

IASystem™ Integration Guide v.1.0.0

A Guide for Using the IASystem™ Learning Tools Interoperability (LTI) Tool

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INTRODUCTION

IASystem™ provides learning management system (LMS) integration using the *IMS Global Learning Consortium* (www.imsglobal.org) *Learning Tools Interoperability* (LTI) specification. The mechanisms to set up an LTI tool are similar across LMS platforms and this guide is intended for LMS System Administrators who would like to configure and use the IASystem™ LTI tool to provide course evaluation access within the LMS.

In order to facilitate integration, the basic steps include:

- ▶ The LTI tool provider, IASystem™, provides a client-specific tool endpoint and key/secret combination for the LMS tool consumer
- ▶ The LMS system administrator uses their LMS external tools configuration interface to install the key and secret and associate them with launches destined for the IASystem™ domain

IASystem™ requires user and course identifiers for single-sign-on and access to course evaluations. When embarking on an IASystem™ LTI integration, first contact support@iasystem.org to confirm and discuss the required data items.

IASYSTEM™ LTI REQUIREMENTS

The IASystem™ LTI tool relies on matching SIS user and course identifiers that have been populated within IASystem™ by your institution. In many cases the LMS will have the same user identifiers as the SIS; however, if that is not the case, the LMS can make user identifiers available via custom variables in their LTI solution.

The LMS course identifiers need to match the course identifiers populated in IASystem™ associated with a specific term. The IASystem™ engineering team may need to develop a custom data mapping function to match an LMS ID if it is inconsistent with the SIS identifiers that have been populated within IASystem™.

LTI COMPLIANCE

LMS vendors are responsible for documenting compliance with the LTI standard. It's important to note that some vendors do not go through the conformance process for every product version. For the most up-to-date information on which LMS releases are compliant with LTI, consult:

<https://www.imsglobal.org/cc/statuschart.cfm>

USING THE IASYSTEM™ LTI TOOL

IMPLEMENTATION OVERVIEW

Using the *IASystem™* LTI tool, you will be able to create a resource that will allow students to automatically log in to *IASystem™* and complete course evaluations from within your campus LMS. Each LMS has its own LTI capabilities and our engineering team will provide consultation with your campus LTI integration.

In order to have an effective integration, please follow these steps:

- Step 1.** Contact support@iasystem.org to initiate LTI integration and confirm required data that will be sent by your LMS to the *IASystem™* LTI tool
- Step 2.** Log in to *IASystem™* and use the Manage Integration tool to identify your LTI endpoint and to create the LTI consumer key and secret combination
- Step 3.** Log in to LMS and configure the *IASystem™* external LTI tool by providing the following information:
 - a. LTI Endpoint
 - b. Client Key
 - c. Client Secret
 - d. Data Items to be sent to the *IASystem™* LTI tool

Deploy the *IASystem™* tool within your LMS platform. Depending on the external tool configuration options located in your LMS, the following implementation options are possible:

- a. Implement system-wide so that all course pages display the *IASystem™* resource
- b. Setup *IASystem™* as an available tool that can be added to a specific course page

In order to mitigate issues related to third-party cookies, the recommended implementation is to **configure the survey tool to open in a new browser tab/window** rather than be embedded within a frame.

IASYSTEM™ LTI IMPLEMENTATION STEPS

STEP 1 - ESTABLISHING DATA PARAMETERS

The *IASystem™* LTI tool relies on matching SIS username and course identifier parameters that have been populated within *IASystem™* by your institution.

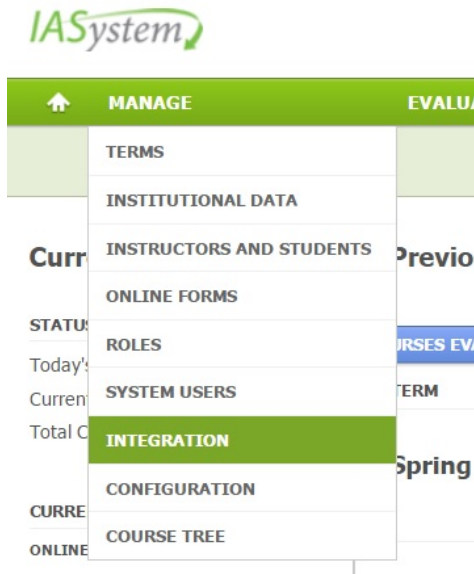
- ▶ Username Parameter: The LTI parameter that will match either the Username or Institutional ID that has been imported into *IASystem™*.
- ▶ Course Identifier Parameter: The LTI parameter that will match the course identifier populated in *IASystem™* associated with a specific term.

