

ERL™ Administrator's Manual

ERL 4.11
for Windows NT™, AIX® , Solaris™, and Linux®

SilverPlatter®

ERL™ Administrator's Manual

Copyright © 2000 SilverPlatter International N.V.

All rights reserved.

DC-ERL-015

SilverPlatter® and SilverLinker® are trademarks of SilverPlatter International N.V. and are registered in one or more countries.

ERL™ is a trademark of SilverPlatter International N.V.

AIX and IBM are registered trademarks of International Business Machines Corporation.

Microsoft, MS-DOS, Windows, Windows 95, Windows 98, and Windows NT are registered trademarks of Microsoft Corporation.

Portions Copyright 1984-1990 FairCom Corporation. All rights reserved.

Solaris is a trademark of Sun Microsystems, Inc. in the United States and other countries. UNIX is a registered trademark of The Open Group

Linux is a registered trademark of Linus Torvalds. Red Hat, the Red Hat "Shadow Man" logo, RPM, Maximum RPM, the RPM logo, Linux Library, PowerTools, Linux Undercover, RHmember, RHmember More, Rough Cuts, Rawhide and all Red Hat-based trademarks and logos are trademarks or registered trademarks of Red Hat, Inc. in the United States and other countries.

This product includes software developed by the Apache Group for use in the Apache HTTP server project (<http://www.apache.org/>).
Copyright (c) 1995-1999 The Apache Group. All rights reserved.

SilverPlatter Information, Inc.

100 River Ridge Drive

Norwood, MA 02062-5026, USA

TEL: 781-769-2599

FAX: 781-769-8763

Web site: www.silverplatter.com

SilverPlatter Information, Ltd.

Merlin House, 20 Belmont Terrace

Chiswick, London, W4 5UG, England

TEL: +44 (0) 20-8585-6400

FAX: +44 (0) 20-8585-6640

Table of Contents

Preface	i
Using this manual	i
Some conventions used in this manual	ii
Chapter 1 Introduction	1-1
The elements of an ERL system	1-1
ERL server	1-1
ERL administration tools	1-2
SPIRS search clients	1-2
ERL-compliant databases	1-2
The installation steps	1-3
Contacting SilverPlatter	1-4
Chapter 2 Installing ERL	2-1
Introduction	2-1
The ERL 4.11 package	2-1
If you are installing ERL for the first time	2-2
If you have an earlier version of ERL installed	2-2
Information about upgrading to ERL v4.11	2-2
Some changes introduced in ERL v4.0	2-2
Some changes introduced in ERL v4.05	2-3
Some changes introduced in ERL v4.11	2-3
Points to note before you upgrade	2-3
Backing up files and uninstalling the software	2-4
Backing up version 2.x on AIX and Solaris	2-6
Uninstalling version 2.x on AIX and Solaris	2-6
AIX:	2-6
Solaris:	2-6
Backing up v2.11 on NT	2-7
Uninstalling v2.11	2-7
Backing up ERL 4.x	2-7
Reinstalling the backup	2-7
Reinstalling v2.x on Solaris	2-8
Reinstalling v2.11 on NT	2-8
Reinstalling v4.x on Solaris	2-8
Reinstalling v4.x on AIX and Linux	2-8
Reinstalling v4.x on NT	2-9
If you are changing from a different platform	2-9

Changing from SCO	2-9
Before you install the software	2-9
Introduction	2-9
All platforms	2-9
Windows NT	2-9
UNIX	2-9
Checking your system requirements	2-10
Gathering the information you need	2-10
Getting the software	2-11
Downloading with a browser	2-11
Downloading from the ftp site	2-12
Installing ERL for Windows NT	2-13
Installing the server software	2-13
Configuring the server	2-13
Installing the rest of the package	2-14
Completing the installation	2-14
Entering IP addresses	2-15
Starting and stopping the servers	2-15
Starting the server menu	2-16
Uninstalling ERL for NT	2-16
Installing ERL on Solaris	2-17
Creating an installation directory	2-17
Installing the software	2-17
Configuring the server	2-18
Installing the rest of the package	2-19
Preparing filesystems	2-19
Entering IP addresses	2-21
Starting and stopping the servers	2-21
To start the ERL server and the ERL Administration Server:	2-21
To start the ERL Administration Server only:	2-21
To stop the ERL server and the ERL Administration Server:	2-22
To stop the ERL server only:	2-22
To stop the ERL Administration Server only:	2-22
Installing ERL on AIX and Linux	2-23
Creating an installation directory	2-23
Installing the software	2-23
Configuring the server	2-23
Installing the rest of the package	2-24
Preparing filesystems	2-25
Entering IP addresses	2-25
Starting and stopping the servers	2-25

To start the ERL server and the ERL Administration Server:	2-25
To start the ERL Administration Server only:	2-26
To stop the ERL server and the ERL Administration Server:	2-26
To stop the ERL server only:	2-26
To stop the ERL Administration Server only:	2-27
Note on Maximum Logins	2-27
The ERL Server directory system	2-28
apache	2-28
bin	2-29
brladmin	2-29
cfiles	2-29
dbase	2-29
erlstat	2-29
files	2-29
masters	2-29
nodes	2-29
perl	2-29
scripts	2-29
spd vols	2-30
system32	2-30
tmp	2-30
webadmin	2-30
Chapter 3 ERL administration tools	3-1
Introduction	3-1
About the administration tools	3-1
WebAdmin	3-4
Uninstalling an earlier version of WebAdmin	3-4
Installing WebAdmin	3-5
Accessing WebAdmin	3-5
Reloading/Refreshing Pages	3-5
Chapter 4 Managing databases	4-1
Introduction	4-1
QUIKdata	4-2
ERL Server menu	4-2
Licensing databases	4-3
Important:	4-3
Installing a license	4-4
Reading the license agreement	4-4
Setting up email notice of license expiry	4-5
To set up the email warning that the license is near to expiration:	

4-5	
Removing a license	4-6
Listing licenses	4-6
To list all the currently installed licenses:	4-6
Displaying licenses	4-7
To display all the information contained in a license:	4-7
Updating licenses	4-7
Installing databases	4-7
Installation types	4-7
Installing a database	4-8
Make the database available	4-8
Set the environment variable	4-9
On UNIX	4-9
On Windows NT - Method One	4-9
On Windows NT - Method Two	4-9
Set the optional DBIFITFILE setting	4-9
On UNIX	4-9
On Windows NT	4-10
Using the Install menu	4-10
Changing the installation type	4-11
To change installation types:	4-11
Mounting and unmounting databases	4-12
Mounting a database	4-12
To mount a database:	4-12
Unmounting a database	4-12
To unmount a database:	4-12
Enabling and disabling databases	4-12
To enable a mounted database from the ERL Server menu:	4-13
To enable a mounted database from WebAdmin:	4-13
Updating databases	4-13
Removing databases	4-14
To remove a database using the ERL Server menu:	4-14
Displaying database information	4-15
Verifying database integrity	4-15
To verify database integrity:	4-16
Creating a menu of database titles	4-16
Using WebAdmin	4-17
Using a text editor	4-17
Sample menu in SPIRS	4-18
Sample menu in editor	4-19

Chapter 5 Controlling access to ERL	5-1
Introduction	5-1
Controlling access using IP addresses	5-1
Specifying valid IP addresses	5-1
Using WebAdmin	5-2
Using a text editor	5-3
Creating user-specific IP address sets	5-4
Using WebAdmin	5-4
Setting up IP address logging	5-4
To change the setting for IP address display:	5-4
Creating and managing user accounts	5-5
Creating an account	5-6
Using WebAdmin	5-6
Editing an account	5-6
Using WebAdmin	5-6
Deleting an account	5-6
Using WebAdmin	5-6
Creating user-specific Information	5-6
To set up user-specific features:	5-7
Creating and managing portfolios	5-7
Creating a portfolio	5-8
Using WebAdmin	5-8
Editing a portfolio	5-8
Using WebAdmin	5-8
Deleting a portfolio	5-9
Using WebAdmin	5-9
Authorizing accounts	5-9
Requiring authorizations for a database	5-9
Using WebAdmin	5-9
Authorizing accounts to portfolios	5-10
Authorizing many accounts to use one portfolio	5-10
Authorizing one account to use many portfolios	5-10
Chapter 6 Messages to users	6-1
Introduction	6-1
Sending a message to connected accounts	6-1
Setting up a “Message of the Day”	6-2
Chapter 7 Obtaining Statistics	7-1
Introduction	7-1
ERL statistics logging	7-2
About the log files	7-2

How logins are counted in statistics reports	7-4
Configuring logging settings	7-5
To change the configuration file:	7-6
Creating statistics reports with WebAdmin	7-7
Creating statistics reports with brladmin	7-8
Regenerating .idx files	7-9
To regenerate a .idx file:	7-9
Chapter 8 About SilverLinker	8-1
Introduction	8-1
The SilverLinker database	8-1
SilverLinker-enabled databases	8-2
Supported clients	8-2
How links are displayed	8-2
Disabling and enabling SilverLinker	8-3
Configuring SilverLinker in WebAdmin	8-4
Creating filters	8-4
Troubleshooting SilverLinker	8-5
Chapter 9 The Z39.50 Option	9-1
Introduction	9-1
Supported Z39.50 features	9-1
System and client requirements	9-2
System requirements	9-2
Client requirements	9-3
Getting the software	9-3
Downloading with a browser	9-3
Downloading from the ftp site	9-3
Chapter 10 Library Holdings	10-1
Introduction	10-1
Making the Holdings messages available	10-1
Enabling Holdings messages for specific databases	10-2
Editing coretags.cfg	10-2
Configuring default messages	10-3
Editing coretags.cfg	10-3
Using SPLHA files	10-4
Chapter 11 Troubleshooting Guide	11-1
Introduction	11-1
General items to check	11-1
Problems with databases	11-2
Troubleshooting SilverLinker	11-3
Checklist of main files you can edit	11-4

Chapter 12 Other Scripts & Functions12-1
 CHANGESERVINFO.....12-1
 SETPERMS.....12-1
Index 1

Preface

This manual explains how to install, configure, and administer an ERL v4.11 server for Windows NT[®], AIX[®], Solaris[™], and Linux[®].

Using this manual

This Manual is available in PDF format so you can view it in Adobe Acrobat Reader. You can print the document, or use it online. If you use it online you can click on a Table of Contents entry, or a cross-reference, to move to the relevant text.

This document is also available from the Technical Support area of the SilverPlatter web site at <http://www.silverplatter.com>.

Some conventions used in this manual

These are the conventions used throughout this manual.

Example	Describes
/sproto/bin	<p>This bold type indicates a filename, or a directory path, or a URL.</p> <p>Where the instructions are specific to an installation on Windows NT, a directory path is shown with backslashes: \sproto\files. Where the instructions are specific to UNIX, the directory path has forward slashes: /sproto/bin.</p> <p>In cases where the action is the same on either platform, you must enter slashes in the format appropriate for your platform.</p>
<code>pkgadd</code>	<p>This typeface indicates text as you would type it, or an example of how it appears on the screen.</p>
filename	<p>This bold type indicates a placeholder, when included in something you type. You substitute the text appropriate to your system.</p>
<i>filename</i>	<p>This italic type indicates a placeholder, when described in the text.</p>
<i>root</i>	<p>This italic type indicates an account name.</p>
File	<p>This bold type indicates a menu, menu option, or the name of a button on the screen.</p> <p>It is also used for command names.</p>
[Enter]	<p>This bold type inside [and] indicates a key on your keyboard. Note: if the instructions say "Enter..." this means type in the text as instructed, (substituting your text for any placeholders) and press the [Enter] key.</p>

Introduction

SilverPlatter's ERL (Electronic Reference Library) technology makes database information available for searching over wide area networks.

In an ERL system, administrators provide access to information by installing and mounting databases on an ERL server. Administrators control database access by authorizing user accounts and defining the number of simultaneous connections for each database. They can also monitor and generate reports on system usage.

SPIRS clients provide the search and retrieval interface to the ERL server. Clients are available on several platforms, including the World Wide Web, Windows, and Macintosh. (Each of these client platforms is covered in separate documentation.)

This manual covers the installation and administration of the ERL v4.11 server for Windows NT[®], AIX[®], Solaris[™] and Linux[®].

The ERL v4.11 package now includes the software for the ERL Server, WebAdmin (and its associated ERL Administration Server) and brladmin.

Always check the latest set of Release Notes for any important, late-breaking information about the software.

The elements of an ERL system

An ERL system is made up of the following parts:

ERL server

The ERL server has two separate components: the server process and the ERL Server Interface.

The server process runs in the background and functions as the engine of the ERL system. It performs database searches, ensures system security, collects statistics, and stores system information.

The ERL Server Interface is the menu-based program you use to interact with the server to manage databases and control various system functions.

ERL administration tools

WebAdmin is a utility that lets you manage user accounts, control database access, and generate statistical reports. brladmin lets you carry out these tasks in batch mode.

WebAdmin is now installed as part of the ERL server package as explained in “The ERL 4.11 package” on page 2-1.

brladmin is now included, and installed, with the ERL server software.

SPIRS search clients

SPIRS search clients provide the search interface to ERL. Clients are available for the World Wide Web (WebSPIRS), Windows (WinSPIRS), and Macintosh (MacSPIRS) platforms. The SilverPlatter web site (<http://www.silverplatter.com>) has full details of these clients.

ERL-compliant databases

SilverPlatter produces an extensive catalog of databases for use on your ERL system. ERL-compliant databases are also available from a number of third-party publishers. Again, the SilverPlatter web site gives details of the available databases.

The installation steps

The following table shows you the various steps you go through to set up an ERL system, in the order you might take them. It also shows which chapters cover which steps.

The final items, setting up SilverLinker full text links, installing Z39.50, and using library holdings files are, of course, optional, depending on whether you will be using these features.

Step:	Covered in this Chapter:
1. Back up any earlier version	Installing ERL
2. Install the software	Installing ERL
3. Understand the administration tools	ERL administration tools
4. Install and enable databases	Managing databases
5. Set up user accounts	Controlling access to ERL
6. Log usage and create statistical reports	Obtaining Statistics
These are optional extra features:	
Sending message to users	Messages to users
Setting up SilverLinker links to full-text content	About SilverLinker
Installing Z39.50	The Z39.50 Option
Configuring library holdings files	Library Holdings

Contacting SilverPlatter

To learn more about SilverPlatter software, or if you have any queries about installing and running the ERL Server software, please do one of the following:

- **Access the Technical Support pages on the SilverPlatter website:**
<http://www.silverplatter.com>
- **Email our Technical Support staff:**
support@silverplatter.com
- **Call your local SilverPlatter distributor, or one of the following SilverPlatter Technical Support teams:**

Boston, USA Office (for the Americas, Japan, East and South East Asia, Australia, New Zealand and the Pacific):

Tel: 1-781-769-2599
1-800-343-0064 (US/Canada)
Fax: 1-781-769-8763

London, England Office (for Europe, except where listed below, Africa, Middle East, and South Asia):

Tel: +44 (0)20-8585-6400
0800-262-096 (UK)
Fax: +44 (0)20-8585-6640

Amsterdam, The Netherlands Office (for Scandinavian countries, Belgium, Netherlands, Luxembourg, France, Italy, and Israel):

Tel: +31 (0) 20 6259650
Fax: +31 (0) 20 6237408

Berlin, Germany Office (for Germany, Austria, Switzerland, and Eastern Europe):

Tel: +49 30-85 77 99-0
Fax: +49 30-85 77 99-99

Installing ERL

Introduction

This chapter tells you how to install the ERL server software on the following platforms:

- Windows NT[®] (NT 4.0 with Service Pack 6) (see “Installing the server software” on page 2–13)
- AIX[®] 4.2 or 4.3 (see “Installing ERL on AIX and Linux” on page 2–23)
- Solaris[™] 2.6 or 7 (see “Installing ERL on Solaris” on page 2–17)
- Red Hat Linux 6.0 or 6.1 (see “Installing ERL on AIX and Linux” on page 2–23)

Note: ERL v4.11 is not supported on SCO[®]. For details of how to migrate your existing data from SCO to another platform, please contact SilverPlatter Technical Support.

