



Voyager[®] Primo[®] Integration User's Guide

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About This Document

Purpose

The purpose of the *Voyager® Primo® Integration User's Guide* is to provide you with the Voyager-related information that you need to do the following:

- Set up/modify configuration files
- Run batch files
- Set up the system for processing user requests

Intended Audience

This document is written for a technical audience responsible for the following:

- Configuration file setup
- Initial upload of Voyager data into Primo
- Writing scripts and scheduling batch jobs for running updates
- User authentication setup
- Review/analysis of message logs as needed

Reason for Reissue

This guide incorporates and is being reissued for the following reason:

- Updated the following section to indicate that Tomcat is now a single process: [Tomcat Process](#) on [page A-2](#).

Document Summary

Chapter 1	“Getting Started” This chapter describes the prerequisites for getting started with the Voyager Primo integration setup.
Chapter 2	“Data Extraction” This chapter provides information needed to process the initial data extraction from Voyager and ongoing updates.
Chapter 3	“Course Reserves” This chapter provides information regarding the extraction of course reserves data from the Voyager database.
Chapter 4	“Real-Time Availability” This chapter provides information about real time availability processing with Voyager Primo integration.
Chapter 5	“Patron Services - OPAC via Primo” This chapter provides information about patron services such as user authentication and processing user requests with OPAC via Primo.
Chapter 6	“Patron Services - OPAC via Link” This chapter provides information about patron services such as user authentication and processing user requests with OPAC via Link.
Chapter 7	“Apache mod_deflate Module” This chapter provides the instructions for enabling the Apache mod_deflate module in the Voyager environment.
Appendix A	“Verify Voyager Process/Services” This appendix provides the information and steps to verify successfully running Voyager processes/services.
Index	The Index is an alphabetical, detailed cross-reference of topics.

Conventions Used in This Document

The following conventions are used throughout this document:

- Names of commands, variables, stanzas, files, and paths (such as `/dev/tmp`), as well as selectors and typed user input, are displayed in `constant width` type.
- Commands or other keyboard input that must be typed exactly as presented are displayed in **`constant width bold`** type.
- Commands or other keyboard input that must be supplied by the user are displayed in ***constant width bold italic*** type.
- System-generated responses such as error messages are displayed in `constant width` type.
- Variable *portions* of system-generated responses are displayed in *constant width italic* type.
- Keyboard commands (such as **Ctrl** and **Enter**) are displayed in **bold**.
- Required keyboard input such as “Enter **vi**” is displayed in **`constant width bold`** type.
- Place holders for variable portions of user-defined input such as ***ls -l filename*** are displayed in ***italicized constant width bold*** type.
- The names of menus or status display pages and required selections from menus or status display pages such as “From the **Applications** drop-down menu, select **System-wide**,” are displayed in **bold** type.
- Object names on a window's interface, such as the **Description** field, the **OK** button, and the **Metadata** tab, are displayed in **bold** type.
- The titles of documents such as *Acquisitions User's Guide* are displayed in *italic* type.
- Caution, and important notices are displayed with a distinctive label such as the following:

NOTE:

Extra information pertinent to the topic.



IMPORTANT:

Information you should consider before making a decision or configuration.



CAUTION:

Information you must consider before making a decision, due to potential loss of data or system malfunction involved.



TIP:

Helpful hints you might want to consider before making a decision.

RECOMMENDED:

Preferred course of action.

OPTIONAL:

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Introduction

The *Voyager® Primo® Integration User's Guide* is designed to provide you with the information that you need to successfully utilize Voyager data in a Primo user environment.

The following components are a part of the Voyager Primo integration for all Primo configurations:

- Configuration files for data extraction
- Batch files to run jobs
- Real-time availability

The following components are available using either OPAC via Link or OPAC via Primo:

- User authentication with Patron Directory Services (PDS)
- User account information
- Item display and request processing

NOTE:

For Voyager versions 6.5.4 through 7.1, OPAC via Link is the only implementation available of Voyager with Primo. Starting with Voyager 7.2, OPAC via Primo is available and the OPAC via Link implementation is available as a legacy offering.

Purpose of this Chapter

The purpose of this chapter is to identify the skills and preparations necessary for setting up your environment for Voyager Primo integration.

Prerequisite Skills and Knowledge

To use this document effectively and set up your systems for Voyager Primo integration, you need to have a general understanding of the following.

- Microsoft® Windows-based applications
- XML and XML-format data as well as editors and related software
- UNIX® operating system commands and file system
- At least one UNIX-based text editor such as `ed` or `vi`
- Local procedures

This user's guide assumes you have a working knowledge of Primo setup and access to Primo documentation.

Before You Begin

Before you can begin your Voyager Primo integration, you need to have the following software installed:

- Voyager (the base product)
- Primo

Checklist

In preparation for setting up Voyager Primo integration, gather the following information:

- Determine if you are going to use OPAC via Primo or OPAC via link (consult all available Primo documentation for help with this decision)
- Identify the elements needed to customize configuration files
- Identify the schedule/times for processing updates
- Identify excluded happening locations
- Identify excluded operator IDs

- Identify institution ID
- Identify statuses to be made available to Primo

Port Settings

Voyager port settings are defined one time at installation.

NOTE:

The Real Time Availability (RTA) port is different from the OPAC port. The RTA port is also defined one time at installation.

Refer to the *Primo Interoperability Guide* for additional information regarding port settings.

Introduction

Primo discovery takes advantage of the rich data stored in the Voyager database. To do this, bibliographic data is extracted from the Voyager database for an initial load and then, subsequently, kept current via regularly scheduled updates with Primo. This chapter discusses the data extraction process.

Purpose of this Chapter

The purpose of this chapter is to describe the components needed for extracting Voyager data for Primo to harvest.

Data Extraction Process Overview

The Voyager Primo integration data extraction tools are used for the following activities:

- Initial load of Voyager data for a new installation of Primo
- Ongoing updates to the Primo database for an existing installation of Primo harvesting Voyager data
- Other special purposes

Initial Primo Data Load

For the initial Primo database load, you need to do the following:

- Tailor the configuration file to your environment/needs.

Use the `PrimoExp-Publishing.ini` as a starting point. See [Publishing Configuration File](#) on [page 2-14](#)

- Run the `Pprimoexp` batch job.

Using the parameters set in the configuration file, this step identifies the Voyager records to be uploaded to the Primo database that are bundled into one or more `tar.gz` files.



IMPORTANT:

Do not include more than 10,000 records in a single tar file. There is a 10MB maximum, file-size limit for Primo throughput that is estimated to be 10,000 MARC records.

- Permit Primo to securely access the directory in which the generated files from Voyager are placed. This is the output location for the `tar.gz` files.

NOTE:

A number of options exist for moving the data to the Primo server for the initial load such as using FTP, a shared NFS mount, manually copying the data, or utilizing a cron/script to copy the data. For additional information, see your implementation support contact to discuss the alternatives for Primo to access Voyager data.

Initial Load Generation - Excluded Records

When identifying bibliographic records for the initial data load, the following criteria is used to identify records to be excluded:

- If a bibliographic record is suppressed from the OPAC, a MARCXML record is not generated.
- If a bibliographic record was most recently modified at one of the excluded happening locations as identified in the configuration file, a MARCXML record is not generated.
- If a bibliographic record was most recently modified by one of the excluded operators as identified in the configuration file, a MARCXML record is not generated.

See [Stanza Definitions for Voyager Primo Integration Configuration Files](#) on [page 2-29](#) for more information about customizing the configuration file.

Ongoing Updates to Primo Database

You need to evaluate how frequently to process updates to the Primo database. Consider the following:

- Level of activity within your Voyager database
- Frequency of bibliographic record changes
- Frequency of item status changes
- Time of day when system usage is greatest
- Time of day when system usage is the least

Pipes

Primo uses separate pipes for harvesting Voyager data.

One pipe is used to harvest Voyager data with bibliographic record changes. This is the publishing pipe.

The other pipe is used to harvest Voyager data with holdings availability changes. This is the availability pipe.

Given this approach for harvesting data, separate and customized versions of configuration files are provided to you for publishing and availability purposes as follows:

- `PrimoExp-Publishing.ini`
See [Publishing Configuration File](#) on [page 2-14](#) for more information.
- `PrimoExp-Availability.ini`
See [Availability Configuration File](#) on [page 2-6](#) for more information.

These are located in `/ml/voyager/yyydb/ini` where `yyydb` is the database name.

These configuration files are the same except for the parameter setting differences required for each purpose. See [Stanza Definitions for Voyager Primo Integration Configuration Files](#) on [page 2-29](#) for more information about the parameters that affect which records are generated for harvesting.

NOTE:

The type of content in these generated records is the same. However, different records get generated for Primo harvesting as identified by the triggers (parameters) specified in the configuration files.

Corresponding copies of `Pprimoexp` batch files for publishing and availability purposes can be created in order to automate the harvesting process using a cron. See [Pprimoexp Batch Job](#) on [page 2-49](#) for more information about `Pprimoexp` batch processing.

Having separate functional configuration files, batch files, and directories for generated files enables your flexibility in scheduling production processing of data changes in the Voyager Primo integrated environment. This allows you to schedule Primo harvesting of bibliographic record changes from Voyager at an appropriate time and separate from scheduling harvesting of Voyager data with holdings availability changes.

Special Purpose/Selective Database Extractions

Aside from the initial Primo data load and ongoing updates, you may want to set up the Voyager Primo integration tools for other special purposes that meet your institution's specific requirements.

For example, you may want to set up the Voyager Primo integration tools to create a testing subset before doing a complete initial load of the database. This can be done using parameters like `BibRangeBegin` and `BibRangeEnd` or `BibsFromFile`.

The `PrimoExp-Selective.ini` configuration file is provided as one method for creating a testing subset. It is located in `/ml/voyager/yyydb/ini` where `yyydb` is the database name.

For Selective record processing and storing `tar.gz` files, the following directory is provided where `yyydb` is the database name:

`/ml/voyager/yyydb/primo/Selective/bundled.`

Insure that Primo has access to this directory.

Primo Transaction / Record Normalization

Primo originates an FTP transaction to Voyager to harvest the records selected by the `Pprimoexp` processing for inclusion in the Primo database. Subsequently within Primo, these records are normalized into the Primo Normalized XML (PNX) format.

NOTE:

A number of options exist for moving the data to the Primo server such as using a shared NFS mount, manually copying the data, or utilizing a cron/script to copy

the data. See your implementation support contact to discuss alternatives for harvesting data.

Configuration Files

Primo uses data extracted from the Voyager database. Configuration files are used to define what is extracted. The following customized configuration files are provided with your installation:

- `PrimoExp-Availability.ini`
See [Availability Configuration File](#) on [page 2-6](#).
- `PrimoExp-Publishing.ini`
See [Publishing Configuration File](#) on [page 2-14](#).
- `PrimoExp-Selective.ini`
See [Selective Configuration File](#) on [page 2-22](#).

They are located in `/ml/voyager/yyydb/ini` where `yyydb` is the database name.

These configuration files are provided as examples for publishing, availability, and selective requirements with parameters set to what many customers use. However, copies of the configuration files may be made and tailored to meet your unique needs.



CAUTION:

Do not change Availability, Publishing, or Selective in the file naming convention when making copies. You may, however, modify the file name as in `PrimoExp-Publishing.ini.sample_extract`, for example.

The configuration files define the following elements:

- Item statuses to check for initial load and ongoing updates to the Primo database
- Happening locations for exclusion
Records associated with these happening locations are excluded from the initial load and/or updates for Primo harvesting.
- Records to be excluded from the initial load and/or ongoing updates determined by operator ID that processed the record
See [\[Excluded Operator Ids\]](#) on [page 2-31](#).
- Institution ID to be included in the availability tag

- Location definitions for consistency within the Primo database
See [\[Location to Primo\]](#) on [page 2-39](#).
- Tags to identify unique field usage within your institution's database specific to the database extract
See [\[Enrichment Tags\]](#) on [page 2-39](#).
- Extract processing considerations such as date/time, record ID(s), filters, and so forth
See [\[PrimoExp\]](#) on [page 2-41](#).
- Additional processing considerations for uploading the Voyager records identified by the configuration file processing
See [\[XMLWriterProtocol\]](#) on [page 2-48](#).

See [Stanza Definitions for Voyager Primo Integration Configuration Files](#) on [page 2-29](#) for a complete description of configuration file options.

Availability Configuration File

The following is an example of the availability configuration file:

```
# Configuration for Voyager Export for Primo -- Availability

# Voyager status maps to (A)vailable or (U)navailable for Primo
[Item Statuses]
Not Charged=A
Charged=U
Renewed=U
Overdue=U
Recall Request=U
Hold Request=U
On Hold=U
In Transit=U
In Transit Discharged=U
In Transit On Hold=U
Discharged=A
Missing=U
Lost--Library Applied=U
```

Figure 2-1. PrimoExp-Availability.ini Example

```

Lost--System Applied=U
Claims Returned=U
Damaged=U
Withdrawn=U
At Bindery=U
Cataloging Review=A
Circulation Review=A
Scheduled=U
In Process=U
Call Slip Request=U
Short Loan Request=U
Remote Storage Request=U

[Excluded Happening Locations]
# Items whose most recent activity took place in one of these locations will not be
  exported.
#ACQ
#ACQ TEMP
#illcirc

[Excluded Operator Ids]
# Items whose most recent activity was recorded by one of these operators will not be
  exported.

[LocationCodesForBibInclusion]
# If any location codes are listed here, only bib records that are linked to
# holdings at the specified locations will be included in the extract.

[LocationCodesForAVA]
# If any location codes are listed here, availability statements will only be generated
  for items
# and e-items that are linked to these locations. (Items via perm or temp location, e-
  items by
# holdings location.) Also, Course Reserve information will only be generated if the
  course reserve
# list location is among these locations.

[Institution Id]
# This value will be included in the Availability tag

```

Figure 2-1. PrimoExp-Availability.ini Example (Continued)

```
# as subfield a
Id=qa810db

[Location to Primo]
# This section maps Voyager locations to Primo locations.

[Enrichment Tags]
# Tags added to marc record with additional data
#
# WARNING: You must change the orderInfoHolTag=960 in vxws.properties if you use the 960
#          tag in here.
#
# AVA tag contains the availability information
# AUT tag contains name cross-reference information
# SUB tag contains subject cross-reference information
# CR tag contains course reserve information
# DPS tag contains Digital Preservation System (Product Rosetta) information
# EITM tag contains E-Item availability data (New for 8.0.0)
InsertAVATag=949
InsertAUTTag=950
InsertSUBTag=951
InsertCRTag=952
InsertDPSTag=953
InsertEITMTag=954
#Inserted by voy821 patch
# InsertPrimoBrowseTags, if set to Y, will include see references for
# subjects and authors that will allow Primo to construct browse searches
# from them. When InsertPrimoBrowseTags is Y, then the InsertAUTTag and
# InsertSUBTag will not be created since Primo can enrich the keyword search
# from the included Browse tags.
InsertPrimoBrowseTags=N

#=====
# Preservation related object link definition
# This includes the label for the URL link, the URL link, and parameter name.
# The only supported dynamic parameter at this time is id (i.e. bib id).
# The parameter is passed to the third-party application that processes and retrieves
# intellectual entities from the Preservation repository.
```

Figure 2-1. PrimoExp-Availability.ini Example (Continued)


```

#####
[DPS]
DPSLinkLabel=Rosetta Link:
DPSLinkAddress=http://somecomponent.com/content-aggregator/getIEs?system=ilsdb&
DPSLinkParm=id=

[PrimoExp]
# note that stanza.name can be used with -- on the command line
# argv(case insensitive) override
# ini(case insensitive) override
# env (all uppercase)
#
# these parameters provide defaults for this run of the job
# each of them can be overridden using a command-line parameter
#
# BibRangeBegin and BibRangeEnd are the beginning and ending bibliographic ID numbers to
#   export.
# -B overrides this parameter on the command line
# BibRangeBegin
#BibRangeBegin=1
# -E overrides this parameter on the command line
#BibRangeEnd=200
#
# BibsFromFile reads the file at the supplied path for a list of bibliographic record ids
#   to export.
# The file should contain one bibliographic record ID per line.
# -F overrides this parameter on the command line
# BibsFromFile=/ml/voyager/2008.1.0/qa810db/local/PrimoBibs.txt
#
# ChangedSince exports records changed since the supplied date.
# ChangedSince may be either
#   a timestamp in YYYYMMDD.HHMMSS format
#   or a path to a file containing a timestamp in YYYYMMDD.HHMMSS format on a single line
# If a path to a file is supplied, the current run time will be saved in the file when
# the job finishes.
# -C overrides this parameter on the command line
# Example:

```

Figure 2-1. PrimoExp-Availability.ini Example (Continued)

```
# ChangedSince=YYYYMMDD.HHMMSS
# or
# ChangedSince=/m1/voyager/2008.1.0/qa810db/primo/Availability/ChangedSince.txt
ChangedSince=/m1/voyager/2008.1.0/qa810db/primo/Availability/ChangedSince.txt
#
#
# HeadingChanges determines whether to export bibliographic records
# whose cross-references have changed
# -H Y|N overrides this parameter on the command line
HeadingChanges=N
#
# AvailFilter determines whether to export records whose availability
# fields have not changed since the last time the job ran.
# If AvailFilter is Y, only records whose availability has changed are exported;
# if AvailFilter is N, all changed records are exported.
# -A Y|N overrides this parameter on the command line
AvailFilter=Y
#
# for filenames
# note that $str$ will be passed to date format so that you can
# specify date in the these files
#
# LogFile is the location of the log file.
# Note that $str$ will be passed to Java's Date.Format()
# function to control the datestamp embedded in the file name.
# -L overrides this parameter on the command line
LogFile=primo.export.$yyMMdd$.log
LogFileDir=/m1/voyager/2008.1.0/qa810db/primo/Availability/logs
#
#
# -v
# the logging level
LogLevel=10
# LogToStdOut determines whether or not to write the log output to standard output,
# as well as the log file.
LogToStdOut=N
```

Figure 2-1. PrimoExp-Availability.ini Example (Continued)

```
# Database and the other Database parameters determine which database to connect to.
# Ordinarily these are set by the wrapper script based on the environment.
# -d
# DataBase=
#
# DatabaseHost
DatabaseHost=10.100.2.112
#
# DatabasePort
# -e
# UserPass
# The credentials needed to connect to the database.
# Optional parameter, override on command line with -u
# STRONG RECOMMENDATION: do not set this value here, use
# the command line override instead.
# Special note: Oracle TNS Alias (@DB) is _not_ used here
#UserPass=qa810db/qwrite0
#
Database=VGER
Protocol=com.endinfosys.voyager.extract.OAIPMHXmlWriterProtocol

# must do items, then mfhds, then bibs
Task=com.endinfosys.voyager.extract.ExtractCourseReservesPrimo
Task=com.endinfosys.voyager.extract.ExtractItemsPrimo
Task=com.endinfosys.voyager.extract.ExtractMFHDsPrimo
Task=com.endinfosys.voyager.extract.ExtractBibsPrimo
DoItems=Y
DoMfhds=Y

# The Del* Dir and File are used to determine when records are deleted.
# These are standard Voyager locations.
DelBibsDir=/m1/voyager/2008.1.0/qa810db/rpt
DelBibFile=deleted.bib.marc
DelMFHDsDir=/m1/voyager/2008.1.0/qa810db/rpt
DelMFHDsFile=deleted.mfhd.marc
#Import delete file has the form delete.imp.YYYYMMDD.HHMM
DelMFHDsImpFileBase=delete.imp
```

Figure 2-1. PrimoExp-Availability.ini Example (Continued)

```
DelItemsDir=/m1/voyager/2008.1.0/qa810db/rpt
DelItemsFile=delete.item
# NEW FOR 8.0.0
DelEItemsDir=/m1/voyager/2008.1.0/qa810db/rpt
DelEItemsFile=deleted.e-items

# Set to Y to include course reserve data.
CourseReserves=N

# NEW FOR 8.1.0
# Set to Y to export suppressed bibs that are linked to reserve list items.
# This flag will have no effect on suppressed bibs that are not linked to
# reserve list items, and will be ignored if the CourseReserves flag is
# set to N.
IncludeReserveListItemsSuppressedBibs=N

# NEW FOR 8.0.0
# Set to Y to include E-Item data.
# If this flag is set to Y and the CourseReserves flag is set to N,
# then this flag overrides the value of the CourseReserves flag,
# as E-Items are linked to course reserves.
ExportEItemsWithCourseReserves=N

# NEW FOR 8.0.0
# Set to Y to export suppressed bibs that are linked to E-Items.
# This flag will have no effect on suppressed bibs that are not
# linked to E-Items, and will be ignored if the ExportEItemsWithCourseReserves
# flag is set to N.
IncludeEItemSuppressedBibs=N

# NEW FOR 8.0.0
# The EItemAvailability flag determines the availability status value for all
# exported E-Items. By default, this will be 'C' for 'check_availability', but
# can also be set to 'A' for 'available' or 'U' for 'unavailable'.
EItemAvailability=C

# NEW FOR 8.0.0
```

Figure 2-1. PrimoExp-Availability.ini Example (Continued)

```

# The destination directory where the *.tar.gz files will be placed
BundleDir=/ml/voyager/2008.1.0/qa810db/primo/Availability/bundled/

# NEW FOR 8.0.0
# The format of the name of the .tar and .tar.gz files - the group id and suffix will be
#   appended
BundleFile=primo.$yyyyMMddHHmmss$

[XMLWriterProtocol]
# OAIPMHXMLWriterProtocol will include the bib id
#   as the second-to-last element in the file name before
#   the group id and the .xml extension.
# NEW as of 8.0.0 the PrimoExport application will write the *.tar.gz files
#   (see BundleDir= and BundleFile= above)
#   and the bundlePrimo.ksh script will no longer need to be run.
#   Therefore this variable will now only define the export file names,
#   and not the directory.
File=primo.export.$yyMMddhhmmss$.xml
XSL=
# max number of records to group in a single tar file
#   all in single group if 0 or undefined
recsPerGroup=1000
# prefix for record identifiers, must be present, may be empty
idPrefix=
#
# Set to Y to enable pretty printing of XML output.
# Caution: may affect data with embedded spaces
UsePrettyPrint=N

#
# EVERYTHING BELOW THIS LINE IS INTERNAL DO NOT MODIFY

```

Figure 2-1. PrimoExp-Availability.ini Example (Continued)

Publishing Configuration File

The following is an example of the publishing configuration file:

```
# Configuration for Voyager Export for Primo -- Publishing

# Voyager status maps to (A)vailable or (U)navailable for Primo
[Item Statuses]
Not Charged=A
Charged=U
Renewed=U
Overdue=U
Recall Request=U
Hold Request=U
On Hold=U
In Transit=U
In Transit Discharged=U
In Transit On Hold=U
Discharged=A
Missing=U
Lost--Library Applied=U
Lost--System Applied=U
Claims Returned=U
Damaged=U
Withdrawn=U
At Bindery=U
Cataloging Review=A
Circulation Review=A
Scheduled=U
In Process=U
Call Slip Request=U
Short Loan Request=U
Remote Storage Request=U

[Excluded Happening Locations]
# Items whose most recent activity took place in one of these locations will not be
  exported.
```

Figure 2-2. PrimoExp-Publishing.ini Example

```
#ACQ
#ACQ TEMP
#illcirc

[Excluded Operator Ids]
# Items whose most recent activity was recorded by one of these operators will not be
  exported.

[LocationCodesForBibInclusion]
# If any location codes are listed here, only bib records that are linked to
# holdings at the specified locations will be included in the extract.

[LocationCodesForAVA]
# If any location codes are listed here, availability statements will only be generated
  for items
# and e-items that are linked to these locations. (Items via perm or temp location, e-
  items by
# holdings location.) Also, Course Reserve information will only be generated if the
  course reserve
# list location is among these locations.

[Institution Id]
# This value will be included in the Availability tag
# as subfield a
Id=qa810db

[Location to Primo]
# This section maps Voyager locations to Primo locations.

[Enrichment Tags]
# Tags added to marc record with additional data
#
# WARNING: You must change the orderInfoHolTag=960 in vxws.properties if you use the 960
  tag in here.
#
# AVA tag contains the availability information
# AUT tag contains name cross-reference information
# SUB tag contains subject cross-reference information
# CR tag contains course reserve information
```

Figure 2-2. PrimoExp-Publishing.ini Example (Continued)

```
# DPS tag contains Digital Preservation System (Product Rosetta) information
# EITM tag contains E-Item availability data (New for 8.0.0)
InsertAVATag=949
InsertAUTTag=950
InsertSUBTag=951
InsertCRTag=952
InsertDPSTag=953
InsertEITMTag=954
#Inserted by voy821 patch
# InsertPrimoBrowseTags, if set to Y, will include see references for
# subjects and authors that will allow Primo to construct browse searches
# from them. When InsertPrimoBrowseTags is Y, then the InsertAUTTag and
# InsertSUBTag will not be created since Primo can enrich the keyword search
# from the included Browse tags.
InsertPrimoBrowseTags=N

#=====
# Preservation related object link definition
# This includes the label for the URL link, the URL link, and parameter name.
# The only supported dynamic parameter at this time is id (i.e. bib id).
# The parameter is passed to the third-party application that processes and retrieves
# intellectual entities from the Preservation repository.
#=====

[DPS]
DPSLinkLabel=Rosetta Link:
DPSLinkAddress=http://somecomponent.com/content-aggregator/getIEs?system=ilsdb&
DPSLinkParm=id=

[PrimoExp]
# note that stanza.name can be used with -- on the command line
# argv(case insensitive) override
# ini(case insensitive) override
# env (all uppercase)
#
# these parameters provide defaults for this run of the job
# each of them can be overridden using a command-line parameter
```

Figure 2-2. PrimoExp-Publishing.ini Example (Continued)


```

#
# BibRangeBegin and BibRangeEnd are the beginning and ending bibliographic ID numbers to
#   export.
# -B overrides this parameter on the command line
# BibRangeBegin
#BibRangeBegin=1
# -E overrides this parameter on the command line
#BibRangeEnd=200
#
# BibsFromFile reads the file at the supplied path for a list of bibliographic record ids
#   to export.
# The file should contain one bibliographic record ID per line.
# -F overrides this parameter on the command line
# BibsFromFile=/ml/voyager/2008.1.0/qa810db/local/PrimoBibs.txt
#
# ChangedSince exports records changed since the supplied date.
# ChangedSince may be either
#     a timestamp in YYYYMMDD.HHMMSS format
#     or a path to a file containing a timestamp in YYYYMMDD.HHMMSS format on a single line
# If a path to a file is supplied, the current run time will be saved in the file when
# the job finishes.
# -C overrides this parameter on the command line
# Example:
# ChangedSince=YYYYMMDD.HHMMSS
# or
# ChangedSince=/ml/voyager/2008.1.0/qa810db/primo/Availability/ChangedSince.txt
ChangedSince=/ml/voyager/2008.1.0/qa810db/primo/Publishing/ChangedSince.txt
#
#
# HeadingChanges determines whether to export bibliographic records
# whose cross-references have changed
# -H Y|N overrides this parameter on the command line
HeadingChanges=Y
#
# AvailFilter determines whether to export records whose availability
# fields have not changed since the last time the job ran.
# If AvailFilter is Y, only records whose availability has changed are exported;
# if AvailFilter is N, all changed records are exported.

