Primo Upgrade Express 3.1.2 (and Higher) to 4.0x User Guide

Version 4.x

ExLibris The bridge to knowledge

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Introduction

Intended Audience

This document provides detailed instructions on how to perform the Upgrade Express from Primo version 3.1.2 (or higher) to version 4.0x and is written for those who will perform the upgrade. A separate document, Primo V4 Upgrade Highlights, is intended as an overview of the Primo upgrade process and provides a high-level explanation of the process.

The Primo System Librarian is best suited for running the Upgrade Express for two main reasons:

- Basic familiarity with UNIX is required.

- A good understanding of Primo configuration and architecture is required.

Note: We strongly recommend that you read the above-mentioned Highlights document carefully as well as sections 1 and 2 of this document before running the upgrade.

Objectives of the Upgrade Express

The main objectives of the Upgrade Express are the following:

- Provide customers with a menu-driven kit to upgrade Primo from version 3.1.2 (and higher) to version 4.0x.

- Perform the upgrade of Primo quickly and efficiently so that the cutover phase takes a minimal amount of time.

- Automate the version 3.1.2 (and higher) customer data conversion, reducing manual changes and configuration.

- Allow customers to test the data conversion and to fine-tune the new upgraded system while not affecting the current live system.

Upgrade Express Methodology and Orientation

The methodology of Upgrade Express is as follows:

- Install a new Oracle database.

- Export the old DB schemas to the new DB schemas.

- Install new Primo 4.0x with the customer's data from Primo 3.1.2 (or higher).

The final results after running Upgrade Express are the following:

- A Primo 4.0x software environment with the customer's 3.1.2 (or higher) configuration and data

- A new Oracle database with new SID

The Upgrade Express menus guide you step-by-step as you move from one stage to another. Steps should be run in the order presented in the menus. It is not possible to jump over mandatory steps. An error message will display if you attempt to do so.

While the Upgrade Express process is being executed, the Primo 3.1.2 (or higher) production instance can continue to function in parallel. However, Ex Libris obligates you to change the 3.1.2 (or higher) production instance to read-only mode (as described in section 2.7 of the Step-by-Step Instructions for Pre-Upgrade Express document). In addition, please note that Primo V.3 and Primo V.4 will be using the same ports and cannot be up and running at the same time.

The Target version (4.0x) will be installed on the same server as V3. Hardware and operating system requirements for 4.0x and the size of the customer's database must be taken into account.

Note: Upgrade Express must be run on Primo versions 3.1.2 and higher.

Guidelines for Running UE on Test/Production Servers and Instances

If you have test and production instances of Primo, you should download Upgrade Express to your test server first and then perform a trial run of Upgrade Express to familiarize yourself with the upgrade process. Ex Libris strongly favors and urges customers to use this option.

After such a test run, it is important to start the procedure from scratch by downloading the package again and running the entire Upgrade Express process on the production instance.

Running a test on the V3 staging instance allows customers to do the following:

- Estimate the time it will take to run each step so that you can plan the final STP (Staging to Production). Of course, this is may only be a general estimation because servers and data are not identical for Staging and Production.

- Simulate the final Upgrade Express conversion process as much as possible.

- To allow testing and localization of Primo V.4 without affecting the Primo V.3 production instance.

Note: To ensure data integrity, it is mandatory to switch the Primo V3 instance to read-only mode. For more information, see Appendix B, "Switch to Read-Only Mode."

The upgrade DB process and some other Upgrade Express processes use substantial system resources and should not be run during peak hours.

Glossary

The following terms are used throughout the document:

- **Upgrade Process** – The upgrade process comprises the entire process of upgrading a Primo local installation from version 3.1.2 (and higher) to version 4.0x, using the following kits: Primo Pre Upgrade kit (PPUK), Oracle Upgrade kit, and Primo Upgrade Express Kit (UEK).

- **UE (Upgrade Express)** – An upgrade process that is governed by a methodology, which is used for Ex Libris products.

- **UEK (Upgrade Express Kit)** – The Upgrade Express Kit includes the menu, scripts, and programs that are used to execute the Upgrade Express process.

- **POIKE** – Primo Oracle Installation Kit Extender

- **PPUK** (Primo Pre-Upgrade kit) – Upgrade Express Kit includes a menu, scripts, and programs.

- **Primo Instances**:

    - **Source** – Current Primo 3.1.2 (and higher) installation

    - **Target** – New Primo 4.x installation

- **SP** – Primo Service Pack

Description of the Main Stages of the Upgrade Process

Note: This section provides a general description of the main stages of Upgrade Express the first time that it is executed. It is important that you read this section before moving to the specific step-by-step instructions provided later in this document.

The following major stages are required in order to upgrade from Primo 3.1.2 (or higher) to Primo 4.0x:

1   Execute the Primo Pre-Upgrade Kit (PPUK) on all Primo servers in the environment. The main reason for running PPUK is to ensure the correct sizing of disk space and memory before the execution of the upgrade process.

    You must execute the PPUK on the servers in the following order: FE, BE, and then SE.

2   Execute the Primo Oracle Installation Kit Extender (POIKE) in order to upgrade to ORACLE version 11.2.0.3. POIKE should be executed on the database server first and then on the remaining servers.

    Before this stage you must also change all FEs to read-only mode in order to prevent any changes in the V3 source.

Note: If the database server is dedicated to the Oracle installation and does not include Primo, you will *not* have to execute the PPUK and UEK on it.

3   Execute the Upgrade Express Kit (UEK) from 3.1.2 (or higher) to 4.0x on all Primo servers in the environment.

    You must execute the UEK on the servers in the following order: BE, FE, and then SE.

4   Execute the post-upgrade steps.

Customer-Owned and Primo-Owned Data

It is important to differentiate between customer-owned data and Primo- owned data. The upgrade kit converts customer-owned data from the source 3.1.2 (or higher) instance to the target 4.0x instance. Primo-owned data is delivered via the new V4 installation.

Note: The upgrade process overwrites all Primo-owned data and copies customer-owned data from V3 to V4. If any Primo-owned files were customized in Primo V3, the customization will be lost. Therefore, it is the customer's responsibility to back up these files and plan how to preserve them if they are needed for Primo 4.0x.

Appendix A contains list of files that are copied from the source 3.1.2 (or higher) instance to the target 4.0x instance.

Restrictions

Upgrade Express cannot be applied to any version earlier than Primo 3.1.2.

In a consortium, all the member institutions must be upgraded together and must be switched to production at the same time. Unfortunately, there is no mechanism to upgrade individual institutions.

Once the Upgrade Process starts, no changes are allowed to the local institutional setup of the V3 source (such as adding a new institution, changing code tables, or running pipes)

Related Documents

Primo V4 Upgrade Highlights

Requirements for Primo 4 Installation

Operating System Requirements for Red Hat Enterprise

Operating System Requirements for the Sun Platform

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Step-by-Step Instructions for the Pre-Upgrade Express Kit (PPUK)

General Notes

1   The Primo Pre-Upgrade Kit (PPUK) should be executed on all Primo servers, in the following order: FE, BE, and then SE.

Note: It is required to run the PPUK on the FEs first, wait for it to complete, and then run it on the other machines.

2   The execution of PPUK can be done as the **primo** user only.

3   The execution of PPUK can be done only from the following directory:

```
/exlibris/primo/primo_V4ue_pre_upgrade
```

4   The execution of PPUK can be done only on V3 environment.

5   It is required to have 200% of the current V3 software directory (such as p3_1).

For example, a customer who has 10 GB today would need a total of 30 GB, which is an additional 20GB.

6   If the machine has more than one Primo slot (such as p3_1 and p3_2), PPUK should be executed on each slot. After completing the upgrade for the first slot, you must copy the old kit and download PPUK (exactly like it was done for the first slot). Follow these instructions:

```
cd /exlibris/primo/
```

```
mv primo_V4ue_pre_upgrade primo_V4ue_pre_upgrade.old
```

7 To ensure data integrity, you must switch the Primo V3 instance to read-only mode, which includes Deploy Views and stopping the V3 Back Office. For more information, see Appendix B.

8 If there is a large time gap between the executions of the PPUK and UEK and you want to switch back to read-write mode, it is possible to run the `undoreadonly` script. For more information, see **Running Undo Read-Only Mode** on page **17**.

9 Please read section **Step 1: Add/Change User Parameters** on page **36** and make sure that you decide which institution will be your central/main institution. If you belong to a consortium, Ex Libris recommends that you add a central institution before starting PPUK.

10 The Multiple Facets (added with SP4.0.1) and Browse Search (added with SP 4.1) features may require additional memory. To verify whether the system has sufficient memory to run these features, PPUK runs a memory check. If this check fails, you can continue with the upgrade, but you should not enable these features until the memory has been upgraded.

Installing the Pre-Upgrade Express Package

The Pre-Upgrade Express Package is a tar file that should be downloaded from the FTP server and extracted to the following directory on your server:

```
/exlibris/primo
```

Connect to the FTP Server

To download the tar file:

1 Log on to the Primo server as the **primo** user.

2 Enter the following commands to access the FTP server:

```
cd /exlibris/primo

ftp ftp.exlibrisgroup.com
```

3 At the following prompt, enter **primo4_up** for the name:

```
Connected to ftp.exlibris.co.il (212.179.57.155)
220 SurgeFTP ftp.exlibris.co.il (Version 2.2k13)
Name: <prompt>
```

4 At the password prompt, enter the server's password. Contact your local support office for the password.

The following information displays:

```
331 Password required for primo4_up
Password: <prompt>
```

```
230-Welcome to the Ex Libris FTP Server
230 User <user name> logged in.
Remote system type is UNIX.
```

5   Enter the following commands at the ftp> prompt to download the package, making sure
    that interactive mode is off and binary mode is on:

    ```
    ftp> bin

    ftp> prompt

    ftp> get primo_V4ue_pre_upgrade.1.05.tar.gz

    ftp> quit
    ```

Extract the Tar Package

To extract the tar file that you downloaded in the previous step:

1   Enter the following commands to extract the tar file to the `/exlibris/primo` directory:

    ```
    gzip -d primo_V4ue_pre_upgrade.1.05.tar.gz

    tar -xvf primo_V4ue_pre_upgrade.1.05.tar
    ```

2   Enter the following commands to see if the Pre-Upgrade Express directory tree was created:

    ```
    cd /exlibris/primo

    ls -d primo_V4ue_pre_upgrade
    ```

Pre-Upgrade Express Log Files

The main log file that is used for the pre-upgrade is called `V4pre_upgrade.log`, which is
located under the following directory:

> `/exlibris/primo/primo_V4ue_pre_upgrade/logs`

The log files are accumulative, which means that it contains information about all of the steps
performed from the first round of Pre Upgrade Express until the last one, regardless of how
many times the various UE steps were run.

The log file includes the following information:

- The description of the task being performed

- Progress reports of process

- Report successful tasks

- Warnings

- Alerts for errors

Running Pre-Upgrade Express

The pre-upgrade express process consists of four steps. An additional step which is called Changing to Read-Only mode appears only on the FE machine. A notification displays after the success or failure of each step. These checks should not take too long, so you should supervise the procedure as it is running.

Before executing the steps, a minus sign (-) appears next to each step. After a successful completion of a step, the minus sign changes to **OK** to indicate that the step has already been performed. Note that the **OK** indication appears only after you refresh the menu. If a step fails, the minus sign changes to an **F** indication to indicate that the step has failed. If a step fails, you may need to perform the task again or rerun the step after making necessary changes to correct the problem. For any assistance with failed steps, contact your local support office.

Important: The PPUK does not prevent you from continuing to the next step if a step has failed. Ex Libris encourages you to complete the PPUK to receive a broad impression on all of the checks.

Step 5 (read-only mode) is required during the execution of POIKE only. You may wait to enter read-only mode after completing all checks of PPUK.

Steps to Perform on the 3.1.2 (or higher) Source Instance

To start Upgrade Express on the source instance:

1 Log on to the Primo V3 source instance.

2 Enter the following commands to run the utility:

```
cd /exlibris/primo/primo_V4ue_pre_upgrade
./V4ue_menu_precheck
```

A menu-driven interface opens with two or three options. Note that a minus sign next to a step indicates that it has already been run:

```
                Primo V4 Pre Upgrade Express Kit
-------------------------------------------------------------------------

Date: Sun Nov 20 16:25:32 IST 2011
OS: Linux
Primo version: 3.1.2
Primo directory: /exlibris/primo/p3_1
Oracle database: prm3
Oracle Server: il-primo07
Server : il-primo07 is BE,FE,SE
```

```
----------------------------------------------------------------------
-  1. Check disk space
-  2. Check memory
-  3. Check third-party requirements
-  4. Check Oracle requirements
   5. Change V3 to Read-Only mode

Enter key (q to quit)[q]:
```

3   Enter the option number to run the following tasks:

- ▪ (**1**) **Check Disk Space** on page **15**.

- ▪ (**2**) **Check Memory** on page **16**.

- ▪ (**3**) **Check Third-Party Requirements** on page **16**.

- ▪ (**4**) **Check Oracle Requirements** on page **16**.

- ▪ (**5**) **Change V3 to Read-Only Mode** on page **17**.

For the first four tasks, you can monitor log output message via the `V4pre_upgrade.log` file in the following directory:

```
/exlibris/primo/primo_V4ue_pre_upgrade/logs
```

Check Disk Space

This option checks the size of free disk space as described in prerequisites section. This check may take few minutes, so please wait until a message is displayed. After successful completion, an **OK** indication appears next to the option in the menu.

If machine is also a database machine, you will be prompted to insert the database mount point, which is usually `/exlibris`. If no value is inserted, PPUK will insert `/exlibris` as the mount point:

```
                    Primo V4 Pre Upgrade Express Kit
----------------------------------------------------------------------
Date: Wed Jun 27 03:53:54 EDT 2012
OS: Linux
Primo version: 3.1.3
Primo directory: /exlibris/primo/p3_1
Oracle database: prm3
Oracle Server: dc02vg0100na
Server- : dc02vg0100na.hosted.exlibrisgroup.com is BE,FE,SE


----------------------------------------------------------------------
Please enter database mount point for system [ /exlibris ] :
```

If the check fails, an **F** indication will appear next to the option in the menu, indicating that the check failed. It is possible to run this step again or continue to the next step.

