

**i>clicker *integrate* for
Canvas v1.1**

Instructor Guide

July 2013

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Overview

i>clicker *integrate* is a wizard that provides a seamless integration of data between your learning management system (LMS) and i>clicker/i>grader. i>clicker *integrate*:

- Enables students to register their i>clicker remotes directly within your LMS.
- Allows you to easily download your class roster and student registrations from your LMS into i>grader.
- Allows you to easily upload your i>clicker session data into your LMS gradebook.

i>clicker *integrate* requires some set up and authentication work from your LMS administrator prior to your use of the application. By the time you are reading this guide, your LMS administrator has likely already provided you with a series of program files that allow you to integrate your i>clicker data with your LMS courses.

Guide Objectives

This guide will show you how to:

- Copy the required *integrate* files into your **iclicker Win** or **iclicker Mac** folders. (Note your campus administrator may have already done this for you.)
- Specify your LMS version within i>clicker so your polling data correctly uploads into your gradebook.
- Direct students to register their i>clicker remotes within your LMS.
- Download your LMS student roster and registrations into i>grader.
- Upload your i>clicker session data to you LMS gradebook.

System Requirements

Windows:

- Windows 8, Windows 7, Windows Vista or Windows XP operating system with Service Pack 2 or higher, .NET 2.0 or higher
- Screen resolution of 1024 x 640

Macintosh:

- Mac OS X version 10.5 or higher
- Screen resolution of 1024 x 640

Step 1: Copy your *integrate* Wizard Files

You should have received the following authenticated files from your campus administrator. Please check with your administrator to see if these files have already been placed in your Resources folder for you. If so, you can skip Step 1.

Windows:

- CMS Integrate Wizard.exe
- CMS_Wizard.xml
- Config.xml
- CMS Integrate Wizard Libs (folder)

Macintosh:

- CMS Integrate Wizard
- CMS_Wizard.xml
- Config.xml

Copy these files into the **Resources** sub-folder of your **iclicker Win** or **iclicker Mac** folder.



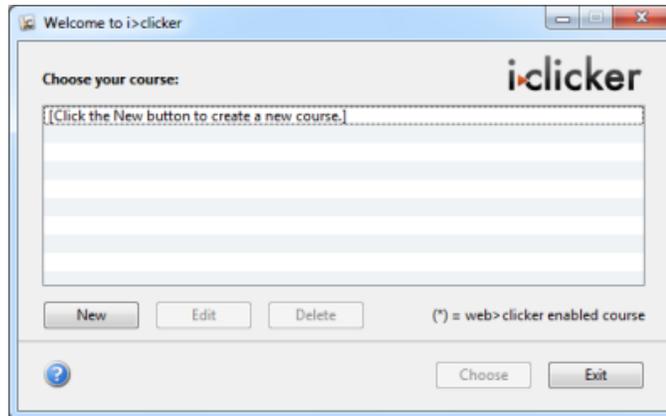
TIP: Your administrator may have provided you with pre-configured **iclicker Win** (Windows) or **iclicker Mac** (Macintosh) folders that already contain all of the necessary files (customized for your campus). In that case, you won't need to copy the *integrate* files into your course folders because this step has already been done for you.

Step 2: Configure your i>clicker Software

Before using i>clicker *integrate*, you must specify the LMS platform you are using on campus. You only need to do this once for each i>clicker course folder (e.g. Psychology 101, Psychology 201).

To specify your LMS platform in i>clicker:

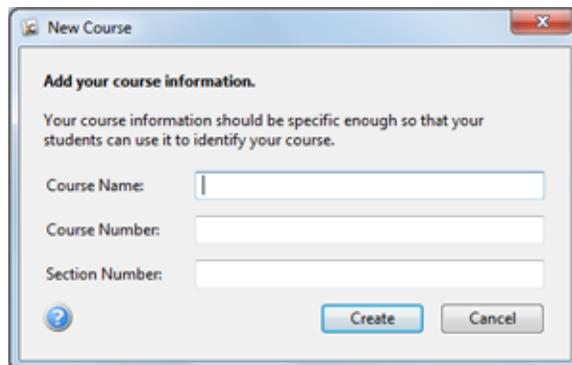
1. Double-click the i>clicker icon within your **iclicker Win** or **iclicker Mac** folder to start the i>clicker application.
2. When you open i>clicker, you will see the *Welcome Window* with no courses listed. Click the **New** button to add your course.



i>clicker Welcome window

 **NOTE:** If you already see your course in the course list, go to step 5.

3. A *New Course* window appears. Enter your **Course Name**, **Course Number**, and **Section Number**. This combined information will serve as the unique identifier for your course. The course number and section number are optional.



