
Verde to Alma AutoExtract Migration

The objectives of the Verde to Alma migration process are to migrate Verde data to the Alma environment quickly and efficiently, eliminate any coordination and scheduling issues with Ex Libris, and enable the independent extraction of data.

This document explains how to download and install the Verde to Alma migration kit, perform the extraction and transformation of Verde data, and transfer it securely to Ex Libris' secure file (MFT) server.

Requirements

The following are required before performing the migration:

- A Verde installation that meets the required Verde installation requirements as described in the [Requirements for Verde Installation](#) document.
- TEMP tablespace of at least 5GB (where TEMP is the name of Verde temporary tablespace).
- Rollback segment (undo) size of at least 5GB.
- Access in your firewall to the Ex Libris MFT server to transfer the extracted data:
 - **APAC customers:** `migration-dc05.hosted.exlibrisgroup.com` (APAC-DC05) or `migration-dc07.hosted.exlibrisgroup.com` (APAC-DC07). The relevant username should be supplied by your Professional Services.
 - **EU customers:** `migration-dc03.hosted.exlibrisgroup.com` (EU-DC03) or `migration-dc06.hosted.exlibrisgroup.com` (EU-DC03) . The relevant username should be supplied by Professional Services.
 - **NA customers:** `migration-dc01.hosted.exlibrisgroup.com` (NA-DC01) or `migration-dc04.hosted.exlibrisgroup.com` (NA-DC04) . The relevant username should be supplied by Professional Services.
 - **CANADA customers:** `migration-dc82.hosted.exlibrisgroup.com`
 - **CHINA customers:** `migration-dc81.hosted.exlibrisgroup.com.cn`

All the servers listed above should use port 10022.

Overview of the AutoExtract Process

The following steps describe the Verde AutoExtract process:

1. An email with the following information is sent to you by Ex Libris:
 - A link to Migration Kit path on MFT server
 - Credentials for file download
2. Download the Migration Kit from the MFT server.
3. Install the Migration Kit on your Verde server.

4. Generate the initial *Verde Migration Form* using the kit and fill it in.
5. One week prior to your Verde migration, send your filled-in *Verde Migration Form* to your EXL project manager for approval.
6. Run the extraction of your Verde data using the AutoExtract kit.
7. Transfer the extracted data to the Ex Libris MFT server.

These steps are described in detail below.

Downloading and Installing of AutoExtract Kit

The following section describes how to download and install the AutoExtract package.

To download and install the AutoExtract kit:

1. Log on as the `verde` user on your Verde server.
2. Enter the following command to create a directory in which to store the zip file:

```
>> mkdir /exlibris/zip_from_exlibris/verde2alma_migration
```

You may need to create the `zip_from_exlibris` subdirectory first, i.e.:

```
>> mkdir /exlibris/zip_from_exlibris
```
3. Download the package from Ex Libris MFT server as described in the email sent from Ex Libris.
4. Enter the following command to change the directory as the `verde` user to the home directory:

```
>> cd
```
5. Move the package `Verde2Alma.zip` from `/exlibris/zip_from_exlibris/verde2alma_migration` to the `sx` directory of the `verde` user.
6. Enter the following command to unpack the zip file:

```
>> unzip Verde2Alma.zip
```

This creates a directory `VerdeMigrationCustomerMenu` in the home directory that contains all the files of the AutoExtract kit.

Running the Menu

The steps of the migration process are driven by a menu.

To run the menu:

1. Log on as the `verde` user on your Verde server.
2. Enter the following command to move to the `VerdeMigrationCustomerMenu` directory:

```
>> cd VerdeMigrationCustomerMenu
```
3. Enter the following command to start the menu:

```
>> ./VERDE_MIGRATION_MENU
```

The menu is displayed:

```
Verde Migration Menu
  Verde base directory : /exlibris/verde/v2_1/verde
  Instance code       :

1. Specify the code of the instance to be migrated
2. Generate Verde Migration Form
3. Validate Verde Migration Form
4. Extract Verde data
5. Transfer extracted data

0. Exit

Please select [0]:
```

Specifying the Instance Code

You must specify the instance code of the Verde instance that you want to convert before you can extract the data or produce an initial migration form. To specify the instance code, select **1. Specify the code of the instance to be migrated** and enter the instance code at the prompt.

