



Blackboard

## Blackboard Learn 9.1 Q4 2017 with Cumulative Update 1

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**Product:** Blackboard Learn

**Release Date:** Nov 16,2017

**Upgrade Paths:**

### Upgrade Paths for Clients Already on Blackboard Learn, 9.1

Existing Blackboard Learn, Release 9.1 clients can upgrade from the following versions to 9.1 Q4 2017 CU1 (Build:3300.0.1-rel.60+a05276c)

- Blackboard Learn, 9.1 Q2 2017 (Build: 3200.0)
- Blackboard Learn, 9.1 Q4 2016 (Build: 3100.0)

If you are a self-hosted client on a Blackboard Learn 9.1 release prior to 9.1 Q4 2016 you will need to upgrade to 9.1 Q4 2016 before you can upgrade to Learn 9.1 Q4 2017 CU1.

### Upgrade Paths for Clients New to Blackboard Learn, Release 9.1

If you are upgrading from one of the releases listed below, please refer to [Install or Upgrade Learn](#) for information to help you plan for this move. There are planning, training, and communication materials available to make this upgrade as smooth as possible. Please reference next steps based on your current release. For those migrating from Blackboard Learn, Release 9.0 or Blackboard Academic Suite, Release 8.0, please ensure you include migrating to a 64-bit environment in your upgrade plans.

- **Blackboard Learn, Release 9.0:** The following paths are supported when upgrading from Blackboard Learn, Release 9.0, Service Pack 7 (Build: 9.0.692.0)
  - Release 9.1, Service Pack 9 (Build: 9.1.90132.0) > Service Pack 12 (Build: 9.1.120113.0) > April 2014 (9.1.201404.160205) > Q4 2015 (Build:9.1.201510) > Q4 2016 (Build:3100.0) > Q4 2017 CU1 (Build:3300.0.1-rel.60+a05276c)
- **Blackboard Academic Suite, Release 8.0 or lower:**The following paths are supported when upgrading from Release 8.0, Service Pack 7 Hotfix 2 (Build: 8.0.494.35) without needing to upgrade to Release 9.0 first.
  - Blackboard Learn, Release 9.1, Service Pack 9 (Build: 9.1.90132.0) > Service Pack 12 (Build: 9.1.120113.0) > April 2014 (9.1.201404.160205) > Q4 2015 (Build:9.1.201510) > Q4 2016 (Build:3100.0) > Q4 2017 CU1 (3300.0.1-rel.60+a05276c)
- **Blackboard Learning System CE 8.0 and Vista 8.0 Licenses:** You must be on Service Pack 6 (Build: 18.0.6.116) to effectively use course conversion capabilities.
- **Blackboard Learn, ANGEL Edition:** You must be on any ANGEL 8.0 or ANGEL 7.4 release to effectively use course conversion capabilities.

If you are a self-hosted client on a release that is earlier than Blackboard Learn 9.1 Service Pack 6, and you also use Oracle, there is a pre-upgrade utility that will minimize your downtime during this upgrade. Please consult the 9.1 Service Pack 6 Release Notes and the [Readme for the Pre-Upgrade Utility for Oracle](#) for more information on this utility.

### **Announcing:**

Blackboard is pleased to announce the General Availability of Blackboard Learn™, Release 9.1 Q4 2017 (Build:3300.0.1-rel.60+a05276c) with Cumulative Update 1.

We are committed to delivering on the vision for Learn across the entire Blackboard Learn product, which consists of our Original and Ultra experience and three deployment options for Self-Hosted, Managed-hosted, and SaaS. The Q4 2017 (CU1) release for the Original experience is one step towards delivering on the overall vision in several key areas. The first is to ensure the user interface is more modern and responsive with a streamlined design so students and educators have the same experience across their devices. The second is to provide powerful tools that are easy to use, support diverse pedagogical needs and help engage students and educators. We are also focused on improving the accessibility of Learn to help students with disabilities as well as students who seek alternate ways of learning. And lastly, providing seamless integration with Learn products and 3rd party products to provide the best experience. A high level overview of the new features, enhancements and updates for these focus areas is provided below, so please review the entire message. For more details, please see the full release notes on our Help site under [Release Notes for Learn Self- and Managed Hosting](#).