```

Figure 2-2. PrimoExp-Publishing.ini Example (Continued)

```
# -A Y|N overrides this parameter on the command line
AvailFilter=N
#
# for filenames
# note that $str$ will be passed to date format so that you can
# specify date in the these files
#
# LogFile is the location of the log file.
# Note that $str$ will be passed to Java's Date.Format()
# function to control the datestamp embedded in the file name.
# -L overrides this parameter on the command line
LogFile=primo.export.$yyMMdd$.log
LogFileDir=/ml/voyager/2008.1.0/qa810db/primo/Publishing/logs
#
#
# -v
# the logging level
LogLevel=10
# LogToStdOut determines whether or not to write the log output to standard output,
# as well as the log file.
LogToStdOut=N

# Database and the other Database parameters determine which database to connect to.
# Ordinarily these are set by the wrapper script based on the environment.
# -d
# DataBase=
#
# DatabaseHost
DatabaseHost=10.100.2.112
#
# DatabasePort
# -e
# UserPass
# The credentials needed to connect to the database.
# Optional parameter, override on command line with -u
# STRONG RECOMMENDATION: do not set this value here, use
# the command line override instead.
```

Figure 2-2. PrimoExp-Publishing.ini Example (Continued)

```

# Special note: Oracle TNS Alias (@DB) is _not_ used here
#UserPass=qa810db/qwrite0
#
Database=VGER
Protocol=com.endinfosys.voyager.extract.OAIPMHXmlWriterProtocol

# must do items, then mfhds, then bibs
Task=com.endinfosys.voyager.extract.ExtractCourseReservesPrimo
Task=com.endinfosys.voyager.extract.ExtractItemsPrimo
Task=com.endinfosys.voyager.extract.ExtractMFHDSPrimo
Task=com.endinfosys.voyager.extract.ExtractBibsPrimo
DoItems=Y
DoMfhds=Y

# The Del* Dir and File are used to determine when records are deleted.
# These are standard Voyager locations.
DelBibsDir=/m1/voyager/2008.1.0/qa810db/rpt
DelBibFile=deleted.bib.marc
DelMFHDSDir=/m1/voyager/2008.1.0/qa810db/rpt
DelMFHDSFile=deleted.mfhd.marc
#Import delete file has the form delete.imp.YYYYMMDD.HHMM
DelMFHDSImpFileBase=delete.imp
DelItemsDir=/m1/voyager/2008.1.0/qa810db/rpt
DelItemsFile=delete.item
# NEW FOR 8.0.0
DelEItemsDir=/m1/voyager/2008.1.0/qa810db/rpt
DelEItemsFile=deleted.e-items

# Set to Y to include course reserve data.
CourseReserves=N

# NEW FOR 8.1.0
# Set to Y to export suppressed bibs that are linked to reserve list items.
# This flag will have no effect on suppressed bibs that are not linked to
# reserve list items, and will be ignored if the CourseReserves flag is
# set to N.
IncludeReserveListItemsSuppressedBibs=N

```

Figure 2-2. PrimoExp-Publishing.ini Example (Continued)

```
# NEW FOR 8.0.0
# Set to Y to include E-Item data.
# If this flag is set to Y and the CourseReserves flag is set to N,
# then this flag overrides the value of the CourseReserves flag,
# as E-Items are linked to course reserves.
ExportEItemsWithCourseReserves=N

# NEW FOR 8.0.0
# Set to Y to export suppressed bibs that are linked to E-Items.
# This flag will have no effect on suppressed bibs that are not
# linked to E-Items, and will be ignored if the ExportEItemsWithCourseReserves
# flag is set to N.
IncludeEItemSuppressedBibs=N

# NEW FOR 8.0.0
# The EItemAvailability flag determines the availability status value for all
# exported E-Items. By default, this will be 'C' for 'check_availability', but
# can also be set to 'A' for 'available' or 'U' for 'unavailable'.
EItemAvailability=C

# NEW FOR 8.0.0
# The destination directory where the *.tar.gz files will be placed
BundleDir=/ml/voyager/2008.1.0/qa810db/primo/Publishing/bundled/

# NEW FOR 8.0.0
# The format of the name of the .tar and .tar.gz files - the group id and suffix will be
# appended
BundleFile=primo.$yyyyMMddHHmmss$

[XMLWriterProtocol]
# OAIPMHXMLWriterProtocol will include the bib id
# as the second-to-last element in the file name before
# the group id and the .xml extension.
# NEW as of 8.0.0 the PrimoExport application will write the *.tar.gz files
# (see BundleDir= and BundleFile= above)
# and the bundlePrimo.ksh script will no longer need to be run.
# Therefore this variable will now only define the export file names,
```

Figure 2-2. PrimoExp-Publishing.ini Example (Continued)

```
# and not the directory.
File=primo.export.$yyMMddhhmmss$.xml
XSL=
# max number of records to group in a single tar file
# all in single group if 0 or undefined
recsPerGroup=1000
# prefix for record identifiers, must be present, may be empty
idPrefix=
#
# Set to Y to enable pretty printing of XML output.
# Caution: may affect data with embedded spaces
UsePrettyPrint=N
#
# EVERYTHING BELOW THIS LINE IS INTERNAL DO NOT MODIFY
```

Figure 2-2. PrimoExp-Publishing.ini Example (Continued)

Selective Configuration File

The following is an example of the selective configuration file:

```
# Configuration for Voyager Export for Primo -- Selective

# Voyager status maps to (A)vailable or (U)navailable for Primo
[Item Statuses]
Not Charged=A
Charged=U
Renewed=U
Overdue=U
Recall Request=U
Hold Request=U
On Hold=U
In Transit=U
In Transit Discharged=U
In Transit On Hold=U
Discharged=A
Missing=U
Lost--Library Applied=U
Lost--System Applied=U
Claims Returned=U
Damaged=U
Withdrawn=U
At Bindery=U
Cataloging Review=A
Circulation Review=A
Scheduled=U
In Process=U
Call Slip Request=U
Short Loan Request=U
Remote Storage Request=U

[Excluded Happening Locations]
# Items whose most recent activity took place in one of these locations will not be
  exported.
```

Figure 2-3. PrimoExp-Selective.ini Example

```

#ACQ
#ACQ TEMP
#illcirc

[Excluded Operator Ids]
# Items whose most recent activity was recorded by one of these operators will not be
  exported.

[LocationCodesForBibInclusion]
# If any location codes are listed here, only bib records that are linked to
# holdings at the specified locations will be included in the extract.

[LocationCodesForAVA]
# If any location codes are listed here, availability statements will only be generated for
  items
# and e-items that are linked to these locations. (Items via perm or temp location, e-items
  by
# holdings location.) Also, Course Reserve information will only be generated if the
  course reserve
# list location is among these locations.

[Institution Id]
# This value will be included in the Availability tag
# as subfield a
Id=qa810db

[Location to Primo]
# This section maps Voyager locations to Primo locations.

[Enrichment Tags]
# Tags added to marc record with additional data
#
# WARNING: You must change the orderInfoHolTag=960 in vxws.properties if you use the 960
  tag in here.
#
# AVA tag contains the availability information
# AUT tag contains name cross-reference information
# SUB tag contains subject cross-reference information
# CR tag contains course reserve information

```

Figure 2-3. PrimoExp-Selective.ini Example (Continued)

```
# DPS tag contains Digital Preservation System (Product Rosetta) information
# EITM tag contains E-Item availability data (New for 8.0.0)
InsertAVATag=949
InsertAUTTag=950
InsertSUBTag=951
InsertCRTag=952
InsertDPSTag=953
InsertEITMTag=954
#Inserted by voy821 patch
# InsertPrimoBrowseTags, if set to Y, will include see references for
# subjects and authors that will allow Primo to construct browse searches
# from them. When InsertPrimoBrowseTags is Y, then the InsertAUTTag and
# InsertSUBTag will not be created since Primo can enrich the keyword search
# from the included Browse tags.
InsertPrimoBrowseTags=N

#=====
# Preservation related object link definition
# This includes the label for the URL link, the URL link, and parameter name.
# The only supported dynamic parameter at this time is id (i.e. bib id).
# The parameter is passed to the third-party application that processes and retrieves
# intellectual entities from the Preservation repository.
#=====

[DPS]
DPSLinkLabel=Rosetta Link:
DPSLinkAddress=http://somecomponent.com/content-aggregator/getIEs?system=ilsdb&
DPSLinkParm=id=

[PrimoExp]
# note that stanza.name can be used with -- on the command line
# argv(case insensitive) override
# ini(case insensitive) override
# env (all uppercase)
#
# these parameters provide defaults for this run of the job
# each of them can be overridden using a command-line parameter
```

Figure 2-3. PrimoExp-Selective.ini Example (Continued)


```

#
# BibRangeBegin and BibRangeEnd are the beginning and ending bibliographic ID numbers to
#   export.
# -B overrides this parameter on the command line
# BibRangeBegin
#BibRangeBegin=1
# -E overrides this parameter on the command line
#BibRangeEnd=200
#
# BibsFromFile reads the file at the supplied path for a list of bibliographic record ids
#   to export.
# The file should contain one bibliographic record ID per line.
# -F overrides this parameter on the command line
BibsFromFile=/ml/voyager/2008.1.0/qa810db/local/PrimoBibs.txt
#
# ChangedSince exports records changed since the supplied date.
# ChangedSince may be either
#     a timestamp in YYYYMMDD.HHMMSS format
#     or a path to a file containing a timestamp in YYYYMMDD.HHMMSS format on a single line
# If a path to a file is supplied, the current run time will be saved in the file when
# the job finishes.
# -C overrides this parameter on the command line
# Example:
# ChangedSince=YYYYMMDD.HHMMSS
# or
# ChangedSince=/ml/voyager/2008.1.0/qa810db/primo/Availability/ChangedSince.txt
ChangedSince=/ml/voyager/2008.1.0/qa810db/primo/Selective/ChangedSince.txt
#
#
# HeadingChanges determines whether to export bibliographic records
# whose cross-references have changed
# -H Y|N overrides this parameter on the command line
HeadingChanges=N
#
# AvailFilter determines whether to export records whose availability
# fields have not changed since the last time the job ran.
# If AvailFilter is Y, only records whose availability has changed are exported;
# if AvailFilter is N, all changed records are exported.

```

Figure 2-3. PrimoExp-Selective.ini Example (Continued)

```
# -A Y|N overrides this parameter on the command line
AvailFilter=N
#
# for filenames
# note that $str$ will be passed to date format so that you can
# specify date in the these files
#
# LogFile is the location of the log file.
# Note that $str$ will be passed to Java's Date.Format()
# function to control the datestamp embedded in the file name.
# -L overrides this parameter on the command line
LogFile=primo.export.$yyMMdd$.log
LogFileDir=/ml/voyager/2008.1.0/qa810db/primo/Selective/logs
#
#
# -v
# the logging level
LogLevel=10
# LogToStdOut determines whether or not to write the log output to standard output,
# as well as the log file.
LogToStdOut=N

# Database and the other Database parameters determine which database to connect to.
# Ordinarily these are set by the wrapper script based on the environment.
# -d
# DataBase=
#
# DatabaseHost
DatabaseHost=10.100.2.112
#
# DatabasePort
# -e
# UserPass
# The credentials needed to connect to the database.
# Optional parameter, override on command line with -u
# STRONG RECOMMENDATION: do not set this value here, use
# the command line override instead.
```

Figure 2-3. PrimoExp-Selective.ini Example (Continued)

```

# Special note: Oracle TNS Alias (@DB) is _not_ used here
#UserPass=qa810db/qwrite0
#
Database=VGER
Protocol=com.endinfosys.voyager.extract.OAIPMHXmlWriterProtocol

# must do items, then mfhds, then bibs
Task=com.endinfosys.voyager.extract.ExtractCourseReservesPrimo
Task=com.endinfosys.voyager.extract.ExtractItemsPrimo
Task=com.endinfosys.voyager.extract.ExtractMFHDSPrimo
Task=com.endinfosys.voyager.extract.ExtractBibsPrimo
DoItems=Y
DoMfhds=Y

# The Del* Dir and File are used to determine when records are deleted.
# These are standard Voyager locations.
DelBibsDir=/m1/voyager/2008.1.0/qa810db/rpt
DelBibFile=deleted.bib.marc
DelMFHDSDir=/m1/voyager/2008.1.0/qa810db/rpt
DelMFHDSFile=deleted.mfhd.marc
#Import delete file has the form delete.imp.YYYYMMDD.HHMM
DelMFHDSImpFileBase=delete.imp
DelItemsDir=/m1/voyager/2008.1.0/qa810db/rpt
DelItemsFile=delete.item
# NEW FOR 8.0.0
DelEItemsDir=/m1/voyager/2008.1.0/qa810db/rpt
DelEItemsFile=deleted.e-items

# Set to Y to include course reserve data.
CourseReserves=N

# NEW FOR 8.1.0
# Set to Y to export suppressed bibs that are linked to reserve list items.
# This flag will have no effect on suppressed bibs that are not linked to
# reserve list items, and will be ignored if the CourseReserves flag is
# set to N.
IncludeReserveListItemsSuppressedBibs=N

```

Figure 2-3. PrimoExp-Selective.ini Example (Continued)

```
# NEW FOR 8.0.0
# Set to Y to include E-Item data.
# If this flag is set to Y and the CourseReserves flag is set to N,
# then this flag overrides the value of the CourseReserves flag,
# as E-Items are linked to course reserves.
ExportEItemsWithCourseReserves=N

# NEW FOR 8.0.0
# Set to Y to export suppressed bibs that are linked to E-Items.
# This flag will have no effect on suppressed bibs that are not
# linked to E-Items, and will be ignored if the ExportEItemsWithCourseReserves
# flag is set to N.
IncludeEItemSuppressedBibs=N

# NEW FOR 8.0.0
# The EItemAvailability flag determines the availability status value for all
# exported E-Items. By default, this will be 'C' for 'check_availability', but
# can also be set to 'A' for 'available' or 'U' for 'unavailable'.
EItemAvailability=C

# NEW FOR 8.0.0
# The destination directory where the *.tar.gz files will be placed
BundleDir=/ml/voyager/2008.1.0/qa810db/primo/Selective/bundled/

# NEW FOR 8.0.0
# The format of the name of the .tar and .tar.gz files - the group id and suffix will be
# appended
BundleFile=primo.$yyyyMMddHHmmss$

[XMLWriterProtocol]
# OAIPMHXMLWriterProtocol will include the bib id
# as the second-to-last element in the file name before
# the group id and the .xml extension.
# NEW as of 8.0.0 the PrimoExport application will write the *.tar.gz files
# (see BundleDir= and BundleFile= above)
# and the bundlePrimo.ksh script will no longer need to be run.
# Therefore this variable will now only define the export file names,
```

Figure 2-3. PrimoExp-Selective.ini Example (Continued)

```
# and not the directory.
File=primo.export.$yyMMddhhmmss$.xml
XSL=
# max number of records to group in a single tar file
# all in single group if 0 or undefined
recsPerGroup=1000
# prefix for record identifiers, must be present, may be empty
idPrefix=
#
# Set to Y to enable pretty printing of XML output.
# Caution: may affect data with embedded spaces
UsePrettyPrint=N
#
# EVERYTHING BELOW THIS LINE IS INTERNAL DO NOT MODIFY
```

Figure 2-3. PrimoExp-Selective.ini Example (Continued)

Stanza Definitions for Voyager Primo Integration Configuration Files

This section defines the configuration file stanzas that need to be customized for Voyager Primo integration.

The following is a list of the stanzas:

- [\[Item Statuses\]](#)
- [\[Excluded Happening Locations\]](#)
- [\[Excluded Operator Ids\]](#)
- [\[LocationCodesForBibInclusion\]](#)
- [\[LocationCodesForAVA\]](#)
- [\[LocationSortOrder\]](#)
- [\[Institution Id\]](#)
- [\[Location to Primo\]](#)
- [\[Enrichment Tags\]](#)
- [\[DPS\]](#)
- [\[PrimoExp\]](#)

- [\[XMLWriterProtocol\]](#)

[Item Statuses]

The [Item Statuses] stanza identifies which item statuses in Voyager are defined as Available (A) or Unavailable (U) for Primo's purposes. A change in status causes a record to be selected for the availability pipe.

See [Table 2-1](#) for a list of the item statuses and default settings stored in the [Item Statuses] stanza of the configuration file.

Table 2-1. [Item Statuses] parameters

Parameter	Default Setting
Not Charged=	A
Charged=	U
Renewed=	U
Overdue=	U
Recall Request=	U
Hold Request=	U
On Hold=	U
In Transit=	U
In Transit Discharged=	U
In Transit On Hold=	U
Discharged=	A
Missing=	U
Lost--Library Applied=	U
Lost--System Applied=	U
Claims Returned=	U
Damaged=	U
Withdrawn=	U
At Bindery=	U
Cataloging Review=	A
Circulation Review=	A
Scheduled=	U
In Process=	U

Table 2-1. [Item Statuses] parameters

Parameter	Default Setting
Call Slip Request=	U
Short Loan Request=	U
Remote Storage Request=	U
Patron Group OPAC Message=	C When an item is charged to a patron in a status patron group and this parameter is set to C, the check holdings status overrides the unavailable status. Otherwise, the charged item will appear as unavailable. See Voyager Status Patron Group Messages on page 5-11 for more information.

**CAUTION:**

Changes to these parameters after your institution has an established ongoing update/upload process may cause a significant data upload to the Primo database utilizing system resources as needed to complete the process.

[Excluded Happening Locations]

The [Excluded Happening Locations] stanza is used to identify the records associated with these locations to be excluded from consideration for uploading to the Primo database. These are location codes as established in Voyager System Administration.

The locations identified in the default configuration file are there as an example. Remove the commenting to use these examples and/or delete any that do not apply to your institution and enter your own location codes.

NOTE:

Only one location code may be entered per line.

[Excluded Operator Ids]

The [Excluded Operator Ids] stanza is used to identify the records associated with these operator ID(s) to be excluded from consideration for uploading to the Primo database. Enter one operator ID per line.

[LocationCodesForBibInclusion]

The `[LocationCodesForBibInclusion]` stanza is used to identify the records of specific locations for extraction. This may be useful for institutions that share a single Voyager database with one instance of Primo installed or institutions with a single, multiclustered Voyager database.

For this stanza, you provide a list of MFHD location codes (as identified in Voyager System Administration) whose attached bibliographic records should be extracted for Primo. This is based on the 852**±**b of any attached MFHDs.

All location codes, including those defined as Circulation or Acquisitions happening locations, may be specified in the `[LocationCodesForBibInclusion]` stanza.

NOTE:

The extraction process, however, does not check if the bibliographic records can be used, that is, circulated, for example, by a happening location. The extraction process is only checking the location code in the 852**±**b of the MFHD.

If a bibliographic record has, at least, one attached MFHD whose 852**±**b matches a location in the `[LocationCodesForBibInclusion]` stanza list of included MFHD locations, the record is extracted. Otherwise, the record is not extracted.

NOTE:

There may be cases where the bibliographic record has no locations. In this situation, you may need to first run an extract without using the limitation of location codes.

Other considerations when using the `[LocationCodesForBibInclusion]` stanza:

- If a bibliographic record has multiple MFHDs, where one or more but not all location codes match a location in the `[LocationCodesForBibInclusion]` stanza list, the bibliographic record is extracted regardless of whether the owning library of the included MFHD matches the owning library of the bibliographic record. To limit which holdings are extracted for this bibliographic record, see the [\[LocationCodesForAVA\]](#) section.
- Item permanent and temporary locations are not part of the check, only the location in the MFHD 852**±**b.
- When there is more than one 852**±**b fields in a valid record, only the first occurrence is checked for the extraction.

The location codes listed with this stanza should be entered one per line/row. You may also choose not to specify any location codes and leave this stanza blank. When no location codes are specified, the extraction process pulls all bibliographic records taking into account any other specified limitations in the PrimoExp-*.ini files such as `BibRangeBegin=` and `BibRangeEnd=` and so forth.

[LocationCodesForAVA]

The `[LocationCodesForAVA]` stanza is used in combination with the `[LocationCodesForBibInclusion]` stanza. Once the list of extracted bibliographic records has been identified, the process also needs to determine what information should be included in the extracted record. The `[LocationCodesForAVA]` stanza serves that purpose.

For location codes listed in the `[LocationCodesForAVA]` stanza, the following is extracted:

- Availability (AVA/949)
This includes MFHD/item availability statements whose location codes (852**‡**b or 949/AVA**‡**j) are included in the list of MFHD locations in the `[LocationCodesForAVA]` stanza.
- E-Items (EITM/954)
This includes MFHD/item availability statements whose location codes (852**‡**b or 954/EITM**‡**j) are included in the list of MFHD locations in the `[LocationCodesForAVA]` stanza.
- Course information (CR/952)
This includes the course reserve information if the course reserve list location (952/CR**‡**d) is included in the `[LocationCodesForAVA]` stanza.
- Digital Preservation/Rosetta (DPS/953)
This includes all DPS tags. Since there is no way to determine location, all are included.
- Authority enrichments (AUT/950 and SUB/951 tags)
Since there is no way to determine location, all are included.

For the `[LocationCodesForAVA]` stanza component of the extraction process, the item permanent and temporary locations are taken into account since they are included in a separate AVA/949**‡**j tag when present.

Example

When the Voyager MARC record contains:

- MFHD location = Main

- Item 1 permanent location = Main
- Item 2 permanent location = Reserve
- Item 3 temporary location = Cataloging repair

The following AVA/949 fields are generated (when nothing is specified in the `[LocationCodesForAVA]` stanza):

- `‡j` Main
- `‡j` Reserve
- `‡j` Cataloging repair

In the final analysis of the Voyager Primo extraction process, when the `[LocationCodesForAVA]` stanza specifies the MFHD location code of Main, only the AVA/949 with Main in `‡j` is extracted and sent to Primo. The holdings/item statements for `‡j` Reserve and `‡j` Cataloging repair are not sent in the final extract to Primo.

