Next Generation Licensing with Embarcadero® License Center:
A Transition Guide for Change Manager Customers using the License Server

Contents

Introduction

Selected Embarcadero products are being transitioned to the licensing technology associated with the CodeGear line of products. Current Embarcadero customers will find many similarities between the newer technology and the existing Embarcadero licensing mechanism. Key differences include:

User and/or IP-based access control	ELC provides centralized and simplified control over user and IP access to licenses.
LDAP and Active Directory import capability	These features let you simplify user setup and automate user maintenance.
Product-by-product user access control	User configuration lets you specify the individual products/features a user can access.
Greater autonomy	The process of initially downloading Concurrent licenses to your server, and subsequent upgrades has been upgraded to a self-serve model. As well, the process used by Nodelock license users to register their applications has been automated to offer options that reduce the need for Embarcadero Support. Of course Support is still there whenever you need them: as much as they always have been.
Enhanced scalability	The Embarcadero License Center has been tested to handle 20,000 simultaneous connections.
Failover protection	In the event of problems with the main customer ELC server, a backup server provides automatic disaster recovery support. This is now being provided to customers free of charge!

This document will help you make the transition to the new licensing product. It will help you:

- Understand the new licensing model and how it is implemented
- Understand the key benefits afforded by the new product
- Anticipate the day-to-day usage differences between the two products
- Prepare to migrate to Embarcadero License Center

Understanding the new license model

In terms of the existing licensing mechanism, the biggest differences with the new model are in the area of server-based management of Concurrent licenses. Other highlights include changes to nodelocked license product registration and replacement of the MAC-based licensing scheme.

Concurrent licenses and the Embarcadero License Center

The Embarcadero License Center uses a similar architecture to the previous License Server technology, centralizing the management of your concurrent licenses so that they can be shared between multiple users.
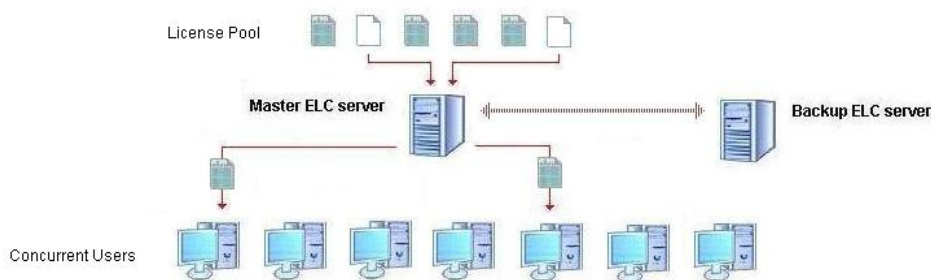
Key differences between the License Server and ELC implementations include:

- Improved customer autonomy with respect to license acquisition and updates

- License stacking, which allows you to add new licenses, instead of needing to replace the existing license with each new entitlement

- Text-based configuration file management of users and licenses

- Simplified check-out/check-in automation

- A dedicated, Backup ELC server whose configuration stays in sync with the primary server and only serves licenses if the primary server is unavailable

ELC administration is based on an easy-to-use command-line interface.

Self-serve license acquisition and updates

In terms of initial setup and maintenance of Concurrent licenses, Embarcadero License Center differs drastically from the older, License Server model. The ELC model emphasizes customer autonomy. When you purchase licenses for Embarcadero products, Embarcadero creates a set of one or more Web-accessible entitlements, corresponding to your licenses, which are emailed to you directly. After logging in to a License Hosting site to access your entitlements, and providing server details, you download a package that includes your initial set of license files.

As an extension of the self-serve model, the License Server practice of having Embarcadero Support create brand new, replacement license files as new products or features are purchased, is no longer required. ELC supports stacking of multiple license files. Licenses for new or additional products and features can be downloaded and added incrementally, minimizing your reliance on Embarcadero support.

Centralized user management and license deployment

In addition to license files, your download package includes a set of text-based configuration files. You modify two of these files to control user access to your license pool:

IP List file   Designates the IP addresses and address ranges from which valid users can acquire licenses.

Concurrent User List file   Identifies the users who can obtain licenses from your Concurrent license pool, identifies the specific product and feature licenses they can access, and specifies how long they can use the application offline.
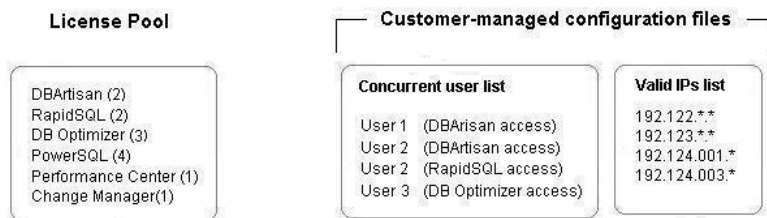
As a key upgrade over the License Server implementation, ELC provides LDAP support. You can initially populate and subsequently maintain your Concurrent User List configuration file from an LDAP server. For more information on configuration file setup and maintenance, see "Configuring Embarcadero License Center" on page 11.