### **Release Highlights:**

## **Highlights of New Features and Enhancements**

### **Efficiency Enhancements**

#### **Crocodoc to New Box View Update**

Instructors grading assignments can view documents in-line and annotate the document to provide feedback to students. In prior versions, this used a licensed technology called Crocodoc that will be discontinued on January 15, 2018. This release allows institutions to switch to a replacement service from Box entitled New Box View that offers similar capabilities. Prior documents with annotations will be automatically migrated without requiring action from Administrators; only the enablement of the New Box View service is required by Admins. It is recommended administrators initiate the migration between periods of heavy assessment such as between terms; the migration to and adoption of New Box View does not have to occur at time of upgrade.

#### **Course Availability Status and Update**

Instructors and other privileged course members can see the availability state of the course and change the state from the main course view.

- Currently, the course availability status and toggle for privileged users (admins and privileged course users) only appears when the default module page is set to be the course entry page. If other pages are set to the home entry page, the status and toggle are not visible - Article #[47780](#). This will be resolved in a future Cumulative Update.

#### **Grade Center cleanup**

Instructors can now more easily clean up their grade books by deleting multiple columns at once. Selected manual and calculated columns are removed completely. Selected columns associated with gradable items are cleared of attempt and grade data but remain in the Grade Center.

**Important:** Deletion of columns and the data contained therein cannot be undone.

## Collaborate Ultra Sessions for Groups

Instructors can now add Collaborate Ultra sessions to Groups. If instructors allow, students can share content and use the whiteboard, as well as create recordings. Institutions need a Collaborate license to use this in their courses.

## Discussion Board "Replies to Me"

Keeping up with large Discussion Board forums is easier by giving participants a count and filter to just look at new replies from others to posts made by the participant.

## Chemistry Notation Support

The math editor found in the Content Editor has been updated to a newer version of WIRIS. This version adds tools specific to chemistry including an embedded periodic table of elements.

## Rubric Auto-save

Selected levels of performance and feedback when grading with rubrics are automatically saved to the attempt as draft when the rubric is saved.

# Accessibility and Access

## Mobile optimization and response web

This release further expands the areas of Blackboard Learn suitable for use on mobile devices when using the Learn 2016 theme.

- **Blogs and Journals**
  - Blogs and Journals have been better optimized for use on mobile devices. Posts and comments composed with responsive content will render on smaller devices. Options for filtering posts or navigating groups or users will appear below currently viewed posts.
- **System Navigation**
  - Navigation of tabs and accessing the contents on those tabs is optimized for mobile devices. A menu icon ("hamburger" icon) typically found on many mobile web sites is used to switch between tabs and access My Blackboard.
- **Course Navigation**
  - Access and closure of the Course Menu is optimized for mobile devices.

## Accessibility Improvements

- **ARIA landmarks**
  - ARIA landmarks have been incorporated in the course menu and the content area to better define the page structure and assist users with screen readers in navigating page elements.
- **First-time User Overlay removed**
  - When a user first logged in to Blackboard Learn with the Original experience, an overlay appeared on the screen to highlight key navigation elements. The overlay caused a frustrating user experience for those using assistive technologies and has been removed to improve overall accessibility.

# Openness and Standards

## Learning Tools Interoperability (LTI)

- **LTI Content Item Messages**

- The Content Item Message specification is now supported, allowing improved integration for tool providers also supporting this standard. When used, instructors and course designers can create links to specific resources without knowing and specifying resource IDs. Instead, they can launch into the tool provider's user experience, select one or more resources to add to their course, and the individual links are created in the correct place in the Blackboard Learn course. Students clicking the links will be taken directly to the specific resource rather than to a generic tool page for the tool provider.

