Apache Directory Studio LDIF Editor

User's Guide

Apache Directory Studio LDIF Editor: User's Guide

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Chapter I. Getting started

This getting started guide provides a brief introduction to the Apache Directory Studio LDIF Editor.

The latest version of Apache Directory Studio can be downloaded from the Apache Directory Studio Downloads page, at this address : https://directory.apache.org/studio/downloads.html [https://directory.apache.org/studio/downloads.html] .

The download page also includes the installation instructions.

2. Overview

The LDIF editor could be used to edit LDIF files. It could handle LDIF content files as well as LDIF changetype files. Files with appendix *.ldif are automatically handled by the LDIF editor.

Limitations

The LDIF editor is still in development. The handling of big LDIF files is a problem because the complete file is loaded into memory which may cause an OutOfMemoryException. The syntax check doesn't work correctly. The error annotations and displayed messages are not very helpful at the moment. Currently there is no URL support (jpegImage:<file://)

Example screenshot
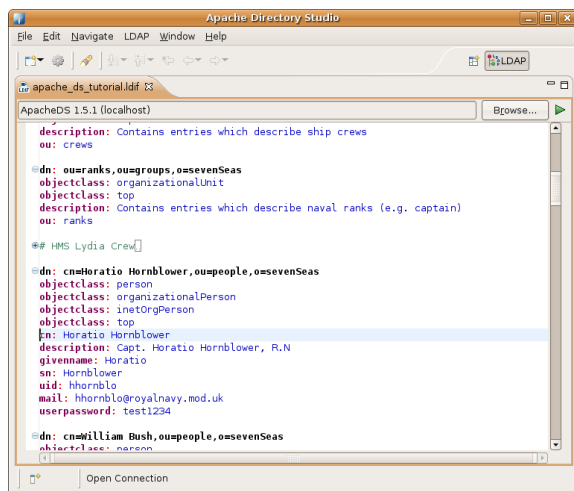
Syntax coloring

Syntax coloring helps you to distinguish the different elements of a LDIF file. By default the following colors and fonts are used:

Element	Color	Example
distinguished name	black and bold	`dn: cn=content record`
attributes	violett and bold	`objectClass: person`
values	blue	`objectClass: person`

Element	Color	Example
changetype add	green and bold	`changetype: add`
changetype modify	yellow and bold	`changetype: modify`
changetype delete	red and bold	`changetype: delete`
changetype moddn/modrdn	blue and bold	`changetype: moddn`
keywords	gray	`control:`
comments	dark green	`# Content record`

These colors and fonts could be changed in the LDIF Editor Syntax Coloring preferences .

3. Working with the LDIF editor

Using LDIF editor

To create a new LDIF file choose **File -> New** , expand **LDAP Browser**, select LDIF File and press the Finish button.

To open an existing LDIF file choose **File -> Open File**, that opens a file dialog where you could select the LDIF file. Within Eclipse you could also open a LDIF file from Navigator view.

To save the modified LDIF choose **File -> Save** or **File -> Save as** and select a save location and enter the file name.

The LDIF editor also supports default editor functionality like Copy/Paste, Undo/Redo and a Find/Replace dialog, see Edit menu.

Connect with directory and its schema

The LDIF editor could be connected to a directory server and its schema. You could select a connection at the top of the LDIF editor by pushing the **Browse...** button and selecting a connection from the dialog. Doing this will provide you the following features:

• The Content Assistent will provide better attribute proposals.

• The best value provider is choosen as default value editor.

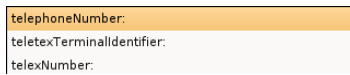• The LDIF could be imported into the selected directory by invoking the execute button.