Administration differences

Administration tasks for the Embarcadero License Center are performed using a set of command line utilities. Syntax for carrying out common tasks such as the following can be found in the ELC Administrator's Guide:

- Starting and stopping the ELC service

- Viewing license details and status

- Reloading configuration files

ELC also makes use of a dedicated reporting application, the Embarcadero Reporting Engine. For details on using the reporting engine with ELC, and the types of usage reporting supported, see "Reporting" on page 14.

Simpler check-out/check-in mechanism

For product licenses, the License Server's automated check-out/check-in mechanism is based on startup and shutdown of client applications. Feature licenses, such as those required to work with particular DBMS platforms, are not checked out until a product/user specifically attempts to use that feature, and remain checked out until the product shuts down. Additional safeties are provided to account for communication problems between the server and client applications. Embarcadero License Center's mechanism is virtually identical. The main differences are as follows:

- In the old model, if the License Server loses contact with a client machine, any checked out licenses remain usable by the client for eight hours. On the server end, if the existing License Server hasn't heard from a client within a certain period of time (typically an hour), it will automatically check that license in for use by other users. In the new model, a client application sends a ping for each checked out license once per minute. If the server loses

contact with the client application, it recycles any checked out licenses. Client-side behavior, shutdown or continue running, is application specific.

- When the Backup ELC server loses contact with the Master ELC server, it begins check-out/check-in management. Similarly, if a client application cannot contact the Master ELC, it directs any license activity requests to the Backup ELC server until contact with the Master server is established. For more information, see "Backup ELC Server: redundancy/failover support" on page 7.

- In addition to requiring a server license, ELC also requires that each client be licensed to use the appropriate application. This differs from the License Server, which merely required that someone know the address of the license server in order to gain access. For this reason, administrators can much more reliably ensure that clients who should not have access to the license server are unable to use licenses. There are accordingly no privileged users or forbidden users. As well, even if properly licensed to access a given License Server, the client is still subject to client application license usage according to entries in the `userlist-concurrent.txt` configuration file.

License borrowing

The License Borrowing feature lets users obtain a networked license and then subsequently use the license without a connection to the ELC, for a specified time period. For client applications with features that do not otherwise require a network connection, this lets users work while travelling or commuting, work away from their primary work area, or use their applications when a network connection is unavailable or not required. License borrowing has the secondary benefit of shielding networked users from transient problems with the network or the licensing server.

Users explicitly switch to offline mode once a license is obtained. As well, client applications automatically switch to offline mode when the connection to the ELC is lost, and automatically switch back to online mode when the connection is reestablished.

Administrators specify the amount of time licenses can be borrowed on a user-by-user basis.

NOTE: Using a command line utility, Administrators can disconnect a user from a borrowed license. The license will then be available for use by other users. For more information, see "Disconnecting a license from a user and returning it to the license pool" on page 14.

Backup ELC Server: redundancy/failover support

An Embarcadero License Center implementation can include an optional Backup ELC server. Running on a separate machine, the Backup ELC takes over license administration if it loses contact with the Master ELC server. The Backup ELC server can continue to manage the license pool for a period of 72 hours: ample time for the primary server to be brought back into service.

Nodelocked licenses

The need to contact Embarcadero Support in order to obtain a product license is being eliminated. After installation, users of retail licenses will be able to immediately obtain a nodelocked license by entering a serial number (generally provided to the license holder upon purchase) and activating the product via the web. The very first time an end user activates the product, he or she will be prompted to create an Embarcadero community account, which is used to identify the user for licensing and support purposes. This is very similar to the information that users provide to Support today by email, fax, or phone, in order to obtain a license. These registration methods allow users to get up and running immediately, and at any time of day or night.

NOTE: Once created, the Embarcadero community account is valid for all CodeGear and DatabaseGear products.

Host-based versus MAC-based licensing

Within the License Server implementation, identification of licensees is MAC address-based. In some cases, this causes license accounting problems. For example, multiple product licenses can be used up by a single machine if the machine's MAC address set has changed between license checkouts. On some networks, some organizations may have security policies in place that can change a machine's MAC addresses, and this can result in a check-in not always being matched with its corresponding check-out.