The ERL 4.11 package

The ERL Server package for version 4.11 now contains the following items:

- ERL server software.
- WebAdmin software, and its associated administration server. The ERL Administration Server is a web server configured to allow you to run WebAdmin from a supported web browser from any location,

over the Internet, by logging onto the server where ERL and WebAdmin are installed.

- brladmin, the SilverPlatter tool that lets you make changes to ERL in batch mode. For more information about brladmin, see the documentation (brlman) which is put into the brladmin destination directory when you install the software.

You only have to go through one installation procedure to install all these items.

If you are installing ERL for the first time

Go straight to the section “Before you install the software” on page 2–9.

If you have an earlier version of ERL installed

If you have an earlier version of ERL installed we recommend that you make a backup of your system and retain it.

Information about upgrading to ERL v4.11

This section contains important information that is relevant if you are upgrading from an earlier version of the ERL Server.

Some changes introduced in ERL v4.0

- The configuration file, **dbmenu.cfg** is now in the directory **/sproot/cfiles**. (See “Creating a menu of database titles” on page 4–16.)
- The default authorization for new databases (NOAUTHLIST) is set to NO. This means you must explicitly authorize new databases so that your users can access them.
- The enhancements to the statistics function in ERL v4.0 meant that the directory **/sproot/stats**, and the files **pstats.dat** and **pstats.idx**, and **dstats.dat** and **dstats.idx** were removed. If you want to keep statistics created in earlier versions of ERL you must make a system backup and export any statistics you want to save, *before* you upgrade.

- The NT ERL server now starts as the user *erl*, rather than as System Account. (See “Starting and stopping the servers” on page 2–15.)
- When you upgrade, the *admin* user password is re-set to “admin”. Be sure to change your *admin* password when the software installation completes.

Some changes introduced in ERL v4.05

- The further enhancements to the statistics function in ERL v4.05 mean that existing statistics files created in ERL v4.x are converted when you upgrade to v4.05 and later, and the statistics directory, **/sproot/erlstat** stores the converted statistics files, called *date.log* and *date.idx*. The old files are converted then deleted. If you want to keep the statistics created in earlier versions of ERL (before ERL v4.0), we recommend that you make a system backup and export any statistics you want to save, *before* you upgrade.

Some changes introduced in ERL v4.11

- The installation package for ERL 4.11 contains the ERL Server software, WebAdmin, the ERL Administration Server, and brladmin.
- Installing ERL 4.11 converts the **pfolio.dat** file, which contains the portfolios, and the **users.dat** file. If you need to reinstall an earlier version of ERL 4.x, you will need to use the backup of the original files. (The installation program makes these backups automatically as part of the conversion.)
- The file **/sproot/files/dbl.txt** no longer exists.

Points to note before you upgrade

There are some important issues you should be aware of if you are upgrading from an earlier version of the ERL Server:

- You cannot upgrade from ERL v1.2. You must uninstall and delete the **/sproot** directory, and its contents, and then install v4.11 as a new installation.
- If you are upgrading from v2.0 or greater, you can keep the **/sproot** directory. This means you can keep your existing accounts, portfolios, authorizations, and other settings, and your installed databases will not be affected.

- If you retain your existing accounts, you must check for, and remove, any commas in the Description and Reference fields of the user accounts, *before* you upgrade.
- You must uninstall any existing WebAdmin or brladmin packages before you install ERL v4.11.
- If you have a version of ERL v4.x installed that is earlier than 4.05, your existing statistics log files are converted to the new format when you install ERL v4.11. This upgrade process requires twice the existing disk space of the statistics log files.

Backing up files and uninstalling the software

We recommend you make a backup of your earlier system, in case you wish to reinstall it at some time. We also recommend you make a backup of some key files if you wish to be able to use the data with the new server software. Some file formats have changed, and will overwrite your existing data.

ERL Version Number:	Actions	Notes:
1.2	<ol style="list-style-type: none"> 1. Export any statistics files you want to retain. 2. Make a backup of the files that are in /sprout 3. Delete the /sprout directory and all its contents. 4. Install ERL 4.11 as a new installation. 	
Any other version earlier than 4.05	<ol style="list-style-type: none"> 1. Stop the server. 2. Export any statistics files you want to retain. 3. Make a backup of the files that are in \sprout or /sprout. 	Statistics files from versions 4.0 up to, but not including, 4.05 are converted to a new format when you install ERL 4.05 and later.

ERL Version Number:	Actions	Notes:
	4. Uninstall the software.	<p>AIX has no uninstall program. You can install ERL 4.11 over the existing installation and retain your existing settings.</p> <p>Solaris:</p> <p>Enter the following command to remove the software (but retain the database, user, and portfolio information). Do not remove any files manually.</p> <pre>pkgrm ERLsrvr</pre> <p>NT:</p> <ol style="list-style-type: none"> 1. Click on the Uninstall icon in the ERL program group. (Database, user, and portfolio information are retained.) <p>Note: Do not uninstall the server using Add/Remove Programs in the Control Panel. Do not remove any files manually, except for the file listed in the next step.</p> 2. If the <code>\sprout\bin</code> directory contains a file <code>dbl.txt</code>, remove that file. <p>Note: Do not remove any other files manually.</p>
4.05 and later	<p>There is no need to export statistics files.</p> <p>You can install the new software over the old, and retain your existing statistics and settings.</p>	

(Sheet 2 of 2)

Note: If you are uninstalling an earlier version of ERL on AIX and you are not installing ERL v.4.11 on your AIX machine (for example, if you are installing it on a different machine), you must stop the server from

trying to start up on a machine reboot after you delete the files. Login as the user *root* and enter:

```
rmitab spdbserver
```

Backing up version 2.x on AIX and Solaris

To ensure that you can restore ERL v2.x if necessary, do the following:

1. Backup the ERL v2.x software files in **/sproot**, excluding **/sproot/nodes**. Export any statistics files you want to keep.
2. Stop the process: **dbserver**.

Uninstalling version 2.x on AIX and Solaris

AIX:

There is no uninstall program on AIX.

If you are installing ERL v4.11, and you have AIX v2.11 installed, you can install the newer version over the older one, and you will not lose any of your existing settings.

If you have AIX v1.2 installed, delete all the **/sproot** files manually.

Now follow all the steps at “Installing ERL on AIX and Linux” on page 2-23 onwards.

Note: If you are uninstalling an earlier version of ERL and you are not installing ERL v.4.11 on your AIX machine (for example, if you are installing it on a different machine), you must stop the server from trying to start up on a machine reboot after you delete the files. Login as the user *root* and enter:

```
rmitab spdbserver
```

Solaris:

Enter the following command to remove the v2.0x software. Do not remove any files manually.

```
pkgrm ERLsrvr
```

(Database, user, and portfolio information are retained.)

Now follow all the steps at “Installing ERL on Solaris” on page 2-17 onwards.

Backing up v2.11 on NT

To ensure that you can restore ERL v2.11 if necessary, do the following:

1. Backup the ERL v2.11 software files (if you used the default, these are located in **C:\sproot**). Export any statistics files you want to keep.
2. Shut down the server.

Uninstalling v2.11

1. Click on the **Uninstall** icon in the ERL 2.11 program group. (Database, user, and portfolio information are retained.)

Note: Do not uninstall the server using **Add/Remove Programs** in the Control Panel. Do not remove any files manually, except for the file listed in the next step.

2. If the **\sproot\bin** directory contains a file **dbl.txt**, remove that file.

Note: Do not remove any other files manually.

Now follow all the steps at “Installing ERL for Windows NT” on page 2-13 onwards.

Backing up ERL 4.x

If you have a version of ERL 4 that is earlier than ERL 4.11 we recommend you make a backup, following the instructions at “Backing up version 2.x on AIX and Solaris” on page 2-6 or “Backing up v2.11 on NT” on page 2-7.

Reinstalling the backup

These are the steps to take if you need to reinstall a backup:

1. Shut down the server.
2. Uninstall v4.11. For NT see “Uninstalling ERL for NT” on page 2-16. For Solaris, use **pkgrm**. For AIX and Linux, delete all the **/sproot** files manually.

3. Delete the files in **\sproot** or **/sproot**.
4. Restore the earlier files from the backup.

Note: If you reinstall, you will lose any databases installed while using v4.11.

Reinstalling v2.x on Solaris

Note: If you reinstall v2.x, you will lose any databases installed while using v4.11.

1. Uninstall v4.11 using **pkgrm**.
2. Delete **/sproot/files**, **/sproot/bin**, and **/sproot/masters**. (Leave **/sproot/nodes** on the system.)
3. Install v2.x.
4. Restore files from backup back to **/sproot**.

Reinstalling v2.11 on NT

Note: If you reinstall v2.11, you will lose any databases installed while using v4.11.

1. Shut down the server.
2. Uninstall v4.11.
3. Delete the files in **C:\sproot** *the_directory_where_ERL_files_were_installed*.
4. Install v2.11.
5. Shut down the server.
6. Copy files from backup back to **\sproot**.

Reinstalling v4.x on Solaris

Follow the reinstall instructions at “Reinstalling v2.x on Solaris” on page 2-8 to reinstall an earlier version of ERL 4.x.

Reinstalling v4.x on AIX and Linux

Delete all the **/sproot** files manually and reinstall the earlier version.

Reinstalling v4.x on NT

Follow the reinstall instructions at “Reinstalling v2.11 on NT” on page 2-8 to reinstall an earlier version of ERL 4.x.

If you are changing from a different platform

Changing from SCO

Please contact SilverPlatter Technical Support if you are changing from the SCO platform and need assistance.

Before you install the software

Introduction

You need to carry out the following tasks before you install the ERL v4.11 server software:

All platforms

- Contact SilverPlatter Information or your local distributor to obtain your server license information (Server ID, Site Name and ID, for example), and your database license sheets. You receive this information as a printed sheet or an electronic file (or both). We recommend you install the electronic file when you install your license information.

Windows NT

- Check the server’s paging file size to ensure that 4 MB per user is available (To check this, open Control Panel, double-click System and select the Performance tab.) When you install the ERL server what you enter at ‘Max Logins’ must agree with the paging size. The Server now warns you if the paging size is too small.
- On NT Server 4.0, optimize your NT server file cache for network applications: in Control Panel open the Network dialog box, double-click the Services tab and under Server Properties, click “Maximize Throughput for Network Applications.”

UNIX

- Make a swap partition that allows 4 MB per user. If you have 64 MB of RAM create at least 128 MB of swap space. The Server will

recommend the number of logins, based on swap size, as part of the installation program.

Checking your system requirements

Before you start to install the software you must check the hardware requirements for your platform.

For the very latest information about hardware requirements, please see the SilverPlatter web site at:

<http://www.silverplatter.com/erl/erlserverreq.htm>

All UNIX versions require 40MB free space on the **/sproot** file system, and the Solaris version requires an additional 40MB disk space during installation. The NT version requires 17MB to install.

Gathering the information you need

When you install the software, you will be asked to specify various settings. It is worth deciding on your settings before you start installing. The following table lists these settings:

Setting:	What it means:
Directory in which to install the server	Windows NT: Installation program's default is recommended: \sproot Solaris: The complete path where you want to install the ERL Server package (for example /opt) AIX and Linux: Installation program's default is recommended: /sproot
Server Name	A name for the server (for example, Library ERL Server).The name is displayed in the SPIRS login prompt when clients connect to the server. Use no more than 79 characters.
ServerID	The server identifier specified on your ERL Server Registration card. When you enter your server ID, do not type SP\$. Your server ID is the number that appears after the SP\$ on a license sheet. The ServerID on the database license sheet must match the ServerID you enter when installing the ERL software.
Organization	The name of your organization. All ERL servers in your organization will share this name. Use no more than 79 characters.
Organization ID	An organization ID. All ERL servers in your organization will share this ID. Use no more than 15 characters.

Setting:	What it means:
Site Name	A name for the site (for example, <code>Central Library</code>). All ERL servers at your site will share this name. Use no more than 79 characters.
Site ID	A Site ID (for example, <code>library</code>). All ERL servers at your site will share this ID. Use no more than 15 characters.
Maximum Logins	The maximum number of simultaneous users you want to be able to use this server at one time. (This number of users is <i>not</i> the same as the number of users specified in your license.) The number of users is based on the size of machine memory and virtual memory. See “Note on Maximum Logins” on page 2-27.
Inactivity Timeout	The inactivity limit for this server. This is the number of minutes the server waits for input from a client before terminating the connection with the client.
CD-ROM Drive letters (devices file)	The drive letters for each CD-ROM drive you want to make available to ERL. UNIX: For details see “Preparing filesystems” on page 2-19
Database destination drive/directory (nodes file)	The drives and/or directories to which you want to copy files when you install databases. UNIX: For details see “Preparing filesystems” on page 2-19
IP addresses (ipincl file)	The addresses of the computers from which your users access the server. You can add the addresses of your client machines now or later. UNIX: For details see “Entering IP addresses” on page 2-25
The SMTP server address and the “From” text for warning of license expiry	NT only: The text string that will appear in the From: field in the emailed warning message that a database is nearing its expiration date. UNIX: These use <code>sendmail</code> to send the email message. <code>sendmail</code> must be configured on your server if you want to use this feature.

(Sheet 2 of 2)

Getting the software The ERL software and full documentation set is available on SilverPlatter’s ftp site.

Downloading with a browser

1. Access the SilverPlatter web site; <http://www.silverplatter.com>

2. Click on the link for **Technical Support**, then **Download Registration**.
3. Select the software and platform, and follow the online instructions.

The files you receive are:

- The compressed software (**erlsrvr.exe** (NT) or **erlsrvr.pkg.Z** (Solaris), or **erlsrvr** (AIX and Linux) depending on the platform)
- The release notes (**readme.txt**)
- The *ERL Administrator's Manual* (this manual - **erlmn411.pdf**)

Downloading from the ftp site

1. Use anonymous ftp to connect to SilverPlatter's site: **ftp.silverplatter.com**. Login with user-id *anonymous* and enter your email address as a password.
2. Change to the **/software/erl-server** directory.
(To do this, enter `cd /software/erl-server`)
3. Change to the **aix**, **nt**, **solaris**, or **linux** directory.
4. Make sure you will download the files as binary files.
(To do this, enter `bin`)
5. Download all the files from the directory.

