

ProctorTrack for Online Open-Note Exams

June 23, 2020

What is ProctorTrack?

ProctorTrack (Verificent Inc.) is a remote proctoring system, where students must “activate” ProctorTrack before they take an exam. When this is activated, it will turn on the students webcam and force them to have a microphone on. It will record the student during the exam, as well as take periodic (every few seconds) screen-captures of their computer monitor. ProctorTrack’s AI system then analyzes the video output for any infractions that it deems happened during the exam. ProctorTrack itself does not determine if an infraction is cheating, it just allows the instructor to go back in and make that decision for themselves.

Once an exam is complete, the instructor can look up all of the students who took the exam, and go back individually through all of them. ProctorTrack will also flag the ones that have “failed” in that there was an infraction that it noticed, and the instructor can go in to try to verify what happened. While this is not the best scenario or environment for exams, it does a fair amount to try to deter cheating.

Exam Format

This document will outline the process needed to set up ProctorTrack for use in online math exams. The parameters of these exams are:

- Part of the exam is done on Canvas with text input into a quiz
- Part of the exam is written-response (show all work) questions that will need to be uploaded after the exam is complete
- Exams are open note and open book
- Students will be given access to particular websites in order to access notes/book related materials if they do not have them
- Students will be given access to a calculator in the quiz, and will also be able to use their physical calculators if they have them

Enabling ProctorTrack

Instructors first need to enable ProctorTrack on their course site for this to work. This is done by going into the desired course, going to the Settings tab, and then clicking Navigation at the top of the page. Then, scroll down to ProctorTrack (which will be somewhere in the list), click on the 3 dots and select Enable. This will put ProctorTrack as one of the available tabs on the side of the Canvas site.

i>clicker Registration <i>Page disabled, won't appear in navigation</i>	⋮
Purchase Course Materials <i>Page disabled, won't appear in navigation</i>	⋮
Research and Adopt Course Materials <i>Page disabled, won't appear in navigation</i>	⋮
Pearson Revel <i>Page disabled, won't appear in navigation</i>	⋮
Launch Akindi <i>Page disabled, won't appear in navigation</i>	⋮
Turning Technologies Registration <i>Page disabled, won't appear in navigation</i>	⋮
Piazza <i>Page disabled, won't appear in navigation</i>	⋮
Box <i>Page disabled, won't appear in navigation</i>	⋮
myBusinessCourse <i>Page disabled, won't appear in navigation</i>	⋮
iClicker Sync <i>Page disabled, won't appear in navigation</i>	⋮
Macmillan Learning <i>Page disabled, won't appear in navigation</i>	⋮
Top Hat <i>Page disabled, won't appear in navigation</i>	⋮
Reading List <i>Page disabled, won't appear in navigation</i>	⋮
First Day Course Materials <i>Page disabled, won't appear in navigation</i>	⋮
Conferences <i>Page disabled, will redirect to course home page</i>	⋮
Labster Dashboard <i>Page disabled, won't appear in navigation</i>	⋮
Proctortrack <i>Page disabled, won't appear in navigation</i>	⋮

+ Enable

↕ Move

Save

Onboarding

The first part of the ProctorTrack process is Onboarding. This is where students validate their accounts with ProctorTrack as well as install the necessary software on their computer. This is a mandatory first step and should be completed by every student at least two days before the first exam. If they have already used ProctorTrack in a different class, they will likely not need to complete this process.