`[LocationCodesForBibInclusion]/` `[LocationCodesForAVA]` Usage Examples

The ability to specify a different set of locations for extract versus included information is necessary for different consortial situations. This section provides two comparative examples, [Situation A](#) and [Situation B](#).

Situation A

For this example, the institution belongs to a consortium and wants only its bibliographic records and holdings to show in its discovery program. To do this, the institution includes a limited list of location codes in the `[LocationCodesForBibInclusion]` stanza and the same limited list of location codes in the `[LocationCodesForAVA]` stanza.

For situation A, location code X is specified for both the `[LocationCodesForBibInclusion]` stanza and the `[LocationCodesForAVA]` stanza. See results in [Table 2-2](#).

Table 2-2. Situation A Results

Voyager Database Contains	Exported	Primo
Bib 1 MFHD: X, Y, Z	Bib 1 MFHD: X	Bib 1 MFHD: X

Table 2-2. Situation A Results

Voyager Database Contains	Exported	Primo
Bib 2 MFHD: Y, Z		
Bib 3 MFHD: X	Bib 3 MFHD: X	Bib 3 MFHD: X

Situation B

For this example, the institution belongs to a consortium and has purchased Primo as a consortium. The intent is to only extract bibliographic records separately because of availability update differences or other circumstances. If the bibliographic record gets sent to Primo, all locations for the consortium should be included on the bibliographic record. In this case, a limited list of locations is included for the `[LocationCodesForBibInclusion]` stanza and the consortium-wide list of locations for the `[LocationCodesForAVA]` stanza.

For situation B, location code X is specified for the `[LocationCodesForBibInclusion]` stanza and X, Y, and Z for the `[LocationCodesForAVA]` stanza. See results in [Table 2-3](#).

Table 2-3. Situation B Results

Voyager Database Contains	Exported	Primo
Bib 1 MFHD: X, Y, Z	Bib 1 MFHD: X, Y, Z	Bib 1 (overwritten on import) MFHD: X, Y, Z
Bib 2 MFHD: Y, Z		Bib 2 (not overwritten; this was present before) MFHD: Y, Z
Bib 3 MFHD: X	Bib 3 MFHD: X	Bib 3 (overwritten on import) MFHD: X

If you are going to replace the bibliographic records that belong to X, you need to be sure to include all of the MFHDs that everyone searches for in Primo.

Changed Since in a Shared Database Environment

If you are in situation B, where the same database is exporting records in different location groupings, you may need to avoid using a single `ChangedSince.txt` file that is consulted for each separate run. As an alternative, you can submit the `ChangedSince` date using the command line parameters.

[LocationSortOrder]

The `[LocationSortOrder]` stanza is an optional stanza that can be used to identify a priority sort order by holdings location for display in Primo 4.8 and later. When a holdings location sort order is specified in the `[LocationSortOrder]` stanza, AVA (949) availability tags are created with `#p`. See [Figure 2-4](#) for an example of the `[LocationSortOrder]` stanza with a priority sort order specified, and see [Figure 2-5](#) for the corresponding AVA (949) fields that are exported to Primo with the priority sort preference indicated.

```
[LocationSortOrder]
1=main
2=biology
3=music
4=media
5=govdocs
6=rare books
```

Figure 2-4. Exported AVA 949 Availability Tags Example

```
949 $j biology $p2
949 $j govdocs $p5
949 $j music $p3
949 $j per room
949 $j rare books $p6
949 $j reference
```

Figure 2-5. Exported AVA 949 Availability Tags Example

Notice in [Figure 2-5](#) that the `per room` and `reference` holdings locations do not have the `#p` specified since these do not have a priority indicated in the `[LocationSortOrder]` stanza (in [Figure 2-4](#)).

NOTE:

There is no wildcard option for specifying location priority in the `[LocationSortOrder]` stanza. For holdings locations that have a specific sort

order priority for display, each holdings location requires an entry in the `[LocationSortOrder]` stanza. [Figure 2-5](#) illustrates an example of AVA (949) fields exported to Primo that do not have a holdings location display priority specified. For the ones without a priority specification, they display after the prioritized holdings in alphabetical order.

Diacritics

For instances where you want to use diacritic characters as input to your sort order definition in the `[LocationSortOrder]` stanza, you need to use a special method to enter the diacritic characters. The `PrimoExp*.ini` file is designed to interpret an escape sequence using the format `\uNNNN` where `NNNN` is the binary code for the diacritic character.

For characters that are not in the ASCII character set, use Unicode escape characters following the `\uNNNN` format. That is, use a backslash, lowercase `u`, and a four-digit hexadecimal number such as `\u00E7` for a small letter `c` with a cedilla. For example, if you want to use `CçT` in your locations sort order, you would enter it in the `[LocationSortOrder]` stanza as follows:

```
[LocationSortOrder]
1=main
2=Steinbach
3=C\u00E7T
4=rare books
5=edu-juv
```

Figure 2-6. Diacritic Character Example

where `\u00E7` is the Unicode binary equivalent of the `ç` diacritic character.

One option for identifying the Unicode binary equivalent values for diacritic characters is to use the Microsoft Windows Character Map as shown in [Figure 2-7](#).

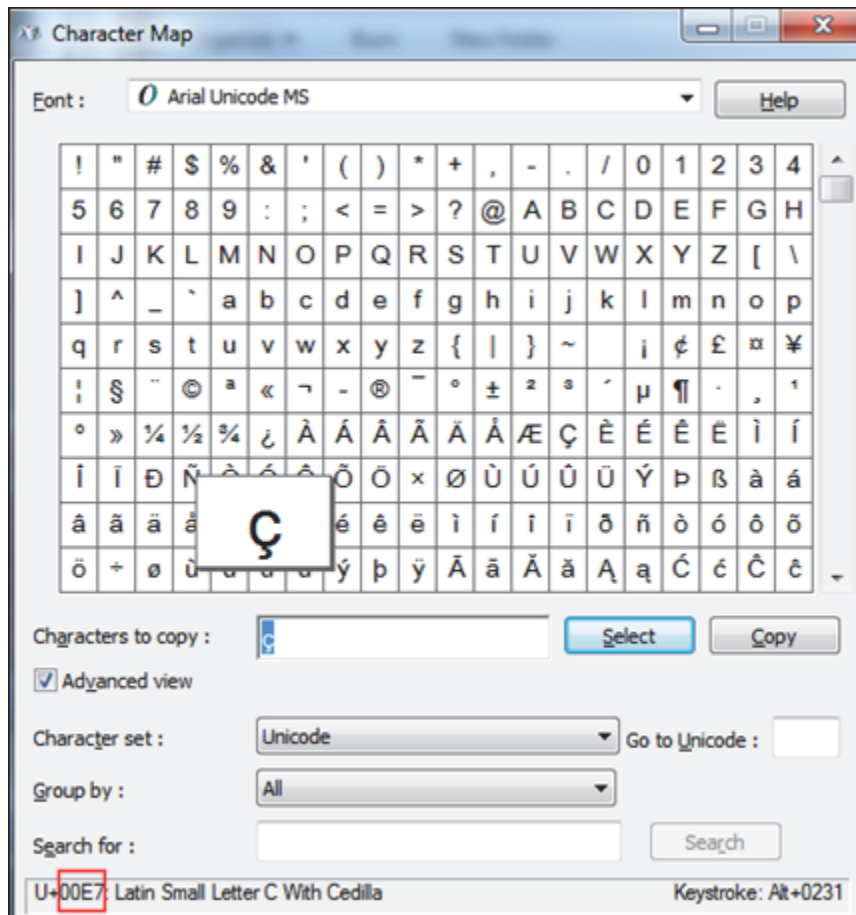


Figure 2-7. Diacritic Characters and Their Unicode Binary Equivalent

[Institution Id]

The [Institution Id] stanza is used to specify your institution. The institution ID is included as a subfield in the Availability tag of records prepared for the Primo database and is used by Primo to determine ownership of the records.

The Voyager institution ID is set one time at system installation. Verify this setting to insure its accuracy.

[Location to Primo]

The `[Location to Primo]` stanza is used to maintain consistency within Primo for item location codes. Primo is capable of retrieving records from many sources which may not be consistent in naming item location codes. The `[Location to Primo]` stanza can also be used by libraries to collapse locations or split locations for display in Primo.

Enter the Voyager item location code first and the Primo equivalent using the following format:

[Voyager Location Name]=[Primo Location Name]

See the following for an example:

Music Reserve=Reserve

Science Reserve=Reserve

Each Voyager/Primo item location code entry should be on a separate line in the configuration file.

NOTE:

Locations that are not listed in the `[Location to Primo]` stanza pass to Primo unchanged.

[Enrichment Tags]

The `[Enrichment Tags]` stanza is used to specify the tags used to include the availability, author enrichment, subject enrichment, course reserves, and Rosetta information in the extract.

By default, the configuration file makes the following assignments:

InsertAVATag=949

InsertAUTTag=950

InsertSUBTag=951

InsertCRTag=952

InsertDPSTag=953

InsertEITMTag=954

InsertPrimoBrowseTags=N

The InsertAVATag identifies the placement of availability information in the MARCXML output.

The InsertAUTTag identifies the placement of name/author cross-reference information.

The InsertSUBTag identifies the placement of subject cross-reference information.

The InsertCRTag is provided for course reserves data extraction. See [InsertCRTag=952 Enrichment Tag](#) on [page 3-3](#) for more information.

The InsertDPSTag (953) identifies when a Voyager bibliographic record is stored in Rosetta as in the following example:

```
953$a Exists in Rosetta
```

The InsertEITMTag contains (course reserves) e-item availability data.

The defaults in the [Enrichment Tags] stanza assume that your institution is not already using 949, 950, 951, 952, 953, and 954 in the MARC records of your database.

If, for example, your institution currently uses MARC 949 for another purpose, you can specify a different, unused 9XX number for the InsertAVATag in the [Enrichment Tags] stanza. The same logic applies to the other Enrichment Tags. Changing the default requires a matching change in the Primo configuration for harvesting.

**CAUTION:**

The orderInfoHolTag= in the vxws.properties file uses the 960 tag as its default. You may not duplicate tag numbers between the [Enrichment Tags] stanza in the PrimoExp.ini files and the orderInfoHolTag= setting in the vxws.properties file. However, you may change the tag number in either location to keep it unique. See [1030/orderInfoHolTag](#) on [page 5-14](#) for more information.*

The InsertPrimoBrowseTags= option, when set to Y, directs the system to construct tags in the exported bibliographic record that allows Primo to generate browse indexes when the record is imported to Primo. When set to Y, additional tags that contain see references for subjects and authors are included in the exported record. The see references are based on local Voyager authority record information.

NOTE:

Since Primo can enrich the keyword search from the included browse tags, the InsertAUTTag and InsertSUBTag are not created, when InsertPrimoBrowseTags= is set to Y.

The default setting for InsertPrimoBrowseTags= is N.

[DPS]

The [DPS] stanza is used to identify the link to Rosetta information when it exists.

See [Table 2-4](#) for a description of the parameters used to construct the 856 tag with Rosetta link information.

Table 2-4. [DPS] parameter descriptions

Parameter	Description
DPSLinkLabel	Use this parameter to specify the label text. The default text is as follows: Rosetta Link:
DPSLinkAddress	Use this parameter to identify the link address for Rosetta information. The following is an example of the link format: <code>http://somecomponent.com/content-aggregator/getIEs?system=ilsdb&</code>
DPSLinkParm	Use this to specify the link parameter. The default is as follows: <code>id=</code>

[PrimoExp]

The [PrimoExp] stanza is used to identify database extract processing considerations such as number of records to process, where to log messages, whether to use filters and so forth.

The parameters identified in the [PrimoExp] stanza may be entered on the command line or set within the configuration file. Parameters specified on the command line override any settings within the configuration file.

**IMPORTANT:**

When you use the command line, the `-f` option for specifying the `*.ini` file must be listed first in the command line string. See [Figure 2-8](#) for an example.

```
Pprimexpub -f /ml/voyager/<yyydb>/ini/PrimoExp-Publishing.ini.test1 -B1 -E10
(where yyydb is your database name)
```

Figure 2-8. Example Command Line Entry

See [Table 2-5](#) for a description of these parameters.

Table 2-5. [PrimoExp] parameter/command descriptions

Parameter/Command	Description
BibRangeBegin= -B	<p>Use this parameter to specify the bibliographic record ID number for the beginning of a range of bibliographic record IDs.</p> <p>Use this with -E.</p> <p>Used in combination with -E, you are able to process a subset of records from the entire database.</p> <p>! IMPORTANT: <i>HeadingChanges must be set equal to N when BibRangeBegin is used.</i></p>
BibRangeEnd= -E	<p>Use this parameter to specify the bibliographic record ID number for the end of a range of bibliographic record IDs.</p> <p>Use this with -B.</p> <p>Used in combination with -B, you are able to process a subset of records from the entire database.</p> <p>! IMPORTANT: <i>HeadingChanges must be set equal to N when BibRangeEnd is used.</i></p>
BibsFromFile= -F	<p>Use this parameter to identify the name of a file that contains bibliographic records to be processed/stored in a file that is separate from the database. This assumes that the file is formatted with one bibliographic record ID per line/row.</p>

Table 2-5. [PrimoExp] parameter/command descriptions

Parameter/Command	Description
<p>ChangedSince= -C</p>	<p>Use this parameter to indicate which Voyager records to evaluate for export to Primo based on a date/timestamp format as follows:</p> <p>YYYYMMDDHHMMSS where ...</p> <p>YYYY=year</p> <p>MM=Month</p> <p>DD=Day</p> <p>HH=Hours</p> <p>MM=Minutes</p> <p>SS=Seconds</p> <p>If no time is specified, 12:00AM is the default setting.</p> <p>Alternatively, store a date such as <i>20070711</i> and time in a file called <i>since.txt</i> with a path of your choosing and reference the <i>since.txt</i> file in [PrimoExp].</p> <p>For example:</p> <p>ChangedSince=./test/work/since.txt</p> <p>NOTE: The system logs the following warnings/errors with the use of the ChangedSince= parameter:</p> <ul style="list-style-type: none"> • If the ChangedSince= date is 8 or more days in the past, a warning is logged; but the extract runs. • If the ChangedSince= date is 181 or more days in the past, this causes a fatal error. The extract logs an error and stops. <p>NOTE: The ChangedSince for bibliographic records looks at BIB_HISTORY where ACTION_DATE is later than the date entered and where ACTION_TYPE_ID is 1, 2, 3, or 4 (create, update, merge, or replace). For MFHD (holdings records), it looks to MFHD_HISTORY where ACTION_DATE is later than the date entered and where ACTION_TYPE_ID is 1, 2, 3, or 4 (create, update, merge, or replace). For items, it looks at ITEM where the CREATE_DATE or MODIFY_DATE is later than the date entered. It also looks at ITEM_STATUS where the ITEM_STATUS_DATE is later than the date entered.</p>

Table 2-5. [PrimoExp] parameter/command descriptions


Parameter/Command	Description
HeadingChanges= -H	<p>Use this parameter to indicate the following:</p> <ul style="list-style-type: none"> • Yes (Y), find changed headings and include all records affected. • No (N), do not look for changed headings. <p>This parameter should be set to Y when the configuration file is used to harvest records for the Primo publishing pipe.</p> <p>This parameter should be set to N when the configuration file is used to harvest records for the Primo availability pipe.</p> <p> IMPORTANT: <i>The HeadingChanges parameter requires that a setting is specified for the ChangedSince parameter. HeadingChanges can only be processed if there is a ChangedSince date.</i></p> <p>NOTE: If an entry in HEADING has a CREATE_DATE later than the most recent extract and the OPACREFS field contains an S in any position, then any bibliographic records, in BIB_HEADING whose HEADING_ID matches AUTH_HEADING.HEADING_ID_POINTEE for AUTH_HEADING entries that match the headings HEADING_ID field, will need to be resent. (The S indicates that the heading has a See Reference. If the heading was updated, it may have an updated See Reference, and the See References are included in the record for the heading information in tags 950 and 951.)</p>
AvailFilter= -A	<p>Use this parameter to indicate which Voyager records to evaluate for export to Primo based on availability changes.</p> <p>Y=Yes (filter for availability changes)</p> <p>N=No (do not filter for availability changes)</p> <p>This parameter should be set to Y when the configuration file is used to harvest records for the Primo availability pipe.</p> <p>This parameter should be set to N when the configuration file is used to harvest records for the Primo publishing pipe.</p>

Table 2-5. [PrimoExp] parameter/command descriptions


Parameter/Command	Description
LogFile= -L	<p>Use this parameter to set the file name for the log file.</p> <p>For example:</p> <pre>primo.export.\$yyMMdd\$.log</pre> <p>The system automatically updates the <code>\$yyMMdd\$</code> with the date/time component of the file name.</p> <p>To specify that no log file is to be created, use the following parameter setting:</p> <pre>LogFile=/dev/null</pre> <div style="text-align: right;">  <p>TIP: Use a naming convention that reflects whether the configuration file is being used for Voyager records to be exported to the Primo publishing pipe or the Primo availability pipe.</p> </div>
LogFileDir=	<p>Use this parameter to set the path for the log file.</p> <p>NOTE: This is automatically set at installation.</p>
LogLevel= -v	<p>Leave the <code>LogLevel</code> parameter setting as specified in the configuration file unless directed otherwise by Ex Libris support staff.</p>
LogToStdOut=	<p>Leave the <code>LogToStdOut</code> parameter setting as specified in the configuration file unless directed otherwise by Ex Libris support staff.</p>
Database= -d	<p>Use this parameter to set the Oracle database name (SID).</p> <p>The default is VGER.</p> <p>For example:</p> <pre>-d VGER</pre>
DatabaseHost= -s	<p>Use this parameter to set the database host IP address (the same as in <code>voyager.env</code>).</p> <p>The <code>DatabaseHost</code> parameter is set one time at system installation and, in most cases, should not be changed. Verify this setting to insure its accuracy.</p> <p>For example:</p> <pre>-s 208.178.237.40</pre>

Table 2-5. [PrimoExp] parameter/command descriptions

Parameter/Command	Description
DatabasePort= -p	<p>Use this parameter to set the database port.</p> <p>The <code>DatabasePort</code> parameter is set one time at system installation and, in most cases, should not be changed. Verify this setting to insure its accuracy.</p> <p>For example:</p> <pre>-p 1521</pre>
UserPass= -u	<p>Use this parameter to specify the Oracle database user name and password.</p> <p>The <code>UserPass</code> parameter is set one time at system installation and, in most cases, does not need to be changed. Verify this setting to insure its accuracy.</p> <p>For example:</p> <pre>-u user/pass</pre>
DelBibsDir=	<p>Use this parameter to specify the directory in which the deleted.bib.marc files can be found.</p> <p>NOTE: This is automatically set at installation.</p>
DelBibFile=	<p>Leave this parameter setting as specified in the configuration file for deleted.bib.marc files.</p>
DelMFHDsDir=	<p>Use this parameter to specify the directory in which the deleted.mfhd.marc files can be found.</p> <p>NOTE: This is automatically set at installation.</p>
DelMFHDsFile=	<p>Leave this parameter setting as specified in the configuration file for deleted.mfhd.marc files.</p>
DelItemsDir=	<p>Use this parameter to specify the directory in which the deleted.items files can be found.</p> <p>NOTE: This is automatically set at installation.</p>
DelItemsFile=	<p>Leave this parameter setting as specified in the configuration file for delete.item files.</p>

Table 2-5. [PrimoExp] parameter/command descriptions

Parameter/Command	Description
DelEItemsDir=	<p>Use this parameter to specify the directory in which the deleted.e-items files can be found.</p> <p>NOTE: This is automatically set at installation.</p>
DelEItemsFile=	<p>Leave this parameter setting as specified for the name of the deleted.e-items files.</p>
ExportEItemsWith CourseReserves=	<p>Set this parameter value to Y (Yes) to include e-item data.</p> <p>NOTE: If the CourseReserves= parameter is set to N, a Y value for the ExportEItemsWithCourseReserves= parameter overrides the CourseReserves= setting.</p> <p>The default value is N.</p>
IncludeEItem SuppressedBibs=	<p>Set this parameter value to Y (Yes) to export suppressed bibliographic records that are linked to active e-items.</p> <p>NOTE: This parameter has no effect on suppressed bibliographic records that are not linked to e-items. This parameter is ignored if ExportEItemsWithCourseReserves= is set to N.</p> <p>The default value is N.</p>
EItemAvailability=	<p>Use this parameter to set the status value for all exported e-items. The setting options are:</p> <ul style="list-style-type: none"> • C (check availability) • A (available) • U (unavailable) <p>The default value is C.</p>
IncludeReserve ListItems SuppressedBibs=	<p>Set this parameter value to Y (Yes) to export suppressed bibliographic records that are linked to reserve list items.</p> <p>NOTE: This parameter has no effect on suppressed bibliographic records that are not linked to reserve list items. This parameter is ignored if CourseReserves= is set to N.</p> <p>The default value is N.</p>

Table 2-5. [PrimoExp] parameter/command descriptions

Parameter/Command	Description
BundleDir=	<p>Use this parameter to specify the directory where the bundled *.tar.gz files (see BundleFile=) are to be placed.</p> <p>NOTE: This is automatically set at installation.</p>
BundleFile=	<p>Use this parameter to identify the naming convention for the .tar and .tar.gz files that contain the files/records being exported in groups of records determined in the [XMLWriterProtocol] stanza.</p> <p>NOTE: The naming convention for the .xml files that are bundled is defined in the [XMLWriterProtocol] stanza.</p> <p>The bundled file names are appended with the group ID and suffix</p>

[XMLWriterProtocol]

The [XMLWriterProtocol] stanza defines the storage location of the XML records, number of records in the tar.gz file, and so forth for the XML records targeted for export to the Primo database.

See [Table 2-6](#) for a description of the parameters used in the [XMLWriterProtocol] stanza.

Table 2-6. [XMLWriterProtocol] parameter descriptions

Parameter	Description
File=	<p>Use this parameter to identify the file naming convention for the XML files generated from harvesting Voyager records for export to the Primo database.</p> <p>For example: primo.export.\$yyMMddhhmmss\$.xml</p>
XSL=	Leave this parameter blank. No setting required.
recsPerGroup=	<p>Use this parameter to identify the number of records you prefer to be saved in each tar.gz file.</p> <p>NOTE: Do not include more than 10,000 records in a single .tar file. There is a 10MB maximum, file-size limit for Primo throughput that is estimated to be 10,000 MARC records.</p>

Table 2-6. [XMLWriterProtocol] parameter descriptions

Parameter	Description
idPrefix=	Leave this parameter blank. No setting required.
UsePrettyPrint=	Use this parameter, set to Y (Yes), for more readable XML files. NOTE: Using the pretty print Y option risks altering data with leading and trailing spaces. Use the N (No) option for machine-readable files when human review is not a requirement. The N (No) option is the default.

Pprimoexp Batch Job

The Pprimoexp batch job creates XML files for export that conform to the Open Archives Initiative Protocol for Metadata Harvesting (OAI-PMH) schema and places them in the location identified by the `File=` parameter set in the [XMLWriterProtocol] stanza. See [Table 2-6](#).

The Pprimoexp batch job is located in `/ml/voyager/yyydb/sbin` where `yyydb` is the database name.

Pprimoexp runs the PbundlePrimo script that handles, for example, bundling individual records into `tar.gz` files and cleans up the exports directory.

Command Line Options

See [Table 2-5](#) on [page 2-42](#) for a list of available commands and the [RequiredBib \(-R\)](#) on [page 2-50](#) and [File Path \(-f\)](#) on [page 2-50](#) commands that are provided specifically for Pprimoexp batch job processing.



IMPORTANT:

When you use the command line, the `-f` option for specifying the `.ini` file must be listed first in the command line string. See [Figure 2-9](#) for an example.*

```
Pprimoexp.pub -f /ml/voyager/<yyddb>/ini/PrimoExp-  
Publishing.ini.test1 -B1 -E10  
(where yyddb is your database name)
```

Figure 2-9. Example command line entry

RequiredBib (-R)

When running the `Pprimoexp` batch job, you may optionally specify one or more Voyager bibliographic record IDs (similar to a selective extraction).