(To do this, enter `mget *`. You are prompted to enter `y` to agree to download each file.)

The files will download into whatever is your local directory. The files are:

- The compressed software (**erlsrvr.exe** (NT) or **erlsrvr.pkg.Z** (Solaris), or **erlsrvr** (AIX and Linux) depending on the platform)
- The release notes (**readme.txt**)
- The *ERL Administrator's Manual* (this manual - **erlmn411.pdf**)

Installing ERL for Windows NT

This section provides instructions for installing ERL v4.11 on Windows NT. You should also read the release notes (**readme.txt**) for your particular release: they contain any late-breaking information about installing and running the software.

Installing the server software

1. Create a temporary directory for the **erlsrvr.exe** file.
2. Run **erlsrvr.exe** to start the installation program. The Welcome screen appears.

Throughout the installation program you will be asked to agree or change the information about the installation. The following instructions will help you decide what you should enter. After every screen until the last, click **Next** to continue to the next screen.

3. Confirm the directory where you want to install the server. We recommend using the installation program's default selection: **\\sproot**. If you choose this, the installation program will create the directory as part of the installation.
4. Accept or change the Program Folder details, and click **Next** to continue.

Configuring the server

1. In the Server Information dialog box, enter the requested information for each of the following:
 - **Server Name:** Enter a name for the server (for example, `Library ERL Server`). The name is displayed in the SPIRS login prompt when clients connect to the server.
 - **Server ID:** Enter the server identifier specified on your ERL Server Registration card. When you enter your server ID, do not type `SP$`. Your server ID is the number that appears after the `SP$` on a license sheet. The server ID on the database license sheet must match the server ID you enter when installing the ERL software.
 - **Organization:** Enter the name of your organization. All ERL servers in your organization will share this name.
 - **Organization ID:** Enter an organization ID. All ERL servers in your organization will share this ID.

- **Site Name:** Enter a name for the site (for example, Central Library). All ERL servers at your site will share this name.
- **Site ID:** Enter a Site ID (for example, library). All ERL servers at your site will share this ID.
- **Maximum Logins:** Enter the maximum number of simultaneous user logins you want to allow, based on the virtual memory capacity (the paging size) of your machine. Refer to “Checking your system requirements” on page 2-10 for details. If you see a message asking for more memory during installation, stop the installation, adjust the paging size, and resume the installation. See also “Note on Maximum Logins” on page 2-27.
- **Inactivity Timeout:** Enter the time limit for client inactivity. The server will disconnect any inactive client after the specified time limit. The default is 30 minutes.

Installing the rest of the package

1. The installation program installs the software program Blat, which ERL uses to send an email message when a licence is due to expire. You need to specify the following:
 - The address of the SMTP server that Blat will use.
 - The text string you want to appear in the **From:** field in the email message.

When you have finished running the installation program you will need to make some additional configuration changes to set up the system for receiving email warnings that licenses are due to expire. The other steps are set out at “Setting up email notice of license expiry” on page 4-5.

2. The installation program starts to copy the files across.
3. If the *erl* user account does not exist, the screen asks for the *erl* account password, which is used when the ERL server service starts.
4. The installation program starts the ERL server service, and prompts for the *erl* account password.

Completing the installation

1. Once you have confirmed the Server information, you see a window showing the **devices** file. Scroll to the bottom and enter the drive

letters for each CD-ROM drive you want to make available to ERL. Then save and close the file to return to the installation program.

2. The **nodes** file appears. Scroll to the bottom and add the drives and directories to which you want to copy database files when you install databases.
3. You must specify at least one directory, even if you do not plan to copy any databases onto hard disk. (If you do not specify a directory, you will receive a “Disk full” message when you install databases.) Then save and close the file to return to the installation program.

Entering IP addresses

1. The **ipincl** file appears. Here you control the access to the ERL server based on the IP address range of your users’ client machines. You can also add the addresses of your client machines later. For more information about IP addresses see “Specifying valid IP addresses” on page 5-1. Save and close the file to return to the installation program.

Note: You can edit **devices**, **nodes**, and **ipincl** after installation: **devices** and **nodes** are in **lsprootfiles**, and **ipincl** is in **lsprootcfiles**. You can also edit **ipincl** and create new IP address sets through WebAdmin.

2. Click **Next**. The installation program installs the ERL server. Icons for the ERL Server, Uninstaller program, and Release Notes appear in the SilverPlatter ERL program group of the user account that installed the software.

Starting and stopping the servers

The ERL server is installed, and started, as a service running as a user called *erl*. This user account is created during installation (if one does not exist already). (You may want to note that NT does not create this account as “never expires”, so you may wish to change this setting manually.) The *erl* user must belong to the administrator group. If you run the ERL server as a different user, you will not be able to access databases across the network.

You can stop and start ERL, check the status of the service, and change the account under which the service runs, through the Services control panel. You can also install the server and start it as a service using the command:

```
dbserver -install
```

You can remove it as a service by using the command:

```
dbserver -remove
```

If you reboot the server, the ERL service starts automatically.

If you are using NT's shared directories capability to access databases on other machines, you should start the ERL service using the same user name as the shared directory machine. To do this, create an *erl* user on every machine that has the shared directories. Then run the ERL service as the *erl* user.

Starting the server menu

To start the ERL **Server** menu:

- In the ERL 4.11 Server program group, double-click on the ERL 4.11Server User Interface.

or

- Open a DOS-window and change to the **\sproot\bin** directory. Then enter: `dbserver -u`

Uninstalling ERL for NT

You can uninstall the server using one of the following methods:

- Click the **Uninstall** icon in the SilverPlatter ERL 4.11 Program group.
- Use **Add/Remove Programs** in the Control Panel.
- Use the following command:

```
\sproot\uninst
```

Any directories and files created after the installation remain in **\sproot**. If necessary, you can delete them.

Installing ERL on Solaris

This section provides instructions for installing ERL v4.11 on Solaris. You should also read the release notes (**readme.txt**) for your particular release: they contain any late-breaking information about installing and running the software.

These are the steps you go through to install the software on Solaris.

Creating an installation directory

1. Log in as *root*.
2. Decide where you want to install the software. If necessary, create a new directory.

The recommended directory is **/sproot**. The directory needs at least 40MB of free space.

3. If you choose a directory other than **/sproot**, you must make a link between that directory and **/sproot**. To do this, enter a line like the following:

```
ln -s /data/sproot /sproot
```

In this example, you want to install the software into a directory called **/data/sproot**.

Installing the software

1. Move the **erlsrvr.pkg.Z** file to the directory where you want to uncompress and install it.
2. In that directory, uncompress the file by entering:

```
uncompress erlsrvr.pkg.Z
```

3. Enter this line to start to install the software:

```
pkgadd -d `pwd`/erlsrvr.pkg
```

This unpacks the software to the directory **/var/spool/pkg**. If there is not enough space there, you see error messages. If this happens, split this process into the following two steps:

- A. Enter this line to unpack the software to a directory with sufficient space:

```
pkgadd -s /some_directory -d erlsrvr.pkg
```

where **/some_directory** is the directory with sufficient space.

B. Change to that directory, and run **pkgadd** from there:

```
cd/some_directory
pkgadd -d .
```

4. The script lists available packages and prompts you for the package you want to process. Enter the number that is next to the ERL server package, version 4.11.
5. The script prompts you for the path to the package base directory. Enter the complete path where you want to install the ERL server package. If using the default directory, just enter / . (Taking the example used in “Creating an installation directory” on page 2-17, you would enter /data to install the software into a directory called **/data/sproot**.)
6. The script lists several files and asks if you want to install them, and then if you want to continue with the installation. Enter **y** at both prompts. The script now unpacks the files into the directory.

Configuring the server

1. Enter answers to a number of questions about your server:
 - **Server ID:** Enter the server identifier specified on your ERL Server Registration card. When you enter your server ID, do not type SP\$. Your server ID is the number that appears after the SP\$ on a license sheet.
 - **Server Name:** Enter a name of up to 79 characters for this server. The name is displayed in the SPIRS login prompt when clients connect to the server.
 - **Organisation ID:** Enter an Organisation ID of up to 15 characters. All ERL servers in your organization will share this ID.
 - **Organisation Name:** Enter an Organisation Name of up to 79 characters. All ERL servers in your organization will share this name.
 - **Site ID:** Enter a Site ID of up to 15 characters. All ERL servers at your site will share this ID.
 - **Site Name:** Enter a Site Name of up to 79 characters. All ERL servers at your site will share this name and it will be displayed by directory servers to indicate ERL servers within a given site.

- **Max Logins:** Enter the maximum number of simultaneous users you want to be able to use this server at one time.
 - **Inactivity Limit:** Enter the inactivity limit for this server. This is the number of minutes the server waits for input from a client before terminating the connection with the client.
2. The script now tells you the amount of available swap space, and recommends the maximum number of users. If you exceed that maximum, you could affect the performance of the server. For the best performance, use the minimum number. See also “Note on Maximum Logins” on page 2-27.

The script asks if you want to change any of the settings you have just made. Enter *y* and then go through the options again to change any of the settings, or enter *n* if you are content with them.

Installing the rest of the package

1. The script announces it is configuring the brladmin software.

It then says it has installed the WebAdmin and ERL Administration Server, and may have modified the **/etc/system** file. (You must reboot the machine before any changes to **/etc/system** come into effect.)

The changes in the **/etc/system** file (which may include changing the paging parameters to improve performance), all appear in the file with comments saying they have been modified for use with the ERL server, so you can identify them.

2. The script reminds you that the method for starting and stopping the ERL server (and the ERL Administration Server) is now slightly different (see “Starting and stopping the servers” on page 2-21), then confirms that the installation was successful.

If you used steps 3A and 3B from “Installing the software” on page 2-17, you now see the list you first saw at step 4 in that section again. This time, enter *q* to quit.

3. Reboot your machine.

Preparing filesystems

1. If you will be loading databases onto one or more hard disks, make a filesystem on each hard disk, and give it an appropriate name. (See your UNIX documentation for specific instructions.)

2. In the directory **/sproot/nodes**, create directories **disk1** through to **diskn**, where *n* is the number of filesystems you will use to copy your databases.

Note 1: Create only as many **diskn** directories as you have hard disk filesystems. If you plan to add more hard disk filesystems later, create additional **diskn** directories as and when you need them.

Note 2: If you have already established mount points for your hard disk filesystems, remove the current **diskn** directories and make a symbolic link from the mount point of each of the filesystems to one of the **diskn** directories.

3. Make sure the directories you just created are owned by user *erl*.
4. Make sure that your CD-ROM devices are configured properly; the ERL software creates its own mount points for each one. The file **/sproot/files/devices** is set up automatically during installation, and contains the device names of the CD-ROM drives. If you later configure additional CD drives you will need to add the device names to this file.
5. Edit the file **/sproot/files/devices**. For each CD-ROM drive, add the following line to the list of devices:

```
dev/dsk/c0tnd0s0
```

where *n* is the SCSI id number of the CD-ROM drive. This configures the CD-ROM drives to your ERL system.

6. Edit the file **/etc/vold.conf**. For each CD-ROM drive, comment out (by inserting a pound sign, #, in front of) the following line:

```
use cdrom drive /dev/dsk/c0tn dev_cdrom.so
cdrom0
```

where *n* is the SCSI id number of the device. This prevents contention between the Solaris CD manager program and ERL.

7. Stop the **vold** process by entering the following command:

```
kill -1 pid
```

where *pid* is the process id of **vold**. (If necessary, enter the `ps -ef` command to find out the **vold** process id.)

8. Edit the `/etc/vfstab` file, which controls which filesystems mount automatically when you boot the system. For each hard disk filesystem, put “yes” in the `Mount at Boot` column, and put the following path in the `mount point` column:

```
/sproot/nodes/diskn
```

where *n* is the sequential number of the filesystem.

Note: Do not make `/sproot/nodes` a mount point.

9. Enter the following command for each of the hard disk filesystems mounted under `/sproot/nodes`:

```
tunefs -m 0 /dev/dsk/c0tnd0sm
```

where *n* is the SCSI id, and *m* is the partition number. This frees up the filesystem space that Solaris reserves by default.

Entering IP addresses

For new installations (not upgrades) of the ERL Server on Solaris, you need to edit the `/sproot/cfiles/ipincl` file so that it includes the IP addresses for all the machines you want to be able to access the ERL server. (Refer to “Controlling access using IP addresses” on page 5-1 for further details.)

Starting and stopping the servers

To start the ERL server and the ERL Administration Server:

1. Once installed, the ERL server and ERL administration server (the web server that lets you access WebAdmin) start automatically when you reboot your machine. To start the servers manually, from the `/sproot/bin` directory, login as the `erl` user and enter:

```
/sproot/scripts/start_server
```

2. To start the ERL server interface, login as the `erl` user and enter:

```
./dbserver
```

The ERL **Server** menu appears.

To start the ERL Administration Server only:

1. Log on as user `erl`
2. Enter the following line:

```
/sproot/apache/bin/apachectl start
```

To stop the ERL server and the ERL Administration Server:

1. To stop the servers manually, from the **/sproot/bin** directory, login as the *erl* user and enter:

```
/sproot/scripts/stop_server
```

To stop the ERL server only:

If you ever need to shutdown the ERL server on its own, you can do this as follows:

1. Return to the ERL **Server** menu.
2. At the **dbserver** prompt, enter SHUTDOWN. ERL asks you for the number of minutes until shutdown.
3. Enter the number of minutes. If you enter one minute or more, ERL sends the following message to user accounts currently accessing the server:

```
ERL Database Server shutting down...
```

Note: If you enter 0 for the number of minutes until shutdown, ERL will shut down immediately, without sending any notification to user accounts. You may want to send a specific message to user accounts before you stop ERL. See “Sending a message to connected accounts” on page 6-1 for more information on sending messages to users.

ERL delays for the specified number of minutes, if any, and then shuts down and returns you to the UNIX prompt.

Note: This does not shut down the ERL Administration Server.

To stop the ERL Administration Server only:

1. Log on as user *erl*
2. Enter the following line:

```
/sproot/apache/bin/apachectl stop
```

Installing ERL on AIX and Linux

This section provides instructions for installing ERL v4.11 on AIX and Red Hat Linux. You should also read the release notes (**readme.txt**) for your particular release: they contain any late-breaking information about installing and running the software.

These are the steps you go through to install the software on AIX and Linux.

Creating an installation directory

1. Log in as *root*.
2. Decide where you want to install the software. If necessary, create a new directory.

The recommended directory is **/sproot**. The directory needs at least 40MB of free space.

3. If you choose a directory other than **/sproot**, you must make a link between that directory and **/sproot**. To do this, enter a line like the following:

```
ln -s /data/sproot /sproot
```

In this example, you want to install the software into a directory called **/data/sproot**.

