Oracle Financial Services File Upload and Download Utility User Guide



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Oracle Financial Services File Upload and Download Utility User Guide, Release 24A

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1 Roles and Functions

The following table lists the role codes and function codes required to configure the File Upload/Download Utility.

Role Codes

Role Code	Function Code
FILE_READ	FILE_SUMMARY
FILE_UPLOAD	FILE_UPLOAD
FILE_DOWNLOAD	FILE_DOWNLOAD
FILE_ADV	FILE_UPLOAD
	FILE_DOWNLOAD
	FILE_DELETE
	FILE_SUMMARY

2 File Upload and Download Utility

The File Upload and Download Utility enables you to upload or download files to the Object Store. Complete the following steps to Upload or Download a file.

- Upload or Download File from Object Store Using Console
- Uploading/Downloading a File Using Utility
- Uploading/Downloading a File Using PAR URL

Upload or Download File from Object Store Using Console

- 1. From the left menu, click Common Object Maintenance.
- 2. Click Data Management in the left navigation pane.

The **File Upload and Download** Page is displayed. The Files that are uploaded to the Object Store are listed here. The following details are provided for each File.

- **File ID** The unique file ID associated with the file. This is auto-generated during the upload.
- **Prefix** The prefix is added to the file name.
- File Name The name of the file that is uploaded. This is automatically updated after you select the file.
- **Stripe Name** The Unique Identifier for storing a collection of files. Collection examples: Project, organization, tenant.
- Uploaded Date The file upload date.
- Download File Click to download a copy of the uploaded file.
- Delete Click to delete the file.

Related Topics

- Uploading/Downloading a File Using Utility Complete the following steps to Upload or Download a file using the Utility.
- Uploading/Downloading a File Using PAR URL Complete the following steps to upload or download a file using the PAR URL.

Uploading/Downloading a File Using Utility

Complete the following steps to Upload or Download a file using the Utility.

Drag and Drop Select a fee or drag one here: +		Prefix Heard (
			Upload Cat PMR URI			
		Q				
10	Prefix	File Name	Stripe Name	Uploaded Date	Download File	Delete
1		retal/chors2021 04 13 05 40 05PM log	detault	04 JUL 22 06/32 46 PM	.4.	ß

1. Click **Drag and Drop** to browse and select a file for upload from the local directory.



You can also browse to the local directory from the **File Explorer** and select the file and drop it here.

The file name is automatically updated in the **Selected File** field.

2. Enter the **Prefix** to be added to the file name.

The Prefix is added to the file name. In case, you have two files with the same file name, you can save them with different prefixes. Example: *labc/test.txt* and *ldef/test.txt*. Both these files have the same file name but different Prefixes.

3. Click Upload to upload the selected file.

A confirmation message is displayed after successful upload and the file is listed in the Uploaded Files list.

Uploading/Downloading a File Using PAR URL

Complete the following steps to upload or download a file using the PAR URL.

Figure 2-1 Get PAR URL

4	Drag and Drop Select a file or drop one here	-	Profix Selecti Upi		Copy URL	Hie ID: 2002
File ID No data to display	Pretiz	File Name	Stripe Name	Uploaded Date	Download File	Delete
Page 1 (0 of 0	Ditems) K < > >				8	~ ^

1. Click Drag and Drop to browse and select a file for upload from the local directory.

You can also browse to the local directory from the File Explorer and select the file and drop it. The file name is automatically updated in the **Selected File** .

- Enter the Prefix to be added to the file name.
- Click Get PAR URL, to generate the PAR URL and File ID which are required to upload the file.

You can also generate PAR URL using Rest API. For more information refer to, Calling the API to Generate the URL.

- 4. Copy the PAR URL and note the related File ID.
- Upload the file content referred with the specific PAR URL into the object store using the Console, CLI, or SDK.

To upload using the CLI, enter the following curl command directly in local Gitbash.

```
curl -X PUT --data-binary '@<local-filename>' <unique-PAR-URL>
```

You can also use the following command.

curl -T '<Filepath>' -X PUT <PAR URL>

 Scan the file referred with the specific File ID (obtained in Step 3) using Console, CLI, or SDK.



