



**Database Installation
Requirements for Aleph,
Rosetta, and Primo
(RAC and Single Database)**

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Introduction

Purpose

This document is intended to specify Ex Libris requirements for database installation for Aleph, Rosetta, and Primo.

Assumptions

- The customer has an Oracle site license.
- The customer is installing the latest Oracle version supported by Ex Libris per the Ex Libris product version.
- All requests for Oracle database installations are to be explicitly approved by the DBA manager, installation team manager, and support VP.
- Ex Libris is to provide a list of the supported components for the database installation. See [Database Components](#) on page 6.
- Ex Libris is to provide a list of the supported initial parameters for the database installation. See [Database Initial Parameters](#) on page 8.
- Customers who use a specific Oracle framework – Both the software and database installation are to be performed by the customer and will be under the customer’s responsibility.
- Customers who do not use an Oracle framework – The software installation is to be performed by the customer, while the database installation is to be performed by Ex Libris.
- Requests for Oracle database installation by customers on an Ex Libris application server are not supported. All such installations must be on a separate server.
- Oracle client installation (where the database is on a different server) is to be performed by Ex Libris only.
- The creation of roles and users is to be performed by Ex Libris only.

- Requests for changes in Oracle initial parameters must be approved by Ex Libris. Requests should be sent with detailed explanations.
- Requests for changing tablespace configuration to “auto extended” are acceptable in principle, but are under the customer’s responsibility.
- Requests for special database mapping (distribution of database files) are approved only if performed during installation and require an additional half day of installation time by Ex Libris.
- Requests for special Listener configuration – The changes are to be performed for a charge and require an additional half day of installation time by Ex Libris.

Specifically for RAC:

- The customer is to install an Oracle cluster as specified in the Oracle documentation.
- The customer is to be responsible for the cluster and database maintenance once the installation is performed.
- Ex Libris products do not fully utilize all RAC failover features and customers may need to perform a restart in order to recover from a stopped RAC server.
- Ex Libris DB Utilities (Util O) may not function as expected, especially in the case of Automatic Storage Management (ASM).

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Database Requirements

Database Version

- Rosetta uses Oracle version 12.1.0.2.
- Primo uses Oracle version 11.2.0.4.
- Aleph V22 uses Oracle version 11.2.0.4.
- Aleph V23 supports Oracle version 12.1.0.2 and Oracle version 19.x
- ARC 3 uses Oracle version 11.2.0.4.
- ARC 4 uses Oracle version 11.2.0.4.
- ARC 4.5 uses Oracle version 12.1.0.2.

Character Set

Ex Libris uses the UTF8 character set for all its products.

Block Size

Ex Libris uses 8 KB block size for all its products.

Database Components

For the Aleph application, the following components are required:

- Oracle Application Express
 - Oracle Enterprise Manager
-

- OLAP Catalog
- Oracle Multimedia
- Oracle XML Database
- Oracle Text
- Oracle Expression Filter
- Oracle Rules Manager
- Oracle Workspace Manager
- Oracle Database Catalog Views
- Oracle Database Packages and Types
- JServer JAVA Virtual Machine
- Oracle XDK
- Oracle Database Java Packages
- OLAP Analytic Workspace
- Oracle OLAP API
- Pro*C

For the Primo and Rosetta applications, the following components are required:

- Oracle Application Express
- OLAP Catalog
- Oracle Multimedia
- Oracle XML Database
- Oracle Text
- Oracle Expression Filter
- Oracle Rules Manager
- Oracle Workspace Manager
- Oracle Database Catalog Views
- Oracle Database Packages and Types
- JServer JAVA Virtual Machine
- Oracle XDK
- Oracle Database Java Packages

- OLAP Analytic Workspace
- Oracle OLAP API

Connection Mode

Configure the database to use dedicated server mode.