Installing the software

1. Move the **erlsrvr** file to the directory where you want to install it.
2. (*AIX only*) If you are reinstalling ERL v4.11 for any reason (or if you are installing a later version, when available) enter:

```
slibclean
```

3. Enter this line to start to install the software:

```
sh ./erlsrvr
```

Configuring the server

1. Enter answers to a number of questions about your server:
 - **Server ID:** Enter the server identifier specified on your ERL Server Registration card. When you enter your server ID, do not type SP\$. Your server ID is the number that appears after the SP\$ on a license sheet.

- **Server Name:** Enter a name of up to 79 characters for this server. The name is displayed in the SPIRS login prompt when clients connect to the server.
 - **Organisation ID:** Enter an Organisation ID of up to 15 characters. All ERL servers in your organization will share this ID.
 - **Organisation Name:** Enter an Organisation Name of up to 79 characters. All ERL servers in your organization will share this name.
 - **Site ID:** Enter a Site ID of up to 15 characters. All ERL servers at your site will share this ID.
 - **Site Name:** Enter a Site Name of up to 79 characters. All ERL servers at your site will share this name and it will be displayed by directory servers to indicate ERL servers within a given site.
 - **Max Logins:** Enter the maximum number of simultaneous users you want to be able to use this server at one time.
 - **Inactivity Limit:** Enter the inactivity limit for this server. This is the number of minutes the server waits for input from a client before terminating the connection with the client.
2. The script now tells you the amount of available swap space, and recommends the maximum number of users. If you exceed that maximum, you could affect the performance of the server. For the best performance, use the minimum number. See also “Note on Maximum Logins” on page 2-27.

The script asks if you want to change any of the settings you have just made. Enter `y` and then go through the options again to change any of the settings, or enter `n` if you are content with them.

Installing the rest of the package

1. The script announces it is configuring the `brladmin` software and then says it has installed the WebAdmin and ERL administration server.
2. The script reminds you that the method for starting and stopping the ERL server (and the ERL Administration Server) is now slightly different, (see “Starting and stopping the servers” on page 2-25), then confirms that the installation was successful.

Preparing filesystems

1. If you will be loading databases onto one or more hard disks, make a filesystem on each hard disk, and give it an appropriate name. (See your UNIX documentation for specific instructions.)
2. In the directory **/sproot/nodes**, create directories **disk1** through to **diskn**, where *n* is the number of filesystems you will use to copy your databases.

Note 1: Create only as many **diskn** directories as you have hard disk filesystems. If you plan to add more hard disk filesystems later, create additional **diskn** directories as and when you need them.

Note 2: If you have already established mount points for your hard disk filesystems, remove the current **diskn** directories and make a symbolic link from the mount point of each of the filesystems to one of the **diskn** directories.

3. Make sure the directories you just created are owned by user *erl*.
4. Make sure that your CD-ROM devices are configured properly; the ERL software creates its own mount points for each one. The file **/sproot/files/devices** is set up automatically during installation, and contains the device names of the CD-ROM drives. If you later configure additional CD drives you will need to add the device names to this file.

Entering IP addresses

For new installations (not upgrades) of the ERL Server on AIX and Linux, you need to edit the **/sproot/cfiles/ipincl** file so that it includes the IP addresses for all the machines you want to be able to access the ERL server. (Refer to “Controlling access using IP addresses” on page 5-1 for further details.)

Starting and stopping the servers

To start the ERL server and the ERL Administration Server:

1. Once installed, the ERL server and ERL administration server (the web server that lets you access WebAdmin) start automatically when you reboot your machine. To start the servers manually, from the **/sproot/bin** directory, login as the *erl* user and enter:

```
/sproot/scripts/start_server
```

2. To start the ERL server interface, login as the *erl* user and enter:

```
./dbserver
```

The ERL **Server** menu appears.

To start the ERL Administration Server only:

1. Log on as user *erl*
2. Enter the following line:

```
/sproot/apache/bin/apachectl start
```

To stop the ERL server and the ERL Administration Server:

1. To stop the servers manually, from the **/sproot/bin** directory, login as the *erl* user and enter:

```
/sproot/scripts/stop_server
```

To stop the ERL server only:

If you ever need to shutdown the ERL server on its own, you can do this as follows:

1. Return to the ERL **Server** menu.
2. At the **dbserver** prompt, enter **SHUTDOWN**. ERL asks you for the number of minutes until shutdown.
3. Enter the number of minutes. If you enter one minute or more, ERL sends the following message to user accounts currently accessing the server:

```
ERL Database Server shutting down...
```

Note: If you enter 0 for the number of minutes until shutdown, ERL will shut down immediately, without sending any notification to user accounts. You may want to send a specific message to user accounts before you stop ERL. See “Sending a message to connected accounts” on page 6-1 for more information on sending messages to users.

ERL delays for the specified number of minutes, if any, and then shuts down and returns you to the UNIX prompt.

Note: This does not shut down the ERL Administration Server.

To stop the ERL Administration Server only:

1. Log on as user *erl*
2. Enter the following line:


```
/sproot/apache/bin/apachectl stop
```

Note on Maximum Logins

When you install ERL Server 4.11 on NT you enter the number of simultaneous users that you want to be able to use the server. On the UNIX platforms the installation program offers suggestions about the maximum number of users; the maximum based on the available RAM, a theoretical maximum, and an actual maximum calculated from swap space currently available. (You can increase the swap space size if you wanted to exceed this maximum.)

The recommended number of users is calculated from the setting `MM.VM_desired=`, which is in **erlsrvr.cfg**. If your server has less than 1GB of memory, the suggestions are based on allocating 4MB to users. If the server has more memory the suggestion will be based on 10MB.

You can increase this amount by editing the file by hand, but if you do this we advise you to reduce the total number of maximum users using **changeservinfo** (on UNIX). See “CHANGESERVINFO” on page 12-1 for details of this script. On NT, you can change the number by uninstalling ERL 4.11 and installing it again, entering a different number at the prompt.

Increasing the `MM.VM_desired=` setting can increase performance on large databases, or allow searching on more, smaller databases. However, it may reduce the maximum number of simultaneous users.

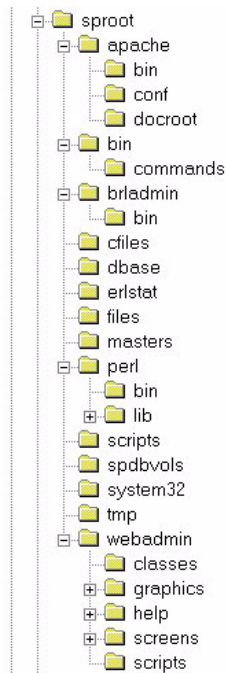
A new setting in **erlsrvr.cfg**, `log_max_allocated=`, has the following values:

- If set to `=1` this writes a message into the log file, whenever the `MM.VM_desired=` setting is exceeded, so you can check if the setting is adequate. (Although the setting is exceeded, the connection is not actually lost.)

- If set to =2, this always writes the memory allocated into the log file, whether or not it exceeds `MM.VM_desired=`. We do not recommend this setting for normal use, because it can lead to very large log files.
- If set to =0 (the default) this feature is switched off.

The ERL Server directory system

This is the `/sproto` directory structure for an installation on NT:



apache

This contains the software for the ERL Administration Server.

bin

This contains the executable files, configuration files, log files, and dlls (used only on NT).

brladmin

This contains the brladmin software.

cfiles

This contains files or directories that can be accessed by clients. Files include **ipincl**, **dbmenu.cfg**, **motd**, and the library holdings files.

dbase

This contains database-specific information, and the **coretags.cfg** file.

erlstat

This contains the server-generated statistics log files.

files

This contains the server data files.

masters

This contains master files used during the installation.

nodes

(UNIX only) This contains the directories where database files will be copied. This directory is initially empty.

perl

This contains the Perl files that WebAdmin uses.

scripts

This contains scripts used by the server during installation along with some utility scripts.

spdvols

This contains the installed databases. On UNIX the directory contains mounted files for CD installations, or soft links to magnetically copied files. On NT the files are text files which indicate where the actual files are in the filesystem.

system32

This contains copies of the Microsoft Visual C++ runtime dlls. These files are copied into the Windows NT system directory during installation.

tmp

This contains the statistics files. This directory is initially empty. The location of this directory can be changed in the **erlsrvr.cfg** file.

webadmin

This contains the WebAdmin software.

ERL administration tools

Introduction

This chapter describes the ERL administration tools. Administration includes managing accounts, controlling access to databases, and generating statistical reports. These activities are covered in later chapters.

Note: From ERL v4.11 onwards, brladmin and WebAdmin are installed as part of the ERL package, so this chapter no longer includes information about installing WebAdmin.

About the administration tools

There are two utilities available for ERL administration: WebAdmin and brladmin. The different ways you use these utilities are explained in later chapters. WebAdmin makes use of full ERL v4.x functionality and brladmin is a useful way of carrying out these same administrative tasks in batch mode.

The following table shows the different tools available for common administration tasks:

Feature:	Available with the tools marked ■				Explained at:
	Web-Admin	bri-admin	ERL server menu	Text editor	
Creating and sending out a "Message of the day"	■			■	"Setting up a "Message of the Day"" on page 6-2
Sending a message to connected accounts			■		"Sending a message to connected accounts" on page 6-1
Creating a Database menu	■			■	"Creating a menu of database titles" on page 4-16
Displaying connections	■		■		
Creating IP address sets and setting IP address checking	■			■	"Controlling access using IP addresses" on page 5-1
Creating account-specific IP address sets	■	■		■	"Creating user-specific IP address sets" on page 5-4
Running statistical reports	■	■			"Creating statistics reports with WebAdmin" on page 7-7
Filtering which SilverLinker links to display	■				"Configuring SilverLinker in WebAdmin" on page 8-4
Licensing databases			■		"Licensing databases" on page 4-3
Installing databases			■		"Installing databases" on page 4-7
Mounting databases			■		"Mounting and unmounting databases" on page 4-12
Enabling databases	■	■	■		"Enabling and disabling databases" on page 4-12

Feature:	Available with the tools marked ■				Explained at:
	Web-Admin	brl-admin	ERL server menu	Text editor	
Updating databases			■		"Updating databases" on page 4-13
Removing databases			■		"Removing databases" on page 4-14
Displaying database information	■	■			"Displaying database information" on page 4-15
Displaying information about mounted databases	■	■	■		
Verifying database integrity			■		"Verifying database integrity" on page 4-15
Creating new users accounts	■	■			"Creating an account" on page 5-6
Editing user accounts	■	■			"Editing an account" on page 5-6
Deleting user accounts	■	■			"Deleting an account" on page 5-6
Importing lists of users		■			See the BRL Reference Manual
Creating portfolios	■	■			"Creating a portfolio" on page 5-8
Editing portfolios	■	■			"Editing a portfolio" on page 5-8
Deleting portfolios	■	■			"Deleting a portfolio" on page 5-9
Authorizing accounts	■	■			"Authorizing accounts to portfolios" on page 5-10

WebAdmin

When you install the ERL v4.11 package, you automatically install WebAdmin, and its associated ERL Administration Server software.

With ERL 4.11 and later you can run WebAdmin 4.1 from a supported web browser from any location, over the Internet, by logging onto the server where ERL and WebAdmin are installed. You can only use WebAdmin 4.1 to administer the server if that server is running on the same machine as the WebAdmin installation.

Users with experience of the earlier standalone version of WebAdmin should note that the new, integrated version of WebAdmin works only with the ERL server on which it is installed.

Features unique to WebAdmin include:

- **Message of the Day**
Create a message that users see when they log in to ERL.
- **Database menu**
Arrange the databases on your server.
- **Connections**
Display connected accounts or databases in use.
- **IP address sets**
Create user-specific IP address sets.
- **Enhanced statistical reports**
Generate reports by Account, Portfolio, Database ID, Database Group, or IP Address; easily define your date range, sort order, and data to include.
- **Configuring the way the server uses the SilverLinker database**
Specify the types of links to full-text articles your users will see.

Uninstalling an earlier version of WebAdmin

You cannot upgrade an existing version of WebAdmin, because WebAdmin is now integrated into ERL v4.11. If you already have WebAdmin v4.0 or v4.01 installed, you should uninstall it before

installing ERL v4.11 (although, for the Windows NT version, the WebAdmin you install as part of ERL v4.11 will be in a totally different directory structure).

When you uninstall WebAdmin, you must delete any files in the WebAdmin data directory first. If you uninstall WebAdmin, you may see a message that WebAdmin has not been able to remove all the files. This is the correct behavior, and ensures that Perl, which may be needed by other SilverPlatter software, (the Holdings Conversion Utility, for example) has NOT been deleted. In these circumstances, we recommend that you retain the remaining files in the WebAdmin directory, and do not try to delete them manually.

Installing WebAdmin

When you install the ERL v4.11 package, you install WebAdmin automatically.

Accessing WebAdmin

You access WebAdmin by entering the following URL in your browser:

```
http://server_name:4416/webadmin/
```

WebAdmin has fully context-sensitive online help, which has been revised for this release. It now includes an overview of the tasks you can carry out in WebAdmin (accessed through the Help Table of Contents) and “pop-up” definitions of glossary terms.

Reloading/Refreshing Pages

When you use applications over the web, you sometimes need to “Reload” (Netscape) or “Refresh” (Internet Explorer) a page; by using a button on the browser’s toolbar, for example. If you wish to reload or refresh in WebAdmin, (which consists of dynamically created data, rather than static pages) point the mouse at the data to be refreshed, click the right mouse button (Windows) or hold the mouse button down (Macintosh), and select **Reload** or **Refresh** from the pop-up menu. This will always preserve the data.

Managing databases

Introduction

This chapter explains how to make available and maintain the databases on ERL, using the ERL **Server** menu on the server machine.

There are four ordered steps to make a database available:

1. Install the license for the database
2. Install the database
3. Mount the database
4. Enable the database

You use the ERL **Server** menu to perform these steps. You will also need to update databases on a regular schedule.

This chapter describes all the above actions as well as the following:

- Unmounting a database
- Disabling a database
- Removing a database
- Displaying the status of a database
- Creating a menu of database titles

In addition you can specify which accounts or IP addresses can access your databases. This is described in Controlling access to ERL.

“Setting up email notice of license expiry” on page 4-5 explains how to set up your server so that you get email messages warning you when a database is approaching its expiry date.

Note: If you have not installed databases before, you might want to license, install, mount, and enable one database to start with, check that you can search that database using a SPIRS client, and then install other databases.

QUIKdata

QUIKdata v2 lets you receive weekly updates of certain databases over the Internet, as soon as SilverPlatter updates the databases. You can also receive your ERL Authorization sheets using QUIKdata. For more details about QUIKdata, and the databases and platforms it supports, see the SilverPlatter web site: <http://www.silverplatter.com>.

ERL Server menu

You perform most database management activities through the ERL **Server** menu, described below:

Server Menu Option:	Description:
1. Show Mounted Database(s)	Lists all mounted databases
2. Mount Database(s)	Makes installed databases available to administrative accounts
3. Unmount Database(s)	Unmounts databases
4. Enable/Disable Database(s)	Makes mounted databases available to authorized user accounts
5. License Administration	Installs, removes, and displays database licenses

Server Menu Option:	Description:
6. Database Installation	Installs, removes, and displays databases
7. Apply Database Update	Replaces old database with its installed and mounted update
8. Show Connection(s)	Displays connected accounts
9. Send Message	Sends messages to one or more users
10. Split Statistics	Splits the statistics log file so that the file containing existing statistics can be archived, and further statistics are stored in a new file.
11. Exit from Menu	Closes the server menu

(Sheet 2 of 2)

Licensing databases

An ERL license resides on the server and contains all the information ERL needs for your database or product subscription. You will have one license for each database or product that you put on your server.

