

LDA TopicXP Exploratory Study Documentation

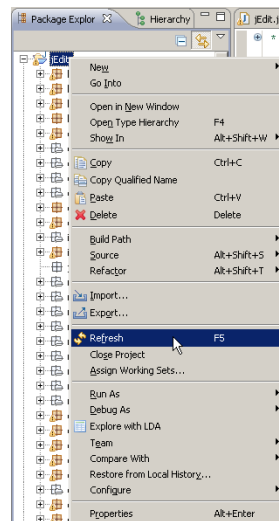
For the following tasks, please identify some classes (files) that are responsible for the concepts described in the tasks. In other words, you are required to do *concept location* and partial *impact analysis* using either Eclipse or LDA TopicXP.

Installation:

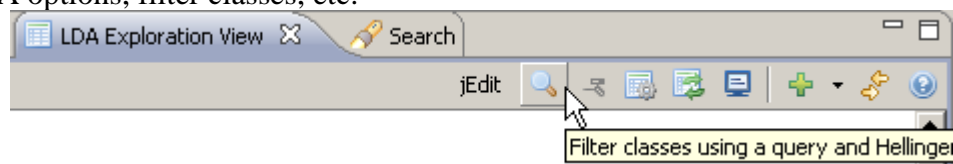
- Download the .zip archive (197MB) from:
<http://www.cs.wm.edu/semeru/eclipse35LDA.zip>
- Extract the archive to **c:\eclipse35LDA**
- When starting Eclipse, select the workspace from within the folder (e.g., “c:\eclipse35LDA\workspace”)
- The archive contains:
 - Eclipse 3.5
 - LDATopics and DevMon plugins
 - jEdit source code
 - muCommander source code

Remarks:

- Please refresh the project resources by selecting “jEdit” from “Package Explorer” and click Refresh (F5)



- Do not use any external documentation for these tasks; use the source code exclusively
- For each task, explore the facilities of the LDATopics plugin, such as change LDA options, filter classes, etc.



- You are allowed to use every feature of Eclipse, except the following:
 1. Cannot use CTRL+click for “Open Declaration” (i.e., to navigate from one file to the other), use F3 instead (CTRL+click and F3 are equivalent);

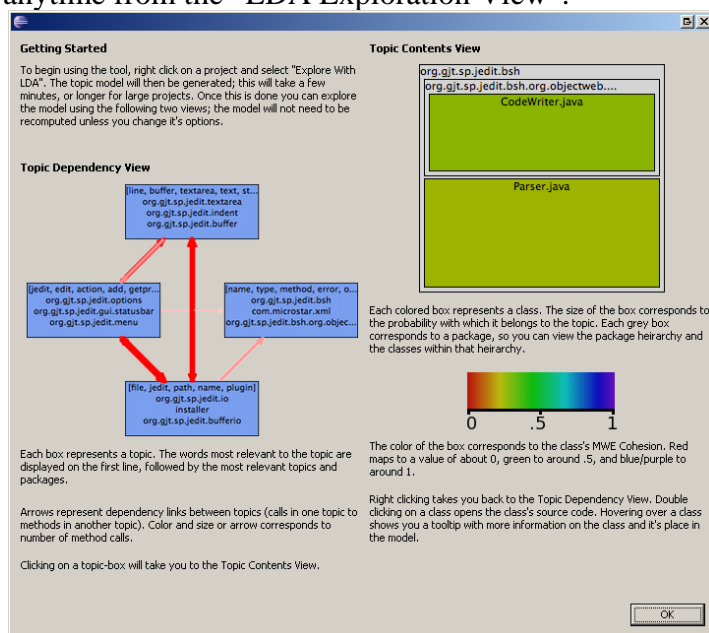
the CTRL+click was disabled from the Preference menu for your convenience

2. Cannot close a file that is not active (i.e., a file that is in the background); you can close the editor if it is the active one

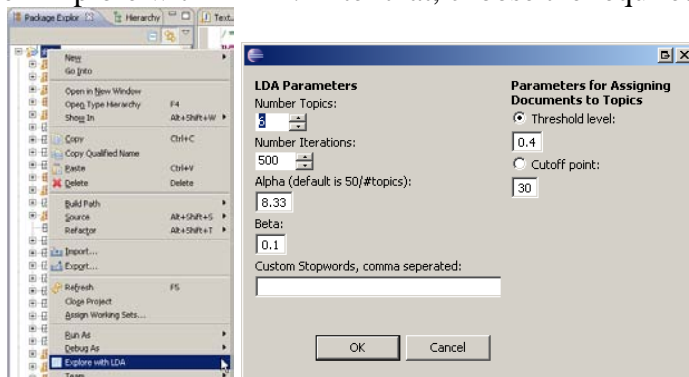
- **Before starting each task, make sure all the files are closed (File->close all)**
- For each task, after you are confident you identified the correct files related to that concept,
 1. select from the menu “DevMon->Save List of Current Opened Files”
 2. close all files

About LDA Exploration View

- The following screenshot displays the help menu for LDATopics, which can be accessed anytime from the “LDA Exploration View”.