To set this up on the instructor end, you need to make a Canvas Quiz in your course that will exclusively be used for Onboarding. You can include questions to make sure that students can see all of the different types of exam questions you will give them on the exam, but you do not have to. Once you have made this quiz, you can set it up for Onboarding. To do so, click on the ProctorTrack label on the side of your Canvas page. That should give you a screen that looks like

Quizzes 3	Sessions	Flagged	Onboarding	Students 0	Failed	Passed	Pending
	0	1	1		0	0	0
Completed 33%			Onboarded 0%				

Quiz List Onboarding Status

Quiz Name	Test ID	Access Code	Proctoring Level	Monitoring/Onboarding	Sessions List
Onboarding Quiz	154922	3122	3	Onboarding ON	View Sessions ⓘ ⌵
Test Clickers	143811	8361	3	Select Status	View Sessions ⓘ ⌵
Test Old Quiz- Requires Respondus LockDown Browser	138039	Test	3	Proctoring ON	View Sessions ⓘ ⌵

If you do not see your quiz there, click on “Sync Tests” at the top of the page to refresh the list. Once you see the test you are looking for, go down to that row, click on “Select Status” and change it to “Onboarding ON.” For the Onboarding quiz, you can leave everything else as is. You should then encourage your students to take this quiz as soon as possible. The process can take 4-6 hours to validate (after they complete the quiz, which should only take a few minutes), so they should do this at least two days before the exam.

Exam Settings

After you have written your exam in Canvas (which needs to be set up as a Canvas quiz) you can then enable ProctorTrack for the exam. To do so, go back into ProctorTrack via the label on the side of the Canvas site and click Sync Tests again to make sure your exam is there. Once it is, click Select Status again, and now select “Proctoring ON.” Once you do that, you’ll want to click on the three dots to the right of that box, and click on “Go To Configuration”

The screenshot shows the ProctorTrack dashboard with the 'Quiz List' tab selected. The table below shows the 'Test Old Quiz- Requires Respondus LockDown Browser' row. The 'Monitoring/Onboarding' column for this row is 'Proctoring ON'. A dropdown menu is open next to it, showing options: 'Go To Configuration', 'Edit Access Details', and 'Extend Date'.

Quiz Name	Test ID	Access Code	Proctoring Level	Monitoring/Onboarding	Sessions List
Onboarding Quiz	154922	3122	3	Onboarding ON	View Sessions ⓘ ⌵
Test Clickers	143811	8361	3	Select Status	View Sessions ⓘ ⌵
Test Old Quiz- Requires Respondus LockDown Browser	138039	Test	3	Proctoring ON	View Sessions ⓘ ⌵

In this menu, you'll need to set what parameters are allowed for the exam. My recommendations are the following:

Identity Verification Settings	Test Settings	Student Settings	WhiteList Url/Apps
<input checked="" type="checkbox"/>  REQUIRE FACE SCAN Enable this option to ask a face scan during identity verification. Disable this option to opt-out of the face scan during identity verification.			
<input checked="" type="checkbox"/>  REQUIRE PHOTO ID SCAN Enable this option to ask a photo-ID scan during identity verification. Disable this option to opt-out of the photo-ID scan during identity verification.			
<input type="checkbox"/>  REQUIRE ROOM SCAN Enable this option to require a room scan during identity verification. Disable this option to opt-out of the room scan during identity verification.			
<input type="checkbox"/>  REQUIRE KNUCKLE SCAN Enable this option to require a knuckle scan during identity verification. Disable this option to opt-out of the knuckle scan during identity verification. <i>Knuckle-match is used to increase confidence in the authentication process.</i>			

Under **Identity Verification Settings**:

- Require Face Scan
- Require Photo ID Scan
- Do not require Room scan or Knuckle scan.