Note

- The instance code is case sensitive.
- The instance code should be the exact same instance code as written in your database (as written, for example, in EPRODUCT table under INSTANCECODE field).
- The instance code is retained by the AutoExtract kit for future sessions and use of the menu.
- The instance code is the only parameter that you need to set.
- If the instance code you entered is not valid in your Verde system, the following message is displayed:
The instance code you specified is not valid in your Verde system

Generating and Completing the Verde Migration Form

After you specify the instance code you must generate the Verde Migration Form and fill it out.

To generate the Verde Migration Form:

1. Select **2. Generate Verde Migration Form** to generate an instance data-specific Excel workbook that you need to fill out and complete. The information in it is used to control the conversion process.
The Excel consists of the following tabs:
 - Questionnaire
 - Interface to Vendor Mapping – required in order to map the interfaces to vendors, as required by Alma. You only need to fill in the appropriate vendor code.
 - Mapping of Verde Vendor Codes to ILS System Vendor Codes (optional) – only needed if the vendor codes used in Alma, which came from your ILS system, are different from the ones used in Verde for the same vendor.

Note

- The Verde Migration Form generated by the package is placed in the transfer directory. This directory is located as a subdirectory under the `VerdeMigrationCustomerMenu` directory.
- If there is a filled-in Verde Migration Form in the transfer directory from a previous data conversion (for example, the test load), the newly generated Verde Migration Form is automatically enriched with your answers from the existing form, if applicable.

-
2. Fill-in this form according to the [Verde to Alma Migration Guide](#).
 3. Send the filled-in form to Ex Libris at least one week prior to your Verde migration for review. Ex Libris either approves the form or informs you if any modifications in the form are necessary. If changes are needed, correct the form according to Ex Libris' instructions before proceeding to the next step (extracting the data).
 4. After the form is complete, place it back into the transfer directory before running the data conversion.

Note

Make sure that the completed Verde Migration Form has the same file name `VerdeMigrationForm.xlsx` as the prepared Verde Migration Form in order to overwrite the original Verde Migration Form with the completed one.

Validating the Verde Migration Form

After you complete the *Verde Migration Form* and have placed it back into the transfer directory, select **3. Validate Verde Migration Form** from the menu to run a validation program that checks the entries in the Verde Migration Form.

The following are validated:

- Mandatory questions have been properly answered
- Vendor codes used in the mapping tables of the Verde Migration Form are valid in your Verde system
- Vendor codes are used in an unambiguous way in the mapping tables

Extracting and Converting the Data

After the completed form is placed into the transfer directory, extract your Verde data and convert it into an Alma supported format.

To extract your Verde data and convert it into an Alma supported format:

1. Select **3. Extract Verde data** to start the extraction phase. (Be sure that you have first specified the correct instance code.) The following menu is displayed:

```
Verde Migration Menu
  Verde base directory : /exlibris/verde/v2_1/verde
  Instance code       : TST
1. Extract Verde Data
2. Convert extracted data to Alma supported format
```

```
0. Back to main menu
Please select [0]:
```

2. Select **1. Extract Verde data** to retrieve the data from the Verde database.
3. Select **2. Convert extracted data to Alma supported format** to convert the data into a compatible format for loading into Alma.

You can view the messages of the process while it is running in the `extraction.log` and `conversion.log` log files.

Note

The data conversion process can take up to 36 hours to complete, depending on the size of your data and your server hardware and memory. The functioning of Verde is not affected by this process running in the background, and your normal work in Verde can proceed in parallel. If the process does not complete within 48 hours, contact Ex Libris.

Transferring the Extracted Data to Ex Libris

At the end of the conversion, the processed data can be found in a subdirectory of the transfer directory named according to the instance code (for example: `transfer/TST/`).

At this point, the extracted data is ready for uploading to the Ex Libris MFT. Verify that MFT is open to your region's MFT server before uploading.

