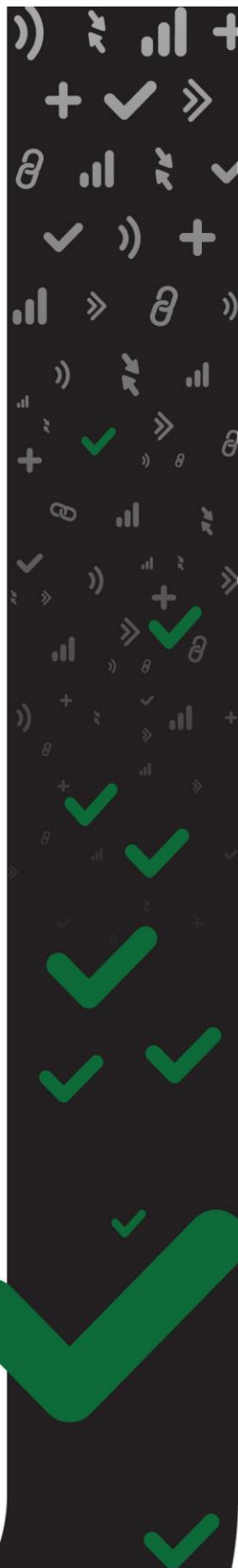**Blackboard** analytics.™

Analytics for Learn

Release Notes

Version 4.3.1

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About the Release Notes

The Release Notes provide System Administrators with information about the changes from the previous version to this most recent version of Analytics for Learn (4.3.1).

The current release focuses on bug fixes.

The list below provides some highlights of changes that we believe will affect most usage scenarios. Always review the entire document and consider how the information listed below affects your specific usage patterns.

- New B2 version to support new Learn SaaS course status functionality
- The Named Queries for various dimensions and measure groups have been replaced with or modified to reference new views in the relational DB to make upgrades simpler
- Altered some data types to handle common size exceptions

Prerequisites

The following prerequisites must be in place prior to applying this upgrade.
- Analytics for Learn Version 4.3.0 – the upgrade will require version 4.3.0 of the A4L module to be installed and operational.

- Learn must have Service Pack 13 or higher installed
- New B2 version (4.1.0) must be installed in coordination with the 4.3.1 A4L upgrade

New Features and Enhancements

[AFLN-667] - Extend Activity Accumulator Extract

[AFLN-670] - Add version check between .NET Controller and B2

[AFLN-675] - Additional course status functionality for Learn SaaS customers

[AFLN-683] - Sync Analysis Services data source view with changes from A4L 4.3.0

[AFLN-689] - Correct duplicate errors in forum submissions

Fixed Bugs

[AFLN-664] - "Course At A Glance" Reports did not apply "Compare To" logic correctly

[AFLN-665] - Login Exception Report sometimes returned incorrect results when using certain parameter combinations

[AFLN-666] - Duplicate insertion errors sometimes occurred when processing HelperSourceActivityAccumulator

[AFLN-668] - Fixed join logic in ForumSubmissions to correctly handle the existence or non-existence of data in CONFERENCE_OWNER

[AFLN-669] - Submission Exceptions Report sometimes counted submissions multiple times

[AFLN-672] - HelperFactGradeCenterFinal is setting the description of GradeCenterUsedDescription backwards

[AFLN-673] - Fixed business logic to populate SISStudentAdvisor for Banner implementations

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[AFLN-674] - Invalid inner join in HelperFactGradeCenterStage causes non-SIS courses to be excluded

[AFLN-677] - Invalid plan selection criteria for Banner in HelperSISStudentAttributeByDateExtract

[AFLN-678] - File names of Integrated Reports must be in English – reverted previous changes that allowed Integrated Reports to have file names in other languages

[AFLN-679] - Scroll bars affecting the usability of Integrated Reports in Learn

[AFLN-680] - Activity data did not report minute values for most fact records

[AFLN-681] - SetCourseItemTypes row is not present in HEA.AdminFunction which causes the Course Attribute maintenance item to not appear in HEAdmin

[AFLN-684] - EventLoadCycleKey not populated for Build Clauses Completed events

[AFLN-686] - Logical error in HelperSourceActivityAccumulator for Earliest Activity Date Loaded causes it to go beyond the Historical Activity Cutoff Date which causes historical activity extracts to not load

[AFLN-690] - Student advisor role description is not populated for banner implementations

[AFLN-693] - Truncate Learn Source tables just before data is loaded to minimize the downtime of source table data