The format is as follows:

- For a single ID number where `###` is the bibliographic record ID number.
`-R #####`
- For multiple ID numbers where `###` is the bibliographic record ID number
commas need to separate the ID numbers.
`-R #####, #####, #####, #####`

File Path (-f)

Use `-f` to specify the relative or full-path name to the `PrimoExp*.ini` file (* stands for Availability, Publishing, or Selective).

Threads4Range (-T)

Use `-T` to specify a number of threads/extract processes to run when using `BibRangeBegin=` and `BibRangeEnd=` such as `-T 3`.

The bibliographic range is subdivided by the number of threads specified with `-T`, and each thread works on one subset of the range. If the number of bibliographic records in the range is less than the number of threads specified, a single thread is run.

NOTE:

This command line option may only be used with `BibRangeBegin=` and `BibRangeEnd=`. If you attempt to use `-T` with `ChangedSince=`, `RequiredBib`, `BibsFromFile=`, or `HeadingChanges=`, you get a warning message and the extract runs a single thread.

Scheduling

The Voyager Primo integration setup is designed to give you the flexibility to establish more than one production schedule.

- One production job may be set to run once per day to allow for Primo harvesting of Voyager data with bibliographic record changes through the publishing pipe.



IMPORTANT:

This requires an update to the bibliographic index in the Primo environment.

- Another production schedule may be set to run several times per day such as once per hour to allow for exporting Voyager holdings records with availability changes.

NOTE:

Voyager availability data harvested through the Primo availability pipe only updates the availability information without changing the bibliographic information in Primo.

The `Pprimoexp` batch job schedule determines when Voyager records are examined for export based on the criteria set in the configuration file.

Separately, the Primo publishing and availability pipes are scheduled to FTP whatever `tar.gz` files are available for export. For more information, refer to Schedule Tasks in the *Primo Back Office Guide*.

Extract Log Summary Section

The summary section of the extract log contains a hierarchical structure for all the actions (see [Table 2-7](#)). For an example, the BIB-Changes adds a top-level filter and then the sub-actions (BIB-Changes SUPPRESSED, BIB-Changes UNSUPPRESSED, and BIB-Changes-AvailabilityHistory) add more filters. If the criteria matches, it performs the action.

Table 2-7. Hierarchical Structure in the Extract Log Summary Section

Component	Action
BIB-Changes	This includes changed bibliographic records since a specific date (ChangedSince date) with excluded locations and operators.

Table 2-7. Hierarchical Structure in the Extract Log Summary Section

Component	Action
BIB-Changes SUPPRESSED	This is called from the BIB-Changes method and includes only changed suppressed bibliographic records.
BIB-Changes SUPPRESSED-AvailabilityHistory =====	This is called from the BIB-Changes SUPPRESSED and includes only changed suppressed bibliographic records with an entry in the <code>primo_avail</code> table. =====
or BIB-Changes UNSUPPRESSED	This is called from the BIB-Changes method and includes changed unsuppressed bibliographic records.
BIB-Changes UNSUPPRESSED-AvailabilityHistory =====	This is called from the BIB-Changes UNSUPPRESSED and includes only changed unsuppressed bibliographic records with an entry in the <code>primo_avail</code> table. =====
or BIB-Changes-AvailabilityHistory	This is called from the BIB-Changes and includes only the changed records with an entry in the <code>primo_avail</code> table.
BIB-Deleted	This processes the deleted bibliographic files looking for records that have been deleted since the last since time.
BIB-Deleted-AvailabilityHistory	This is called from the BIB-Deleted and includes only deleted records with an entry in the <code>primo_avail</code> table.
BIB-Required	This includes bibliographic records from either the <code>bib_heading</code> table since a specific date (ChangedSince date) or read from a file.
BIB-Required-AvailabilityHistory	This is called from the BIB-Required and includes required bibliographic records with an entry in the <code>primo_avail</code> table.
ITEM-ChangedSince	This includes changed item records since a specific date (ChangedSince date).
ITEM-Delete	This processes the deleted item files looking for records that have been deleted since the last since time.

Table 2-7. Hierarchical Structure in the Extract Log Summary Section

Component	Action
MFHD-Changes-OuterLoop	This includes changed MFHD records since a specific date (ChangedSince date) with excluded locations and operators.
MFHD-Deleted-Catalog	This processes the deleted MFHD files looking for records that have been deleted since the last since time.

Additional information that is provided in the extract log summary section is described in [Table 2-8](#).

Table 2-8. Additional Information in the Extract Log Summary Section

Component	Description
Number of visits	Number of visits checks how many times the visit method was called. The visit method performs the required actions on the MARC record to update the transaction and record the error or success of the transaction.
Milisecs	Milisecs keeps track of how long it takes for each action.
Counts	Counts displays the total number of records processed for each action.

Introduction

The purpose of this chapter is to describe the characteristics of the course reserves data extraction capability and any Voyager configuration changes required to enable this capability.

Course Reserves Function Overview

With the addition of course reserves data to Voyager bibliographic record extraction, the user discovery experience within Primo is extended. In Primo, facets and search scopes can be created to allow course reserve searching for Voyager customers.

With the course reserves option enabled, extracted Voyager bibliographic records are enriched with course reserve information such as course number, course name, instructor name/title, effective date, expiration date, department name/code, and so forth. See [Table 3-1](#) on [page 3-3](#) for the extraction format and description.

To enable course reserves data extraction, the following is provided in the `PrimoExp<xxx>.ini` configuration file where `xxx` may be `Selective`, `Availability`, or `Publishing`:

- `CourseReserves=.`
- 952 tag in the `[Enrichment Tags]` stanza.

CourseReserves=

In order to specify that Voyager course reserves data should be included in the data extraction process, the `CourseReserves=` flag is provided in the `.ini` configuration file. See [Figure 3-1](#).

```
# Set to Y to include course reserve data.  
CourseReserves=N
```

Figure 3-1. CourseReserves= flag

Specify `Y` (Yes) for course reserves data to be evaluated for data extraction. The default specified in the configuration file is `N` (No).

When `Y` is specified for `CourseReserves=`, the value in the Voyager database `ITEM.on_reserve` flag is examined to determine if course reserves data is to be included in the bibliographic record extraction or excluded.

NOTE:

The standard Voyager procedures for keeping the course reserve flag current in the Voyager database must be followed for Primo results to be current, too. See Chapter 8 in the *Voyager Technical User's Guide* for more information regarding circulation batch job 34 (Place Items on Active Course Reserve List) and 36 (Take Items on Inactive Course Reserve List Off Reserve) that are the batch jobs used to maintain currency for course reserves.

If the `ITEM.on_reserve` flag is `Y` (Yes) for one of the bibliographic record's item records, the bibliographic record being generated for extraction includes course reserve data for every list to which the item is linked (when no `ChangeSince=` value has been specified). When there is a `ChangeSince=` value specified, an additional step is taken to evaluate the `RESERVE_ITEM_HISTORY` table to determine if course reserve data is to be extracted. See [Pprimoexp Extract Processing](#) on [page 3-4](#) and [Figures 3-3](#) and [3-4](#) for additional information regarding extract processing.

NOTE:

Item records can be linked to course reserves lists without being on reserve. This allows you to reuse lists without needing to recreate them every semester or term. Thus, the `ITEM.on_reserve` flag is the authoritative source for determining that an item is on reserve.

InsertCRTag=952 Enrichment Tag

For course reserves data extraction, the `InsertCRTag=952` is provided in the `[Enrichment Tags]` stanza of the `.ini` configuration file. See [Figure 3-2](#).

```
[Enrichment Tags]
# tags added to marc record with additional data
InsertAVATag=949
InsertAUTTag=950
InsertSUBTag=951
InsertCRTag=952
InsertDPSTag=953
InsertEITMTag=954
```

Figure 3-2. 952 tag

The `[Enrichment Tags]` stanza assumes that your institution is not already using the 952 in the MARC records of your database. If, however, your institution currently uses MARC 952 for another purpose, you can specify a different, unused MARC field number for the `InsertCRTag`. See [\[Enrichment Tags\]](#) on [page 2-39](#) for additional information.

When the course reserves extraction function is enabled, the `InsertCRTag=` option specifies the data extract format. See [Table 3-1](#) for a description of the extracted course reserves subfield data format.

Table 3-1. 952 Extract

952 Subfields	Extract Description
952a	Reserve list name
952b	List effective date
952c	List expiration date
952d	List location display name
952e	Department name
952f	Department code
952g	Instructor last name
952h	Instructor first name

Table 3-1. 952 Extract

952 Subfields	Extract Description
952i	Instructor title
952j	Course name
952k	Course number
952l	Section

**IMPORTANT:**

Even though you may substitute a different unused MARC field number for 952, the subfield designations in [Table 3-1](#) cannot be changed.

Some subfields may not be included in the extracted data. This is dependent on the course reserves data available in Voyager.

An item record may belong to multiple reserve lists. A 952 field is constructed for each reserve list to which the item belongs.

Pprimoexp Extract Processing

When the `Pprimoexp` batch job is run for data extraction, it checks for the `CourseReserves=` flag to determine if course reserves data extraction should be part of the extraction results. Other parameters set in the batch job may affect the extraction processing end results.

In general, specifying parameters such as `ChangedSince=` or `BibRangeBegin=` and `BibRangeEnd=` indicates that a subset of the entire Voyager database is being processed for extraction.

Specific to course reserves when `ChangedSince=` is specified in the extraction script, the system does a check of the `RESERVE_ITEM_HISTORY` table to determine if one of the bibliographic record's item records has an entry in the table with a date that falls after the `ChangeSince=` value specified before going on to check the `ITEM.on_reserve` value.

See [Figure 3-3](#) on [page 3-5](#) and [Figure 3-4](#) on [page 3-6](#) for illustrations of the extract process workflow.

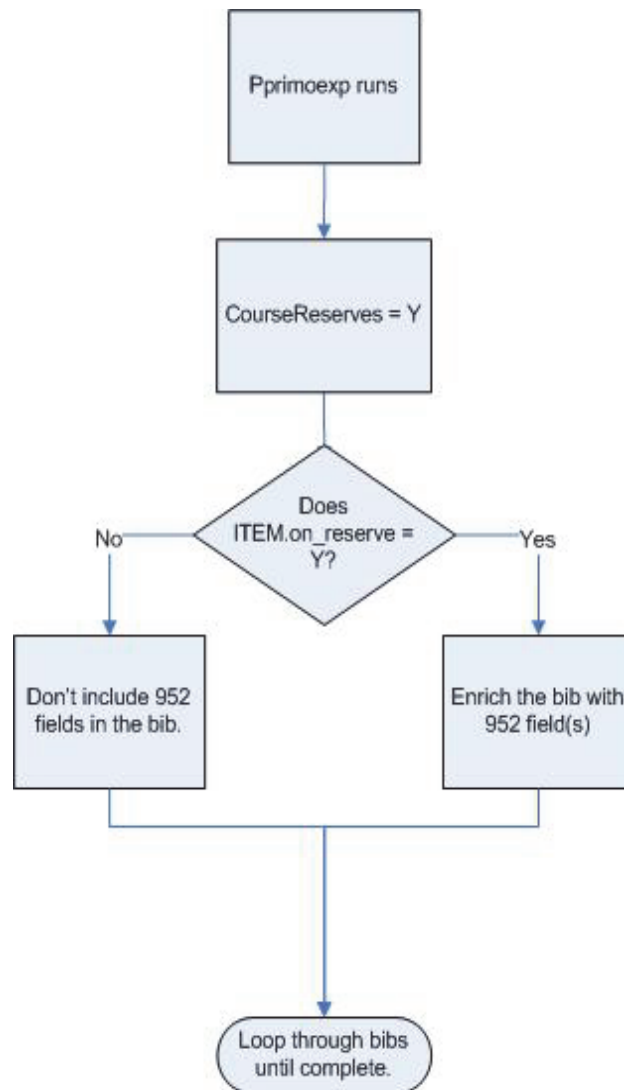


Figure 3-3. Extract processing without ChangedSince= specified

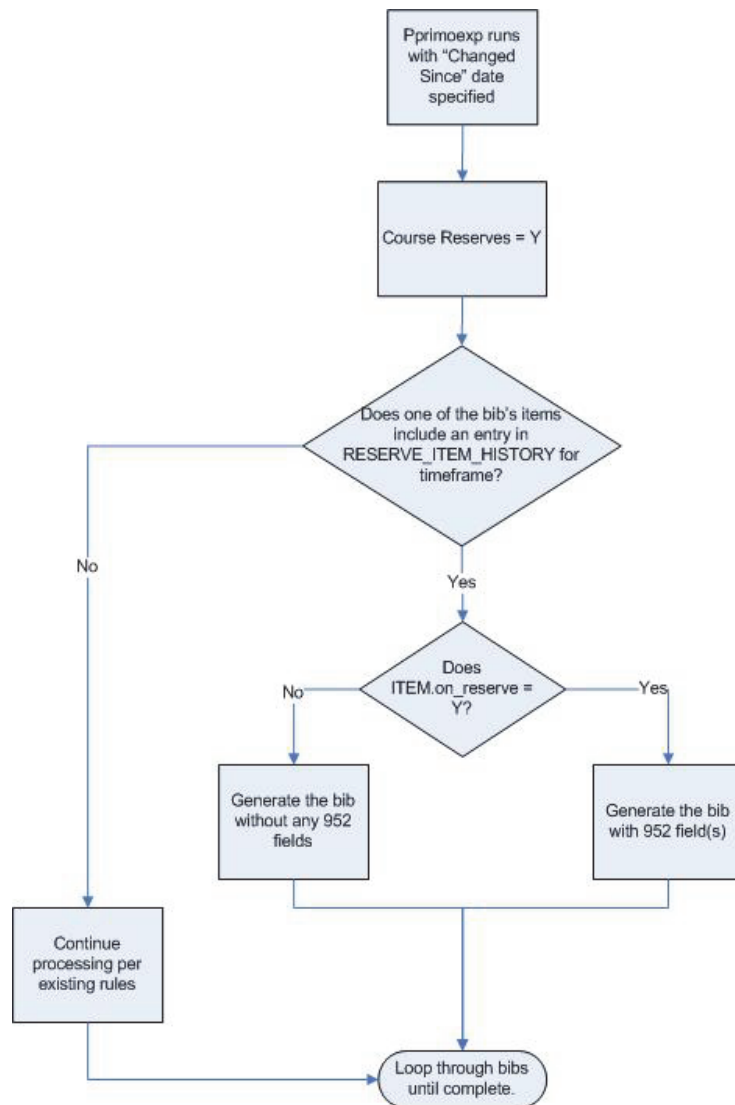


Figure 3-4. Extract processing with ChangedSince= specified

Course Reserves E-Items

E-items are a special type of item in Voyager created specifically for use with course reserves lists in Circulation. As a component of course reserves, e-items cannot exist by themselves. If a course reserves list is removed, access to the e-items are also removed.

Optionally, e-items may be attached to bibliographic records that are suppressed or not suppressed. When e-items are attached to bibliographic records that are suppressed, the e-items can only be accessed through the course reserves search in the OPAC. When e-items are attached to bibliographic records that are not suppressed, the e-items are available for search and viewing in the OPAC by everyone. Both of these options are supported by the Primo export files with the `IncludeEitemSuppressedBibs=` parameter. Specifically, these are configured in the `PrimoExp-Availability.ini`, `PrimoExp-Publishing.ini`, and `PrimoExp-Selective.ini` files (see the [Data Extraction](#) chapter starting on page 2-1).

Refer to the *Voyager Circulation User's Guide* for more information regarding course reserves and e-items.

Pprimoexp Extract

With the Primo extract, the system checks several places regarding the status of e-items to determine what is appropriate to export for patron viewing.

For the initial Primo export, e-items are included in the export that are attached to effective courses, that is, between the effective date and the expiration date.

For a Primo export that checks the `ChangedSince=` parameter for what has been changed since the last run, the system checks for:

- Deleted e-items
- Changed/edited e-items
- Reserve list changes (e-items added or removed)

NOTE:

E-items are deleted when removed from the last remaining Course Reserves list where they exist.

- Effective/expiration dates associated with course reserves lists (has a course gone off or on reserve)



IMPORTANT:

Do not expire a course reserves list earlier than the `ChangedSince=` date in the `[PrimoExp]` stanza when a `ChangedSince=` date is specified. If you do this, the expired course reserve list is not recognized as changed, and the associated e-items are not exported.

InsertEITMTag=954 Enrichment Tag

For course reserves data extraction, the `InsertEITMTag=954` is provided in the `[Enrichment Tags]` stanza of the `.ini` configuration file. See [Figure 3-5](#).

```
[Enrichment Tags]
# tags added to marc record with additional data
InsertAVATag=949
InsertAUTTag=950
InsertSUBTag=951
InsertCRTag=952
InsertDPSTag=953
InsertEITMTag=954
```

Figure 3-5. 954 tag

The `[Enrichment Tags]` stanza assumes that your institution is not already using the 954 in the MARC records of your database. If, however, your institution currently uses MARC 954 for another purpose, you can specify a different, unused MARC field number for the `InsertEITMTag`. See [\[Enrichment Tags\]](#) on [page 2-39](#) for additional information.

When the course reserves extraction function is enabled, the `InsertEITMTag=` option specifies the data extract format. See [Table 3-2](#) for a description of the extracted e-item availability subfield data format.

NOTE:

When you export e-items, the system sends the 954 e-item tag content and the 952 tag content. The 952 tag contains the course reserves information (see [InsertCRTag=952 Enrichment Tag](#) on [page 3-3](#)).

Table 3-2. 954 Extract

954 Subfields	Extract Description
954a	Code supplied as a parameter to the job
954b	Display name of the Voyager owning library of the bibliographic record
954c	Display name of the Voyager location from the MFHD
954d	Voyager display call number from the MFHD

Table 3-2. 954 Extract

954 Subfields	Extract Description
954e	Availability/check holdings for all e-items You can specify what the availability statement is for all e-items with the option <code>EItemAvailability=</code> (see Table 2-5).
954f	Number of e-items associated with the availability field
954g-i	Empty
954j	Location code of the Voyager location from the MFHD

**IMPORTANT:**

Even though you may substitute a different unused MARC field number for 954, the subfield designations in [Table 3-2](#) cannot be changed.

Some subfields may not be included in the extracted data. This is dependent on what is in the e-item.

An e-item record may belong to multiple reserve lists. A 952 tag is exported for each attached reserve list to which the item belongs.

ExportEItemsWithCourseReserves=

The `ExportEItemsWithCourseReserves=` parameter may be set to Y or N (see [Table 2-5](#)). The export job evaluates and processes the `ExportEItemsWithCourseReserves=` settings in the following manner:

- If the export job is run with `ExportEItemsWithCourseReserves=Y` and no `Changed Since=` date has been specified, the job includes all e-items that are defined in the e-item table and are on active courses.
If an e-item exists and the linked course is past its effective date and before its expiration date then it is considered on reserve.
- If the job is run with the `ExportEItemsWithCourseReserves=Y` and there is a `Changed Since=` date, then
 - The job queries the e-item update date field. If the date in this field falls after the `Changed Since=` date (the setting for when the previous extract was run) and after the date/time that the current extract job is run, then the bibliographic record associated with the e-item is included in the extract.

- The job queries the e-item reserve list update date field. If the date in this field falls after the `Changed Since=` date and the job date stamp, the bibliographic record associated with the e-item is included in the extract.
- The job also checks if the e-item has been deleted since the `Changed Since=` date. If the e-item has been deleted since the last run, the bibliographic record associated with the former e-item is included in the extract. However, the deleted e-item or course reserve information for this e-item in the bibliographic record is not included.

NOTE:

The history file is renamed after doing this.

- The job also checks if a course that is linked to all e-items has an on-reserve status that has changed since the `Changed Since=` date. In order to do this, all courses that are attached to e-items are identified, and checked for if either the expiration date or the effective date from the reserve list is later than the `Changed Since=` date, but not earlier than the time the extract job is run.

If the effective date or the expiration date falls within the time period since the `Changed Since=` date, then the e-item is considered to have changed and should be included in the extract. The change is either that the e-item is on reserve (the effective date falls within the time period) or that the e-item is off reserve (the expiration date falls within the time period).



IMPORTANT:

Do not expire a course reserves list earlier than the `ChangedSince=` date in the `[PrimoExp]` stanza when a `ChangedSince=` date is specified. If you do this, the expired course reserve list is not recognized as changed, and the associated e-items are not exported.

IncludeEItemSuppressedBibs=

The `IncludeEItemSuppressedBibs=` parameter may be set to Y or N (see [Table 2-5](#)). The export job evaluates and processes the `IncludeEItemSuppressedBibs=` settings in the following manner:

- If the job is run with the `IncludeEItemSuppressedBibs=` parameter set to N, the bibliographic record and the corresponding e-items are not included in the extract. The suppressed flag on the bibliographic record stops the bibliographic record from being exported.

- If the job is run with the `IncludeEItemSuppressedBibs=` parameter set to Y, all bibliographic records attached to valid e-items, regardless of the suppressed flag status, are exported for inclusion in the Primo export. In this case, an additional tag is added to the exported bibliographic record as follows:

Tag 999, no indicators, \$a SUPPRESSED

IncludeReserveListItemsSuppressedBibs=

The `IncludeReserveListItemsSuppressedBibs=` parameter may be set to Y or N (see [Table 2-5](#)). The export job evaluates and processes the `IncludeReserveListItemsSuppressedBibs=` settings in the following manner:

- If the job is run with the `IncludeReserveListItemsSuppressedBibs=` parameter set to N, the bibliographic record and the corresponding reserve list items are not included in the extract. The suppressed flag on the bibliographic record stops the bibliographic record from being exported.
- If the job is run with the `IncludeReserveListItemsSuppressedBibs=` parameter set to Y, all bibliographic records attached to valid reserve list items, regardless of the suppressed flag status, are exported for inclusion in the Primo export. In this case, an additional tag is added to the exported bibliographic record as follows:

Tag 999, no indicators, \$a SUPPRESSED

Introduction

The Real-time Availability function in Primo provides dynamically-generated Voyager database availability information to the Primo user. Specifically, Primo communicates with Voyager to retrieve availability information for one or more bibliographic records that can be viewed on an individual record display or on a search results page with multiple records.

This chapter provides information regarding real-time availability processing with Voyager as a defined ILS in Primo and highlights other considerations like possible error conditions that you may encounter.

For information regarding Primo setup to trigger real-time availability communications with Voyager, refer to the *Primo Interoperability Guide*.

Real-Time Availability Processing

In general, the Primo/Voyager real-time availability processing occurs as follows:

1. Primo sends a request (URL format) to the Voyager ILS. This request includes the following:
 - a. An `op` (operation) parameter that must be `publish_avail`.
 - b. A `doc_num` parameter with a value of one or more bibliographic record ID numbers in a comma-separated list. The number of IDs is only limited by the practical limit of an http URI.

2. The Voyager availability service (VXWS) processes the request.

Real-time availability processing utilizes the `PrimoExp.ini` configuration file when responding to real-time availability queries from Primo. This file is located in `/ml/voyager/yyydb/tomcat/vxws/ini/` where `yyydb` is the database name.

The `PrimoExp.ini` file can be accessed via the symbolic link `<yyydb>/ini/PrimoExp-Rta.ini` where `yyydb` is the database name.

See [PrimoExp.ini](#) on [page 4-5](#) for additional information.

3. Successful processing returns bibliographic record information from the Voyager database in XML format using the Enrichment Tags (see [\[Enrichment Tags\]](#) on [page 2-39](#)) to determine the fields/data organization.

See [Figure 4-1](#) for an example of the XML returned from a successfully processed request.

```
<?xml version="1.0" encoding="UTF-8" ?>
<publish-avail>
  <OAI-PMH xmlns="http://www.openarchives.org/OAI/2.0/"
    xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"
    xsi:schemaLocation="http://www.openarchives.org/OAI/
      2.0/ http://www.openarchives.org/OAI/2.0/OAI-PMH.xsd">
    <ListRecords>
      <record>
        <header>
          <identifier> 000010000</identifier>
        </header>
        <metadata>
          <record xmlns="http://www.loc.gov/MARC21/slim"
            xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"
            xsi:schemaLocation="http://www.loc.gov/MARC21/slim
              http://www.loc.gov/standards/marcxml/schema/
                MARC21slim.xsd">
          </record>
        </metadata>
      </record>
    </ListRecords>
  </OAI-PMH>
</publish-avail>
```

Figure 4-1. Example real-time availability XML returned to Primo

The value in the <identifier> key is the Voyager bibliographic record ID number.

