CTX-Logging
Deployment Plan

Contents

Versions

Document Revisions

The following revisions have been made to this document

Date	Revision	Notes
04/12/2018	1.0	First release
11/03/2019	2.0	Updated to deploy the Partitioned Solution.

Module Versions

This version of the CTX-Logging deployment plan is relevant up to version 2.0 of the CTX-Logging module.

Preface

About this Manual

This document provides a guide on how to deploy the CTX-Logging module in your Cortex system.

Audience

This document is intended for those who require the use of CTX-Logging module.

Related Material

Document
CTX-Logging – User Guide
CTX-Logging.studiopkg
Cortex-Logging-Install.sql

Abbreviations used in this Document

SQL Structured Query Language

DB Database

1 Requirements

This document details all the steps required to deploy the CTX-Logging module.

Requirements:

- SQL Server Management Studio Access to the Cortex Database Server
- Minimum Cortex v6.4 installed on the Cortex Application Server
- Minimum SQL Server 2012 (version 11.0.7001.0) installed on the Cortex Database Server

2 Import CTX-Logging

To deploy the CTX-Logging module on your Cortex system, CTX-Logging Studio Package needs to be imported on your Cortex system. To do this:

- Download the CTX-Logging Studio Package
- Import the Studio Package in Cortex Gateway
- Ensure the relevant users have the required permissions in 'Studio Authorisation'

After this, all users in the authorised groups will be able to view and execute the subtasks.

3 Deploy Cortex-Logging Database

3.1 Overview

For the CTX-Logging module to work, the Cortex-Logging database along with the schema must exist on the server where the Cortex databases exist. The following steps instruct you how to deploy the database and schema.

3.2 Create Database

1 Open Remote Desktop Connection to the Cortex database server or SQL Server Management Studio Remote Access

2 Copy the 'Cortex-Logging-Install.sql' script to the Cortex database server

3 Open 'Cortex-Logging-Install.sql' in SQL Server Management Server (SSMS) and connect to the DB engine where the query should be executed (this is where Cortex DBs are hosted).

4 Replace the SQL command variables as required:

```
:setvar CortexDBUser "SOTONLAB\CTX_CerberusDB"
:setvar DatabaseFilePath "C:\Cortex Databases\"
:setvar DatabaseLogPath "C:\Cortex Databases\"
:setvar InstanceName "v-ctxappdb33"
:setvar numPartitions "81"
:setvar retentionLengthHours "672"
:setvar SQLAdministrator "SOTONLAB\ctx_sql_admin"
:setvar DatabaseName "Cortex-Logging"
```

Variable	Description
CortexDBUser	The Cortex Database Interface username on your Cortex system. Example: AD\CTX_CerberusDB
DatabaseFilePath	The directory to install the database Datefile too. Inside this directory there must be the folders <Database-Name>\Datafile, e.g. `C:\Cortex Databases\Cortex-Logging\Datafile`
DatabaseLogPath	The directory to install the database Logfile too. Inside this directory there must be the folders <Database-Name>\Logfile, e.g. `C:\Cortex Databases\Cortex-Logging\Logfile`
InstanceName	The name of the SQL Server or SQL Server Instance. If there are no named instances then this should just be the server name

numPartitions	The number of partitioned tables to create. This combined with Retention Length sets the data retention – is it suggested to have at least 3 more partitions than required.
retentionLengthHours	For partitions which change daily, this will be 24. Weekly = 168 Monthly (4 weeks) = 672
SQLAdministrator	The SQL Administrator, e.g. AD\CTX_SQL_Admin
DatabaseName	The User Access Management database name. It is advised to leave the default value 'Cortex-Logging'. Changing this value require updating the module flows/subtasks default values.