Embarcadero License Center avoids these issues through use of hostname-based identification. Clients pass a hostname along with the request for a product or feature license.

Differences in setup, operations, and day-to-day usage

With respect to setup and everyday usage, the following are the major usage differences between the two licensing models:

- Nodelocked license product registration
- Licensing server setup and administration

Nodelocked license product registration

Currently, after selecting a Workstation license installation, you must contact Embarcadero Support in order to complete registration. This entails filling out a form, providing product and identification information, and emailing or faxing the form to Embarcadero Support. You must then wait for a license to be emailed before you can complete the process.

In the new model, you (the license holder) are immediately emailed a serial number on purchase of the product, and can distribute the serial number(s) to end users at your own convenience. Three follow-up options are provided:

- Web-based registration – you visit a dedicated Web page and provide the serial number, a registration code obtained either from the UI or using an external tool, and Developer Network credentials. You are then emailed a license file and accompanying instructions.

- Direct, In-product registration – you open a registration dialog on application start-up and provide a serial number and Developer Network credentials. The machine-unique registration code is automatically appended when the transaction is sent to Embarcadero. Download and installation of the license file is immediate and automatic.

- Phone registration – you call Embarcadero Support and provide the serial number (if available), a registration code obtained either from the UI or using an external tool, and Developer Network credentials. You are then emailed a license file and accompanying instructions.

Licensing server setup and administration

Unlike the License Server, Embarcadero License Center does not provide a dedicated, administration interface. Instead, setup and day-to-day tasks are handled with the aid of configuration files and a set of command line utilities. The following topics note the key differences you will notice as you work through these sorts of tasks.

Important: The following topics are intended only as a high-level guide to understanding the ELC equivalents of common License Server tasks. For detailed information on performing those tasks, see the *Embarcadero License Center Installation, Configuration, and Administration Guide*.

Installation and configuration file download
The key difference in the Embarcadero License Center installation, involves logging in to the License Hosting site to generate and download your product license files. For background information on certificates and licenses, see "Self-serve license acquisition and updates" on page 5.

On purchase of concurrent licenses, you are emailed download instructions for the license server installer along with installation instructions. Using the login/password provided in the email, you log into a license server hosting site.

The hosting site lets you see all of your license server product entitlements (including previously hosted product licenses). Each entitlement must be "hosted" before you can download and install the product license to your license server. The hosting process walks you through several Web pages, prompting you for details such as the hostname/IP of the host machine of your primary and backup license servers. Upon conclusion of the hosting process, you download a zip file containing:

- Product server license
- Product client license
- Readme file with installation instructions

The server license file (whose filename is typically formatted as **server_xxxxx.slip**) contains the product's license and should be extracted to the <ELC install dir>/conf directory.

If you are an existing concurrent license customer, the client license (typically formatted as **concurrent_xxxxx.slip**) is a change from the older implementation. That file contains information similar to the server license, but is installed locally on the client machine (see the corresponding README file for installation directions). The client license also includes the hostname/port of the primary and backup license servers (if specified). This means that end users are no longer required to know or enter the hostname/port of their license server within the client application. Client applications are only permitted to access those concurrent license for which they have the corresponding client licenses, thereby permitting organizations to better control access to product licenses within their organization.

ELC requires a restart in order to pickup any newly added server licenses. It is up to you to decide how client licenses are made available to end users. Less restrictive organizations could simply leave

the licenses on a publically accessible network share, while more restrictive environments might already have an individual or group within their company that is responsible for provisioning licenses.
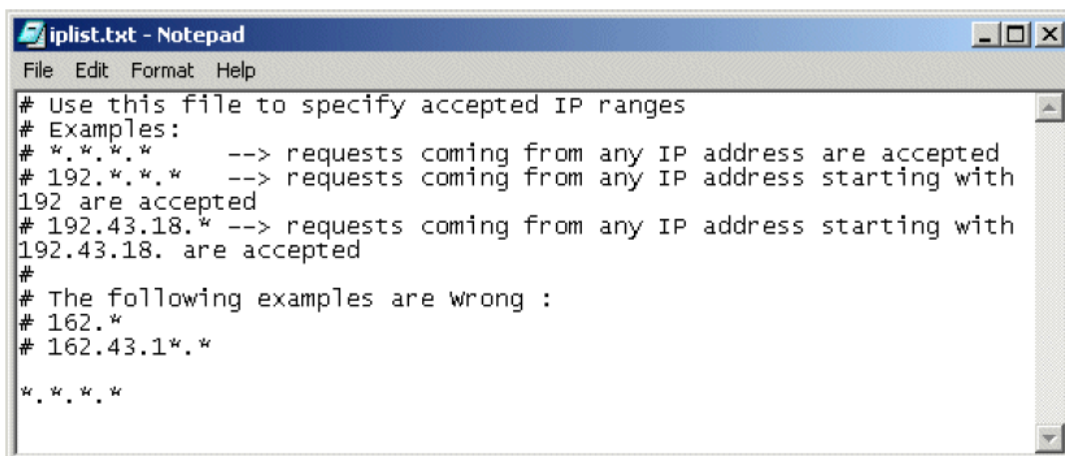
Configuring Embarcadero License Center