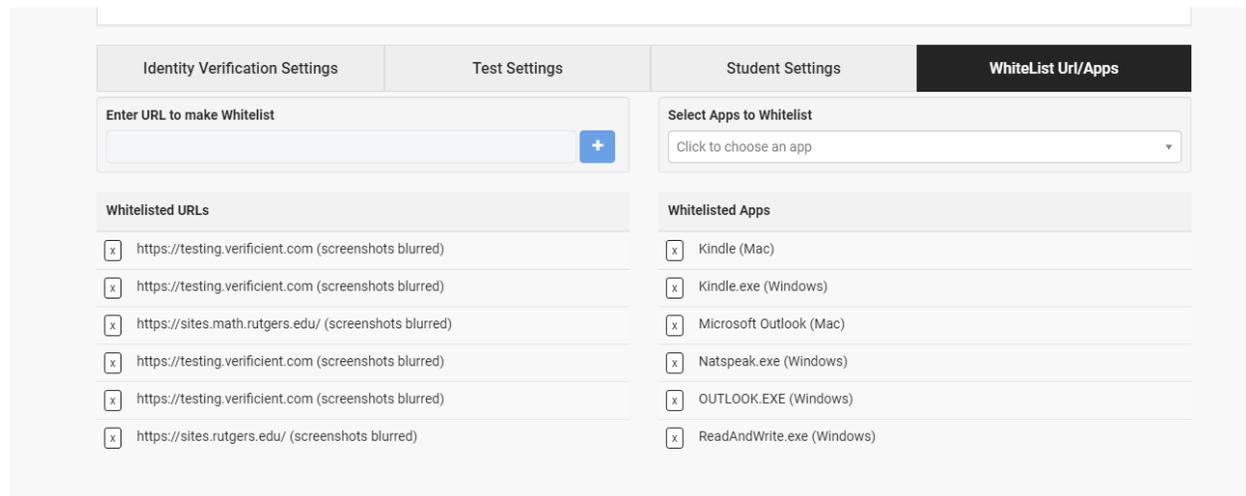
Identity Verification Settings	Test Settings	Student Settings	WhiteList Url/Apps
<input checked="" type="checkbox"/>  ALLOW PHYSICAL BOOKS Enable this option to allow the test-taker to refer to their books during the test. Disable this option to prohibit the test-taker from referring to their books during the test.			
<input type="checkbox"/>  ALLOW ONLINE/DIGITAL RESOURCES Enable this option to allow the use of online (e.g. web content) or digital resources (PDF, DOCs) during the test. Disable this option to prohibit the use of online or digital resources during the test.			
<input type="checkbox"/>  ALLOW SCRATCHPAD TOOLS Enable this option to allow the test-taker to use note taking tools like MS Word or other such scratchpads on their computer during the test. Disable this option to prohibit the test-taker to use note taking tools like MS Word or other such scratchpads on their computer during the test.			
<input checked="" type="checkbox"/>  ALLOW HANDWRITTEN NOTES Enable this option to allow the test-taker to take notes by hand and/or by using erasable whiteboard during the test. Disable this option to prohibit the test-taker from taking notes by hand and/or by using erasable whiteboard during the test.			
<input type="checkbox"/>  ALLOW STUDENTS TO TAKE SCANS OR PICTURES USING PHONE Enable this option to allow the test-taker to take scans or pictures using phone during the test. Disable this option to prohibit the test-taker from taking scans or pictures using phone.			
<input type="checkbox"/>  ALLOW STUDENTS TO TAKE SCANS OR UPLOAD DOCUMENTS Enable this option to allow the test-taker to take scans or upload document during the test.			

Under **Test Settings** (these are the things that should be blue/enabled):

- Allow Physical Books
- Allow Handwritten Notes
- Allow Earphones
- Allow Food and Drinks

- Prohibit Copy/Paste
- Prohibit Print Screen
- Prohibit Printing
- Desktop Monitoring
- Prohibit Multiple Monitors
- Allow Physical Calculator
- Allow Screen Calculator
- Hide Access Code/Password

Note that Allow Online Resources is disabled. This is because this would allow for full access to the internet, not just specified sites. If you have specific sites you want to allow students to access, you can do so using the **Whitelist Url/Apps** tab.



The important thing is to include all of the sites that you want students to be able to access in the Whitelist URLs list on the left side of this page. In the image, I have sites.math.rutgers.edu and sites.rutgers.edu, because that is where the online resources I wanted them to be able to access are located. I also planned (and thought I put on there) desmos.com as an open site, because that would allow them to access the scientific calculator through that site.

Once all this is setup, you can save the settings via the three line button at the top of the ProctorTrack page so that you can easily set other exams to the same settings. At this point, the exam is good to go, and will run using ProctorTrack.