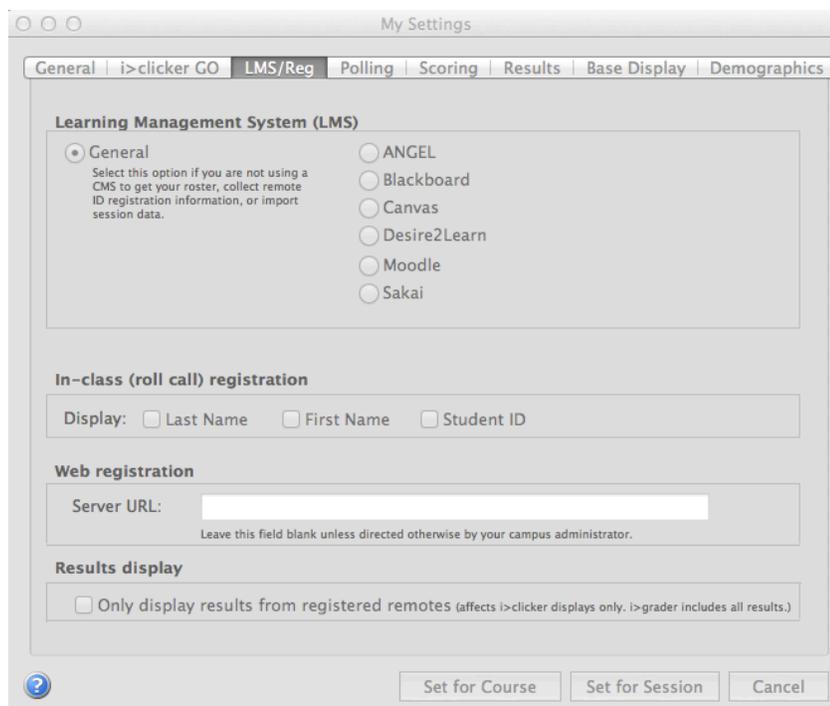
i>clicker New Course window

4. Click the **Create** button. i>clicker automatically creates a new course folder in your **iclicker Win\Classes** or **i>clicker Mac:Classes** folder. The *New Course* window closes and you are returned to the *Welcome Screen* with your course name in the list of courses.
5. Select your course name from the course list and click **Choose**.
6. The *i>clicker Home* window appears. Select **My Settings**.



My Settings button on the i>clicker Home window

7. Click the **LMS/Reg** tab near the top of the new window. (This tab is called CMS/Registration in i>clicker v6.2.4 and earlier.)
8. Under the **LMS/Reg** tab in the **Learning Management System (LMS)** section, select Canvas.



CMS/Registration tab of the i>clicker Settings window

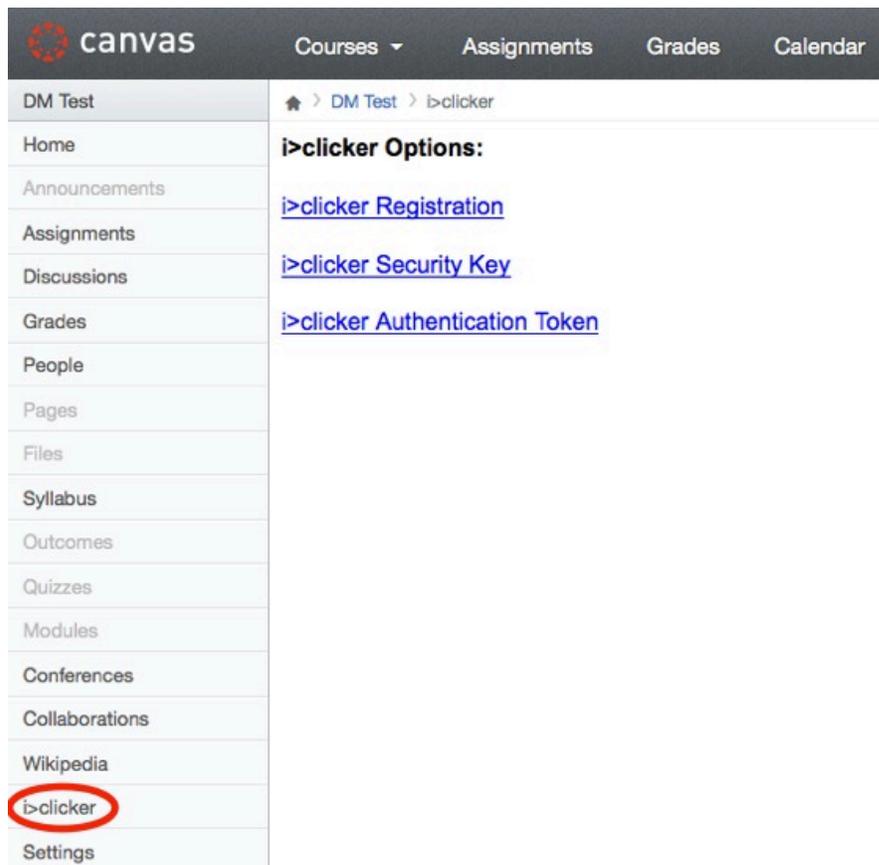
9. Click **Set for Course**.
10. If you have not yet used the **Import Roster** feature in i>clicker *integrate*, a warning message may appear indicating that you must download your course roster from your LMS. Click the **OK** button to dismiss the warning.

