



## UTIL Menu Guide

March 2024

## CONFIDENTIAL INFORMATION

The information herein is the property of Ex Libris Ltd. or its affiliates and any misuse or abuse will result in economic loss. DO NOT COPY UNLESS YOU HAVE BEEN GIVEN SPECIFIC WRITTEN AUTHORIZATION FROM EX LIBRIS LTD.

This document is provided for limited and restricted purposes in accordance with a binding contract with Ex Libris Ltd. or an affiliate. The information herein includes trade secrets and is confidential.

## DISCLAIMER

The information in this document will be subject to periodic change and updating. Please confirm that you have the most current documentation. There are no warranties of any kind, express or implied, provided in this documentation, other than those expressly agreed upon in the applicable Ex Libris contract. This information is provided AS IS. Unless otherwise agreed, Ex Libris shall not be liable for any damages for use of this document, including, without limitation, consequential, punitive, indirect or direct damages.

Any references in this document to third-party material (including third-party Web sites) are provided for convenience only and do not in any manner serve as an endorsement of that third-party material or those Web sites. The third-party materials are not part of the materials for this Ex Libris product and Ex Libris has no liability for such materials.

## TRADEMARKS

"Ex Libris," the Ex Libris bridge, Primo, Aleph, Alephino, Voyager, SFX, MetaLib, Verde, DigiTool, Preservation, URM, Voyager, ENCompass, Endeavor eZConnect, WebVoyage, Citation Server, LinkFinder and LinkFinder Plus, and other marks are trademarks or registered trademarks of Ex Libris Ltd. or its affiliates.

The absence of a name or logo in this list does not constitute a waiver of any and all intellectual property rights that Ex Libris Ltd. or its affiliates have established in any of its products, features, or service names or logos.

Trademarks of various third-party products, which may include the following, are referenced in this documentation. Ex Libris does not claim any rights in these trademarks. Use of these marks does not imply endorsement by Ex Libris of these third-party products, or endorsement by these third parties of Ex Libris products.

Oracle is a registered trademark of Oracle Corporation.

UNIX is a registered trademark in the United States and other countries, licensed exclusively through X/Open Company Ltd.

Microsoft, the Microsoft logo, MS, MS-DOS, Microsoft PowerPoint, Visual Basic, Visual C++, Win32,

Microsoft Windows, the Windows logo, Microsoft Notepad, Microsoft Windows Explorer, Microsoft Internet Explorer, and Windows NT are registered trademarks and ActiveX is a trademark of the Microsoft Corporation in the United States and/or other countries.

Unicode and the Unicode logo are registered trademarks of Unicode, Inc.

Google is a registered trademark of Google, Inc.

# Table of Contents

---

<b>Chapter 1</b>	<b>Introduction .....</b>	<b>5</b>
	Purpose of this Document .....	5
	Running the UTIL Menu .....	5
	<i>Using dlib</i> .....	5
	<i>Without Using dlib</i> .....	6
	UTIL Menu Main Screen .....	6
<b>Chapter 2</b>	<b>UTIL HF – Voyager Hot Fix Utilities .....</b>	<b>9</b>
	UTIL HF/D – Download the Latest Voyager Hot Fix.....	9
	UTIL HF/G – Verify Downloaded Voyager Hot Fixes.....	9
	UTIL HF/I – Apply Voyager Hot Fix to Database .....	10
<b>Chapter 3</b>	<b>UTIL I – Index Maintenance.....</b>	<b>11</b>
	UTIL I/C – Check Index Regeneration Logs for Database.....	12
	UTIL I/I – Keyword Info .....	12
	UTIL I/K – Regenerate Keyword Files for Database .....	12
	UTIL I/M – Monitor Regen Progress for Database .....	14
	UTIL I/T – Clean the Cache Tables.....	14
<b>Chapter 4</b>	<b>UTIL O – Oracle Management .....</b>	<b>15</b>
	UTIL O/A – Add an Oracle Datafile for a Database .....	15
	UTIL O/C – Check the Oracle Tablespace.....	16
	UTIL O/D – DB Compare .....	17
	UTIL O/I – Check Database for Invalid Objects and Indexes .....	17
	UTIL O/U – Oracle Tablespace Statistics.....	18
<b>Chapter 5</b>	<b>UTIL S – OS Maintenance Activities .....</b>	<b>19</b>
	UTIL S/A – System Review .....	19
<b>Chapter 6</b>	<b>UTIL SP – Voyager Service Pack Utilities.....</b>	<b>21</b>
	UTIL SP/D – Download the Latest Voyager Service Pack.....	21
	UTIL SP/G – Verify Downloaded Voyager Service Packs.....	21
	UTIL SP/I – Apply Voyager Service Pack to Database .....	22

