
***Recording HLC Class
Attendance with
HealthStream Easy Scan***

HealthStream Learning Center™



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Easy Scan Overview

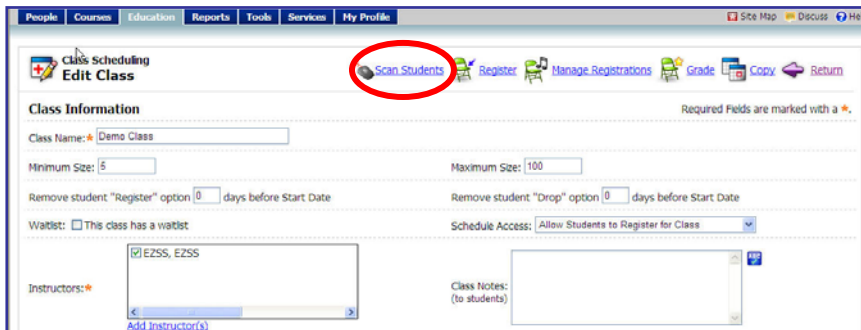
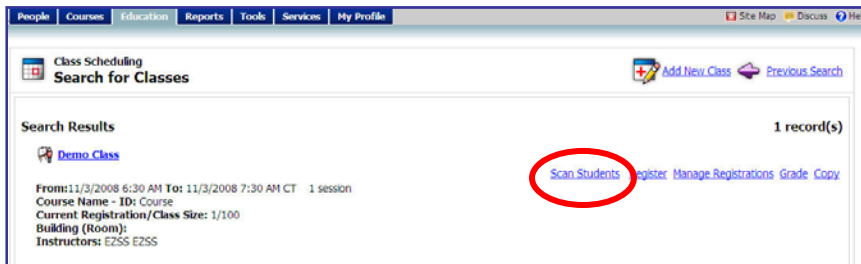
Easy Scan allows HLC administrators and instructors to scan student badges to record class attendance directly into the HLC. A scanning device is used to extract the students' information from their badge. Scanning can be accomplished by:

- Scanning attendee badges within the classroom setting or,
- Scanning barcodes next to attendee names on HLC class rosters or,
- Scanning badges into a file that is imported at a later time (offline scanning).

Easy Scan will automatically mark student attendance and grading. Students that registered for the class, but did not attend, are marked as No Show. When the scanned badge information cannot be immediately recorded in a class, it is stored so that administrators/instructors can make corrections and resubmit the record.

Easy Scan follows the same rules as marking attendance manually in the HLC. Attendance cannot be entered before the class date and start time arrive; therefore, scanned information collected prior to the class start date and time will be stored by Easy Scan and can be resubmitted at the conclusion of class. If the scanned Badge ID does not correspond to a student record that exists in the HLC, Easy Scan will retain the scanned data until the student can be entered and the scanned record resubmitted.

With Easy Scan enabled for your HLC account, every classroom activity created in the HLC will include a Scan Students link. That link is visible from the Class Search return, or from the Edit Class page.



Badge ID Configuration

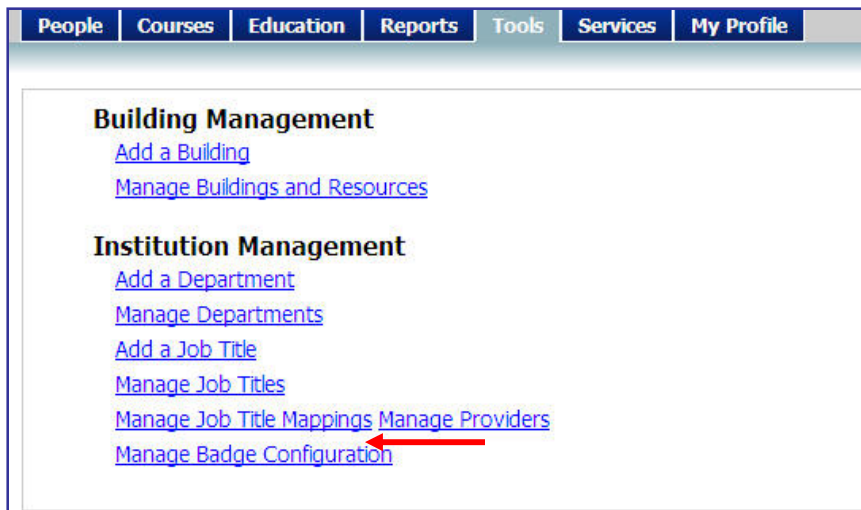
Prior to using Easy Scan, Badge IDs must be configured so that the HLC will be able to read the appropriate characters and match the ID to the student record. Only administrators set up with the Easy Scan Administrator with Badge Configuration role can configure badges.