Use the following CURL command, to Scan using CLI:

```
curl -k --location --request PUT 'https://<Host:Port>/<Tenant-ID>/utils-
service/v1/file/scan/<FileID>' \
--header 'ofs_tenant_id: <Tenant-ID>' \
--header 'ofs_service_id: <Service-ID>' \
--header 'ofs_workspace_id: <WorkspaceId>' \
--header 'Authorization: Bearer <Generated_Token>'
```

To generate a bearer token, refer to Generate access token.

A confirmation message is displayed after successful upload and the file is listed in the Uploaded Files list.



3 File Upload Automation

To simplify the file upload process, configure and execute the File Upload automation utility. File Upload automation can be implemented by completing the following steps in sequence.

• Step 1: Generate Access Token

- Step 2: Generate PAR URL
- Step 3: Upload file to Object Store
- Step 4: Scan the file to ensure Upload was Successful

Step 1: Generate Access Token

Generate the Access Token for your Profitability and Balance Sheet Management Cloud Service by:

 Submitting a RESTful API Post Request to your Oracle IAM environment as defined in the Identity Cloud Service User Guide. For information, see OAuth Runtime Tokens REST Endpoints.

Note that a sample code snippet has been provided below using cURL to generate the access token for Basic Authorization and assign it to a variable for use within a script:

```
access_token=`curl -s --insecure -H "Authorization: Basic $ENCODED" -H
"Content-Type: application/x-www-form-urlencoded;charset=UTF-8" --request
POST $IDCS_URL -d
"grant_type=password&username=$USERNAME&password=$PASSWORD&scope=urn:opc:idm:_
_myscopes__ urn:opc:resource:expiry=9153600" | python3 -c "import sys, json;
print(json.load(sys.stdin)['access_token'])"`
```

Step 2: Generate PAR URL

Generate the PAR URL for your Profitability and Balance Sheet Management Cloud Service by:

 Submitting a RESTful API Post Request to your Cloud Service as defined in the Calling the API to Generate the URL section.

Note a sample code snippet has been provided below using cURL to generate the PAR URL and assign it to a variable for use within a script:

PAR URL Generation Code Snippet

```
curl --location --insecure --request POST "$FILEUPLOADURL" --header
"Authorization: Bearer $access_token" --header 'Content-Type: application/
json' --data-raw "{
    \"fileName\": \"$1\",
    \"fileSize\": \"$2\",
```



```
\"mimeType\": \"$3\"
}" >> "$HOME"/FILEUPLOAD UTIL/"$1" PARURLresponse.out 2>&1
```

PAR URL Variable Assignment Code Snippet

```
grep -oE '(https)[^]*' "$HOME"/FILEUPLOAD_UTIL/"$1"_PARURLresponse.out >
"$HOME"/FILEUPLOAD_UTIL/"$1"_PARURLresponse1.csv
while IFS="," read -r H1 H2
do
        URLtrim="$H1"
        FinalPAR=${URLtrim::-1}
        echo -e "\n PAR_URL is $FinalPAR"
        done < "$HOME"/FILEUPLOAD_UTIL/"$1" PARURLresponse1.csv</pre>
```

PAR URL Variable Assignment Code Snippet – Used in File Scanning Step

```
grep -oE '(fileId)[^ ]*' "$HOME"/FILEUPLOAD_UTIL/"$1"_PARURLresponse.out >
"$HOME"/FILEUPLOAD_UTIL/"$1"_PARURLresponse2.csv
while IFS="," read -r F1 F2
do
     FILEIDtrim="$F1"
     FINALFILEID=`echo "$FILEIDtrim"| sed -r 's/^.{8}//'`
     echo -e "\n FILE ID is $FINALFILEID"
     done < "$HOME"/FILEUPLOAD UTIL/"$1" PARURLresponse2.csv</pre>
```

Step 3: Upload file to Object Store

Upload the file to the Object Store of your Profitability and Balance Sheet Management Cloud Service by:

 Submitting a RESTful API Post Request to your Cloud Service as defined in the Uploading/ Downloading a File Using PAR URL topic.

