**DME 1.21.0 Release Notes**

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| Version: 1.21.0  Date: Jan 9, 2020  ==============================================================  **Contents**  ==============================================================  1.0 DME Introduction  2.0 Release History  3.0 New Features and Updates  4.0 Bug Reports and Support  5.0 Documentation  6.0 References  ==============================================================  **1.0 DME Introduction**  ==============================================================  The NCI Data Management Environment (DME) offers open-ended storage and management of large 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 collections within it. A collection can be identified by a custom collection type such as Project, Study, Sample, and so on, the default being 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).  ==============================================================  **2.0 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, 2019  ==============================================================  **3.0 New Features and Updates**  ==============================================================  The following features, enhancements, and bug fixes have been incorporated in this release:  **Enhancements:**  HPCDATAMGM-1163: Added new REST API to retrieve ‘Catalog’ metadata from Projects with access set to ‘Controlled’ or ‘Open’. The API will return the catalog metadata from all such Projects in the specified DOC or Archive. For details, refer to section 5.66 of the [DME API Specification](https://github.com/CBIIT/HPC_DME_APIs/blob/master/doc/guides/HPC_API_Specification.docx).  HPCDATAMGM-1002: Optimized the download workflow to check for empty collection prior to the start of the download task. This allows to user to be notified upfront instead of after the task begins.  HPCDATAMGM-1193: Added support to enable enrollment of Non-NCI users and users with multiple Active Directory entries to DME.  **Misc. Updates/Bug Fixes:**  HPCDATAMGM-1195: Update Reports to display data in SI Units (KB, GB, TB) instead of Binary Units (KiB, GiB, TiB).  HPCDAMAMGM-1205: Allow file deletions by Group Admin for up to 90 days (instead of the present 60) from the date of file upload.  HPCDATAMGM-1202: Use public key instead of public-private key pair on the CLI client for SSL handshaking.  HPCDAMGM-1200: Added locking during metadata generation to prevent potential race-conditions with multiple threads uploading files to the same parent collection.  HPCDATAMGM-1186: Fixed issue with the destination type for downloads not being captured in the HPC\_Download\_Task\_Result table, the column assigned for the same is empty. HPCDATAMGM-1201: Fixed issue of error on Search page after navigating to *Download Selected Files* and back, then clicking *Edit Search Criteria*. **Operational/Performance Improvements:**  HPCDATAMGM-1167: Improved error handling of out-of-memory error on the Server during file downloads. If the memory on the API server is insufficient to host the file during the first hop, the transaction is no longer failed. Instead, the info is logged and the request is retried in the next run.  HPCDATAMGM-1168, 1203: Abandon collection download if there is no access to the endpoint i.e. if one file in the collection fails to download because of source or destination endpoint access or permission issue. This eliminates unnecessary overhead in the request queue and prevents other users from being blocked.  HPCDATAMGM-1187**:** Audit the file registration transaction i.e. record the data transfer date, time for transfer, file size and source endpoint in the iRODS database. A new materialized view *r\_report\_registered\_by\_audit* has been added for the same.  HPCDATAMGM-1184: Audit file size for asynchronous download. A new column SIZE has been added to the *HPC\_Download\_Task\_Results* table in the iRODS database to record the same.  HPCDATAMGM-1185: Audit destination information for asynchronous download. A new column DESTINATION\_LOCATION\_FILE\_CONTAINER\_NAME has been added to the *HPC\_Download\_Task\_Results* table in the iRODS database to record the same.  HPCDATAMGM-1188, 1192: Populate destination type and file size for retrospective data from asynchronous downloads.  ==============================================================  **4.0 Bug Reports and Support**  ==============================================================  For issues, questions or suggestions, contact ncidatavault@nih.gov  ==============================================================  **5.0 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>  Training related documentation and presentation is available at:  <https://github.com/CBIIT/HPC_DME_APIs/tree/master/doc/training>  ==============================================================  **6.0 Resources**  ==============================================================  The following URLs access web pages relevant to HPC DME.  DME User Guide  <https://wiki.nci.nih.gov/display/DMEdoc/DME+User+Guide>  HPC DME GitHub Home Page  <https://github.com/CBIIT/HPC_DME_APIs>  NCI HPC 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/>  IBM Cleversafe Object Storage:  <https://www.ibm.com/cloud-computing/products/storage/object-storage/why-cos/> |
| Globus:  <https://www.globus.org> |