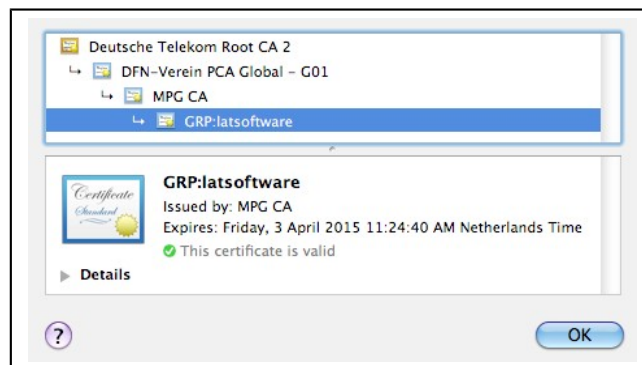


# Arbil

## Exercises

### Starting Arbil

- You must have Java 1.5 or greater installed on your computer.
- Use your web browser to go to:  
<http://tla.mpi.nl/tools/tla-tools/arbil/>
- Select a version of the "Latest stable version" for your computer. The WebStart version is usually easiest, however there are installers for specific operating systems if required.
- Run the downloaded application/installer.
- If you are running the WebStart version, you may be asked to allow the application Arbil to access your computer (as in the screen shots below). If you see this request then check that the digital signature has been verified and that it is from [www.mpi.nl](http://www.mpi.nl), then you can select "allow".



- When the application starts for the first time the Arbil wizard will start. If it does not, you can trigger it manually by choosing the wizard from the "Help" menu. Read the text on the first panel of the wizard and click next.
- For this tutorial we are using CMDI so select this on the second panel and click next.
- The Clarin profiles will now be loaded from the server, wait for this to complete.
- Select the "ComicBook" profile and click next.
- The default remote locations will suffice so click next on that panel also.
- Then click finish to exit the wizard.
- You will see the main window of Arbil, which exists of a number

of components and areas as explained in Figure 1.

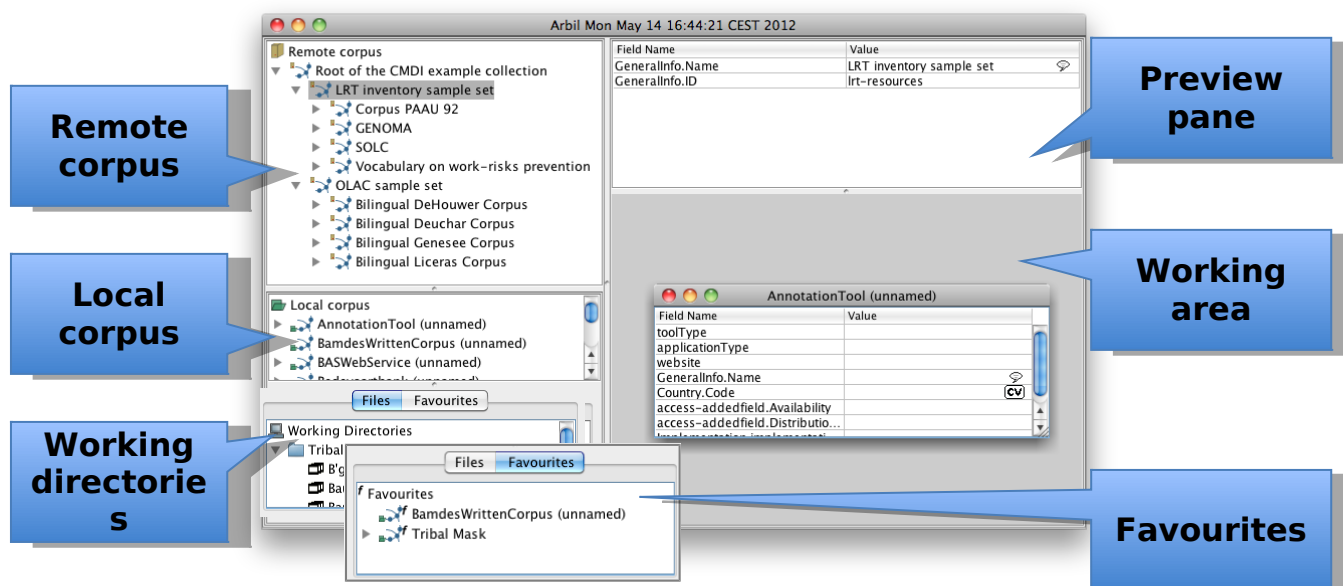


Figure 1: Arbil main window components

## Exercise 1: Creating and editing a new metadata instance

In this exercise we will instantiate the ComicBook profile and enter some metadata in existing fields as well as newly added nodes.