Note a sample code snippet has been provided below using cURL to upload the file:

```
curl -T "$HOME"/FILEUPLOAD UTIL/"$1" -X PUT "$FinalPAR"
```

Step 4: Scan the file to ensure Upload was Successful

Scan the file that was uploaded to the Object Store of your Profitability and Balance Sheet Management Cloud Service by:

 Submitting a RESTful API Put Request to your Cloud Service as defined by the code snippet below:

File Scanning Code Snippet - Using File ID from Step 2 - Generate PAR URL

```
last_error=$?
if [ $last_error -eq 0 ]; then
        echo -e "\n ***File Upload is Successful please check File
Upload / Download UI***"
        else
        echo "Scan failed"
        exit -2;
        fi
else
        echo "Upload failed"
        exit -3;
        fi
```

Automating the File Upload Process Using File Upload Utility

This section provides the procedure including the script to automate the process of uploading input data files using the File Upload utility.

You can download this script from this MoS Doc ID 2927077.1.

Executing the File Upload Automation Script

File Upload Automation script assists you to upload the files seamlessly.

Complete the following procedure to execute the file upload automation script.

Python 3.10 is required to access data elements from the API JSON responses.

- Extract the FILEUPLOAD_UTIL.zip file located in the \$HOME directory.
- Copy the Data Loader input file (text file) to the **\$HOME/FILEUPLOAD_UTIL** directory.
- 3. Edit the script **Env_setup.sh** file to update the following environment variables.
 - IAM URL The Service Instance URL to access your IAM console. You can get the IAM URL from the following menu:

Oracle Cloud Infrastructure Console > Identity Cloud.

Syntax: <IAM-url>/oauth2/v1/token

 Encoded - The <OAuth Client ID>:<OAuth Client Secret> encoded using base64encode

To extract and encode the Client ID and Client Secret, refer to the following steps:

- a. Login to Admin Console.
- b. Go to System Configuration tab, and click Component Details tile.
- c. Click OAUTH Creds tab to view and copy the OAUTH Client ID and OAUTH Client Secret details.
- d. Using any base64encode utility, encode <OAUTH Client ID>:<OAUTH Client Secret>.

Example (Input OAUTH Client ID and Client Secret):

ftptenant-prd APPID:99140e14-4d30-4e86-85fb-09501fe45fe0

Example (Encoded OAUTH Client ID and Client Secret):

ZnRwcWExMDEyMzEtcHJkX0FQUE1E0jBkMmU5MDBiLT1hYjItNGFmOS050WM0LTEwNTYyMDV kYWYwNQ==



• **Username** - The Username to access the application.

Note:

The user should have appropriate roles and privileges. For more information about roles and priveleges, refer to Roles and Functions.

- Password The password to login to the application.
- **Tenant** The tenant associated with the application.
- PBSM Host Details of the PBSM host on which the application is hosted. Sample Env_setup.sh

```
IDCS_URL=https://idcs-xyz123.identity.c9xyz.cc9xyz.com/oauth2/v1/token
ENCODED=ZnRwbWFydXAxNDIyMzEtcHJkX0FQUE1E0jk5MTQwZTE0LTRkMzAtNGU4Ni04NWZi
LTA5NTAxZmU0NWZ1MA==
USERNAME=<user_name>
PASSWORD=<password>
TENANT=<tenant-prd>
PBSMHOST=dc.pbsmcloud.us-xxxxx -1.ocs.oc-test.com
```

- 4. Execute PBSMCS_PAR_fileupload.sh with the following parameters -
 - filename The file to be uploaded
 - filesize The file size in Bytes
 - **Mimetype** The mimetype of the file.

Format: Filename<space>Filesize<space>mimetype

```
Example: ./PBSMCS_PAR_fileupload.sh input_20150101_filename_example_8007.txt
334 text/plain
```

This script generates the access token and the PAR URL. It also uploads the file into the object store and scans the file too.

Note:

To upload multiple files, you must execute the script for each file, separately.

Once the script is executed succesfully, the file is uploaded and added to the list of files in the File Upload/Download page. To access the File Upload/Download page refer to Upload or Download File from Object Store Using Console.



4 Generating PAR URL for File Operations

The PAR URL for File Operations API creates a PAR File that you can use to perform file operations in the Object Store for end-to-end integrations.

Generating PAR URL for File Upload

Generate PAR URL for File Upload

You can use this REST API to generate the PAR URL for File Upload. See the following sections for information on how to perform the POST operation.

