Configuring Learning Tools Interoperability (LTI)

To configure the LTI integration profile, you must have one of the following roles:

- Fulfillment Administrator
- General System Administrator

You configure authentication between Leganto and your course management systems using Learning Tools Interoperability (LTI) integration profiles. After entering the required information to set up an integration profile, Alma supplies you with the credentials your course management system requires to operate with Leganto. For help with configuring your CMS, see https://developers.exlibrisgroup.com/leganto/integrations/lti.

You can add normalization rules for the course codes and user IDs imported using this profile. You can also select which CMS roles are considered instructors in Leganto.

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**Note**

The parameter **cms_entry_actions** determines if certain options are available to an instructor who arrives to Leganto from the CMS using a course link when a) the course is not yet defined in Leganto/Alma and/or b) the course is defined but has no reading lists. See the following sections:

- Configuring Whether Instructors Can Create or Modify Courses
- Configuring Whether Instructors Can Upload Files that Contain Reading Lists
- Enabling Instructor Rollover

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After configuring and enabling this profile, a user using your CMS is automatically logged into Leganto when the user open Leganto from the CMS. For this purpose, in addition the site's credentials, the CMS passes the user's name, and optionally the user's first name, last name, and email address. In addition, the link that the user selected in the CMS provides Leganto with the exact course, reading list, section, or citation that the user is trying to access.

When a CMS user does not exist, the user is redirected to a login page. If you would like Alma to automatically create any unregistered users, enable self-registration (see below). If you configure that first name, last name, or email address are mandatory (see Configuring Public User Mandatory Fields), but they are not supplied by the CMS, the user is prompted to enter these in order to register; otherwise the user is created seamlessly without the missing values.

You may want to configure multiple LTI profiles if you are running multiple CMSs or for some other reason.

**To configure LTI:**

1. On the Alma Integration Profile List page (Configuration Menu > Leganto > LTI > Integration Profiles), select **Add Integration Profile**. The Integration Profile page appears.
2. In the Integration type field, select **LTI Tool**.

   The page refreshes with different fields.

3. Enter a **Name** for the profile.

4. Select your course management system in the **LMS System** field. The current options are:
   - Other - When selected, the **System Description** field appears, enabling you to enter additional system details.
   - Moodle
   - Canvas
   - Blackboard
   - Desire2Learn
   - Sakai

5. Enter an optional **Description**.

6. Select **Next**. The second page of the wizard appears.
There is currently only one option for the mandatory field LTI Type.

7. In the LTI Version field, select your LTI version; currently the only option is 1.X. After selecting the LTI version, the page refreshes with the credentials you must enter into your course management system. Copy these credentials and enter them in your course management system where required.

Note

If you add the URL parameter debug=true to the end of the LTI Launch URL, then the URL points to a debug screen instead of Leganto (if there are no other URL parameters, add ?debug=true; if there are other URL parameters, add &debug=true). This may be useful for troubleshooting. Note that this URL works only when accessing Leganto from the CMS; the URL with the debug parameter does not work in a web browser.
8. When Leganto is embedded in an iFrame, the user can hide or reveal the top and left menus. You can select to have one or both of these menus hidden by default. The top menu contains the user and language menus. The left menu contains the navigation and notification menus.

9. If required, specify the user ID and/or course code fields.

This is useful when the names of these fields are not the default values, which are:

- **User ID:**
  - Moodle – `ext_user_username`
  - Sakai – `ext_sakai_eid`
  - Canvas – `lis_user_username`
  - Desire2Learn – `ext_d2l_username`
  - Other – `custom_lis_user_username`

- **Course Code:** `custom_lis_course_id` or `custom_lis_course_code`. If you are using Blackboard collapsed courses, and you would like that the parent course’s reading list appears when a link to a child course is selected, enter `context_label` in this field.

10. Select **User information is mandatory** to make first name, last name, and email address mandatory fields. If you select this, any users who do not already have values for these fields are asked to enter values for these fields the next time they try to enter Leganto from your CMS.

11. When a CMS user does not exist, the user is redirected to a login page. If you would like Alma to automatically create any unregistered users (similar to what happens for Social Login), select **Active** in the Self-Registration section and configure the following fields in this section:

   - **User Identifier** - Select the user identifier type that the users use to log in.
When enabled by Ex Libris, you can select the option **LTI id of self registered**. When selected, Alma assumes that this integration profile is for an "open course", which may have users who want to register with usernames that already exist in Alma. Alma ensures that these users do not clash with any existing Alma users by creating the users with a string added to their username. So even if a user named mark already exists in Alma, a user with the name mark coming from this profile is registered as a new username. When any other ID is selected, users are assumed to be institution users, and usernames are checked against existing usernames. A user named mark that already exists is not given a new username.