We will be creating a metadata description for a comic book. For this we need one or more resource files (for example a PDF) and some actual information to enter. You can go online and search for these, or go with the example that we will be using that can be downloaded from: <http://archive.org/details/GreenHornetComics1>

- Right click the “Local corpus” node in the middle pane on the left.
- From the “Add” submenu, select “ComicBook”. Notice that as a result two things will happen:
  - A new node displayed as “ComicBook (unnamed)” will appear in the local corpus tree. This is the main node of the metadata instance;
  - A new window appears in the working area showing a table containing the mandatory fields of the ComicBook’s main node.
- Expand the main node until you reach a node named “Author (unnamed)”. You will come across an intermediate node labeled “Author (1)”, which appears in the tree to collect all child nodes of the type Author. The unnamed Author node has been added upon creation because it is mandatory for this profile to have at least one author per metadata instance.
- Click the unnamed Author node and notice that this changes the table displayed in the preview pane above the working area, but not the table in the window in the working area.

- Use the table in the working area to fill in values for the mandatory fields (Title, PublicationYear, NumberOfPages, etc).
  - For the title, also specify the language of the title by choosing “English” from the drop down that appears on the right side of the field as soon as you start editing.
  - Some fields (these are ‘controlled vocabulary’ fields, e.g. ‘Format.Type’) are dropdowns themselves that require you to select a value from the dropdown list that appears when editing the field.
- Notice that as soon as you enter new data, the text of the changed fields in the table as well as the affected node in the tree turns blue. After having entered the metadata, save the changes by using the “Save Changes” option from the “File” menu, or press CTRL-S or CMD-S.
- In the tree, select the unnamed Author node and, using the mouse, drag it onto an empty (grey) part of the working area. If the existing table window fills the entire working area, make it a bit smaller first. As soon as you drop the node, a new table will appear representing the dropped node - in this case the author.
- Also fill in the fields for Author (in our example, the author is Fran Striker, born in the U.S. in 1903) and save the changes.
- Right click the main node in the tree, go to the “Add” submenu and take a look at the items. These are all the items that can optionally be added to the selected node in addition to the fields and nodes that are already there. For example, you could add an additional Author (a node, represented by the diamond shaped icon) or a Synopsis (a field, represented by the low line).
- Choose “Synopsis”, then bring the comic book table to the front by clicking on it in the working area and notice that a “Synopsis” field has been added.
- Enter a value for the synopsis field that exceeds the width of the value field, for example:  
*“The Green Hornet and Kato combat a ruthless gang whose victims are forced to obey criminal commands!”*  
 ...and make sure to finish editing (by pressing enter).
- Double click the value just entered in the table and notice that now a new window appears. This window is called the “Long Field Editor” (LFE). It automatically opens if a value is too long and provides more space so that you can easily enter longer descriptions. It also has buttons to navigate to the next or previous fields so that you can go through the fields of a node in sequence. The LFE can also be triggered from the right-click menus of the tree and the table, or by pressing CTRL-Space in the table.
- Add an additional author to the comic book. Don’t fill in any metadata - we are going to remove the node (suppose for example it has been added by mistake). Right click the newly added node in the tree, and select the “Delete” option. Press “Yes” when asked to confirm the deletion and close the now

- empty table window.
- Right click the main node of the comic book and choose “Check XML conformance”. See if there are any validation errors and if so, locate them in the instance and fix them.

## Exercise 2: Adding resources

In this exercise we will be adding a resource to the metadata instance we have created in the previous exercise. Make sure you have a copy of the resource the metadata describes (you can download a PDF for our example from the archive.org website)<sup>1</sup>. Put the resource in a new directory on your computer.