<b>Chapter 7</b>	<b>UTIL W – WebVoyage Utilities .....</b>	<b>23</b>
	UTIL W/A – Check Apache Syntax.....	23
	UTIL W/C – Create a New Skin.....	24
	UTIL W/M – Migrate webvoyage.properties to VXWS .....	24
	UTIL W/T – Restart Tomcat Services.....	24

# 1

---

## Introduction

This section includes:

- **Purpose of this Document** on page 5
- **Running the UTIL Menu** on page 5

## Purpose of this Document

This document describes the utilities that can be run as the `voyager` user via the UTIL Menu. The UTIL Menu is a menu driven interface for commonly used tasks and processes that were previously performed manually by system administrators, systems librarians, and Ex Libris Customer Support.

## Running the UTIL Menu

To run this utility, log on to Voyager or the database server as the `voyager` user. The UTIL Menu requires command line access to your server using a client such as PuTTY. Ensure that `/ml/utility/util` is defined in the environment `PATH` variable.

### Using dlib

When using the `dlib` command prior to running the UTIL, you are not prompted later to select a database. UTIL automatically selects the database you used for the `dlib` command.

```
su - voyager
dlib exldb
util
```

**NOTE:**

If you need to use UTIL for a different database, exit the UTIL menu and type:

```
dlib xxxdb
```

to source a different database.

---

## Without Using dlib

If you do not use the `dlib` command prior to running the UTIL, you are prompted to select which database you want to be the working database.

```
su - voyager
util
      Select Voyager Database
      =====
      1. exldb Database
      2. traindb Database
      X. Exit
      Select database to use:
```

**NOTE:**

If you need to use UTIL for a different database, press <ENTER> to exit the UTIL menu and return to the Select Voyager Database menu. Select the database in which you want to work.

---

## UTIL Menu Main Screen

After you log on to the UTIL Menu, the Main menu appears:

```
Library Utilities: Voyager database <DB>
=====
HF. Voyager Hot Fix Utilities
I. Index Maintenance
O. ORACLE Management
S. <OS> Maintenance activities
SP. Voyager Service Pack Utilities
W. WebVoyage Utilities
Please select [exit]:
```

Select an option from the list to run a utility for that type of utility. The following types of utilities are available:

- **UTIL HF – Voyager Hot Fix Utilities** on page 9
- **UTIL I – Index Maintenance** on page 11

- **UTIL O – Oracle Management** on page 15
- **UTIL S – OS Maintenance Activities** on page 19
- **UTIL SP – Voyager Service Pack Utilities** on page 21
- **UTIL W – WebVoyage Utilities** on page 23





# 2

---

## UTIL HF – Voyager Hot Fix Utilities

This section includes:

- UTIL HF/D – Download the Latest Voyager Hot Fix on page 9
- UTIL HF/G – Verify Downloaded Voyager Hot Fixes on page 9
- UTIL HF/I – Apply Voyager Hot Fix to Database on page 10

Select **HF** from the Main menu to perform Voyager hot fix tasks. The following menu appears:

```
Voyager Hot Fix Utilities: Voyager database <DB>
=====
D. Download the latest Voyager Hot Fix
G. Verify Downloaded Voyager Hot Fix
I. Apply Voyager Hot Fix to <DB>
```

Select an option from the Voyager Hot Fix Utilities menu.

### UTIL HF/D – Download the Latest Voyager Hot Fix

This utility downloads the latest hot fix available for installation. If there are no hot fixes currently available, no action occurs.