Step 3: Create Authentication Token and Security Key in Canvas

Before using i>clicker *integrate* for Canvas, you will need to create an authentication token and security key. Your authentication token and security keys are used to identify your classes and help communicate your class information back and forth between i>clicker and Canvas. You can choose to save this information inside *integrate* to avoid entering it every time you use *integrate*. The steps below only need to be performed once unless you choose to change your authentication token or security key.

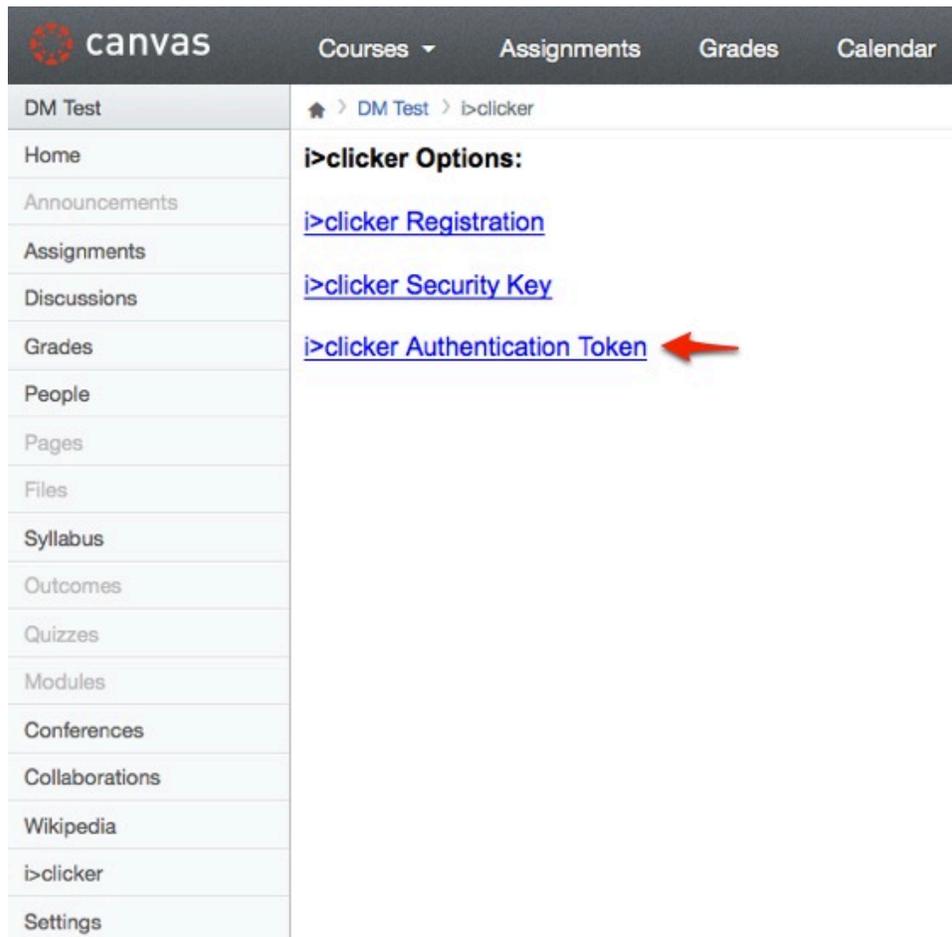
To create your Authentication Token in Canvas:

1. Log into your Canvas account, choose your course, and choose the **i>clicker** navigation option.



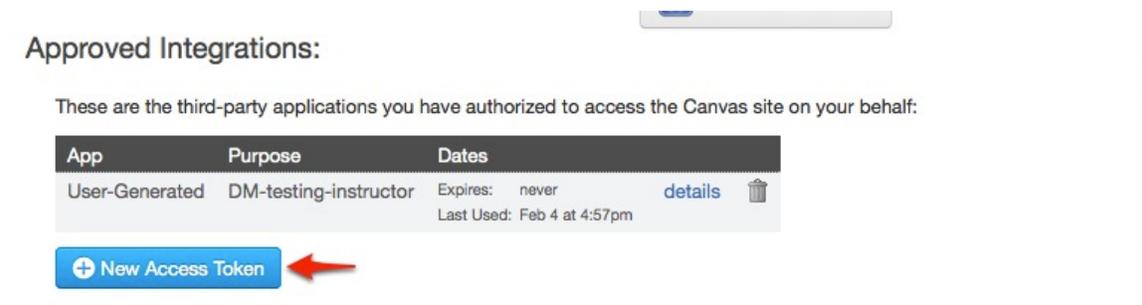
i>clicker navigation link in Canvas

2. Click the i>clicker Authentication Token link. This link will provide instructions for creating your authentication token in Canvas.



i>clicker Authentication Token link in Canvas

3. Create your i>clicker Authentication Token.
 - a. Click on Settings in the top right corner of your Canvas screen.
 - b. Scroll to the bottom of the settings screen and choose "New Access Token"



Generate Access Token, or Authentication Token, in Canvas

- c. Enter the information required in the Generate an Access Token screen.
 - i. Purpose: type the purpose of the access token, such as "Teaching Course"

- ii. Expires: type the expiration date desired, or leave blank for never expire.
- iii. Click "Generate Token"

New Access Token

Generate an Access Token

Access tokens are what allow third-party applications to access Canvas resources on your behalf. These tokens are normally created automatically for applications as needed, but if you're [developing a new or limited project](#) you can just generate the token from here.

Purpose:

Expires: 
leave blank for no expiration

Generate Access Token in Canvas

- 4. Your access token (authentication token) will be displayed.

Access Token Details

Access tokens can be used to allow other applications to make API calls on your behalf. You can also generate access tokens and [use the Canvas Open API](#) to come up with your own integrations.

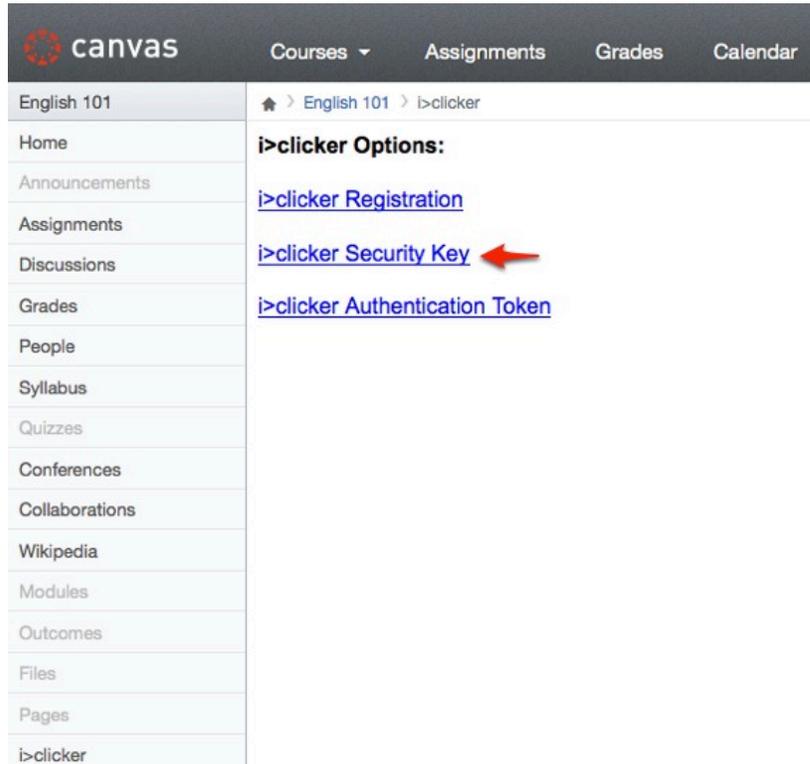
Token:	1~cpYx4u7oyUwHnTdCl6n9IE2ffPnqhHPYXcQP68S2lcB5ZTAKNIovvwUQkEnwSsjr
<small>Copy this token down now. Once you leave this page you won't be able to retrieve the full token anymore, you'll have to regenerate it to get a new value.</small>	
App:	User-Generated
Purpose:	Teaching Course
Created:	Feb 5 at 6:57am
Last Used:	--
Expires:	never

Access Token details in Canvas

- a. **IMPORTANT.** Copy and paste your authentication token into a text editor or Word document for later use.