- **LTI 2.0 Tool Registration**

- Tool providers conformant to the LTI 2.0 specification can be registered using the proxy service standard.

- **Improved launch experience**

- LTI links now open in a lightbox within the course, rather than directing users to a new window or tab. This loads tools within the same window from where they are launched, creating a more consistent and contained workflow for students.

- **Improved course copy**

- Institutions often use courses as templates for future instruction. There is now a solution that keeps track of your placement so your content is not lost. The source course ID and content ID is tracked during course copy (and possibly archive/export) and the parameters are passed along with the launch in the respective history parameters. The tool provider is still required to handle these parameters and reconcile the link.

## Caliper Support for Self-hosted Environments

Caliper events can be emitted to a third-party Caliper-compliant record store for self-hosted environments located in the United States. This capability was previously released for SaaS and Managed Hosting deployment models. Support for additional regions globally is planned. Caliper is a standard from IMS Global for exchanging activity data for analytics purposes.

## REST Services

Additional REST services are available with this release. For details, go to <http://developer.blackboard.com/>

- Oauth: Request an OAuth 2 authorization code or access token. Three-legged OAuth supported.
- Content File Attachments: Download the contents of a Content Item or its attachments.
- Course Copy: Provides course copy endpoint
- Get Task: Request course copy task status
- LTI Placements: Create, Read, Update, Delete (CRUD) on LTI placements
- Gradebook: Version two of Gradebook APIs supporting changes required for notation and Schema
- Gradebook Column: Version two of Gradebook Column APIs supporting changes required for notation and Schema
- Course Grade Notations: CRUDS on grade notations (incomplete etc.)

## SCORM Engine Update

The integrated SCORM player has been updated from version 2013.1 to version 2017.1 that improves playback of responsive content and better supports SCORM packages in right-to-left languages such as Arabic.

## Storage of Messages

Messages sent with the Messages tool are stored in the database rather than in flat data files, affecting all new courses created after the upgrade. Administrators using an OpenDB solution for direct data access can now more easily monitor the volume and contents of user communications using the Messages tool. Administrators can migrate the messages of previously-created courses through a tool found in the Admin Panel.

## Security and Quality

### Grade display standardization

This change standardizes areas of Blackboard Learn where users access grades. Now, all gradebook columns (online and downloads) and My Grades support up to five decimal points, aren't rounded, and are consistent for all display types (score, percentage, letter grade).

- There is a known display issue for students when viewing My Grades as students may see extra zeros after the decimal place- Article #[47428](#). This will be resolved in a future Cumulative Update.

### SMTP Authentication and Encryption for Email

SMTP authentication is now supported to improve the security of outbound email. Mail server configuration is now handled in the Email configuration page of the Admin panel. Settings take effect upon submission. An entry in the registry is created the first time this configuration page is used.

### Email Tool Recipient Permissions

Administrators can better define the extent to which users in courses can contact one another using the Email tool. Previously, instructors would choose which email recipient options were available in each course; for example, whether students could email each other. Administrators can now restrict the Email tool recipient options that will appear for use in courses.

## Portfolios

Administrators can share a portfolio on behalf of a user, allowing support personnel to assist students having portfolio access issues.

## Enterprise Surveys

- Reports always run as scheduled jobs rather than immediately to address issues with browsers timing out for large data sets.
- Administrators can add custom report designs for Enterprise Surveys that can be run by survey administrators. There is no change for instructors.

## SAML

Continued enhancement of federated authentication through the SAML standard, now with support for SHA-265 and SNI.

## Tomcat

- Updated to version 8.5.13 for additional security.

## Virtual Drive

- When a new user is created recycling a previously-used username, the orphaned content associated with the prior user is deleted for greater security and privacy.

## Bug Fixes

There are over 270 client-reported issues fixed in the release. The top 50 resolved issues list is available for review in Learn 9.1 Q4 2017 Release - Top 50 Bugs Fixed , Article #[47682](#). To see the complete list on Behind the Blackboard, go to Self Service > Known Issues and then under Planned First Fix search by Learn 9.1 Q4 2017 Release. The list can be printed or exported to PDF or Excel.