### UTIL HF/G – Verify Downloaded Voyager Hot Fixes

This utility verifies that the hot fix has been downloaded successfully.

## UTIL HF/I – Apply Voyager Hot Fix to Database

This utility applies the Voyager hot fix to the selected database. For complete instructions on how to apply a hot fix, see the *README* displayed as the initial screen of the hot fix version you are applying. The hot fix *README* describes what bugs the hot fix resolves, special instructions, and any regens that are necessary.

# 3

---

## UTIL I – Index Maintenance

This section includes:

- **UTIL I/C – Check Index Regeneration Logs for Database** on page 12
- **UTIL I/I – Keyword Info** on page 12
- **UTIL I/K – Regenerate Keyword Files for Database** on page 12
- **UTIL I/M – Monitor Regen Progress for Database** on page 14
- **UTIL I/T – Clean the Cache Tables** on page 14

Select **I** from the Main menu to perform index maintenance tasks. The following menu appears:

```
Index Maintenance: Voyager database <DB>
=====
C. Check index regeneration logs for <DB>
I. Keyword Info
K. Regenerate keyword files for <DB>
M. Monitor regen progress for <DB>
T. Clean the <DB> cache tables
```

The tasks in this section are related to regenerating the keyword data files for the Voyager database.

Periodically, you may want to regenerate the external keyword data files for bibliographic data in order to improve keyword performance. Performing a regen also clears keyword search results display discrepancies in both the Web OPAC and the Voyager clients.

Select an option from the Index Maintenance menu to run a utility.

---

### NOTES:

For information regarding the following tasks, please contact Voyager Support:

- **UTIL I/J – Run CTX Jobs for Database**
  - **UTIL I/T – Clean the Database Cache Tables**
-

## UTIL I/C – Check Index Regeneration Logs for Database

This utility checks the log files for known errors and issues of previous regens.

```
Check index regeneration logs for exldb
=====

Indexing warnings:
  Bib convert warning = bibid = 54714

Oracle warnings:

Other Warnings:
```

---

**NOTE:**

The warning `Bib convert warning = bibid =` means that this record was never successfully converted to Unicode compliance during or after the upgrade to the Voyager with Unicode release. To fix this warning, send the bibliographic record IDs to the cataloging staff to correct the characters so that they are Unicode compliant.

---

## UTIL I/I – Keyword Info

This utility reports the current keyword information such as file sizes, when the last regen was performed, and if it is recommended to run a regen.

```
Voyager Keyword Statistics for exldb
=====
Last Regen Run:                Apr 20 10:42
Total Keyword File Size:       36676 K
Dynamic Keyword File Size:     2056 K
Keyword Regen suggested:       No
Required regen diskpace:       1000 MB
```

## UTIL I/K – Regenerate Keyword Files for Database

This utility runs a keyword regen on a selected database. If the regen is running and your session is disconnected, the regen continues to run in the background on the server. If you want the keyword regen to run overnight, ensure that the scheduled server reboots and backups are disabled. These processes disrupt your regens and may result in searches working inconsistently.

The utility asks if you want to receive an e-mail when the regen is complete. This option is available if your server is configured to send e-mail. If you type **No**, the index regen still runs but you are not notified via e-mail when it completes. If you type **No** for any of the other options, you are returned to the Index Maintenance menu.

```

Regenerate keyword files for exldb
=====

!!!WARNING!!!

In order to run a regen, Voyager must place the entire catalog
into read-only
mode. This will prevent the use of Acquisitions and Cataloging
for the
duration of the regen. Other modules may still be used, but
performance speeds
may suffer due to the amount of resources a regen uses. Please
make sure that
you discuss this with your library staff before continuing.
Required regen diskspace for exldb = 1000 MB
Available Filesystem diskspace = 26137 MB
Filesystem disk space is enough for exldb regen
Do wish to continue running the index regeneration? [YES|no]
YES

Files from a previous regeneration of pipdb are present
on your system under /ml/voyager/utility/2010.0.0/
exldb.

Do you wish to clean up /ml/voyager/utility/2010.0.0/exldb?
[yes|NO] YES

Cleaning up old regen files for
exldb.....OK
Do wish to be e-mailed when index regeneration is complete?
[yes|NO] YES

Please enter your e-mail address: user@exlibrisgroup.com

Creating a new index regen directory for
pipdb.....OK
Configuring keyword regen for
pipdb.....OK
Enabling e-mail to user@exlibrisgroup.com.....OK
Ensuring that all Oracle indexes exist for
elxdb.....OK
Creating index regen wrapper script...
Do you wish to monitor the progress of your regen? [yes|NO]