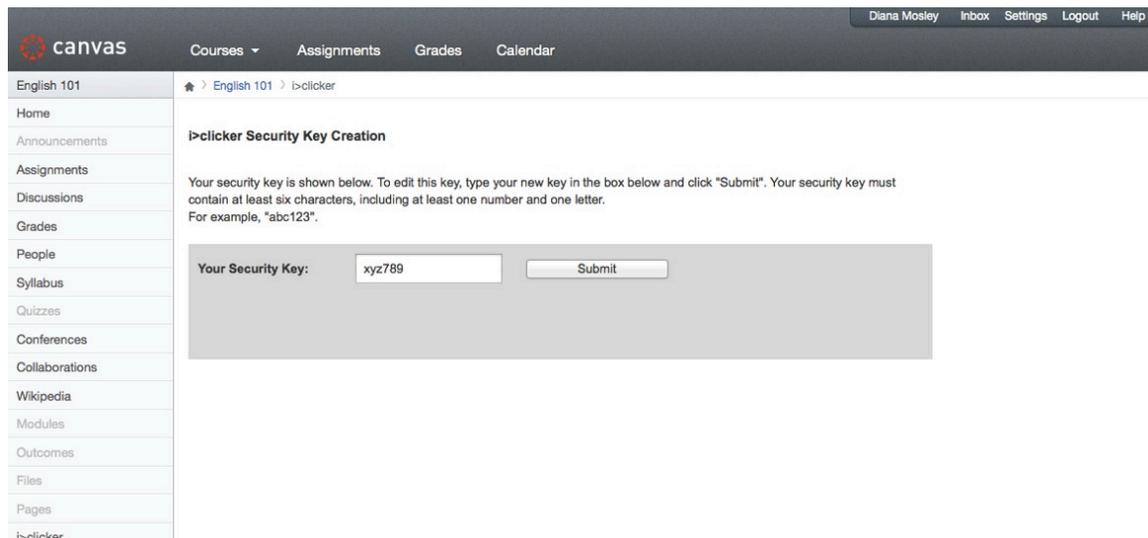
To create your Security Key:

1. Log into your Canvas account and choose the i>clicker navigation option.
2. Click the i>clicker Security Key link.



i>clicker Security Key link in Canvas

3. Create your Security Key



i>clicker Security Key generation in Canvas

- a. Enter your desired security key. We recommend you create a security key that you will likely remember and can enter easily when downloading roster information from Canvas or uploading polling data to Canvas.
- b. Click Submit. You will then see a message verifying your security key has been updated.

i>clicker Security Key Creation

Your security key is shown below. To edit this key, type your new key in the box below and click "Submit". Your security key must contain at least six characters, including at least one number and one letter.
For example, "abc123".



Your Security Key:

Your security key has been updated. Please copy and paste this key into i>grader to communicate with Canvas.

i>clicker Security Key success in Canvas

NOTE: if you need to change your security key, follow the steps above and type over your existing security key with a new key you choose.

Step 4: Synchronize Your Roster

Once your students have registered their i>clicker remotes within your LMS, you can use *integrate* to import your student roster (complete with registration data) into i>clicker/i>grader so polling data can be credited to your students.

 **NOTE:** For Student i>clicker remote instructions, please see Appendix A on page 19.

To import your LMS class roster into i>clicker/i>grader using *integrate*:

1. Open your **iclicker Win** or **iclicker Mac** folder and double-click the i>grader icon to start the i>grader application.



2. Select your course name from the course list and click **Choose**.
3. If you have not yet used the **Import Roster** feature in i>clicker integrate, the **Roster not found** window appears. Click **Yes** to download your LMS course roster.
4. The *i>clicker integrate* window appears. Your LMS server name should pre-populate the **CMS Description** in this window.

 **NOTE:** If your campus is transitioning to a new version of your LMS or you use multiple LMS platforms, your administrator may have set up *integrate* to enable multiple LMS options. In this case, select the LMS you are currently using from the **CMS Description** drop-down control. This is atypical, but ask your administrator if you are not sure.

Enter your Login ID, authentication token, and security key. Click **Log In**.