Check Memory

This option checks the size of free memory as described in the prerequisites section. This check is performed only on machines that are configured as an SE. If this check fails, please check memory issue or contact Primo Support Team. After successful completion, an **OK** indication appears next to the option in the menu. If the check fails, an **F** indication appears next to the option in the menu, indicating that the check had failed. It is possible to run this step again or continue to the next step.

PPUK performs this check to secure enough memory allocation for the following new features in V4: Multiple Facets and Browse Search. If the check fails, do not enable these features after upgrading to V4.

Check Third-Party Requirements

This check downloads the third-party scripts and checks the third-party requirements. Upon successful completion, an **OK** indication appears next to the option in the submenu.

If the check fails, an **F** indication will appear next to the option in the menu, indicating that the check failed. It is possible to run this step again or continue to the next step.

Check Oracle Requirements

This step checks whether the server meets the specifications required for the Primo version 4.00 installation, which are described in the *Requirements for Primo V4 Installation* document. Detailed OS requirements can be found in the *Operating System Requirements for the Sun Platform* and *Operating System Requirements Red Hat Enterprise Linux* documents on the Documentation Center.

If you receive an error message after running this step, you should contact your local System Administrator to solve the problem.

Detailed information regarding pre-installation checks that have a FAULT indication can be found in the following log:

```
/exlibris/primo/primo_V4ue_pre_upgrade/logs/V4pre_upgrade.log
```

Upon successful completion, an **OK** indication appears next to the option in the submenu. If the check fails, an **F** indication will appear next to the option in the menu, indicating that the check failed. It is possible to run this step again or continue to the next step.

Change V3 to Read-Only Mode

This option is required and changes the database to Read-Only mode. After successful completion, an **OK** indication appears next to the option in the menu.

If the check fails, an **F** indication will appear next to the option in the menu, indicating that the check failed. It is possible to run this step again.

After running this step, you are required to do the following:

- Deploy views

- Stop V3 Back Office

For more information, see **Switch to Read-Only Mode** on page **62**.

Running Undo Read-Only Mode

During the upgrade, the environment should be in read-only mode until the end of the upgrade process. Therefore, Ex Libris does not recommend switching back to the regular read-write mode during the upgrade. However, if it is necessary to switch back to read-write mode before the upgrade completes, execute the following commands on every FE server:

```
cd
/exlibris/primo/primo_V4ue_pre_upgrade/main_dir/scripts/internal_scr
ipts
```

```
bash ./undoreadonly.bash
```

The `undoreadonly.log` is updated each time this script is executed. The log can be found in the following directory:

```
/exlibris/primo/primo_V4ue_pre_upgrade/logs
```

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Primo Oracle Installation Kit Extender (POIKE)

Introduction

Note: Ex Libris provides Primo Oracle Installation Kit Extended (POIKE) for customer self-installation. Ex Libris recommends that the installation be performed by a local System Administrator or DBA. The installation takes a few hours depending on the server. Ex Libris offers installation services at a cost to interested customers. Please contact your local office to obtain a quote.

This chapter provides instructions for the automatic installation of Oracle version 11.2.0.3 for the Primo upgrade from V3 to V4. The package facilitates installation of Oracle 11.2g, creation of an Oracle database, and the export/import routine for data migration from Primo V3 to V4.

The POIKE includes the following components:

- Installation package - scripts and init files

- Oracle RDBMS v.11.2.0.3 Enterprise edition

- Oracle database for Oracle RDBMS v.11.2.0.3

- Export and import files

The installation using POIKE involves the following steps:

1   Download software from FTP server

2   Pre-installation tasks

3   Oracle database installation and configuration

4   Data migration

Note: Upgrades for Oracle software and databases that are installed by the customer's DBA are the responsibility of the customer's DBA.

Note: POIKE cannot be used for upgrades of databases that are installed with Oracle RAC technology.

Installation Overview

The POIKE can be downloaded from the Ex Libris FTP server or, in special circumstances, supplied as a DVD package for customers with strict security policies.

Customers should contact their local support office for the username and password for accessing the Ex Libris FTP server.

The Oracle software installation is performed in the following standard directory:

```
/exlibris/app/oracle/product/11r2
```

The following log file contains confirmation and feedback for the installation, the status of each step, and reporting errors:

```
/exlibris/ftp_from_exlibris/POIKE2/log/primo_installation_kit.log
```

The installation with all the relevant POIKE steps should be done on all Primo Servers. The database creation and data migration are relevant for the DB server only.

Note:
1. For installations in topologies other than all-in-one, POIKE must be installed on the DB server first. Only after finishing DB installation and data migration on DB server, you can proceed with the Oracle client installations on all application servers.

2. The new database should be created only once on the DB server. The data migration process should also be activated only once on the DB server.

3. For installation on application servers, you must use the same database name you used on the DB server during the creation of the Primo V4 database.

Preparation for Installation

Creating the ftp_from_exlibris Directory

To prepare for FTP downloads, you must create the following directory on each server if it does not exist:

    /exlibris/ftp_from_exlibris

To create the directory:

1   Log on to the server as root.

2   Enter the following commands:

    cd /exlibris

    mkdir ftp_from_exlibris

3   If the `ftp_from_exlibris` directory already exists, clean it up by removing all files or subdirectories from it.

Download POIKE from Ex Libris FTP Server

Contact your Ex Libris Support representative to get the username and password for the POIKE download.

To download the installation package from the Ex Libris FTP server:

1   Execute the following commands on all Primo servers:

    cd /exlibris/ftp_from_exlibris

    ftp ftp.exlibrisgroup.com

2   Enter the login information that you received from your Ex Libris representative.

3   Enter the following commands to download the tar file from the FTP server:

    ftp> bin

    ftp> get POIKE2.<date>.tar

    ftp> quit

4   Enter the following command to extract the POIKE package on your machine:

    tar -xvf POIKE2.<date>.tar

Installation

Note: You should run all POIKE steps with root or sudo permissions. Use **su** instead of **su –** to get root permissions and stay with the Primo environment definitions.

You can exit the POIKE at any stage of the installation. To start or restart the process, enter the following commands:

```
cd /exlibris/ftp_from_exlibris/POIKE2
./ikit_menu
```

POIKE – Configuring Installation Parameters

The first time you execute `ikit_menu`, the system prompts you to configure the installation parameters used for the upgrade. These parameters are the main installation parameters and should be configured carefully. After the initial configuration of the installation parameters, the system displays the main POIKE menu.

Note: For most of installation parameters, you will be prompted with a default value. You can change it by entering a different value or type **Enter** to use the default.

The system prompts you to configure the following installation properties:

- **SERVER_NAME** – Enter the FQDN (fully qualified domain name) of the server you are installing. This name will be used for other servers in the topology, so confirm with your System Administrator that the server name is known to the other servers that are included in the current Primo topology.

- **Email** – Enter your e-mail address. It will be used to send notifications regarding the installation process. Only one e-mail address should be entered.

- **Target ftp directory** – Enter the target FTP location to which all required Primo software should be downloaded. Make sure that the same directory has been created on all servers.

- **Installation copy** – Enter the copy number used for the Primo V3 installation (which is the last digit in the Primo V3 software installation directory. For example, if Primo V3 is installed in the `/exlibris/primo/p3_`**1** directory, the copy number is **1**.

In addition, the system prompts you to configure the following Oracle properties:

- **Oracle SID** – Enter the name of a new database that will be used for Primo V4

- **Location for the installation of the DB files** – Enter the mount point on the DB server where you want the database files for the Primo V4 database to be placed. Use the default location if you do not have special requirements for the placement of the DB files.

- **Oracle Admin users and passwords** – for current DB. This is necessary for running the export procedure.

> **Note:** At the end of the process, the system displays the properties file. You can also use option **0** on the main POIKE menu to view or edit the properties file.

If the POIKE is executed on a dedicated DB server (an Oracle installation without Primo), you will be prompted to enter the following additional information:

```
WARNING: No primo installation found - assuming DB Only

Enter Primo 3 ORACLE_HOME [/exlibris/app/oracle/product/112]:

Enter Primo 3 ORACLE_SID [prm3]:

Enter Primo 3 user prefix [P31]:
```

The Main POIKE Menu

The main POIKE menu is used throughout the Oracle installation. It contains a header that includes the current date and operating system and outlines the main steps in the POIKE process.

```
                    Primo Installation Kit
---------------------------------------------------------------------

Date: Mon Feb 20 15:53:45 EST 2012
OS: Linux
Oracle version: 11.2.0.3
Oracle database: prm3
Oracle Server: il-inst03.corp.exlibrisgroup.com
Server : il-inst03.corp.exlibrisgroup.com


---------------------------------------------------------------------


   0. Update Installation properties file
-  1. Download software from FTP server
-  2. Pre-installation tasks
-  3. Oracle database installation and configuration
-  4. Primo DB migration

Enter key (q to quit)[q]:
```

Option 4 - Primo DB migration only applies to the Database server only and does not appear in the menu on the application servers.

Update Installation Properties File

Enter option **0** on main menu to view or edit the properties file. This option lists the properties that you entered during the initial stage of the installation process. For every option that is editable, you will see a letter in a square braces.

```
Installation Properties:
==========================================
[E]-mail                       = Avi.Bitter@HotSinger.com
[D]ownload directory           = /exlibris/ftp_from_exlibris
[P]assive ftp                  = --passive-ftp
[T]ype of installation         = DB
[A]pplication properties:
   Installation copy           = 1


[O]racle params :
   Oracle server               = il-inst03
   Oracle host                 = il-inst03
   Primo 4 Oracle SID          = prm4
   Primo 3 Oracle Home         = /exlibris/app/oracle/product/11
   Primo 3 Oracle SID          = prm3
   DB Archiving disk           = /exlibris
   DB Sys and Redo disk        = /exlibris
   DB Data files disk          = /exlibris
[A]pplication properties:
   Installation copy           = 1



Insert the letter in the square parentheses to update, 'q' to quit:
```

Insert a letter shown in the square parenthesis to update a specific parameter, or enter 'q' to quit. To update a value, enter the letter in the square parentheses. Note that one value can affect others.

Download Software from FTP Server

Enter option **1** on the main menu to display the download menu.

```
                    Primo Installation Kit
-----------------------------------------------------------------------

Date: Mon Feb 20 15:53:45 EST 2012
OS: Linux
Oracle database: prm4
Oracle Server: ec2-67-202-23-65.compute-1.amazonaws.com
Server: ec2-67-202-23-65.compute-1.amazonaws.com


-----------------------------------------------------------------------
1. Download software from FTP server

-  1. Download Oracle components
-  2. Check download

Enter key (q to quit)[q]:
```

Download Oracle Components

This utility uses the `wget` client for downloading required components for the installation from the Ex Libris FTP server.

An e-mail will be sent to the specified address when the FTP download is complete.

Check Download

This option checks that all required components were downloaded correctly. This check prevents an attempt to proceed with the installation before the download process has completed.

An e-mail is sent to the specified address when the check is complete.

Pre-Installation Tasks

Enter option **2** on the main menu to perform all pre-installation tasks described in the following sections.

```
                    Primo Installation Kit
-----------------------------------------------------------------------

Date: Sat Mar 24 07:20:36 IST 2012
OS: Linux
Oracle RDBM version: 11.2.0.3.0
Oracle database: prm4
Oracle Server: il-primo04.corp.exlibrisgroup.com
Server : il-primo04.corp.exlibrisgroup.com


----------------------------------------------------------------------
2. Pre-installation tasks

-  1. Pre-installation checks
-  2. Root pre-installation tasks

Enter key (q to quit)[q]:
```

Pre-Installation Checks

This step checks whether the server meets the specifications required for the Primo version 4.00 installation, which are described in the *Requirements for Primo V4 Installation* document. Detailed OS requirements can be found in the *Operating System Requirements for the Sun Platform* and *Operating System Requirements Red Hat Enterprise Linux* documents on the Documentation Center.

The pre-installation checks done in this stage are in addition to the pre-upgrade checks done at the early stage of the Primo upgrade process preparation to ensure that the server is completely ready for Oracle software and database upgrade.

If you receive the following message after running the pre-installation checks, you should contact your local System Administrator to solve the problem:

```
-------FAILED-------
Error: The pre-installation checks has failed
```

More detailed information regarding pre-installation checks with the FAULT indication can be found in the following log file:

```
/exlibris/ftp_from_exlibris/POIKE/log/primo_installation_kit.log
```

It will also be sent to your e-mail. Please review all steps that are marked with the FAULT indication.

Change System Parameters

This step changes the system kernel parameters.

Create Directories in the Disk /exlibris

This step creates the default directories for the Oracle installation.

Create Oracle User and DBA Group

This step creates the Oracle 11g user in the operating system with the following user home:

```
/exlibris/app/oracle/product/11r2 and user shell /bin/tcsh
```

This user is necessary for running both the old and new Oracle databases in parallel. Because there is already an **oracle** user on your server, the utility will prompt you to enter a different name for the Oracle 11g user, such as **oracle11**. The new oracle user must contain only lowercase alphanumeric characters.

During the creation of the new user for Oracle 11g, the system will also prompt you to enter a new UNIX password. Make sure that the new password meets security/password rules for your IT department and do not forget to save the password. If you receive the following warning message, ignore the warning and re-enter the password chosen for the Oracle 11g user:

```
New UNIX password:
BAD PASSWORD: it is based on a dictionary word
Retype new UNIX password:
```

Note: The new Oracle11g user is created with the same UID and GID as the already existing oracle 10g/11 user.

Create System Auto startup/shutdown Script and Links as Root User

This step creates the main startup/shutdown script in the `/etc/init.d/exlibris` directory
if needed. The required links for automatic startup and shutdown of Aleph and the database
(when rebooting) are also created.

> **Note:** If the startup mechanism already exists, POIKE only updates files in the
> `/exlibris/startup` directory and checks if relevant files and links in the system exist.

