**DME 2.0.0 Release Notes**

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| Version: 2.0.0  Date: August 27, 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 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, 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  ==============================================================  **3.0 New Features and Updates**  ==============================================================  The following features, enhancements, and bug fixes have been incorporated in this release:  **Enhancements:**  HPCDATAMGM-1290, 1341, 1343: Implemented phase 1 of the automated metadata extraction capability. Enhanced the existing *Register Data File* API and the *dm\_register\_dataobject* CLU to optionally extract header metadata during synchronous registration of a TIFF or BMP file. This metadata will be returned to the user as part of the *Get Data File* API response. For details, refer to section 5.30 of the [DME API Specification](https://github.com/CBIIT/HPC_DME_APIs/blob/master/doc/guides/HPC_API_Specification.docx).  HPCDATAMGM-1334, 818, 1315, 1033. Implemented phase 1 of the DME Web Application’s GUI modernization effort. This includes re-design of the GUI layout to a horizontal navigation bar format, a new section on the Browse screen to display basic metadata about data objects, and a new footer section.  HPCDATAMGM-1291, 1298:Enhanced the File *Download Data File* and *Download Collection APIs* to enable downloads to a Google Drive endpoint (in addition to the existing support for AWS S3 and Globus endpoints). The APIs accept the google access token as the user credential and can be leveraged by third party applications to build a GUI to provide this functionality. For details, refer to sections 5.39, 5.43, 5.47 and 5.48 of the [DME API Specification](https://github.com/CBIIT/HPC_DME_APIs/blob/master/doc/guides/HPC_API_Specification.docx).  HPCDATAMGM-1300, 1301: Enhanced the DME Web Application to enable download of files and collections to a Google Drive endpoint. For details refer to [Downloading Data via the GUI.](https://tinyurl.com/y59lpjje)  HPCDATAMGM-1304, 1309:Enhanced the *Register Data File* and *Register Bulk Data Files* APIs to perform registrations from a Google Drive endpoint. The APIs accept the access token as the user credential and can be leveraged by third party applications to build a GUI to provide this functionality. For details, refer to sections 5.30 and 5.35 of the [DME API Specification](https://github.com/CBIIT/HPC_DME_APIs/blob/master/doc/guides/HPC_API_Specification.docx).  HPCDATAMGM-1319: Enhanced the DME Web Application GUI to enable registration of files and collections from a Google Drive endpoint. For details refer to [Uploading Data in Bulk via the GUI.](https://tinyurl.com/y6rkdpun)  HPCDATAMGM-1336: Enhanced the *dm\_register\_dataobject* CLU to add the ability to register a file from an AWS S3 endpoint. For details, refer to [Using dm\_register\_dataobject](https://tinyurl.com/y5njkwa3).  HPCDATAMGM-1345: Enhanced the dm\_register\_dataobject CLU to enable inclusion of user metadata during Globus upload.  **Misc. Updates/Bug Fixes:**  HPCDATAMGM-1314, 1333: Re-designed the DME Web Application header, and added username and version number.  HPCDATAMGM-1344: Fixed issue of re-authentication not occurring for some URLs on the DME Web Application GUI after an inactive session timeout, as a result of which incomplete data is presented on the screen.  HPCDATAMGM-1337, 1338: Fixed the wiki links displayed on the help option for *dm\_register\_dataobject\_presigned* and *dm\_register\_dataobject\_multipart* CLUs. For details on these commands, refer to [Registering a Data File via the CLU](https://tinyurl.com/y2qupx2r).  HPCDATAMGM-1340: Fixed deadlock while registering multiple files concurrently with the same parent collection.  **Operational/Performance Improvements:**  HPCDATAMGM-1351: DME now performs pre-processing of collection download requests in concurrent threads to optimize download performance. Pre-processing includes conversion of the collection request into individual object requests, as well as request validation. Previously, only the actual file downloads were multithreaded.  HPCDATAMGM-1321: Added auditing of single object registration to enable tracking of success or failure of the transaction. Previously, the audit information was retrieved from the metadata which was available only if the transaction succeeded.  ==============================================================  **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> |