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

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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 Data File page 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 page of the DME web application so that users can view the percentage of data uploaded at any 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 one hour. As a result, the system did not complete transactions involving large files.)  HPCDATAMGM-1546: Enhanced the Data File page 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 page.  HPCDATAMGM-1548, 49: Enhanced the Browse page to show the sizes of the sub-collections in the details panel. (Previously, the Browse page displayed only the sizes of the files.) Also updated the page to display above the details panel, the total size of the parent collection.  HPCDATAMGM-1545: Enhanced the Collection page of the DME web application to display the total size of the selected collection in both machine readable and human readable (SI units) form. (Previously, the Collection page displayed only the human readable form.)  HPCDATAMGM-1550: Enhanced the Reports page of the DME web application to display the total size, largest file size, and average file size for a report in both machine readable and human readable form. (Previously, the Reports page displayed only the human readable form, in SI units)  **Operational/Performance Improvements:**  HPCDATAMGM-1541: Re-designed the data download scheduler so that the system can run multiple instances of this task on different servers. This provides the 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> |