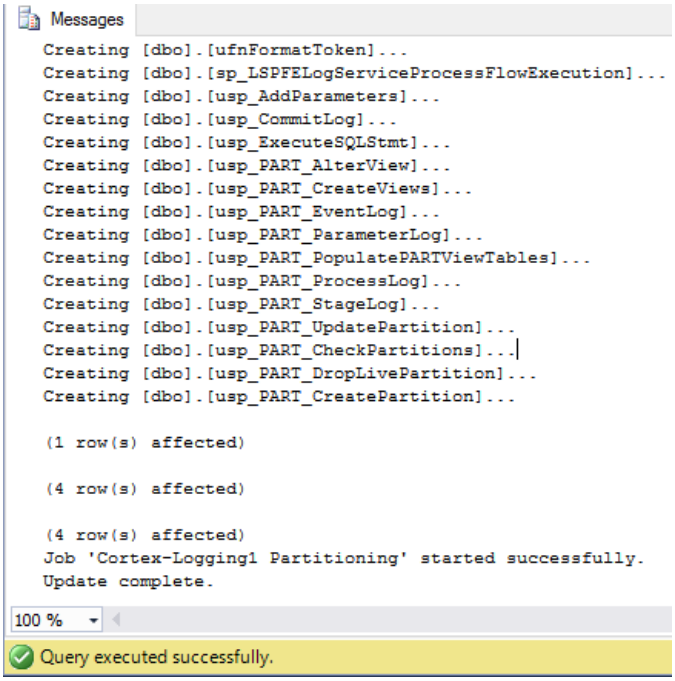
Retention / Partition Examples:

Partitions	Description
Weekly Rolling Partitions	To get partitions which last a week each, the retentionLengthHours should be set to 168. Based on this, the Number of Partitions should also be set – so for data retention of a year this would need to be 52. Ideally there should be 3 extra partitions than the required number.
Monthly Rolling Partitions	To get partitions which last a month (4 weeks) each, the retentionLengthHours should be set to 672. Based on this, the Number of Partitions should also be set – so for data retention of a year this would need to be (52 / 4) = 13. Ideally there should be 3 extra partitions than the required number.

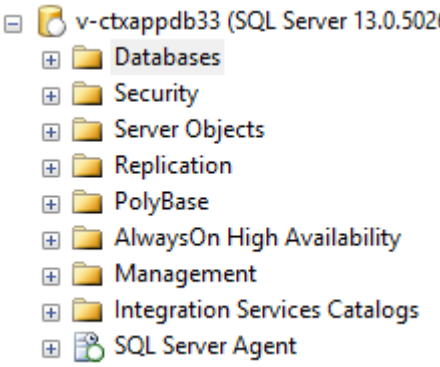
5 Before proceeding, ensure that the SQL Server Agent is running. This can be checked under Services > SQL Server Agent (MSSQLSERVER) for a Default SQL Server Instance or SQL Server Agent (<Instance Name>) for a Named SQL Server Instance