- End Point Details
- Calling the API to Generate the URL

End Point Details

- Method POST
- URL https://<HOST_NAME:PORT>/<TENANT>/utils-service/v1/file/uploadfile/ parURL?prefix=<prefix>
- Content-Type Application/Json

Calling the API to Generate the URL

To call the API:

- 1. Open a relevant tool, such as via cURL command.
- Prepare a cURL command with the authentication token and other details. For more information refer to the following code.

Syntax

```
curl -k --location --request POST 'https://<hostname>/<TENANT-ID>/utils-
service/v1/file/uploadfile/parURL?prefix=' \
--data-raw '{"fileName": "<remote filename>", "fileSize": <file size>,
"mimeType": "<file type>"}' \
--header 'ofs_remote_user: <USERID>' \
--header 'locale: en-US' \
--header 'ofs_tenant_id: <TENANT-ID>' \
--header 'ofs_workspace_id: WS001' \
--header 'content-type: application/json' \
--header 'Authorization: Bearer <TOKEN>'
```

Example (truncated)

```
curl -k --location --request POST 'https://<hostname>/<TENANT-ID>/utils-
service/v1/file/uploadfile/parURL?prefix=' \
--data-raw '{"fileName": "idcs_log1.txt", "fileSize": 100, "mimeType":
```



```
"text/plain"}' \
--header 'ofs_remote_user: cneadmin' \
--header 'locale: en-US' \
--header 'ofs_tenant_id: aaitestdev1001-prd' \
--header 'ofs_workspace_id: WS001' \
--header 'content-type: application/json' \
--header 'Authorization: Bearer
eyJ4NXQjUzI1NiI6Ildia25rQUR5TUZIM1hlQ1pKcTY1c3o4VzdEVWhKa0s4MldYY0hadk4wWkk
iLCJ4
...
sQXj0iohsSIEmQXVwwjhhqnc4eJNnmCjx8Tb7TXjx1MIQLeOIcfrIj5gkzoMKX94_7USxHv-6Lh
Bzw'
```

Request JSON Parameters

This section provides the list of parameters in the JSON Request.

Name	Туре	Require d	Description
fileName	STRING	Yes	 The name of the file to be uploaded. The following are the conditions for to enter in this field: Must start with an Alphanumeric Character
			 Allowed characters are alphabets, numbers, and special characters - hyphen(-), dot(.), and underscore(_) Length of characters must not be greater than 255 characters
fileSize	INTEGE R	Yes	The size of the file (in Bytes) to be uploaded. The size of the file should be greater than 1 Byte and should be less than 10 TB.
			It is recommended to use multipart upload for uploading files of size more than 100 MB. For more information about uploading large objects and multipart uploads, refer to Working with Pre-Authenticated Requests.
mimeTyp e	STRING	Yes	The mime type to be uploaded. The following mime types are allowed: • Text/CSV • Text/plain • DAT

Table 4-1 Request JSON Parameters

Request JSON Sample

```
[{
"fileName": "File.csv",
"fileSize": 7654,
"mimeType": "text/csv"
}]
```

Response JSON Parameters

This section provides the list of parameters in the JSON Response.



Name	Туре	Description
fileName	STRING	The name of the file to be uploaded.
uploadURL	STRING	The generated pre-authenticated URL to upload a file.
fileId	INTEGER	The unique File Identifier.

Table 4-2 POST JSON Response

Response JSON Sample

```
{
    "payload": {
        "uploadURL": "https://objectstorage.us-phoenix-1.oraclecloud.com/p/
bdSI-hzigiAoUU01yEKnuk0YGs05L172gt_woZAgqNFYmUFQeexV3BDfT097mhBI/n/
oraclegbudevcorp/b/fsgbu_pbsm_cndevcorp_ftpqa101231-prd_default/o/default/
2023-01-31/jfr/f9ce031f-4a42-471d-b4da-d0577f3eca15",
        "createUser": "user1",
        "stripeName": "default",
        "fileId": 5025,
        "createDate": "2023-01-31T09:14:16",
        "token": "",
        "status": "success"
    }
}
```

Viewing List of Uploaded Files

Run the following cURL command to generate and view all the files that are uploaded using PAR URL.