When you receive the first installment of your subscription, you will also receive your license, in the form of either a Database License Authorization Sheet or an electronic license file. The license indicates several items about the product, including the server ID supplied by SilverPlatter, the maximum number of simultaneous connections allowed to the product, and whether or not the product can be installed on a hard disk.

Important:

You must install the license for a database before you do anything else with the database. You can update licenses when they expire, remove old licenses, and list the licenses that are currently installed.

Installing a license

To license a database, use the ERL **Server** menu:

1. Select **5. License Administration** from the ERL **Server** menu to display the **License** menu.

License Menu Option:	Description:
1. Install License	Installs licenses
2. Remove License(s)	Removes licenses
3. List License(s)	Lists the currently installed licenses
4. Display License(s)	Displays information about the currently installed licenses
5. Save License(s)	Saves licenses to text files
6. Exit	Returns to the previous menu

2. Select **1. Install License**. ERL prompts you for the path and filename of the license file (the default path is `\sproot\bin`).
3. If you have an electronic license file, enter the name of the file.

If you have a license sheet, press **[Enter]** to skip this field and enter all the information located on the Database License sheet **exactly** as it is written.

4. You are then asked to accept, decline, display, or print the license. To install the license, select **1. Accept agreement and install license**.

Once you install a license, you can install the corresponding database. You will also be able to install updates to the database for the life of the license.

If you want to proceed to installing a database, see “Installing databases” on page 4-7.

Reading the license agreement

After you have installed a license, you see a menu listing the languages in which the license agreement is available. Choose a menu option to view your chosen license agreement. If you want to view this agreement

again later, you can view it from the WebAdmin online help **Contents** page.

Setting up email notice of license expiry

You can get the ERL software to send you a mail message warning you that your license or portfolio is approaching its expiration date. You specify how many days before expiration you want to receive the first warning message, and how often you want to receive it.

If you are installing ERL on NT, you will have entered the SMTP server name, and a text string for the “From” part of the email message, when you installed the ERL software, (see “Installing ERL for Windows NT” on page 2-13). There is no equivalent step for the UNIX versions, but you must have `sendmail` configured.

To set up the email warning that the license is near to expiration:

1. Open the file `erlsrvr.cfg` in a text editor.
2. Decide how many days before expiration you want to have the warning mail messages sent out. Enter the number of days at the following line:

```
expiry_warning=
```

3. Decide how often you want to send the warning mail messages. Enter the frequency (number of days) at the following line:

```
expiry_frequency=
```

Enter 0 to have the message sent every 24 hours from the first time it is sent. If you subsequently restart the server, the message is sent on restart, and every 24 hours from that restart.

Enter 1 to have the message sent every 24 hours from the first time it is sent. (If you subsequently restart the server, you do *not* reset the start of the 24 hours.)

Enter any other number to have the message sent at that interval. For example, if you want the message sent one week before the expiration date and you do not want it to be sent again, set the following:

```
expiry_warning=7
expiry_frequency=8
```

This ensures that a single mail message is sent seven days before the license expires. If you install a new license before the eight days are up, you do not see another expiry warning.

4. Enter your email address (or the email address of someone else if you want the mail message to go to them) at the following line:
`expiry_address=`

Do not edit the line `mailcmdname=spmail`.

When you restart the server, it checks all portfolios, and your expiry settings, and sends email messages if any are due.

Removing a license

You can remove a license at any time. All databases associated with the license are then made inaccessible, and all accounts connected to the databases are then disconnected. (You can send a message to those accounts before removing the license; see “Sending a message to connected accounts” on page 6-1 for information.)

1. Select **5. License Administration** from the **ERL Server** menu. ERL displays the **License** menu.
2. Select **2. Remove License(s)**.
3. ERL lists the available licenses by license ID, with the product code and product name.
4. Type in the ID of the license you want to remove. You can enter multiple license IDs separated by spaces.
5. Confirm that you want to remove the license(s).
6. Press **[Enter]** to return to the **License** menu.

Listing licenses

To list all the currently installed licenses:

1. Select **5. License Administration** from the **ERL Server** menu. ERL displays the **License** menu.
2. Select **3. List License(s)**. ERL lists the installed licenses.
3. Press **[Enter]** to return to the **License** menu.

Displaying licenses

To display all the information contained in a license:

1. Select **5. License Administration** from the ERL **Server** menu. ERL displays the **License** menu.
2. Select **4. Display License(s)**. ERL lists the installed licenses.
3. Type in the ID of the license you want to display. You can enter multiple license IDs separated by spaces.
4. Confirm that you want to display the license(s).
5. Page through the licenses, if necessary, and press **[Enter]** to return to the **License** menu.

Updating licenses

When you install the ERL server package, you can set up a system to warn you by email when a database license is approaching its expiry date.

Before a license expires, you should install an updated license directly over the old one. This maintains any account authorizations you have created for the license.

QUIKdata v2 (see “QUIKdata” on page 4-2) enables ERL customers to transfer updated SilverPlatter databases and license sheets to their site, electronically over the Internet.

If you are not using QUIKdata to update an expired license electronically, simply install the new license over the old. Refer to “Installing a license” on page 4-4 for instructions.

Installing databases

Installing a database is a separate activity from licensing it.

Installation types

There are three types of installations:

- **CD-ROM Installation:**

This copies few files to your hard drive and thus is very quick, but requires that the CDs be loaded for searching and provides slower search results.

- **Magnetic Copy:**

This provides fast searching and frees up your CD drives, but requires considerably more hard disk space than CD-ROM installations and takes much longer.

- **Magnetic Link:**

Use this if you have copied a database to your hard drive and want to make it available to ERL. This is required for databases delivered on tape, but you can also use it for CD-ROM deliveries.

As indicated above, the type of installation you choose may be dictated by the delivery medium. It may also be determined by the database license: some require CD installations; others require magnetic installations; most allow for either type.

Note: If you copy a database to your hard drive manually, do not copy the database into the same directory that you specified in the **nodes** file (on NT). (See “Installing the server software” on page 2–13.) If you do, you will have problems while you install a database, and afterwards. On UNIX, do not copy a database into the **nodes/diskn** directories.

Installing a database

To install a database, go through each of the following stages.

Make the database available

- If the database was delivered on CD, insert the disk into a CD-ROM drive.
- If the database was delivered on tape, copy the tape to your hard drive:
 - On UNIX, use the native tar commands.
 - On Windows NT, use **tar.exe** and **mt.exe** (located in **\sproot\bin**). Refer to **how2tar.txt** in the same directory for more information about the **TAR** command.

Set the environment variable

On UNIX

- Enter the following:

```
DBIPATH=directory_name  
export DBIPATH
```

where *directory_name* is the hard disk location for tape data.

On Windows NT - Method One

1. Open a DOS command prompt window.

2. Enter

```
set DBIPATH=pathname
```

where *pathname* is the hard disk location for tape data.

3. Change to the `\sroot\bin` directory and start the ERL **Server** menu by entering `dbserver -u`

This setting is only valid during the session that uses this command window.

On Windows NT - Method Two

1. In your system properties environment, set the variable DBIPATH to **pathname** where *pathname* is the hard disk location for tape data.
2. Start the ERL **Server** menu by entering `dbserver -u`, or by running the icon.

Set the optional DBIFITFILE setting

Set the *optional* setting:

On UNIX

- Enter the following:

```
DBIFITFILE=MAXSPACE ;export DBIFITFILE
```

On Windows NT

- Enter the following:

```
SET DBIFITFILE=MAXSPACE
```

This specifies which file copying algorithm to use. If set to **MAXSPACE** the database install program iterates over partitions specified in **/sproto/nodes** until the largest partition which can accommodate the file is found. If you do not make this setting, the default setting is used, and the smallest partition is used to copy the file.

Using the Install menu

1. Select **6. Database Installation** from the ERL **Server** menu. ERL displays the **Install** menu.

Install Menu Option:	Description:
1. Install	Installs a database
2. Remove	Removes a database
3. List Installed Database(s)	Displays a list of installed databases
4. Display Installed Database(s)	Displays a detailed list of installed databases
5. Verify Database Integrity	Displays information about the database files
6. Exit	Returns to the server menu

2. Select **1. Install**.
3. Indicate how you want ERL to locate the database.
 - Select **1. Search for candidates** to search for uninstalled databases on CD-ROM drives, hard drives, or network directories.
 - Select **2. Input candidates** to specify the location of the database you want to install. ERL prompts you for the location;

enter the appropriate drive or directory, such as “H:”, and press **[Enter]**.

4. ERL lists the available databases. Enter the unique code to the left of the database you want to install and press **[Enter]**. You can enter multiple database codes separated by spaces, or use “*” to install all databases.
5. When prompted, specify CDROM, Magnetic Copy, or Magnetic Link installation for each database you are installing. Refer to “Installation types” on page 4-7 for more information.
6. ERL asks if you want to initialize verification data for each database you install. Initializing the data will allow you to troubleshoot future problems, such as corrupt or missing database files. (See “Verifying database integrity” on page 4-15 for more information.) Enter *y* or *n* and press **[Enter]** for each database.
7. When prompted, enter *y* to confirm that you want to install the databases currently listed. ERL copies and links database files as appropriate, and returns you to the database **Install** menu.

Changing the installation type

ERL allows you to change the installation type for most installed databases. You can free up hard disk space by changing an installation from magnetic to CD-ROM, or improve searching speed by changing a CD installation to magnetic. Refer to “Installation types” on page 4-7 for more information.

To change installation types:

1. Select **6. Change Install Type** from the database **Install** menu. ERL lists every installed database and its installation type.
2. Enter the ID of the database you want to modify and press **[Enter]**. You can enter multiple IDs separated by spaces, or you can use “*” to modify all installed databases.
3. Confirm that you want to modify the installation.
4. ERL lists the current installation type, and asks you to confirm that you want to change it to the other available type (for example, from CD-ROM to Magnetic.)
5. If necessary, insert the CD-ROM. ERL changes the installation type.

Mounting and unmounting databases

Mounting a database makes it available to all administrative accounts. The database remains unavailable to ERL accounts until you enable it. This allows you to test the database before making it widely available.

Mounting a database

To mount a database:

1. Select **2. Mount Database(s)** from the ERL **Server** menu. ERL lists all installed, unmounted databases.
2. Enter the ID of the database that you want to mount and press **[Enter]**. You can enter multiple IDs separated by spaces, or “*” to mount all unmounted databases. (We recommend * for CD-ROMs.)
3. If you choose a database that is not magnetically installed, ERL prompts you for the CD. Insert the CD-ROM and press **[Enter]**. ERL mounts the databases.

Unmounting a database

Unmounting a database makes it unavailable for searching. It does not remove the database or its license, however.

You may want to unmount a database to subsequently remove it, or to free up a CD-ROM drive for another database.

To unmount a database:

1. Select **3. Unmount Database(s)** from the ERL **Server** menu. ERL lists all mounted databases.
2. Enter the ID of the database that you want to unmount and press **[Enter]**. You can enter multiple IDs separated by spaces, or “*” to unmount all mounted databases. ERL unmounts the databases.

Enabling and disabling databases

Enabling a database makes it available to all authorized accounts, or to all accounts, if authorizations are not required for the database. For information about how to authorize accounts, see “Authorizing accounts” on page 5-9.

To enable a mounted database from the ERL Server menu:

1. Select **4. Enable/Disable Database(s)** from the ERL **Server** menu. ERL lists all mounted databases.
2. Enter the ID of the database that you want to enable and press **[Enter]**.

You can enter multiple IDs separated by spaces, or “*” to enable all disabled databases.

3. Enter **y** to enable the database.

To enable a mounted database from WebAdmin:

1. Log in to the server with an administrative account.
2. Click **Databases** on the toolbar. WebAdmin lists all mounted databases, and indicates whether or not each is enabled.
3. Check **Enabled** for the database you want to enable.

You can disable databases in similar fashion, in either WebAdmin or the ERL **Server** menu.

Updating databases

SilverPlatter updates databases on weekly, monthly, yearly, and other schedules, depending on the product. Updates are covered by your original license: you do not need to install a license with each update.

When you receive a new update disc or tape for an installed database, use the ERL **Server** menu to replace the old data:

1. Install the update database as described in “Installing databases” on page 4-7.
2. Mount the update database as described in “Mounting and unmounting databases” on page 4-12.
3. Select **7. Apply Database Update** from the ERL **Server** menu. ERL lists all mounted databases.

4. Enter the ID of the update and press **[Enter]**. ERL disables the old database. If there are any accounts connected to the old database, ERL asks if you want to force them to log off.
5. Remove the superseded database as described in “Removing databases” on page 4-14.

The update is given the same degree of availability as the superseded database. If the superseded database was enabled, the update is also enabled. If the superseded database was disabled, the update is also disabled.

Removing databases

When a database has been superseded by an update, or when its license has expired, you should remove it. Removing a database does not delete associated statistics or license information.

To remove a database using the ERL Server menu:

1. Unmount the database as described in “Unmounting a database” on page 4-12.
2. Select **6. Database Installation** from the ERL **Server** menu.
3. Select **2. Remove** from the database **Install** menu. ERL lists all installed databases.
4. Enter the ID of the database that you want to remove and press **[Enter]**.

You can enter multiple IDs separated by spaces, or “*” to remove all installed databases.

5. Confirm that you want to remove the databases. ERL deletes the databases.

Displaying database information

You can display database information through the ERL **Server** menu or WebAdmin.

We recommend that you use WebAdmin for the following:

- **Showing mounted databases**

Click **Databases** on the menu bar. WebAdmin displays all mounted databases, and indicates whether they are enabled and if they require authorizations.

- **Showing connections**

Click **Connections** on the menu bar, and select **Accounts** or **Databases**. WebAdmin lists all connected accounts and the databases each is using, or all databases in use, and the accounts using each.

- **Database Statistics**

Click **Statistics** on the menu bar. WebAdmin allows you to generate statistics by DatabaseID and Database Group, as well as Account, Portfolio, and IP Address.

We recommend that you use the ERL **Server** menu to display information about databases that are not yet mounted:

1. From the ERL **Server** menu, select **6. Database Installation**.
2. Select **3. List Installed Database(s)** for the ID, installation type, and name of every installed database,

or

select **4. Display Installed Database(s)** for detailed information about one or more installed databases, including date of installation, whether or not verification data is initialized, and the names of files copied to the hard drive.

Verifying database integrity

ERL allows you to check for missing or corrupted files for any database whose verification data you initialized during installation. (Refer to “Installing a database” on page 4–8 for information on initializing verification data.)

If you or an end-user has a recurring problem connecting to a particular database, you can start trouble-shooting by checking the files for that database.