6 Click on ***Query*** -> ***SQLCMD Mode*** and execute the query

7 On the messages panel, you should see no errors on the messages and the below text

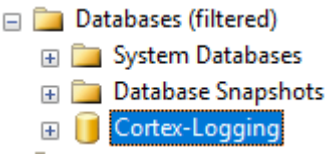


8 In the left-hand panel, click the plus to the left of ‘Databases’ to expand ‘Databases’



9 Right click ‘Databases’ and click ‘Refresh’.

10 Validate the ‘Cortex-Logging’ database has been created.



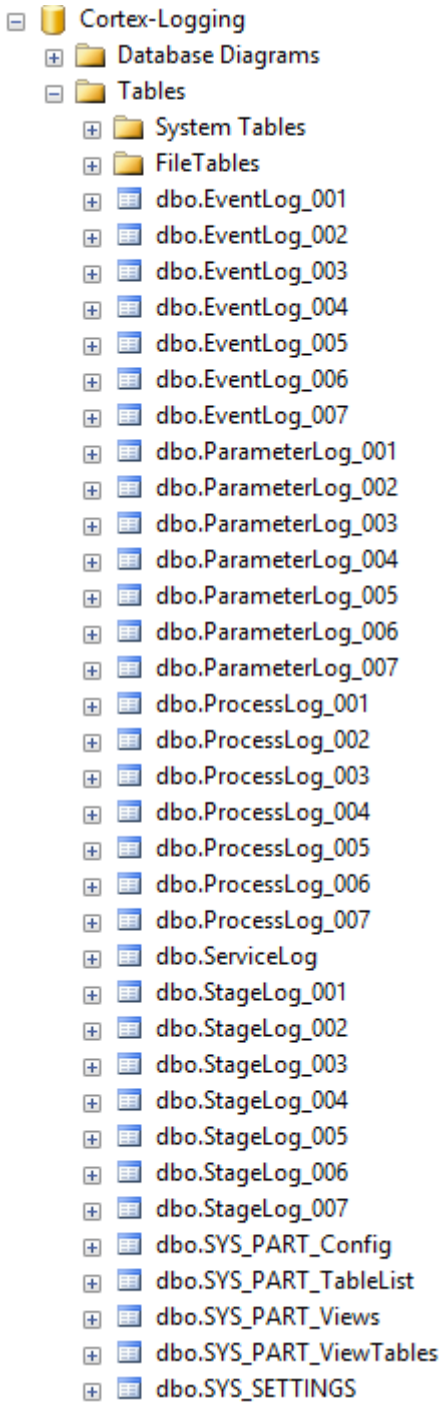
11 Expand ‘Cortex-Logging’ (presuming the default Database Name was selected)

12 Expand ‘Tables’

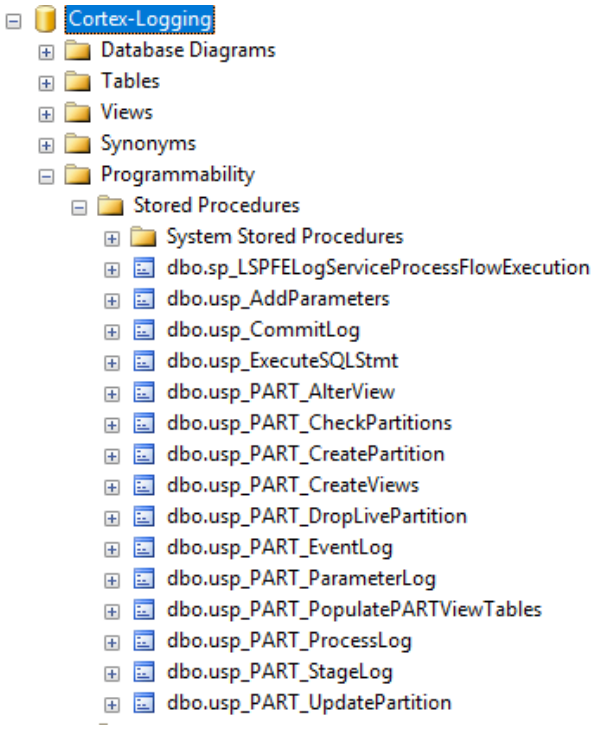
13 Expand ‘Programmability’ > ‘Stored Procedures’

14 Validate the tables and stored procedures shown below are present (the below example is for 7 partitions, meaning 7 instances of every partitioned table)

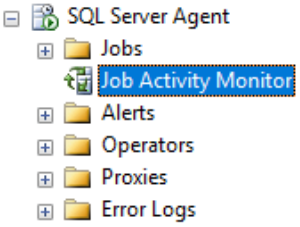
Tables



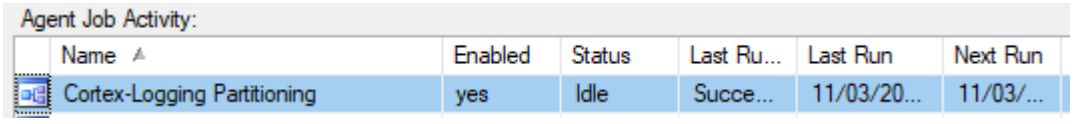
Stored Procedures



15 Expand SQL Server Agent and double click the Job Activity Monitor



16 Check that the Cortex Logging Partitioning Job has run successfully. This should be running as the SQL Adminsitrator.



You can validate this by checking the 'Last Run' date. For more details it is possible to right-click this and select 'View History'.

4 Security

Depending on the SQL Server Security configuration, the Cortex Database Interface User may need to be given permissions to access the DB and to run the Stored Procedures.

This will vary based on the environment, but setting the Database Interface user to be a DB Owner on the Logging Database should provide all the authorization rights required.