```

If you choose to monitor the progress of your regen, press **Ctrl + C** if you want to exit while the regen is still in progress. When you exit monitoring, you exit the UTIL menu and return to your SSH session.

## UTIL I/M – Monitor Regen Progress for Database

While the regen is running, you can view the ongoing status of the regen. Note that a lot of information appears on the screen while you are monitoring the main regen log. Press **Ctrl + C** to exit the monitoring of the log. This does not disrupt the regen. You can view the completed log in `/ml/voyager/utility/<VERSION>/<db>/REGEN.<db>.log`.

## UTIL I/T – Clean the Cache Tables

Under some circumstances, the OPAC cache tables `cache_segs` and `cache_maps` may fall out of synchronization. This is typically due to circumstances where there are many simultaneous cataloging events or many simultaneous bulk imports using the `-M` flag. When these tables are out of sync, limit searches such as left-anchored or keyword journal title searches may not retrieve all results. Please open a ticket with Voyager support if you encounter these circumstances. This step will truncate the cache tables forcing Voyager to rebuild them. This may lead to short term performance and search problems, but it should resolve the issue.

# 4

---

## UTIL O – Oracle Management

This section includes:

- **UTIL O/A – Add an Oracle Datafile for a Database** on page 15
- **UTIL O/D – DB Compare** on page 17
- **UTIL O/U – Oracle Tablespace Statistics** on page 18

Select **O** from the Main menu to perform Oracle management tasks. The following menu appears:

```
ORACLE Management: Voyager database <DB>
=====
A. Add an Oracle datafile for <DB>
C. Check the Oracle Tablespace for <DB>
D. DB Compare <DB>
I. Check <DB> for invalid objects and indexes
U. Oracle Tablespace Statistics
```

This section manages Oracle datafiles, compares Voyager schema to a known valid schema, and checks Oracle for invalid objects and indexes. It also reports on Oracle statistics.

Select an option from the Oracle Management menu.

### UTIL O/A – Add an Oracle Datafile for a Database

An Oracle datafile is a physical file on the operating system that stores the data found in an Oracle tablespace. Datafiles are critical to the operation of the Oracle application and the storing of the data Voyager uses.

If the tablespace for the Voyager database requires additional space in the Oracle tablespace, run this utility to add an additional Oracle datafile. You are required to log on as the Oracle administrator to perform this task.

**NOTE:**

The Oracle administrative user needed is an Oracle database user and not the Oracle user for logging into the operating system. The default user is `system`. Open a case with Support using Salesforce if you do not know the password for this user. Another user with DBA privileges can also be used.

---

```
Add an Oracle datafile for exldb
=====
Enter the oracle administrative user [system]:
Enter the oracle password for user system: XXXX
Checking system/
XXXX.....OK

About to create a new datafile for Voyager database
exldb:
alter tablespace EXLDB add datafile
    '/oracle/oradata/VGER/data/exldb_03.dbf' size 100M
    autoextend on next 100M maxsize 4000M;
Are you sure you want to continue? [yes|NO] yes

Adding datafile /oracle/oradata/VGER/data/
exldb_03.dbf.....
Tablespace altered.
```

## UTIL O/C – Check the Oracle Tablespace

This utility will check the Oracle Tablespace for your Voyager database. If it finds that your tablespace is more than 80% utilized, it adds an additional datafile for this tablespace. You are required to log on as the Oracle administrator to perform this task.

**NOTE:**

Prior to running this step you will want to ensure that you have enough disk space free for the new datafile to grow to its max size of 4 GB.