Database Initial Parameters

For the **Aleph** application, the following non-default parameters are required:

```
#####  
# Cache and I/O  
#####  
db_block_size=8192  
  
#####  
# Cursors and Library Cache  
#####  
open_cursors=5000  
  
#####  
# Database Identification  
#####  
db_domain=<oracle_domain>  
db_name=<oracle_sid>  
  
#####  
# File Configuration  
#####  
control_files=<list>  
log_archive_dest_1 = 'location=<path>'  
  
#####  
# Miscellaneous  
#####  
compatible=<According to DB version>  
diagnostic_dest=<path>  
sec_case_sensitive_logon=false (For oracle v19.x this parameter is  
deprecated and should be removed)  
#####  
# Processes and Sessions  
#####  
processes=1000  
  
#####  
# SGA Memory
```



```

#####
memory_target=<According to sizing>

#####
# Security and Auditing
#####
audit_file_dest<path>
audit_trail=NONE
remote_login_passwordfile=EXCLUSIVE

#####
# PGA
#####
pga_aggregate_target=101711872
# set unlimited for pga growth if needed
pga_aggregate_limit=0

#####
# System Managed Undo and Rollback Segments
#####
undo_tablespace=UNDOTBS1

#####
# Recovery
#####
fast_start_mttr_target=300

#####
#Optimizer related parameters
#####

OPTIMIZER_DYNAMIC_SAMPLING=0
OPTIMIZER_MODE=CHOOSE
SQLTUNE_CATEGORY =limited
# optimizer_batch_table_access_by_rowid->>set only to oracle v12 and later
_optimizer_batch_table_access_by_rowid=FALSE

#####
#Verify no recycle bin option
#####
recyclebin=off

#####
# Job Queues
#####
job_queue_processes=10

```

For the Primo and Rosetta applications, the following non-default parameters are required:

```
#####
# Cache and I/O
#####
db_block_size=8192

#####
# Cursors and Library Cache
#####
open_cursors=1000

#####
# Database Identification
#####
db_domain=<domain>
db_name=<db name>

#####
# File Configuration
#####
control_files=<path>

#####
# Miscellaneous
#####
compatible=<According to DB version>
diagnostic_dest=/Ex Libris/app/oracle
sec_case_sensitive_logon=false

#####
# Processes and Sessions
#####
processes=800

#####
# SGA Memory
#####
memory_target=<according to sizing>

#####
# Security and Auditing
#####
audit_file_dest=/Ex Libris/app/oracle/admin/<SID>/adump
audit_trail=NONE
remote_login_passwordfile=EXCLUSIVE

#####
# Sort, Hash Joins, Bitmap Indexes
#####
pga_aggregate_target=101711872
pga_aggregate_limit=0 #Only for 12c

#####
# System Managed Undo and Rollback Segments
#####
```

```

undo_tablespace=UNDOTBS1

#####
#Set a different mode for Aleph
#####
#####
# Recovery
#####
fast_start_mttr_target=300

#####
#Verify no recycle bin option
#####
recyclebin=off

#####
# Job Queues
#####
job_queue_processes=10

```

Paths

The path for software location (\$ORACLE_HOME) is usually:

Oracle 11.2.0.4: /exlibris/app/oracle/product/11r2

Oracle 12.1.0.2: /exlibris/app/oracle/product/12r1

The path for the database data files is usually:

/Ex Libris/oradata/<SID>

If the database is required to be divided into several disks (for example, control files, and redo files mirroring), then the additional paths are usually the following:

/Ex Libris1/oradata, /Ex Libris2/oradata, etc.

Tablespaces

Create the following tablespaces with the AUTOEXTEND option. Create each tablespace with the initial size of 1 GB. Each tablespace includes five data files.

Aleph

- TS0
- TS1
- TS1D
- TS2D

- TS3D
- TS4D
- TS1X
- TS2X
- TS3X
- TS4X
- TSLOB

Primo

- TS_P_DAT
- TS_P_IDX
- TS_PNX_DATA
- TS_PNX_IDX
- TS_SRC_REC_DATA
- TS_SRC_REC_IDX
- TS_EXL_DEF
- TS_PNX_ADD_DATA
- TS_PNX_ADD_IDX
- TS_ENRICH_DATA
- TS_ENRICH_IDX
- TS_STATS_DATA
- TS_STATS_IDX
- TS_PNX_EXT_DATA
- TS_PNX_EXT_IDX

Rosetta

- TS0
- TS1
- TLOB
- TS_DEF_DAT

- TS_SHR_DAT
- TS_SHR_IDX
- TS_REP_IDX
- TS_REP_DAT
- TS_JBPM_DAT
- TS_JBPM_IDX
- TS_DEP_DAT
- TS_DEP_IDX
- TS_PER_DAT
- TS_PER_IDX
- TS_PRSV_DAT
- TS_PRSV_IDX
- TS_HDEC_DAT
- TS_HDEC_IDX
- TS_HDEM_DAT
- TS_HDEM_IDX
- TS_HFRE_DAT
- TS_HFRE_IDX
- TS_HDES_DAT
- TS_HDES_IDX
- TS_HDEB_DAT
- TS_HDEB_IDX
- TS_HDEP_DAT
- TS_HDEP_IDX
- TS_PUB_DAT
- TS_PUB_IDX
- TS_SEARCH_DAT
- TS_SEARCH_IDX

Sizes should be known in advance according to sizing.

Profiles, Roles, and Schemas

Profiles, roles, and schemas are created by Ex Libris.