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

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| **Release 3.0: March 27, 2024** 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  v2.41.0 - February 28, 2024  v3.0 – March 27, 2024 New Features and Updates The following features, enhancements, and bug fixes were incorporated in this Release:  **New Features/GUI Enhancements:**  HPCDATAMGM-1421: Enhanced the Download Data Object REST API to provide a programmatic interface for downloading files from DME to Box.com endpoints. This is currently a proof-of-concept implementation, deployed to demonstrate connectivity to collaborator Box accounts. For details, refer to section 5.43 of the [DME API Specification](https://github.com/CBIIT/HPC_DME_APIs/blob/master/doc/guides/HPC_API_Specification.docx).    HPCDATAMGM-1828: Added an Expand All button to the header of the summary table of the Downloads Tasks and Registration Tasks dashboards to enable users to expand the abbreviated cells of all the rows at the click of a button.  **Improvements and Bug Fixes:**  HPCDATAMGM-1871: Updated the metadata validation rules to perform the check to restrict optional metadata to predefined metadata for new files/collections only. Changes to existing files/collections metadata will only be subjected to mandatory metadata validation.  HPCDATAMGM-1909, 1908: Enhanced the error messages from the dm\_register\_directory  command line utility (CLU) to provide the location of the log file. Removed auto-creation of the *modified\_date* metadata  HPCDATAMGM-1903: Relocated the pagination labels and buttons on the Registration Tasks dashboard of the DME web application for improved user intuitiveness and easier navigation.  HPCDATAMGM-1906: Fixed issue of dm\_generate\_token CLU command giving error due to missing temp folder.  HPCDATAMGM-1907: Fixed issue with dm\_download\_data\_object\_globus CLU generating error for single file download.    **Operational Support/Performance Improvements:**  HPCDATAMGM-1909: Added a background process to check for duplicate metadata in a newly uploaded file or collection.  DMESUPPORT-90—Enhanced the automated email notification from the DME archival workflow to indicate execution failures in the Subject line. Previously, errors were flagged only in the body of the email.  HPCDATAMGM-1868, 1869, 1876: Performed tech stack upgrade of the DME web application and the DME core API as a precursor to the DME modernization effort. This included upgrade of Java from 8 to 11 for these 2 subsystems. Important Notes If you use CLU, please note the follow:   * Regenerate your token using the *dm\_generate\_token* CLU command. Your existing token will not be accepted by the new application server. * The DME API server keystore was updated in Release 2.40.0.  If you have not used CLU since Release 2.40.0, update your public key at **utils/hpc-client/keystore/keystore-prod.jks** from GitHub master before running any commands. * The DME CLUs are being upgraded to run on Java 11. We will remove support for Java 8 from release 3.1 onwards, which is scheduled for deployment on April 29. Hence ensure that the client machines on which you run the CLU have JDK 11 installed prior to that. If you run the CLU only on Helix/Biowulf, then no action is required.  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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