Content Assistent

The LDIF editor provides a context-sensitive content assistent. To start content assistence press **Ctrl +Space**, then a popup with proposals is shown. You could select one using the cursur keys or the mouse, press **Enter** to apply the selected proposal. To close the popup press the **ESC** key. The following list shows the supported proposals:
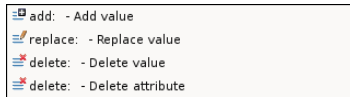
• When starting a new record a popup with record templates is shown.
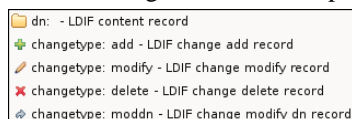
- When writing an attribute in a content or add record a popup with a list with matching attributes is shown.

```
telephoneNumber:
teletexTerminalIdentifier:
telexNumber:
```

- In an modify record the popup lists possible modify item templates.

```
add:     - Add value
replace:  - Replace value
delete:   - Delete value
delete:   - Delete attribute
```

Value Editors

In LDIF values may only contain a subset of ASCII characters. Values with other characters (like accent mark) and even asiatic characters must be encoded using BASE-64. Also binary data like images or certificates must be encoded.
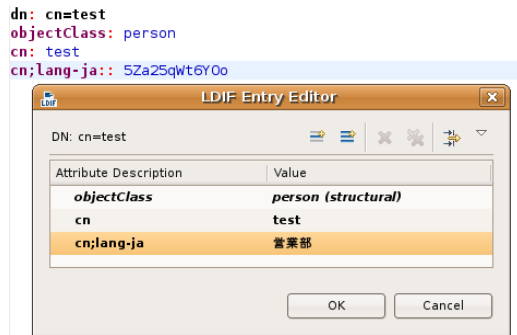
To edit such values Value editors could be used.

To start a Value editor move the cursor to the attribute or value and select **Edit Value** from context menu or press **F7**. This opens the default value editor dialog. You could also open a custom value editor by choosing one from **Edit Value With** in context menu.

To apply a modified value press the **OK** button in the value editor dialog, the previous value is replaced by the new value. Of course in LDIF they are displayed BASE-64 encoded.
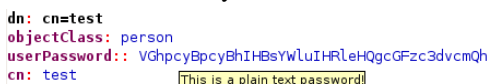
LDIF record editor

It is possible to use the well-known Entry editor to edit content records and add records. Move the cursor to the record and choose **Edit Record** from context menu or press **F8**. This opens the LDIF record editor. You can add, modify and delete attributes. To apply the modification press **OK**, the previous record is replaced by the new one.

```
dn: cn=test
objectClass: person
cn: test
cn;lang-ja:: 5Za25qWt6YOo
```

```
LDIF Entry Editor

DN: cn=test

Attribute Description     Value
objectClass               person (structural)
cn                        test
cn;lang-ja                営業部

           OK        Cancel
```

Reading BASE-64 values

There are two ways to make BASE-64 values human readable:

- Move the mouse over the value, a tooltip with the value is displayed. This works only for text-based values, not for binary values.

```
dn: cn=test
objectClass: person
userPassword:: VGhpcyBpcyBhIHBsYWluIHRleHQgcGFzc3dvcmQh
cn: test
              This is a plain text password!
```

- Open the value editor.

Error annotations

Syntax errors are displayed using error annotations. In the ruler the error icon ⊗ is displayed. Additional the erroneous content is red squiggled.

Note: The support for error annotations is still in development and has to be improved. The displayed messages are not very useful at the moment.

Formatting

To format the document or the selected record according the LDIF Editor preferences choose **Format** from context menu.

Folding

Multi-lined comments, records and multi-lined values could be folded. There is a **(+)** and **(-)** in the left ruler to collapse and expand these. By default multi-lined comments and multi-lined values are folded. This behaviour could be changed in LDIF Editor preferences .

Line numbers

To show/hide line numbers toggle the **Show Line Number** in the context menu of the left ruler.