Reviewing Results

After the exam, you'll need to go through and look through the recordings and make sure that all of the students adhered to the parameters of the exam. To do so, go back to the ProctorTrack window, go the appropriate exam, and click on View Sessions.

The screenshot shows the ProctorTrack dashboard. At the top left is the ProctorTrack logo with the tagline "Integrity Realized". Below the logo is a "Dashboard" label. On the right side of the top navigation bar are three buttons: "New Quizzes", "Sync Tests", and "Troubleshoot".

Below the navigation bar are two summary cards:

- Quizzes:** Shows 3 quizzes. A progress bar indicates 33% completion. Sub-headers include Sessions (0), Flagged (1), and Onboarding (1).
- Students:** Shows 0 students. A progress bar indicates 0% onboarding. Sub-headers include Failed (0), Passed (0), and Pending (0).

Below these cards are two tabs: "Quiz List" (selected) and "Onboarding Status".

The "Quiz List" table contains the following data:

Quiz Name	Test ID	Access Code	Proctoring Level	Monitoring/Onboarding	Sessions List
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Test Clickers	143811	8361	3	Select Status	View Sessions
Test Old Quiz- Requires Respondus LockDown Browser	138039	Test	3	Proctoring ON	View Sessions

In there, your screen should look something like this.

The screenshot shows the "Student List" interface. At the top right is a search bar labeled "Search Name / Email". Below the search bar are filters for "Unreviewed Sessions" and "Filter". On the right side of the filter area are buttons for "Pass", "Fail", and an information icon.

The main table has the following columns: Status, First Name, Last Name, Date, Duration(H:M:S), Message, Flags, and Review. The rows show exam sessions with various status indicators (red X, yellow question mark, green check mark) and a red number indicating the number of issues found.

Status	First Name	Last Name	Date	Duration(H:M:S)	Message	Flags	Review
[Red X]			6/10/20 6:22 PM	0:02:38	[Message Icon]	3	[Down Arrow]
[Yellow ?]			6/14/20 6:29 PM	0:02:31	[Message Icon]	1	[Down Arrow]
[Yellow ?]			6/16/20 2:17 PM	0:00:47	[Message Icon]	1	[Down Arrow]
[Yellow ?]			6/10/20 5:53 PM	0:02:18	[Message Icon]	3	[Down Arrow]
[Yellow ?]			6/14/20 6:34 PM	0:02:23	[Message Icon]	1	[Down Arrow]
[Green Check]			6/10/20 5:46 PM	0:03:41			[Down Arrow]
[Green Check]			6/13/20 7:35 PM	0:00:56			[Down Arrow]
[Green Check]			6/13/20 7:19 PM	0:02:15			[Down Arrow]

The white boxes on this image will contain images of your students and their names. The status column indicates how ProctorTrack's algorithm processed the exam. The red X indicates a failure, i.e., it thinks the student did something that was well outside the bounds of the exam and needs to be looked at. The yellow question mark means that it was questionable; there were some things that may have been a bit off, but on the whole was probably fine. The green check mark means that ProctorTrack did not flag anything as wrong throughout the exam. The red number on the right side of the row notes how many issues ProctorTrack found in the course of the video.

After this happens, it is the responsibility of the instructor to go through all of the sessions (at least the one that had flags) to make sure that something actually happened. On the whole, I haven't seen any merit to these flags that have showed up. Most of the flags seem to be things that are not really issues, and it doesn't catch a lot of the things that it could, mainly because we are allowing paper notes. It's possible for someone to have an extra device off camera and use it while they are writing things down, and there's no way to catch that. With this, you want to make sure that nothing significant happened during the exam, or make sure that these flags are actually legitimate. It, at times, has flagged people for "leaving the room" when they just turned to the side to work on their desk, or for using an online aid that was specifically allowed on the exam.

After going through all of these to make sure that nothing bad happened during the exam, or that the flags were all inconsequential, then you are done with this part, and can assign grades like normal through the Canvas quiz/file upload.