

Blackboard Analytics Core Release Notes

Version 4.2

Blackboard Inc.

1111 19th Street NW
9th Floor
Washington, DC 20036

+1 800 424 9299 toll free US & Canada
+1 202 463 4860 telephone
+1 202 463 4863 facsimile

www.blackboard.com/analytics

© 2003-2017 BLACKBOARD INC. ALL RIGHTS RESERVED. BLACKBOARD AND BLACKBOARD ANALYTICS ARE TRADEMARKS OF BLACKBOARD INC. ALL OTHER COMPANY AND PRODUCT NAMES ARE THE TRADEMARKS OF THEIR RESPECTIVE OWNERS.

No part of the contents of this manual may be reproduced or transmitted in any form or by any means without the written permission of the publisher, Blackboard Inc.

About the Release Notes	3
Prerequisites	3
New Features and Enhancements	4
Fixed Bugs	4
Known Issues	5
Supported Technologies	5
Server and Software Prerequisites	5
Configuration Notes	7
Operating System and Memory.....	7
Server Virtualization	7

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 HEA Core. These release notes cover version 4.2.

The current release focuses on bug fixes and introduces the new Report Usage feature. This release is recommended for all customers.

Detailed information about Report Usage reports can be found in separate Report Usage SSRS Reports.docx file.

Prerequisites

The following prerequisites must be in place prior to applying this upgrade.

- HEA Core Version 4.1 – the upgrade will require version 4.1 of the HEA Core module to be installed and operational.

New Features and Enhancements

- [COMN-27] Partitioned Deletes and Truncates on Final Fact Tables
- [COMN-106] Usage Reporting for Analytics Modules
- [AFLN-1190] Report Usages Extension

Fixed Bugs

- [COMM-44] DimCourse.CourseAvailableIndicator Transformation Logic Doesn't Correspond to Learn Improve logging of the web service polling phase
- [HEA-22] HEAdmin Set Reporting Period for PSSA Needs Ability to Set Current Aid Year
- [COMM-48] Add Additional Error Handling to HEA.LogLinkedServers
- [COMM-51] Incorrect Version Timing
- [COMN-18] HEA.ValidateParentChild – Could Not Find Product Usage
- [COMN-30] HEA.BuildClauses – Concatentation Typo
- [COMN-34] HEA.ValidateMissing – Generating Invalid SQL Statement
- [COMN-53] HEA.SetDimensionAttributeActive – Lineage
- [COMN-86] HEA. GetAvailableLoads – Remove Condition 'Source Table Extract Error'
- [COMN-68] HEA.BuildClauses – Failed Insert statement
- [COMN-71] HEA.GetUniqueDescription – Need to Support Unicode Data
- [COMN-81] HEAdmin – Improper Reporting in GetVersionLog
- [COMN-65] Revisit Remove/Restore Indexes
- [COMN-83] HEA.ValidateFactDimMismatch – Performance Issue
- [COMN-85] HEA.ValidateMissing – Performance Issue
- [COMN-50] Use Term UniqueDescription for Version Related HEAdmin Content
- [COMN-90] HEAdmin Load Status Report – Misleading Source Extract Duration
- [COMN-91] HEAdmin Application Timeout Improperly Handled
- [COMN-93] DQF: datetime2 Columns Improperly Formatted in Generated SQL Statement
- [COMN-94] HEA.GetLoadStatusReport – Remove Condition on 'Source Table Extract Error'
- [COMN-96] HEA.RemoveIndexes – Support Special Characters for Indexes
- [COMN-110] HEA.BuildClauses – Extract Dates from Oracle DB as Strings
- [COMN-100] HEA.LogLinkedServers – Multiple Linked Server Checks
- [COMN-97] Create Hotfix for EntityCopy
- [COMN-104] Add Support for Multiple Source Extract Attempts
- [COMN-111] HEA.GetLoadStatusReport – Change Logic for Report Header Section Definition
- [COMN-128] Support for Openquery Source Extract for MSSQL DB

Known Issues

- No issues known

Supported Technologies

The following table describes the server and system prerequisites and optional components to be installed and configured prior to beginning the Blackboard Intelligence 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)* Microsoft SQL Server 2014 BI Edition (32 or 64-bit)* Microsoft SQL Server 2014 Enterprise Edition (32 or 64-bit)* Microsoft SQL Server 2016 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

	<p>SQL Server Default Collation: SQL_Latin1_General_CP1_CI_AS</p> <p>Server Authentication: SQL Server and Windows Authentication mode</p> <p>* In SQL Server 2012, Analysis Services must run in Multidimensional mode</p>
Application Server Requirements	<p>IIS 7.x or later</p> <p>IIS Options: ASP.NET, Basic Authentication, Windows Authentication</p> <p>.NET Framework 4.0</p>
For Institutions with Oracle-based ERP Source databases	<p>Oracle Provider for OLE DB 32-bit⁺</p> <p>Oracle Provider for OLE DB 64-bit⁺</p> <p>Connectivity back to the Oracle database with an account having SELECT-only access</p> <p>* Provider addressing architecture (32 or 64-bit) must match that of SQL Server</p> <p>+ Provider can be downloaded from Oracle as part of Oracle Data Access Components Pack (ODAC)</p>
Optional Reporting Tools for Included Sample Reports to be installed on Application Server	<p>Microsoft SharePoint 2010 Enterprise Server[*]</p> <p>Pyramid Analytics bioXL & bioPoint</p> <p>* Standard Edition is not supported</p> <p>⁺ Requires IIS Options: ASP, Server-side Includes</p>

Configuration Notes

Operating System and Memory

- ✓ 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

- ✓ While it is possible to run Blackboard Intelligence 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.
- ✓ Many institutions host the reporting server in a virtual environment, with a virtual machine configuration typical of any web or application server.
- ✓ Institutions larger than 10,000+ FTE intending to virtualize the database server should plan on isolating server resources as described below for optimal performance:
 - CPU – 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.
 - Disk – 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.