To verify database integrity:

1. From the ERL **Server** menu, select **6. Database Installation**.
2. Select **5. Verify Database Integrity**. ERL lists all installed databases.
3. Enter the ID of the database that you want to check and press **[Enter]**.

You can enter multiple IDs separated by spaces, or “*” to verify all installed databases.

4. Confirm that you want to verify the files for the selected database.
5. ERL asks if you want to repair problematic files or just report errors.
 - Select **1. Attempt repairs now** to replace any missing or corrupt files. ERL will ask you to insert the CD-ROM, and then will copy from CD any necessary files.
 - Select **2. Just report errors** for a list of bad files, if any.

Creating a menu of database titles

You can create a menu that categorizes databases in SPIRS clients. You can also define the order of database groups within a category, and the chronological order of databases within a database group.

You can create this menu using WebAdmin, or by editing the configuration file in a text editor.

Note: Any databases not specifically listed at `Databases=` in the `dbmenu.cfg` configuration file (or not under a specific heading in WebAdmin) appear under the last heading (the last instance of the `MenuText=` item in `dbmenu.cfg`) in the finished menu. The template file, `dbmenu.eg`, contains a section `MenuText=Others` to provide a heading for databases not specifically listed elsewhere in the menu.

Note: WebAdmin does not yet allow you to set the order of databases within a database group. You can only set this order by editing **dbmenu.cfg** using a text editor, see “Using a text editor” on page 4-17.

Using WebAdmin

1. Log in to the server with an administrative account.
2. Click **Databases** on the toolbar. WebAdmin lists all mounted databases, and indicates whether or not each is enabled.
3. Click **Database Menu**, then click **Edit Menu**.
4. Select and position the databases that you want to appear in the menu. Click **Preview Menu** to see how the menu will appear.
5. Click **Save**.

WebAdmin automatically updates ERL when you save the menu. (You do not need to run the **readmenu** command to bring it into effect.)

Using a text editor

1. Open `\sroot\cfiles\dbmenu.eg` in a text editor.

The file contains the following components.

Dbmenu Heading:	Description:
[Sn]	Sequence order [S1], [S2], [S3], etc.
MenuText=	Heading; displayed in SPIRS if the user is authorized to at least one database within the menu section.
Indent=	Indentation level, starting with 1. (0 is reserved for server names.)
Description=	Explanatory note; shown in SPIRS if the user asks for a description.
Databases=	List of two- and four-character codes of the database groups you want in the section.

(Sheet 1 of 2)

Dbmenu Heading:	Description:
Key=	Text string beginning with "\$"; not used by SPIRS, but an entry is required.
[order]	Determines the order of databases within a database group. In the example that follows, the line "AS=AS7A,AS7B" displays the ASFA databases in chronological order. Note: There is only one [order] section in the file. You can list all the database groups for which you have more than one database.

(Sheet 2 of 2)

2. Modify the file to include the desired headings, databases, descriptions, and order.
3. Rename the file as **dbmenu.cfg**, and save it in the same directory.
4. Change to the **\sproot\bin** directory.
5. Run **commands\readmenu**. This causes ERL to update the menu in memory; otherwise, clients will not see the menu until you stop and start ERL.

Sample menu in SPIRS

For example, you can create a menu that appears in clients as below:

- State University
 - Medical
 - MEDLINE (R) Advanced 1996-1997
 - MEDLINE (R) Advanced 1995-1996
 - MEDLINE (R) Advanced 1994-1995
 - Psychological
 - PsycLIT 1988-1992
 - Environmental
 - ASFA 1988-1996
 - ASFA 1978-1987
 - E-CD 1973-1988

Sample menu in editor

The sample menu above appears in a text editor as follows:

```
[S1]
MenuText=Medical
Indent=1
Description=Medical databases
Databases=MEDS
Key=$medical

[S2]
MenuText=Psychological
Indent=1
Description=Psychological databases
Databases=PL
Key=$psychological

[S3]
MenuText=Environmental
Indent=1
Description=Aquatic Science databases
Databases=AS,C1
Key=$environmental

[order]
MEDS=MEDS008A,MEDS008B,MEDS008C
AS=AS7A,AS7B
```


Controlling access to ERL

Introduction

This chapter explains how to set up and administer user accounts, and system security. It describes four measures of security provided in ERL:

- **Controlling access using IP addresses**
You determine precisely which machines can log in to ERL.
- **Creating and managing user accounts**
You set up user accounts, and define passwords, permissions, and expiration dates.
- **Creating and managing portfolios**
You set up portfolios, and determine how many accounts can access a database simultaneously.
- **Authorizing accounts**
You specify which databases each user account can access.

Controlling access using IP addresses

ERL allows you to specify which IP addresses (that is, which machines) can access your server. You first specify these addresses when installing ERL; you can add, delete, or edit them at any time afterwards.

Specifying valid IP addresses

You can enter individual IP addresses, or enter a range of addresses using network masks.

A full description of IP addressing and network masks (also called subnet masks), is outside the scope of this manual. To put it simply, there is only a limited number of IP addresses available globally, and subnetting is a way of creating additional local IP addresses within an organisation. These additional IP addresses are only relevant within that organisation.

For example, if you enter the following:

```
123.45.67.89 255.255.254.0
```

this would allow access to all addresses on either of the class c networks, that is, all the addresses from 123.45.67.1 to 123.45.67.254, and all from 123.45.66.1 to 123.45.66.254.

If there is no subnet mask, the IP address is sufficiently specific. If you enter the following:

```
123.45.67.0
```

this would allow access to 123.45.67.1 to 123.45.67.254 (the whole class c network.)

You need to know all the IP addresses that you want to be able to access your server, and the subnet masks if your organisation uses subnetting.

You must also include the IP address of the server, if you wish to use WebAdmin or WebSPIRS, and the localhost address (127.0.0.1) if you wish to use Z39.50.

If you do not want to make any restrictions on the IP addresses that can access your server, enter the following:

```
0.0.0.0 0.0.0.0
```

For information on creating account-specific IP address sets, which allow you to specify the terminals from which an account can connect to ERL, refer to “Creating user-specific IP address sets” on page 5-4.

Using WebAdmin

1. Log in to ERL with *admin/admin* or other administrative account.
2. Click **Utilities**, and select **IP Address Sets**. WebAdmin displays the IP Address Sets window.

- Enter the addresses that you want to include, and any that you want to exclude specifically. Refer to the WebAdmin Help, and the following table, for details of how to specify addresses.

To achieve this:	Enter an IP address like this:
Any user can logon from IP addresses within this network	Include: 123 . 45 . 67
No user can logon from this IP address	Exclude: 123 . 45 . 67 . 89 255 . 255 . 255 . 255
A specific user can logon from this IP address only	Include: 123 . 45 . 67 . 89 255 . 255 . 255 . 255
A specific user cannot logon from this IP address, but can logon from elsewhere in the network	Exclude: 123 . 45 . 67 . 89 255 . 255 . 255 . 255 Include: 123 . 45 . 67

- Click **Save**. WebAdmin saves the IP addresses in **ipincl** and **ipexcl**, both in **\\$proot\cfiles**.

Note: Earlier releases of the ERL administrative tools required the definition of an “off site” file to note those accounts that are allowed to access ERL regardless of their IP addresses. This is not necessary in WebAdmin. Instead, you define an all-inclusive IP address set (such as 0 . 0 . 0 . 0 . 0 . 0 . 0 . 0) and assign those accounts that should have no restriction to that set.

Using a text editor

You can also edit **ipincl** and **ipexcl** in a text editor on the server. To give an IP address access to your server you add that IP address to **ipincl**. To exclude a specific address from having access to your server, you add the address to **ipexcl**.

Creating user-specific IP address sets

You can create user-specific IP address sets. This allows you to specify the terminals from which a particular user account can connect to ERL.

Using WebAdmin

1. Click **Utilities** on the toolbar, and select **IP Address Sets**.
2. In the *IP Address Sets* window, click **New**.
3. Enter a set name, and specify the addresses to include and exclude. See the table in the section “Specifying valid IP addresses” on page 5-1.
4. Click **Save**.
5. Click **Accounts** on the toolbar.
6. Click on the desired account. WebAdmin displays the *Edit Account* window.
7. In the IP Address Set drop-down list, select the set you just created.
8. Click **Save**.

Setting up IP address logging

You can set the ERL Server logging system so that when you view connections (using option **8 Show Connections**, in the **ERL Server** menu) you can show either the IP address of the client (the end-user) or the IP address of both the client and the gateway (IP address of the WebSPIRS server, for example.)

To change the setting for IP address display:

1. Open the file `/sproot/bin/erlsrvr.cfg` in a text editor.
2. At the following setting:
`show_ipaddress=`
 - Set 1 to display the client IP address only.
 - Set 2 to display both the client and the gateway IP addresses.
3. Save and close the file.

Note: This setting does *not* affect the IP address logged in a statistics log file. (The client IP address is always logged.)

Note: WebAdmin logs on and off the ERL server whenever it carries out any activity, so you will not necessarily see WebAdmin among the displayed connections. If it is there, the client or gateway IP address will be displayed, irrespective of the `show_ipaddress=` setting.

Creating and managing user accounts

When you install ERL, the installation process creates three accounts automatically:

- *admin*

This is your administrative account, which you use to perform all administrative tasks. The initial password is “admin” for security reasons; you may choose to change the password and/or rename the account (but not when you are logged in as the *admin* user). You can also create one or more other administrative accounts.

- *anonymous*

This provides “anonymous” logins, in that no password is required. It has no other special privileges, however. Users cannot login anonymously from excluded IP addresses; and users will only see databases that do not require authorizations, or databases to which the account is specifically authorized. You can delete this account.

- *sp*

This account is for SilverPlatter’s Technical Support department to help you troubleshoot ERL problems. It is recommended that you retain this account.

You can create as many other accounts as are appropriate, as explained in the next section.

For information on creating account-specific IP address sets, which allow you to specify the terminals from which a particular account can connect to ERL, refer to “Creating user-specific IP address sets” on page 5-4.

Creating an account

Using WebAdmin

1. Log in to ERL with *admin/admin* or other administrative account.
2. Click **Accounts**, and then click **New**.
3. Fill in the details for the account. (Use the online help if you are unsure about any of the details.) Then click **Save**.

Editing an account

Using WebAdmin

1. Log in to ERL with *admin/admin* or other administrative account.
2. Click **Accounts**, and then click on the account you want to edit.
3. Make any changes for the account. (Use the online help if you are unsure about any of the details.) Then click **Save**.

Deleting an account

Using WebAdmin

1. Log in to ERL with *admin/admin* or other administrative account.
2. Click **Accounts**, and then select any accounts you want to delete.
3. Click **Delete Checked Accounts**.

Creating user-specific Information

ERL lets you use the following features in a either a system-wide or user-specific way:

- Message of the Day
- Library Holdings

Normally these features are available to all user accounts. (For details of how to set up a message of the day for all users, see “Setting up a “Message of the Day”” on page 6-2.) However, you can create a user-specific version of a feature, so that only users logging in with that account name can access that feature (or a particular variant of that feature).

To set up user-specific features:

1. Determine the ID of the user's account.

In WebAdmin: Edit the account. The *Edit Account* window includes an **ID** field.

2. At the ERL server, change to **/sproot/cfiles**.
3. Make a new subdirectory. Give it the same name as the user ID.

Note: User IDs are eight-character hexadecimal values, such as "00000b25".

4. Put the appropriate files in this directory to implement the feature. These are the required files for each feature:
 - Message of the Day — **motd**
 - Library Holdings — **splha.lhm**, **splha.lhd** and **splha.lhi**

For more information on these features, refer to "Setting up a "Message of the Day"" on page 6-2, and Library Holdings.

You can also create user-specific IP address sets. Doing this lets you specify the terminals from which a particular account can connect to ERL. For more information on this see "Creating user-specific IP address sets" on page 5-4.

Creating and managing portfolios

Portfolios establish the expiration date and maximum number of simultaneous users for databases.

When you install ERL, the installation process creates two portfolios automatically:

- L-EZTA — This enables the Explain database, which is required by Z39.50. Refer to The Z39.50 Option for more information.
- L-SAMPLE — This enables you to install the Database Training Subsets and Directory of Databases, which are on the SilverPlatter Resource CD.

Additional portfolios are created when you install database licenses. Ultimately, it is these “license” portfolios that determine the expiration dates and maximum users for all databases. You cannot edit license portfolios. The ERL server software includes a feature that lets you arrange to receive warning email messages before your licenses expire, so that you can contact SilverPlatter about renewal before the license expires. For details of how to do this, see “Setting up email notice of license expiry” on page 4–5.

You can create “child” portfolios from licenses, to control access to your databases more precisely. Situations in which you might want to create child portfolios include:

- You have more potential users of a database than are allowed by the license for that database, and you want to give some users a better chance than others of accessing the database.
- You have a license portfolio that covers many years and multiple disks of data, and you want to provide only special-interest groups with access to the entire span.
- You are administering a library consortium, and want to divide database usage amongst the constituent libraries.

Creating a portfolio

You can create these “child” portfolios in WebAdmin.

Using WebAdmin

1. Log in to ERL with *admin/admin* or other administrative account.
2. Click **Portfolios**. Locate the portfolio from which you wish to make a new portfolio, then click **New**.
3. Fill in the details for the portfolio. (Use the online help if you are unsure about any of the details.) Then click **Save**.

Editing a portfolio

You can edit child portfolios that you have created, but not license portfolios created by ERL.

Using WebAdmin

1. Log in to ERL with *admin/admin* or other administrative account.

2. Click **Portfolios**, and then click on the portfolio you want to edit.
3. Make any changes for the portfolio. (Use the online help if you are unsure about any of the details.) Then click **Save**.

Deleting a portfolio

You can delete child portfolios that you have created, but not license portfolios created by ERL.

Using WebAdmin

1. Log in to ERL with *admin/admin* or other administrative account.
2. Click **Portfolios**, and then select any portfolios you want to delete.
3. Click **Delete Checked Portfolios**.

Authorizing accounts

When you first install, mount, and enable a database, it is only available to administrative accounts. If you want to make the database available to non-administrative accounts, you must explicitly authorize those user accounts to the database portfolio, or modify the database so that it does not require authorizations.

Requiring authorizations for a database

In ERL 4.x, all newly installed databases require authorizations by default; unauthorized accounts cannot access the databases. You can toggle this requirement on or off for any database in WebAdmin.

Using WebAdmin

1. Log in to ERL with *admin/admin* or other administrative account.
2. Click **Databases**. WebAdmin lists all mounted databases on the server. Listed for each database are the name, database group, database ID, and an indication of whether or not the database is enabled, and whether or not it requires authorizations.
3. Uncheck **Use Auths** for a database to allow all accounts to access that database.

Check **Use Auths** to allow only authorized accounts to access the database.

4. Click **Save**.

Authorizing accounts to portfolios

You define which accounts can access which database portfolios on your server.