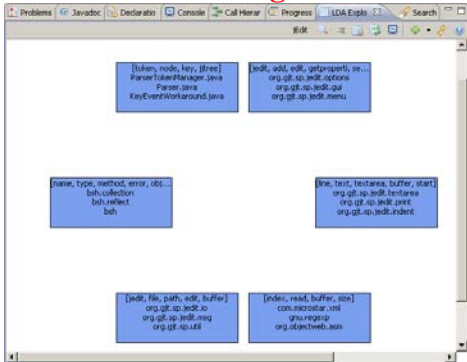


- To display the “LDA Exploration View”, open “Window->Show View->Other...->LDA Topics->LDA Exploration View”
- To index a project using LDA, select the project name from “Package Explorer” and choose “Explore with LDA”. After that, choose the required parameters.

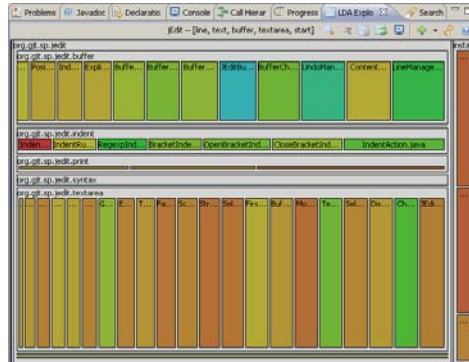


- After the project is indexed, click on a topic to view its classes; double click on a class to view its code, hover on a class to view its properties or right click on the view to return to the topics view.

- **NOTE: filtering the results using the “Filter classes using a query and Hellinger Distance” takes about 1-2 minutes**



Click on a topic to view the classes associated with it



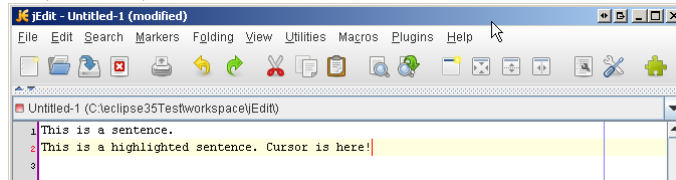
Double click on a class to view its code or **right click** to return to the topics view

Each task should be completed in about 5-15 minutes.

jEdit

Task 1

Identify the classes (files) responsible for displaying the content from a buffer. This includes displaying the text, the background color, the highlighted color, the line wrap marker, line numbers, cursor, etc.

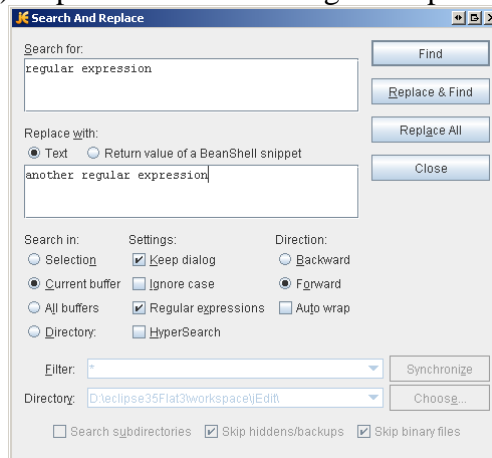


After identifying some of the classes related to these concepts,

- select from the menu “DevMon->Save List of Current Opened Files”
- close all files
- proceed with the next task

Task 2

Identify the classes (files) responsible for searching and replacing regular expressions.



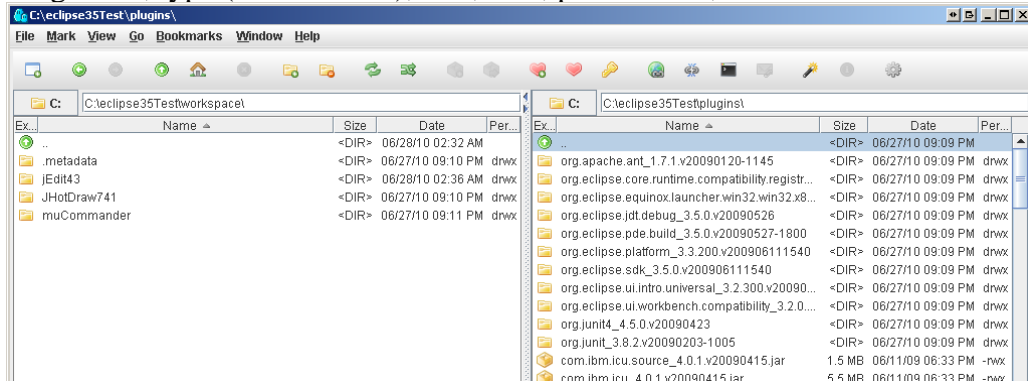
After identifying some of the classes related to these concepts,

- select from the menu “DevMon->Save List of Current Opened Files”
- close all files
- proceed with the next task

muCommander

Task 1

Identify the classes (files) responsible displaying information about the file system, including name, type (file or folder), size, date, permissions, etc.

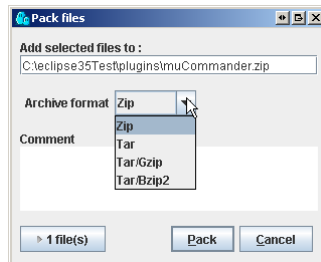


After identifying some of the classes related to these concepts,

- select from the menu “DevMon->Save List of Current Opened Files”
- close all files
- proceed with the next task

Task 2

Identify the classes (files) responsible creating archives in different formats (*.zip, *.tar, etc.)



After identifying some of the classes related to these concepts,

- select from the menu “DevMon->Save List of Current Opened Files”
- close all files
- proceed with the next task