The Badge ID configuration is unique to Easy Scan and may or may not include all characters within the student's badge data. Each Easy Scan customer will determine the configuration of the Easy Scan Badge IDs for their organization by initially consulting with your HealthStream Implementation Specialist.

Note: Badge configuration can be established at the Enterprise level, but overridden at the institution level by applying different configuration parameters from the institution login.

Configuring Badge IDs

1. Click the **Tools** tab.



- Click **Manage Badge Configuration** under **Institution Management**. The **Badge Configuration** page appears.

The screenshot displays the 'Institution Management Badge Configuration' page. It features several sections:

- Badge Format Management:** Contains checkboxes for 'This Badge format can be used by subsidiary affiliations', 'Badge Data contains only a Badge ID', and 'Badge ID is same as HLC ID'. A checked checkbox indicates 'The Badge ID is a fixed beginning and ending position within the badge data'. Below this are input fields for 'Starting column position of your Badge ID' (value: 1) and 'Ending column position of your Badge ID' (value: 5).
- Scan Students Display Preferences:** Includes checkboxes for 'Mask displayed scanned IDs' and 'Mask displayed student names'. A note explains that when data is masked, only the beginning and ending characters of the field are shown.
- Preview Badge Format:** Shows a 'Student Badge ID' field with the value 'Test' and a 'Badge Data' field with the value 'Test'. The 'Save' button is circled in red.

- Check the **This Badge format can be used by subsidiary affiliations** check box if you are establishing badge configuration at the Enterprise level, and want badge configurations to be the same for all institutions within the hierarchy.
- Check the **Badge Data contains only the Badge ID** check box if the only information that is on the badge is the ID. Organizations that have variable length Badge IDs will want to consider providing barcodes with only the Badge ID.
Note: When this box is checked, the options to establish starting and ending character positions, as well as badge data delimiters are disabled.
- Check the **Badge ID is the same as HLC ID** check box if the Easy Scan Badge ID will be the same as the student's HLC User ID.
Note: When this box is checked, no student badge data import file is required. (See *Student Badge ID Management* below.)
- Check the **The Badge ID is a fixed beginning and ending position within the badge data** check box if you only want a portion of the badge data to constitute the Easy Scan User ID.
- Enter the **Starting Column** position.

8. Enter the **Ending Column** position.

Note: You must first check the checkbox before the system will allow you to enter data into the **Starting Column** and **Ending Column** fields.

For example, the student's badge data = 29204857001. The Easy Scan Badge ID is to be 20485. Enter the number 3 into the Starting Column position (to represent the first character of the Badge ID) and enter the number 7 into the Ending Column position (to represent the last character of the Badge ID). The system will now see the following: 29**20485**7001. The highlighted characters represent the Easy Scan Badge ID.

9. Check the **The Badge ID is one of the fields that are separated by delimiters in the badge data** check box if the student badge data includes multiple fields that are separated by a defined delimiter.
10. Enter the **Badge Data Field Delimiter**.
11. Enter the **Column Number** containing Badge ID.

For example, if the badge contains first name, last name, student ID, facility number, and department ID, and if all of these fields are separated by a comma (,) delimiter, then this option should be chosen and the answer to the questions above would be:

- Enter the Badge Data Field Delimiter – (,).
- Enter the Column Number containing Badge ID -3.

Note: You must first check the checkbox before the system will allow you to enter data into the Delimiter and Column Number fields.