Authorizing many accounts to use one portfolio

After installing a new database, you will want to authorize accounts to access the database. You can authorize accounts in WebAdmin:

1. Log in to ERL with *admin/admin* or other administrative account.
2. Click **Portfolios**. WebAdmin lists the database portfolios on your server.
3. Click on the portfolio to which you want to authorize accounts. WebAdmin displays the *Edit Portfolio* window.
4. Next to the Authorized Accounts list, click **Change**. WebAdmin displays the *Change Account Authorizations* window, which lists all the accounts on your server. (You can also click **Copy**, to copy the authorizations from another portfolio.)
5. Check the accounts that you want to authorize to the portfolio.
6. Click **OK**. WebAdmin adds all the checked accounts to the Authorized Accounts list for the current portfolio.
7. Click **Save**.

Authorizing one account to use many portfolios

After creating a new account, you will want to authorize that account to access one or more database portfolios. You can do so in WebAdmin:

1. Log in to ERL with *admin/admin* or other administrative account.
2. Click **Accounts**. WebAdmin lists the accounts on your server.
3. Click on the account that you want to authorize. WebAdmin displays the *Edit Account* window.

4. Next to the Authorized Portfolios list, click **Change**. WebAdmin displays the *Change Portfolio Authorizations* window, which lists all the portfolios on your server. (You can also click **Copy**, to copy the authorizations from another account.)
5. Check the portfolios to which you want to authorize the current account.
6. Click **OK**. WebAdmin adds all the checked portfolios to the Authorized Portfolios list.
7. Click **Save**.

Messages to users

Introduction

This chapter explains the ways you can communicate with your users. You can communicate with user accounts in two ways: you can send a message at any time, and you can provide a “message of the day” that users see when they first log on.

Sending a message to connected accounts

To send a message to connected accounts, use the ERL **Server** menu:

1. Select **9. Send Message** from the ERL **Server** menu.
2. Enter the text of your message. For example, type:

```
The system is about to come down for  
quarterly maintenance. Please disconnect.
```
3. To send a message to a specific account, or to users of a particular database, precede your message with the account in angle brackets (<>), or the database ID in square brackets ([]). For example, type:

```
<johng> You are now authorized to use FSTA.  
[MLJ5] This database will be updated in 30  
minutes. Please watch for the new data.
```
4. Press **[Enter]** to send the message.

Note: Users who are using WinSPIRS see this message as soon as you send it. Users who are using WebSPIRS do not see the message until they next interact (for example, search, or change databases) with the server.

Setting up a “Message of the Day”

Creating a message of the day is most easily done through WebAdmin.

1. Logon to ERL with an administrative account.
2. Click **Utilities** on the menu bar, and select **Message of the Day**.
3. Enter a message.
4. Click **Save**. WebAdmin saves the message in `\sproot\cfiles\motd`, and users see the message whenever they connect to ERL.

You can also set up a message of the day that is only displayed for a specific user. For details, see “Creating user-specific Information” on page 5-6.

Obtaining Statistics

Introduction

This chapter explains the way you can analyze the use of your ERL Server and databases, by looking at log information. You specify the details you want to appear in the logs and the ERL server creates them automatically. Then you can use the statistics utility in WebAdmin to analyze the log information to answer the following sorts of questions:

- Do you have the right databases? (Are you paying for some licenses that are never used?)
- Do you have sufficient licenses, so that all users can access the database when they want to?
- Which user accounts are accessing which databases?
- How many people are accessing databases using each user account?
- How often are people unable to log in to a database because all licenses are in use? And how many times does this happen in a given time period?
- What time of day is there most activity on the server?

ERL logs details of usage for every client session. Included in the log are:

- login and logout time
- length of connection period
- account name and ID

- the databases that were selected, and portfolios from which they were selected
- number of searches
- number of records retrieved, with abstracts and total

This chapter describes the logs files, and the configuration settings that determine how the files are managed. It also gives an introduction to the way you create and run statistical reports in WebAdmin.

Note: If users are searching in s SPIRS client with the “Show Intermediate Results” option selected, the log files show all the searches, including interim searches. Also, if users check their selected databases in the Database Selection screen, but do not change the settings, this results in additional logins being counted in the logs. The number of records and number of abstracts are included in the statistics to give an indication of database usage: the number of records shown is the number of records returned for display, and not the actual number of records found.

ERL statistics logging

About the log files

The statistics module was changed in v4.05. The main difference is that the new implementation is based on ASCII log files, rather than binary database files.

Note: When you upgrade to ERL Server v4.05 or later, your existing statistics log files (those created in ERL 4.04 or earlier) are converted to the new format, and then the original files are deleted. If you want to archive the files in the old format, or if you want to retain log files created in a version earlier than v4.05 we recommend you make a backup of the files before you start to install v4.11.

Our technical support staff can advise on using a conversion utility after installation, to convert any files that were off line during installation.

ERL 4.05 and later stores log information in two files, *date.log* and *date.idx*, in */sproot/erlstat*. The *date.log* is an ASCII file, so you can read it in a text editor. The file name is a date stamp, so a file started on 22 March 1999 would be called **19990322.log**. (This makes it easier to manage backups.) Note that the date is based on GMT, so a file started at

8.00am on 22 March 1999 in Sydney, Australia, would be called **19990321.log**.

If you set ERL to split your log file at a regular interval (explained at “statsplit” on page 7-6), or if you run the manual statistics log split option, the new file will have an additional letter added to the file name, (**19990322A.log**, **19990322B.log** and so on), for each time you make a split during the same day.

date.idx holds a pointer to the location in the corresponding **.log** file for each server start up and stats dump line. It is used only to find the best place within *date.log* to start reading. If *date.idx* is missing, *date.log* is scanned to find the same starting point with a modest performance penalty. The ERL 4.11 software package includes the **statidx** utility so you can regenerate *date.idx* files if you need to. This is explained at “To regenerate a .idx file:” on page 7-9.

The software relies on the file names, so it is important not to change them.

The benefits to users include the following:

- Statistics retrieval is much faster than the previous implementation, statistics recording is slightly faster than before, and some operations associated with database opening and closing have been streamlined.
- The log files are slightly less than half the size of the binary files created in the ERL 4.0 versions before version 4.05.
- A new log file can be started (called “splitting”) from the ERL **Server** Menu. Automatic splitting also works, and is by default set to **Monthly**. (Splitting the files prevents them from becoming too large.)

We recommend that you leave the setting at **Monthly** for optimum performance.

- Server activity can be monitored easily with a `tail -f` command on the current log file.
- ERL only appends to the log file, (except to retrieve statistics). This means that even if a statistics log file should somehow be corrupted, this cannot interfere with database access.

- The information in the log files is completely self contained, so you can move them from one server to another.
- The format of the log files is quite simple, so you can create your own log analysis tools relatively easily.

How logins are counted in statistics reports

The logic for deciding what sort of logins to count in statistics reports has been simplified. Reports now count logins associated with the most detailed key that is mentioned, that is, the first key from the list in the table below. (A key is “mentioned” if that key is selected in any one of the **Key Field** boxes in WebAdmin.)

The full list of Key Field items is **Account Name, Database ID, IP Address, DB Group**, (also referred to as DB family or DB set) and **Portfolio**.

- If Database ID is mentioned, logins to individual databases are counted.
- If Account or IP Address is mentioned, server logins are counted.
- If Database Group or Portfolio is mentioned, logins are counted as explained in the following table:

If These are Mentioned:			These logins are counted:
DB Group	yes		DB Group
Portfolio	no		
DB Group	no		Portfolio
Portfolio	yes		
DB Group	yes	cumulated	Portfolio
Portfolio	yes	not cumulated	
DB Group	yes	not cumulated	DB Group
Portfolio	yes	cumulated	

If These are Mentioned:			These logins are counted:
DB Group	yes	not cumulated - with *	You cannot create a report with these combinations, so an error is displayed.
Portfolio	yes	not cumulated - with *	
DB Group	yes	not cumulated - with *	DB Group
Portfolio	yes	not cumulated	
DB Group	yes	not cumulated	Portfolio
Portfolio	yes	not cumulated - with *	

(Sheet 2 of 2)

Note: The portfolio and database group key fields only run together if the contents of one of the fields is specified, or if other key fields are included. This means if you select only one of database group or portfolio, the logins counted will be the one you selected.

If you select both, the logic comes into play to select the most sensible action:

- If only one of the two is cumulated, the non-cumulated logins will be counted.
- If both are cumulated, portfolio logins will be counted.
- If neither is cumulated, and only one has a wildcard '*', the one with the wildcard is counted.

Note: We recommend that you split your statistics logs monthly. The maximum splits possible within a given day is 27.

Configuring logging settings

The ERL configuration file (`/sproot/bin/erlsrvr.cfg`) includes several logging parameters. These parameters all have default settings that are sufficient to allow you to create statistics reports from the log

information. However, in some circumstances you might want to change the settings by editing the configuration file. For example, if you planned to create daily statistics reports, it would be sensible to set the feature for taking snapshots of current connections (explained at “statdump” on page 7-7) to daily, to make this run most efficiently.

Note: Statistics logging only logs the client IP address, it is not affected by the `show_ipaddress=` setting.

To change the configuration file:

1. Open `/sproot/bin/erlsrvr.cfg` in a text editor.
2. Edit any of the parameters listed in the following table:

Parameter:	What it specifies:	Default setting:	Comment:
erlstat	The directory in which ERL stores the statistics logs files.	/sproot/erlstat	You can change the setting to another directory on another drive or filesystem, if necessary.
statsplit	The frequency at which ERL closes the existing <i>date.log</i> file and creates a new file. Once ERL has created a new file, you can remove, read, and archive the old file.	monthly	We recommend monthly . Other options are never , hourly , daily , weekly , and yearly .

Parameter:	What it specifies:	Default setting:	Comment:
statdump	<p>The frequency at which ERL takes snapshots of the current connections. These snapshots allow ERL to determine whether any connections were established prior to a given statistical report, without processing the entire statistics log.</p> <p>Both the speed of statistical reports and the size of log files increase slightly with more frequent statistics dumps.</p>	hourly	We recommend hourly . The other option is daily.

(Sheet 2 of 2)

3. Save the file, and restart ERL for the log settings to take effect.

Creating statistics reports with WebAdmin

WebAdmin allows you to generate a wide range of statistical reports from the information in the log files. You can focus your reports on accounts, databases, portfolios, or IP addresses, or any combination.

1. Log in to ERL with *admin/admin*, or other administrative account.
2. Click **Statistics**. WebAdmin displays the *Statistics* window, which lists all the statistical reports you have saved with the current account.
3. Click **New**. WebAdmin displays the *New Report* window.
4. Enter a Name and Description for the report.
5. Select the date range for which you want to collect statistics.

6. Select the Style, or granularity of the report. The options are Per Session, Hourly, Daily, Monthly, and Totaled.
7. Specify whether you want the statistics sorted chronologically or alphanumerically.
8. Select zero or more Key Fields to feature in your report. The possible key fields are Account Name, Database ID, IP Address, DB Group, and Portfolio. (If you select no keys, you generate information about all activities.)
9. Select the Data Items you want to include in the report.
10. Click **Run Now**. WebAdmin retrieves statistics from ERL and displays the *Statistics* window.

You can then display and print the report, or export it to use in a spreadsheet. (Reports can take a long time to display, so you can now export the report without displaying it first.)

Refer to the WebAdmin online help for more detailed information about creating statistical reports.

Note: Statistical reports generated by WebAdmin do not currently show the logout time.

Creating statistics reports with brladmin

Note: If you will be generating large and detailed statistics reports we recommend that you use a brladmin script such as:

```
login name=admin password="admin"
exportstats {
  username=* ipadd=* dbfam=* portname=* db=*
  period="daily"
  startdate="1 May 1999 00:00"
  enddate="31 May 1999 23:59"
  dformat="%d %m %y %H:%M"
  format="%username%:::%ipadd%:::
%dbfam%:::%portname%:::%db%:::%totlogins%
:::%rejects%:::%peakusers%:::%peaktme%:::
%ctime%:::%searches%:::%startdate
%:::%enddate%:::%nwabs%:::%nwrecs%:::%
servername%:::%serverid%:::%desc%:::%ref%:::"
```

```
%pdesc%:::%dbname%:::%ctd0%:::%logintype%\n"
  filter="GTE"
}
```

This is because if the dbservr generates a results file greater than 100Kb the applet in WebAdmin may take a long time to load it. In testing, a 300 mhz processor could handle a results file of about 75 - 100 kb before a performance degradation was noticed. On a 133 processor results files larger than 25Kb led to a performance degradation.

As a guideline, a 25kb results file has about 180 records if you select all data and all keys.

Regenerating .idx files

The ERL server software includes a utility, **statidx**, that lets you regenerate *date.idx* files. This means that when you are backing up your log files, you do not need to backup the index files, because you can regenerate them as and when you need them. You might want to regenerate the *date.idx* files in the following additional circumstances:

- If you are moving log files from UNIX to a PC, or the other way round, which means the information in the index files is no longer accurate.
- If you have modified a **delete.log** file (not normally advised.)

To regenerate a .idx file:

- At the command line, enter the following line:

```
statidx filename.log filename.log
```

This creates a new index file for a log file. If an index file exists, the command overwrites the existing file.

About SilverLinker

Introduction

This chapter explains SilverLinker, which lets users navigate seamlessly from bibliographic references in SilverPlatter databases to the full content. By clicking on a link next to a record in the search results users can navigate directly to the full text of that record, whether it is hosted locally, or remotely at the site of a service provider (a publisher or a subscription agent.)

SilverLinker works with the SilverPlatter databases that you already use. Links are supplied in a separate and regularly updated SilverLinker database. When the SilverLinker database is mounted on your ERL server, ERL automatically adds links to full content to any record which refers to an article whose Web address (URL) is stored in the SilverLinker database.

In ERL v4.11 and later you use WebAdmin to configure which links are presented, and to which users. (See “Configuring SilverLinker in WebAdmin” on page 8-4.)

The SilverLinker database

The SilverLinker database is licensed, installed, and mounted in the same way as any other SilverPlatter database, and is administered using WebAdmin.

However, SilverLinker differs from other databases in the following ways:

- It is automatically opened when a user opens a SilverLinker-enabled database.

- It is never shown in the lists of available databases seen by users of WebSPIRS, WinSPIRS or MacSPIRS.
- It can only be used when mounted on an ERL server: it cannot be installed locally.
- There is no limit on the number of users who can access it: all licenses are site licenses.

SilverLinker-enabled databases

The SilverLinker database includes links to the electronic form of an ever-expanding list of scholarly journals. These links are available in many, but not all, SilverPlatter databases. You can see a full and current list of SilverLinker-enabled databases at

<http://www.silverplatter.com/silverlinker/dblist.htm>.

If a database is not SilverLinker-enabled, no links will be shown in records from that database. To access the full text of an article, your institution may need a subscription to the electronic form of the journal in which it is published, or to the publisher's Web site. Contact details for providers of electronic journals are also available from the SilverPlatter web site at

<http://www.silverplatter.com/silverlinker/slpubs.htm>.

Many full text articles are published online in Adobe Acrobat (PDF) format. To read Acrobat documents your users will need the Adobe Acrobat Reader software. This can be downloaded, free of charge, from the Adobe Web site (**<http://www.adobe.com>**).

