

**Download LockDown Browser :**  
<http://www.respondus.com/lockdown/informationb.pl?ID=992535104>

## **Respondus LockDown Browser Instructor Guide**

### **Introduction**

Respondus LockDown Browser™ is a customized browser that increases the security of test delivery in Blackboard. When students use Respondus LockDown Browser to access an exam, they are unable to print, copy, go to another URL, or access other applications. Once an assessment is started, students are locked into it until it's submitted for grading. For a complete list of features, visit the Respondus web site at [www.respondus.com](http://www.respondus.com). It's also recommended that you view the demonstration movie at <http://www.respondus.com/products/demos-ldb.shtml>.

Respondus LockDown Browser provides a custom interface for the Internet Explorer (Windows) or Safari (Macintosh) software that is already installed on a the computer. It does not modify an existing copy of Internet Explorer or Safari, but rather, installs a separate program that displays a custom browser when it is started. Respondus LockDown Browser uses the same security features and service packs that are currently installed for Internet Explorer or Safari. Installing Respondus LockDown Browser won't modify the current version of Internet Explorer or Safari in any way.

Respondus LockDown Browser is not intended to replace the browser used by faculty or students within Blackboard. Respondus LockDown Browser is only intended for use by students while taking assessments that have been prepared for use with Respondus LockDown Browser.

### **Preparing an Assessment for Use with Respondus LockDown Browser**

If you haven't done so already, it's recommended that you view the demonstration movie for Respondus LockDown Browser at <http://www.respondus.com/products/demos-ldb.shtml>.

To require that students use Respondus LockDown Browser to access a Blackboard assessment, two things must first occur:

- The instructor must use Respondus 3.0.4 (or higher) to upload the assessment and/or settings required by Respondus LockDown Browser to the Blackboard course
- The student's computer must have Respondus LockDown Browser installed.

The integration between Respondus LockDown Browser and Blackboard requires that instructors use the Respondus 3 exam authoring tool to publish the assessment settings to the Blackboard course. The settings contain a secret password that prevents students using a regular browser from accessing the assessment. So the first step is to make sure the Respondus 3 software is configured correctly.

#### Respondus 3 Settings

Instructors must have Respondus 3.0.4 or higher installed in order to upload the special assessment settings to Blackboard. Follow these steps to determine the version number for Respondus:

- > Start Respondus
- > Select "Help" from the menu bar

- > Select "About Respondus"
- > Confirm that the version is 3.0.4 or higher

If the Respondus software is older than 3.0.4, select "Help" from the menu bar, select "Check for Update" and then follow the prompts to obtain the latest update. (If you are running Respondus 2 or earlier, you'll first need to upgrade to Respondus 3.0, which cannot be done using the "Check for Update" feature.)

Once you have confirmed that Respondus 3.0.4 or higher is installed, next determine if the "Institution ID" for Respondus LockDown Browser has been entered. To do so, follow these steps:

- > Start Respondus
- > Select "File" from the menu bar
- > Select "LockDown Browser"
- > If necessary, enter the following Institution ID: **992535104**

### Two Options for Publishing the Browser Requirements to Blackboard

There are two ways to prepare an assessment so that students must use Respondus LockDown Browser to access it. The first method is used to create a new assessment and the second method is for updating an assessment that already exists in Blackboard. Both approaches require the instructor to use Respondus 3 to upload the browser settings for the assessment to the Blackboard course.

#### **1) Using Respondus 3 to publish a new assessment to Blackboard so that it requires students to use Respondus LockDown Browser**

- 1) Start Respondus 3.0.4 (or higher) and then open or create the assessment file.
- 2) If this step hasn't been done previously, select "File" from the menu bar and then select "LockDown Browser." Enter the 9-digit Institution ID provided by the administrator of your Respondus LockDown Browser license.
- 3) Select the "Settings" menu in Respondus
- 4) Select the "Security & Submissions" tab
- 5) Select the checkbox "Require LockDown Browser for this exam"
- 6) Select the "Preview & Publish" menu and then select the "Publish to Blackboard" tab
- 7) On the second page of the Publish Wizard, select "Apply Settings to Exam"
- 8) Complete the Publish Wizard

To later make the test accessible with any browser (ie. not just Respondus LockDown Browser), log into Blackboard as an instructor, go to the Control Panel, locate the test, select "Modify the Test Options" and then delete the "Password" for the test.