12. Enter a prefix into the **Append this prefix to the Badge ID** box if there is additional information that should be appended to the beginning of the badge data to create a complete ID. This option is used rarely, but should only be used in consultation with your HealthStream Implementation Specialist.
13. Enter a suffix into the **Append this suffix to the Badge ID** box if there is additional information that should be appended to the end of the badge data to create a complete ID. This option is used rarely, but should only be used in consultation with your HealthStream Implementation Specialist.
14. Check the **Mask displayed scanned IDs** check box if you do not wish to have students' full Easy Scan Badge IDs appear on-page when scanning takes place. With this box checked, the Badge ID will appear on-page with only the first and last characters visible (Example: 2*****7).
15. Check the **Mask displayed student names** check box if you do not wish to have students' full names appear on-page when scanning takes place. With this box checked, the student's name will appear on-page with only the first and last letters of the first and last name visible (Example: j**n s***h).
16. Scan a sample badge, or manually type in an Easy Scan badge ID to preview the badge ID configuration.
17. Click **Test**. A sample of the badge ID configuration based upon the parameters chosen above will appear.

Preview Badge Format

	1	.	.	.	5	.	.	.	10	.	
	0	0	2	9	7	8	1	5	4	8	9

Student Badge ID: 29781

Badge Data:

18. Click **Save** to apply the badge ID Configuration parameters you have chosen.

Student Badge ID Management

Student records in the HLC now contain a link for the badge ID. When the badge file is imported, the information will be entered for each student and can be seen by clicking the badge link in the navigation tree of each student's HLC

Clicking the **Badge** link reveals the badge ID, the **Last Modified** date and **Last Modified By** information. Badge information may be manually changed, but if the student information is in a future import file, the data will be overwritten.

The screenshot shows the 'Manage a Student' page for a student named Michael Bwach. The navigation tree on the left includes links for Assignments, My Courses, My Transcript, Assignment Completion Rpt., Student Groups, License Information, Personal Address & Phone, and Badge. A red arrow points to the 'Badge' link. The main content area displays the 'General Information' section with fields for Last Name, First Name, Middle Name, User ID, Password, Confirm Password, Email, and Time Zone. The 'Last Modified Date' is 10/27/2008 and the 'Last Modified By' is Jack H Demonstration. There is a checkbox for 'Allow this student to access the system.' and a section for 'Institution Information'.

The screenshot shows the 'Edit Badge' page for the student Michael Bwach. The 'Badge Information' section displays the 'Badge ID' as 37815, the 'Last Modified Date' as 10/27/2008 7:51:00 AM, and the 'Last Modified By' as Jack H Demonstration. There are 'Delete', 'Save', and 'Cancel' buttons. The 'Badge ID' field is highlighted with a red circle.

This screenshot is identical to the previous one, showing the 'Edit Badge' page for the student Michael Bwach. The 'Badge ID' field is highlighted with a red circle.

Badge IDs may be the same or different from students' HLC User IDs. If the IDs on the badges (Badge IDs) are different than the HLC User ID (HLC ID), then a separate import file must be created and uploaded to the HLC. If the Badge ID is the same as the HLC User ID, no separate import file is necessary.

For the file layout of the Easy Scan Badge ID Import file, please refer to the document, Easy Scan Badge ID Import File Specification. For instructions on how to submit this file for routine import by HealthStream, please consult your HealthStream Implementation Specialist or HealthStream Customer Service.

If the student ID on the badge is the same as the HLC ID, no import file is required, and the Badge ID field shown below will not need to be maintained.

One reason an administrator may want to manually edit a Badge ID is if the student Badge ID has not yet been imported, but the student attended a class. By manually entering the ID, the student can be processed immediately rather than waiting until after the Badge ID import.

Editing a Badge ID

To edit a badge ID

1. Click the **Badge** link from the left-hand navigation tree of the student's **General Information** page. The **Edit Badge** page appears.

The screenshot shows the 'Edit Badge' page in a web application. The page has a navigation tree on the left with 'Sunny Beach' selected. The main content area is titled 'Edit Badge' and contains a 'Badge Information' section. The 'Badge ID' field is highlighted with a red circle. Below it, the 'Last Modified Date' is '10/27/2008 7:51:00 AM' and the 'Last Modified By' is 'Jack H Demonstration'. At the bottom of the form, there are 'Delete', 'Save', and 'Cancel' buttons. The 'Save' button is also highlighted with a red circle. A 'Return to People' link is visible in the top right corner.