Error Conditions

Error conditions have been identified for the following:

- Missing bibliographic record ID number (doc_num) in the URL request
See [Figure 4-2](#) for an example of the error response provided.
- URL request that contains an operation parameter other than publish_avail
See [Figure 4-3](#) for an example of the error response provided.
- Requested bibliographic record ID number does not exist in the Voyager database
See [Figure 4-4](#) for an example of the error response provided.

```
<?xml version = "1.0" encoding = "UTF-8"?>
<publish-avail>
<error>doc_num must be included in parameters</error>
</publish-avail>
```

Figure 4-2. Example error response for missing bibliographic record ID number

```
<?xml version = "1.0" encoding = "UTF-8"?>
<login>
<error>Unrecognized op</error>
</login>
```

Figure 4-3. Example error response for incorrect operation parameter

```
<OAI-PMH xmlns=http://www.openarchives.org/OAI/2.0/
  xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"
  xsi:schemaLocation="http://www.openarchives.org/OAI/
  2.0/ http://www.openarchives.org/OAI/2.0/OAI-PMH.xsd">

<ListRecords>
<record>
<header>
<identifier> 999910001</identifier>
</header>
<error>
<error_code>21</error_code>
<error_message>Error reading document</error_message>
</error>
</record> </ListRecords> </OAI-PMH>
```

Figure 4-4. Example error response for record ID that doesn't exist

web.xml

Values in `web.xml` are typically set one time during installation setup. Specific to real-time availability, this file identifies the path for the `PrimoExp.ini` file that is used in the process. You may want to check to confirm that it is currently accurate.

See [Figure 4-5](#) for an example of `web.xml` content. Any reference to `yyydb` in the example indicates where you would specify your database name.

```

<servlet>
  <servlet-name>VoyagerAvailabilityService</servlet-name>
  <display-name>Voyager Availability Web Service</
  display-name>
  <servlet-
  class>com.endinfosys.voyager.websvc.VoyagerAvailabilit
  yService</servlet-class>
  <init-param>
    <param-name>PrimoExpIniFile</param-name>
    <param-value>
      /m1/voyager/yyydb/ini/PrimoExp.ini
    </param-value>
  </init-param>
</servlet>

```

Figure 4-5. web.xml example

PrimoExp.ini

The real-time availability process uses settings below the line (“EVERYTHING BELOW THIS LINE IS INTERNAL DO NOT MODIFY”) in the `PrimoExp.ini` file to generate a successful response to Primo.



IMPORTANT:

Do not make changes to this section of the `PrimoExp.ini`.

The `UserPass=` option in the `[PrimoExp]` stanza must be specified for real-time availability to work. This cannot be commented out. See [Table 2-5](#) on [page 2-42](#) for a description of `UserPass=`.

Introduction

The following patron services are provided by Voyager Primo integration:

- Patron authentication with Patron Directory Services
- User account information
- Item display and request processing

These services are available with either OPAC via Primo or OPAC via Link. This chapter describes the OPAC via Primo implementation. For information regarding the legacy OPAC via Link implementation, see [Patron Services - OPAC via Link](#) on [page 6-1](#).

Patron Directory Services (PDS)

Consistent with other Ex Libris products, Primo utilizes Patron Directory Services (PDS) to process patron authentication.

PDS does not have a patron database of its own. Instead, it provides the flexibility to pass authentication credentials to a designated target or redirect the user to an external authentication page.

Primo customers can use PDS to allow their users to authenticate against the Voyager database. When you use PDS to authenticate against the Voyager database, you get:

- Patron authentication against the Voyager database using credentials sent from PDS
- Borrower information sent from Voyager back to PDS
- PDS Single Sign-on (SSO) support for patrons using Primo, Voyager, and other Ex Libris products

Some sites may want to use something other than the Voyager database to authenticate their users. Common user authentication systems are LDAP or Shibboleth and are often provided by the campus bursar's office. For Voyager sites that do not provide Primo user authentication from the Voyager user database, Primo must still have information from Voyager about the user. This can be accomplished in two different ways.

First, the information that Primo must have about all Voyager users is:

- Voyager Patron ID (such as barcode or institution ID)
- Voyager Patron Group ID (such as faculty, staff, undergrad, and so on)
- UBID (the patron home DB)

Option 1: The easiest way to ensure that Primo has this Voyager information is to configure PDS so that bor-auth is authenticated against the campus information system (LDAP or other system) and bor-info is retrieved from Voyager. The above three values can be found in the `<bor-info>` tags of `<id>`, `<group_id>`, and `<ubid>`, respectively. See the *Patron Directory Services Guide* for more information on how to configure PDS.

Option 2: If you must use the campus information system for both bor-auth and bor-info, you must provide mappings from the campus information system values to Voyager values. For example, your campus information system may know that a patron is an undergrad, but that value must be mapped to the Voyager value of a patron group ID which is a number. To find the Voyager group ID numbers plus the patron ID and the UBID, refer to KB 16384-22994.

Configuration

The following server configuration components are needed to enable user authentication with PDS:

- The main PDS configuration table called `tab_service.<institute>` needs to be configured for communicating with the Voyager Web service application.

More information about PDS configuration is available in the *Patron Directory Services Guide* available in the Ex Libris Documentation Center.

- The Voyager server XML needs to be configured with database connection information such as username, password, host, SID (system ID), and so forth. This can be set up once and is handled by the Ex Libris Voyager installation team.

See Appendix [A](#) for steps to verify your configuration information.

PDS Invoked

Primo invokes PDS when users attempt to log on.

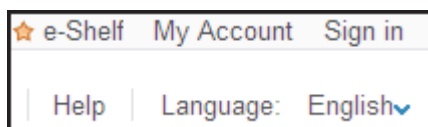


Figure 5-1. Sign-in link

Sign in using the link ([Figure 5-1](#)) provided.

Full PDS

For information about the full implementation of PDS with Single Sign On (SSO) capabilities, see the *WebVoyage Architecture Overview and Configuration Models* guide.

My Account

In the Voyager Primo environment, patrons are provided the following capabilities through the Primo My Account function without being redirected to a Voyager-provided screen:

- Display of patron information
- Option to renew charged items

- Option to cancel requests
- Option to update the patron PIN (see [Web Services](#) on [page 5-25](#))
- Option to update the patron SMS (see [Web Services](#) on [page 5-25](#))
- Display of ILL requests

This functionality is accessed through the My Account link in Primo.

Item Display and Request Information

With OPAC via Primo, the following capabilities are provided through the Primo interface without being redirected to a Voyager-provided interface:

- Display of holdings and items
- Placing requests (Primo-reserved OPAC request options)
 - Hold
 - Recall
 - Call Slip
 - UB

(See [Configuring OPAC Request Forms](#) on [page 5-6](#) for more information about the reserved OPAC request options provided by Primo.)

This is accomplished through Get Holdings and Get Requests in Primo with Voyager as the back office component.

For the other Voyager OPAC requests (not reserved in Primo) such as short loan, media booking, remote storage, ILL, blank form, and so on, users are able to make these requests from Primo through a Voyager screen embedded on the Primo Request tab (see [Figure 5-15](#) on [page 5-18](#)). For set-up considerations, see [Skins](#) on [page 5-17](#).

My Account Loans Paging in Primo

OvP – Loans Paging in Primo is a feature that can be used to improve performance between Voyager and Primo for the display of large numbers of loans. Review the loan limit settings you have made in Voyager System Administration in the matrices in Circulation and UB Policy Definitions (if applicable), and any global borrowing limits that have been set before customizing the OvP – Loans Paging bulk definition in Primo.

The OvP – Loans Paging bulk definition is an important setting for configuring connections with Voyager UB databases. Optimal performance needs to balance local loans (likely the most) with each remote database in the UB environment being queried. Primo retrieves and displays the number of loans set in OvP – Loans Paging from each database.

To illustrate this feature, refer to the following examples.

Example 1:

A patron has 25 loans at each of 3 databases and the OvP – Loans Paging (the setting to indicate how many loans from each institution to show/retrieve for a patron at a time) is equal to 5. In this example, Primo displays:

- Local database – Loan 5
- Remote database 1 – Loan 5
- Remote database 2 – Loan 5

The maximum number of loans that display to a patron in My Account in Primo is 15 (5 loans from each of the 3 databases).

If there are more loans to display, a Show More Loans link displays to page/request the next set of loans from each database.

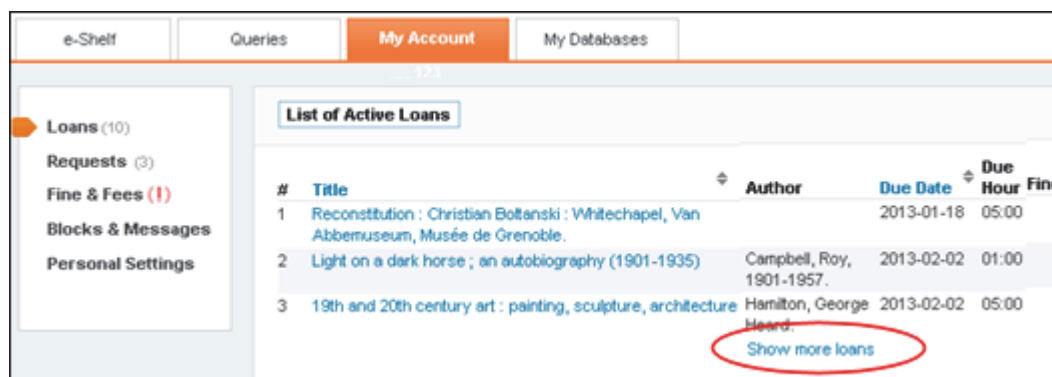


Figure 5-2. My Account Loans Paging Example

Example 2:

A patron has 25 loans at each of 3 databases and OvP – Loans Paging is equal to 20. In this example, Primo displays:

- Local database - Loans 1-20

- Remote database 1 - Loans 1-20
- Remote database 2 – Loans 1-20

A Show More Loans option displays to page/request the next set of loans from each database.

NOTE:

The default value for OvP – Loans Paging is 100. For UB environments, you may need to adjust this setting to take into account the multiple databases. One approach to consider is to try to set the OvP – Loans Paging to the probable number of loans possible for the patron group.

NOTE:

OvP – Loans Paging is set in the Bulk Definition mapping table in the front-end subsystem.

For additional information regarding configuring My Account loans, refer to the *Primo Interoperability Guide* (version 4.x or later).

Configuring OPAC Request Forms

For Voyager, the following default request forms are currently provided/reserved by Primo:

- Hold
- Recall
- Call Slip
- UB

These are defined in Primo as:

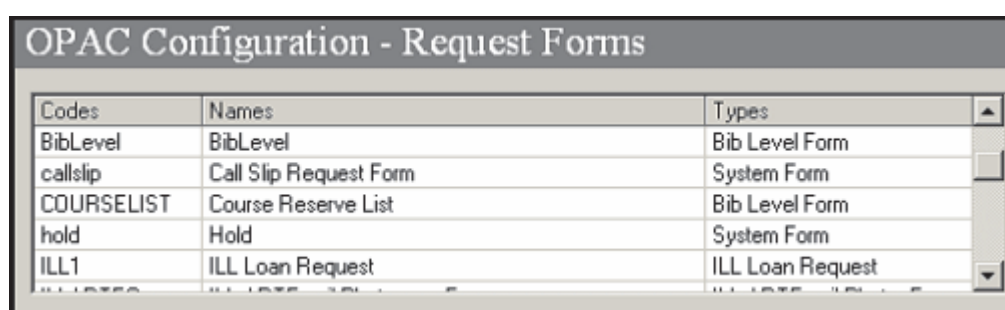
- `default.HoldRequest` with a description of Hold
- `default.Recall` with a description of Recall
- `default.CallSlip` with a description of Call Slip
- `default.UBRequest` with a description of UB

For other Voyager request forms, see [Additional Request Forms You Define](#) on [page 5-7](#).

Additional Request Forms You Define

Additional Voyager request forms may be defined in the Primo Code Tables such as item level request, bib level request, course reserve list, ILL, and so on.

When you define additional OPAC request forms that are not currently identified and reserved in the Primo Code Tables, the `<request code>` in `<view code>.<request code>` needs to match the Codes name in the Voyager System Administration OPAC Configurations - Request Forms definitions (see [Figure 5-3](#)).



Codes	Names	Types
BibLevel	BibLevel	Bib Level Form
callslip	Call Slip Request Form	System Form
COURSELIST	Course Reserve List	Bib Level Form
hold	Hold	System Form
ILL1	ILL Loan Request	ILL Loan Request

Figure 5-3. Voyager System Administration OPAC Configuration - Request Forms


Voyager transfers the System Administration Codes to Primo in all uppercase. For example, nobibdat is sent as NOBIBDAT (for the Blank Form). Since the Primo Code Table entries are case sensitive, all definitions for Voyager request forms that you add in Primo need to use the uppercase version of the Codes name from Voyager System Administration.



IMPORTANT:

Primo has reserved default.ILL in the Code Tables for Aleph interlibrary loan OPAC requests. As a result, you may need to change your Codes definition for interlibrary loan requests in Voyager System Administration if it is in any combination of ILL, ill, or Ill such that when it is sent in uppercase to Primo it results in ILL. You may, for example, change it to ILL1 and define it in the Primo Code Tables as `<view code>.ILL1` with a description of ILL.

If you do not define the other OPAC request forms in the Primo Code Tables, they display in their uppercase form as sent from Voyager. See [Figure 5-4](#) for an example of OPAC request form options that display in all uppercase as sent from Voyager.



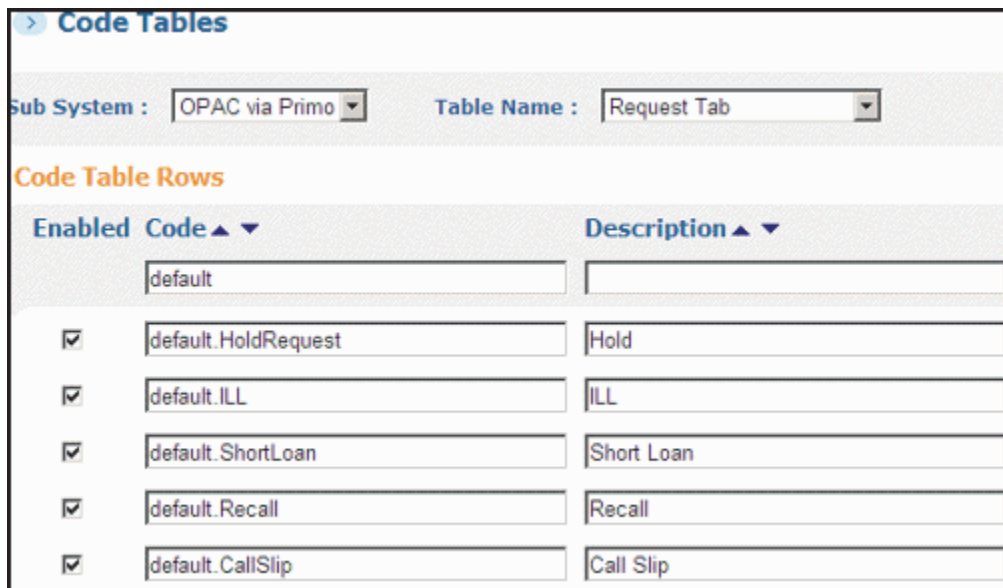
The screenshot shows a web interface with a tabbed menu at the top: "Request A", "Locations", "Details", "Reviews & Tags", and "Recommendations". The "Request A" tab is active. Below the tabs, there is a link "Open source in a new window" and a section titled "Request Options:". This section contains several buttons: "Hold", "Call Slip", "BIBLEVEL", "BIB", "ITEM", "ILLBL", "ILLPHOTO", and "Index New Zealand".

Figure 5-4. Request tab OPAC request options example

For more information regarding OPAC request form setup, refer to the *Primo Interoperability Guide*.

Configuring OPAC Request Forms in Primo Code Tables

Primo defines default request forms in the Code Tables for Aleph and Voyager that are unique and reserved for that purpose. See [Figure 5-5](#).



The screenshot shows the "Code Tables" configuration page. At the top, there is a "Sub System" dropdown menu set to "OPAC via Primo" and a "Table Name" dropdown menu set to "Request Tab". Below this, the section "Code Table Rows" is displayed. It contains a table with two columns: "Enabled" and "Code", and a "Description" column. The "Enabled" column has checkboxes, and the "Code" column has text input fields. The "Description" column has text input fields. The rows are as follows:

Enabled	Code	Description
	default	
<input checked="" type="checkbox"/>	default.HoldRequest	Hold
<input checked="" type="checkbox"/>	default.ILL	ILL
<input checked="" type="checkbox"/>	default.ShortLoan	Short Loan
<input checked="" type="checkbox"/>	default.Recall	Recall
<input checked="" type="checkbox"/>	default.CallSlip	Call Slip

Figure 5-5. Primo Code Tables

The request form definition contains two key components:

- Code definition in the following format:
`default.<request code> or <view code>.<request code>`
- Description definition that is viewable to users on the Request Tab such as Hold or Call Slip (see [Figure 5-4](#))

NOTE:

Ex Libris development uses `default` for the `<view code>` name for reserved Primo Code Table definitions.

Configuration in Voyager for OPAC via Primo

Configuration for OPAC via Primo is done primarily in the `vxws.properties` file that is located in `/ml/voyager/xxxxdb/tomcat/vxws/context/vxws/ui/eng` where `xxxxdb` is your database name and `eng` is the three-letter ISO code for a language.

The `vxws.properties` file is used to define the following:

- Status text to be displayed (refer to [Status Information](#) on [page 5-10](#))
- Serial information (refer to [Handling Serial Information](#) on [page 5-12](#))
- Order information field/960 (refer to [1030/orderInfoHolTag](#) on [page 5-14](#))
- Indefinite loan information displayed on the My Account page (refer to [page.myAccount.chargedItem.dueDate.indef= Parameter](#) on [page 5-16](#))
- Date format (refer to [date.format= Parameter](#) on [page 5-17](#))
- Skins (refer to [Skins](#) on [page 5-17](#))
- Demerit status text and label (refer to [Demerits](#) on [page 5-19](#))
- Voyager databases for Universal Borrowing (refer to [Universal Borrowing \(UB\)](#) on [page 5-19](#))
- Request group parameter (refer to [option.displayRequestGroups= Request Group Parameter](#) on [page 5-20](#))
- Patron messages for denied requests or renewals (refer to [Request and Renewal Messages in OvP](#) on [page 5-20](#))

Other Voyager configuration considerations include:

- Voyager System Administration database definitions (refer to [Voyager System Administration Database Definitions](#) on [page 5-23](#))

- Patron web services (refer to [Web Services](#) on [page 5-25](#))
- Support for ILL requests (refer to [Support for ILL Requests from OvP](#) on [page 5-26](#))

Status Information

The `vxws.properties` file is used to define status information such as patron status, request status, and so on that is displayed in Primo for Voyager-originating materials. It is located in `/ml/voyager/xxxdb/tomcat/vxws/context/vxws/ui/`. The default directory is the `eng` (English) language directory as in `/ml/voyager/xxxdb/tomcat/vxws/context/vxws/ui/eng/`.

The `vxws.properties` file is built at installation by the Ex Libris installation team from the status information in your `webvoyage.properties` file.

Subsequent to the initial installation, you may customize `vxws.properties` as you prefer to display different status texts.

See [Figure 5-6](#) for an example of status information that may be specified.

```
page.patronRequests.message.requestblocked-1=No items are available for Hold
requests.
page.patronRequests.message.requestblocked-2=No items are available for CallSlip
requests.
page.patronRequests.message.requestblocked-4=There are no circulating items
available to satisfy your UB Borrowing Request.
page.patronRequests.message.requestblocked1=No holdings are available.
page.patronRequests.message.requestblocked10=No hold policy is defined for this
item.
page.patronRequests.message.requestblocked11=This item has been scheduled
through media booking.
page.patronRequests.message.requestblocked12=This item is not available for
hold.
page.patronRequests.message.requestblocked2=The item is on order.
page.patronRequests.message.requestblocked3=The item is not charged.
page.patronRequests.message.requestblocked4=The item is missing.
page.patronRequests.message.requestblocked5=The item is lost.
```

Figure 5-6. vxws.properties File Example

Voyager Status Patron Group Messages

In Voyager System Administration, selecting **Display OPAC messages for charged items** indicates that special item status messages are to be defined and used in place of standard item status text.

Codes	Names
CC	Courtesy Patron
CRRL	Carrel
FAC	Faculty
GRAD	Graduate Student
ILL	Inter-Library Loan

Edit Patron Group:

Patron Groups | Global Borrowed Item Limits

Code: CRRL

Name: Carrel

Display Name: Carrel

☒ Display OPAC Messages for charged Items

Figure 5-7. Display OPAC Messages for Charged Items

In Primo, you can display special item status messages by setting Patron Group OPAC Message= in the [Item Statuses] stanza to C (see [Table 2-1 on page 2-30](#)) in the PrimoExp-*.ini (ml/voyager/xxxdb/ini/PrimoExp-*.ini) files and defining messages for charged item holdings in the vxws.properties file (see example below).

```
page.myAccount.chargedItem.item.statusPatronGroup.CARREL=On New Book Shelf
GROUPCODE Message for holdings charged item
```

Figure 5-8. vxws.properties File Status Patron Group Example

When the system determines that an item is charged to a patron in a status patron group identified to receive special messages, it looks to the [Item Statuses] stanza and the `vxws.properties` file to determine what message to display.

If no message is found for a status patron group code, the system displays a default GROUPCODE message.

NOTE:

Since an item may be linked to multiple statuses in the system, there is a hierarchy established to determine which status to display. The hierarchy is as follows: System Lost, Library Lost, Overdue, Recall Request, Renewed, Charged, Scheduled, In Process, Missing, At Bindery, On Hold, In Transit, In Transit Discharged, In Transit On Hold, Hold Request, Short Loan Request, Remove Storage Request, Call Slip Request, Discharged, and Not Charged. When there are multiple statuses for an item the earlier one in the list takes precedence. As a result, if the charged item has a status earlier in this list than Charged, the Patron Group OPAC Message= setting will have no effect on the availability statement displayed.

Handling Serial Information

You can configure the serial information that you want sent/displayed in OPAC via Primo (OvP) in the `vxws.properties` file that is located in `/ml/voyager/xxxxdb/tomcat/vxws/context/vxws/ui/eng/`. The default directory is the `eng` (English) language directory. See [Figure 5-9](#) that highlights the section of the `vxws.properties` file where this configuration is handled for:

- 1020
- 1022
- 1024
- 1040
- 1042
- 1044

```
#####
# Indicate whether or not you want the various serial issues to be
# sent to Primo via OvP.
#
#####
serial.issue.1020.recent.basic=Y
serial.issue.1022.recent.supplement=Y
serial.issue.1024.recent.index=Y
serial.issue.1040.older.basic=Y
serial.issue.1042.older.supplement=Y
serial.issue.1044.older.index=Y
```

Figure 5-9. Serial Information Handling Section of vxws.properties

For 1030 (orderInfoHolTag), see [1030/orderInfoHolTag](#) on [page 5-14](#).

See [Table 5-1](#) for a list of the tags that are generated for serial information.

Table 5-1. Generated Tags

Tag	Description	Tag	Indicators	Subfield
1020	Recent Issues from serials (serials receipts)	866	first indicator = 5 second indicator = 0	a – contains issue information 9 – contains '1020'
1022	Supplemental issues from serials.	867	first indicator = 5 second indicator = 0	a – contains issue information 9 – contains '1022'
1024	Indexes	868	first indicator = 5 second indicator = 0	a – contains issue information 9 – contains '1024'
1040	Compressed/ collapsed info from 853/863	866	first indicator = is taken from the 853 second indicator = 1	a – contains generated holdings statement 9 – contains '1040'
1042	Compressed/ collapsed info from 854/864	867	first indicator = is taken from the 854 second indicator = 1	a – contains generated holdings statement 9 – contains '1042'
1044	Compressed/ collapsed info from 855/865	868	first indicator = is taken from the 855 second indicator = 1	a – contains generated holdings statement 9 – contains '1044'

In addition to `vxws.properties`, the following files from the `/ml/voyager/xxxdb/tomcat/vwebv/context/vwebv/ui/en-US/xsl/contentLayout/configs/` folder are used to generate the serial information that displays in Primo:

- `102X_config.xml`
- `102X_display.xsl`
- `104X_config.xml`
- `104X_display.xsl`
- `104X_chronValues.xml`

1030/orderInfoHolTag

The `1030/orderInfoHolTag` configuration is handled in a separate section of the `vxws.properties` file that pulls additional details from the `webvoyage.properties` file located in `/ml/voyager/xxxdb/tomcat/vwebv/context/vwebv/ui/en_US/`. See [Figure 5-10](#) and [Figure 5-11](#).

```
#####  
#  
# WARNING: You must change this 960 tag if you use the 960 in the PrimoExp*.ini  
#         files.  
#  
#####  
orderInfoHolTag=960
```

Figure 5-10. `/orderInfoHolTag (1030) Parameter in the vxws.properties File`

```

#=====#
# Order status for the holdings record. The status is from the line
# item status defined in the database.
# The "+" indicates status for multiple holdings records.
# Substitution characters:
# c -- number of copies
# d -- date
#=====#
holdingsInfo.orderStatus.Pending=In the Pre-Order Process
holdingsInfo.orderStatus.Pending+=In the Pre-Order Process
holdingsInfo.orderStatus.Approved=\\c Copy Ordered as of \\d
holdingsInfo.orderStatus.Approved+=\\c Copies Ordered as of \\d
holdingsInfo.orderStatus.Claimed=\\c Copy Claimed as of \\d
holdingsInfo.orderStatus.Claimed+=\\c Copies Claimed as of \\d
holdingsInfo.orderStatus.ReceivedComplete=\\c Copy Received as of \\d
holdingsInfo.orderStatus.ReceivedComplete+=\\c Copies Received as of \\d

```

Figure 5-11. Order Status Text Configuration in the webvoyage.properties File

The `vxws.properties` file defines the field to be used to transport/dynamically display order information for an item in OPAC via Primo. The default for `orderInfoHolTag=` is the 960 tag. If 960 is already in use, you may specify another tag number.