Additional information on data parameters is located in the FAQ section at the end of this document.

When you are ready to initiate LTI integration, please email your client manager or the *IASystem™* team at support@iasystem.org and we will set up a time with our engineer to discuss and confirm your LTI data parameters.

STEP 2 - CONFIGURING LTI WITHIN IASYSTEM™

After completing Step 1, log in to your campus IASystem™ application and navigate to “Manage” on the main menu and then select “Integration” from the dropdown:





On the Integration page users can set up and manage LTI configuration settings. Existing LTI configurations are displayed and can be edited or deleted by authorized users.

The IASystem™ client-specific LTI endpoint is also listed on this page; see the example below:

LTI Configuration

LTI endpoint: <https://campus.iasystem.org/lti/eval/v1> ← This is an example of the unique client LTI endpoint displayed on this page.

Using our LTI tool, you will be able to create an LMS resource that will allow students to automatically log in to IASystem and complete course evaluations. Prior to setup, please contact support@iasystem.org to confirm LMS course identifier and username parameters.

NAME	CLIENT KEY	CLIENT SECRET	CREATION DETAILS	
My Campus LMS	MyCustomClientKey	1CD2300-000-00E0-0BF0-BF00000D0000	Aug 19, 2016, 08:50:24 AM by Deborah Smith (drs25)	 

To set up a new LTI Configuration, click the blue “Set Up LTI” button.

On the next page, the LTI configuration form provides an opportunity to add a descriptive name, rename the Client Key (optional), view the auto-generated Client Secret, and add Contact Information that may be helpful in identifying the person or office managing the LMS LTI integration.

The LTI Configuration page also displays user and course LTI launch parameter details established during Step 1.

Add LTI Configuration

NAME	<input type="text" value="Name"/>
CLIENT KEY	<input type="text" value="D45675-85553E-80000M-0117F000"/> The client key can be changed at setup to a custom key value
CLIENT SECRET	<input type="text" value="1CD2300-000-00E0-0BF00000D000"/>
CONTACT INFO	<input type="text" value="Contact Info"/>
CREATED BY	Deborah Smith
USER	LTI launch param name: custom_canvas_user_login_id Param decode method: literal
COURSE	LTI launch param name: lis_course_offering_sourcedid Param decode method: split Delimiter: -
<input type="button" value="Cancel"/> <input type="button" value="Add Config"/>	

Once created, *IASystem*™ LTI configuration settings can be edited or deleted by authorized users.

LTI Configuration				
LTI endpoint: https://campus.iasystem.org/lti/eval/v1				
Using our LTI tool, you will be able to create an LMS resource that will allow students to automatically log in to IASystem and complete course evaluations. Prior to setup, please contact support@iasystem.org to confirm LMS course identifier and username parameters.				
NAME	CLIENT KEY	CLIENT SECRET	CREATION DETAILS	
My Campus LMS	MyCustomClientKey	1CD2300-000-00E0-0BF0- BF00000D0000	Aug 19, 2016, 08:50:24 AM b Smith (drs25)	<input type="button" value="Edit"/> <input type="button" value="Delete"/>

When editing an *IASystem*™ LTI configuration, users can do the following:

- ▶ Update configuration name
- ▶ Reset client secret
- ▶ Update contact information

Edit LTI Configuration

NAME	My Campus LMS	
CLIENT KEY	MyCustomClientKey	
CLIENT SECRET	1CD2300-000-00E0-0BF0-BF00000D0000	Reset secret
CONTACT INFO	LMS Administrator, ITSupport@mycampus.edu	
CREATION DATE	Aug 19, 2016, 08:50:24 AM	
CREATED BY	Deborah Smith	
USER	LTI launch param name: custom_canvas_user_login_id Param decode method: literal	
COURSE	LTI launch param name: lis_course_offering_sourcedid Param decode method: split Delimiter: -	
		Cancel Update Config

STEP 3 – CONFIGURING IASYSTEM™ TOOL WITHIN AN LMS

Each LMS has an external tool configuration that will allow you to set up the *IASystem™* LTI tool and enter the data parameters from step one and the LTI URL (domain), Consumer Key and Secret from step two. Additionally, you may need to set the signature method, which is typically: HMAC-SHA1.