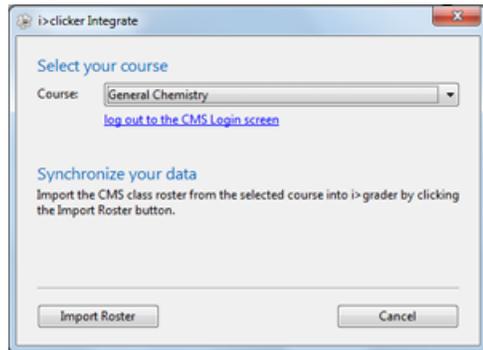
A screenshot of the 'i>clicker Integrate' login window. The window title is 'i>clicker Integrate'. The main heading is 'Log in to your Learning Management System'. Below this, there are four input fields: 'LMS Description:' with a dropdown menu showing 'Canvas'; 'Your Login ID:' with a text box and a link 'What is this?'; 'Authentication Token:' with a text box and a link 'What is this?'; and 'Security Key:' with a text box and a link 'Create/Find Your Security Key'. At the bottom, there are two checkboxes: 'Save my login credentials' and 'Automatically log me into my LMS'. At the very bottom are 'Log In' and 'Cancel' buttons.

integrate login screen

 **NOTE:** Your Authentication Token and Security Key are created inside Canvas. Please refer to section 3 of this manual for creating your Authentication Token and Security Key.

 **TIP:** To save time in future sessions, check both check boxes to save login credentials and automatically log in. You can always reset these later if needed, but selecting both will save you time as you use *integrate* going forward.

- Once logged in, you will be prompted to select your course. Using the drop-down control, select the course or section for which you wish to import your LMS roster and click **Import Roster**.



CMS integrate Select Course for roster download

- A confirmation message will appear, indicating that the file was successfully written into your i>clicker course folder. Click the **Restart i>grader** button to refresh your roster in i>grader.

NOTE: If a copy of your LMS roster already exists in the course folder, you will first be given the option to replace it or cancel the import via *integrate*. If you are updating your class roster (or registrations), click **Yes** to overwrite the existing roster file.

- In i>grader, registered students appear in black, while unregistered students and unregistered clickers (if any) appear in red.

Name	Average	Total	11/23/10	11/25/10	11/27/10
Moon, Marion	2.33	7.00	3.00	2.00	2.00
Powers, Crystal	0.00	0.00	Ab	Ab	Ab
Raynor, Sandy	2.33	7.00	3.00	2.00	2.00
Song, Patrick	0.00	0.00	Ab	Ab	Ab
Wagner, Malcolm	2.33	7.00	3.00	2.00	2.00
Wallace, Jerome	2.33	7.00	3.00	2.00	2.00
Woodard, Beth	0.00	0.00	Ab	Ab	Ab
#00004141	1.33	4.00	2.00	1.00	1.00
#00005A5A	2.33	7.00	3.00	2.00	2.00
#00008080	1.67	5.00	2.00	1.00	2.00
#00009D9D	1.67	5.00	2.00	2.00	1.00

i>grader Home Page showing both registered and unregistered students in the roster

- Repeat steps 1-7 for each of your courses.

To update your i>clicker roster with new registration information (either to account for your add/drop period or to better reflect late registrations):

1. Click the **Sync...** button from within i>grader.
2. A dialog box will appear asking if you want to use *integrate* to synchronize your roster. Click **Yes**.
3. Repeat steps 4-7 from above to download the latest version of your roster.

 **NOTE:** As noted above, you will be given the option to replace your LMS roster or cancel the import via *integrate*. Since you are updating your class roster (or registrations), click **Yes** to overwrite the existing roster file.

Step 5: Upload Your i>clicker Polling Data

After you've polled your students in class, your polling data will appear in i>grader, the i>clicker gradebook application. i>grader gives you access to all student polling information collected by i>clicker. With it, you can view students' points, adjust scores, delete questions, synchronize late registrations (via *integrate*), and export/upload your polling data back into your LMS gradebook.

To upload i>clicker scores into your LMS gradebook:

1. Open your i>clicker course folder, locate and launch **i>grader**, and select your course.



2. The i>grader Home window appears, and displays your student names and scores.

The screenshot shows the i>grader v6.2.2 interface for a course titled 'Intro Biology-BIO 101-001'. It features a table with student names, average scores, total scores, and scores for four sessions: 2/4/13, 2/4/13-2, 2/4/13-3, and 2/5/13. A red box highlights the text 'Output formatted for : Canvas' at the bottom right of the table area. Below the table, there is a 'Class Average : 5.25' and a 'Sync...' button.