IMPORTANT:

The tag number used for `orderInfoHolTag=` may not duplicate a tag number specified for the enrichment tags (see [\[Enrichment Tags\]](#) on [page 2-39](#)).

See [Table 5-2](#) for a list of the tags are generated for the order information.

Table 5-2. Generated Tags

Tag	Description	Tag	Indicators	Subfield
1030	Order status as shown in the line items of purchase orders	Taken from the <code>orderInfoHolTag</code> in <code>vxws.properties</code>	None	a – contains generated order information 9 – contains '1030'

page.myAccount.chargedItem.dueDate.indef= Parameter

The `page.myAccount.chargedItem.dueDate.indef=` parameter in the `vxws.properties` file is provided for customizing the display of indefinite loan information on the patron's My Account page in Primo.

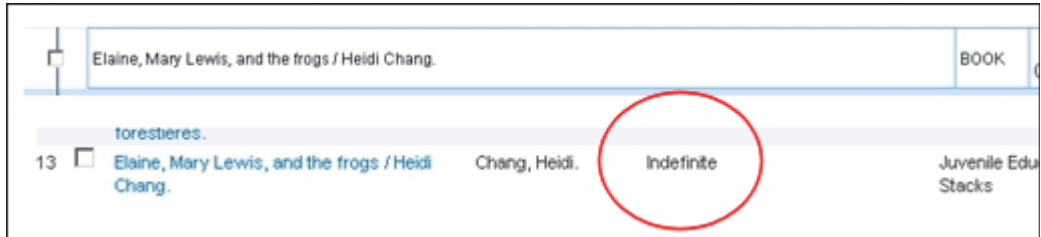


Figure 5-12. Indefinite Loan Message on the Patron's My Account Page

In order for the indefinite loan message to display properly in the Due Date column on the patron's My Account page in Primo, the value specified for `page.myAccount.chargedItem.dueDate.indef=` must be a single term followed by a space.

```
#####
# Item due date substitution tokens to display the codes' corresponding
# information in the Due Date column on the Charged Item section of My Account
# page
# \\d -> the item's due date
# \\e -> the items's due date, if the due date is not today
# \\t -> the item's due time
# \\u -> the item's due time, if the due date is today
#####
page.myAccount.chargedItem.dueDate=\\d \\t
page.myAccount.chargedItem.dueDate.indef=Indefinite

date.format=yyyy-MM-dd

time.format=HH:mm
```

Figure 5-13. page.myAccount.chargedItem.dueDate.indef= Parameter

date.format= Parameter

The `date.format=` parameter in the `vxws.properties` file (see [Figure 5-14](#)) provides you the option to change the date format.

```
#####
# Item due date substitution tokens to display the codes' corresponding
# information in the Due Date column on the Charged Item section of My Account
# page
# \\d -> the item's due date
# \\e -> the items's due date, if the due date is not today
# \\t -> the item's due time
# \\u -> the item's due time, if the due date is today
#####
page.myAccount.chargedItem.dueDate=\\d \\t
page.myAccount.chargedItem.dueDate.indef=Indefinite

date.format=yyyy-MM-dd

time.format=HH:mm
```

Figure 5-14. date.format= Parameter

Since Primo also formats dates, it is suggested that you remain with the `YYYY-MM-DD` default `date.format=` setting in the `vxws.properties` file and let Primo handle the formatting.

Skins

For request types that are not provided through OPAC via Primo, Primo displays a link to users that, when selected, embeds the WebVoyage request screen into the Primo interface. Patrons are prompted to log on to WebVoyage from the Primo interface (see [Figure 5-15](#)) to make these requests in the native Voyager interface.

The screenshot displays the ExLibris Primo interface. At the top, the 'ExLibris Primo' logo is on the left, and 'Library Search' is on the right. Below the logo, a search bar contains the text 'potter'. To the right of the search bar is a dropdown menu set to 'White Shore University' and a 'Search' button. Further right is a link to 'Advanced Search'. Below the search bar, there are three dropdown menus: 'All items', 'that contain my query words', and 'anywhere in the record'. The search results for 'Harry Potter and the chamber of secrets' are displayed, including the author 'John Williams 1932- Bill Galliford; Ethan Neuburg; Tod Edmondson c2003' and a link for 'Online access'. Below the search results, there are tabs for 'View Online', 'Request', 'Locations', 'Details', 'Reviews & Tags', 'Recommendations', and 'More'. The 'Request' tab is selected, showing a list of request options: 'Open source in a new window', 'Request Options: Hold', 'Call Slip Request', 'BibLevel', 'bib level request', 'ILLARTEmail Loan', 'Item Level Request', 'Limited Access Request (VDX)', 'ILL Blank Request!', 'Course Reserve List', 'ARTEmail Loan', 'Blank Form', 'ILL Blank Photo Request', 'ILL ARTEmail Photocopy', 'ILL Photocopy Request!', 'ARTEmail Photocopy', 'ILL Loan Request', and 'Index New Zealand'. Below the search results, the 'ExLibris Voyager' logo is on the left, and a navigation bar contains 'Search', 'My Searches', 'My List', and 'My Account'. Below the navigation bar, there is a 'Log In' section with the text 'Please enter your Patron Barcode and Last Name, then click the Log In button.' Below this text, there is a form with a dropdown menu for 'Log in using my' set to 'Barcode', and input fields for 'Id:' and 'Last Name:'. A 'Log in' button is at the bottom of the form. At the very bottom of the page, there is a footer bar with links for 'Search', 'My Searches', 'My List', 'My Account', and 'Help'.

Figure 5-15. Prompted WebVoyage Log In

You may specify the skin to be used for that link by identifying the skin name in the variable, `vwebv.skin`, in the `vxws.properties` file. You need to specify which VWEBV host IP and port is to be used for the link. This needs to be an external DNS name or IP address since Primo will be on a different server, other than Voyager/WebVoyage. (It cannot be localhost. It needs to be the Tomcat WebVoyage name, not the classic name.)

See [Figure 5-16](#) for an example.


```
vwebv.host=10.100.2.36
vwebv.port=14004
vwebv.skin=en_US
```

Figure 5-16. Skin definition example in `vxws.properties`

Demerits

There is a customized label used for the demerit output in response to the retrieval of a patron's fines and demerits data. See the *Demerits: 10.00* example in [Figure 5-17](#).

Use the `demerit.label=` variable in the `vxws.properties` file to define the label that you prefer. `Demerits:` is the default.



#	Title	Author	Fine Date	Credit	Debit	Transferred
01	New economics, one decade older.		2009-10-30	Debit	USD 26.00	No
02	Island of the Blue Dolphins.		2003-09-03	Debit	Demerits: 10.00	No

Figure 5-17. Demerits example

Universal Borrowing (UB)

For consortiums using Universal Borrowing, Voyager database codes need to be identified in the `vxws.properties` file. A translation of database names to Voyager database codes needs to be specified using the `connectDb.yyydb=` variable. This needs to be specified for every Voyager database. See [Figure 5-18](#).

```
connectDb.yyydb=LOCAL
connectDb.aaadb=AREACOLL
connectDb.bbbdb=BIXUNIV
connectDb.cccdb=COMMCOLL
```

Figure 5-18. Example of database codes defined in `vxws.properties`

Using `connectDb.yyydb=LOCAL` as an example, the `yyydb` represents the name given to your Voyager database and is part of the directory structure when you navigate on the Unix server. This term is put into the `PrimoExp*.ini` files in the `[Institution Id]` stanza and is placed in the 949th of your Primo export. If you modified the code in that stanza, put that name here in place of the `yyydb`.

The variable, `LOCAL`, in the example, is the Code defined for the database in Voyager System Administration Search - Database Definitions. The database Code where the `vxws.properties` file is located always translates as `LOCAL`.

In [Figure 5-18](#), there are four institutions in the example Universal Borrowing consortium. `LOCAL` is the home site for the VXWS service. The other three definitions represent the other Universal Borrowing sites/databases for your VXWS service as defined in `yyydb`'s Voyager System Administration.

option.displayRequestGroups= Request Group Parameter

Related to request groups, Primo/OvP (OPAC via Primo) provides the `option.displayRequestGroups=` parameter that is located in the `vxws.properties` file that is located in `/ml/voyager/xxxdb/tomcat/vxws/context/vxws/ui/eng/` where `xxxdb` is your database name.

When you have implemented Request Groups, you need to enable this parameter by setting its value to `Y`.

NOTE:

The default setting for `option.displayRequestGroups=` is `N`. Continue to set this to `N`, until you are using a release of Primo that supports this option.

For more information, refer to the *Request Configuration* and *Request Groups* sections in the *Circulation* chapter of the *Voyager System Administration User's Guide*.

Request and Renewal Messages in OvP

When requests are denied or a renewal is not allowed, detailed response messages are provided to the patron in OvP. These messages come from the `vxws.properties` file located in `/ml/voyager/xxxdb/tomcat/vxws/context/vxws/ui/eng/`. These messages can be found in the sections of the `vxws.properties` file highlighted in the example below.

```
#####
#
# The following are block messages for the patron charge loan web service.
#
#####
patronChargeBlocked4=Item marked 'Lost'.
patronChargeBlocked28=This item is not authorized for renewal.
patronChargeBlocked29=Renew limit reached.
patronChargeBlocked30=Overdue items may not be renewed.
patronChargeBlocked31=Items with recall requests may not be renewed.
patronChargeBlocked32=Items with hold requests may not be renewed.
patronChargeBlocked44=Item has a loan period of TERM and is being renewed before
    the permitted renewal period.
patronChargeBlocked49=Failed to promote the call slip to a recall or hold.
patronChargeBlocked50=Failed to promote the call slip to a recall or hold.
patronChargeBlocked104=Item has a loan period of TERM, but an end-of-term date has
    not been found in the current calendar.
patronChargeBlockedDefault=Renewal request could not be placed.

#####
#
# The following are patron block messages for the get/put (request) record web
    service.
#
#####
patronBlocked15=Patron registration expired.
patronBlocked16=Patron address expired.
patronBlocked17=Permanent address has been flagged 'Hold Mail'.
patronBlocked18=Patron charged items limit reached.
patronBlocked19=Patron maximum fines limit reached.
patronBlocked20=Patron overdue items limit reached.
patronBlocked21=Patron overdue recalled items limit reached.
patronBlocked22=Patron outstanding recalls limit reached.
patronBlocked23=Patron claim returned limit reached.
patronBlocked24=Patron lost items limit reached.
patronBlocked25=Patron self-shelved items limit reached.
patronBlocked41=Patron short loan limit reached.
patronBlocked42=Patron call slip limit.
```

```
patronBlocked51=Patron is suspended.
patronBlocked52=Patron maximum demerits limit reached.
patronBlocked66=Patron charged item limit reached.
patronBlocked72=Patron hold items limit reached.
patronBlocked119=Patron universal borrowing maximum requests limit reached.
patronBlocked120=Patron is ineligible for universal borrowing.
patronBlocked121=Patron universal borrowing charged items limit reached.
patronBlocked122=Patron universal borrowing maximum fines limit reached.
patronBlocked123=Patron universal borrowing overdue items limit reached.
patronBlocked124=Patron universal borrowing overdue recalled items limit reached.
patronBlocked125=Patron universal borrowing claims returned limit reached.
patronBlocked126=Patron universal borrowing lost items limit reached.
patronBlocked127=Patron universal borrowing self-shelved items limit reached.
patronBlocked130=Patron universal borrowing maximum demerits limit reached.
patronBlockedDefault=Patron blocked from performing circulation actions.

#####
#
# The following are block messages for the call slip request web service.
#
#####
patronCallslipBlocked1=Patron has reached his/her call slip limit and cannot
    place anymore.
patronCallslipBlocked2=Patron is not authorized to place a call slip on this
    particular item.
patronCallslipBlocked3=Patron already has an outstanding call slip for this item.
patronCallslipBlocked4=This item is unavailable for a call slip request.
patronCallslipBlockedDefault=Call slip request could not be placed.
patronNoRequests=You have no available requests in this database.
```

The entries in these sections of the `vxws.properties` file are copied from the `webvoyage.properties` file (`/ml/voyager/xxxdb/tomcat/vwebv/context/vwebv/ui/en_US/`) at upgrade using the `generateVXWSProperties.pl` script. You may customize the messages located in these sections of the `vxws.properties` file but the system will not recognize any new codes/messages that you add.

Optionally, you may make changes to the messages in the `webvoyage.properties` file and manually run the `generateVXWSProperties.pl` script to update the `vxws.properties` file.

For instances where the multiple reasons apply to the patron for a failed renewal, those reasons/messages are concatenated for display to the patron as in the following example:

```
Item marked 'Lost.' Renew limit reached.
```

Voyager System Administration Database Definitions

For Primo and Voyager to communicate with each other, Voyager database definitions (Voyager System Administration > Search > Database Definitions) need to be configured using external DNS names and IPs. Specifically, the following database definitions need to be configured:

- LOCAL (refer to [LOCAL Database Definition](#) on [page 5-23](#))
- Each UB database (refer to [UB Database Definition](#) on [page 5-24](#))

Additional information related to database definitions can be found in [Identify Ports for VPDS, VPrimo, VXWS, and VWEBV](#) on [page A-2](#) in the [Verify Voyager Process/Services](#) appendix in this guide.

LOCAL Database Definition

The following needs to be configured for the LOCAL database definition:

- The Addr parameter for OPAC, Circ, VPDS, Sysadmin, CallSlip, and VXWS needs to be set to your server DNS name or external IP address (DNS preferred).
- The VPDS port needs to be set to xx44 where xx matches the beginning of the port numbers already set for OPAC and Circ.
- The VXWS port needs to be set to xx14 where xx matches the beginning of the port numbers already set for OPAC and Circ.

Refer to the illustration below.

Figure 5-19. Voyager System Administration LOCAL Database Definition

For more information regarding database definitions, refer to the *Voyager System Administration User's Guide*.

UB Database Definition

The following needs to be configured for each of the UB databases:

- The Addr parameter for OPAC, Circ, VPDS, Sysadmin, CallSlip, and VXWS needs to be set to your server DNS name or external IP address (DNS preferred).
- The VPDS port needs to be set to xx44 where xx matches the beginning of the port numbers already set for OPAC and Circ.
- The VXWS port needs to be set to xx14 where xx matches the beginning of the port numbers already set for OPAC and Circ.

Refer to the illustration below.

Codes	Types
LC	Z39.50
LOCAL	Voyager
NLM	Z39.50
UBSITE2	Voyager

Edit Database Definition:

Database: Definitions

Opac
 Addr: sample.hosted.exlib Port: 10300

Circ
 Addr: sample.hosted.exlib Port: 10330

VPDS
 Addr: sample.hosted.exlib Port: 10344

Sysadmin
 Addr: sample.hosted.exl Port: 10350

CallSlip
 Addr: sample.hosted.exl Port: 10380

VVWS
 Addr: sample.hosted.exl Port: 10314

Database Name: Timeout: 30 Maximum Hits: 5000

User ID: Password: Maximum number of connections: 5000

Figure 5-20. UB Database Definition

When you make these kinds of changes, you need to refresh the cache by running Pcircjob33 and restart the Apache server in order for the host name changes to be recognized.

Web Services

Voyager provides support for the following patron facilities through OPAC via Primo:

- Service configuration for:
 - Enable/update PIN
 - Enable SMS
- Patron self-registration
- Login summary for:
 - Patron overdue items

- Patron fines/fees
- Patron blocks
- Patron access expiration

Enabling and configuring these services is handled through the Voyager System Administration client. Refer to the *Web Services* chapter in the *Voyager System Administration User's Guide* for configuration instructions.

Support for ILL Requests from OvP

Voyager provides support for ILL requests from OPAC via Primo (OvP) using the existing ILL blank request forms such as ILL Blank Request and ILL Blank Photo Request. With this implementation, you can continue to use the Voyager System Administration options (OPAC Configuration > Request Forms) to configure the database, patron group, field, and general select form information.

Codes	Names	Types
ILLARTEC	ILL ARTEmail Photocopy Form	ILL ARTEmail Photo. Form
ILLARTEL	ILL ARTEmail Loan Form	ILL ARTEmail Loan Form
ILLBcopy	ILL Blank Photo Request	ILL Blank Photo Request
ILLBL	ILL Blank Request	ILL Blank Loan Request
ILLPhoto	ILL Photocopy Request	ILL Photocopy Request

OPAC Configuration - Request Forms

Edit Request Form:

Select Form | Databases | Patron Groups | Fields

Form Type: ILL Blank Loan Request

Form Code: ILLBL

Form Name: ILL Blank Request

E-mail: illdev@endinfosys.com

☐ OPAC Suppress

Instructions: Please fill out form and click submit

Request Output:

☒ Send Request by E-mail ☐ Output Request to a Flat-File

Save Cancel

Figure 5-21. ILL Blank Request Form Configuration in Voyager System Administration

For information regarding the new services provided with this capability, refer to the Ex Libris Developer Network (**Voyager > APIs/RESTful Web Services > Voyager APIs/ILL (Blank) Request**).

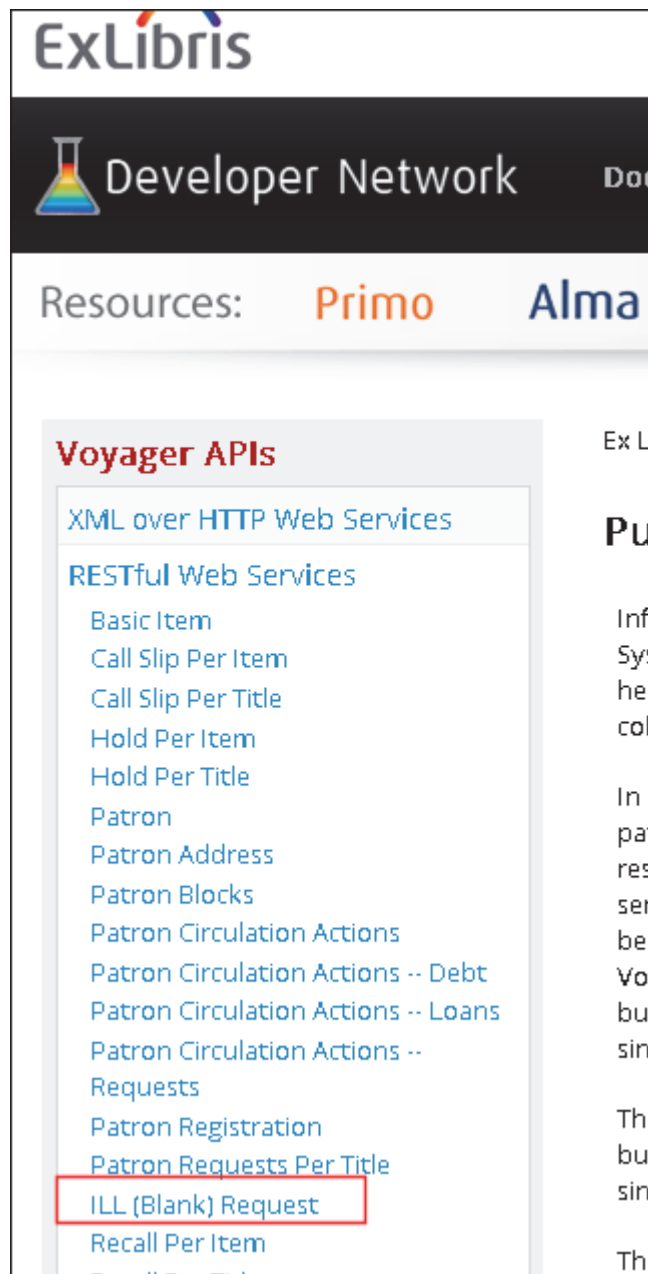


Figure 5-22. ILL (Blank) Request Link in the Ex Libris Developer Network

Introduction

The following patron services are provided by Voyager Primo integration:

- Patron authentication with Patron Directory Services
- User account information
- Item display and request processing

These services are available with either OPAC via Primo or OPAC via Link. This chapter describes the OPAC via Link implementation. For information regarding the OPAC via Primo implementation, see [Patron Services - OPAC via Primo](#) on [page 5-1](#).

Patron Directory Services (PDS)

Consistent with other Ex Libris products, Primo utilizes Patron Directory Services (PDS) to process patron authentication.

PDS does not have a patron database of its own. Instead, it provides the flexibility to pass authentication credentials to a designated target or redirect the user to an external authentication page.

The Voyager Primo environment provides the following PDS authentication functions against the Voyager patron database.

- Patron authentication using credentials sent from PDS
- Borrower information sent to PDS
- PDS Single Sign On (SSO) support for Primo

Configuration

The following server configuration components are needed to enable user authentication with PDS:

- The main PDS configuration table called `tab_service.<institute>` needs to be configured for communicating with the Voyager web service application.

More information about PDS configuration is available in the *Patron Directory Services* manual.

- The Voyager server XML needs to be configured with database connection information such as username, password, host, SID (system ID), and so forth. This can be set up once and is handled by the Ex Libris Voyager installation team.

PDS Invoked

Primo invokes PDS when users attempt to sign in. See [Figure 6-1](#).

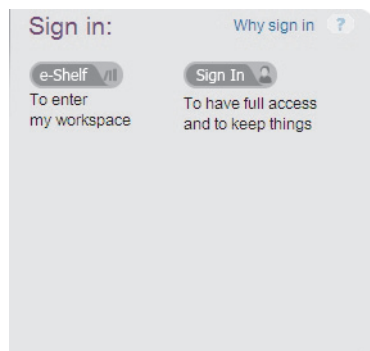


Figure 6-1. Primo Sign In / PDS Authentication

If a patron has not signed in prior to selecting **Get Avail Requests** (see [Figure 6-2](#)), clicking this option displays the Login dialog box. See [Figure 6-3](#).

Cover image not available

Biology : concepts & connections
Neil A. Campbell 1946-
Menlo Park, Calif. : Benjamin Cummings

Close

Holdings list

Check availability and location

Additional services

SFX

Holdings list

Get Avail Requests

Database:	Viper QA652DB
Main Author:	Campbell, Neil A.,
Title:	Biology : concepts & connections /
Publisher:	Menlo Park, Calif. : Benjamin Cummings, c1997.

Holdings Information

Database:	Viper QA652DB
Location:	Acquisitions
Call Number:	No call number available
Order Information:	4 Copy Ordered as of 2005-11-03
Number of Items:	None
Status:	No information available

Figure 6-2. Get Avail Requests (prompting sign in)



Figure 6-3. Login dialog box

Full PDS

For information about the full implementation of PDS with Single Sign On (SSO) capabilities, see the *WebVoyage Architecture Overview and Configuration Models* guide.

My Account

In the OPAC via Link environment, the Primo My Account function provides patrons with the following:

- Display of patron information
- Option to renew charged items
- Option to cancel requests

This functionality is accessed through the My Account link in Primo.

Item Display and Request Information

When the patron identifies a record of interest in Primo (from the Voyager database), clicking the GetIt! link displays the **Holdings List** tab in Primo.

The **Holdings List** tab display contains the Voyager bibliographic, holdings, and item information. There is also the **Select a Request** drop-down list (see [Figure 6-4](#)) providing the patron with a number of request options if the patron has signed in.