Oracle Installation and Configuration

This step installs the Oracle client and database on the DB server. On the application servers,
only the Oracle Client is installed. At the end of the Oracle installation, this step creates the
configuration needed to check the connection to the DB and then checks the connection.

```
                     Primo Installation Kit
-----------------------------------------------------------------------

Date: Wed Feb 15 16:42:10 IST 2012
OS: Linux
Oracle RDBM version: 11.2.0.3.0
Oracle database: prm4
Oracle Server: il-inst14-temp
Server : il-inst07.corp.exlibrisgroup.com


------------------------------------------------------------------
3. Oracle installation and configuration

-  1. Install Oracle

Enter key (q to quit)[q]:
```

Install Oracle

Enter option **1** on the Oracle installation and configuration submenu to perform the Oracle
installation. This step identifies the server type and performs all operations in the background.
This process may take some time, depended on server I/O speed. You can monitor its progress
via the following log file:

> `/exlibris/ftp_from_exlibris/POIKE2/log/oracle_installation.log`

The system performs the following operations in the background.

- The Oracle software is extracted into the following directory:

  `/exlibris/app/oracle/product/11r2`

- The Oracle scripts are extracted into the following directory:

  `/exlibris/ftp_from_exlibris/oracle`

- The database definitions are updated in the following files:

```
$ORACLE_HOME/network/admin/tnsnames.ora
$ORACLE_HOME/network/admin/listener.ora
$ORACLE_HOME/network/admin/tnsnames.ora
```

The Oracle database is only created on the DB server at the location that is defined in the installation properties file. For more information, see Option 4 - Primo DB migration only applies to the Database server only and does not appear in the menu on the application servers.

- Update Installation Properties File.

When the Oracle installation is complete, the POIKE checks the connection to the database and sends an e-mail notification.

<hr>

Note:

1. The database for Primo V4 is only installed only on the DB Server, in parallel to the existing Primo V3 database.

2. The database installation process may take a while, depending on the server I/O speed.

At the end of the database creation process, POIKE checks the connection to the Primo V4 database using the following command:

```
sqlplus <SYSTEM_DB_USER>/<SYSTEM_DB_USER>@<TNS_ENTRY>
```

Where the following parameters are used:

- `<SYSTEM_DB_USER>`: **system**

- `<SYSTEM_DB_USER>`: **oradba** (In case the DB was not installed by exlibris, it will take the password that was entered in the installation properties file.

- `<TNS_ENTRY>` – It is usually a combination of the short oracle host and the oracle SID. In case of RAC, the entry is **RAC.prm3**.

The following figure shows an example of a TNS entry:

```
l-inst03.prm4=(description=
            (address=
                (protocol=ipc)
                 (key=prm4))
            (address=
                (protocol=tcp)
                (host=il-inst03)
                (port=1521))
  (connect_data=(sid=prm4)(server=DEDICATED)))
```

If you have problems with listener startup at this stage, contact Ex Libris Support.

Primo DB Migration

This step allows you to export the data from current Primo V3 database and then import it into the Primo V4 database. This step is relevant to the DB server only and does not appear on the application servers.

```
4. Primo DB migration

- 1. Export Primo version 3 DB (Source)
- 2. Import Primo version 4 DB (Target)
```

Export Primo V3 DB (Source)

Enter option **1** to export the data from the Primo V3 database.

The system output should look similar to the following example:

```
Estimate in progress using BLOCKS method...
Processing object type SCHEMA_EXPORT/TABLE/TABLE_DATA
Total estimation using BLOCKS method: 192 KB
Processing object type SCHEMA_EXPORT/USER
exported "P31_PRM00_SHARED"."C_C_CODE_COLUMN_NAMES"  11.92 KB   20 rows
Processing object type SCHEMA_EXPORT/ROLE_GRANT
Processing object type SCHEMA_EXPORT/DEFAULT_ROLE
Processing object type SCHEMA_EXPORT/TABLESPACE_QUOTA
exported "P31_PRM00_SHARED"."C_C_CODE_TABLES"          11 KB   1 rows
exported "P31_PRM00_SHARED"."C_C_TABLE_OF_TABLES"   12.07 KB   8 rows
exported "P31_PRM00_SHARED"."C_C_MAPPING_TABLES"        0 KB   0 rows
exported "P31_PRM00_SHARED"."FILE_TABLE"                0 KB   0 rows
Processing object type SCHEMA_EXPORT/PRE_SCHEMA/PROCACT_SCHEMA
Processing object type SCHEMA_EXPORT/SEQUENCE/SEQUENCE
Processing object type SCHEMA_EXPORT/TABLE/TABLE
Processing object type SCHEMA_EXPORT/TABLE/CONSTRAINT/CONSTRAINT
Master table "PRIMO_ADMIN"."UPG_PUMP1" successfully loaded/unloaded
******************************************************************************
Dump file set for PRIMO_ADMIN.UPG_PUMP1 is:
  /exlibris/app/oracle/admin/prm3/dpdir/upg_pump01.dmp
  /exlibris/app/oracle/admin/prm3/dpdir/upg_pump02.dmp
Job "PRIMO_ADMIN"."UPG_PUMP1" successfully completed at 16:31:17
```

While running the export, the system checks to see if the Primo V3 database contains invalid objects. If such objects exist, the system will display errors similar to the following:

```
Invalid objects in the current DB:
------------------------------------------------
invalid objects are: P31_RPT00:PRIMO_BO_AUDIT_TABLE VIEW
------------------------------------------------
```

The check for invalid objects is performed at both the export and import stages. If an object was invalid during the export, it is expected to be invalid during the import. However, if the object is not reported as invalid in the import log file, this indicates that the object has been fixed during the recompilation in the import stage.

Import Primo V4 DB (Target)

After the export has completed successfully and the Primo V4 (prm4) database is up and running, you can import the V3 Primo data to the new V4 database. Select option **2** to import the data into Primo V4 database.

Once the import is finished, check the import log file. At end of the log file you could see the DB objects counts before export and after import:

```
------------------------------------------------------------
Objects count in current DB
------------------------------------------------------------
Tables count is: 79
Indexes count is:50
Other objects count (which are not tables or indexes)is: 35
------------------------------------------------------------
Objects count in previous DB
------------------------------------------------------------
Tables count is: 79
Indexes count is:50
Other objects count (which are not tables or indexes)is: 35
```

Compare the number of exported and imported objects to make sure that they are exactly the same.

While running the import, the system will display errors similar to the following:

```
ORA-31684: Object type USER:"P41_PRM00" already exists
ORA-31684: Object type USER:"P41_PRM00_SHARED" already exists
ORA-31684: Object type USER:"P41_RPT00" already exists
```

You can ignore the errors that are related to object re-creation and continue with the Primo upgrade process.

4

Step-By-Step Instructions for Upgrade Express

General Notes before Starting

1. Primo_upgrade should be executed on all Primo servers in the following order: BE, FE, and then SE.

Note: It is mandatory to run the upgrade on the BE first. When it completes, you can start the upgrade on the next machines in your topology.

---

2. If a machine has more than 1 Primo slot (such as p3_1 and p3_2), Primo upgrade should be executed on each slot. Therefore, after completing the upgrade for the first slot, you are required to download the Primo kit and begin the upgrade on the next slot.

3. The execution of the Upgrade Kit must be done as **primo** user only.

4. The execution of the Upgrade Kit must be done in the `/exlibris/primo/primo_V4ue` directory only.

5. The execution of the Upgrade Kit must be done in the V3 environment only.

6. The FTP connection must be open.

7. The following automatic credentials are used for the DB connection in V4:

   `p4{PRIMO_COPY}_prm00/p4{PRIMO_COPY}_prm00`

8. Crontab tasks that are configured by the customer on the V3 machine should be configured again on the V4 machine by the customer.

9   Customers should not delete V3 in the future, without opening an SI requesting this job.

10 It is mandatory to have 200% of the current V3 software directory (such as p3_1). For example, a customer who has 10 GB today would need a total of 30 GB, which is an additional 20 GB.

11 Cleanup of the following logs should be executed by the customer (files older than 30 days): BE pipes, FE logs, BE logs, SE logs, and Garbage Collection logs where relevant.

Note: This step is important in order to secure enough disk space on the machine.

12 If the machine has more than 1 Primo copy (such as p3_1 and p3_2), you should run Primo_pre_upgrade on each slot. Therefore, after you complete the upgrade for the first slot, you are required to move aside the old kit and download the Primo kit as you did for the first slot. To back up the old kit, enter the following commands:

```
cd /exlibris/primo/
mv primo_V4ue primo_V4ue.old
```

13 The Upgrade Kit will copy the PDS configuration from the V3 machine to the V4 machine. However, for special customer configurations (such as CAS and Shibboleth) you must reconfigure the PDS on the V4 machine.

14 The V4 DB hostname is determined automatically by the Primo Upgrade Kit, using the `tnsnames.ora` file.

15 Important changes were made to the default CSS file (`Primo_default.3.0.css`) in order to display some of the new functionality in the Front End UI. If you are not using the default CSS file, you will need to update your local CSS file to display these changes. For more information on these changes, refer to **Changes to Default CSS File** on page **66**.

16 The Multiple Facets (added with SP4.0.1) and Browse Search (added with SP 4.1) features may require additional memory. To verify whether the system has sufficient memory to run these features, PPUK runs a memory check. If this check fails, you can continue with the upgrade, but you should not enable these features until the memory has been upgraded.

17 If you are using encrypted passwords within the PDS `tab_service` files or LDAP with encrypted `init_bind_password`, the password encryption script should be re-executed after the upgrade in order to update the PDS directory paths in the encrypted passwords.

Installing the Upgrade Express Package

The Upgrade Express Package is packaged in a tar file, which is available for download from the FTP server. The tar file should be downloaded and extracted into the following directory:

```
/exlibris/primo directory
```

Connect to the FTP Server

To access the FTP server:

1 Log on to the Primo server as the primo user.

2 Enter the following commands:

```
cd /exlibris/primo
ftp ftp.exlibrisgroup.com
```

3 At the Name prompt, enter **primo4_up**:

```
Connected to ftp.exlibris.co.il (212.179.57.155)

220 SurgeFTP ftp.exlibris.co.il (Version 2.2k13)

Name: primo4_up
```

4 Enter the password at the following Password prompt. Contact your local support if you have not received the password.

```
331 Password required for primo4

Password: <password from local Support Team>

230-Welcome to the ExLibris FTP Server

230 User <user name> logged in.

Remote system type is UNIX.

Using binary mode to transfer files.
```

5 Enter the following commands at the `ftp>` prompt to download the package, making sure that interactive mode is off and binary mode is on:

```
ftp> bin
ftp> prompt
ftp> get primo_V4ue.1.05.tar.gz
ftp> quit
```

Extract the Tar Package

To extract the tar file that you downloaded in the previous step:

1   Enter the following commands to extract the tar file to the `/exlibris/primo` directory:

    ```
    gzip -d primo_V4ue.1.05.tar.gz
    tar -xvf primo_V4ue.1.05.tar
    ```

2   Enter the following commands to see if the Upgrade Express directory tree was created:

    ```
    cd /exlibris/primo
    ls -d primo_V4ue/
    ```

Upgrade Express Log Files

The `V4ue.log` file is the main log and it is located in the following directory:

    /exlibris/primo/primo_V4ue/logs

This log file is accumulative, which means that it contains information about all of the steps performed from the first round of Upgrade Express until the last one, regardless of how many times the various UE steps were run.

In addition, the system provides a log file for each of the UE steps. These files are stored in the following directory:

    /exlibris/primo/primo_V4ue/logs

These logs are not overwritten when the steps are rerun and include the following information:

- Description of the task being performed

- Progress reports of process

- Report successful tasks

- Warnings

- Alerts for errors

The upgrade express process consists of a number of steps which make take a while to complete, between 30 minutes and several hours, depending on the server and local data. An e-mail notification will be sent after the success or failure of each step, which enables the user to let the system run in the background without constant supervision. Please ensure that UNIX mail is enabled on the server.

If a step fails, you will receive an e-mail notification. You must re-run the failed step after making the necessary changes to resolve the problem. For assistance with failed steps, contact your local support office.

5

Running Upgrade Express

The Upgrade Express process consists of eight steps. A notification displays after the success or failure of each step.

Before applying each step, a minus sign (-) appears next to each step. After a successful completion of a step, the minus sign changes to "OK" in the Upgrade Express menu to indicate that the step has been performed already. The "OK" indication appears only after you refresh the menu. If a step fails, the minus sign changes to an "F" indication to indicate that the step has failed.

If a step fails, you may need to perform the task again or rerun the step after making necessary changes to correct the problem. For any assistance with failed steps, contact your local support office.

Note: The upgrade process must be performed in your Primo V3 source instance.

Steps To Be Performed on the Source Instance

To start the Upgrade Express on the Source instance:

1 Log on to the Primo V3 source instance.

2 Enter the following commands to start the utility:

```
cd /exlibris/primo/primo_V4ue
./V4ue_menu
```

Before the main menu displays, the following confirmation prompt will display:

```
"It is highly recommended to have your Primo 3 backed up before the upgrade.
Please confirm you have backed up your Primo 3 [Y/N]",
Entering Y will continue to the main menu.
Entering N will exit the upgrade process.
```

3 Enter **Y** to continue the upgrade only if you have performed the backup.

A menu-driven interface opens with six options. Note that there are minus signs next to each step to indicate that these steps have not been run, yet:

```
                    Primo V4 Upgrade Express Kit
-----------------------------------------------------------------------

Date: Sun Nov 20 17:13:53 IST 2011
OS: Linux
Primo version: 3.1.2
Primo directory: /exlibris/primo/p3_1
Oracle database: prm3
Oracle Server: il-primo07
Server: il-primo07 is BE,FE,SE


-----------------------------------------------------------------------


-  1. Add/Change user parameters
-  2. Upgrade checks
-  3. Download V4 software
-  4. Extract V4 software
-  5. Move configuration files from V3 to V4
-  6. Upgrade DB
-  7. SP Upgrade
-  8. SP Upgrade


Enter key (q to quit)[q]:
```

Each of these steps is described in the following sections.

Step 1: Add/Change User Parameters

This step is required and must be executed at the beginning of the UE process to define user parameters for UE notifications (such as an email address).