#### **2) Using Respondus 3 to update the settings for an existing assessment in Blackboard so that it requires students to use Respondus LockDown Browser**

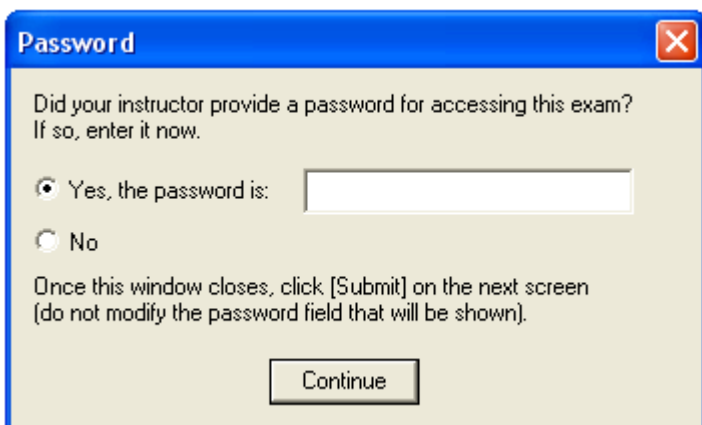
- 1) Start Respondus 3.0.4 (or higher)
- 2) If this step hasn't been done previously, select "File" from the menu bar and then select "LockDown Browser." Enter the 9-digit Institution ID provided by the administrator of your Respondus LockDown Browser license.
- 3) Open or create any file in Respondus (the file itself doesn't matter) and then proceed to the "Preview & Publish" menu
- 4) Select the "Update Settings" tab
- 5) Follow the sequence for selecting the server, the course, and the exam.
- 6) Click the "Settings" button, select the "Availability" tab, and then select the option "Require Respondus Locked Browser for this exam"
- 7) Confirm that the other exam settings are set as wanted and then click "Publish New Settings"

### An Additional Explanation for Blackboard Users

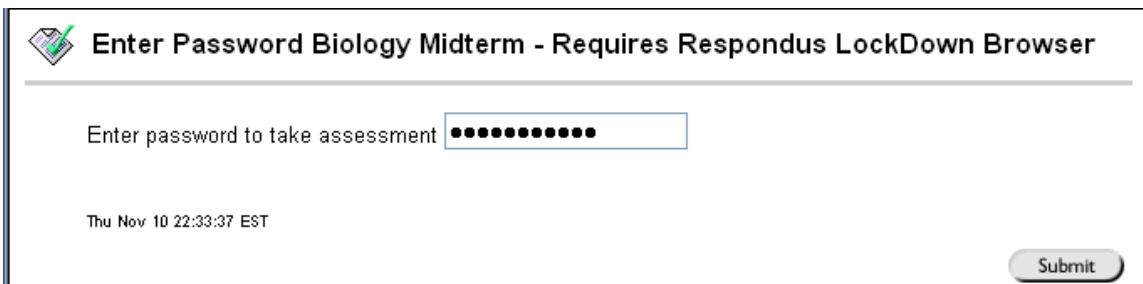
The “password” feature for a Blackboard assessment is the underlying technology used for the integration with Respondus LockDown Browser. It’s not essential that you fully understand how this process works, but a general understanding is helpful.

To prepare a Blackboard assessment so that it requires students to use Respondus LockDown Browser, the Respondus 3 software is used to publish a secret password to Blackboard’s “password” field for the assessment. The secret password is derived from a combination of the assessment name (eg. “Biology Midterm”) and a password entered by the instructor (if one is used). For example, if the name of an assessment is “Biology Midterm” and the instructor enters “iodine” as the assessment password, the secret password actually published to Blackboard by Respondus 3 might be: j4k59Rp\*73iw1m.

When a student begins the assessment, Respondus LockDown Browser will ask the student if a “password” is required for the assessment, as shown here:



If a test password has been specified by the instructor (eg. “iodine”) the student will enter it at this time. If a test password isn’t required by the instructor, the student will select the “No” option and click “Continue”. The next screen will display the real “password” screen in Blackboard and the secret password will be automatically filled in by Respondus LockDown Browser (using masked characters ●●●●●●●●). Students are instructed to simply click [Submit] to start the assessment.



If students attempt to access the assessment with a standard browser, they will be unable to get past Blackboard’s password page because they won’t know the secret password. Entering the password provided by the instructor (eg. “iodine”) won’t work because it is different than the secret password. Thus, students are prevented from accessing the assessment with any browser other than Respondus LockDown Browser.

