Using dm_download_collection_globus

If your user account has the Read permission level on various collections, you can download one or more of those collections, from DME to a Globus endpoint.

To download one or more collections to a Globus endpoint:

1. Prepare a Globus endpoint, as described in Preparing to Use Globus.
2. Consider how you want to specify the Globus endpoint:

   - If you want to use the default Globus endpoint in your hpcdme.properties file, as described in Getting Started with DME CLU, plan to omit the endpoint from the command.
   - If you want to specify a different Globus endpoint, plan to include the endpoint in the command.
3. Consider whether you want to download a single collection or multiple collections:

   - To download a single collection: Plan to specify the path for that collection in the command.
   - To download multiple collections: In your local system, use a command line editor (such as vi editor) to create a file that lists the paths for all of the DME collections you want to download, delimited by newline. Plan to use the -f option to specify that file in the command.
4. Run the following command:

```
dm_download_collection_globus [optional parameters] [DME data path] <globus-destination-path> [globus-endpoint]
```

The following table describes each parameter:

Parameter	Description
`[-D <REST-response>]`	An optional parameter, specifying a path and filename in your local system. The system always creates a response file: - If you specify this parameter, the system saves the response from the server to the specified file in the specified location. - If you omit this parameter, the system saves the file as download-collection-response-header.tmp in your home directory.
`[-o <output-json-file>]`	An optional parameter, specifying a path and filename in your local system. The system always creates an output file: - If you specify this parameter, the system saves the output to the specified file in the specified location. - If you omit this parameter, the system saves the output as download-collection-response-message.json.tmp in your home directory. If the command is successful, the output file is empty.

`[-f <paths-file>]`
 	
or
 	
`[DME data path]`
	One or more paths within DME. Select one of the following methods to specify the collection or collections that you want to download:
	
	- To specify multiple collections, use the -f parameter to specify a path and filename in your local system, of a file that lists the paths for all of the DME collections you want to download, delimited by newline.
	- To specify a single collection, specify the path for the DME collection you want to download.

`<globus-destination-path>`	A path from the Globus endpoint. Specify where you want the system to create the downloaded file or files. If the destination folder structure you specify does not already exist, DME creates it.
`[globus-endpoint]`	The UUID of the Globus endpoint that you want to use, if not the one specified in your hpcdme.properties file, as described in Getting Started with DME CLU. (The following instructions may be helpful: Copying the Globus Shared Endpoint UUID.)

Single Collection Example

The following example downloads a collection from DME.

```
dm_download_collection_globus /Example_Archive/PI_Lab1/Project_1 /folder1/subfolder1/
```

In this example, the command performs the following:

- Locates or creates a folder1 folder in the the root of the Globus endpoint specified in the hpcdme.properties file.
- Locates or creates a subfolder1 folder within the folder1 folder.
- Within the subfolder1 folder, locates or creates a folder structure matching the specified DME folder structure.
- Downloads from DME all files in the Project_1 collection.
- Saves those files in the new folder structure with the same file names they have in DME.

Multiple Collections Example

For another example, consider the following command.

```
dm_download_collection_globus -f collection-list.txt /
```

With the following code in the specified collection-list.txt file, the above command downloads multiple collections from various locations in DME.

```
/Example_Archive/PI_Lab2/Project_1
/Example_Archive/PI_Lab2/Project_2
/Example_Archive/PI_Lab3/Project_1
```

In this example, the command performs the following:

- At the root of the Globus endpoint, locates or creates a folder structure matching the DME folder structure as listed in the specified collection-list.txt file.
- Downloads from DME all files in the collections listed in the specified collection-list.txt file.
- Saves those files in the new folder structure with the same file names they have in DME.