For BE (with a single institution), FE, and SE machines, the system displays the following menu:

```
                    Primo V4 Upgrade Express Kit
-----------------------------------------------------------------------

Date: Sun Nov 20 17:16:52 IST 2011
OS: Linux
Primo version: 3.1.2
Primo directory: /exlibris/primo/p3_1
Oracle database: prm3
Oracle Server: il-primo07
Server : il-primo07 is BE,FE,SE


-----------------------------------------------------------------------
Edit user parameters:

   1. Show current parameters
-  2. Add/Change Email parameters
-  3. Add/Change Installation name

Enter key (q to quit)[q]:
```

For BE machines with multiple institutions, the system displays the following menu:

```
                    Primo V4 Upgrade Express Kit
-----------------------------------------------------------------------

Date: Sun Nov 20 17:16:52 IST 2011
OS: Linux
Primo version: 3.1.2
Primo directory: /exlibris/primo/p3_1
Oracle database: prm3
Oracle Server: il-primo07
Server : il-primo07 is BE,FE,SE


-----------------------------------------------------------------------
Edit user parameters:

   1. Show current parameters
-  2. Add/Change Email parameters
-  3. Add/Change installation type
-  4. Add/Change code of main institution
-  5. Add/Change Installation name

Enter key (q to quit)[q]:
```

The above menu includes two additional parameters: **installation type** and **code of the main institution**.

To update one of the following parameters, select the corresponding number next to it:

- **Email parameters** – Enter the e-mail address that you to use for receiving e-mail notifications from UE. The purpose of these notifications is to provide an update upon completion of a particular step and to indicate whether the step had completed successfully or had failed.

- **Code of central/main institution** – Enter the default institution to be used for your installation. In Primo V4, most Back Office configuration elements are associated with an owner (either the entire installation or a specific institution), which enables these elements to be configured and deployed independently per institution. For more information on Primo configuration levels, refer to the *Primo Back Office Guide*.

  Because scopes must belong to a specific institution in V4, the upgrade will convert all scopes of type **institution** and **library** to the linked institution, but it needs a default institution to convert all other types.

  Use the following guidelines to populate this parameter:

  - If you have a single-institution installation but you created additional institutions for testing purposes, use your main institution as the default institution.

  - If you are a consortium and you have a central institution, use it as the default institution.

  - If you are a consortium and you do *not* have a central institution, please use one of the existing institutions. If you prefer to create a new central institution, you must run POIKE's export/import after doing so.

Note: Even though scope values will be owned by a specific institution, they can still (as in Primo V3) be used by all institutions. The ownership only determines who can update and delete the scopes.

- **Installation name** – Enter the name that you want to be used to identify the configuration data that is stored at the installation level on the Back Office. For more information on Primo configuration levels, see the *Primo Back Office Guide*.

  Use the following guidelines to enter this parameter:

  - For single-institution installations, enter the name of your institution followed by the word **Installation**. For example, if the name of your institution is Central College, you would enter **Central College Installation**. This allows you to distinguish quickly between levels of configuration data in the Back Office.

  - For consortiums with multiple institutions, you could enter the name of your consortium.

Note: After the upgrade, you can change the Installation Name on the Primo Home > Advanced Configuration > General Configuration > Installation subsystem page.

The DB server name and the ORACLE SID values are taken from the POIKE's general information. If the POIKE was not used for upgrading Oracle or this information is missing in

POIKE for some reason, the system displays the following menu options to allow you to set the missing parameters:

```
-  3. Add/Change DB SID
-  4. Add/Change DB hostname
```

- **DB SID** – This parameter is used in the UEK to uniquely identify a particular database in the system. This value is usually set to **prm4**.

- **DB hostname** – This parameter is used in the UEK to uniquely identify the DB host name server in the system (for example, **il-primo04.corp.exlibrisgroup.com**).

After a successful change of a parameter, an 'OK' indication appears next to the relevant step on the source menu.

Step 2: Upgrade Checks

This is a mandatory step that includes checks to make sure that the Upgrade Express kit runs smoothly and without failures. Although some of these checks have been executed with the Pre-Upgrade kit, it is still necessary to run them as part of the UE process.

You can monitor the output messages for the UE process via the `V4pre_upgrade.log` file, which is located in the following directory:

```
/exlibris/primo/primo_V4ue/logs
```

The following submenu opens when step 2 is selected on the main menu. It contains two upgrade options, which are described in the following sections:

```
                  Primo V4 Upgrade Express Kit
------------------------------------------------------------------
--

Date: Sun Nov 20 18:25:58 IST 2011
OS: Linux
Primo version: 3.1.2
Primo directory: /exlibris/primo/p3_1
Oracle database: prm3
Oracle Server: il-primo07
Server : il-primo07 is BE,FE,SE


------------------------------------------------------------------
--
Upgrade checks:

-  1. Run all checks
-  2. Download and check third-party product

Enter key (q to quit)[q]:
```

Run All Checks

This option performs the following checks:

- **Check disk space** – Checks the size of free disk space (as described in the prerequisites section) to make sure that the /exlibris directory has 200% of the current V3 software directory (for example, p3_1).

- **Check DB connection as PRM00 user** – Checks to see that the connection to the new V4 DB server is available using the **prm4** SID and the **PRM00** user. If this check fails, please make sure that DB is up and a connection is available.

- **Check Oracle version** – Checks to see that the Oracle version is 11.2.0.3.

- **Check Memory** – Checks the size of free memory (as described in prerequisites section). This check is only done on machines that are configured as an SE. If this check fails, please check the memory issue or contact the Primo Support Team.

    The Multiple Facets (added with SP4.0.1) and Browse Search (added with SP 4.1) features may require additional memory. To verify whether the system has sufficient memory to run these features, PPUK runs a memory check. If this check fails, you can continue with the upgrade, but you should not enable these features until the memory has been upgraded.

Once completed, a results message will display, showing whether the checks have passed or failed. For example:

```
Primo 4 Upgrade checks - summary
--------------------------------------
1. Check disk space [OK]
2. Check DB connection as PRM00 user [OK]
3. Check Oracle version [OK]
4. Check Memory [OK]

The upgrade checks have completed successfully …

Press ENTER key to continue
```

Download and Check Third-Party Product

This check downloads third-party scripts and checks the OS requirements. Upon successful completion, an OK indication appears next to the option in the submenu.

Step 3: Download V4 Software

This step downloads the V4 software from the FTP server to the following directory:

```
/exlibris/primo/V4_files
```

This step can take from 30 minutes to several hours, depending on the customer's data and server. You can monitor the main log file or monitor this step via the `V4download.log` file, which is located in the following directory:

```
/exlibris/primo/primo_V4ue/logs
```

After a successful execution:

- An 'OK' indication appears next to the option in the menu.

- The split gzipped files are placed in the `/exlibris/primo/V4_files/` directory.

Note: While this download is running, other steps from the menu are disabled.

To download the software:

1   Enter **3** on the main menu.

2   Enter **Y** at the following prompt to continue with the download:

```
                    Primo V4 Upgrade Express Kit
-----------------------------------------------------------------------

Date: Sun Nov 20 18:37:58 IST 2011
OS: Linux
Primo version: 3.1.2
Primo directory: /exlibris/primo/p3_1
Oracle database: prm3
Oracle Server: il-primo07
Server: il-primo07 is BE,FE,SE


-----------------------------------------------------------------------
Download V4 software:

Please Confirm [Y/n]:
```

Note: Please wait until this UE step completes before moving to the next UE step. You will receive an e-mail notification indicating whether this step has passed or failed.

Step 4: Extract V4 Software

This step extracts the V4 software from the zipped files in the following directory:

```
/exlibris/primo/V4_files
```

This step can take from 30 minutes to several hours, depending on the customer's data and server. You can monitor the main log file or monitor this step via the `V4extract.log` file, which is located in the following directory:

```
/exlibris/primo/primo_V4ue/logs
```

After a successful execution:

- An 'OK' indication appears next to the option in the menu.

- A new p4_<slot> directory will be created in the `/exlibris/primo` directory.

Note: While this extract is running, other steps from the menu are disabled.

To extract the software:

1   Enter **4** on the main menu.

2   Enter **Y** at the following prompt to continue with the extract:

```
                   Primo V4 Upgrade Express Kit
-----------------------------------------------------------------------

Date: Sun Nov 20 18:37:58 IST 2011
OS: Linux
Primo version: 3.1.2
Primo directory: /exlibris/primo/p3_1
Oracle database: prm3
Oracle Server: il-primo07
Server: il-primo07 is BE,FE,SE


-----------------------------------------------------------------------
Extract V4 software:

Please Confirm [Y/n]:
```

Note: Please wait until this UE step completes before moving to the next UE step. You will receive an e-mail notification indicating whether this step has passed or failed.

Step 5: Move Configuration Files from V3 to V4

This step performs the following operations:

- Copies the predefined set of customized configuration files

- Copies index files on SE assigned machines to V4 defined indexing path.

- Adds memory to slice allocation (only on machines defined with SE role)

- Adds the new p4_<slot> to the Primo Login menu

- Adds V4 crontab tasks

This step can take from 30 minutes to several hours, depending on the customer's data and server. You can monitor the main log file or monitor this step via the `V4customization.log` file, which is located in the following directory:

```
/exlibris/primo/primo_V4ue/logs
```

After a successful execution, an 'OK' indication appears next to the option in the menu.

Note: While this step is running, other steps from the menu are disabled.

To copy the configuration files:

1   Enter **5** on the main menu.

2   Enter **Y** at the following prompt to continue with the copy:

```
                    Primo V4 Upgrade Express Kit
---------------------------------------------------------------------

Date: Sun Nov 20 18:37:58 IST 2011
OS: Linux
Primo version: 3.1.2
Primo directory: /exlibris/primo/p3_1
Oracle database: prm3
Oracle Server: il-primo07
Server: il-primo07 is BE,FE,SE


---------------------------------------------------------------------
Move configuration files from V3 to V4:

Please Confirm [Y/n]:
```

Note: Please wait until this UE step completes before moving to the next UE step. You will receive an e-mail notification indicating whether this step has passed or failed.

Step 6: Upgrade DB

This step executes the implementation scripts to upgrade the database and backs up the current configuration tables in the following new directory:

```
/exlibris/primo/primo_V4ue/main_dir/backup_db
```

This step can take from 30 minutes to several hours, depending on the customer's data and server. You can monitor the main log file or monitor this step via the `V4upgrade_DB.log` file, which is located in the following directory:

```
/exlibris/primo/primo_V4ue/logs
```

After a successful execution, an 'OK' indication appears next to the option in the menu.

Note: While this step is running, other steps from the menu are disabled.

To upgrade the DB:

1   Enter **6** on the main menu.

2   Enter **Y** at the following prompt to continue with the upgrade:

```
                     Primo V4 Upgrade Express Kit
-----------------------------------------------------------------------

Date: Sun Nov 20 18:37:58 IST 2011
OS: Linux
Primo version: 3.1.2
Primo directory: /exlibris/primo/p3_1
Oracle database: prm3
Oracle Server: il-primo07
Server: il-primo07 is BE,FE,SE


-----------------------------------------------------------------------
Upgrade DB:

Please Confirm [Y/n]:
```

Note: Please wait until this UE step completes before moving to the next UE step. You will receive an e-mail notification indicating whether this step has passed or failed.

Important: You may encounter many errors in the `V4upgrade_DB.log` file that look similar to the following error:

```
04:08:49,130 ERROR [CodeTableCacheForViewsManager] Code table could not
be related to a container :Code table: [Header/Footer Tile]  lang:
[en_US]  code: [COMB1.footer.last.update.label]  description: [Page
last updated: Friday, May 24th, 2010]  displayOrder: [1001]
defaultValue: [false] [enabled=true]
[orgFields=(102552519,null,null)][id=89003072]
```

Please disregard these types of errors and continue with the upgrade.

Step 7: SP Upgrade

The Upgrade Checks submenu contains the substeps that allow you to download and install the latest SP.

```
                    Primo V4 Upgrade Express Kit
-----------------------------------------------------------------------

Date: Sun Nov 20 18:37:58 IST 2011
OS: Linux
Primo version: 3.1.2
Primo directory: /exlibris/primo/p3_1
Oracle database: prm3
Oracle Server: il-primo07
Server: il-primo07 is BE,FE,SE


-----------------------------------------------------------------------
Upgrade checks:
-  1. Download SP
-  2. Install SP

Enter key (q to quit)[q]:
```

Step 7.1 Download SP

This step downloads the latest SP version from the FTP server to the following directory. If it does not exist, the system will create it for you:

> `/exlibris/primo/p4_$PRIMO_COPY/service_pack_install/`

This step can take from 30 minutes to several hours, depending on the connection speed for the FTP download. You can monitor the main log file or monitor this step via the `V4download_SP.log` file that is located in the following directory:

> `/exlibris/primo/primo_V4ue/logs`

After a successful execution, the following will occur:

- An **OK** indication appears next to the option in the submenu.

- The `sp.install` file is extracted from the SP tar.gz file and placed in the following directory:

  > `/exlibris/primo/p4_$PRIMO_COPY/service_pack_install/`

Note: While this download is running, other steps from the menu are disabled.

To download the software:

1 Enter **7** on the main menu.

2 Enter **1** on the submenu

3 Enter **Y** at the following prompt to continue with the download:

```
                    Primo V4 Upgrade Express Kit
---------------------------------------------------------------------
Date: Sun Nov 20 18:37:58 IST 2011
OS: Linux
Primo version: 3.1.2
Primo directory: /exlibris/primo/p3_1
Oracle database: prm3
Oracle Server: il-primo07
Server: il-primo07 is BE,FE,SE


---------------------------------------------------------------------
Download latest SP from FTP:

Please Confirm [Y/n]:
```

Note: Wait until this UE step completes before moving to the next UE step. You will receive an e-mail notification indicating whether this step has passed or failed.

Step 7.2 Install SP

This step installs the latest SP version to the following directory. If it does not exist, the system will create it for you:

> /exlibris/primo/p4_$PRIMO_COPY/service_pack_install/

This step can take from 30 minutes to several hours, depending on your data and server. You can monitor the main log file or monitor this step via the V4install_SP.log file that is located in the following directory:

> /exlibris/primo/primo_V4ue/logs

After a successful execution, an **OK** indication appears next to the option in the submenu.

Note: While install is running, other steps from the menu are disabled.

