceRepositoryUser"
                    value="https://fusion:443/ConveyanceRepository/ConveyanceRepository"
                    override="false"
                    description="blah" />
        <Parameter name="CSL"
                    value="https://fusion:443/CSL/SoapInterface"
                    override="false"
                    description="blah" />
        <Parameter name="dataCleanserService_endpoint"
                    value="https://fusion:443/DataCleanserService/services/DataCleanserService"
```

```
              override="false"
              description="blah" />
  <Parameter name="db_doc_url"
              value="https://fusion:443/ciwadmin/ICODES Database Configuration.pdf"
              override="false"
              description="blah" />
  <Parameter name="ebs-url"
              value="https://fusion:443/ebs/services/ebs/"
              override="false"
              description="blah" />
  <Parameter name="ebs_endpoint"
              value="https://fusion:443/ebs/services/ebs"
              override="false"
              description="blah" />
  <Parameter name="ebsUrl"
              value="https://fusion:443/ebs/services/ebs/"
              override="false"
              description="The url of ebs to notify when service registration information has
changed." />
  <Parameter name="IRService_endpoint"
              value="https://fusion:443/ir/services/IrService"
              override="false"
              description="blah" />
  <Parameter name="log_doc_url"
              value="https://fusion:443/ciwadmin/CIW Log Location.pdf"
              override="false"
              description="blah" />
  <Parameter name="logout_url"
              value="https://fusion:443/cas/logout"
              override="false"
              description="blah" />
  <Parameter name="master_dataCleanserService_endpoint"
              value="https://fusion:443/DataCleanserServiceMaster/services
/DataCleanserService"
              override="false"
              description="blah" />
  <Parameter name="mbs_endpoint"
              value="https://fusion:443/MBS/services/MBS"
              override="false"
              description="blah" />
  <Parameter name="portal_url"
              value="https://fusion:443/"
              override="false"
              description="blah" />
  <Parameter name="portalURL"
              value="https://fusion-slp1:443"
              override="false"
              description="blah" />
  <Parameter name="return_url"
              value="https://fusion:443/"
              override="false"
              description="blah" />
  <Parameter name="routerUrl"
              value="https://fusion:443"
              override="false"
```

```
                            description="blah" />
        <Parameter name="SlpCslEndpoint"
                    value="fusion:443"
                    override="false"
                    description="blah" />
        <Parameter name="tmm_slp_endpoint"
                    value="https://fusion:443/tmm/slpService"
                    override="false"
                    description="blah" />
        <Parameter name="user_dataCleanserService_endpoint"
                    value="https://fusion:443/DataCleanserService/services/DataCleanserService"
                    override="false"
                    description="blah" />
        <Parameter name="ciwUserListingService_endpoint"
                    value="https://fusion:443/ciw-user-listing-service/services
    /CIWUserListingService"
                    override="false"
                    description="The CIW User Listing Service endpoint, used to retrieve a list of
    active CIW users." />
        <Parameter name="SRS_Service_Endpoint"
                    value="https://fusion:443/srs/services/srs"
                    override="false"
                    description="Settings Repository Service" />
```

Database Resource Connection Information

- Add your DB connection information to your_tomcat_folder -> conf -> server.xml inside the GlobalNamingResources tag:
    - Replace the wildcards:
    - {DB_SERVER_NAME} : The hostname of the db server (devslo149 for Oracle, localhost for PostgreSQL)
    - {DB_SID} : The SID where your tablespace resides (ICODES)
    - {DB_USERNAME} : The username for your tablespace (Tapestry domain username)
    - {DB_PASSWORD} : Your password (Tapestry domain username)

Oracle Connection Information

```
<Resource
name="jdbc/SLP" auth="Container" type="javax.sql.DataSource"
driverClassName="oracle.jdbc.driver.OracleDriver"
url="jdbc:oracle:thin:@{DB_SERVER_NAME}:1521:{DB_SID}"
username="{DB_USERNAME}"
password="{DB_PASSWORD}"
maxActive="30"
maxIdle="30"
minIdle="0"
initialSize="1"
maxWait="30000"
removeAbandoned="true"
removeAbandonedTimerout="300"
logAbandoned="true"
testOnBorrow="true"
testWhileIdle="true"
timeBetweenEvictionRunsMillis="10000"
minEvictableIdleTimeMillis="30000"
validationQuery="select 1 from sys.dual" />
```

PostgreSQL Connection Information
```
<Resource
name="SLP" auth="Container" type="javax.sql.DataSource"
driverClassName="org.postgresql.Driver"
url="jdbc:postgresql://{DB_SERVER_NAME}:5432/{DB_SID}"
username="{DB_USERNAME}"
password="{ENCRYPTED_DB_PASSWORD}"
factory="com.cdmtech.ciw.crypto.SecureBasicDataSourceFactory"
maxActive="30"
maxIdle="30"
minIdle="0"
initialSize="1"
maxWait="30000"
removeAbandoned="true"
removeAbandonedTimeout="300"
logAbandoned="true"
testOnBorrow="true"
testWhileIdle="true"
timeBetweenEvictionRunsMillis="10000"
minEvictableIdleTimeMillis="30000"
validationQuery="select version()" />
```

- Click "OK"
- Right-click on the project. Under "Tomcat project" -> "Update context definition"
- Run the server!

Run Configurations
Run Configurations provide a quick way to enact detailed commands. The general process for adding a run command is as follows:

- Ensure the project you are going to start from is imported in eclipse (e.g. slp-war, slp-db, slp-db).
- Right-click on the starting project and select "Run As->Maven build...".
- In the Edit Configuration dialog set the following properties:
    - Name: This can be whatever you plan to use to pick this Run configuration out of the final list. If a profile is being used then this is a good candidate for at least part of the name.
    - Goals: The maven goals to run on this pom. (e.g. "clean install" for the majority of projects).
    - Profiles: Any profile (configuration information) specified with this run.
- Selecting 'Run' will save the configuration and run the maven process immediately. Selecting 'Apply' will just save the configuration for later use.
- Later, you can find this configuration under the Drop Downs associated with the Run and Debug buttons.

Database Run Configurations
Each of these configurations will be run starting with slp-db (PostgreSQL will require setting up PostgreSQL on your local machine: instructions to be added). You must have a \target directory in slp-db for these to run properly. You can either build slp-db with the goal of "install" or create this directory yourself. If you see the following error, this is the cause: java.io.FileNotFoundException: <workspace-dir>\slp-parent\slp-server\slp-db\target\upgradeOracle.sql

- Goals : initialize
- Add the following parameters to the run configuration:
    - db.username : The username for your tablespace (Tapestry domain username)
    - db.password : The password for your tablespace (Tapestry domain username)

- db.server : The hostname of the db server (devslo149 for Oracle, localhost for PostgreSQL)
- db.sid : The SID where your tablespace resides (ICODES)

Database Update

- Profile Name : updateDB[Oracle|Postgresql]

Database updates should be run on a regular basis to ensure that your database schema is up to date with the latest source code.

Full Database Clean

- Profile Name : cleanDB[Oracle|Postgresql]

Take a database, wipe it out, and starting over from scratch, bring the database back to an **empty** but fully-up-to-date state.

SLP War Run Configuration

- Goals : clean install

This is the final run configuration you need to use before running Tomcat after a code change. It is not necessary to provide a profile name.

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