# Adoption

## Blackboard App Download Module

A new module called Download Blackboard's Student App Today has been added to help students discover and download the Blackboard app. The module includes links to the Apple, Android, and Windows app download locations.

### Accessing the Build:

### Change Management Resources

Self-hosted clients may download the latest build on the [Download Files](#) page. Managed Hosting clients may submit a case on Behind the Blackboard to schedule implementation of this release.

For a more detailed explanation of the changes and new features of this release, please reference the [Release Notes](#) and the [Download Files](#) page.

[Download Files](#)

[Release Notes](#)

[Supported Technologies](#)

[Browser Support](#)

Recent Issues

Article Number	Component	Service Pack(s)	Issue Description	Target Fix Release	Patch Available
<a href="#">000051003</a>	Reporting, Course Tools, Grade Center	Learn 9.1 Q4 2019, Learn 9.1 Q4 2017 (3300.0.0), Learn 9.1 Q2 2018 (3400.0.0), Learn 9.1 Q4 2018 (3500.0.0), Learn 9.1 Q2 2019 (3700.0.0), SaaS	Rubric Alignment data is not showing up in Course Performance Reports.	Future Reference	No
<a href="#">000033907</a>	Course Tools,	Learn 9.1 Q2 2017 (3200.0.0), Learn 9.1 Q4 2017 (3300.0.0), Learn 9.1 Q2 2018 (3400.0.0), Learn 9.1 Q4 2018 (3500.0.0), Learn 9.1 Q2 2019 (3700.0.0), Learn 9.1 Q4 2016 (3100.0.0-rel.107+401e, 9.1 SP14 (9.1.140152.0), Learn	The Students are not in the Course, but appear in the Group	Learn 9.1 Q4 2019 Release	No