The *IASystem™* LTI tool provides the opportunity to launch a course evaluation for a course. Depending on the external tool configuration options located in your LMS, the following implementation options are possible:

- ▶ Implement system-wide so that all course pages display the *IASystem™* resource
 - This implementation will provide the *IASystem™* LTI evaluation resource link on each course page within the LMS
 - The link will show up whether or not evaluations have been created for the course; evaluations need to be setup within your campus *IASystem™* application
- ▶ Setup *IASystem™* as an available tool that can be added to a specific course page
 - Like the system-wide implementation, if *IASystem™* is available as a tool and an instructor adds the *IASystem™* link to their course page, this can be done independent of whether or not an evaluation has been setup for their course
 - When evaluations are created within the *IASystem™* application, instructors can receive an email notification notifying them their course evaluation is available; this is a configurable setting and you can check with your *IASystem™* client manager to confirm your campus setting

Regardless of which implementation is chosen, when a LMS user selects the IASystem™ course evaluation link on a LMS course page, the following will happen:

- ▶ IASystem™ will search for the course information & check to see if an evaluation exists
 - If the course cannot be identified in your campus IASystem™ application, the user will be presented with the following message: **Course not found**
 - If an evaluation for the course does not exist, the user will be presented with the following message: **This course has no evaluations**
- ▶ If an evaluation exists, IASystem™ will check to see if the user can access the course evaluation; depending on the outcome the user will be presented with the following messages:
 - If the user is not a member of the course class list that been uploaded to your campus IASystem™ application: **Sorry, this isn't your course evaluation**
 - If the user previously submitted their course evaluation responses: **Completed**
 - If the course evaluation is not yet open: **Opens on MM/DD/YYYY**
 - If the course evaluation has closed: **Closed on MM/DD/YYYY**
- ▶ If there is more than one evaluation for the course and the user will be evaluating multiple instructors, IASystem™ will first display a page that lists all available evaluations as shown below with appropriate messaging:

Select a Course Evaluation

This course has multiple evaluations. Please select one...

TRAIN 100 B: Not A Course For Dummies - Trevor Leffler - Completed

[TRAIN 100 B: Not A Course For Dummies - Deborah Smith](#)

[TRAIN 100 B: Not A Course For Dummies - Luda Kourenina](#)

TRAIN 100 B: Not A Course For Dummies - Nana Lowell - Closed on 08/02/2016

- ▶ If the course evaluation is open, and the user has permission to complete the evaluation, the user will be directly authenticated into the course evaluation:

Sample Instructor, Section C
SOC 165 C — Fall 2016

IASystem™

0% Complete

[HELP](#)

	Excellent	Very Good	Good	Fair	Poor	Very Poor
The course as a whole was:	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
The course content was:	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
The instructor's contribution to the course was:	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
The instructor's effectiveness in teaching the subject matter was:	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

THIRD-PARTY COOKIES IN LEARNING MANAGEMENT SYSTEMS

When configuring IASystem™ course evaluation surveys in a Learning Management System (LMS), the recommended implementation is to **configure the survey tool to open in a new browser tab/window** rather than be embedded within a frame.

When IASystem™, or any third party tool, is embedded in a frame, the user's browser will need to accept third-party cookies in order to successfully launch the tool.

If the session cookie is detected, the user will move on to the evaluation. If not, the user will be presented with messaging and a link to:

<http://iasystem.org/help-main/administration-guide/lti-integration-third-party-cookies/>

Third-Party Cookies Are Blocked

It looks like your browser is blocking third-party cookies. [Follow these steps to unblock them.](#)

Once you've changed your browser settings, [please try again](#)

IASYSTEM LTI FAQ

The IASystem™ Evaluation LTI application lets your students access course evaluations from within your LMS. To enable this, there is data integration work to do between IASystem™ and the LMS. IASystem™ needs to know who the LMS user is and the course that user is viewing. Users and courses are provisioned to IASystem™ on a regular basis by an administrator on your campus; the data in the two systems needs to match. We strongly suggest that you use the same data source(s) and identifiers for the user and course data in your LMS and IASystem™.

DATA INTEGRATION QUESTIONS

WHY DOES IASYSTEM NEED TO KNOW WHO THE LMS USER IS?

IASystem™ course evaluations use class lists—enrollments—as access control lists, to track progress, and to ensure a single submission per student. When the LMS passes a recognized user identifier, IASystem™ will automatically authenticate the user, bypassing the login screen.

WHY DOES IASYSTEM NEED TO KNOW THE LMS COURSE?

Passing a course identifier lets IASystem™ find the evaluation *for that course*, if one exists, and redirect the user to it.