Name	Average	Total	2/4/13	2/4/13-2	2/4/13-3	2/5/13
dcfernbach@yahoo.com	0.00	0.00	Ab	Ab	Ab	Ab
janedoe@e-mail.com, ja...	1.00	5.00	Ab	Ab	Ab	5.00
johnedoe@e-mail.com, jo...	0.80	4.00	Ab	Ab	Ab	2.00
Student, Student	0.00	0.00	Ab	Ab	Ab	Ab
student1@e-mail.com, s...	0.80	4.00	Ab	Ab	Ab	2.00
student2@e-mail.com, s...	1.60	8.00	1.00	2.00	1.00	2.00
student3@e-mail.com,	0.00	0.00	Ab	Ab	Ab	Ab

i>grader Home screen

TIP: Make sure the correct LMS is listed next to **Output formatted for**. You can amend your LMS selection in i>clicker's **My Settings**.

3. Click the **Export**  button.
4. The *Select session to be exported* window appears. Select the session(s) you wish to export and click **Export**.

TIP: You may re-export grades for the same session(s) into your LMS gradebook with little risk. The new scores will simply replace the older scores you imported unless you manually made changes to individual student scores within the LMS. Most manual changes you made (to individual students) within the LMS will not be changed by new data uploads from i>clicker/*integrate*. See the Troubleshooting section for information on how i>clicker *integrate* handles conflicting scores for the same session(s).

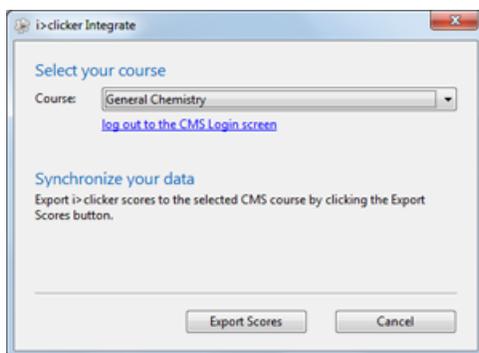
5. The *Export Complete* window appears indicating that i>grader has successfully exported your student data. Click **OK**.
6. The *Confirm Upload* window appears. Click **Yes** to upload your data to your LMS.

The *i>clicker integrate* window will open automatically. If you previously selected the auto-login option, you will be automatically connected to your LMS account. If you did not select auto-login, you will be prompted to enter your LMS credentials. Enter your Login ID, Authentication Token and Security key. Click **Log In**.



CMS Integrate Login

7. Once you've successfully logged into your LMS, you will be prompted to select your course. Select the relevant course or section from the drop-down list and click **Export Scores**.



CMS Integrate Select Course to upload scores

8. Your *i>clicker* polling scores will upload directly into your LMS course. You will receive a confirmation message when the upload is complete. Click **OK** to dismiss this window.

NOTE: The scores will be uploaded into your LMS Gradebook as numeric grades. You will be able to edit individual student *i>clicker* scores within the LMS after you've uploaded the data.

9. Repeat steps 1-9 for every course for which you are using *i>clicker*.

Step 6: Review i>clicker Scores in Canvas

Once you have uploaded your i>clicker polling data to your Canvas course, you can review the scores within the LMS.

To view uploaded i>clicker scores in your Canvas Gradebook:

1. Log in to Canvas and select the course for which you wish to view your updated gradebook.
2. Once on your *Course Home* page, click the **Grades** link in the left navigation area.

The screenshot shows the Canvas interface. The top navigation bar includes 'Courses', 'Assignments', 'Grades', and 'Calendar'. The left navigation menu has 'Grades' highlighted with a red arrow. The main content area shows 'Recent Activity in DM Test' with 4 assignment notifications:

- Assignment Created - 2/5/13, Biology 100-001
- Assignment Created - 1/31/13, Biology 100-001
- Assignment Created - 1/30/13, Biology 100-001
- Assignment Created - 1/26/13, Biology 100-001

Grades link in Canvas

3. The **Grades** page will open with your newly imported i>clicker scores. The session scores will appear as numeric scores in may be edited like any other scores within Canvas.

The screenshot shows the Canvas interface for the 'Grades' page of 'English 101'. The table displays the following data:

Options	2/5/13 out of 6	Assignments	Total out of 100%
barbfranklin@college.edu barbfranklin@college.edu	6	100 %	100 %
bobsmith@college.edu bobsmith@college.edu	3	50 %	50 %
frankherman@college.edu frankherman@college.edu	6	100 %	100 %
janedoe@college.edu janedoe@college.edu	6	100 %	100 %

Grades with i>clicker scores

Troubleshooting

In general, when you upload your i>clicker polling data into your LMS, the experience will be seamless and won't require further work. Although rare, there are a few possible discrepancies or errors that could occur with this process. The following scenarios describe situations that will result in an integrate discrepancy.