	Extensions	April 2014 (9.1.201404.160205), Learn October 2014 (9.1.201410.160373), SaaS, Learn 9.1 Q4 2015 (9.1.201510.1171621), Learn 9.1 Q2 2016 (3000.1.0-rel.52+991d)	Assignments.	<p>SaaS - Fixed (v3700.5.0)	
<a href="#">000050474</a>	Users & Role Management, Outcomes	Learn 9.1 Q4 2017 (3300.0.0), Learn 9.1 Q2 2018 (3400.0.0), Learn 9.1 Q4 2018 (3500.0.0), Learn 9.1 Q2 2019 (3700.0.0), SaaS	Student Artifacts are not collected in Evidence Collections with Institution Roles as criteria if the User's Role has been updated after the submission.	Learn 9.1 Q4 2019 Release <p>SaaS - Fixed (v3700.5.0)	Yes
<a href="#">000050595</a>	Reporting, Content Management	Learn 9.1 Q2 2017 (3200.0.0), Learn 9.1 Q4 2017 (3300.0.0), Learn 9.1 Q2 2018 (3400.0.0), Learn 9.1 Q4 2018 (3500.0.0), Learn 9.1 Q2 2019 (3700.0.0), SaaS	The Administrator Search function to locate Orphaned Content sometimes includes results which are not actually Orphaned.	Learn 9.1 Q4 2019 Release <p>SaaS - Fixed (v3700.10.0)	Yes
<a href="#">000050302</a>	Course Tools, Notifications	Learn 9.1 Q4 2019, Learn 9.1 Q2 2017 (3200.0.0), Learn 9.1 Q4 2017 (3300.0.0), Learn 9.1 Q2 2018 (3400.0.0), Learn 9.1 Q4 2018 (3500.0.0), Learn 9.1 Q2 2019 (3700.0.0), SaaS	Administrators will get Daily Digest emails for Courses if they leave a Preview Student in the Course.	Will Not Fix	No
<a href="#">000048131</a>	Course Tools	Learn 9.1 Q4 2019, Learn 9.1 Q2 2017 (3200.0.0), Learn 9.1 Q4 2017 (3300.0.0), Learn 9.1 Q2 2018 (3400.0.0), Learn 9.1 Q4 2018 (3500.0.0), Learn 9.1 Q2 2019 (3700.0.0), SaaS	Assignments submitted by Students are not being rendered in the New Box View. Messages being displayed are "This file is being converted. The estimated wait time is 6039 seconds." The issue is occurring also in older Assessments.	Future Reference	No
<a href="#">000042174</a>	Course Tools	Learn 9.1 Q2 2017 (3200.0.0), Learn 9.1 Q4 2017 (3300.0.0), Learn 9.1 Q2 2018 (3400.0.0), Learn 9.1 Q4 2018 (3500.0.0), Learn 9.1 Q2 2019 (3700.0.0), Learn 9.1 Q4 2016 (3100.0.0-rel.107+401e, Learn October 2014 (9.1.201410.160373), SaaS, Learn 9.1 Q4 2015 (9.1.201510.1171621), Learn 9.1 Q2 2016 (3000.1.0-rel.52+991d)	When an Instructor attempts to edit a Calculated Formula question, the VTBE does not display the formula and the answer box is blank.	Learn 9.1 Q4 2019 Release <p>SaaS - Fixed (v3700.10.0)	No
<a href="#">000050364</a>	Grade Center	Learn 9.1 Q2 2017 (3200.0.0), Learn 9.1 Q4 2017 (3300.0.0), Learn 9.1 Q2 2018 (3400.0.0), Learn 9.1 Q4 2018 (3500.0.0), Learn 9.1 Q2 2019 (3700.0.0), SaaS	Users are unable to delete a zero Grade if the Grade Center Primary Display is Complete/Incomplete. The pop up error that normally occurs also does not display.	Learn 9.1 Q4 2019 Release <p>SaaS - Fixed (v3700.10.0)	No
<a href="#">000034377</a>	Data Management & Integrations	Learn 9.1 Q2 2017 (3200.0.0), Learn 9.1 Q4 2017 (3300.0.0), Learn 9.1 Q2 2018 (3400.0.0), Learn 9.1 Q4 2018 (3500.0.0), Learn 9.1 Q2 2019 (3700.0.0), Learn 9.1 Q4 2016 (3100.0.0-rel.107+401e, 9.1 SP14 (9.1.140152.0), Learn April 2014 (9.1.201404.160205), Learn October 2014 (9.1.201410.160373), SaaS, Learn 9.1 Q4 2015	Import a package from an 9.1 SP8 environment into an 9.1 SP12 test environment. Upon import, observe errors in the bb-services-log (not the detailed import log) related to the import. The errors (displayed below) appear to be related to the registration/unregistration of CMS_RESOURCE_LINK records, which link a file in the content system to a Course and content	Learn 9.1 Q4 2019 Release <p>SaaS - Fixed (v3700.10.0)	No

		(9.1.201510.1171621), Learn 9.1 Q2 2016 (3000.1.0-rel.52+991d)	item for purposes of link tracking and granting Student access to the file.		
<a href="#">000035540</a>	Course Tools	Learn 9.1 Q2 2017 (3200.0.0), Learn 9.1 Q4 2017 (3300.0.0), Learn 9.1 Q2 2018 (3400.0.0), Learn 9.1 Q4 2018 (3500.0.0), Learn 9.1 Q2 2019 (3700.0.0), Learn 9.1 Q4 2016 (3100.0.0-rel.107+401e, 9.1 SP14 (9.1.140152.0), Learn April 2014 (9.1.201404.160205), Learn October 2014 (9.1.201410.160373), SaaS, Learn 9.1 Q4 2015 (9.1.201510.1171621), Learn 9.1 Q2 2016 (3000.1.0-rel.52+991d)	The right side navigation tools for the date selection calendar are not positioned correctly.	Learn 9.1 Q4 2019 Release <p>SaaS - Fixed (v3700.9.0)	No

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