- **User Group** - The user group to which to assign all users created by this profile. See Configuring User Groups.
- **Resource Sharing Library** - The resource sharing library to assign to all users created by this profile. See Resource Sharing.
- **Statistical Category** - The statistical Analytics category to which to assign to all users created by this profile. See Configuring Statistical Categories for Analytics.

12. Select **Save**. The credentials are saved in Alma.

- Optionally add normalization rules for the course codes and user IDs imported using this profile. See Configuring LTI Profile Normalization Rules.
- Optionally map CMS roles to instructors in Leganto. See Mapping CMS Roles to Instructors in Leganto.

## Configuring LTI Profile Normalization Rules

You configure LTI integration profile normalization rules on the LTI Normalization Type to Method mapping table (**Configuration Menu > Leganto > LTI > Field Normalization**). For more information about mapping tables, see Mapping Tables.

**LTI Normalization Type to Method Mapping Table**

You can add normalization rules with the following elements:

- **Field Type** - The field in the record to normalize: **Course Code** or **User Id**.
- **Regular Expression** - A regular expression to search for in the field.
- **Normalization Method** - What to do with the string in the field that matches the regular expression:
  - **Concat to end** - Append the contents of **Replace With** after the matched string in the field.
  - **Concat to start** - Insert the contents of **Replace With** before the matched string in the field.
  - **Keep** - Keep the contents of the regular expression that appear in the first set of parentheses (in other words, keep $1 and discard the rest of the field). **Replace With** is ignored. For example, if your regular expression is `.2\{\}\{.*\}\`, then admin becomes min.
  - **Lowercase** - Lowercase the contents of the regular expression that appear in the first set of parentheses (in other words, replace $1). **Replace With** is ignored. For example, if your regular expression is `.2\{\}\{.*\}\`, then ADMIN
becomes ADmin.

- **Remove** - Remove the contents of the regular expression that appear in the first set of parentheses (in other words, discard $1). **Replace With** is ignored. For example, if your regular expression is `.\{2\}\(.*\)`, then ADMIN becomes AD.

- **Replace** - Replace the contents of the regular expression that appear in the first set of parentheses with the contents of **Replace With** (in other words, replace $1). For example, if your regular expression is `.\{2\}\(.*\)` and **Replace With** is 123, then ADMIN becomes AD123.

- **Uppercase** - Uppercase the contents of the regular expression that appear in the first set of parentheses (in other words, replace $1). **Replace With** is ignored. For example, if your regular expression is `.\{2\}\(.*\)`, then admin becomes adMIN.

- **Replace With** - See Normalization Method.

- **LTI Profile** - The LTI profile to which this customization applies.

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**Mapping CMS Roles to Instructors in Leganto**

You can configure Alma to automatically add the instructor role to users arriving from the CMS. Additionally, you can determine if the user will also be added as an instructor in the relevant course.

Each row in the table adds the instructor role automatically to any user coming from the CMS with the configured CMS role.

You create this mapping on the LTI - Course Management System Roles Mapping mapping table (Configuration > Leganto > LTI > Course Management System Roles Mapping). For more information about mapping tables, see Mapping Tables.

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**Working with the CMS Role**

Leganto receives the role in a parameter called roles. The role looks something like the following:

- `roles=urn:lti:role:ims/lis/Instructor`

Everything to the right of the `=` sign is the CMS role. In the above example, that is `urn:lti:role:ims/lis/Instructor`.

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**LTI - Course Management System Roles Mapping Mapping Table**

You can add, edit, and delete rows. In each row, configure:

- The LTI profile to which this mapping applies.
- A substring to match within CMS role, used to determine whether to map the role. This field is case-insensitive. For example, if the role received from the CMS is `urn:lti:role:ims/lis/Instructor`, then the substring
Instructor matches the role.

- The number of days after which the user is removed as instructor for the course (if configured to be instructors by the next column).
- Whether or not users with this role are added as instructors.

Direct Access to Reading List, Section, or Citation from a CMS

You can provide direct access for your students and instructors to a specific reading list, section, or citation from a CMS (the list must be published). To do this, the person creating the link to Leganto in the CMS must add a URL parameter/value pair with the reading list, section, or citation ID.

- Directly accessing a reading list opens Leganto on the reading list page. See Linking to a Reading List in the Leganto User Interface Guide.
- Directly accessing a section is exactly the same as directly accessing a reading list, except that all other sections in the reading list are collapsed by default/all other sections are filtered out by default (depending on your library’s setting). See Linking to a Section in the Leganto User Interface Guide.
- Directly accessing a citation opens Leganto on the citation page. See Linking to a Citation in the Leganto User Interface Guide.

Note

Always use an LTI direct link to provide access from the CMS. Permalinks (which are also available in the Leganto UI) provide only guest access to Leganto, and do not maintain any course or user information.