**Important:** Instructors should NOT edit the name of the assessment or the proctor password once the assessment has been published to Blackboard using Respondus 3. To change the name of the assessment or the password that students enter, follow the instructions above for: “Using Respondus 3 to update the settings for an existing assessment in Blackboard...”.

### **Determining if the LockDown Browser Settings are Set Correctly**

To confirm that an assessment will require students to use Respondus LockDown Browser, open a standard web browser, log into Blackboard using a student account, and attempt to start the assessment. You should be unable to start the assessment if everything is set correctly.

Next, start Respondus LockDown Browser (installation instructions appear below), log into Blackboard using a student account, and then start the assessment. If everything is set correctly, you should be able to start the assessment with Respondus LockDown Browser.

**Note:** If you log into Blackboard as a student and access an assessment with Respondus LockDown Browser, you must “Finish” the assessment before the browser will let you exit.

### **Additional Tips and Suggestions**

Make sure students know, well in advance, that they must use Respondus LockDown Browser to take an online exam. This is particularly important if students are required to install Respondus LockDown Browser to their own computer. It’s recommended that you create a “practice exam” that requires the use of Respondus LockDown Browser.

It’s a good practice for instructors to preview the exam using Respondus LockDown Browser. The best approach is to log in as a student since instructor logins have different access rights. Previewing an exam is an especially good idea if a test password is being used.

Once a Blackboard assessment is started with Respondus LockDown Browser, the exam will appear in a full-screen window and all other applications and links are locked down. The assessment cannot be exited without clicking the “Finish” button.

If audio/video files are used in an assessment, the media player must be embedded in the question itself. This is the only way that students will have access to the control buttons, such as play, start, pause and stop. (Note that the Macintosh version of LockDown Browser, which uses the Safari engine, doesn’t offer the same breadth of support for embedded media. However embedded MP# and QuickTime files will work fine.)

Respondus LockDown Browser will maintain the “locked” testing environment even if a question contains a link to another web page (which opens another, secure browser window). However, all links that may appear on the new web page will be blocked, so be sure the content that students must see is available from the initial, linked page.

### **Making Online Exams Even More Secure**

Respondus LockDown Browser is an important tool for preventing cheating on online exams, but it’s not a total solution. For example, students working from remote locations could use two computers at once (one for taking the exam, the other for accessing other applications). Students could use digital cameras to capture the screen content, send text messages on mobile phones, or simply refer to printed notes.

Additional methods can be employed that further reduce the risk of cheating and ensure that students know the course material. Each approach below provides another “layer of security.” Even one or two of these items can often provide sufficient security for most assessments.

- Proctors - Having students take an exam in a room being monitored by a proctor is a major deterrent to most forms of cheating. Enhance this method by having the proctor check the identification of the student prior to the start the exam, placing web cameras throughout the room, or using a “test password” (see next item). For distance courses, proctored settings can be established in other cities, even other countries. Because of the time and expense required for a proctored setting, proctors are sometimes used only with high-stake assessments (eg. midterms, finals).
- Assessment Passwords (Bb setting) - An assessment password prevents students from accessing the exam until a password has been supplied. Assessment passwords can be typed by the proctors themselves (for added security) or conveyed to the student at the start of the assessment.
- Disallow Multiple Attempts (Bb setting) - By only allowing one attempt for an assessment, students won't be able to determine the questions in the assessment, look up the answers at a later time, and then retake the assessment.
- Limit Initial Feedback to “Score Only” (Bb setting) - Select “Score Only” for the initial Feedback Mode. This will prevent students from viewing, printing or copying questions after they have completed the exam. Once all students have completed the exam, the Feedback Mode can be changed so that more detailed feedback can be seen by the student. To protect questions for future terms, the “Score Only” setting should only be used.
- Answer Randomization (Bb setting) - Answer choices to multiple choice questions can easily be randomized. This setting is selected at the time a question is created.
- Randomize Questions (Bb setting) - Question randomization is a good deterrent for assessments delivered in a classroom setting. Some versions of Blackboard allow question randomization for an entire assessment to be turned on with a single checkbox. An alternative approach is to create a “random block” which will also display questions in random order.
- Random Blocks (Bb setting) - “Random Blocks” are pools of questions that generally assess similar content. During an assessment, the questions are randomly drawn from the pool so that each student sees a different set of questions. For example, the first question in an exam might be drawn from a pool of 5 questions, making the odds only 1 in 5 that students will see the same question. Random Blocks are ideal for creating alternate forms of the same question.
- Calculated questions - Calculated questions, typically used in math and science courses, include variables in the question wording. The values for these variables are randomly generated, so students encountering the same question must give unique answers.
- Time Limits (Bb setting) - By limiting the time a student can spend on an assessment, students can be discouraged from consulting other sources since they won't have time to do so.
- Availability Dates and Times (Bb setting) - This setting restricts the availability of the assessment to a specific date/time range.
- Deliver questions one at a time (Bb setting) - By having exam questions delivered one at a time, it makes it more difficult for students to capture the exam contents using a digital camera (eg. 50 questions requires 50 pictures)