---

**NOTE:**

The Oracle administrative user needed is an Oracle database user and not the Oracle user for logging into the operating system. The default user is `system`. Open a case with Support using Salesforce if you do not know the password for this user. Another user with DBA privileges can also be used.

---

```
Tablespace <DB> used space is OK. It is using 70%.
The maximum recommended used space is 80%.
```



## UTIL O/D – DB Compare

This utility compares the objects in your Voyager database schema to a known working schema. It can be used to see if all objects exist in your schema. It does not check to see if objects are valid or if there are any invalid objects.

### NOTE:

When reviewing the `dbcompare` log, you may find extra indexes and missing indexes. This is normal and is the result of the way that the reference database is compared to your database schema.

The following is an example of the output. The extra and missing indexes listed are a normal result of the database comparison. If you are not sure whether you have the expected output, open an incident with Support via eService.

```
extra indexes in exldb ...

SYS_IOT_TOP_75135
SYS_IL0000074499C00002$$
SYS_IL0000075127C00006$$
SYS_IL0000075132C00002$$
SYS_IL0000074508C00016$$
SYS_IOT_TOP_75130
SYS_IL0000074494C00004$$

indexes missing from exldb ...

SYS_IOT_TOP_330037
SYS_IL0000329311C00002$$
SYS_IOT_TOP_330032
SYS_IL0000329308C00004$$
SYS_IL0000330034C00002$$
SYS_IL0000330029C00006$$
```

When the database compare output completes, type **Q** to return to the Oracle Management menu.

## UTIL O/I – Check Database for Invalid Objects and Indexes

This utility checks to ensure that all objects for the schema are valid.

```
Check pipdb for invalid objects and indexes
=====

No invalid objects found...
```

## UTIL O/U – Oracle Tablespace Statistics

This utility produces a report of names, as well as the amount of total, used, and free memory in the Oracle instance. You are required to log on as the Oracle administrator to perform this task.

---

**NOTE:**

The Oracle administrative user needed is an Oracle database user and not the Oracle user for logging into the operating system. The default user is `system`. Open a case with Support using Salesforce if you do not know the password for this user. Another user with DBA privileges can also be used.

---

Tablespace Sizing Information for Voyager			
TS Name	Total MB	Used MB	Free MB
-----	-----	-----	-----
EXLDB	1,000	775	225
SYSAUX	520	484	36
SYSTEM	690	688	2
TEMP	100	0	100
TRAINDB	900	711	189
UNDOTBS1	735	11	724
USERS	5	0	5
-----	-----	-----	-----
sum	3,950	2,669	1,281

# 5

---

## UTIL S – OS Maintenance Activities

This section includes:

- **UTIL S/A – System Review** on page 19

Select **S** from the Main menu to perform OS maintenance tasks. The following menu appears:

```
<OS> Maintenance activities: Voyager database <DB>
=====
A.System Review
```

### UTIL S/A – System Review

This utility provides basic information on your Voyager environment such as the IP, Hostname, Port Series of the Voyager database, and extension modules.

If it is an application or database server it reports on the number of Bibliographic, MFHD, and authority records.

```
System Review
=====
System IP: <xxx.xxx.xxx.xxx>
Hostname: <hostname>
Operating System: <os>
Hosted by Ex Libris: false

Information for exldb:
-----
Port Series: 7000
Voyager Version: 2010.0.0
Oracle Version: 12.1.0.2.0

Database Statistics
-----
# of Auth Records: ####
# of Bib Records: ####
# of MFHD Records: ####

Extension Modules
-----
Media Scheduling
Self Check
```

# 6

## UTIL SP – Voyager Service Pack Utilities

This section includes:

- **UTIL SP/D – Download the Latest Voyager Service Pack** on page 21
- **UTIL SP/G – Verify Downloaded Voyager Service Packs** on page 21
- **UTIL SP/I – Apply Voyager Service Pack to Database** on page 22

Select **SP** from the Main menu to perform Voyager service pack tasks. The following menu appears:

```
Voyager Service Pack Utilities: Voyager database <DB>
=====
D. Download the latest Voyager Service Pack
G. Verify Downloaded Voyager Service Pack
I. Apply Voyager Service Pack to <DB>
```

Select an option from the Voyager Service Pack Utilities menu.