If the patron has not signed in, **Get Avail Requests** displays. See [PDS Invoked](#) on [page 6-2](#) for the sign in and PDS authentication steps.

The screenshot shows the Primo OPAC interface. At the top, there's a header with a book cover icon (labeled 'Cover image not available'), the title 'Biology : concepts & connections', the author 'Neil A. Campbell 1946-', and the publisher 'Menlo Park, Calif. : Benjamin Cummings'. A 'Close' button is in the top right. Below the header is a navigation bar with tabs: 'Holdings list' (selected), 'Check availability and location', and 'Additional services' (with a 'GS-F-X' icon). The main content area is titled 'Holdings list' and contains a table with bibliographic information:

Database:	Viper QA652DB
Main Author:	Campbell, Neil A.,
Title:	Biology : concepts & connections /
Publisher:	Menlo Park, Calif. : Benjamin Cummings, c1997.

Below this table is a section titled 'Holdings Information' with another table:

Database:	Viper QA652DB
Location:	Acquisitions
Call Number:	No call number available
Order Information:	4 Copy Ordered as of 2005-11-03
Number of Items:	None
Status:	No information available

To the right of the 'Holdings Information' table is a 'Select a Request:' dropdown menu. The dropdown is open, showing a list of request options: Hold, Recall, Call Slip Request Form, Short Loan, Blank Form, ILL Loan Request, ILL Photocopy Request, Limited Access Request (VDX), Remote request, ILL Test Loan Request JP, Media Equipment Booking, Index New Zealand Form, ILL Blank Request, Test Form for Doc, BibLevel, and Item Level Request. A 'Go' button is next to the dropdown.

Figure 6-4. Select A Request options

The GetIt! link is configured by the Primo system administrator with the necessary linking information to the Voyager system. See the *Primo Back Office Guide* for details regarding how to configure GetIt!. This provides a deep link that enables the patron to confirm availability and process requests.

NOTE:

Requests in Voyager are only processed after PDS has successfully processed patron authentication.

Holdings Files

There are several files that may be tailored to customize the display of Voyager holdings in Primo. See [Table 6-1](#) and [Table 6-2](#) for a list, location, and description of these files.

Table 6-1. Files in /m1/voyager/yyydb/tomcat/vprimo/context/vprimo/xsl/html/default/

File Name	Description
configs/104X_chronValues.xml	<p>This file is used to convert numeric values defined in MARC for month and season into chronological names.</p> <p>The element/attribute names in this file are arbitrary, but must match the XPath expression used to reference them from the translateChron template in holdingsDisplay.xsl.</p> <p>Additional languages may be added by creating new language elements and populating them with the appropriate chron elements:</p> <ul style="list-style-type: none">• lang id attribute = {language code from 008 field}• chron id attribute = {01-12 for months, 21-24 for seasons}• chron value = {chronological name to be displayed}
configs/104X_config.xml	This file is used to define serials format (NISO/Standard) punctuation, pairs of fields to display/not display, and captions.
configs/104X_display.xsl	This is the style sheet that pulls together compressed serials information from the 85X/86X fields.
configs/displaycfg.xml	This file is used to identify the display fields on a page.
configs/displaycfg1.xml	This file is used to identify the display fields on a page.

Table 6-1. Files in /m1/voyager/yyydb/tomcat/vprimo/context/vprimo/xsl/html/default/

File Name	Description
configs/displayHoldings.xml	This file is used to identify display fields such as database, location, call number, and order information for the holdings display record view.
configs/requestBlockCodes.xsl	This style sheet controls the display of a patron block message.
configs/requestBlockMsgs.xsl	This is the style sheet for request block code variables.
configs/shortLoanBlockCodes.xsl	This is the style sheet for request block code variables specific to short loans.
blocks.xsl	This style sheet controls building the block messages that display in MyAccount.
buildHtml.xsl	This style sheet is used to build the html page.
buildMarcDisplay.xsl	This style sheet controls the assembly of MARC records from Voyager (not Primo).
constants.xsl	This style sheet defines the location of style sheets, help, images, and Java script.
constantStrings.xsl	This style sheet manages constant text/labels for requests, copies, forms, UB requests, and so on.
currency.xsl	This style sheet handles the formatting of currency.
display.xsl	This is the style sheet that pulls everything together for display.
getAvailRequests.xsl	This style sheet controls getting available requests from the Voyager database.
marc21slim.xsl	This style sheet is used to build the MARC21 record.
mediaBooking.xsl	This style sheet controls the processing of the media booking request page.
messages.xsl	This style sheet defines a template called by multiple other files like <code>sendRequest</code> .
myAccount.xsl	This style sheet controls the top-level display of My Account page. This is linked to other <code>my*</code> .

Table 6-1. Files in /m1/voyager/yyydb/tomcat/vprimo/context/vprimo/xsl/html/default/


File Name	Description
myAccountCancel.xsl	This style sheet controls the My Account page when there is a cancel request.
myAccountChargedItems.xsl	This style sheet controls the display of charged items.
myAccountConstants.xsl	This style sheet manages the constants used for My Account page.
myAccountLinks.xsl	This style sheet controls the links for My Account, search preferences, personal information, and so on.
myAccountRenew.xsl	This style sheet controls the My Account display for charged items and so on.
myAccountRequests.xsl	This style sheet controls the display of requests.
personalInfo.xsl	This style sheet controls the display of the personal information page.
requestForm.xsl	This style sheet controls the processing of the request form.
sendRequest.xsl	This style sheet controls request processing.
shortLoanReqForm.xsl	This style sheet is used to build the short loan request form.
show-detail.xsl	This is a JavaScript debugging tool.  IMPORTANT: <i>Do not edit.</i>
statusStrings.xsl	This style sheet is used to build the item status string.
UBReqForm.xsl	This style sheet controls building the UB (Universal Borrowing) request page.

Table 6-2. Files in /ml/voyager/yyydb/tomcat/vxws/context/vxws/xsl/

File Name	Description
configs/104X_chronValues.xml	<p>This file is used to convert numeric values defined in MARC for month and season into chronological names.</p> <p>The element/attribute names in this file are arbitrary, but must match the XPath expression used to reference them from the translateChron template in holdingsDisplay.xsl.</p> <p>Additional languages may be added by creating new language elements and populating them with the appropriate chron elements:</p> <ul style="list-style-type: none"> • lang id attribute = {language code from 008 field} • chron id attribute = {01-12 for months, 21-24 for seasons} • chron value = {chronological name to be displayed}
configs/104X_config.xml	This file is used to define format (NISO/Standard) punctuation, pairs of fields to display/not display, and captions.
configs/104X_display.xsl	This is the style sheet that pulls together punctuation, caption prefixes, indicator filters, and so on.
configs/emailcfg.xml	This file is used to identify the display fields for e-mail.
configs/emailholdingscfg.xml	This file is used to identify the holdings display fields for e-mail.
configs/requestcfg.xml	This provides the XML for all the display tags such as author, title, subjects, description, publisher and so on.
configs/requestholdingscfg.xml	This provides the XML for the holdings details such as call number and shelving title.
biblevelrequest.xsl	This style sheet controls bibliographic-level requests.
constants.xsl	This style sheet controls cascading style sheets, help files, images, and javascripts.

Table 6-2. Files in /m1/voyager/yyydb/tomcat/vxws/context/vxws/xsl/

File Name	Description
constantstrings.xsl	This style sheet manages constant text/labels for requests, copies, forms, UB requests, and so on.
emailbibrecord.xsl	This style sheet handles e-mailing bibliographic record requests.
marc21slim.xsl	This style sheet is used to build the MARC21 record.

Universal Borrowing with Primo via Link

With Primo versions 2.1.3 and higher and Voyager versions 7.1 and higher, support is provided for Universal Borrowing (UB) capability to patrons using Primo as their user interface for discovery. The Universal Borrowing function enables patrons from a library within a consortium to place direct requests on materials from other libraries within the consortium.

Primo provides patrons the following access points for placing UB requests from the discovery display:

- GetIt! link
- Item in the catalog link
- Available location link

Regardless of the access method used, Universal Borrowing policies, patron blocks, and delivery rules are enforced per the policies of the Voyager institution. Also options like Supply Default Pickup Location are also supported.

UB Process Overview

With the Universal Borrowing with Primo feature, Primo and Voyager work together to provide the patron access to Universal Borrowing resources when the home Voyager database does not have the requested holdings. See [Figure 6-5](#) for a high-level illustration of the process.

Refer to the other sections in this chapter for a more-detail description of the setup required to implement this process.

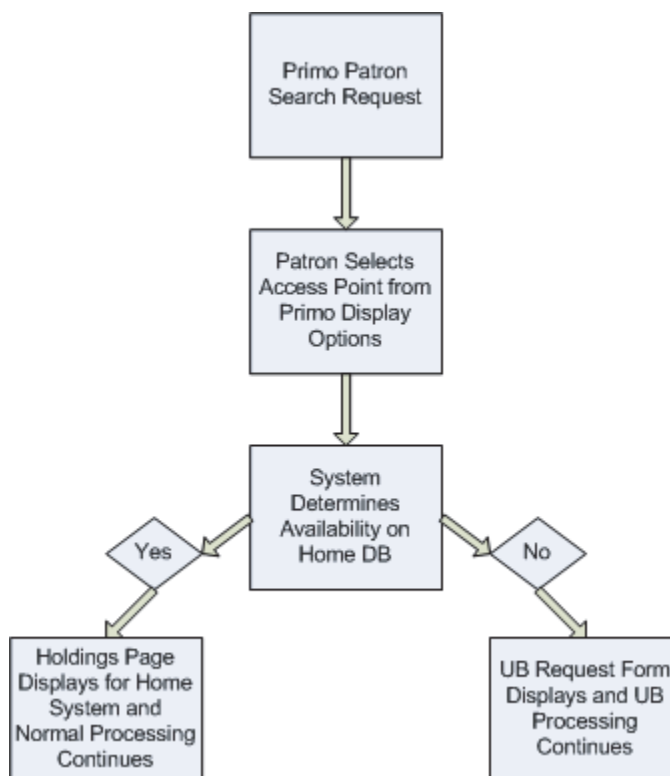


Figure 6-5. Voyager Primo UB process overview

Enabling Universal Borrowing with Primo via Link

The primary setup components for enabling Universal Borrowing with Primo are as follows:

- Configuration files on the Voyager server.

Refer to the following sections for setup details:

- [vprimo.properties](#) on [page 6-12](#)
- [requests.properties](#) on [page 6-17](#)
- [messages.properties](#) on [page 6-17](#)
- Additional Voyager database for mapping UB requests from Primo
See [Primo UB Connector \(PUC\) Database](#) on [page 6-19](#) for details regarding setup for this database.

- VPDS setup in Voyager System Administration (Search > Database Definitions)

See the *Voyager System Administration User's Guide* for more information regarding database definitions setup.

For information regarding setup on the Primo server for configuration files and so on, refer to the *Primo Interoperability Guide*.

vprimo.properties

The `vprimo.properties` file located in `/ml/voyager/xxxdb/tomcat/vprimo/context/vprimo/ini` (where `xxxdb` is your database name) provides the following UB settings:

- `UBProcessing`
- `TurnOffLibraryDropDown`
- User-defined database key

See an example of this file in [Figure 6-6](#).

The `vprimo.properties` file also contains the holdings status codes for the VPRIMO display status string (not to be modified).

```
<?xml version="1.0" encoding="UTF-8"?>
<!DOCTYPE properties SYSTEM "http://java.sun.com/dtd/properties.dtd">
<properties version="1.0">
  <comment>definitions for VPRIMO configuration</comment>
  <!-- set this option to Y to enable UB processing, if Voyager has UB      -->
  <entry key="UBProcessing">N</entry>
  <!-- Option to show only one randomly selected library for the item.      -->
  <!-- Default is N to show all libraries that would have the item.      -->
  <entry key="TurnOffLibraryDropDown">N</entry>
  <!--                                                                    -->
  <!-- User defined DB key to the DB code used to retrieve holdings records -->
  <!--                                                                    -->
  <entry key="connectDb.YYYDB">LOCAL</entry>
  <!-- additional example:
  <entry key="connectDb.SomeOtherLibrary">otherdb</entry>
  -->
```

Figure 6-6. Example of vprimo.properties configuration file


```

<!-- -->
<!-- Map "institute" values as returned by PDS to DB_CODE as found in the -->
<!-- VOYAGER_DATABASES table. -->
<!-- -->
<entry key="institute.YYYDB">LOCAL</entry>
<!-- additional example:
<entry key="institute.SomeOtherLibrary">otherdb</entry>
-->
<!-- -->
<!-- Holdings page message -->
<entry key="holdings.message.noAvailableItems">There are no circulating items available
to satisfy your Borrowing Request</entry>
<!-- -->
<!-- Holdings status code to VPRIMO display status string. Please do not -->
<!-- modify because the code is defined in the database. -->
<!-- -->
<entry key="holdings.item.status.1">Not Charged</entry>
<entry key="holdings.item.status.2">Charged</entry>
<entry key="holdings.item.status.3">Renewed</entry>
<entry key="holdings.item.status.4">Overdue</entry>
<entry key="holdings.item.status.5">Recall Request</entry>
<entry key="holdings.item.status.6">Hold Request</entry>
<entry key="holdings.item.status.7">On Hold</entry>
<entry key="holdings.item.status.8">In Transit</entry>
<entry key="holdings.item.status.9">In Transit Discharged</entry>
<entry key="holdings.item.status.10">In Transit On Hold</entry>
<entry key="holdings.item.status.11">Discharged</entry>
<entry key="holdings.item.status.12">Missing</entry>
<entry key="holdings.item.status.13">Lost--Library Applied</entry>
<entry key="holdings.item.status.14">Lost--System Applied</entry>
<entry key="holdings.item.status.15">Claims Returned</entry>
<entry key="holdings.item.status.16">Damaged</entry>
<entry key="holdings.item.status.17">Withdrawn</entry>
<entry key="holdings.item.status.18">At Bindery</entry>
<entry key="holdings.item.status.19">Cataloging Review</entry>
<entry key="holdings.item.status.20">Circulation Review</entry>
<entry key="holdings.item.status.21">Scheduled</entry>

```

Figure 6-6. Example of vprimo.properties configuration file (Continued)

```
<entry key="holdings.item.status.22">In Process</entry>
<entry key="holdings.item.status.23">Call Slip Request</entry>
<entry key="holdings.item.status.24">Short Loan Request</entry>
<entry key="holdings.item.status.25">Remote Storage Request</entry>
</properties>
```

Figure 6-6. Example of vprimo.properties configuration file (Continued)

UBProcessing

Use the `UBProcessing` parameter to turn on the Universal Borrowing with Primo feature on the Voyager server. Set this parameter to `Y` (Yes) to turn it on. The default setting is `N` (No).

TurnOffLibraryDropDown

By default, the system displays all libraries in the consortium that have the item. This is a function of the `TurnOffLibraryDropDown` parameter that has a default setting of `N` (No).

To have the system show only one randomly-selected library for the item, set the `TurnOffLibraryDropDown` parameter to `Y` (Yes).

User-Defined Database Key

The databases (UB libraries) participating in Universal Borrowing with Primo need to be identified in the `vprimo.properties` configuration file. See [Figure 6-7](#) for an example of the format used to define these databases.

```
<!-- User defined DB key to the DB code used to retrieve holdings records -->
<!-- -->
<entry key="connectDb.YYYdb">LOCAL</entry>
<entry key="connectDb.qadma710db">DMA71DB</entry>
<entry key="connectDb.qagwcc710db">GWCC71DB</entry>
<entry key="connectDb.qarscc710db">RSCC71DB</entry>
```

Figure 6-7. Example connectDb database definitions

Using `<entry key="connectDb.gadma710db">DMA71DB</entry>` from the [Figure 6-7](#) example, `qadma710db` represents the database name.

DMA71DB represents the database code as defined in Voyager System Administration. See [Figure 6-8](#) and [Figure 6-9](#).

Edit Database Definition:

Database Definitions

Code: LOCAL

Name: QADMA710DB

Description: QADMA710DB

Protocol: ☒ Voyager Database ☐ Z39.50 Database

Type: ☒ Bibliographic ☐ Citation

☒ Public Use ☐ UB ☐ Staff Suppress

Figure 6-8. Voyager System Administration DB definition - Database tab

Edit Database Definition:

Database Definitions

Opac: Addr: 10.100.2.36 Port: 12300

Circ: Addr: 10.100.2.36 Port: 12330

VPDS: Addr: 10.100.2.36 Port: 12344

Sysadmin: Addr: 10.100.2.36 Port: 12350

CallSlip: Addr: 10.100.2.36 Port: 12380

Timeout: 300 Maximum Hits: 10000

Maximum number of connections: 15

Maximum staff connections: 0

Maximum public connections: 50

License violation action: Log

Database Name:

User ID: Password:

Weight: 500 (0-500)

Hook to Holdings:

Figure 6-9. Voyager System Administration DB definition - Definitions tab

There needs to be one entry for each UB database participating in Universal Borrowing with Primo via Link.

If `qadma710db` is defined with the LOCAL database code in Voyager System Administration, the entry would be as follows:

```
<entry key="connectDb.qadma710db">LOCAL</entry>
```

NOTE:

There is no LOCAL entry in the PUC `vprimo.properties` configuration file. See [Primo UB Connector \(PUC\) Database](#) on [page 6-19](#) for more information.

Institute Mapping

The institute mapping in the `vprimo.properties` configuration file is used for patron authentication.

Each UB database participating in Universal Borrowing with Primo needs to have an entry in the `vprimo.properties` configuration file where the Primo PDS (Patron Directory Services) code is mapped to the Voyager System Administration's database code. See [Figure 6-10](#) for an example.

NOTE:

The institute definitions are case sensitive and need to be all uppercase.

The institute referenced in this section is the same as the institute identified in the [Institute Id] stanza discussed in [\[Institution Id\]](#) on [page 2-38](#). See [Figure 2-1](#) on [page 2-6](#) for an example of this stanza. The institution ID is stored in Primo in the 949\$a of the Primo PNX.

```
<!-- Map "institute" values as returned by PDS to DB_CODE as found in the -->
<!-- VOYAGER_DATABASES table. -->
<!-- -->
<entry key="institute.YYYDB">LOCAL</entry>
<entry key="institute.QADMA710DB">DMA71DB</entry>
<entry key="institute.QAGWCC710DB">GWCC71DB</entry>
<entry key="institute.QARSCC710DB">RSCC71DB</entry>
```

Figure 6-10. Example institute definitions

NOTE:

There is no LOCAL entry in the PUC `vprimo.properties` configuration file for institute definitions. See [Primo UB Connector \(PUC\) Database](#) on [page 6-19](#) for more information.

requests.properties

The `requests.properties` file located in `/ml/voyager/xxxdb/tomcat/vxws/ini` (where `xxxdb` is your database name) provides the following UB settings:

- `SupplyDefaultPickupLocs`
- `SelectPickupLocsMsg`

See an example of this file in [Figure 6-11](#).

```
<!-- the next 2 properties are for universal borrowing requests -->
<entry key="SupplyDefaultPickupLocs">Y</entry>
<entry key="SelectPickupLocsMsg">You must provide a Pick Up Library and Desk before your
    request is complete!</entry>
```

Figure 6-11. Example of UB parameters in request.properties

SupplyDefaultPickupLocs

Use the `SupplyDefaultPickupLocs` to indicate that you want a default pickup location to be displayed for the patron. The default is `Y` (Yes) to turn on this option. Specify `N` (No) to turn it off.

When this key is set to `Y`, the default pickup location is set to the first pickup location in the drop-down list.

When this key is set to `N`, the pickup locations are listed alphabetically in the drop-down list and no default is selected.

SelectPickupLocsMsg

Use the `SelectPickupLocsMsg` key to define the message that displays when no pickup location has been specified by the patron. The message shown in [Figure 6-11](#) is the default that is provided.

messages.properties

The `messages.properties` file located in `/ml/voyager/xxxdb/tomcat/vprimo/context/vprimo/ini` (where `xxxdb` is your database name) provides the various block or error messages that may be returned by the Voyager Primo web services. See [Figure 6-12](#) for an example of stored messages.

These messages are preset and do not require any additional customization. Use the `messages.properties` file as your reference for patron blocked messages.

```
<properties version="1.0">
    <comment>This properties file defines messages to be displayed for various
    block or error messages that might be returned by the Voyager-Primo web
    services.</comment>
    <!-- patron blocked message -->
    <entry key="Requests.patronblocked">You have no requests available in this
    database.</entry>
    <!-- generic request blocked messages -->
    <entry key="Requests.requestblocked-4">There are no circulating items
    available to satisfy your UB Borrowing Request.</entry>
    <entry key="Requests.requestblocked-3">No items are available for Remote
    Storage requests.</entry>
    <entry key="Requests.requestblocked-2">No items are available for CallSlip
    requests.</entry>
    <entry key="Requests.requestblocked-1">No items are available for Hold
    requests.</entry>
    <entry key="Requests.requestblocked1">No holdings are available.</entry>
    <entry key="Requests.requestblocked2">The item is on order.</entry>
    <entry key="Requests.requestblocked3">The item is not charged.</entry>
    <entry key="Requests.requestblocked4">The item is missing.</entry>
    <entry key="Requests.requestblocked5">The item is lost.</entry>
    <entry key="Requests.requestblocked6">The item is at the bindery.</entry>
    <entry key="Requests.requestblocked7">No items are available for recall.</
    entry>
    <entry key="Requests.requestblocked8">You have already placed a request for
    this item.</entry>
    <entry key="Requests.requestblocked9">No recall policy is defined for this
    item.</entry>
    <entry key="Requests.requestblocked10">No hold policy is defined for this
    item.</entry>
    <entry key="Requests.requestblocked11">This item has been scheduled through
    media booking.</entry>
    <entry key="Requests.requestblocked12">This item is not available for
    hold.</entry>
```

Figure 6-12. Example from `message.properties` file

Primo UB Connector (PUC) Database

Specific to Universal Borrowing with Primo is the addition of the PUC (Primo UB Connector) database. For each Universal Borrowing consortium, an additional Voyager database (PUC) is created for the purpose of routing Universal Borrowing requests. Key to this capability are the `connectDb` and `institute` definitions in the `vprimo.properties` file for the PUC system.

Specifically, the PUC `vprimo.properties` file needs to define all the UB databases in the consortium and omit any reference to itself as the LOCAL database. See [Figure 6-13](#) for an example.

```
<!-- User defined DB key to the DB code used to retrieve holdings records -->
<!--
<entry key="connectDb.qadma710db">DMA71DB</entry>
<entry key="connectDb.qagwcc710db">GWCC71DB</entry>
<entry key="connectDb.qarscc710db">RSCC71DB</entry>
<!--
<!-- Map "institute" values as returned by PDS to DB_CODE as found in the -->
<!-- VOYAGER_DATABASES table.
<!--
<entry key="institute.QADMA710DB">DMA71DB</entry>
<entry key="institute.QAGWCC710DB">GWCC71DB</entry>
<entry key="institute.QARSCC710DB">RSCC71DB</entry>
```

Figure 6-13. Example PUC `vprimo.properties` `connectDB` and `institute` definitions

Non-Universal Borrowing Database Installations

For non-Universal Borrowing database installations using Primo, the following parameters still need to be set in the `vprimo.properties` file:

- `<entry key="UBProcessing">N</entry>`
See [UBProcessing](#) on [page 6-14](#) for more information.
- `<entry key="TurnOffLibraryDropDown">N</entry>`
See [TurnOffLibraryDropDown](#) on [page 6-14](#) for more information.
- `<entry key="connectDb.YYYDB">LOCAL</entry>`
See [User-Defined Database Key](#) on [page 6-14](#) for more information.
- `<entry key="institute.YYYDB">LOCAL</entry>`
See [Institute Mapping](#) on [page 6-16](#) for more information.

See [Figure 6-14](#) where these parameters are highlighted.