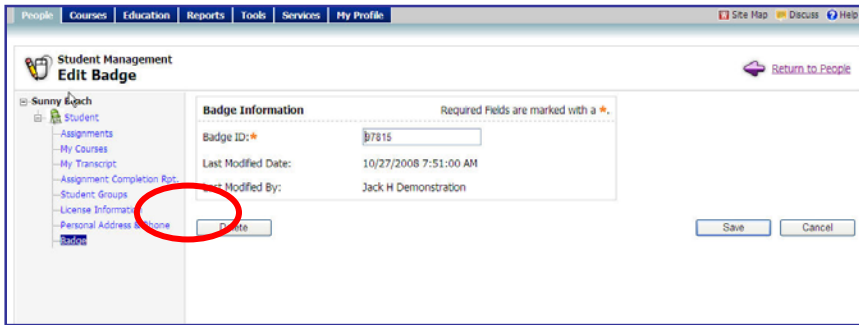
2. Edit the badge ID in the **Badge ID** box.
3. Click **Save**.

Deleting a Badge ID

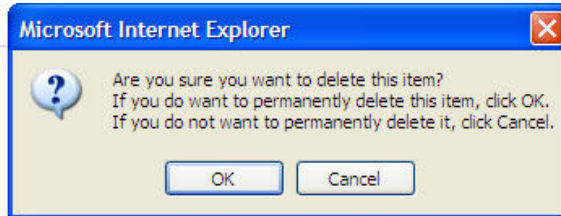
It is rare that a badge ID would need to be deleted. The next time the badge import file is run, the data will be reentered if the student is still in the import file.

To delete the badge ID

1. Click the **Badge** link from the left-hand navigation tree of the student's **General Information** page. The **Edit Badge** page appears.



2. Click **Delete**. A confirmation prompt appears.



3. Click **OK**.

Using Easy Scan

Once Easy Scan is implemented by HealthStream, Administrators are given Easy Scan Administrator privileges, Badge IDs are configured, and a scanning device has been obtained, you can begin using Easy Scan.

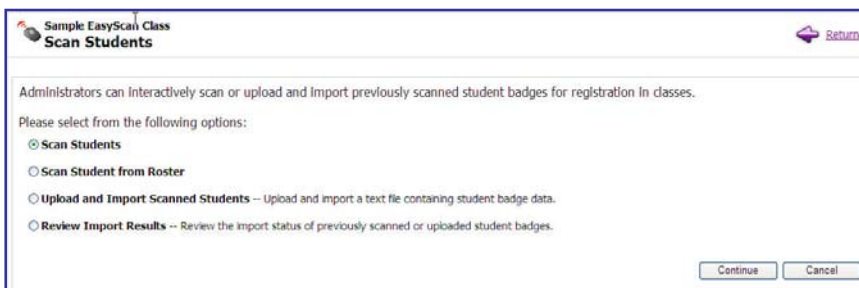
The step-by-step procedure for normal processing with Easy Scan follows. To understand this process, it is important to understand the options on the Easy Scan page.

To get to the Scan Students Page

1. Click **Scan Students**.



The **Scan Students** page appears.



The **Scan Students** page has four options:

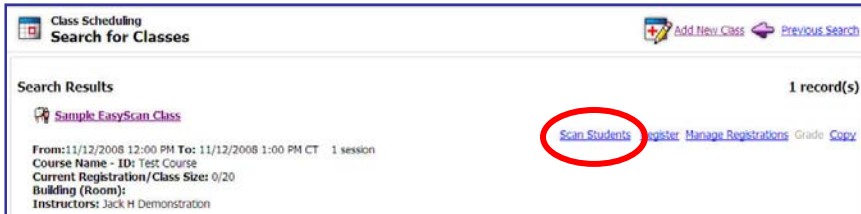
- **Scan Students** – This option allows instructors to set up a PC and scanner so that students may scan their badges for attendance recording in attended or unattended mode. It is the normal option chosen for scanning class attendance.
- **Scan Students from Roster** – This option performs the same way as the Scan Students option, but it will read barcodes from the HLC generated class rosters rather than the student badges. Barcodes on HLC class rosters will always have the HLC ID represented, not the student's Badge ID.
- **Upload and Import Scanned Students** – This option is used when the instructor has a file of previously scanned students, either by a smart scanner or by scanning directly into a Windows text file, and wishes to process the file with Easy Scan.
- **Review Import Results** – This option is used to see the results of the all scanning done for the class using one of the first three options.

Note: Easy Scan uses the term import to refer to scanned records that are placed into Easy Scan using either a scanner OR by importing a file of previously scanned students (using the **Upload and Import Scanned Students** page option.) The **Review Import Results** page option shows the status of all Easy Scan records imported to the class, regardless of the Easy Scan page method chosen.