[AFLN-695] - Add attribute DisplayId to Dim User, Student, and Instructor

[AFLN-696] - Performance improvements for FactCourseItemActivity

[AFLN-698] - Performance improvements for HelperFactCourseActivityFinal and HelperFactCourseItemActivityFinal

[AFLN-701] - Enable Security Protocols for A4LWebService

[AFLN-702] - Fix duplicate insert error when attempting to insert to HelperActivityBySession

[AFLN-703] - Fix unhandled IOException in Extract.WaitForExtract causing the A4LWebService to fail

[AFLN-705] - Exclude activity with invalid SESSION_ID from processing in HelperArchiveACTIVITYACCUMULATOR to improve load performance

[AFLN-707] – Performance improvements for HEA.RSParameters and HEA.RSSISIntegrationHealth

Known Issues

[AFLN-708] – Missing rows in Source.SISCourseGrade for Datatel data where grades are not present

**There is currently a hotfix available for AFLN-708 for affected customers.

Supported Technologies

The following table describes the server and system prerequisites and optional components to be installed and configured prior to beginning the Blackboard Analytics installation process.

Server and Software Prerequisites

TECHNOLOGY	*SUPPORTED CONFIGURATION*
Supported Operating Systems	Microsoft Windows 2008 32-bit[*] Microsoft Windows 2008 64-bit[*] Microsoft Windows 2008 R2 32-bit[*] Microsoft Windows 2008 R2 64-bit[*] Microsoft Windows 2012 64-bit[*] ** with latest service pack*
Supported SQL Server Version	Microsoft SQL Server 2008 R2 Enterprise Edition (32 or 64-bit)[*+] Microsoft SQL Server 2012 BI Edition (32 or 64-bit)[*] Microsoft SQL Server 2012 Enterprise Edition (32 or 64-bit)[*] [*] with latest service pack applied to all installed SQL Server components [+] Standard Edition is not supported
Additional SQL Server Components and Install Options	Analysis Services[*] Integration Services Reporting Services (optional) SQL Server Management Studio Business Intelligence Development Studio SQL Server Default Collation: SQL_Latin1_General_CP1_CI_AS Server Authentication: SQL Server and Windows Authentication mode * In SQL Server 2012, Analysis Services must run in Multidimensional mode
Application Server Requirements	IIS 7.x or later IIS Options: ASP.NET, Basic Authentication, Windows Authentication .NET Framework 4.0
For Institutions with Oracle-based ERP Source databases	Oracle Provider for OLE DB 32-bit[*+] Oracle Provider for OLE DB 64-bit[*+] Connectivity back to the Oracle database with an account having SELECT-only access * Provider addressing architecture (32 or 64-bit) must match that of SQL Server + Provider can be downloaded from Oracle as part of Oracle Data Access Components Pack (ODAC)
Optional Reporting Tools for Included Sample Reports to be installed on Application Server	Microsoft SharePoint 2010 Enterprise Server[*] BbAnalytics will install ProClarity Analytics Server 6.3 SP3^{+} Pyramid Analytics bioXL & bioPoint [*] Standard Edition is not supported [+] Requires IIS Options: ASP, Server-side Includes

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Configuration Notes:

✓ **Operating System and Memory**

    o   When choosing between the Standard and Enterprise Edition and the 32-bit or 64-bit version of the Windows operating system, be sure to understand the maximum amount of memory available under each configuration. The 64-bit version of the operating system is highly recommended, as is the 64-bit version of SQL Server.

✓ **Server Virtualization**

    o   While it is possible to run Blackboard Analytics modules in a virtual server environment, special consideration must be taken to effectively allocate server resources within the virtual environment to minimize contention with other servers in the shared environment.

    o   Many institutions host the reporting server in a virtual environment, with a virtual machine configuration typical of any web or application server.

    o   Institutions larger than 10,000+ FTE intending to virtualize the database server should plan on isolating server resources as described below for optimal performance:

        ▪   <u>CPU</u> – The ETL process is resource intensive and optimized to load as much data as possible in as little time as possible. All available CPU resources will be used to load as much in parallel as possible, so dedicating *physical* cores to the database server virtual machine is recommended. It is not uncommon for all available CPUs to run above 90-95% utilization during Analysis Services cube reprocessing, so adding the overhead of managing *virtual* cores will result in performance degradation.

        ▪   <u>Disk</u> – During the ETL process, large amounts of data will be written, read and re-written to disk throughout the various ETL stages (e.g. source copy schema to staging schema to final reporting schema), so dedicated disk groups within the virtual environment are recommended to minimize disk contention with other virtual machines sharing the same disk subsystem. Please see the *BbAnalytics Disk Configuration Considerations* guide for more information on this topic.