As part of the License Server setup process, Embarcadero support would generate a customer's license file. This proprietary-format file could not be edited by a customer. In addition, license access features such as check-in policies and White/Black list restrictions were handled as separate features of the License Server Administrator user interface.

As a step in simplifying user management and license access features, Embarcadero License Center provides a set of text-based configuration files. You modify these configuration files on the Master ELC server. Any modifications are mirrored to the Backup ELC server at each startup of the Master ELC server.

Setting up the IP List File

The IP List file is a simple text file that restricts license access by location. You modify the IP List file to specify only those machines from which license requests can be satisfied.

You override the default IP address range (*.*.*.*) with one or more specific IP addresses or IP address ranges. Ranges are defined using standard wildcard characters (*).

Identifying users and controlling license access

Embarcadero License Center simplifies user management through the use of plain text configuration files. Each Master and Backup ELC server stores a text file that identifies the users that can check out product and feature licenses from the license pool:

`userlist-concurrent.txt`   Each entry in the file identifies a user, a product or feature that the user can consume a license for, and the length of time that the user can make use of the application without a connection to the ELC.

Entries in this file use a simple, comma-delimited scheme. Formats differ depending on the license type. Individual product licenses, familiar to existing concurrent license customers, are associated with independently licensed products. Suite licenses on the other hand are special licenses that are used to bundle multiple products together usually for a special price.

These product license types need to be taken into account when setting up any license restrictions in the `userlist-concurrent.txt` file. Restrictions are formatted according to the type of license purchased.

For suite products, the format is:

*username*, *hostname*, *identifier*, maximum_off-line_period

For individual products, the format is:

*username*, *hostname*, *product*, *sku*, maximum_off-line_period

Where:

username	Specifies the user's machine login name
hostname	Specifies a user's machine host name. The ***** wildcard can also be used.
identifier, product, and *sku*	Defined in the ReadMe file downloaded from the license hosting site
maximum_off-line_period	Specifies the amount of time the user can run the application without connecting to the ELC. For named user licensing (userlist.txt), the *offline_mode* value is provided in days, with a maximum of 30. For concurrent licensing (userlist-concurrent.txt), the *check-out time* value is provided in an *hours:minutes* format.

Shortcuts and options are available. For example, wildcards can be used to specify multiple products permissions for a user. An absent or empty userlist-concurrent.txt file removes any login name restriction, permitting any user at an accepted IP address to check out a license, as long as they remain in contact with the ELC.

NOTE: For a detailed listing of options, see the *Embarcadero License Center Installation, Configuration, and Administration Guide*.

More importantly, ELC lets you initially populate and subsequently maintain your user list configuration files by importing from an OpenLDAP or Windows Active Directory server. Using the command line, you issue an LDAP Import Utility command in the following format:

```
elise cmd ldapimport -identifier -server <ldap server hostname> -type
      <FLOATING|NAMED>
      [-port <ldap server port>][-user <user DN>] [-pass <user password>]
      [-base <base DN for search>][-filter <filter for search>]
      [-mode <overwrite|append>] [-maxborrow <borrowtime>]
```

Required parameters dictate that you import all licenses for a particular product license, from a particular LDAP server, and whether the users are to be imported to the **userlist.txt** file or the **userlist-concurrent.txt** file. Optional parameters can be used to specify:

- LDAP server port

- The User DN, identifying your developer network account

- The password associated with a User DN

- A BASE DN for a branch of the data that should be included in the import

- An LDAP search filter such as (&(cn=* (uid=*)

- Whether entries are to override all existing entries or are to be appended to the end of the file