- Code of Conduct - Have students sign an honesty statement that summarizes the expectations and requirements for academic honesty.
- Other methods of assessment - Combine objective tests with other methods of assessment, such as group projects and writing assignments. Essay questions also make it difficult for students to cheat on a traditional assessment, knowing that the instructor may recognize an answer that has been copied from another student.

## **Advanced Features (Windows only)**

A couple of advanced features are available in the Windows version of Respondus LockDown Browser, including a calculator and spreadsheet viewer.

### Calculator

Respondus LockDown Browser prevents other applications from being accessed by the student during an assessment, including the “Calculator” tool in Windows. However, there are times when an instructor wants to allow students to use an online calculator during an assessment. A calculator option will appear on the toolbar for Respondus LockDown Browser if the following text is placed in the online exam: **{calc}**

The **{calc}** text can appear anywhere in the assessment. If questions are being delivered “one at a time,” the {calculator} text will need to appear in the first question so that it will be available for the remainder of the assessment.

To give students access to a more powerful scientific calculator, enter the text **{scalc}** instead of **{calc}**.

### Spreadsheet Viewer

The Windows version of Respondus LockDown Browser uses the Internet Explorer plug-ins that are installed on the computer. However, some plug-ins can introduce a security hole because a student may be able to access the Internet using the plug-in. For example, the Excel Viewer plug-in for Internet Explorer allows a user to create a web link and then go to it by clicking on it -- even when Respondus LockDown Browser is running. But there are times when instructors want students to view an .xls spreadsheet or to have access to a spreadsheet application.

Respondus LockDown Browser offers a secure solution to this issue. After a link to an .xls file is added to an exam question, the instructor will need to additionally add the following text one of the questions in the exam (the first question is best) to turn on the spreadsheet viewer in Respondus LockDown Browser: **{sheet}**

When the **{sheet}** text is contained in the assessment, a spreadsheet button will display on the toolbar in LockDown Browser. In addition, when a student clicks on an HTML link that points to an .xls file, it will open the spreadsheet viewer in LockDown Browser instead of the Excel Viewer. (Note: students aren’t able to save documents using the LockDown Browser spreadsheet viewer, just access it during the assessment.)

## **Working with Students**

Since instructors are generally the first line of support for students who encounter problems, it’s important to understand how Respondus LockDown Browser will work for students.

### Student Quick Start Guide

A Student Quick Start Guide for Respondus LockDown Browser is available from <http://www.respondus.com/quickstart> . This 1-page guide, which can be printed or distributed electronically, is the easiest way to get students running with LockDown Browser.

#### Installation of Respondus LockDown Browser

To avoid last-minute problems, it's strongly recommended that Respondus LockDown Browser be installed and tested well before students are expected to use it for an exam. If students are installing Respondus LockDown Browser to their own computers, we suggest that you create a sample quiz where the sole purpose is to confirm whether students have successfully installed the Respondus LockDown Browser and understand how to use it for taking an assessment.

Ask students to download the browser from this URL

<http://www.respondus.com/lockdown/informationb.pl?ID=992535104>

#### Taking an Assessment with Respondus LockDown Browser

Once Respondus LockDown Browser has been installed, students should follow these steps to take a Blackboard assessment that has been prepared for use with Respondus LockDown Browser:

1) Close all programs, unless one is used to connect you to the Internet.

2) Start Respondus LockDown Browser.

(For Windows users, locate the "LockDown Browser" shortcut on the desktop and double-click it. (Alternatively, click "Start" in Windows, select "Programs," select "Respondus," and then click "Respondus LockDown Browser.")