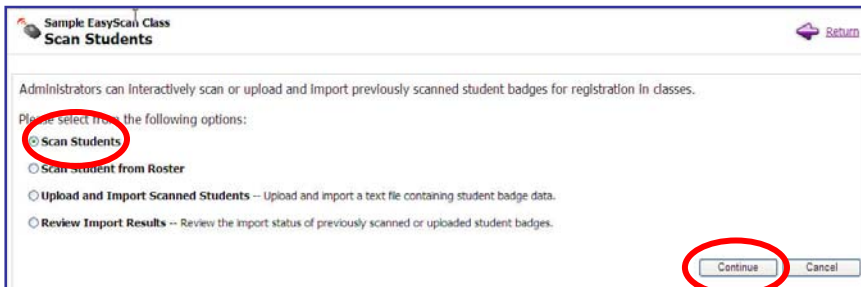
Typical Process for Scanning Student Badges for a Class

The following shows the typical flow of using Easy Scan to scan a class.

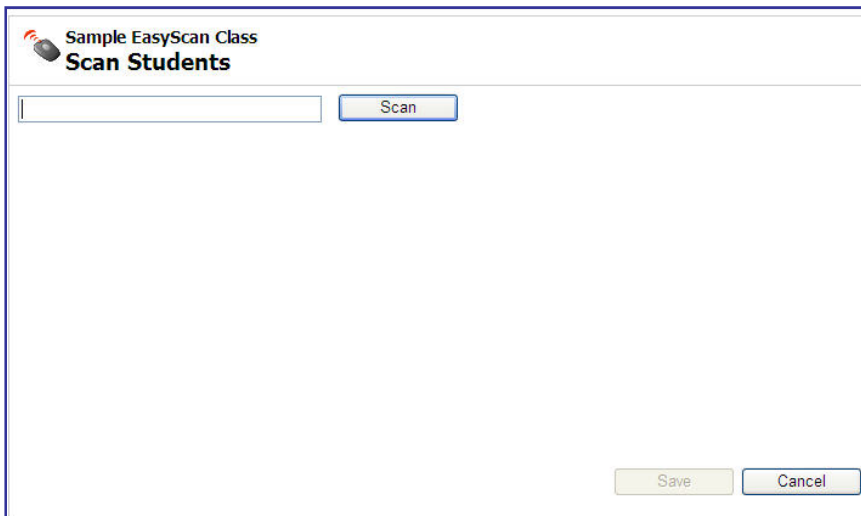
1. Attach the scanning device to the computer you wish to use.
2. Log into the HLC using your administrator login.
3. Search for the class you wish to scan.



4. Click **Scan Students**. The **Scan Students** page appears.



5. Select Scan Students.
6. Click **Continue**. The scanning window appears as an overlay to the HLC administrator login which is faded (disabled) in the background.



Note: If you wish to return to the HLC administrator login by clicking **Cancel**, you will be prompted to enter your administrator password and click **Continue**. This is a feature of Easy Scan that prevents students from using an administrator's login to perform unauthorized tasks in the HLC.

- Scan students' badges as they enter the classroom venue using your scanning device. As students are scanned, their names and student user IDs will appear in the scanning window. Note that the scan action is IN.

Student ID	Name	In / Out / Error
south	Michael Beach	In
paine	Thomas Paine	In
marand	smith j David	In
ssaxena	sameer saxena	In

If a scanned Badge ID is not recognized, the scanning window will display the following error.

Student ID	Name	In / Out / Error
Not Available	*Not Available*	Error

This may occur if the student's Badge ID has not yet been imported into the HLC (for example, a new employee attending orientation prior to a data import file upload). Once the Badge ID is entered into the system, the student will be recognized by the HLC, and the information may be resubmitted.

Note: If a student badge cannot be read by the scanner, you may also enter Badge IDs into the open text field using your keyboard and click **Scan**.

8. Do NOT scan the badges of students as they leave the classroom venue unless the student's attendance in the class should not be recorded. For example, if a student must leave after 5 minutes, he/she should swipe the badge on the way out. This will change the attendance status to Out rather than In on the Easy Scan page.