- The *offline_mode* or *check-out time* value for the imported users
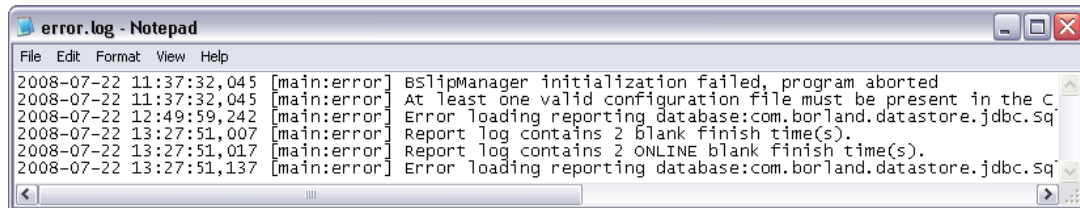
Basic startup and shutdown operations

As with Embarcadero License Server, ELC can be set up as a service. That is, ELC can be set up to start and stop whenever the host machine starts up or is shut down. While you could also use the

License Server Administrator to operate the License Server, you start and stop ELC manually, using the command line.

Viewing error and information logs

The Embarcadero License Server included a single log that stored all informational, warning, and error messages generated. To minimize browsing time when tracking down problems, Embarcadero License Center provides two separate log files:

- The `error.log` file stores messages associated with problems needing correction or other issues requiring attention.
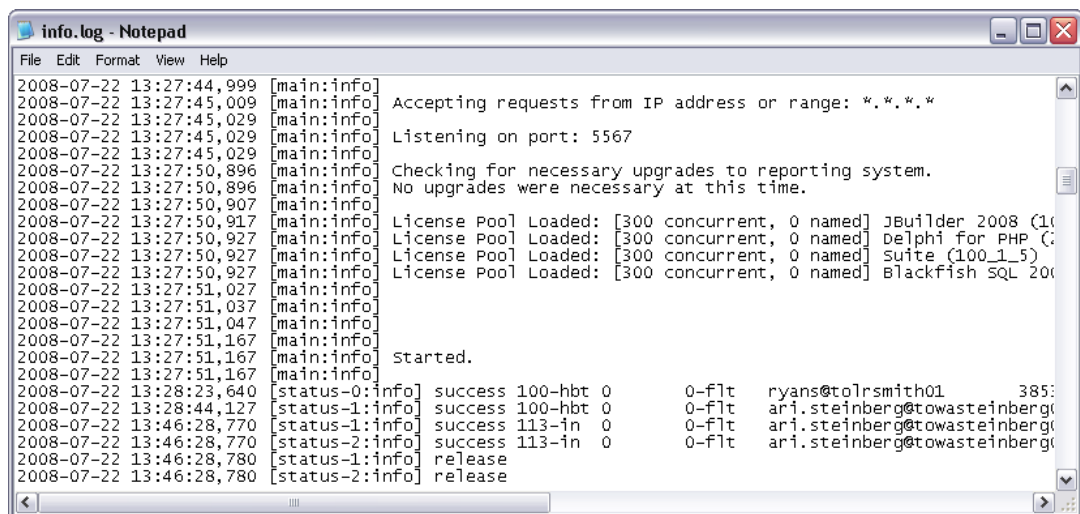
- The `info.log` file stores basic informational messages associated with events such as application startup and shutdown, successful license check-outs, and server operational details.

Ad hoc license management tasks

Embarcadero License Center offers command line utilities for performing tasks formerly associated with the Embarcadero License Server Administrator program.

Viewing license status

You can display a listing of all active licenses by issuing a `cmd status` command from the main ELC directory.

```
Command Prompt                                              _ □ ×

C:\Embarcadero\LicenseCenter4.03\bin>cmd status
Embarcadero License Center v4.03 - Copyright (C) 2002-2008 Embarcadero Technolog
ies

JBuilder 2008 (1014, 5)
300 concurrent licenses

Delphi for PHP (2702, 0)
300 concurrent licenses

Change Manager (14201, 96)
10 concurrent licenses

Change Manager (14201, 99)
10 concurrent licenses

        user@host:                      duration:    remaining:

        georger@rowgradu01

        licenses available: 9
Suite (100_1_5)
300 concurrent licenses

Blackfish SQL 2007 (6001, 5)
300 concurrent licenses

Change Manager (14201, 98)
10 concurrent licenses

        user@host:                      duration:    remaining:

        georger@rowgradu01

        licenses available: 9

Change Manager (14201, 97)
10 concurrent licenses

        user@host:                      duration:    remaining:

        georger@rowgradu01

        licenses available: 9
```

Disconnecting a license from a user and returning it to the license pool

You can disconnect a borrowed product license currently checked out by a specific user to have it returned to the available licenses pool. The cmd revoke command lets you specify the product identifier, user login name, and host name associated with the license that is to be checked back in.

For more information, see "License borrowing" on page 7.