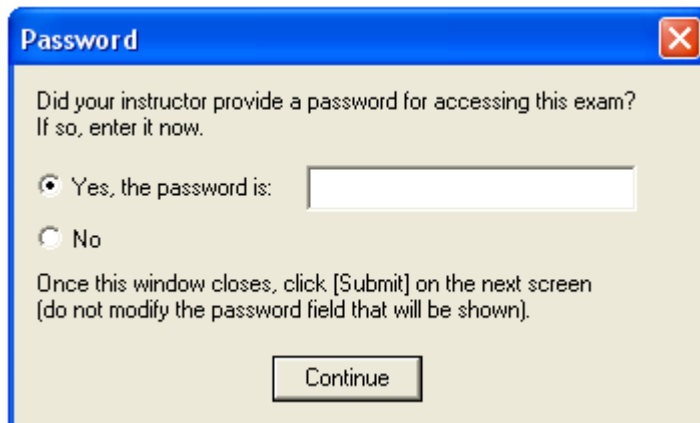
(For Macintosh users, launch "LockDown Browser" from the Applications folder.)

3) Upon starting the browser will start and go to the login page for Blackboard.

(A warning message may appear indicating that one or more applications must first be exited such as an instant messaging application. The browser will offer to close the applications for user. Alternatively, the browser can be exited and the blocked application can be closed manually before restarting the browser.)

4) Log into Blackboard by entering the user ID and Password. Select the appropriate course and then select the assessment.

5) Prior to the start of the assessment, a pop-up window will ask the user to indicate whether the assessment requires a password. (If a window similar to the one below doesn't appear, it means the student isn't running Respondus LockDown Browser.)

A dialog box titled "Password" with a blue header and a close button in the top right corner. The text inside asks, "Did your instructor provide a password for accessing this exam? If so, enter it now." There are two radio button options: "Yes, the password is:" followed by a text input field, and "No". Below the options, it says "Once this window closes, click [Submit] on the next screen (do not modify the password field that will be shown)." and a "Continue" button is centered at the bottom.

Did your instructor provide a password for accessing this exam?  
If so, enter it now.

Yes, the password is:

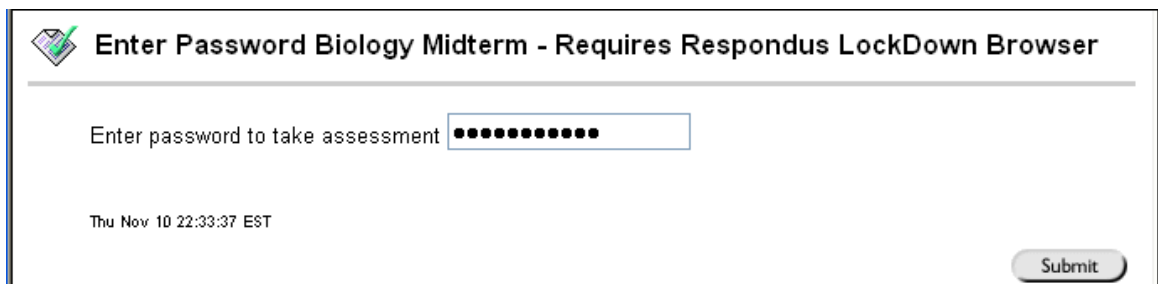
No


Once this window closes, click [Submit] on the next screen  
(do not modify the password field that will be shown).

Continue

If a test password is being used for the assessment, the student should select "Yes" and enter the password. If a test password isn't being used, the student should select "No." Click the "Continue" button.

The next screen in Blackboard will have the password field automatically filled in by Respondus LockDown Browser (displayed as ●●●●●●●●). Students should NOT edit this password field and should click "Submit" to start the assessment. (Note: If a browser other than Respondus LockDown Browser is used, the password field will appear blank and students will be unable to start the assessment.)

A screenshot of a Blackboard assessment page. At the top, there is a green checkmark icon and the title "Enter Password Biology Midterm - Requires Respondus LockDown Browser". Below the title is a horizontal line. The main content area says "Enter password to take assessment" followed by a password field filled with ten black dots. Below this, the date and time "Thu Nov 10 22:33:37 EST" are displayed. In the bottom right corner, there is a "Submit" button.

 Enter Password Biology Midterm - Requires Respondus LockDown Browser

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Enter password to take assessment ●●●●●●●●

Thu Nov 10 22:33:37 EST

Submit

Once an assessment is started using Respondus LockDown Browser, students will be unable to exit the assessment until the "Finish" button is clicked.