Note: The status of attendance on the Easy Scan page is either **In**, **Out**, or **Error**. If the status is **In**, the student's attendance will be recorded. If the status is **Out**, the student's attendance will not be recorded. If the status is **Error**, the attendance will not be recorded until the error condition is fixed and the student attendance record is resubmitted.

Student ID	Name	In / Out / Error
paine	Thomas Paine	In
south	Michael Beach	In
adobe	Sam S Adobe	In
Not Available	*Not Available*	Error
Not Available	*Not Available*	Error
paine	Thomas Paine	Out
paine	Thomas Paine	In
ssaxena	sameer saxena	In
south	Michael Beach	Out
paine	Thomas Paine	Out
marand	smith j David	In

9. Click **Save** after all students have been scanned out of the classroom event. You will be prompted to enter your password to return to the HLC. The Scan Students page appears.

Sample EasyScan Class
Scan Students

Administrators can interactively scan or upload and import previously scanned student badges for registration in classes.

Please select from the following options:

- Scan Students
- Scan Student from Roster
- Upload and Import Scanned Students -- Upload and import a text file containing student badge data.
- Review Import Results -- Review the import status of previously scanned or uploaded student badges.

Continue Cancel

10. Select **Review Import Results** to display the student records that were imported into Easy Scan for the class.

The **Review Import Results** page shows all of the badges scanned, whether they can be matched to HLC students or not, as well as the date and time that they were scanned into Easy Scan. In the example above, note that some of the names in this show ****Not Available**** for the student name and the *Result* column shows the badge data that was read. This feature prevents the loss of class attendance when students attend class prior to being entered into the HLC.

For large classes, it can be helpful to sort and filter the entries to show only completed or failed records. This can be done by selecting the desired status in the status drop down box. The status options are:

Status Meanings

The following are possible scan results:

- **Staged:** The user only sees this when they have scanned students and not clicked **Save** or clicked **Cancel**. If the user lost internet connection the status would be staged for all records that were scanned before it went down. Staged means we have the scan but the user has not chosen to submit it for processing.
- **Ready:** The scan is now ready to be processed and will be processed by the background processor. This status follows **Staged**. If a user resubmits a **Staged** record it is moved to ready. Also if a failed record is resubmitted the status is moved to ready. When a users clicks **Save** on the **Scan Students** page the scans are moved to **Ready**.
- **Started:** This status follows **Ready**. The background processor has started processing the records. They can't be changed in this status.
- **Completed:** This status follows **Started**. The HLC has finished processing the record and the user can verify this in the result column.
- **Failed:** This status follows **Started**: This means the HLC failed to process the scan. The result column will have actions the user can take to resolve the issue.

Scan Processes

The following process is followed when a scan occurs:

1. **Staged, Ready, Started:** The HLC queues up Easy Scan entry processing just as it does scheduled reports and other processing jobs. If there is an issue with the HealthStream server, records may have one of these statuses for a long period of time. If records are hung in one of the following statuses for more than 20 minutes, even after resubmitting, contact HealthStream Customer Service to report the problem.

Staged: This is the first status that is assigned to an entry. Users generally do not see this status unless they did not save their scanned entries or cancelled the operation. It is also possible to see this status if Internet connectivity is lost. Resubmitting scanned entries will generally move them out of the staged status.

Ready: This status appears when the entry is no longer staged or has been resubmitted, but the HealthStream background processor has not yet retrieved it.

Started: ealthStream is now processing the record, and it is temporarily inaccessible for changes.

2. **Completed:** Scans that are processed through to completion so that the students receive credit for the class are marked as **Completed**. No further action needs to be taken for these students.
3. **Failed:** There are multiple reasons why the scan status may show as failed. In all cases, the badge data and/or error information is shown so that the entry can be researched. The most common reason is Student is unavailable. This means that Easy Scan could not find a student that matched the badge data read. Reasons for this might be:
 - The student has not yet been entered in the HLC. This may be because the student is new and the routine HR import to HealthStream that would create the new student record has not yet occurred.
 - The student is from another facility.
 - The data does not correspond to any existing student for any reason.

At any time, other than for records that are started the instructor can select entries to resubmit by clicking the check box at the column header (to select all,) or next to individual check boxes to the left of each entry, then hitting the Resubmit button at the bottom of the page.

Another feature of this page is that the administrator/instructor can sort the results by any of the column headers simply by clicking the header. This can be helpful when you need the results sorted by name, time scanned, etc.