License and user maintenance

You learned the initial configuration steps in "Configuring Embarcadero License Center" on page 11. You use the same resources, IP List and user configuration files, in day-to-day maintenance. These text-based files let you make modifications such as:

- Changing the list of IP addresses that can access licenses

- Adding to or removing from the list of users with access to the Concurrent license pool

- Changing the product and feature licenses that a user can access

Once you have made your modifications you can import the configuration files into ELC. The cmd reload command lets you reload your configuration files on-the-fly.

Reporting

The Embarcadero License Center can log licensing activities. A separate application, the Embarcadero Reporting Engine (ERE), provides reporting capabilities. Using raw licensing activity logs exported from ELC, the reporting engine lets you create and maintain a reporting database, and generate usage reports.
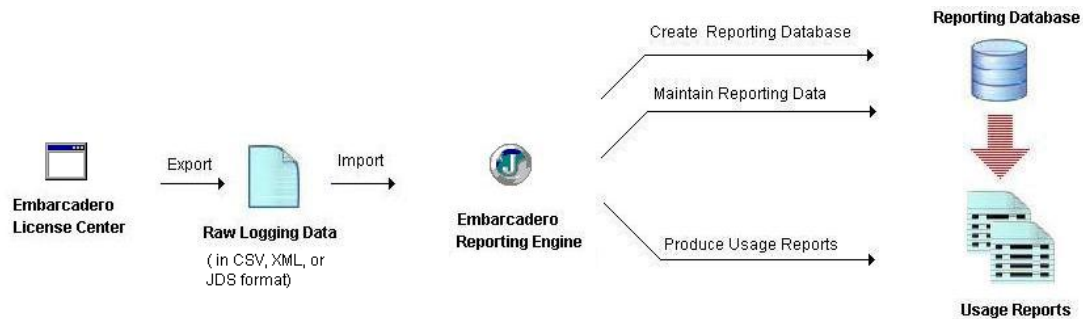
The Reporting Engine application can run on the same machine as the ELC or on a different machine, an administrator's desktop for example. Running remotely, the Reporting engine can import data previously exported from an ELC instance running on a remote machine. Unified reports can be generated from multiple ELC instances.

For a moderate number of licensing connections, running the Reporting Engine on the same machine as the ELC will not impact performance. ELC safeguards ensure that license management processes, the primary ELC function, take priority over report logging export processes.

Creating and updating a reporting database

Embarcadero License Center logging of raw licensing activity data is optional. The **reportLogsEnabled** property, enabled and disabled in the `elise.properties` file, dictates whether data on users, products, and check-outs/check-ins is logged.
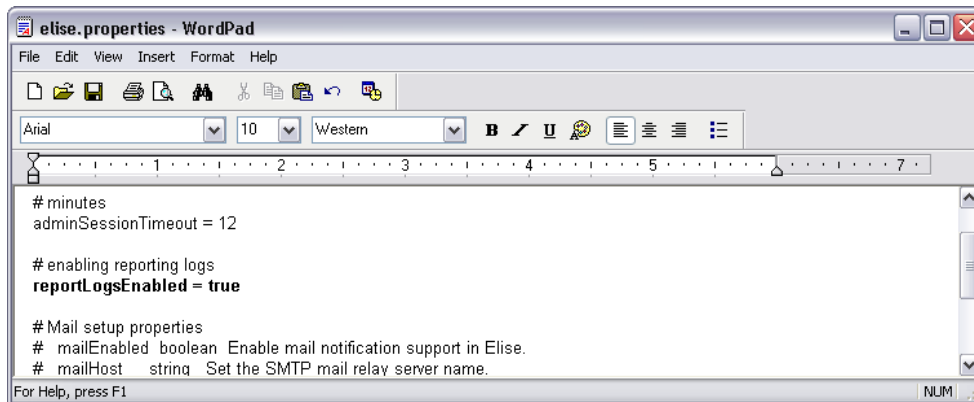
With logging enabled, you can periodically dump the raw data out to a file. The `exportLogs` command line utility dumps ELC raw data and provides options to accommodate most scheduling and maintenance requirements. For example, the following command dumps reporting data in JDataStore database files, a format compatible with the Embarcadero Reporting Engine (ERE), then purges all existing raw reporting data currently stored by the Embarcadero License Center:

```
elise cmd exportLogs –myexportfolder –db –purge
```

> **NOTE:** This introductory discussion covers standard reporting features provided with ELC. For a discussion of other export options and customized reporting, see "Custom reporting" on page 19.