Syntax

```
curl -k --location --request GET 'https://<hostname>/<TENANT-ID>/utils-
service/v1/listfiles stripeName=default' \
--header 'locale: en-US' \
--header 'ofs_remote_user: <user id>' \
--header 'ofs_tenant_id: < TENANT-ID >' \
--header 'ofs_workspace_id: WS001' \
--header "Authorization: Bearer <TOKEN>'
```

Example

```
curl -k --location --request GET 'https://dc.pbsmcloud.us-phoenix-1.ocs.oc-
test.com/aaitestdev1001-prd/utils-service/v1/listfiles?stripeName=default' \
--header 'locale: en-US' \
--header 'ofs_remote_user: cneadmin' \
--header 'ofs_tenant_id: aaitestdev1001-prd' \
--header 'ofs_workspace_id: WS001' \
--header "Authorization: Bearer ${TOKEN}"
```



Response

Generating PAR URL For File Download

You can use this REST API to generate the PAR URL for File Download. See the following sections for information on how to perform the post operation.

- Calling the API to Generate PAR URL for File Download Using File Name
- Calling the API to Generate PAR URL for File Download Using File ID

Calling the API to Generate PAR URL for File Download Using File Name

To call the API:

- 1. Open a relevant tool, such as via the cURL command.
- Prepare a cURL command with the authentication token and other details. For more information refer to the following code.

Syntax

```
curl -k --location --request GET < 'https://<hostname>/<TENANT-ID>/utils-
service/v1/file/download?fileName=<file name>&stripeName=default&prefix=' \
--header 'ofs_remote_user: <userid>' \
--header 'locale: en-US' \
--header 'ofs_tenant_id: <TENANT-ID>' \
--header 'ofs_workspace_id: WS001' \
--header "Authorization: Bearer <TOKEN>"
```

Example

```
curl -k --location --request GET 'https://<hostname>/<TENANT-ID>/utils-
service/v1/file/download?fileName=test3GB.xml&stripeName=default&prefix=' \
    --header 'ofs_remote_user: cneadmin' \
    --header 'locale: en-US' \
    --header 'ofs_tenant_id: aaitestdev1001-prd' \
    --header 'ofs_workspace_id: WS001' \
    --header "Authorization: Bearer ${TOKEN}"
```

Response

```
{"payload":{"downloadURL":"https://objectstorage.us-
phoenix-1.oraclecloud.com/p/8R68eVcQAxQjNjK_S04MZjS-
v4BqEbWSILvu0w40kJNrzfKeCB8vWBwugW5XvsK/n/oraclegbudevcorp/b/
fsgbu_pbsm_cndevcorp_aaitestdev1001-prd_default/o/default/2023-01-20/rnz/
6c023e75-09e2-4265-815e-32cedcd2415e?
httpResponseContentDisposition=ATTACHMENT%3B%20filename%3Dtest3GB.xml"}}
```



Calling the API to Generate PAR URL for File Download Using File ID

To call the API, follow these steps:

- 1. Open a relevant tool, such as via the cURL command.
- 2. Prepare a cURL command with the authentication token and other details. For more information, refer to the following code.

Syntax

```
curl -k --location --request GET ' 'https://<hostname>/<TENANT-ID> /utils-
service/v1/file/downloadfile/<file id>' \
--header 'ofs_remote_user: <userid>' \
--header 'locale: en-US' \
--header 'ofs_tenant_id: < TENANT-ID> ' \
--header 'ofs_workspace_id: WS001' \
--header "Authorization: Bearer <TOKEN>"
```

Example

```
curl -k --location --request GET 'https://<hostname>/<TENANT-ID>/utils-
service/v1/file/downloadfile/9916' \
--header 'ofs_remote_user: cneadmin' \
--header 'locale: en-US' \
--header 'ofs_tenant_id: aaitestdev1001-prd' \
--header 'ofs_workspace_id: WS001' \
--header "Authorization: Bearer ${TOKEN}"
```

Response

```
{"payload":{"downloadURL":"https://objectstorage.us-
phoenix-1.oraclecloud.com/p/
gTxxzhqLEea4Or2TRkBqTqHxt_JogVFa9G_0wtN8NYy_op0Zk4lvKGDxxeXGhLq7/n/
oraclegbudevcorp/b/fsgbu_pbsm_cndevcorp_aaitestdev1001-prd_default/o/
default/2023-01-31/fae/2d63d2fe-2090-4fb7-a4c8-9940d22987db?
httpResponseContentDisposition=ATTACHMENT%3B%20filename%3DIdcs log3.txt"}}
```

