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

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| **Release 2.40.0: 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 with 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@nih.gov](mailto:NCIDataVault@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  v2.29.0 - February 27, 2023  v2.30.0 - March 28, 2023  v2.31.0 - April 24, 2023  v2.32.0 - May 22, 2023  v2.33.0 - June 30, 2023  v2.34.0 - July 29, 2023  v2.35.0 - August 30, 2023  v2.36.0 - September 29, 2023  v2.37.0 - October 27, 2023  v2.38.0 - November 17, 2023  v2.39.0 - December 28, 2023  v2.40.0 – January 30, 2024 New Features and Updates The following features, enhancements, and bug fixes were incorporated in this Release:  **New Features/GUI Enhancements:**  HPCDATAMGM-1862: Added a new command line utility *dm\_download\_dataobject\_aspera* to transfer a file or a list of files from DME to Aspera endpoints. This utility provides a higher-level programmatic interface for submitting files from DME to dbGaP. For details, refer to [Using dm\_download\_dataobject\_aspera](https://wiki.nci.nih.gov/x/VousIQ).  HPCDATAMGM-1884: Added a new command line utility *dm\_download\_collection\_aspera* to transfer a collection or list of collections from DME to Aspera endpoints. This utility provides a higher-level programmatic interface for submitting collections from DME to dbGaP. For details, refer to [Using dm\_download\_collection\_aspera](https://wiki.nci.nih.gov/x/W4usIQ).  HPCDATAMGM-1860: Enhanced the *Retry* *Data Object Download Task, Retry Collection Download Task,* and *Retry Download Data Object List/Collection List Download Task* APIs to add support for retrying failed download transactions from DME to Aspera endpoints. This enhancement enables programmatic re-submission of datasets to dbGaP without creating a new transaction. For details, refer to sections 5.45, 5.51, and 5.57 of the [DME API Specification](https://github.com/CBIIT/HPC_DME_APIs/blob/master/doc/guides/HPC_API_Specification.docx).  HPCDATAMGM-1861: Enhanced the DME web application to enable retries of failed download transactions from DME to Aspera endpoints. This feature provides a graphical user interface for re-submitting datasets to dbGaP on the click of a button. For details, refer to [Retrying a Failed or Canceled dbGaP Download](https://wiki.nci.nih.gov/x/TYusIQ).  **Improvements and Bug Fixes:**  HPCDATAMGM-1763: Enhanced the DME Collection Updated notification to provide the name of the user who updated the collection.  HPCDATAMGM-1880: Enhanced the DME File Download notification and the DME Collection Download notification to provide the type of the destination endpoint e.g. ASPERA, GLOBUS etc.  HPCDATAMGM-1865: Improved the error messages displayed on the DME web application due to incorrect or missing information in the input fields for downloading datasets to Globus, S3 bucket, Google Cloud, or Google Drive endpoints.  HPCDATAMGM-1867: Fixed issue with the Download button not getting enabled on the Download page of the DME web applications for data transfers to Google Cloud endpoints.  HPCDATAMGM-1879: Fixed issue with longer paths not wrapping and instead extending out of the display area in the Download page of the DME web application.  **Operational Support/Performance Improvements:**  HPCDATAMGM-1488: Improved auditing of download transactions to enable faster debugging by adding the source bucket information and the source file key of DME download transaction to the HPC\_DOWNLOAD\_TASK\_RESULT TABLE.  HPCDATAMGM-1851, 1852, 1855 to 1857, 1877: Fixed security vulnerabilities reported from the Nessus scan performed on the new OEL8 VMs. Important Notes The DME API server keystore was updated in this release.  If you use CLU, 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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