In addition to its report generation capability, the Embarcadero Reporting Engine lets you create and maintain a reporting database, which is tightly coupled to the application. Initially you will use ERE to create a reporting database. It provides a basic set of database maintenance features (New, Open, Close, Save As). Subsequently, and presumably on a regular basis, you will dump raw ELC licensing activity data and use ERE's import feature to update the records in your reporting database.

In combination, the `exportLogs` utility and the Embarcadero Reporting Engine features satisfy most reporting data maintenance requirements.

Generating reports

The Embarcadero Reporting Engine offers a wizard-based method of creating reports. In addition to choosing the specific report type, the wizards let you customize reports. Depending on the report type, the wizards give you options such as specifying:

- Users or licenses to report on
- Range of dates or rollup type
- Columns displayed in the report
- Sorting details
- Output format of CSV or HTML

NOTE: ERE does not currently support the .PDF format.

Available reports

The Embarcadero Reporting Engine provides the following standard report types:

- High Watermarks
- User or product summary
- Usage over time by product or user
- License usage

For information on creating reports outside the standard collection, see "Custom reporting" on page 19.

High Watermark report

Tracks the usage of licenses by date, recording the highest and lowest in-use counts. Watermark totals are broken down by total and offline, and you have the option of showing totals by day or by month.

```
Report Name: HighWaterMark
Period Duration: 2004-12-23 to 2005-7-12 ( 201d:22h )

For User(s): Report based on data from 10 users { u1 ; u10 ; u2 ; u3 ; u4 ; u5 ; u6 ; u7 ; u8 ; u9 }


For product Enterprise Studio 7 for Java (Concurrent) on server testdb@4467
```

Date	High Watermark (total)	High Watermark (online)	Low Watermark (total)	Low Watermark (online)	Measurement Period (days)
2004-12-23	5	2	0	0	1
2004-12-24	10	4	0	0	1
2004-12-25	15	6	0	0	1
2004-12-26	25	10	5	2	1
2004-12-27	30	12	15	6	1
2004-12-28	35	14	20	8	1
2004-12-29	40	16	25	10	1
2004-12-30	45	18	30	12	1
2004-12-31	50	20	35	14	1

Summary reports

Two summary reports are provided:

- **Summary by user** - summarizes total and online usage of all available products by a single user in a specified time period.

- **Summary by product** - summarizes total and online usage of a product by all users in a specified time period.

Details include license check-out attempts, successful and denied, expressed with totals and percentages, and total and online breakdowns of time used.

Report Name: SummaryByProduct
Period Duration: 2004-12-23 to 2005-7-12 (201d:22h)
NAT = Number of separate times a particular license has been aquired
NDT = Total Number of times this license has been denied
Percent Denials = (NDT / (NAT + NDT))
Percent Hourly Usage = (Total Hours of License Use / Total Hours in Period)

For User(s): Report based on data from 10 users { u1 ; u10 ; u2 ; u3 ; u4 ; u5 ; u6 ; u7 ; u8 ; u9 }

For Product(s): Enterprise Studio 7 for Java (Concurrent)

Name	NAT (successful attempts to aquire a license)	NDT (denied attempts to aquire a license)	Total Hours Used	Online Hours Used	Percent Denials	Percent Hourly Usage
User Summary	200	0	4,800	66.67	0	0.14
u1	20	0	480	6.67	0	0.14
u10	20	0	480	6.67	0	0.14
u2	20	0	480	6.67	0	0.14
u3	20	0	480	6.67	0	0.14
u4	20	0	480	6.67	0	0.14
u5	20	0	480	6.67	0	0.14
u6	20	0	480	6.67	0	0.14
u7	20	0	480	6.67	0	0.14
u8	20	0	480	6.67	0	0.14
u9	20	0	480	6.67	0	0.14

Usage Over Time reports

Two Usage Over Time reports are provided:

- **Usage over time by user** – Reports on the day-by-day or month-by-month total and online usage of all available products by selected users over a specified time period

- **Usage over time by product** – Reports on the day-by-day total and online usage of a product by all users in a specified time period

Totals are broken down by total hours and online hours used.

Report Name: UsageOverTimeByProduct
Period Duration: 2004-12-23 to 2005-7-12 (201d:22h)

For User(s): Report based on data from 10 users { u1 ; u10 ; u2 ; u3 ; u4 ; u5 ; u6 ; u7 ; u8 ; u9 }

For Product(s): Enterprise Studio 7 for Java (Concurrent)

Date	Total Hours Used	Online Hours Used	Measurement Period (days)
2004-12-23	9.3	6.33	1
2004-12-24	23.98	16.72	1
2004-12-25	23.97	15.94	1
2004-12-26	23.95	16.62	1
2004-12-27	23.93	11.04	1
2004-12-28	23.92	0	1
2004-12-29	23.9	0	1
2004-12-30	23.88	0	1
2004-12-31	23.87	0	1

License Usage report

Displays total and online hours used for a product license, and usage as a percentage of all available licenses usage on a daily or monthly basis.