To upload the extracted data to the Ex Libris MFT server:

1. Select **5. Transfer extracted data** from the Verde Migration Menu.
2. Select the MFT server to which the data will be transferred, according to your region:

```
Select the MFT server by the optional regions:
1. APAC
2. EUR
3. USA
4. CANADA
5. CHINA
Please select your region.
```

3. If your region is APAC/EU/NA, you are asked to select one of the DCs in your region, according to Professional Services.
4. You are asked to enter your user name. Copy and paste the key from the link sent to you by Ex Libris. Below is an example of the key you are asked to insert.

```
Enter your password:
-----BEGIN RSA PRIVATE KEY-----
MIIEoAIBAAKCAQEAz+h+RByvWo5aLNxpXS0hNh2DKlipYA81Ur+pVzoILXiA3EWW
h6zfCOxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxbP0UPtbKojfhIgcBAJrtwa7jszXu
XW9vn95ulDUNNuoyKGyyVeve7InsFx0NTz1LaJeJq3vfPCVXv08InRY7giX/zCE0
yxsOal+Wsf5vn+9L8XGEdcaG37vPWGEBfaNYywIBIwKCAQBNORj0ujKAuIfkxuVO
fnoMySIXCv0VDPaMcxMDJC7sUVRvEoheR4YKnIVxq+edr12hLcdp7g5VjihxmxVP
-----END RSA PRIVATE KEY-----
```

The following message is displayed:

```
Verifying the connection to the mft server requested can be established. Please wait.
```

If the connection cannot be established, the following message is displayed:

```
Cannot establish connection to the mft server requested. Do you want to try again resetting your password? (Y/N) [N]
```

Note

- The data is transferred securely using secure file transfer.
- The data transfer process can take up to several hours to complete, depending on the size of your data and your Internet connection speed. The functioning of Verde is not affected by this process running in the background, and your normal work in Verde can proceed in parallel. If the process does not complete within 24 hours, contact Ex Libris.

Troubleshooting

Increasing the Size of the TEMP Tablespace

Although it is our expectation that 5 GB of TEMP tablespace (where TEMP is the name of Verde temporary tablespace) and 5 GB of rollback segment (undo) defined as part of the requirements is sufficient for the process to complete successfully, under certain circumstances, the TEMP tablespace or the UNDO segment of your Verde system may need to be increased for the migration process.

This is the case if the extraction process stops with the following log message:

```
Error extracting Data: could not execute query
Exception org.hibernate.exception.GenericJDBCException: java.sql.SQLException:
ORA-01652: unable to extend temp segment by 128 in tablespace TEMP
```

In this case, we recommend that the TEMP tablespace be further extended according to the available disk space.

If the extraction process stops with a log message such as the following, we recommend that the UNDO be further extended according to the available disk space:

```
>ERROR [org.hibernate.util.JDBCExceptionReporter] (main:) ORA-01555: snapshot too old:
rollback segment number 9 with name "_SYSSMU9$" too small
```

Your Verde database administrator should perform this task. If you have any questions, contact Ex Libris.

If you change your tablespace settings, you need to rerun the extraction process.

Copying the MFT SSH_KEY

In the extract process, you are asked to copy the `ssh_key` given to you by your Ex Libris representative. If you do not copy the entire key, the data is not packaged and transferred. If this situation occurs, do the following:

1. Close the extract menu.
2. Copy the entire content of the `ssh_key` (including the first and last "BEGIN"/"END" lines) and paste it into a text file in Windows.
3. Save the file with the following name: your generated Username + `_urm_sftp_ssh_key` (without any suffix). For example, if your user name = MyGenUsrName, the `ssh_key` file is named: MyGenUsrName_urm_sftp_ssh_key.
4. Copy the `ssh_key` file to the Verde server in the location where the Verde2Alma kit was placed in the `../VerdeMigrationCustomerMenu` directory.
5. Open a putty session to your Verde server, and go to the `../VerdeMigrationCustomerMenu` directory. Set permissions to your `ssh_key` file: `chmod 600 MyGenUsrName_urm_sftp_ssh_key`.
6. Rerun the extract menu. This time you are not asked to insert the `ssh_key`.