To install the SP:

1   Enter **7** on the main menu.

2   Enter **2** on the submenu

3 Enter **Y** at the following prompt to continue with the installation:

```
                     Primo V4 Upgrade Express Kit
-----------------------------------------------------------------------
Date: Sun Nov 20 18:37:58 IST 2011
OS: Linux
Primo version: 3.1.2
Primo directory: /exlibris/primo/p3_1
Oracle database: prm3
Oracle Server: il-primo07
Server: il-primo07 is BE,FE,SE


-----------------------------------------------------------------------
Install latest SP:

Please Confirm [Y/N]:
```

Step 8: HF Upgrade

The HF Upgrade submenu contains the substeps that allow you to download and install the latest HF.

```
                     Primo V4 Upgrade Express Kit
-----------------------------------------------------------------------

Date: Sun Nov 20 18:37:58 IST 2011
OS: Linux
Primo version: 3.1.2
Primo directory: /exlibris/primo/p3_1
Oracle database: prm3
Oracle Server: il-primo07
Server: il-primo07 is BE,FE,SE


-----------------------------------------------------------------------
HF Upgrade:
-  1. Check if HF exist
-  2. Download HF
-  3. Install HF

Enter key (q to quit)[q]:
```

Step 8.1 Check if HF exist

This step checks whether there is an HF package located on the FTP. If a HF does not exist, all substeps (1, 2, and 3) will receive an OK indication. Otherwise, the system will display an **OK** indication next to option 1 in the submenu.

Note: While this check is running, other steps from the menu are disabled.

Step 8.2 Download HF

This step downloads the latest HF version from the FTP server to the following directory:

    /exlibris/primo/p4_$PRIMO_COPY/service_pack_install/

If the `service_pack_install` directory does not exist, the system will create it for you.

This step can take from 30 minutes to several hours, depending on the connection speed for the FTP download. You can monitor the main log file or monitor this step via the `V4download_HF.log` file that is located in the following directory:

    /exlibris/primo/primo_V4ue/logs

After a successful execution, the following will occur:

- An **OK** indication appears next to the option in the submenu.

- The `hf.install` file is extracted from the SP tar.gz file and placed in the following directory:

    /exlibris/primo/p4_$PRIMO_COPY/service_pack_install/

Note: While this download is running, other steps from the menu are disabled.

To download the software:

1   Enter **8** on the main menu.

2   Enter **2** on the submenu

3   Enter **Y** at the following prompt to continue with the download:

```
                    Primo V4 Upgrade Express Kit
----------------------------------------------------------------------
Date: Sun Nov 20 18:37:58 IST 2011
OS: Linux
Primo version: 3.1.2
Primo directory: /exlibris/primo/p3_1
Oracle database: prm3
Oracle Server: il-primo07
Server: il-primo07 is BE,FE,SE


----------------------------------------------------------------------
Download latest HF from FTP:

Please Confirm [Y/n]:
```

Note: Wait until this UE step completes before moving to the next UE step. You will receive an e-mail notification indicating whether this step has passed or failed.

Step 8.3 Install HF

This step installs the latest HF version to the following directory:

```
/exlibris/primo/p4_$PRIMO_COPY/service_pack_install/
```

If the `service_pack_install` directory does not exist, the system will create it for you.

This step can take from 30 minutes to several hours, depending on your data and server. You can monitor the main log file or monitor this step via the `V4install_HF.log` file that is located in the following directory:

```
/exlibris/primo/primo_V4ue/logs
```

After a successful execution, an **OK** indication appears next to the option in the submenu.

Note: While install is running, other steps from the menu are disabled.

To install the HF:

4   Enter **8** on the main menu.

5   Enter **3** on the submenu

6   Enter **Y** at the following prompt to continue with the installation:

```
                     Primo V4 Upgrade Express Kit
-------------------------------------------------------------------------
Date: Sun Nov 20 18:37:58 IST 2011
OS: Linux
Primo version: 3.1.2
Primo directory: /exlibris/primo/p3_1
Oracle database: prm3
Oracle Server: il-primo07
Server: il-primo07 is BE,FE,SE


-------------------------------------------------------------------------
Install latest SP:

Please Confirm [Y/N]:
```

6

Post Upgrade Steps

To complete the upgrade process:

1 Shutdown the Primo **V3** application, including Oracle and Apache:

   ▪ To stop Primo, refer to Chapter 2 in the *Primo System Administration Guide*.

   ▪ To stop Oracle, refer to Chapter 8 in the *Primo System Administration Guide*.

2 Start the Primo **V4** application, including Oracle (if it is down):

   ▪ To start Oracle, refer to Chapter 8 in the *Primo System Administration Guide*.

   ▪ To start Primo and Apache, refer to Chapter 2 in the *Primo System Administration Guide*.

3 Access the Back Office UI and perform a Deploy All.

4 Perform sanity checks on the Primo V4 application. Check the overall system functionality in order to determine that Primo is functional after the upgrade process.

5 Update the Oracle memory parameters by entering the following commands on the hosting DB machine only. These commands must be performed with the Oracle user that was created for Oracle 11.2.0.3 while running POIKE.

```
cd /exlibris/ftp_from_exlibris/POIKE2
bash alter_ora_params.bash <system password>
```

   The above script shuts down the new V4 DB and restarts it with the updated parameters.

6 Log on to the Primo V4 instance on the server.

7 Enter the following command as the root user:

```
su -
```

8 Enter the following commands to edit the startup script:

```
cd /exlibris/startup
vi init.dat
```

9 Make the following changes to the `init.dat` file:

- Change the paths from `p3_` to `p4_`. For example:

```
Change:
# primo
Y:primo:primo:/exlibris/primo/p3_1:central_startup:central_shutdown

To:
# primo
Y:primo:primo:/exlibris/primo/p4_1:central_startup:central_shutdown
N:primo:primo:/exlibris/primo/p3_1:central_startup:central_shutdown
```

- Change the Apache paths from `p3_` to `p4_`. For example:

```
Change:
# apache
Y:apache:root:httpd:/exlibris/primo/p3_1:../p3_1:apachectl_auto:apachectl

To:
# apache
Y:apache:root:httpd:/exlibris/primo/p4_1:../p4_1:apachectl_auto:apachectl
N:apache:root:httpd:/exlibris/primo/p3_1:../p3_1:apachectl_auto:apachectl
```

- Make sure that the Oracle paths were changed from `112` to `11r2`. For example:

```
From:
# oracle
Y:oracle:oracle11:/exlibris/app/oracle/product/112

To:
# oracle
Y:oracle:oracle11:/exlibris/app/oracle/product/11r2
N:oracle:oracle11:/exlibris/app/oracle/product/112
```

Note: There is no need to change the Y/N values in the above paths.

---

10 Exit and save the changes to the `init.dat` file.

11 For your OS, enter the following command in order to edit the Oracle startup file:

- For Linux Red Hat OS:

```
vi /etc/oratab
```

- For SUN OS:

```
vi /var/opt/oracle/oratab
```

12 Make the following changes to the `oratab` file:

- Cancel the startup of the Primo V3 database. For example:

```
Change:
prm3:/exlibris/app/oracle/product/112:Y
To:
prm3:/exlibris/app/oracle/product/112:N
```

- Activate the startup of Primo V4 database. For example:

```
Change:
prm4:/exlibris/app/oracle/product/11r2:N

To:
prm4:/exlibris/app/oracle/product/11r2:Y
```

13 Exit and save the changes to the `oratab` file.

14 Rename the Primo V3 application. For each Primo machine, enter the following commands:

```
cd /exlibris/primo
```

```
mv p3_${PRIMO_COPY} p3_${PRIMO_COPY}.orig
```

Note: If machine has more than one slot, repeat this step for each slot.

---

15 Shut down the Primo V4 application.

16 Start up the Primo V4 application.

17 Perform sanity checks on V4 to verify that its behavior is satisfactory.

18 Important changes were made to the default CSS file (`Primo_default.3.0.css`) in order to display some of the new functionality in the Front End UI. If you are not using the default CSS file, you will need to update your local CSS file to display these changes. For more information on the CSS changes, refer to **Changes to Default CSS File** on page **66**.

19 **Important**: If V4 is running satisfactorily, open an Installation SI for the complete removal of V3 (including the DB files).

7

Changing the Owner for Normalization Rules and Scopes

During the upgrade to Version 4, many configuration entities are assigned an owner automatically. For scopes and normalization rules, the upgrade is not always able to assign the correct institution for the following reasons:

- Normalization Rules are defined at the Installation level because there is nothing explicit in the table to link them to a specific institution.

- Scopes of type collection and other are linked to the default institution that is defined during the upgrade because there is nothing explicit to link them to a specific institution.

To modify these assignments, scripts have been created in order to allow you to change the owner manually.

To update the owner:

1 Configure the environment in order to run the import and export scripts. For more information, see **Step 1: Configuring the Environment** on page **54**.

2 Run the export scripts to export the normalization rules sets and scopes from the database using the scripts described below. For more information, see **Step 2: Running the Export Scripts** on page **54**.

3 Update the owner as needed in the export file. For more information, see **Step 3: Updating the Owner** on page **55**.

4 Run the import scripts in order to update the database with the changes made in the export file. For more information, see **Step 4: Running the Import Scripts** on page **56**.

Step 1: Configuring the Environment

Before you can use the export/import scripts, you must configure the database parameters in the `hibernate.cfg.xml` file.

To update the parameters:

1 Log on to the Primo BO server.

2 Enter the following commands to edit the `hibernate.cfg.xml` file:

```
be_profile
cd owner_changer
vi hibernate.cfg.xml
```

3 Modify the following database connection parameters:

- **`hibernate.connection.url`** – The database connection string will use a format similar to the following:

  ```
  jdbc:oracle:thin:@<database_server><SID>
  ```

  Where:

  `<database_server>` – Indicates the database server.

  `<SID>` – Indicates the SID (which is usually **prm3** or **prm4**).

  For example:

  ```
  jdbc:oracle:thin:@il-primo13:1521:prm3
  ```

- **`hibernate.connection.username`** – The database connection user name (such as **p43_prm00**).

- **`hibernate.connection.password`** – The database connection password (such as **p43_prm00**).

4 Save the changes to the file.

Step 2: Running the Export Scripts

The following export scripts allow you to export normalization rule and scope data, respectively:

- `nr_data_export.sh`

- `scope_data_export.sh`

To export the configuration data:

1 Enter the following command to access the export scripts:

```
be_bin
```

2 Enter the following commands to export the data:

- For Normalization Rule data:

```
./nr_data_export.sh <full_file_path>
```

- For Scope data:

```
./scope_data_export.sh <full_file_path>
```

Where the following restrictions apply to the *<full_file_path>* parameter:

- The file must be a .txt file.

- The parent folder must exist.

If any of these restrictions is violated, the system will save the exported data to the following file paths, depending upon the type of export:

- `be_profile/owner_changer/nr_data.txt`

- `be_profile/owner_changer/scope_data.txt`

Step 3: Updating the Owner

After you have exported the normalization rule and scope data to the export files, you can edit these files in order to update the owner as needed per configuration entity.

The format of the export files depends on the type of data that has been exported:

- **Normalization Rules** – The export file contains the title (line #1), column headings (line #2), followed by the normalization rule data in the remaining rows. The first three columns are used by the system to identify the configuration entities:

```
#1 NORMALIZATION RULES DATA
#2 NR_ID    NR_NAME      INSTALLATION_NAME INSTITUTION_CODE
```

- **Scopes** – The export file contains the title (line #1), column headings (line #2), followed by the scope data in the remaining rows. The first four columns are used by the system to identify the configuration entities:

```
#1 SCOPES DATA
#2 SCOPE_ID SCOPE_CODE  SCOPE_NAME  INSTALLATION_NAME INSTITUTION_CODE
```

Note: For scopes you cannot set the institution code to **NO_INST** to change an institution-level scope to an installation-level entity.

To update the owner:

1   Move to the directory that contains the export files.

2   Enter the following command for each export file:

    `vi <export_file>`

3   For each entity update the institution name as needed. For normalization rules only, you can set the institution code to **NO_INST** to change an institution-level normalization rules set to an installation-level entity.

Note: When making changes to the export files, the first two rows must not be changed. If an invalid institution name or customer code is entered, the system will not start the import.

---

4   Save the changes to each export file.

Step 4: Running the Import Scripts

After you have updated the export files, you can use the following scripts to import normalization rule and scope data, respectively:

▪   `nr_data_import.sh`

▪   `scope_data_import.sh`

To import the configuration data:

1   Enter the following command to access the import scripts:

    `be_bin`

2   Enter the following commands to import the data from the modified export files:

    ▪   For Normalization Rule data:

        `./nr_data_import.sh <full_file_path>`

    ▪   For Scope data:

        `./scope_data_import.sh <full_file_path>`

8

Rerun of Full Upgrade Express

Note: Before proceeding with a full rerun of Upgrade Express, you must consult with your local office.

The Full Upgrade Express should be executed in the following cases only:

- Changes were made to the V3 configurations (such as new institutions, running pipes, and so forth) on source instance.

- The target 4.0x instance was rendered unstable because of a system failure (such as a power outage during one of the main steps on the target instance).

- You prefer to start the customization from scratch.

A

List of Files Copied from V3 to V4 in Upgrade Express

This section lists the directories and files that are copied by step 5 of Upgrade Express.