4. Outline

The Outline view shows the distinguished names of all the records in the LDIF file, the icon indicates the record type. The following icons are used:

Icon	Description
📁	Content record
✚	Add record
✎	Modify record
✖	Delete record
➔	Moddn/Modrdn record

When expanding the DNs the detail of a record are shown:

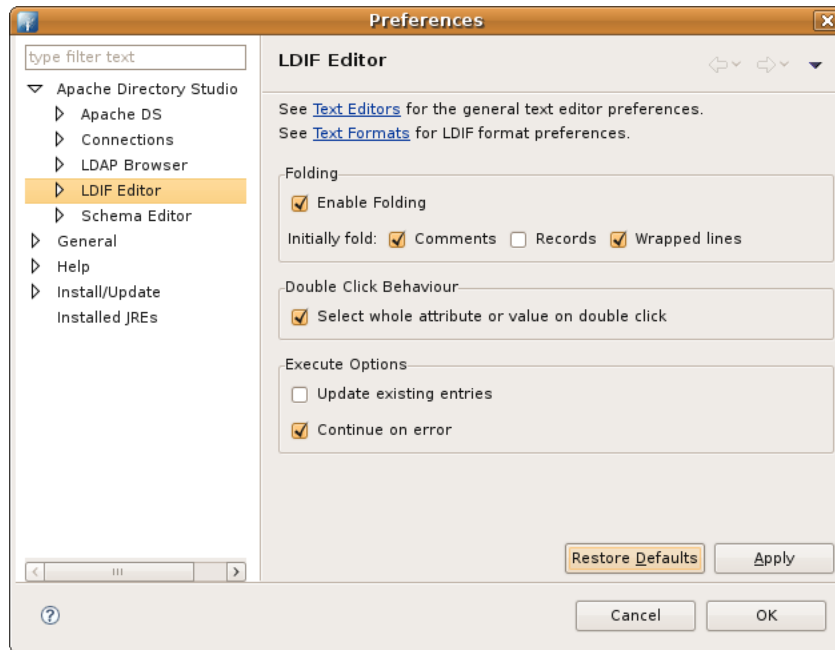| Icon	Description
≡	Attribute
≡	Value
≡⊞	Changetype add
≡✎	Changetype modify
≡✖	Changetype delete

When selecting an element in the Outline view the corresponding element is selected in LDIF editor.

5. LDIF Editor preferences

On the LDIF Editor preference pages you can configure the LDIF editor.

LDIF Editor

On the LDIF Editor main preference page you can configure common settings.

Option	Description	Default
Text Editors	Opens the general text editor preferences.	-
Text Formats	Opens the LDIF text format preferences.	-
Enable Folding	Enables folding for multi-lined comments, mulit-lined values and records.	on
Initially fold: Comments	Folds multi-lined comments when opening the LDIF editor.	on
Initially fold: Records	Folds records when opening the LDIF editor.	off
Initially fold: Wrapped lines	Folds multi-lined values when opening the LDIF editor.	on
Select whole attribute or value on double click	If checked the whole attribute description or value is selected on double click.	on
Update existing entries	This options applies for LDIF content records and LDIF add records. If enabled and the entry to add already exists it will be updated with the attributes defined in the LDIF record. In detail a replace operation for each attribute is performed. Attributes of the existing entry that are not defined in the LDIF record remain without modification.	off

| Option	Description	Default
Continue on error	If checked the import process continues if an error occurs while importing a record. If not checked the import process interrupts.	on