Report Name: LicenseUsage
Period Duration: 2004-12-23 to 2005-7-12 (201d:22h)

For User(s): Report based on data from 10 users { u1 ; u10 ; u2 ; u3 ; u4 ; u5 ; u6 ; u7 ; u8 ; u9 }

For Product(s): Enterprise Studio 7 for Java (Concurrent)

Date	Total Hours Used	Online Hours Used	Percent Total Usage	Measurement Period (days)
2004-12-23	9.3	6.33	0.19	1
2004-12-24	23.98	16.72	0.5	1
2004-12-25	23.97	15.94	0.5	1
2004-12-26	23.95	16.62	0.5	1
2004-12-27	23.93	11.04	0.5	1
2004-12-28	23.92	0	0.5	1
2004-12-29	23.9	0	0.5	1
2004-12-30	23.88	0	0.5	1
2004-12-31	23.87	0	0.5	1

License Server/Embarcadero License Center reporting comparison

The following table shows the reports available from the License Server Administrator and the ELC equivalents or closest approximations.

License Server report	ERE equivalent and notes	
Checkout Statistics (by product) - Shows the maximum simultaneous checkouts, the number of times that maximum was reached, total licenses of that type, and average successful checkouts per day for that application.	**High Watermark Report -** The ERE report does not provide the following items: • Number of times the maximum was reached • Total number of licenses • Average of usage (easily calculated manually)	
Failed Checkouts - Provides a summary of checkout failures and a detailed listing of each checkout failure, respectively.	**Summary By Product -** The ERE report does not show average failures per day. Also, it summarizes product checkouts/failures by user but does not provide grand totals.	
Usage Report - Provides a detailed listing of successful check-outs for all client applications. For each checkout, in addition to license details, it provides date and time details. Optionally, this report can display the user name, host name, Mac address, or IP address associated with the checkout.	**Usage Over Time By Product** or **Usage Over Time By User -** ERE can provide separate usage reports for each user or product, but does not offer an executive summary report. The ERE reports do not provide precise check-in/check-out time or host names associated with users	
All licenses	No direct equivalents.	In order to produce these reports, or other variations, you would
Displayed Licenses	ELC offers a command line utility that displays current	

(All, Obtained, or Available)	license status. For details, see "Viewing license status" on page 13.	need to run a custom Microsoft Access SQL Query. For more information, see "Custom reporting" on page 19.
All Users Lists all users who have ever used the license server and indicates any products that each user currently has checked out.	No direct equivalent. The closest equivalents are the **Summary By Product** and **Summary By User** reports. However, ERE cannot generate a summarized list of all users on the system and the active use of any products.	
Failures (by product)	No direct equivalent. ERE can provide a summary of failed checkouts by running the **Summary by Product** or **Summary by User** reports. However, keep the following in mind: • ERE reports indicate the number/% of failures, but not the reason for failure • ERE products include username but not IP address or hostname • ERE does not support department reporting • ERE does not provide grand totals of failures/rates	

Custom reporting

To support customers who prefer to use their own reporting applications, Embarcadero License Center provides export options that let you dump raw logging data in formats other than JDataStore database files, which can be exported into your favorite application:

- XML – can be imported directly into Microsoft Access
- CSV (comma-separated value) – can be imported into Microsoft Access via Microsoft Excel

Once you have imported the reporting data into a database, you can use a third-party report generator, custom application, or other means to produce your usage reports. The *Embarcadero License Center Installation, Configuration, and Administration Guide* provides information required to set up customized reporting. Detailed table descriptions outline a simple schema.

The *Embarcadero License Center Installation, Configuration, and Administration Guide* also includes file and format details on exported logging data and sample queries that can be adapted to select data for the most commonly used reports.

Remote operations

Certain command line operations documented earlier can be performed remotely. Commands that can be issued from a remote location include:

`status` - see "Viewing license status" on page 13.

`reload` – see "License and user maintenance" on page 14.

`exportLogs` - see "Creating and updating a reporting database" on page 15.

`shutdown` - see "Basic startup and shutdown operations" on page 12.

Finding more detailed information

This document has taken a look at the major differences between existing Embarcadero licening technology and the upcoming, new model. For more specific information, see the *Embarcadero License Center Installation, Configuration, and Administration Guide*.