Files Copied from V3:

primoe/primo_start

primoe/primo_start.conf

primoe/central_start/init_primo.dat

primom/.cshrc

ng/primo/home/profile/publish/global.properties

ng/primo/home/profile/search/global.properties

ng/jaguar/home/profile/global.properties

ng/primo/home/system/search/conf/SmsProxyConf.xml

ng/primo/home/system/search/conf/thirdnode-config.xml

ng/jaguar/home/system/conf/monitor.xml

ng/primo/home/profile/publish/publish/production/conf/enrichPlugin/custom_enrich_tasks_list
.xml

ng/primo/home/profile/publish/publish/production/conf/enrichPlugin/plugin_parameters.txt

Directories Only Copied Incrementally – All Servers:

ng/primo/home/system/search/conf/thirdNodeImpl

ng/primo/home/profile/search/pushTo

ng/primo/home/profile/search/rta

ng/primo/home/profile/publish/publish/production/conf/plugins

ng/primo/home/profile/publish/publish/production/conf/enrichPlugin

primoe/apache

Directories Only Copied Incrementally – FE:

ng/primo/home/system/thirdparty/openserver/server/search/deploy/primo_library-app.ear/primo_library-libweb.war/images (will be copied to ng/primo/home/system/thirdparty/jbossas/server/search/deploy/primo_library-app.ear/primo_library-libweb.war/images)

ng/primo/home/system/thirdparty/openserver/server/search/deploy/primo_library-app.ear/primo_library-libweb.war/static_htmls (will be copied to ng/primo/home/system/thirdparty/jbossas/server/search/deploy/primo_library-app.ear/primo_library-libweb.war/static_htmls)

ng/primo/home/system/thirdparty/openserver/server/search/deploy/primo_library-app.ear/primo_library-libweb.war/locale (will be copied to ng/primo/home/system/thirdparty/jbossas/server/search/deploy/primo_library-app.ear/primo_library-libweb.war/locale)

ng/primo/home/system/thirdparty/openserver/server/search/deploy/primo_library-app.ear/primo_library-libweb.war/css (will be copied to ng/primo/home/system/thirdparty/jbossas/server/search/deploy/primo_library-app.ear/primo_library-libweb.war/css)

Directories Only Copied Incrementally – BE:

ng/primo/home/profile/publish/publish/production/conf

ng/primo/home/profile/publish/demo_data/normalization_test

Directories Fully Copied from V3:

ng/jaguar/home/profile/warmup

ng/jaguar/home/profile/analysis

ng/primo/home/profile/publish/publish/production/pipes

primoe/central_start

PDS Files Copied from V3:

pds/html_form/global/main-menu-logged-out

pds/html_form/global/main-menu-logged-on

pds/html_form/calling_system-aleph/main-menu-logged-on

pds/html_form/calling_system-aleph/main-menu-logged-out

pds/html_form/calling_system-digitool/main-menu-logged-on

pds/html_form/calling_system-digitool/main-menu-logged-out

pds/html_form/calling_system-metalib/main-menu-logged-on

pds/html_form/calling_system-metalib/main-menu-logged-out

pds/html_form/global.v4/main-menu-logged-on

pds/html_form/global.v4/main-menu-logged-out

pds/install_component/data

pds/pdsadmin/pdsadmin.conf

pds/program/PDSDefinitions

primoe/apache/bin/apachectl

primoe/apache/bin/apachectl_auto

primoe/apache/bin/apachectls_auto

primoe/apache/conf/hosts-allow

primoe/apache/conf/httpd.conf

primoe/apache/conf/mod-jk-workers.properties

primoe/apache/conf/mod-jk.conf

primoe/apache/conf/ssl.conf

primoe/apache/conf/startup.pl

primoe/apache/htdocs/main.html

PDS Directories Fully Copied from V3:

pds/conf_table

pds/html_form/calling_system-primo

pds/html_form/global

pds/html_form/*/institutions*

Apache – httpd.conf and ssl.conf:

The files will be copied from V3, but only the out-of-the-box paths will be changed to **p4_**.

** p3_ Paths

The **p3_** paths will be changed to **p4_** in all files under the following directories:

- pds/
- primoe/apache/bin

B

Switch to Read-Only Mode

The switch to read-only mode includes the following:

- Running step 3 in the Primo Pre-Upgrade Kit. The changes will be added to the CSS files in order to disable database activity from the Front End.

- Customers should deploy Views in order to apply all changes done in the last step.

- Customers should stop the V3 BO in order to disable the database changes from the Back Office.

- To ensure that X-Services and Web Service are unreachable for end users, Ex Libris strongly recommends that customers close the IP range to disable the following features: e-Shelf, reviews, and tags.

The changes to CSS files include the following:

- The `$primo_dev/ng/primo/home/system/thirdparty/openserver/server/ search/deploy/primo_library-app.ear/primo_librarylibweb.war/ css/my_shelf.css` file will be updated and the following lines will be added.

  ```
  .folder_details A.eShelf_cut_but {display:none;}
  .folder_details A.eShelf_copy_but {display:none;}
  .folder_details A.eShelf_paste_but {display:none;}
  .folder_details A.eShelf_delete_but {display:none;}
  ```

- The `$primo_dev/ng/primo/home/system/thirdparty/openserver/server/ search/deploy/primo_library-app.ear/primo_library-libweb.war/css/ v4uereadonly.css` file will be created and added to the CSS mapping table. The next content will be defined in the v4uereadonly.css file.

```
.EXLMyShelfStar {display:none;}

.noteImg {display:none;}

.EXLMyAccountEditLink {display:none;}

.EXLMyAccountTips {display:none;}

.EXLReviewsContent p a {display:none;}

.EXLReviewIcon {display:none;}

.EXLTagsContainer p a {display:none;}

.EXLTagsContainer p span.EXLTagIcon {display:none;}

.EXLTagsLinksHeader a {display:none;}

.EXLFacetSaveSearchAction a {display:none;}

.EXLFacetRSSAction form {display:none;}

.folderActions ul {display:none;}

.EXLTabHeaderButtons ol.EXLTabHeaderButtonSendToList
li.EXLButtonSendToMyShelfAdd a {display:none}

EXLTabHeaderButtons ol.EXLTabHeaderButtonSendToList
li.EXLButtonSendToMyShelfRemove a {display:none}
```

C

Users and Groups

The following groups are created during the Oracle and Primo installation:

dba – for Oracle installation

exlibris – for Primo installation

The following users are created by the Oracle and Primo installation:

User Name	Group	Home Directory	Shell
oracle	dba	`/exlibris/app/oracle/product/11r2`	tcsh
primo	exlibris	`/exlibris/primo`	tcsh

Manually Creating Groups and Users on the Servers

Note: The exlibris GID and primo UID must be identical on all servers.

To create the dba and exlibris groups, respectively:

- `groupadd -g <GID> dba`

- `groupadd -g <GID> exlibris`

To add the oracle and primo users on SunOS, respectively:

- ```
  /usr/sbin/useradd -u <ORA_UID> -o -g <dba> -d
  /exlibris/app/oracle/product/11r2 -s /bin/tcsh oracle
  ```

- ```
  /usr/sbin/useradd -u <PRIMO _UID> -o -g exlibris -d /exlibris/primo
  -s /bin/tcsh primo
  ```

To add the oracle and primo users on Linux, respectively:

- ```
  /usr/sbin/useradd -u <ORA_UID> -o -M -g <dba> -d
  /exlibris/app/oracle/product/11r2 -s /bin/tcsh oracle
  ```

- ```
  /usr/sbin/useradd -u <PRIMO_UID> -o -M -g exlibris -d
  /exlibris/primo -s /bin/tcsh primo
  ```

D

Changes to Default CSS File

Some important changes were made to the default CSS file (`Primo_default.3.0.css`), such as the addition of multiple facet boxes. If you are not using the default CSS file, you may need to update your local CSS file in order to display the new functionality in the Front End UI.

This section lists the additions, deletions, and changes made to the `Primo_default.3.0.css` file for V4:

- **Additions to CSS** on page **66**
- **Deletions from CSS** on page **74**
- **Changes to CSS** on page **74**