These values need to be set in the `vprimo.properties` file to enable Patron Directory Services (PDS) to function properly.

```
<?xml version="1.0" encoding="UTF-8"?>
<!DOCTYPE properties SYSTEM "http://java.sun.com/dtd/properties.dtd">
<properties version="1.0">
  <comment>definitions for VPRIMO configuration</comment>
  <!-- set this option to Y to enable UB processing, if Voyager has UB -->
  <entry key="UBProcessing">N</entry>
  <!-- Option to show only one randomly selected library for the item. -->
  <!-- Default is N to show all libraries that would have the item. -->
  <entry key="TurnOffLibraryDropDown">N</entry>
  <!-- -->
  <!-- User defined DB key to the DB code used to retrieve holdings records -->
  <!-- -->
  <entry key="connectDb.YYYDB">LOCAL</entry>
  <!-- additional example:
  <entry key="connectDb.SomeOtherLibrary">otherdb</entry>
  -->
  <!-- -->
  <!-- Map "institute" values as returned by PDS to DB_CODE as found in the -->
  <!-- VOYAGER_DATABASES table. -->
  <!-- -->
  <entry key="institute.YYYDB">LOCAL</entry>
  <!-- additional example:
  <entry key="institute.SomeOtherLibrary">otherdb</entry>
```

Figure 6-14. Example of `vprimo.properties` file for non-UB installation

Introduction

The purpose of the Apache `mod_deflate` module is to compress the Web content before sending it over the network to the browser clients. The compression is implemented by the deflate filter that runs inside the Apache server with `mod_deflate` enabled and the proper configuration.

If your Primo installation has `mod_deflate` enabled, then you also need to enable `mod_deflate` in your Voyager environment using the instructions provided in this chapter.

For the Solaris, AIX, and Linux operating system environments, the `mod_deflate` module has been statically built in the Apache 2.2.6 version. For Windows, the Apache 2.2.6 software has the `mod_deflate` module built in dynamically as part of the standard distribution.

Prerequisites

The following are the prerequisites for the Voyager `mod_deflate` module implementation:

- `mod_module` (on your Apache server) or the Apache server 2.2.6 version that has `mod_deflate` compiled

- Ex Libris customized version of `mod_deflate` configuration installed on your server
- Updated `mod_deflate` configuration that is properly enabled

Implementing the `mod_deflate` Module

This section provides the instructions for implementing the `mod_deflate` module in the following operating system environments:

- SunOS, AIX, and Linux
- Windows

The implementation procedure has the following parts:

- Confirm that the `mod_deflate` module is installed on your server (if yes, no further action is required)
- Download the Apache server 2.26 version with the `mod_deflate` configuration
- Configure and enable the `mod_deflate` module on the Apache server

SunOS, AIX, and Linux Environments

The following procedures are for the SunOS, AIX, and Linux operating system environments:



Procedure 7-1. Part 1: Confirming that the `mod_deflate` Module is Installed

Use the following procedure to confirm that the `mod_deflate` module is installed on your server:

1. Login to the server as the root user.

```
su - root
```

2. Change the directory to the `bin` directory.

```
cd /m1/shared/apache2/bin
```

3. Check the version.

```
./httpd -version
```

4. Check the list of built-in modules.

```
./httpd -l
```

5. Verify that the standard output displays compiled in modules as show in [Figure 7-1](#).

```
core.c
mod_deflate.c
prefork.c
http_core.c
mod_so.c
```

Figure 7-1. Standard Output Compiled in Modules

If the Apache version is earlier than 2.2.6 or `mod_deflate.c` is not listed in the precompiled modules, an upgrade to the Apache server 2.2.6 version is required. Contact Ex Libris Customer Support if this is your situation.

6. Compare the content of your `mod_deflate.conf` configuration file (current and updated) with the content of [Figure 7-3](#).

```
cd /m1/shared/apache2/conf/modules.conf
```

```
ls mod_deflate.conf
```

```
more mod_deflate.conf
```

If your `mod_deflate.conf` file content matches the content in [Figure 7-3](#), you have the correct `mod_deflate` module for compression implemented and no further action is required. Otherwise, proceed to [Procedure 7-2, Part 2: Downloading the Apache Server 2.2.6 Version with the mod_deflate Configuration](#).



Procedure 7-2. Part 2: Downloading the Apache Server 2.2.6 Version with the mod_deflate Configuration

The standard Apache server 2.2.6 version is contained in the shared package distributed for Voyager customers. You can download the shared package from the Ex Libris FTP server using the voyager user login. Use the following procedure to download this material.

NOTE:

Assume that `/m1/incoming` is the local directory.

1. Change the directory to the `incoming` directory.

```
cd /m1/incoming
```

2. Begin the FTP.

```
ftp downloads.exlibrisgroup.com
```

3. Log in as `voyager`.

4. Change the directory to the `2007.2.0` directory.

```
cd <OS>/2007.2.0
```

(where OS=SunOS, AIX, or Linux)

5. Specify binary mode.

```
bin
```

6. To monitor the progress of the transfer, specify:

```
hash
```

7. Get the shared files.

```
get 2007.2.0.SHARED.tar.bz2
```

8. Exit.

```
bye
```



Procedure 7-3. Part 3: Configuring/Enabling the mod_deflate Module

To implement the `mod_deflate` module, you need to stop your Apache server, copy the customized `mod_deflate.conf` to the appropriate directory, and restart the Apache server. Use the following steps:

1. Uncompress the downloaded shared package.

```
cd /m1/incoming  
  
bzip2 -dc 2007.2.0.SHARED.tar.bz2 | tar xvf -
```

2. Stop the running Apache server.

```
su - root  
  
/m1/shared/apache2/bin/apachectl stop
```

3. Copy `mod_deflate` to the appropriate directory.

```
cp /m1/incoming/SHARED/httpd/2.2.6/conf/modules.conf/  
mod_deflate.conf /m1/shared/apache2/conf/modules.conf/.
```

4. Restart the Apache server.

```
/m1/shared/apache2/bin/apachectl start
```

5. Verify that the log file, `deflate_log`, has been generated in the Apache logs directory.

```
ls -l /m1/shared/apache2/logs/deflate_log
```

Windows Environment

The following procedures are for the Windows operating system environment:



Procedure 7-4. Part 1: Confirming that the mod_deflate Module is Installed

Use the following procedure to confirm that the `mod_deflate` module is installed on your server:

1. Open a Korn Shell session inside the Windows server.
2. Change the directory to the `bin` directory.

```
cd D:/m1/shared/Apache2/bin
```

3. Check the version.

```
./httpd.exe -version
```

4. Check the list of built-in modules.

```
cd D:/m1/shared/Apache2/modules
```

```
ls mod_deflate.so
```

If the Apache server version is earlier than 2.2.6 or `mod_deflate.so` is not listed, contact Ex Libris Customer Support.

5. Verify if the existing Apache `httpd.conf` contains the `mod_deflate` configuration.

Search for `<IfModule !mod_deflate.c>`

6. If you find the string from step 5, compare the content of your `httpd.conf` configuration file with the content of [Figure 7-4](#).

If your `httpd.conf` file content matches the content in [Figure 7-4](#), you have the correct `mod_deflate` module for compression implemented and no further action is required. Otherwise, proceed to [Procedure 7-5, Part 2: Downloading the Script Package with the mod_deflate Configuration](#).



Procedure 7-5. Part 2: Downloading the Script Package with the mod_deflate Configuration

The customized `mod_deflate.conf` file is contained in a package called `scripts.zip`. You can download this package from the Ex Libris FTP server using `voyager` as the login user. Use the following procedure to download this material:

NOTE:

Assume that `D:/m1/incoming` is the local directory.

1. Change the directory to the `incoming` directory.

```
cd D:/m1/incoming
```

2. Begin the FTP.

```
ftp downloads.exlibrisgroup.com
```

3. Log in as `voyager`.

4. Specify binary mode.

```
bin
```

5. To monitor the progress of the transfer, specify:

```
hash
```

6. Change the directory to the `2007.2.0` directory.

```
cd WIN/2007.2.0
```

7. Get the shared files.

```
get scripts.zip
```

8. Exit.

```
bye
```



Procedure 7-6. Part 3: Configuring/Enabling the mod_deflate Module

To implement the `mod_deflate` module, you need to stop your Apache server, incorporate the `mod_deflate.conf` content into the existing Apache `httpd.conf`, and restart the Apache server. Use the following steps:

1. Uncompress the downloaded scripts package.

```
cd D:/m1/incoming
```

```
unzip scripts.zip
```

2. Stop the running Apache server using the installed script by Voyager (or from the Windows service).

```
C:/etc/inet.d/HTTPD.KSH stop
```

3. Archive the existing Apache httpd.conf file

```
cd D:/m1/shared/Apache2/conf
```

```
cp httpd.conf httpd.conf.pre-<YYYYMMDD>
```

4. Append the mod_deflate.conf file to the existing httpd.conf file.

NOTE:

Use >> for appending, not for overwriting.

```
cat D:/m1/incoming/scripts/files/apache/mod_deflate.conf \
>> D:/m1/incoming/scripts/files/apache/httpd.conf
```

5. Edit the httpd.conf file and move the lines in [Figure 7-2](#) to the bottom of the httpd.conf file so that the mod_deflate module is loaded properly. You can locate the lines quickly by searching for db.httpd.conf in the file.

```
cd D:/m1/shared/Apache2/conf /
```

```
vi httpd.conf
```

<pre>#Voyager DBs Include D:\m1\shared\Apache2\conf*db.httpd.conf</pre>
--

Figure 7-2. Lines to Move

6. Restart the Apache server using the installed script by Voyager (or from the Windows service).

```
C:/etc/inet.d/HTTPD.KSH start
```

7. Verify that the log file, deflate_log, is generated properly and in the Apache logs directory.

```
ls -l D:/m1/shared/apache2/logs/deflate_log
```

mod_deflate.conf Configuration Content

See [Figure 7-3](#) for the `mod_deflate.conf` file's configuration content for the SunOS, AIX, and Linux operating system environments.

```
# Load deflate_module
<IfModule !mod_deflate.c>
LoadModule deflate_module modules/mod_deflate.so
</IfModule>

<IfModule mod_deflate.c>

# Insert filter for output compression
SetOutputFilter DEFLATE

# Insert filter for input decompression
SetInputFilter DEFLATE

# Netscape 4.x has some problems...
BrowserMatch ^Mozilla/4 gzip-only-text/html

# Netscape 4.06-4.08 have some more problems
BrowserMatch ^Mozilla/4\.0[678] no-gzip

# MSIE masquerades as Netscape, but it is fine
# BrowserMatch \bMSIE !no-gzip !gzip-only-text/html

# NOTE: Due to a bug in mod_setenvif up to Apache 2.0.48
# the above regex won't work. You can use the following workaround
BrowserMatch \bMSI[E] !no-gzip !gzip-only-text/html

# Don't compress images
SetEnvIfNoCase Request_URI \.(?:gif|jpe?g|png)$ no-gzip dont-vary
```

Figure 7-3. `mod_deflate.conf` for SunOS/AIX/Linux

```
# Don't compress the zipped files
SetEnvIfNoCase Request_URI \.(?:exe|t?gz|zip|bz2|sit|rar)$ no-gzip
dont-vary

# Don't compress the pdf files
SetEnvIfNoCase Request_URI \.pdf$ no-gzip dont-vary

# Make sure proxies don't deliver the wrong content
Header append Vary User-Agent env=!dont-vary

# DeflateFilterNote Directive & accurate logging
DeflateFilterNote Input input_info
DeflateFilterNote Output output_info
DeflateFilterNote Ratio ratio_info
LogFormat "%r" %{output_info}n/%{input_info}n (%{ratio_info}n%)'
deflate
CustomLog /m1/shared/apache2/logs/deflate_log deflate

# If you decide to prevent compliant proxies from caching entirely,
# uncomment the line below
# Header set Vary *

# DeflateBufferSize Directive - Specifies the size in bytes of the
# fragments
# that zlib should compress at one time. Default value is 8096
# DeflateBufferSize 8096

# DeflateCompressionLevel Directive - Specifies what level of
# compression should be used,
# the higher the value, the better the compression, but more CPU time
# is required.
# A value between 1-9. Default is 6
# DeflateCompressionLevel 6

# DeflateMemLevel Directive - Specifies how much memory should be used
# by zlib for compression
# (a value between 1 and 9). Default is 9.
# DeflateMemLevel 9
```

Figure 7-3. mod_deflate.conf for SunOS/AIX/Linux (Continued)

```
# DeflateWindowSize Directive - Specifies the zlib compression window
size
# (a value between 1 and 15). Default is 15.
# DeflateWindowSize 15

</IfModule>
```

Figure 7-3. mod_deflate.conf for SunOS/AIX/Linux (Continued)

See [Figure 7-4](#) for the mod_deflate.conf file's configuration content for the Windows operating system environment.

```
# Load deflate_module
<IfModule !mod_deflate.c>
LoadModule deflate_module modules/mod_deflate.so
LoadModule headers_module modules/mod_headers.so
</IfModule>

<IfModule mod_deflate.c>

# Insert filter for output compression
SetOutputFilter DEFLATE

# Insert filter for input decompression
SetInputFilter DEFLATE

# Netscape 4.x has some problems...
BrowserMatch ^Mozilla/4 gzip-only-text/html

# Netscape 4.06-4.08 have some more problems
BrowserMatch ^Mozilla/4\.0[678] no-gzip

# MSIE masquerades as Netscape, but it is fine
```

Figure 7-4. mod_deflate.conf for Windows

```
# BrowserMatch \bMSIE !no-gzip !gzip-only-text/html

# NOTE: Due to a bug in mod_setenvif up to Apache 2.0.48
# the above regex won't work. You can use the following workaround
BrowserMatch \bMSI[E] !no-gzip !gzip-only-text/html

# Don't compress images
SetEnvIfNoCase Request_URI \.(?:gif|jpe?g|png)$ no-gzip dont-vary

# Don't compress the zipped files
SetEnvIfNoCase Request_URI \.(?:exe|t?gz|zip|bz2|sit|rar)$ no-gzip
dont-vary

# Don't compress the pdf files
SetEnvIfNoCase Request_URI \.pdf$ no-gzip dont-vary

# Make sure proxies don't deliver the wrong content
<IfModule headers_module>
    Header append Vary User-Agent env=!dont-vary
</IfModule>

# DeflateFilterNote Directive & accurate logging
DeflateFilterNote Input input_info
DeflateFilterNote Output output_info
DeflateFilterNote Ratio ratio_info
LogFormat '"%r" %{output_info}n/%{input_info}n (%{ratio_info}n%)'
    deflate
CustomLog D:/ml/shared/Apache2/logs/deflate_log deflate

# If you decide to prevent compliant proxies from caching entirely,
# uncomment the line below
# Header set Vary *

# DeflateBufferSize Directive - Specifies the size in bytes of the
# fragments
```

Figure 7-4. mod_deflate.conf for Windows (Continued)

```
# that zlib should compress at one time. Default value is 8096
# DeflateBufferSize 8096

# DeflateCompressionLevel Directive - Specifies what level of
# compression should be used,
# the higher the value, the better the compression, but more CPU time
# is required.
# A value between 1-9. Default is 6
# DeflateCompressionLevel 6

# DeflateMemLevel Directive - Specifies how much memory should be used
# by zlib for compression
# (a value between 1 and 9). Default is 9.
# DeflateMemLevel 9

# DeflateWindowSize Directive - Specifies the zlib compression window
# size
# (a value between 1 and 15). Default is 15.
# DeflateWindowSize 15

</IfModule>
```

Figure 7-4. mod_deflate.conf for Windows (Continued)

Verify Voyager Process/Services



Overview

The purpose of this appendix is provide you with the steps to confirm successful running processes/services for:

- vpds
- vprimo
- vxws
- vwebv

The following sections step you through the verification process of identifying ports and URL testing:

- [Tomcat Process](#) on [page A-2](#)
- [Identify Ports for VPDS, VPrimo, VXWS, and VWEBV](#) on [page A-2](#)
- [VPDS, VPrimo, VXWS, and VWEBV Port/Apache Verification](#) on [page A-5](#)
- [URL Test for VPDS - Authentication](#) on [page A-6](#)
- [URL Test for VPDS - Information](#) on [page A-6](#)
- [URL Test for VPrimo - Circulation](#) on [page A-7](#)
- [URL Test for VXWS and VWEBV - Search](#) on [page A-8](#)

Tomcat Process

Before proceeding to any of the other steps, confirm that your Tomcat process is running. Tomcat is a single process that starts all the services (vxws, vwebv, vpds, and so forth). From your Voyager server, enter the following command to ensure that the Tomcat process is running and refer to [Figure A-1](#) for example output:

```
ps -fu voyager | grep xxxdb | grep tomcat
```

```
[VGER] voyager@us-voysuplnx01 : voyager/ $ ps -fu voyager | grep
xxxdb | grep tomcat
voyager  8086      1  0 04:03 ?                00:01:22 /m1/voyager/xxxdb/
tomcat/java/bin/java -Djava.util.logging.config.file=/m1/
voyager/x
```

Figure A-1. Verification of Tomcat process example

Identify Ports for VPDS, VPrimo, VXWS, and VWEBV

You need the vpds, vprimo, vxws, and vwebv ports to build the URL for verification of Apache and other URL tests. See [Procedure A-1, Locating VPDS, VPrimo, VXWS, and VWEBV Ports](#).



Procedure A-1. Locating VPDS, VPrimo, VXWS, and VWEBV Ports

To locate the ports that the vpds, vprimo, vxws, and vwebv virtual hosts are listening on, you need to:

1. Locate the file that contains the port information.

See [Figure A-2](#) for an example of the commands to do this.


```
[VGER] voyager@supzv721 : voyager/ => cd /ml/shared/apache2/conf/ActivatedVirtualHosts/
[VGER] voyager@supzv721 : ActivatedVirtualHosts/ => ls -la | grep xxxdb | grep vpds
lrwxrwxrwx  1 root    root      47 Feb  9 16:44 xxxdb_vpds_httpd.conf -> ../
ConfiguredVirtualHosts/xxxdb_vpds_httpd.conf
```

Figure A-2. Locate file containing vpds port information

2. Open the files to display the port.

[Figure A-3](#) shows an example of opening a file with vi, and [Figure A-4](#) and [Figure A-5](#) show an example of displaying the port information using the cat command where xxxdb is your database name.

```
[VGER] voyager@supzv721 : ActivatedVirtualHosts/ => vi xxxdb_vpds_httpd.conf
```

Figure A-3. Example of opening file with vi

```
[VGER] voyager@supzv721 : ActivatedVirtualHosts/ => cat xxxdb_vprimo_httpd.conf
```

Figure A-4. Example of cat command to display file contents for vprimo

```
[VGER] voyager@supzv721 : ActivatedVirtualHosts/ => cat xxxdb_vxws_httpd.conf
```

Figure A-5. Example of cat command to display file contents for vxws

3. Find the specific port number from the files that you have opened.

[Figure A-6](#) and [Figure A-7](#) show examples of the section that contains the port information. In [Figure A-6](#), 7044 is the port that has been configured for vpds; and in [Figure A-7](#), 7024 is the port that has been configured for vprimo.

See [Table A-1](#) for a list of the ports designated for these processes/services.

Table A-1. Ports

Process/Service	Port*
vpds	7x44

Table A-1. Ports

Process/Service	Port*
vprimo	7x24
vxws	7x14
vwebv	7x08
* where x is equal to a value from 0 through 9	

```
#####  
### VirtualHost for Voyager PDS xxxdb ###  
#####  
  
Listen *:7044  
<VirtualHost *:7044>  
    #ServerName XXX.XXX.XXX.XXX  
    DocumentRoot "/ml/voyager/xxxdb/tomcat/vpds/context/vpds/htdocs"  
    JkMount /vpds/* ajp13_lb_xxxdb_vpds  
  
    ErrorLog logs/xxxdb/error.log  
    CustomLog logs/xxxdb/access.log common  
</VirtualHost>
```

Figure A-6. Example of section with port information

```
#####
###  VirtualHost for VPRIMO xxxdb      ###
#####

Listen *:7024
<VirtualHost *:7024>
    #ServerName XXX.XXX.XXX.XXX
    DocumentRoot "/ml/voyager/xxxdb/tomcat/vprimo/context/vprimo/htdocs"
    JkMount /vprimo/* ajp13_lb_xxxdb_vprimo

    ErrorLog logs/xxxdb/error.log
    CustomLog logs/xxxdb/access.log common
</VirtualHost>
```

Figure A-7. Example of section with vprimo port information

VPDS, VPrimo, VXWS, and VWEBV Port/Apache Verification

You need to verify that Apache is listening on the correct port by displaying the virtual host's index page in your browser.

Using the ports that you located in [Identify Ports for VPDS, VPrimo, VXWS, and VWEBV](#) on [page A-2](#), enter the URLs in your browser using the format in [Figure A-8](#).

```
http://<ip>:<port>/
```

Figure A-8. URL format

The resulting display should look like the one in [Figure A-9](#). The message displayed in [Figure A-9](#) confirms that Apache is listening on the correct port.



Figure A-9. Example of successful Apache test for vpds

URL Test for VPDS - Authentication

To verify borrower authentication (bor-auth) for the vpds virtual host, enter a URL in your browser using the format in [Figure A-10](#).

`http://<server IP>:<port>/vpds/auth?bor_id=<lastname>&verification=<patron_barcode>`

Figure A-10. URL format for authentication

A successful URL entry returns a display similar to [Figure A-11](#).



Figure A-11. Successful auth URL result

URL Test for VPDS - Information

To verify full borrower information (bor-info) for the vpds virtual host, enter a URL in your browser using the format in [Figure A-12](#).

```
http://<server IP>:<port>/vpds/info?bor_id=<lastname>&verification=<patron_barcode>
```

Figure A-12. URL format for information (bor-info)

A successful URL entry returns a display similar to [Figure A-13](#).

```
<bor-info>
  <id>338</id>
  <institute>Voyager Database</institute>
  <group>Undergraduate Student</group>
  <group_id>4</group_id>
  <ubid>18MAST20001DB20020910104124</ubid>
  <password>      </password>
  <passwordType>B</passwordType>
  <name>Bit, J</name>
  <lastname>Bit</lastname>
  <email_address>12345678901234567890123456789012345678901234567890</email_address>
  <expiry_date>23821231</expiry_date>
  <address_1>Ex Libris Group</address_1>
  <address_2>Customer Support</address_2>
  <address_3>1350 E. Touhy Ave, Suite 200 East</address_3>
  <city>Des Plaines</city>
  <stat_province>IL</stat_province>
  <zip>60018</zip>
  <country>USA</country>
  <telephone_1>      </telephone_1>
  <portal/>
</bor-info>
```

Figure A-13. Successful info URL result

URL Test for VPrimo - Circulation

To verify the vprimo service, enter a URL in your browser using the format in [Figure A-14](#).

```
http://<server IP>:<port>/vprimo/getHoldings?bib_id=<bibliographic record number>
```

Figure A-14. URL format for authentication

A successful URL entry returns a display similar to [Figure A-15](#).

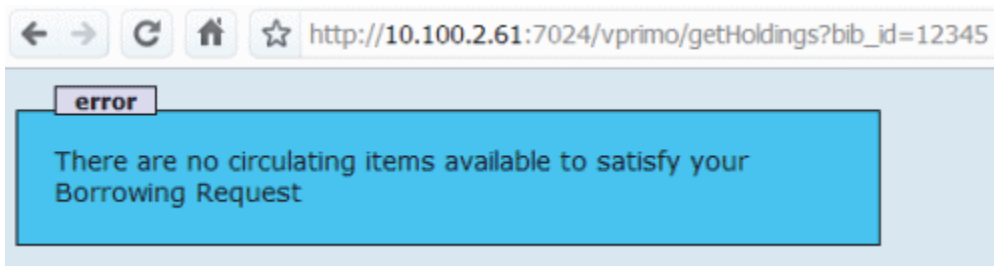


Figure A-15. Example of a successful URL test for vprimo

URL Test for VXWS and VWEBV - Search

To verify the vxws and vwebv virtual hosts, enter a URL in your browser using the format in [Figure A-16](#).

NOTE:

If you are able to do a search in the Tomcat OPAC, then both vwebv and vxws are working.

```
http://<server IP>:<port>/vwebv/searchBasic?sk=en_US
```

Figure A-16. URL format for authentication

A successful URL entry returns a display similar to [Figure A-17](#).

The screenshot shows a web browser window with the address bar displaying the URL: `http://10.100.2.61:7008/vwebv/searchBasic?sk=en_US`. The page header features the "ExLibris Voyager" logo and a navigation bar with buttons for "Search", "My Searches", "My List", and "My Account". The main content area is titled "Basic Search" and indicates the database is "My Library Catalog". Below this, there are tabs for "Basic", "Advanced", "Subject", "Author", and "Course Reserve". The "Basic" tab is selected, showing a search form with a "Search:" label, a text input field, and a "within" dropdown menu set to "All Fields". Below the search field, there are two more dropdown menus: "Limit To:" set to "All Material" and "Records per page:" set to "10 records per page". A "Search" button is located at the bottom of the form.

Figure A-17. Example of a successful URL test for vxws and vwebv

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