HOW DOES IASYSTEM KNOW ABOUT USERS AND COURSES?

Throughout each term one or more administrators on your campus provisions IASystem™ with instructor, course, and enrollment data. The data includes names and identifiers such as usernames, student and employee Ids, course Ids and curriculum information.

WHAT USER IDENTIFIERS SHOULD MY LMS SEND?

Send the user's username or student Id. Avoid sending their email address, because often a user can change this within the LMS. When sending any of these identifiers make sure that the same data is sent to both your LMS and IASystem™. For example, don't send a username if your users log in to the systems with different usernames.

WHAT COURSE IDENTIFIERS SHOULD MY LMS SEND?

IASystem has support for a Course ID; however, the identifier provisioned to IASystem™ may not be the same one provisioned to your LMS or it may be formatted differently. Typically your LMS Course ID is a formatted string that includes enough course information to uniquely identify it. An example string may include year, term, course abbreviation, number, and section. Here are some examples of Course IDs:

- 2016-Autumn-BIOL-100-A
- BIOL.100.A-FA16
- BIOL100-A-AU2016

As long as your Course IDs follow a consistent format, IASystem™ can parse them into their components to match against its provisioned courses.

WHAT ABOUT COURSES THAT ARE COMPOSED OF JOINT SECTIONS?

LMSes implement (or let you implement) joint courses in different ways. Typically, the end result is that you have an LMS course page backed by the enrollments of two or more sections. As long as its Course ID represents any one of the sections, *IASystem™* will be able to redirect to the correct evaluation (joint sections are always evaluated as a group).

If your LMS course has an Id that doesn't match the format of your non-joint courses—for example, 2016-Autumn-BIOC-BIOL-CHEM-100-A or Combined.1234.FA16—create a custom LTI parameter to send the SIS Id for one of the associated sections. Guidance for this task is LMS-specific and can be found below.

HOW SHOULD I NAME THE IDENTIFIERS MY LMS SENDS?

The parameter names used for your identifiers will be added to your *IASystem™* LTI configuration, whether using a standard LTI parameter or a custom parameter that you add. Communicate your parameter names to an *IASystem™* engineer who will complete the configuration.

LMS SPECIFIC ISSUES

CANVAS

As a Canvas administrator how do I configure the LTI application to send required identifiers?

When configuring the LTI application in Canvas you can easily send several identifiers by using the Public privacy setting. Canvas will then send the user's SIS Id, username, and email address. It will use the parameter names **lis_person_sourcedid**, **custom_canvas_user_login_id**, and **lis_person_contact_email_primary** respectively. It will use the parameter name **lis_course_offering_sourcedid** to send the course's SIS ID.

Privacy

Public ▼

Anonymous

E-Mail Only

Name Only

Public

Alternatively, identifiers can be sent via custom fields, using variable substitution. Assign the parameter names and values in the Custom Fields box when configuring an External App.

For example:

Custom Fields

```
user_sis_id=$Canvas.user.sisSourceId
user_username=$Canvas.user.loginId
user_email=$Person.email.primary
course_sis_id=$Canvas.course.sisSourceId
```

One per line. Format: name=value

These custom parameters will be sent to *IASystem™* with the 'custom_' prefix.

BLACKBOARD LEARN

As a Blackboard Learn administrator how do I configure the LTI application to send required identifiers?

Send these identifiers by entering name-value pairs into the Tool Provider Custom Parameters form field. For example:

Tool Provider Custom Parameters

```
user_sis_id=@X@user.batch_uid@X@
user_username=@X@user.id@X@
course_sis_id=@X@course.batch_uid@X@
```

Enter any custom parameters required by the tool provider. Parameters must each

A user's email address can be sent by selecting the Email Address checkbox.

User Fields to Send

- Constituency in Course
- Name
- Email Address

How do I configure the LTI application to launch in a new window as recommended by IASystem™?

Since Blackboard Learn's core LTI support does not offer the option of configuring the IASystem™ LTI tool to launch in a new window, we recommend Blackboard Learn administrators install the IMS Global Certified **BasicLTI Building Block** and configure our LTI tool with that instead of the core LTI manager; again, selecting to launch in a new window.

BasicLTI Building Block

- ▶ Documentation: <http://www.spvsoftwareproducts.com/bb/basiclti/>
- ▶ Project Site: <http://projects.oscelot.org/gf/project/bb-basiclti/>
- ▶ Download: <http://projects.oscelot.org/gf/project/bb-basiclti/frs/> (select the *{version}.zip* file, not the *{version}-src.zip* file)