Content Assistant

On the Content Assistant preference page you can configure content assistent settings.
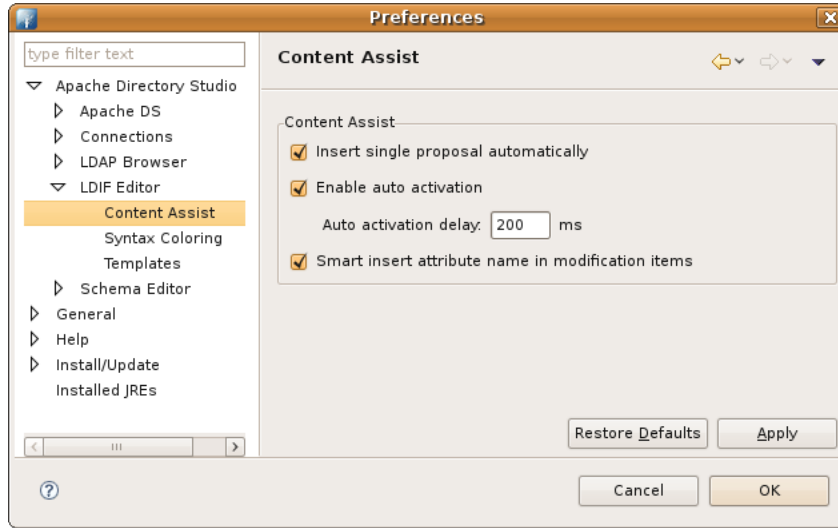
Option	Description	Default
Insert single proposal automatically	If checked single proposals are inserted automatically when invoking Strg+Space.	on
Enable auto activation	If checked the content assistant is activated after you pause typing for the defined period.	on and 200ms
Smart insert attribute name in modification items	If checked attribute names are inserted in modification items when a new line is started.	on

Syntax Coloring

On the Syntax Coloring preference page you can configure fonts and colors.
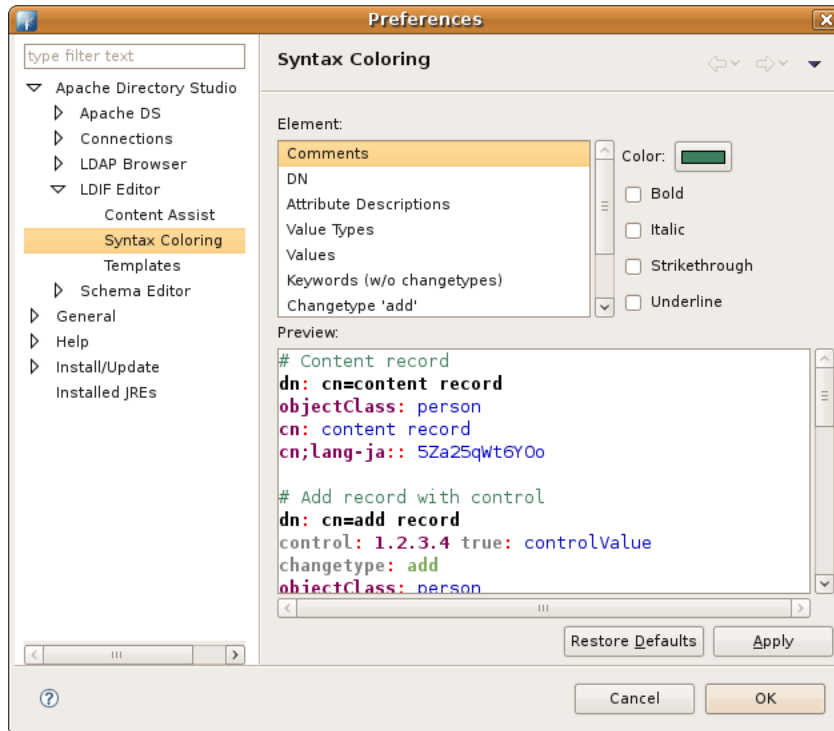
To modify color and font options select a element from the list. The color could be changed by invoking the color button. The font options could be changed by toggeling the Bold, Italic, Strikethrough and Underline check boxes.

Changes are immediately displayed in the preview.

Chapter II. Tasks

TODO...

Chapter III. Reference

RFCs

RFC 2849: The LDAP Data Interchange Format (LDIF) - Technical Specification [rfc/rfc2849.txt]

Chapter IV. Tips and tricks

TODO...