

Blackboard Analytics Core Configuration Guide

Version 4.2

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HEA.GLOBAL

In HEA 4.2, new HEA.GLOBAL variables have been added. Some of the variables are common (not related to any installed module) while others are specific to A4L only.

1. Common

- a. SQL Database Filter Mode – This variable allows data from various databases to be merged together to the final dataset. By default, only data from current database are considered, but it is possible to overwrite this setting to All and not restrict the data source at all.
- b. Analysis Database Name – Correct Analysis database name is required for proper gathering of data about Pyramid reports. By default, it is set to same name as the SQL database.
- c. ETL Process Timeout – Controls the timeout of the ETL process. By default, is set to 480 minutes.
- d. LinkedServer Extract Attempts – Sets number of attempts of LinkedServer extract.
- e. LinkedServer Extract Delay – Relates to LinkedServer Extract Attempts and sets delay between each attempt.

2. A4L Extension

- a. Course Key Parameter – A4L Extension for Report Usage works with Course data passed in parameters by other reports. To properly identify the Course parameter, it is required to set up the Course parameter name here. As the Course parameter name varies from report to report all its variants should be added as a separate record here. All baseline Course names have already been added therefore new records will be probably required in case of custom reports.
- b. Course Source Key Parameter – Same as Course Key Parameter but this is for Course Source Key which is used in Integrated reports.
- c. Learn Integrated Reports Folder – Report Usage reports contains logic to filter out Learn Integrated Reports from calculations. To make this work correctly it is required to set up the Learn Integrated Reports folder name here in this variable. The default report name is already set up so the change is required in case of custom deployment target only.

HEA.TargetTable

The Report Usages introduce couple of additional source tables that are required for proper configuration to extract specific data of Pyramid and SSRS report executions. There are few use cases how your environment may be setup and following text describe configuration of the tables for each setup.

To identify table report usages table there is defined naming convection that uses “RU_” as table prefix following by reporting system code which is:

- **Pyramid:** Pyramid Analytics reporting system. Below is list of TargetTable names with related source table that this tables has to be configured for (in format SCHEMA.TABLE)
 - **RU_PyramidBooks:** content_tbl.Books
 - **RU_PyramidFolders:** content_tbl.Folders
 - **RU_PyramidPanelContainers:** content_tbl.PanelContainers
 - **RU_PyramidTransactionLog:** user_tbl.TransactionLog
 - **RU_PyramidUser:** user_tbl.User
- **RS:** Microsoft SQL Server Reporting Services (SSRS):
 - **RU_RSCatalog:** dbo.Catalog
 - **RU_RSDataSource:** dbo.DataSource
 - **RU_RSExecutionLogStorage:** dbo.ExecutionLogStorage

Pyramid and SSRS databases are located at same MSSQL instance as module database

In the case report source data for Report Usage reports are stored in the same database instance as the Analytics module it is required to follow bellow settings:

- **DoConvert:** 0
- **IsLinkedServer:** 0
- **LinkedServer:** name of the SSRS report server database or Pyramid database (by default ReportServer/Pyramid)
- **SourcePrefix:** schema name of source tables in SSRS report server database or Pyramid database (by default dbo for SSRS and content_tbl/user_tbl for Pyramid)

Below is the example for the dbo.ExecutionLogStorage source table located at the database named ReportServer:

- **LinkedServer:** ReportServer
- **SourcePrefix:** dbo.ExecutionLogStorage

Pyramid and SSRS databases are located at different MSSQL instance

This may be the case when you are using different machine to separate application databases from the data warehouse.

In the case you must have linked server configured from you DWA instance to your application server instance. For correct data extraction from you linked server it is recommended to configure the linked server is as SQL Server type. If you are using **Other data source** as the linked server type, please use the **SQL Server** as the Product name, otherwise the extraction of the report usages tables may not work properly.

To configure report usages, extract please use following setup:

- **DoConvert:** 1
- **IsLinkedServer:** 1
- **LinkedServer:** linked server name of the SSRS report server or Pyramid server
- **SourcePrefix:** database and schema name of SSRS report server or Pyramid database separated by a dot, for example "Pyramid.user_tbl"

Below is the example for the same table as in the example above, but located at linked server named APPLICATION_SERVER:

- **LinkedServer:** APPLICATION_SERVER
- **SourcePrefix:** ReportServer.dbo.ExecutionLogStorage

HEA.Fact

New column PartitionedDelete has been added which controls behavior of deletion of the records from Final fact tables. If Partitioned Delete is turned on (value 1) for particular table it changes how are the Final data deleted. In the case all data should be deleted it uses truncate instead of deleting and otherwise it deletes records using batches in size of 1 000 000 of Delete Control Keys at once.

This functionality can improve the performance under certain circumstances, but the result will vary depending on data, hardware configuration and other factors and therefore is highly recommended to test this feature first in your environment and find for which tables if any it is this beneficial before using in production.