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

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| Release 2.15.0: December 20, 2021  ==============================================================  **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  ==============================================================  **3.0 New Features and Updates**  ==============================================================  The following features, enhancements, and bug fixes have been incorporated in this Release:  **Functional/GUI Enhancements:**  HPCDATAMGM-1531: Added the ability to optionally include pre-signed data object download URL in the collection update notification when a new data object is registered in the collection. Additionally, the collection update notification can now be customized on a per Division/Office/Center (DOC) basis. For details on the notifications capability, refer to [Subscribing to Notifications](https://wiki.nci.nih.gov/x/TQyYFg). HPCDATAMGM-1532: Enhanced the Download Task Details screen of the DME web application to display in the download retry requests, the status of all the files from the original request. Previously, only the status of the retried files was indicated. For details on the retry capability in the DME web application, refer to [Retrying a Failed Globus Download](https://wiki.nci.nih.gov/x/VgcFGg). HPCDATAMGM-1528: Added the ability to optionally encrypt the metadata values being returned in the new *Query All Data Files Under Path* REST API. This can be performed on a per Division/Office/Center (DOC) basis through a configuration setting in the backend.  HPCDATAMGM-1533: Enhanced the Download Task Details screen of the DME web application to display during download to AWS S3 bucket, a progress bar showing the percentage of data transferred. For details on downloading to an AWS S3 bucket, refer to [Downloading to an AWS S3 Bucket via the GUI](https://wiki.nci.nih.gov/x/7YoWGg).  **Improvements and Bug Fixes:**  HPCDATAMGM-1533: Enhanced the Download Task Details screen of the DME web application to include in the status bar display during Globus download, the progress of the first part of the file transfer (transfer from S3 object store to DME server). Previously, only the progress of the second part of the file transfer (transfer from DME server to Globus endpoint) was displayed, as a result of which users did not begin seeing progress updates until the file was fully downloaded to the DME server.  HPCDATAMGM-1536: Upgraded the delete CLUs - *dm\_delete\_datafile* and *dm\_delete\_collection,* to enable group and system administrators to perform hard delete of files and collections. This is in support of maintenance and testing activities.  HPCDATAMGM-1537: Enhanced the Collection Details screen of the DME web application to also display the total size of the collection.  HPCDATAMGM-1538: Hyperlinked the path of the collection being downloaded on the Download Task Details of the DME web application. This link points to the Collection Details screen, enabling users to easily access the metadata and other information pertaining to that collection.  **Operational/Performance Improvements:**  HPCDATAMGM-1535: Re-configured the number of threads setup for the first part of a Globus download request (while transferring files from S3 Object Storage to DME server) to align with the number of CPU cores on the servers so that CPU utilization is optimized, and requests do not get missed out.  ==============================================================  **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> |