Your student is not in your LMS roster but is in your i>grader roster.

This will be a very rare occurrence. In order for this error to occur, you would have manually added a student to your roster file in your i>clicker course folder. The best way to avoid this error is to simply rely on your LMS roster as the most up-to-date resource for your most current roster file.

The uploaded scores (from i>clicker) are lower than those previously recorded in your LMS for a student or students.

This does not generally require any work by you—it is simply an alert. For example, you may want to give Jane Doe a higher i>clicker score for a session on 9/12/2013 because she helped you facilitate a demonstration in class. i>grader currently does not allow you to change scores for individual students. Instead, you can make the individual change manually within your LMS. If you later re-upload (intentionally or accidentally) the 9/12/2013 i>clicker scores into your LMS and the score for Jane Doe is lower in i>grader than in your LMS, our application won't override your manual adjustment. The report will simply let you know the discrepancy exists. If you wish to change an individual score to overwrite the LMS score (i.e., lower Jane Doe's score again), you will need to make this change within your LMS, not i>grader. Note that while lower i>grader scores will not override adjustments you made in your LMS gradebook, higher i>grader scores will overwrite lower LMS grades without a discrepancy notice.

Transmission Report [Connected to : Blackboard 8 12-10-08]

Export Options

Transmission Discrepancies

#	Type of problem	Student ID	Session(s) affected	Student Score(s)	CMS Course Affected
1	Uploaded score less than ...	student02	demo120908	1	BFW61

You are exporting i>clicker scores for a student who has registered, voted in class, but then subsequently dropped the course (and is therefore no longer in your LMS gradebook).

The best way to avoid this error is to rely on your LMS roster as the most up-to-date resource for your most current roster file. When you synchronize the most current version of your LMS roster with i>grader, you may be left with voting logs from a Remote ID that are not associated with a student (if that student came to class, voted, and then dropped the class). In this case, you may delete the voting logs for that Remote ID from within i>grader by clicking the Remote ID and selecting the "remove" option. Please see the i>grader documentation for additional details.

TIP: You can save the Transmission Report in **Excel (.xls)**, **Plain Text (.txt)**, or **comma separated (.csv)** format for later review. You can also view any previous Transmission Reports for the same course. Click the **Export Options** menu at the top of the report and select your desired file format. A confirmation message appears stating that the file was written to your course folder. Click **OK** to close the message window.

Transmission Report [Connected to : Blackboard 8 12-10-08]

Export Options

- Export to Excel (*.XLS)
- Export To Text (*.txt) [TAB Separated]
- Export to CSV (*.csv)
- View Previous Error(s)

#	Type of problem	Student ID	Session(s) affected	Student Score(s)	CMS Course Affected
1	Uploaded score less than ...	student02	demo120908	1	BFW61

Appendix A: Student i>clicker Remote Registration

To register student i>clicker remotes from within Canvas:

1. Log into Canvas and select your course.
2. Click the i>clicker link on the left navigation pane.

The screenshot shows the Canvas LMS interface for a course named 'Astronomy 102-001'. The left navigation pane has 'i>clicker' highlighted. The main content area is titled 'i>clicker Student Remote Registration'. It contains a form with the text 'Enter the 8-character remote ID below to register your i>clicker remote. You may register multiple remotes or remove a remote at any time.' Below the form is a table with the following data:

Registered Remote ID	Date Registered	
01CE7AB5	Jan-09-2013	Remove

To the right of the table are 'Remote Registration FAQs'. The first FAQ is 'Where do I find my remote ID?'. The answer states: 'Your i>clicker remote ID is printed on a sticker located on the back of your remote. The ID is the 8-character code below the barcode.' Below this text are two images of the back of an i>clicker remote, labeled 'i>clicker 1 back' and 'i>clicker 2 back'. A blue circle highlights the barcode and the 8-character code '123ABCT8' on the second image.

Remote Registration FAQs

- Where do I find my remote ID?
Your i>clicker remote ID is printed on a sticker located on the back of your remote. The ID is the 8-character code below the barcode.
- What do I do if I cannot read the ID printed on my remote?
- Are there zeros or the letter 'O' in my clicker ID?
- I've already used my i>clicker remote in class before registering it. Will I still get credit for my votes?
- I've lost/broken my remote. Can I register another remote?
- I use my i>clicker remote for multiple classes. Do I need to register my remote for each class?
- What do I do if I accidentally registered the wrong remote ID?

3. Enter your i>clicker remote ID and click "Register".