- On the bottom left panel of the Arbil window, locate the “Working Directories” node. Right click it and choose “Add Working Directory”.
- In the directory selection dialog that appears, navigate to the directory containing your resource and select it. Confirm by clicking the “Add working directory” button.
- The working directory has now been added to the working directories tree. Expand it and find the node representing the comic book resource.
- Click this node and drag it over the ComicBook nodes in the local corpus without dropping it yet. While dragging, the mouse cursor should change into one showing a “+” icon. Also, while dragging it over the local corpus, the target node should become selected. If these things do not happen, the file you have selected is not of an accepted type; you should fix this or use another resource. If the resource seems ok, drop it on the ComicBook main node.
- Resources can be added (as a reference) to any node in the metadata instance. The reference can also be moved within the instance. Select the resource node in the comic book (in the local corpus, not the working directories) and drag it onto the author node. Press “Move” to confirm the action. The resource now appears as a child of the author. Put it back at the top level by moving it to the main node.

## Exercise 3: Advanced editing

### Editing multiple nodes

Sometimes the same change has to be applied to many nodes. Arbil allows you to open any number of nodes in a single table and copy values from one node to the other nodes in the same table.

- Use the context menu in the tree to add two characters to the

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<sup>1</sup> Notice that Arbil does not support all formats! It has an internal ‘type checker’ that determines whether a file is suitable for archiving. The details of this type checking go beyond the scope of these exercises, but it’s good to know that most popular image types, plain text files, MPEG encoded audio and video and PDF’s are supported.

comic book (for example the main characters *The Green Hornet* and *Kato*).

- Open a table for the first of the two characters in the working area. Then drag the other character onto the newly created table. As soon as you drop it, the orientation of the table will change, showing the fields as columns; the two characters now appear as rows in the table.
- The same effect can be achieved by selecting multiple nodes in the tree (using the Shift key as a modifier) and dragging them on to the working area together. Close the current table and try this.
- Use the table to change a value for one of the characters, for example change the role to “Secondary character”.
- After this edit, right click the cell you just edited and select the “Copy Cell to Whole Column” option. Confirm the action and notice that the other character now has the same value in the same field. You can undo these actions by pressing CTRL-Z or CMD-Z until the table is back to the desired state.

## Find/Replace

The multiple nodes view also allows you to search within all of the nodes in a table and search for specific values in any of its cells; then, for each of the matching cells, you can replace the value searched for by some other value.

- Right click the most top-left cell in the table and choose the “Find/Replace” option. A search bar appears at the bottom of the table window.
- Enter a search term that appears in any of the fields (for example “Green”), in the search field. Press “Find next”. The first matching cell should now be selected.
- Enter a replacement text (for example “Red”) in the second field and press “Replace Selected” and verify that the text searched for is now replaced by the replacement text.

## Favourites

Metadata instances are often quite similar. For example when creating metadata for comics from the same series, you will have to provide the same publisher, language, format, author, etc. To avoid a lot of manual labour, Arbil allows you to construct a ‘favourite’ from an existing instance and reuse that favourite for subsequent instances.

- In the bottom left pane of the Arbil window, select the ‘Favourites’ tab (initially ‘Files’ is selected).
- Select the main node of the comic book instance you have created. Right click it, and select “Add to Favourites”. A copy will now appear in the “Favourites” tree.
- Open an editing table for the favourites item (drag it from the favourites tree to the working area) and remove the values (e.g.

- synopsis) and nodes (e.g. chapter) that are instance specific.
- Drag the favourite node on to the local corpus node. A copy of this node will be added to the local corpus tree. Edit it so that it describes another comic book.

## Exporting a metadata instance

To make a metadata instance available externally (e.g. to upload it to a server), you need to export it from the local corpus in Arbil to a location on disk. To make such an export, do the following:

- Right click the main node of the instance in the local corpus tree and choose “Export”.
- Select or create the folder that you wish to export to and press “Export Branch Destination Directory”
- Select the appropriate options (most importantly whether to include the resources in the export or not) and press “Start”.
- If there are any validation errors or other problems, they will be shown in the details when the export finishes.