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

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| Release 2.16.0: January 31, 2022  ==============================================================  **Contents**  ==============================================================  1.0 DME Overview  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 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).  ==============================================================  **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, 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  ==============================================================  **3.0 New Features and Updates**  ==============================================================  The following features, enhancements, and bug fixes have been incorporated in this Release:  **Functional/GUI Enhancements:**  HPCDATAMGM-1540: Enhanced the *dm\_register\_directory* CLU command to optionally compute the checksum for files uploaded through multi-part upload and store it as a metadata element called *source\_checksum*. This metadata can be retrieved along with other metadata values using appropriate REST APIs or CLU commands and will also be displayed in the File Details screen of the DME web application. The checksum calculated and verified by the storage provider will continue to be stored in the 'checksum' field for both multi-part and single-part files. For details on using dm\_register\_directory command, refer to [Registering Directory Contents from Your File System via the CLU](https://wiki.nci.nih.gov/x/-xpGFw). HPCDATAMGM-1523: Added progress bar for displaying the status of Google Cloud upload transactions on the Manage Registration Tasks screen of the DME web application so that the percentage of data uploaded can be determined at any point in time. **Improvements and Bug Fixes:**  HPCDATAMGM-1522: Added support for Google refresh token to increase the timeout period of the Google Cloud transactions. Previously the Google token expired in 1 hour as a result of which transactions involving large files did not get completed.  HPCDATAMGM-1546: Enhanced the File Details screen to display the file size at the top of the page, in addition to within the metadata table. This was done for user convenience, as well as for consistency with the Collection Details screen.  HPCDATAMGM-1548, 49: Enhanced the Browse screen to show the sizes of the sub-collections displayed in the File Table. Previously only the sizes of the files were displayed. Also updated the screen to display above the File Table, the total size of the parent collection.  HPCDATAMGM-1545: Enhanced the Collection Details screen of the DME web application to also display the total size of the collection in both machine readable and human readable (SI units) form. Previously, only the human readable form was displayed.  HPCDATAMGM-1545: Enhanced the Reports screen of the DME web application to also display the total size, largest file size, and average file size for a report in both machine readable and human readable form. Previously, only the human readable form (SI units) was displayed.  **Operational/Performance Improvements:**  HPCDATAMGM-1541: Re-designed the data download scheduler so that multiple instances of this task can be run on different servers. This provides to ability to easily scale up and handle more load as new servers are configured.  ==============================================================  **4.0 Bug Reports and Support**  ==============================================================  For issues, questions or suggestions, contact [ncidatavault@nih.gov](mailto: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>.  ==============================================================  **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>  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/> |
| Globus:  <https://www.globus.org> |