**Data Management Environment (DME) Release Notes**

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| **Release 2.28.0: January 30, 2023**  ==============================================================  **Contents**  ==============================================================   1. DME Overview 2. Release History 3. New Features and Updates 4. Important Notes 5. Bug Reports and Support 6. Documentation 7. References   ============================================================== DME Overview ==============================================================  The NCI Data Management Environment (DME) offers open-ended storage and management of scientific research datasets. It eliminates the need to maintain redundant copies of large heterogenous data and provides the ability to annotate, retrieve, and share datasets for further research, analysis, and collaboration.  The NCI Data Vault serves as the archive store for these datasets. It provides scalable, virtualized, high-reliability storage that is transparent to the end user. Data are stored as objects, which are organized into collections (folders), and a collection might have one or more subcollections within it. A collection can be identified by a custom collection type such as Project, Study, Sample, and so on, the default being collection type Folder.  DME provides an entry point to archive data to the NCI Data Vault, and to manage, transfer, access, and share data across disparate systems securely and efficiently. DME allows you to associate user-defined metadata to registered data at different points in the data life cycle. In addition, DME offers search capabilities to identify this data. A Division/Office/Center (DOC) can define its own metadata structure and data hierarchy rules, and grant permission to users as needed.  If you have an NIH account, the NCI Data Vault team can give you access to DME. For access requests or any other questions, contact [NCIDataVault@mail.nih.gov](mailto:NCIDataVault@mail.nih.gov).  ============================================================== Release History ==============================================================  v1.0.0 - December 28, 2016  v1.1.0 - May 15, 2017  v1.2.0 - June 23, 2017  v1.3.0 - September 15, 2017  v1.4.0 - November 6, 2017  v1.5.0 - December 11, 2017  v1.6.0 - February 7, 2018  v1.7.0 – March 29, 2018  v1.7.1 – May 21, 2018  v1.7.2 - June 12, 2018  v1.7.3 - July 24, 2018  v1.8.0 - September 28, 2018  v1.9.0 – November 20, 2018  v1.10.0 – December 18, 2018  v1.11.0 – March 1, 2019  v1.12.0 – April 1, 2019  v1.13.0 – May 3, 2019  v1.14.0 – June 4, 2019  v1.15.0 – July 9, 2019  v1.16.0 – August 21, 2019  v1.17.0 – September 13, 2019  v1.18.0 – October 11, 2019  v1.19.0 – November 8, 2019  v1.20.0 – December 2, 2019  v1.21.0 – January 9, 2020  v1.22.0 – February 6, 2020  v1.23.0 – March 9, 2020  v1.24.0 – April 1, 2020  v1.25.0 – May 8, 2020  v1.26.0 – June 4, 2020  v1.27.0 – July 8, 2020  v2.0.0 – August 27, 2020  v2.1.0 – September 24, 2020  v2.2.0 – October 16, 2020  v2.3.0 – December 29, 2020  v2.4.0 – January 26, 2021  v2.5.0 - February 25, 2021  v2.6.0 - March 31, 2021  v2.7.0 - April 30, 2021  v2.8.0 - May 28, 2021  v2.9.0 - June 30, 2021  v2.10.0 - July 28, 2021  v2.11.0 - August 27, 2021  v2.12.0 - September 21, 2021  v2.13.0 - October 29, 2021  v2.14.0 - November 29, 2021  v2.15.0 - December 20, 2021  v2.16.0 - January 31, 2022  v2.17.0 - February 25, 2022  v2.18.0 - March 23, 2022  v2.19.0 - April 14, 2022  v2.20.0 - May 17, 2022  v2.21.0 - June 15, 2022  v2.22.0 - July 28, 2022  v2.23.0 - August 30, 2022  v2.24.0 - September 29, 2022  v2.25.0 - October 27, 2022  v2.26.0 - November 17, 2022  v2.27.0 - December 19, 2022  v2.28.0 - January 30, 2023  ============================================================== New Features and Updates ==============================================================  The following features, enhancements, and bug fixes have been incorporated in this Release:  **Functional/GUI Enhancements:**  HPCDATAMGM-1711: Enhanced the DME data migration task that migrates files from one S3 object store to another to migrate soft-deleted files that were deleted by the user but able to be restored in the future. Previously these files were ignored by the data migration task and hence not migrated.  HPCDATAMGM-1712: Enhanced the *dm\_register\_directory* CLU command to perform for a single part presigned URL upload transaction, the additional steps required to change the status of the transaction from URL\_GENERATED to ARCHIVED. This eliminates delays from the scheduled task set up for performing this completion.  HPCDATAMGM-1717: Enhanced the *dm\_register\_directory* CLU command to enable multiple instances of this command to be run concurrently. Previously, only a single instance of the command could be executed from one client installation.  **Improvements and Bug Fixes:**  HPCDATAMGM-1690: Fixed the issue of DME not showing *Restore In Progress* status in the DME web application when data is being restored to an AWS S3 bucket during the first part of the 2-part download from Glacier Deep Archive.  HPCDATAMGM-1713: Fixed the issue non-grid reports in the DME web application cutting through the footer when the data in a report exceeds the footer depth. The reports are now displayed in a sub-panel with a scrollbar.  HPCDATAMGM-1695, 1718: Improved performance of single row (non-grid - DOC, Base Path and Collection Path) reports in the DME web application by making the Archive Summary field optional. Also removed unused fields from multi-row (grid) and single row reports. Reduced total time for retrieving grid reports by 6 times and non-grid reports by half.  **Operational/Performance Improvements:**  HPCDATAMGM-1715: Optimized the Get Data Object REST API to optionally not return the non-metadata attributes of the requested file. This enhances the performance of the API by eliminating the call made to IRODS for retrieving the data.  HPCDATAMGM-1716: Optimized the Complete Multi-Part Upload REST API to eliminate the internal call made to iRODS to determine if the data object exists. This check is now being performed when the current status of the transaction is being validated.  HPCDATAMGM-1679: Enhanced the restart download task process that restarts download tasks after restart of servers in a multi-server environment. Previously, the process assumed that all download tasks are running on one server only and restarted all downloads tasks running on all servers even when only one server was restarted.  ============================================================== Important Notes ==============================================================  The DME API server keystore was updated in Production in Release 2.25.0.  If you are using CLU but have not used the CLU post Release 2.25.0, update your public key at **utils/hpc-client/keystore/keystore-prod.jks**  from GitHub master before running any commands.  ============================================================== Bug Reports and Support ==============================================================  For issues, questions, or suggestions, contact [ncidatavault@nih.gov](mailto:ncidatavault@nih.gov).  ============================================================== Documentation ==============================================================  For instructions on how to use the Web User Interface or Command Line Utilities (CLU), visit <https://wiki.nci.nih.gov/display/DMEdoc/DME+User+Guide>.  For details on the REST API, refer to the API Specification located at  <https://github.com/CBIIT/HPC_DME_APIs/blob/master/doc/guides/HPC_API_Specification.docx>.  ============================================================== Resources ==============================================================  The following URLs access web pages relevant to HPC DME.  DME User Guide  <https://wiki.nci.nih.gov/display/DMEdoc/DME+User+Guide>  DME GitHub Home Page  <https://github.com/CBIIT/HPC_DME_APIs>  DME Agile JIRA Board Home Page:  <https://tracker.nci.nih.gov/secure/RapidBoard.jspa?rapidView=244>  iRODS Open Source Data Management Software home page:  <https://irods.org/> |
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| Globus:  <https://www.globus.org> |