Additions to CSS

```
#exlidMainMenuRibbon li.EXLMainMenuItemSelected span a {background-
color:#e87107; background-image:url(../images/bg_strip_btn_orange.png);
background-repeat:repeat-x;margin:0em;  color:#FFFFFF; font-weight:
normal;height:auto; cursor: pointer; padding-bottom:0.3em;padding-
right:0.6em;padding-left:0.6em; border:1px solid #f4762d; border-right:none;
padding-top:0.2em; white-space:nowrap;padding-top:4px!ie }/*1.5*/
#exlidMainMenuRibbon li.EXLMainMenuItemSelected span
a.EXLMainMenuITEMATOZClose {border-left: medium none;border-right: 1px solid
#F4762D;}
#exlidMainMenuRibbon li span.EXLMainMenuItemSelectedClose{color: #555555;
border:none;padding-left:0em; padding-right:0em; background-
image:url(../images/icon_close_tab.png); width:16px; height:14px;
background-repeat:no-repeat; display:inline-block; vertical-align:text-top;
margin-left:0em; margin-top:1px; margin-left:0em!ie; padding-left:0.5em!ie;
margin-right:0em!ie; background-position:right!ie; padding-top:2px!ie}
```

```
#exlidMainMenuRibbon li.EXLMainMenuItemSelected  a:hover { text-
decoration:none;}

/*for ejournals A-Z search panel*/
div.EXLResultsContainer div.EXLALMAResultsTileNoFacets{width: 100%;}
div.EXLALMAResultsTileNoFacets td.EXLThumbnail{display:none;}
#exlidSearchTile.EXLSearchEJorunals {border-top:3px solid #f4762d;margin-
top:-4px!ie;height:80px; background-position:bottom; background-
color:#e2e8eb; background-image:none;filter:
progid:DXImageTransform.Microsoft.Gradient(GradientType=0,StartColorStr=#ffff
ff,EndColorStr=#e2e8eb);
    background-image: -moz-linear-gradient(top,#fff 0,#e2e8eb 100%);
    background-image: -ms-linear-gradient(top,#fff 0,#e2e8eb 100%);
    background-image: -o-linear-gradient(top,#fff 0,#e2e8eb 100%);
    background-image: -webkit-gradient(linear,left top,left bottom,color-
stop(0,#fff),color-stop(100%,#e2e8eb));
    background-image: -webkit-linear-gradient(top,#fff 0,#e2e8eb 100%);
    background-image: linear-gradient(top,#fff 0,#e2e8eb 100%); }
#exlidSearchTile.EXLSearchEJorunals fieldset { margin-left:11em; margin-
top:0.2em;}
#exlidSearchTile.EXLSearchEJorunals .EXLSearchFieldRibbonFormSearchFor{}
#exlidSearchTile.EXLSearchEJorunals  fieldset label { position:absolute;
margin-top:0.5em;  margin-left:-11em;}
#exlidSearchTile.EXLSearchEJorunals .EXLSearchFieldRibbonSimpleSearchLink
{float:left; margin-top:3em; margin-left:6.5em;}
#exlidSearchTile.EXLSearchEJorunals .EXLSearchEJorunalsListAtoZ { text-
align:center; width:95%;  display:block; }
#exlidSearchTile.EXLSearchEJorunals .EXLSearchEJorunalsListAtoZ ul { list-
style:none;     }
#exlidSearchTile.EXLSearchEJorunals .EXLSearchEJorunalsListAtoZ li {
display:inline-block; float:left; line-height:180%;width:1.6em;  font-weight:
bold; font-size:100%;     }
#exlidSearchTile.EXLSearchEJorunals .EXLSearchEJorunalsListAtoZ
li.EXLSearchEJorunalsListAtoZSelected { background-
image:url(../images/icon_arrow_AtoZ.png); background-repeat:no-repeat;
background-position:45% 0%;     }
#exlidSearchTile.EXLSearchEJorunals .EXLSearchEJorunalsListAtoZ li a
{display:inline-block; width:1.6em ; }
#exlidSearchTile.EXLSearchEJorunals .EXLSearchEJorunalsListAtoZ li a:hover {
background-image:url(../images/icon_arrow_AtoZ.png); background-repeat:no-
repeat; background-position:50% 0%; }
div.EXLSearchEJorunalsListAtoZ li.EXLFindDBListHeaderAtoZSelected {
background-image:url(../images/icon_arrow_AtoZ.png); background-repeat:no-
repeat; background-position:45% 0%;     }
.EXLResultsListAlmaAz div.EXLREeviewsViewAllLink {display:none;}


#exlidAdvancedSearchRibbon div.EXLAdvancedSearchFormRow
span.EXLAdvancedSearchFormDateRangeRow select { width:4.9em; text-align:left;
direction: ltr; }
#exlidAdvancedSearchRibbon div.EXLAdvancedSearchFormRow
span.EXLAdvancedSearchFormDateRangeRow input { width:4em; height:1.75em;
font-size:0.9em; text-align:left; }

/*   ------------ClearFix ----------- */
/*Fixes Div in Div problems*/
```

```
.EXLClearFix:after {clear:both; content:"."; display:block; height:0;
visibility:hidden;}
.EXLClearFix {display:inline-block;}
/* Hides from IE-mac \ */
* html .EXLClearFix {height:1%;}
/* End hide from IE-mac  */
.EXLClearFix {display:block;}




/*Refined By Ribbon with Exclude*/
.EXLRefinementRibbonWithExclude { clear:both; background-color:#f8f8f8;
border-top:1px solid #e4e4e4; border-bottom:none; color:#32322f; font-
size:80%; height:auto; vertical-align: text-bottom; display: inline-block/*
default should be display:none*/ ; width:100%}
.EXLRefinementRibbonWithExclude span.EXLRefinementsListTitle { display:block;
float:left; clear:right; margin-top:0.5em; margin-left:1em; width:auto;
white-space:nowrap;}
.EXLRefinementRibbonWithExclude div.EXLRefinementsList { padding:0em 1em
0.3em 0em; float:left; width:80%}
.EXLRefinementRibbonWithExclude span.EXLRemoveRefinement{ background-
color:#ffffff; border:1px solid #d7d9da; color:#424e53;
height:auto;margin:0;padding-left:0.5em ; margin-left:0.5em; display:inline-
block; margin-top:0.3em;   }
.EXLRefinementRibbonWithExclude div a{ color:#424e53; border-left:1px solid
#d7d9da; padding-left:0.5em; line-height:150%; }
.EXLRefinementRibbonWithExclude div a.EXLFirstRefinementElement {
border:none; padding-left:0em;}
.EXLRefinementRibbonWithExclude div a:hover{ text-decoration:none;
color:#e87107 }
.EXLRefinementRibbonWithExclude span img{ vertical-align: middle;padding-
left:0.2em;    }
.EXLRefinementRibbonWithExclude div a.EXLExcludedElement strong { text-
decoration:line-through;}
.EXLRefinementRibbonWithExclude div a.EXLExcludedElement strong:hover { text-
decoration:line-through;}

/*  PRM-14854 Add new resource type 'Research Dataset' to Primo so that it
can be used in PC */
.EXLResultMediaTYPEresearch_dataset .multipleCoverImageContainer {background-
image: url(../images/icon_research_dataset.png);}

/*  PRM-14854 Add new resource type 'Research Dataset' to Primo so that it
can be used in PC */
.EXLResultMediaTYPEresearch_dataset .multipleCoverImageContainer {background-
image: url(../images/icon_research_dataset.png);}

.EXLFacetContainerRefine{border-bottom:1px solid #e4e4e4;}

/*Facets Lightbox Styles*/
#exlidFacetsLightboxContainer { background-color:#ecf0f3; width:100%;
height:565px; padding-top:2%}
#exlidFacetsLightboxTile {  clear:left;  padding:0em 0em 0em 0em; font-
size:80%; height:510px; width:96%; border:1px solid #d4d4d4; background-
color:#FFFFFF; margin-left:auto; margin-right:auto;}

#exlidFacetsLightboxListWrapper {clear:both;}
```

```
/*Facets Lightbox header*/
.EXLFacetsLightboxHeader { width:100%; clear:both; display:block;
height:3em;}
.EXLFacetsLightboxHeader h1 { float:left; font-size:100%; color:#000000;
line-height:300%; padding-left:1em}
.EXLFacetsLightboxHeader div.EXLFacetsLightboxHeaderButtons { padding:0em;
width:35%; float:right; text-align:right; height:18px; padding-top:0.8em ;
margin-right:0.5em }
.EXLFacetsLightboxHeader div.EXLFacetsLightboxHeaderButtons ul { float:right;
margin-bottom:9px; }
.EXLFacetsLightboxHeader div.EXLFacetsLightboxHeaderButtons li { list-
style:none; float:left; height:18px; border-right:0px solid #e1e1e1;}
.EXLFacetsLightboxHeader div.EXLFacetsLightboxHeaderButtons li span
{background-image:none; background-repeat: no-repeat; width:18px;
height:18px; display:inline; float:left; }
.EXLFacetsLightboxHeader div.EXLFacetsLightboxHeaderButtons li a {
padding:0.2em 0.2em 0.2em 0.2em; cursor:pointer; text-decoration:none     }
.EXLFacetsLightboxHeader div.EXLFacetsLightboxHeaderButtons li a
span.EXLFacetsLightboxHeaderButtonCloseLabel { display:none   }
.EXLFacetsLightboxHeader div.EXLFacetsLightboxHeaderButtons li a
span.EXLFacetsLightboxHeaderButtonHelpLabel { display:inline  }
.EXLFacetsLightboxHeader div.EXLFacetsLightboxHeaderButtons li a:hover
span.EXLFacetsLightboxHeaderButtonHelpLabel { text-decoration:underline  }
.EXLFacetsLightboxHeader div.EXLFacetsLightboxHeaderButtons li a
span.EXLFacetsLightboxHeaderButtonHelp {background-image:none; background-
position: center;border-right:1px solid #e1e1e1; }
.EXLFacetsLightboxHeader div.EXLFacetsLightboxHeaderButtons li a
span.EXLFacetsLightboxHeaderButtonClose {background-image:
url(../images/icon_close_tabs.png); background-position: center ;margin-
left:0em}

/*submit buttons*/
#exlidFacetsLightboxContainer div.EXLFacetsLightboxFieldRibbonFormResetSearch
{float:left; display:inline; clear:right; border:1px solid #adb9c2; margin-
left:0.5em; margin-top:1em; }
#exlidFacetsLightboxContainer
div.EXLFacetsLightboxFieldRibbonFormSubmitSelected {float:left;
display:inline; clear:both; border:1px solid #adb9c2; margin-left:auto;
margin-top:1em;   }
#exlidFacetsLightboxContainer a.EXLSubmit  { border:1px solid #ffffff;
padding:0.3em 0.5em 0em 0.5em; display:inline-block; background-
color:#e87107; background-image:url(images/bg_strip_btn_orange.png);
background-repeat:repeat-x;margin:0em; width:auto;  color:#FFFFFF; font-
weight: normal;height:18px; cursor: pointer; text-decoration: none;}

#exlidFacetsLightboxContainer input.EXLReset {border:1px solid #ffffff;
padding:0em 0.5em 0em 0.5em; display:inline-block; background-color:#e87107;
margin:0em; width:auto;  color:#FFFFFF; font-weight: normal;height:24px;
cursor: pointer; background-color:#bababa;   }

/*tabs, titles*/
.EXLFacetsLightboxTabsRibbon{height:28px;border-bottom:2px solid #f4762d;
padding:0px; padding-top:auto; padding-left:1em; margin:0em 0em 0em 0em;
background-color:#FFFFFF }
```

```
.EXLFacetsLightboxTabsRibbon  span {line-height: 200%; font-size:100%;
display: inline; min-width:14em; width:auto;margin-right:13em;   }
.EXLFacetsLightboxTabsRibbon  span.EXLFacetsLightboxTabsRibbonInclude
{margin-right:0em;}
.EXLFacetsLightboxTabsRibbon  span.EXLFacetsLightboxTabsRibbonExclude
{margin-right:1.4em; margin-left: 1em; }


#exlidFacetsLightboxTile div.EXLFacetsLightboxListContainer {
height:440px;overflow:auto;overflow-x:hidden; margin-top:0.1em}


/*list of facets*/
#exlidFacetsLightboxTile div.EXLFacetsLightboxList{ padding-top:0em; }
#exlidFacetsLightboxTile div.EXLFacetsLightboxList
div.EXLFacetsLightboxListRow { border:none; padding:0.1em 0em 0.1em 0em;
margin:0px; display:block; clear:both; line-height:150%;padding-left:1em
;padding-right:1.5em }
#exlidFacetsLightboxTile div.EXLFacetsLightboxList
div.EXLFacetsLightboxListRowBgColor { background-color:#f3f3f7;}
#exlidFacetsLightboxTile div.EXLFacetsLightboxListRow span.legend {
display:inline-block; float:none; padding-bottom:0em; margin-top:-0.1em;
width:auto;margin-left:3em; }
#exlidFacetsLightboxTile div.EXLFacetsLightboxList
div.EXLFacetsLightboxListRow label{position:absolute;left:-
10000px;top:auto;width:1px;height:1px;overflow:hidden; font-size:1px; }


#exlidFacetsLightboxTile div.EXLFacetsLightboxListRow div.EXLCheckboxGroup {
display:inline; }
#exlidFacetsLightboxTile div.EXLFacetsLightboxListRow
input[type="checkbox"].EXLChkInclude {  margin-left:1em; }
#exlidFacetsLightboxTile div.EXLFacetsLightboxListRow
input[type="checkbox"].EXLChkExclude {  margin-left:3em; }


#exlidFacetsLightboxTile div.EXLFacetsLightboxListRow fieldset span.legend
span { color:#919193; margin-left:0.5em; display:inline; }


.EXLFacebookIframe {overflow:hidden; width:110px; height:64px; clear:both;
float:right; margin-top:-30px;margin-top:3px!ie;margin-bottom:-30px!ie; }
/*.EXLResultsList tr:hover .EXLFacebookIframe{ display:inline-block;}*/


/*Personalized Ranking Lightbox*/
.EXLPersonalizedRanking {width:100%; left:0px; top:0px; position:absolute; z-
index:2000; }
.EXLLightbox{   border:1px solid #b8b8b8; height:auto;  padding:0em;
margin:0em; -moz-border-radius-topleft:4px;   -moz-border-radius-
topright:4px;-moz-border-radius: 4px;-webkit-border-radius: 4px;border-
radius: 4px;background-color:#FFFFFF; background-
image:url(../images/lightbox_footer_bg.png); background-repeat:repeat-x;
background-position:bottom; padding-bottom:1.5em;}
.EXLLightbox div.EXLLightboxHeader { background-
image:url(../images/lightbox_bg_title.png); background-position:bottom;
background-repeat:repeat-x; height:30px; border-bottom:1px solid #b8b8b8; -
moz-border-radius-topleft:4px;   -moz-border-radius-topright:4px; }
.EXLLightbox div.EXLLightboxHeader span.EXLLightboxHeaderTitle
{color:#000000; font-weight:bold; font-size:90%; line-height:210%; margin-
left:1em; width:70%!ie; float:left!ie;}
```

```css
.EXLLightbox div.EXLLightboxHeader a.EXLLightboxHeaderClose { float:right;
margin-right:1em;  margin-top:0.6em; clear:left!ie; display:inline!ie;
width:10%!ie; text-align:right;!ie}
.EXLLightbox div.EXLLightboxFormContainer { font-size:80%; padding-left:1em;
margin-top:1em;}
.EXLLightbox div.EXLLightboxFormContainer div.EXLLightboxHeader {background-
image:url(../images/lightbox_bg_title.png); background-position:bottom;
background-repeat:repeat-x; height:30px; border-bottom:1px solid #b8b8b8; -
moz-border-radius-topleft:4px;    -moz-border-radius-topright:4px;}
.EXLLightbox div.EXLLightboxFormContainer div.EXLLightboxFormRow { vertical-
align:top; padding-top:0.3em;padding-bottom:0.3em; display:block;background-
color:#FFFFFF;}
.EXLLightbox div.EXLLightboxFormContainer div.EXLLightboxFormRow label {
width:10em; display:inline-block; white-space:normal; vertical-align:top;}
.EXLLightbox div.EXLLightboxFormContainer p { background-color:#f1f1f1;
padding:1.5em 1em 0.5em 0em; color:#7b7b79; font-size:90%;  background-
color:#FFFFFF; }
.EXLLightbox div.EXLLightboxFormContainer
select{width:200px;padding:1px;color:#000;border:1px solid
#c7c7c7;background-image:url(../images/lightbox_footer_bg.png); background-
repeat:repeat-x;margin-left:0em; font-family:Arial; font-size:90%;margin-
top:0em;}
.EXLLightbox div.EXLLightboxFormContainer  input[type="text"] {padding:2px
0px 2px 0px;color:#000;border:1px solid #c7c7c7;background-
image:url(../images/lightbox_footer_bg.png); background-repeat:repeat-
x;margin-left:0em; width:198px; }
.EXLLightbox div.EXLLightboxFormContainer
fieldset.EXLLightboxFormDisciplineSelection { margin-left:10.2em;border:1px
solid #c7c7c7; padding:0.5em; width:44em; margin-top:-1em; }
.EXLLightbox div.EXLLightboxFormContainer
fieldset.EXLLightboxFormDisciplineSelection ul{ list-style:none; width:49%;
}
.EXLLightbox div.EXLLightboxFormContainer
fieldset.EXLLightboxFormDisciplineSelection
.EXLLightboxFormDisciplineSelectionColumn1 { float:left; }

.EXLLightbox div.EXLLightboxFormContainer
fieldset.EXLLightboxFormDisciplineSelection
.EXLLightboxFormDisciplineSelectionColumn2 { float:right; padding-left:0.5em}

.EXLLightbox div.EXLLightboxFormContainer
fieldset.EXLLightboxFormDisciplineSelection ul li{ line-height:130%;
display:block; width:auto;}
.EXLLightbox div.EXLLightboxFormContainer
fieldset.EXLLightboxFormDisciplineSelection ul li label { padding-left:0.2em;
white-space: nowrap; width:auto; display:inline;}
.EXLLightbox div.EXLLightboxFormContainer
fieldset.EXLLightboxFormDisciplineSelection ul li label:hover {
cursor:pointer; text-decoration:underline;}

.EXLLightboxFormButtons { margin-top:0.5em; }
.EXLLighboxSubmitButton {width:auto; font-size:90%; margin-left:0em; margin-
right:auto; margin-top:0.5em; float:left; clear:right}
.EXLLighboxSubmitButton span {border:1px solid #7f9db9; display:block;
width:80px; height:20px;  text-align:center; padding:1px; }
.EXLLighboxSubmitButton span .EXLSubmit {padding:0em 0.5em 0em 0.5em;
color:#FFFFFF; font-weight: normal;height:20px; cursor: pointer; background-
```

```
image:url(../bg_strip_btn_orange.png); background-repeat:repeat-x;
display:block; line-height:160%; background-color:#f88543; cursor:poointer;
text-decoration: none; }
.EXLLighboxSubmitButton span input {padding:0em 0.5em 0em 0.5em;
color:#FFFFFF; font-weight: normal;height:20px; cursor: pointer; background-
image:url(../bg_strip_btn_orange.png); background-repeat:repeat-x;
display:block; line-height:160%; width:80px; background-color:#f88543; }
.EXLLighboxCancelButton span {margin-left:0.5em; margin-left:0em!ie;}
.EXLLighboxCancelButton span input {background-
image:url(../images/bg_strip_btn_grey.png);background-color:#f88543;}
.EXLLightboxFormButtonsLink {width:auto;font-weight:bold; float:right; line-
height:150%; font-size:100%; margin-top:0.7em; margin-right:2.5em; }


/*Personalized Ranking Styles My Account*/
.EXLMyAccountMainContainer div.EXLMyAccountRanking { float:right;  width:35%;
border:1px solid #e1e1e1; margin:0.5em 0em 1em 1em;background-
image:url(../images/bg_strip_details_links.png); background-repeat:repeat-x;
background-position:bottom; height:auto; padding:0.5em 1em 0.5em 0.5em; }
.EXLMyAccountFormContainer div.EXLMyAccountRanking table { width:100%;
padding:0em; margin:0em;}
.EXLMyAccountFormContainer div.EXLMyAccountRanking strong { font-size:90%;
color:#32322f; font-weight:bold; display:block; margin-bottom:0.5em;   }
.EXLMyAccountFormContainer div.EXLMyAccountRanking tr { line-height:auto;}
.EXLMyAccountFormContainer div.EXLMyAccountRanking th{ width:auto; white-
space:normal;line-height:150%;vertical-align:text-top; padding-right:0.5em;}
.EXLMyAccountFormContainer div.EXLMyAccountRanking td {   }
.EXLMyAccountFormContainer div.EXLMyAccountRanking
a.EXLEditPersonalizedRankingProfile { font-weight:bold; line-height:200%;}


/*Personal Settings Form Styles*/
.EXLMyAccountFormContainer {  width:96%; padding-top:1em;display:table; }
.EXLMyAccountMainContainer div.EXLMyPersonalSettings { margin-bottom:1em;
width:55%; padding-left:1em; float:left;}
.EXLMyAccountMainContainer table.EXLMyAccountForm{ margin-bottom:1em;
width:100%; margin-left:2%; height:auto; float:left; display:inline-block  }
.EXLMyAccountMainContainer table.EXLMyAccountForm th{ padding:0; margin:0;
text-align:left; font-weight:normal;display:inline; border:none; line-
height:200%; display:block; margin:0px; padding:0px; margin-right:2em;
vertical-align:text-top;}
.EXLMyAccountMainContainer table.EXLMyAccountForm td { font-weight:normal;
color:#32322f; width:auto; }
.EXLMyAccountMainContainer form table.EXLMyAccountForm td{ border:none; text-
align:left}
.EXLMyAccountMainContainer form select{ border:1px solid #7f9db9;
height:auto;}
.EXLMyAccountMainContainer form input{ border:1px solid #7f9db9;
height:18px;width:15em}
.EXLMyAccountMainContainer form span.submit { border:1px solid #7f9db9;
display:inline-block; width:auto; height:22px; }
.EXLMyAccountMainContainer form input.submit { background-color:#e87107;
background-image:url(../images/bg_strip_submit_temp.png); background-
repeat:repeat-x;margin-left:0em; width:auto;  color:#FFFFFF; font-weight:
normal;height:22px; cursor: pointer; border:1px solid #ffffff; padding-
left:0.5em; padding-right:0.5em; }


/*Tip Styles*/
```

```
.EXLMyAccountMainContainer div.EXLMyAccountTips { float:right; width:35%;
border:1px solid #e1e1e1; margin:0.5em 0em 1em 1em;background-
image:url(../images/bg_strip_details_links.png); background-repeat:repeat-x;
background-position:bottom; height:auto; padding:0.5em 1em 0em 0.5em;   }
.EXLMyAccountMainContainer div.EXLMyAccountTips em { padding-left:0.5em;
font-size:90%}
.EXLMyAccountMainContainer div.EXLMyAccountTips ul { height:100%;
padding:0.5em 0em 1em 0.5em;     }
.EXLMyAccountMainContainer div.EXLMyAccountTips li { list-style:none;padding-
top:0px; padding-right:0px; font-size:90%; margin-bottom:1em; float:left; }
.EXLMyAccountMainContainer div.EXLMyAccountTips li
span.EXLMyAccountTipsBullet { padding:0px; margin:0px;
background-image: url(../images/bullet_arrow_orange_tip.png); background-
repeat:no-repeat;width:15px; height:7px; float:left; display:block;
clear:left; margin-top:5px;   }
.EXLMyAccountMainContainer div.EXLMyAccountTips li span.EXLMyAccountTipsTitle
{ width:90%; display:block; float:left}
.EXLMyAccountFormContainer div.EXLMyAccountTips form { margin-bottom:1em; }
.EXLMyAccountFormContainer div.EXLMyAccountTips form table { width:100%;
padding:0em; margin:0em;}
.EXLMyAccountFormContainer div.EXLMyAccountTips form th{ width:auto; white-
space:nowrap;vertical-align:top;}
.EXLMyAccountFormContainer div.EXLMyAccountTips form td {vertical-align:top;
}
.EXLMyAccountFormContainer div.EXLMyAccountTips form select{
width:auto/*7em*/; line-height:normal; vertical-align:top;}
.EXLMyAccountFormContainer div.EXLMyAccountTips form legend { font-size:90%;
color:#32322f; font-weight:bold; text-indent:0em; margin-bottom:0.5em;   }
.EXLMyAccountFormContainer div.EXLMyAccountTips label{ white-space:normal;
line-height:normal;}

/*RIS PushTo*/
.EXLPopupImportCitationContainer { background-color:#ecf0f3; width:375px;
height:130px; padding-top:0.5em;}
.EXLPopupImportCitation {  font-size:80%; height:120px; width:358px;
border:1px solid #d4d4d4; background-color:#FFFFFF; margin:auto;}
/*header*/
.EXLPopupImportCitationHeader { width:100%; clear:both; display:block;
height:1.5em;}
.EXLPopupImportCitationHeader h1 { float:left; font-size:100%; color:#000000;
line-height:300%; padding-left:1em; }
.EXLPopupImportCitation  div.EXLPopupRow{ padding:0em 0em 0em 1em;
margin:0em; width:100%; float:left; margin-top:0em; margin-bottom:1em;
margin-bottom:0em!ie; padding-top:2em!ie }
.EXLPopupImportCitation  div.EXLPopupRow select { width:auto; border:1px
solid #8fb9d0; height:auto; padding-top:0em;padding-left:0em; font-size:100%}
/*buttons*/
.EXLPopupImportCitationContainer div.EXLPopupImportCitationLinkButtons {
height:auto; width:80%; margin-top:2em;margin-top:1em!ie;}
.EXLPopupImportCitationContainer div.EXLPopupImportCitationButtonLink
{width:auto; font-size:90%; margin-left:1em; margin-right:auto; margin-
top:0.5em; float:left; clear:right}
.EXLPopupImportCitationContainer div.EXLPopupImportCitationButtonLink span
{border:1px solid #7f9db9; display:block; width:80px; height:20px;  text-
align:center; padding:1px; }
.EXLPopupImportCitationContainer div.EXLPopupImportCitationButtonLink span
input {padding:0em 0.5em 0em 0.5em; color:#FFFFFF; font-weight:
```

```
normal;height:20px; cursor: pointer; background-
image:url(images/bg_strip_btn_orange.png); background-repeat:repeat-x;
display:block; line-height:160%; width:80px; background-color:#f88543; }
.EXLPopupImportCitationContainer div.EXLPopupImportCitationButtonLink span
input[disabled] {background-image:none; background-color:#d4d2d2;
cursor:wait;}
.EXLPopupImportCitationContainer div.EXLPopupImportCitationButtonCancel span
input {background-image:url(images/bg_strip_btn_grey.png);}
```