At the top, there are additional options:

- **Upload and Import Scanned Students:** This is the same as the option on the Easy Scan page, it is placed on this page to allow the administrator to quickly import an external file of scanned entries into the file of already collected student badge scans for the class.
- **Grade:** Clicking this link will take the administrator/instructor to the grading page for the class. Below is an example of clicking the **Grade** link. This function is identical to the grading function in the HLC.

Class Scheduling
Grade Students

[Edit Class](#) [Register](#) [Manage Registrations](#) [Return](#)

Back Lot Lab Copy
Course Name: Demonstration of Competency with Fire Extinguisher
Course Version: 1

Class Session Range: 2/29/2008 5:00 PM - 2/29/2008 6:00 PM CT 1 session

Grading Status: Grading Complete For This Class (Hide this class from search results)

Grade Students: 8 record(s)

Name	User ID	Status	<input type="checkbox"/> No Show	<input type="checkbox"/> Attended	<input type="checkbox"/> Passed	Grade
Grove, Anna Glenn	annaglenn	Active	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	0
Grove, Sam	samuel	Active	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	0
josh, davis	jdavis2	Active	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	0
Mark, Gagnon	mgagnon	Active	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	0
Morrow, Karen	oso004	Inactive	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	0
One, Yoko	1111111	Active	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	0
Price, Steve	sprice	Active	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	0
Scrooge, Ebenezer R.	978157	Active	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	0

- **Return:** This option takes the administrator/instructor back to the Easy Scan page.

Back Lot Lab Copy
Scan Results

[Upload and Import Scanned Students](#) [Grade](#) [Return](#)

Class Session Range: 2/29/2008 4:00 PM - 2/29/2008 5:00 PM CT 1 session

<input type="checkbox"/> All	Name	User ID	Scan Status	Date and Time	Result
<input type="checkbox"/>	Anna Glenn Grove	annaglenn	Completed	01/10/2009 3:29 PM CT	Student successfully registered and graded for class.
<input type="checkbox"/>	Ebenezer R. Scrooge	978157	Completed	01/10/2009 3:28 PM CT	Student successfully registered and graded for class.
<input type="checkbox"/>	Yoko One	1111111	Completed	12/4/2008 3:11 PM CT	Student successfully registered and graded for class.
<input type="checkbox"/>	*Not Available*	*Not Available*	Failed	12/4/2008 3:10 PM CT	Student is unavailable. Badge Data is: 9781579546465
<input type="checkbox"/>	*Not Available*	*Not Available*	Failed	01/10/2009 3:28 PM CT	Student is unavailable. Badge Data is: roberts
<input type="checkbox"/>	*Not Available*	*Not Available*	Failed	01/10/2009 3:29 PM CT	Student is unavailable. Badge Data is: jdavis

The Upload and Import Scanned Students Feature

Sometimes it is important to be able scan student badges into files that can be imported into Easy Scan at a later time. Here are some examples of why this might be needed:

- **Example 1:** The class is assembling in a remote section of the hospital parking lot to attend a class demonstration on the use of fire extinguishers. If the organization has purchased a smart scanner (these look like the devices that are used by FedEx and UPS,) then the instructor may collect badges in the scanner, then upload the file later into Easy Scan.
- **Example 2:** The class is assembling, but suddenly there is a problem with accessing the Internet (and therefore, the HLC). The instructor can quickly open up a Windows text file using Notepad or Wordpad, scan the badges into the file, then upload the file later when connectivity is restored.

The Upload and Import Scanned Students feature allows instructors to browse for the scanned file, select it, and then import the entries into Easy Scan, just as if they had been scanned normally. This feature can be accessed from the main **Easy Scan** page or from the **Scanned Results** page.

Once you have selected this option, the file browser for Easy Scan is displayed:



1. Click the **Browse** button on the page below the instruction line.
2. Once the file is selected, it will display in the text box.
3. Click the **Upload** button to import the records from the file into Easy Scan.

When the import is completed, Easy Scan will automatically open the **Scan Results** page (see above) and display the records and current status of all Easy Scan entries for the class.

When the Class Grading is Complete

Once all Easy Scan entries have been successfully submitted to the class, click **Grade**, make any last changes, such as entry of numeric grades, then complete the class normally in the HLC.

