Infor Labs Data Fabric Automation Utility

Version 1.1

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Trademark Acknowledgements

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Contents

About this guide

This document describes the usage of JAVA utility to upload a JSON/CSV file in bulk to the Data Lake for Infor OS.

Intended audience

This utility is to be used by Administrators / Migration Specialists who have knowledge on Datafabric, handling JSON/CSV files and Infor OS knowledge base.

Related documents

You can find more information on Infor OS and Datafabric on docs.infor.com.

Disclaimer

This utility is offered as a complimentary content. Therefore, standard Infor Support is not applicable, and the utility is self-supported.

Contacting Infor

If you have questions about Infor products, go to Infor Concierge at https://concierge.infor.com/ and create a support incident.

Overview

With the Datafabric Automation Utility users can automatically upload CSV/JSON files in bulk to Data Lake. The source files must be located on the local system or server.

The utility consists of two parts, **Compression** and **Upload**.

During the **Compression** phase the files are compressed into a zlib file. This folder structure must be maintained:

- **Input folder**, where the CSV/NDJSON files to be compressed are stored.
- **Error folder**, where compression errors are stored.
- **Output folder**, where compressed files are stored.
- **Logs folder**, where process logs are stored.

During the **Upload phase** the Data fabric API is called to push the File Object into data Lake, which then can also be queried from Data Lake Compass. This folder structure must be maintained:

- **Input folder**, where the compressed CSV/NDJSON files are stored. Ideally it is the output folder of the Compression phase.
- **Error folder**, where compression errors are stored.
- **Logs folder**, where process logs are stored.

Folder Structure

Jar	Input Folder	Output Folder	Error Folder	Logs Folder
Compression	InputFiles	OutputCompressed	error-compress	CompressedLogFolder
Upload	OutputCompressed	-	error-upload	UploadLogFolder

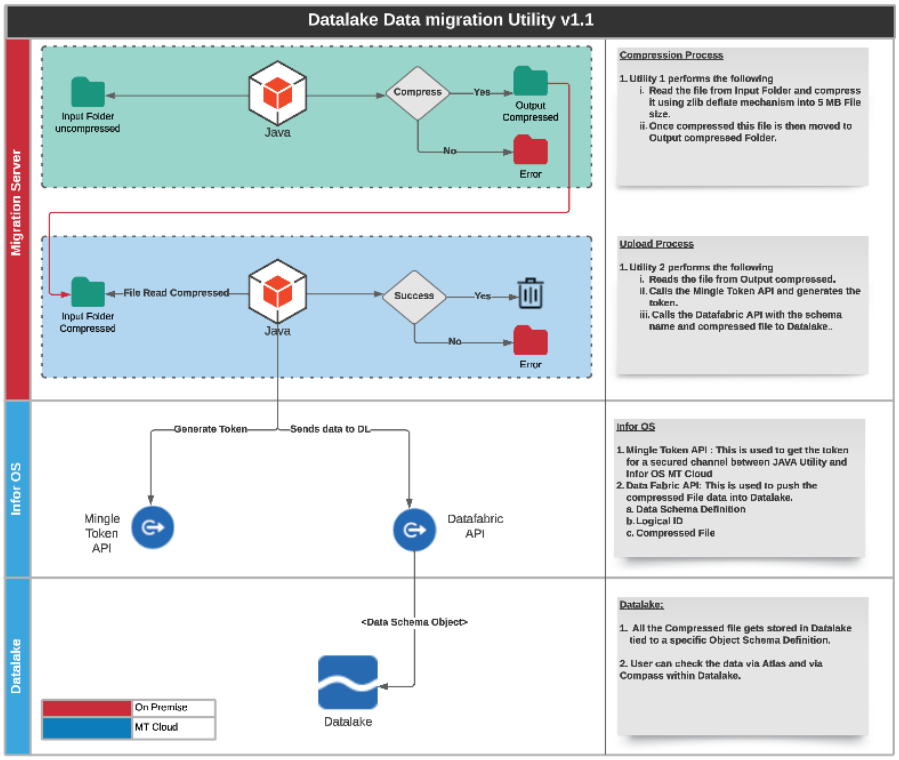
You must update the details of the folders in the FolderStructure.json file that is provided with the utility:

- **`"LogicalId":`** The value provided in this field will be consistent for every file that is uploaded using the utility.
- **`"parentDirectory":`** This field will contain the value of the location of the input folder (which contains all the files that need to be uploaded).
- **`"inputFolderName":`** This field will contain the name of the input folder that contains all the files.

See the video in the Marketplace for a sample folder structure.

Requirements

Solution Design Diagram



Solution Usage

Data Lake	To receive file in data lake and store it for further analysis
Authorization Token	To get token which helps to communicate with tenant
Data Fabric API	To send compressed file to Data Lake
Jar file	To get executable content
Batch File	To execute all the jars in the automated process.

Installation

Prepare Data Object Schemas

- Data Object Schemas must be created for the Data Lake so that the file that is being pushed is stored in this object.
  Note: Object Schemas must be created for all files to be uploaded into Data Lake.
- For json upload, the Data Schema object can be created with a sample json file which automatically creates a DSV - CSV format.

Follow these steps after all required object schemas have been created:

1. Click the app menu icon and then select **ION Desk** > **Date Catalog** > **Object Schema**.
2. Click **+Add tile**.
3. Create a new object schema.
4. Select **Generate from sample data** and then select the json file to upload.
5. Select the json File.
6. Click **Next**.
7. Specify this information:
   - Object Name: <ObjectName>
   - Description: <Description as Needed>
8. Click **Next** and verify property definitions.
9. Click Next and verify that no data is missing.
10. Click **Finish**.

Create an authorized App

1. Login in to **Infor OS**.
2. Select **Infor ION API**.
3. Click **AuthorizedApps**.
4. Click **Add New App**.
5. Specify "FileUploadAuthorizedBackend" in the **Name** field.
6. Select "Backend Service" in the **Type** field and provide the description.
7. Click **Save**.
8. Click **Download Credentials.**
9. Select Create Service Account option.
10. Search for the username to be added and then click **Download**.
11. Open the downloaded document.

Configure the jar file

Pre-Requisites:

- Java
- Amazon Coretto JDK: https://docs.aws.amazon.com/corretto/latest/corretto-8-ug/downloads-list.html
- Maven: https://maven.apache.org/download.cgi

Details:

FileCompressorV1.1 – compresses files that are saved in the specified folder.

FileUploader-V1.1 – uploads the compressed files to Data Lake.

FileUploadAuthorizedBackend.ionapi – contains user details and information to upload files via a secured channel.

FolderStructure.json – used to specify file structure details.

Utility.bat –batch file that is responsible for running both jars without manual intervention.

To run the utility, open on the Utility.bat file and confirm running the process.

Limitations

- The input file must be in a CSV or a JSON file format.
- The JSON file must have data in the NdJSON format.
- There is a limit of uploading 200 files to Data Lake.

Net change history

Date	Version	Description
2022-05-09	1.0	Initial version
2023-04-11	1.1	Simplified Utility with lesser configurations