Deletions from CSS

```
.EXLFacetTile label{color:#0075B0;}
```

```
.EXLFacetContainer ol li.EXLFacetsDisplayLess { display:none}
```

Changes to CSS

<u>From:</u>
```
#exliWhiteContent { position: absolute; top: 10%; left: 15%; width: 75%;
height: 400px;background-color: white; z-index:1002;}
.exliLoadingFdb {position: absolute; top: 10%; left: 15%; width: 75%; height:
400px; background-color: white; z-index:1002; background-
image:url(../images/icon_loading_circle.gif); background-repeat:no-repeat;
background-position:center; text-align:center;}
```
<u>To:</u>
```
#exliWhiteContent { position: fixed; top: 10%; left: 15%; width: 75%;
height: 400px;background-color: white; z-index:1002;}
.exliLoadingFdb {position: absolute; top: 10%; left: 15%; width: 75%; height:
400px; background-color: white; z-index:1002; background-
image:url(../images/icon_loading_circle.gif); background-repeat:no-repeat;
background-position:center; text-align:center;-moz-opacity:0.6; opacity:0.60;
filter: alpha(opacity=60 );}
```


<u>From:</u>
```
* html #exliGreyOverlay iframe { /* ie6 hack to enable the lightbox to work*/
display:block; z-index:-1; filter:mask(); border: 0; margin: 0; padding: 0;
top: 0; left: 0; width: 100%; height: 100%; overflow: hidden;}
* html #exliLoadingFdb iframe { /* ie6 hack to enable the lightbox to work*/
display:block; z-index:-1; filter:mask(); border: 0; margin: 0; padding: 0;
top: 0; left: 0; width: 100%; height: 100%; overflow: hidden;}
```
<u>To:</u>
```
* html #exliGreyOverlay iframe { /* ie6 hack to enable the lightbox to work*/
display:block; z-index:-1; filter: mask(); border: 0; margin: 0; padding: 0;
top: 0; left: 0; width: 100%; height: 100%; overflow: hidden;}
* html #exliLoadingFdb iframe { /* ie6 hack to enable the lightbox to work*/
display:block; z-index:-1; filter: mask(); border: 0; margin: 0; padding: 0;
top: 0; left: 0; width: 100%; height: 100%; overflow: hidden;}
```
<u>From:</u>
```
/*A-Z links*/
```

```
#exlidFindDBTile div.EXLFindDBListHeaderAtoZ { text-align:center; width:90%;
padding-left:2.7em }
#exlidFindDBTile div.EXLFindDBListHeaderAtoZ ul { list-style:none;      }
#exlidFindDBTile div.EXLFindDBListHeaderAtoZ li { display:inline-block;
float:left; line-height:200%;width:1.6em;  font-weight:bold; font-size:100%;
}
#exlidFindDBTile div.EXLFindDBListHeaderAtoZ
li.EXLFindDBListHeaderAtoZSelected { background-
image:url(../images/icon_arrow_AtoZ.png); background-repeat:no-repeat;
background-position:45% 0%;      }
#exlidFindDBTile div.EXLFindDBListHeaderAtoZ li a {display:inline-block;
/*padding:0em 0.48em 0em 0.48em;*/ width:1.6em ; }
#exlidFindDBTile div.EXLFindDBListHeaderAtoZ li a:hover { background-
image:url(../images/icon_arrow_AtoZ.png); background-repeat:no-repeat;
background-position:50% 0%; }
```

To:

```
/*A-Z links*/
div.EXLFindDBListHeaderAtoZ { text-align:center; width:90%;  padding-
left:2.7em }
div.EXLFindDBListHeaderAtoZ ul { list-style:none;      }
div.EXLFindDBListHeaderAtoZ li { display:inline-block; float:left; line-
height:200%;width:1.6em;  font-weight:bold; font-size:100%;      }
div.EXLFindDBListHeaderAtoZ li.EXLFindDBListHeaderAtoZSelected { background-
image:url(../images/icon_arrow_AtoZ.png); background-repeat:no-repeat;
background-position:45% 0%;      }
div.EXLFindDBListHeaderAtoZ li a {display:inline-block; /*padding:0em 0.48em
0em 0.48em;*/ width:1.6em ; }
div.EXLFindDBListHeaderAtoZ li a:hover { background-
image:url(../images/icon_arrow_AtoZ.png); background-repeat:no-repeat;
background-position:50% 0%; }
```

From:

```
#exlidHeaderSearchLimits select { border:1px solid #7f9db9; height:1.5em;
color:#666666}
```

To:

```
#exlidHeaderSearchLimits select { border:1px solid #7f9db9; height:1.65em;
color:#666666}
```

From:

```
.EXLFacetContainer{margin-bottom:1em;font-family:Arial; padding:0em 0.5em 0em
0.5em; clear:left; display:block;}
.EXLFacetContainer h3{  color:#000000; font-weight:bold; font-size:80%;
padding:0em;background-color:#f8f8f8; border-top:1px solid #e4e4e4; border-
bottom:1px solid #e4e4e4; line-height:150%; text-indent:0em;  margin-
bottom:0.2em ;padding-left:0.5em }
```

To:

```
.EXLFacetContainer{margin-bottom:1em;font-family:Arial; padding:0em 0.5em 1em
0.5em; clear:left; display:block;  }
.EXLFacetContainer h3{  color:#000000; font-weight:bold; font-size:80%;
padding:0em;background-color:#f8f8f8; border-top:1px solid #e4e4e4; border-
bottom:1px solid #e4e4e4; line-height:150%; text-indent:0em;  margin-
bottom:0.7em ;padding-left:0.5em; }
```

From:

```
.EXLFacetContainer ol li span { color: #8C8D8C; margin-left:0.5em; font-
size:85%;unicode-bidi:embed;}
```
To:
```
.EXLFacetContainer ol li span { color: #8C8D8C; margin-left:0.5em; font-
size:90%;direction: ltr; unicode-bidi: embed;}
```

From:
```
.EXLFacetContainer ol li.EXLFacetsDisplayLess { display:none}
.EXLFacetContainer ol li.EXLFacetsDisplayMore { display:inline-block;}
.EXLFacetContainer ol li.EXLFacetsDisplayMore a img { margin-left:0.5em}
.EXLFacetContainer ol li.EXLFacetsDisplayMore a:hover img { text-
decoration:none}
.EXLFacetContainer ol li.EXLFacetsDisplayMore a:hover span { text-
decoration:none}
```
To:
```
.EXLFacetContainer ol li.EXLFacetsDisplayMore { display:inline-block; margin-
top:0.5em;}

.EXLFacetContainerForms { margin-bottom: 0.5em;}
.EXLFacetContainerForms h4{  color:#777676;font-weight:bold; font-size:80%;
text-indent:0em;padding-left:0.5em;}
.EXLFacetContainerForms h4 a { text-decoration:none; color:#777676;}
.EXLFacetContainerForms ol {  display:block; padding-left:0.5em; margin-
top:0.3em;}
.EXLFacetContainerForms ol li {/*color:#0075b0;*/ color:#000000; line-
height:130%;}
/*.EXLFacetContainerForms ol li:hover { background-color:#eeeeee;}*/
.EXLFacetContainerForms ol li.EXLFacetsDisplayMore:hover { background-
color:transparent;}
.EXLFacetContainerForms ol li.EXLFacetsDisplayMore { font-weight:bold;}
.EXLFacetContainerForms ol li span.label{cursor:pointer}
.EXLFacetContainerForms input[type="submit"] {  margin-left:1.5em; margin-
bottom:0.2em; margin-top:0.4em; cursor: pointer; padding-right:0.2em;padding-
left:0.2em; background-color:#dddddd; background-image:
url("../images/bg_strip_submit_facets.png"); background-repeat: repeat-x;
border-color: #BBBBBB #BBBBBB #999999;border-radius: 4px 4px 4px 4px;
border-style: solid; border-width: 1px; box-shadow: 0 1px 0 #F8F8F8;
color: #333333;   cursor: pointer;  font:80% Arial;
}
.EXLFacetContainerForms li.EXLFacetChecked span.label{}

.EXLFacetContainerForms ol li span.EXLFacetRemove { color: #8C8D8C; margin-
left:0.5em; font-size:85%;direction: ltr; unicode-bidi: embed; float:right;
visibility:hidden; display:inline-block; }
.EXLFacetContainerForms ol li:hover span.EXLFacetRemove {  visibility:
visible; }
```

From:
```
.EXLMyAccountMainContainer div.EXLMyPersonalSettings { margin-bottom:1em;
width:55%; padding-left:1em; float:left; }
```
To:
```
.EXLMyAccountMainContainer div.EXLMyPersonalSettings { margin-bottom:1em;
width:55%; padding-left:1em; float:left; min-height:126px; }
```

From:

```
#exlidAdvancedSearchRibbon div.EXLSearchFieldRibbonPreFilters {min-
height:12em;}
```

<u>To:</u>

```
#exlidAdvancedSearchRibbon div.EXLSearchFieldRibbonPreFilters {min-
height:12em; overflow: auto;}
```