### UTIL SP/D – Download the Latest Voyager Service Pack

This utility downloads the latest service pack available for installation. If there are no service packs currently available, no action occurs.

### UTIL SP/G – Verify Downloaded Voyager Service Packs

This utility verifies that the service pack has been downloaded successfully.

## UTIL SP/I – Apply Voyager Service Pack to Database

This utility applies the Voyager service pack to the selected database. For complete instructions on how to apply a service pack, see the *Voyager Service Pack Installation Guide* for the service pack version you are applying, available on the Documentation Center. The service pack documentation provides detailed instructions for applying the service pack, including any special instructions and regens that may be necessary.

# 7

## UTIL W – WebVoyage Utilities

This section includes:

- UTIL W/A – Check Apache Syntax on page 23
- UTIL W/C – Create a New Skin on page 24
- UTIL W/M – Migrate webvoyage.properties to VXWS on page 24
- UTIL W/T – Restart Tomcat Services on page 24

Select **W** from the Main menu to perform WebVoyage utilities tasks. The following menu appears:

```
WebVoyage Utilities: Voyager database <DB>
=====
A. Check Apache Syntax
C. Create a new skin
M. Migrate webvoyage.properties to VXWS
T. Restart tomcat services for <DB>
```

Select an option from the WebVoyage Utilities menu.

### UTIL W/A – Check Apache Syntax

This utility runs a basic apache check. If you make any changes to Apache, run this utility to confirm that there are no errors in the Apache syntax. This ensures that Apache successfully restarts after the next server reboot or Apache restart.

```
Check Apache Syntax
=====

Checking Apache syntax for /m1/shared/apache2:
Syntax OK
```

## UTIL W/C – Create a New Skin

This utility creates a new skin for the selected database.

```
Create a new skin
=====

Enter the name for your new skin: NEWSKIN
Skin NEWSKIN created
```

## UTIL W/M – Migrate webvoyage.properties to VXWS

If you are currently using the OPAC via Primo functionality and want to migrate all of your current OPAC configurations from WebVoyage to OPAC via Primo, run this utility to generate a new `vxws.properties` file with customizations extracted from the `vwebv.properties` file. Ensure that you have successfully backed up your original `vxws.properties` file before running this utility.

Enter the hostname / fully qualified domain name or IP of Tomcat WebVoyage for this database and the port of your Tomcat WebVoyage. This information is necessary for populating values in the `vxws.properties` file.

```
Select Skin
=====
1.en_US Skin
2.exl_default Skin
3.NEWSKIN Skin
4. sandbox Skin
X. Exit
Enter Skin: 3

Migrate webvoyage.properties to VXWS
=====
Enter vwebv host for skin NEWSKIN [xxx.xxx.xxx.xxx]:
Enter vwebv port for skin NEWSKIN [xx08]:
Successfully refreshed /ml/voyager/exldb/tomcat/vxws/context/
vxws/ui/NEWSKIN/vxws.properties
```

## UTIL W/T – Restart Tomcat Services

Run this utility to restart the OPAC and/or Tomcat services. This utility affects the following tomcat services for the selected voyager databases: `vwebv`, `vxws`, `vpds`, `vprimo`, `vprimo01`, `PSR`, and `smsproxy`. Note that your OPAC and other



tomcat services are temporarily not available until the tomcat services are ready and accept connections.

```
Restart tomcat services for exldb
=====
Stopping tomcat
services.....OK
Starting tomcat
services.....OK
Waiting for tomcat to initialize.....
```

If after stopping or starting tomcat `WARNING` is displayed instead of `OK`, perform the following steps on the voyager server:

- 1 Type the following:

```
su - voyager
ps -ef |grep java | grep <db>
```

- 2 If no processes exist, manually restart the OPAC:

```
cd /m1/voyager/<db>/tomcat
./tsvrcctl start
```

- 3 Check the logs for any problems:

```
cd /m1/voyager/<db>/tomcat/logs
view *
```

If you are unsure on how to proceed, open a Support Incident via eService.