Supported clients

WebSPIRS, WinSPIRS and MacSPIRS, version 4.0 or later support SilverLinker.

To help users to determine easily if a particular ERL server has support for SilverLinker, WebSPIRS shows a SilverLinker logo next to the name of each ERL server that mounts a SilverLinker database. If this logo appears, the user currently logged on is authorized for the SilverLinker database.

How links are displayed

In WinSPIRS and MacSPIRS, SilverLinker links are shown as hotlinks whose prompt text is of the form "Full text from XZY Publishers". You can configure the prompt text for each publisher web site. Clicking on a

hotlink starts the default web browser on the user's machine, which will download and display the requested document.

In WebSPIRS 4.0 SilverLinker links are shown as graphic buttons: the button text is of the form "Full text from XZY Publishers". You can configure the button text for each publisher web site.

For WebSPIRS 4.1 and later, you can decide whether to display the links as a button (the button is of the form "Link to" followed by links to the individual publishers' sites), or a drop-down menu containing all the names of the publishers' sites. You can also configure the display to show individual links up to a specified number, and then show them in a drop-down menu if they exceed that number. For details of how to configure these links, see the details in the *WebSPIRS Administrator's Guide*, available from the SilverPlatter website.

Disabling and enabling SilverLinker

In ERL 4.11 and later, you no longer have to make changes to the configuration file **erlsrvr.cfg** to enable or disable SilverLinker, but you do need to make a change if you want to update your filters automatically: to remove services that are no longer available in a new SilverLinker database, for example.

The following table explains the two SilverLinker settings in **erlsrvr.cfg**

Parameter:	What it specifies:	Default setting:	Comment:
SL2_TABLE_MERGE=	Whether or not to merge tables in the database.	1	We do not recommend changing this setting to 0 to switch this feature off.
SL_AUTO_FILTER=	Whether or not to update filters automatically to reflect changed information in the SilverLinker database.	0	Change to 1 to use this feature.

If you are not using the SilverLinker database you can leave these settings in **erlsrvr.cfg**: ERL will simply ignore them.

Configuring SilverLinker in WebAdmin

The SilverLinker database includes details of all the available service providers, the web sites (including mirror sites) of those providers, and all the publications made available by those providers. This means that links to full-text publications would appear in records even if your organization had not subscribed to that service provider, and or to that publication.

You might choose to leave links to those publications you do not have available. A growing number of SilverLinker partners provide for the sale of individual articles, even when you do not subscribe to the journal. Although doing this means that your users might follow links to articles they cannot access by any means, they will at least be able to see what journals are available to them.

If you choose not to display some links, you use the WebAdmin SilverLinker feature to specify which of the SilverLinker services, sites, and publications are available to your users. (They are “available” if users see links to them when they search for records in a SilverLinker-enabled database.) You do this by creating one or more filters, and applying the filters to all, or certain, user Accounts.

The WebAdmin user *guest administrator* can view all screens in WebAdmin, but cannot create new entries or change (or delete) existing ones, with the following two exceptions:

- They can set up and edit SilverLinker filters. This means you can share the responsibility for creating and maintaining filters by giving several members of staff the necessary permissions.
- They can create and run statistical reports, save these to their account, and edit or delete the reports that they create.

Creating filters

These are the steps you go through:

1. Decide which user account the filter will cover. (You can apply the filter to other users later.)
2. Specify which services (sometimes also called “service providers” or “subscriptions agents”) you want to include for that user account. You can specify which location, or site, you want your users to access. (For example, you might want them to access a mirror site in your own country, to speed up access time, and reduce costs.) Some

service providers give their subscribers copies of their collections, for the subscriber to host locally. If your organization has a such a copy, you can use WebAdmin to configure the links to that local site.

3. Specify which publications you want to make available, from the services you have included.

You can also:

- Download a list of publications available from a particular service, edit the list, and then upload it back into WebAdmin. Alternatively, if you already have a list of publications, you can upload this into WebAdmin.
- Specify how to handle new SilverLinker databases. When you receive an updated SilverLinker database, it includes updated information about publications, services, and sites now available for SilverLinker-enabled databases, and details of publications made available through a new or different service.

You might want to filter out some of this new information even before you view the updated SilverLinker details in WebAdmin.

Full details of how to make these settings are in the WebAdmin online help.

Troubleshooting SilverLinker

See “Troubleshooting SilverLinker” on page 11–3 for advice on some of the problems you might experience with SilverLinker.

The Z39.50 Option

Introduction

This chapter introduces SilverPlatter's implementation of Z39.50, the ANSI/NISO network protocol for database searching and information retrieval. For further information about this protocol, see the Library of Congress Maintenance Agency page for International Standard Z39.50 at <http://lcweb.loc.gov/z3950/agency/>.

For more information about SilverPlatter's Z39.50 Option, refer to the *Z39.50 Administrator's Guide*. See "Getting the software" on page 9-3 for details about getting the software and documentation.

SilverPlatter's Z39.50 Option provides a transparent link between Version 2 or Version 3 Z39.50 clients and an ERL Server, regardless of hardware or software differences. As a result, users at client sites can search SilverPlatter databases while using the familiar interface, commands, and search methods of their local systems.

Supported Z39.50 features

SilverPlatter's Z39.50 Gateway is compliant with Version 2 and Version 3 (the most current edition) of the Z39.50 specification. It supports the following features:

- **Searching Universal Fields**

Allows users to narrow searches to specific fields rather than general keyword searches.

- **Support for MARC-Mapped and Non-MARC Databases**

The Z39.50 gateway supports MARC, SUTRS (Simple Unstructured Text Record Syntax) and GRS.1 (Generic Record Syntax).

- **Browse**

Allows users to view and select terms from database indexes.

- **Enhanced Explain Database Features**

The Explain database provides additional information about searchable fields, including searchable attributes, returned fields, and term limits.

- **IP Address Checking**

Multiple IP addresses can now be forwarded to the ERL server, eliminating the need for each user to enter a username and password.

- **Named Result Sets**

Allows searches to be retained on the Gateway server, enabling users to rerun and edit searches from their search history.

- **Record Sorting**

Allows users to sort search results according to a particular field (such as Author, Title, or Publication Year, for example.)

Note: If you want to use one or more of these features, your Z39.50 client must also support those features.

System and client requirements

System requirements

- ERL 2.09.5 or higher
- In addition to the basic ERL hardware requirements, you need:
 - 5 MB hard disk space for Gateway installation
 - 4 MB RAM for the first four simultaneous users plus 1 MB RAM for each additional user

Client requirements

- **User Authentication**

If the ERL server requires a username and password, clients must support User Authentication and send either the open “user/password” or idPassIdAuthentication in the initialization request.

If the ERL server uses IP Address checking, you can specify a username and password in the **erlsrvr.cfg** file. See “Configuring the Z39.50 Gateway” in the *Z39.50 Administrator’s Guide* for more information.

- **Attribute Sets**

Client must support Bib-1 Attributes or they must be dynamically configured through the Version 3 Explain Database.

- **Record Syntaxes**

Clients must support MARC, SUTRS or GRS.1.

Getting the software

The Z39.50 software and full documentation set is available on SilverPlatter’s web site or ftp site.

Downloading with a browser

1. Access the SilverPlatter web site; **<http://www.silverplatter.com>**
2. Click on the link for **Technical Support**, then **Download Registration**.
3. Select the software and platform, and follow the online instructions to access the compressed software, release notes, and the *Administrator’s Guide*, in HTML and text.

Downloading from the ftp site

1. Use anonymous ftp to connect to SilverPlatter’s site:
ftp.silverplatter.com

Login with user-id *anonymous* and enter your email address as a password.

2. Change to the **/software/z3950** directory.
3. Change to the **aix, nt, sco,** or **solaris** directory.
4. Download all files from the directory. They are the compressed software, release notes, and the *Administrator's Guide*, in HTML and text.

Refer to the *Administrator's Guide* for complete installation instructions.

Library Holdings

Introduction

This chapter describes how to use the Holdings Conversion Utility (HCU) in an ERL environment. You can use HCU to convert your serials holdings files into SilverPlatter-compatible holdings files, in order to display journal-specific local holdings information along with SilverPlatter bibliographic records. See the *SilverPlatter Local Holdings User Documentation* for full details of how to create the files.

This chapter explains the following:

- Making the messages available from your ERL server
- Enabling messages for specific databases
- Configuring the default messages that appear when there is no journal-specific information to display
- Using holdings files created in SilverPlatter's Library Holdings Administration Program (SPLHA)

Making the Holdings messages available

Once you have created the HCU-generated holdings files: **.lhm**, **.lhd**, and **.lhi**, copy them to the **/sproot/cfiles** directory of your ERL server so that messages will be displayed by SPIRS clients.

Use the **/sproot/dbase/coretags.cfg** file to record information which affects the display of holdings information within your SilverPlatter databases. You can control the database families for which holdings

messages are displayed; and you can choose to activate default messages to display under certain specified conditions.

Enabling Holdings messages for specific databases

You can enable the display of HCU-generated holdings messages for only specific database families by creating a list of those database families which you wish to *exclude* from displaying holdings messages, within `/sproot/dbase/coretags.cfg`.

Editing coretags.cfg

1. Open `coretags.cfg` in your text editor.
2. Find tag `!42`. Delete the semi-colon (;) at the beginning of the tag, and enter a comma-delimited list of the database families for which you *do not* want holdings messages to display.

The default is for holdings messages to display for all SilverPlatter databases. If you explicitly list in this file some subset of your databases for which holdings message display is disabled, holdings messages will display only for those database families you have *not* included in the list.

For example:

If your library subscribes to the following databases:

- Medline Advanced (MEDS)
- PsycInfo (PY)
- Sociofile (SO)
- Cinahl (NU)

you might want holdings messages to display *only* for Medline Advanced and PsycInfo. So you add the following to `coretags.cfg`:

```
!42=SO,NU
```

Note: You must enter the database family names, and you must separate each with a comma.

Configuring default messages

You can configure the display of default messages for cases when there is no journal-specific holdings message to display for a particular SilverPlatter bibliographic record.

The `/sproto/dbase/coretags.cfg` file contains the following list of numeric tags and textual messages associated with various conditions that result in no message being available for display:

```
;!50 Holdings files missing or incomplete
;!51 This database contains no valid holdings
keys
;!52 Holdings for this database family
disabled
;!53 No holdings key field in record
;!54 No holdings key found in fields
;!55 The holdings key in this record is
invalid
;!56 Holdings index file corrupt - rebuild
;!57 No holdings information for this record
```

Editing coretags.cfg

1. For any condition for which you would like a default message to display, open the `coretags.cfg` file in your text editor.
2. Delete the semi-colon (;) at the beginning of the tag which corresponds to the condition for which you would like a default message to display.

You can leave the text as it is, or edit the text to display any wording you wish. If messages span multiple lines, you *must* type `\n` at the end of each separate line of text at the point where you wish the line-break. If you press **[Enter]** at the end of a line, the message will be truncated at that point.

For example:

If your library does not subscribe to the journal that is cited in the SilverPlatter record being displayed, there would be no journal-specific message to display.

To activate a message to display for this condition, use message `!57`.

Refer to the *SilverPlatter Local Holdings User Documentation* for more details.

Using SPLHA files

SilverPlatter's Library Holdings Administration Program lets you attach messages and call numbers to the titles indexed in SilverPlatter databases. You can use this program in ERL. Simply copy the library holdings files **splha.lhd** and **splha.lhm** to the **/sproot/cfiles** directory on the server. This can be done using ftp. Be sure to use binary mode when using ftp.

If you have used the SilverPlatter Library Holdings Administrator (SPLHA) in the past and have **.lhm** and **.lhd** files, you can continue to use those files with ERL Release 4 clients and servers to display holdings for the limited set of SPLHA-supported databases (Medline Advanced; Medline Express; Medline Professional; CINAHL; HealthStar; PsycLit; ClinPsyc; Wilson Readers' Guide; RNDEX.) for the time being.

However, you cannot use both HCU- and SPLHA-generated holdings files together: you must use one or the other. If you subscribe to SilverPlatter databases in addition to the SPLHA-supported ones, and you now wish to display holdings for these additional databases, you must use HCU-generated files for all of your holdings information.

To do this, you must do *one* of the following:

- Create a single input file that includes all of your serials holdings, including the ones represented in the SPLHA-supported databases, and convert this file using HCU.
- Use the SPLHA/ASCII Conversion Utility to convert your existing SPLHA file to the ASCII format required as input to HCU, import that into a word-processing or spreadsheet program, and then add to it any additional serials holdings which are not included.

SilverPlatter recommends that you begin using the HCU facility as soon as possible.

Troubleshooting Guide

Introduction

This chapter lists some problems you might come across when you install the ERL Server software, and the solutions to those problems.

It does not cover all the possible problems: you should also check out the Technical Support section of the SilverPlatter website (<http://www.silverplatter.com>) which contains a Technical Tip area which can answer many of your questions. If you cannot find the answer in this chapter, or on the web site, please contact your distributor, or our technical support staff at SilverPlatter. See “Contacting SilverPlatter” on page 1–4 for details. In some circumstances our support staff may ask you to run a diagnostics program and send the resulting log file to SilverPlatter for analysis.

This chapter also contains a check list of the files that you edit, either while you are installing and configuring the ERL server for the first time, or to make changes later. Here you can look up an activity, check which file it is you use, and then turn to the relevant part of the manual to see how to make the changes.

General items to check

If you have problems when you are installing or configuring ERL, it is a good idea to check the following items: any one of them might cause the server not to run.

- Are your system requirements correct, as set out at “Checking your system requirements” on page 2–10?

- Have you downloaded and installed the correct version of the software?
- Are all the default directory and filenames exactly as they appear in this manual?
- Are items such as 0 (zero), O (uppercase o), 1 (one), l (lowercase l) and L (uppercase l) all entered correctly?
- Are there any incorrect spaces in any filenames or accounts?
- Are IP addresses entered correctly?
- Do the **ipincl** and **ipexcl** files have the correct numbers entered?
- Is the server ID exactly as it appears on your license, but without the SP\$ at the beginning?

Problems with databases

If you have licensed, installed, mounted, and enabled a database, and authorized users to use it, but a user *somename* is unable to access it, try going through the following steps:

1. Check that you have set the authorizations correctly. See “Requiring authorizations for a database” on page 5–9.
2. If you made access to this database limited to portfolio members, check that user *somename* is a member of the portfolio. See “Authorizing accounts to portfolios” on page 5–10.
3. Open a SPIRS client as user *admin*, and see if you are able to access the database.
 - If user *admin* can access the database, then there is a portfolio problem for user *somename*.
 - If user *admin* cannot access the database, look at the listing for directory **/sproot/files/** and check that the file **dbi.cfg** is not zero size. If there is still a problem, contact SilverPlatter Technical Support.

4. Use WebAdmin or the ERL **Server** menu to check that the database is enabled. (See “Enabling and disabling databases” on page 4–12.)
5. If the database is not in the list of databases to enable or disable, it is not mounted. Mount the database (see “Mounting and unmounting databases” on page 4–12.)
6. Check that the database is installed. Go to the ERL **Server** menu, choose **6. Database Installation** then option **4. Display Installed databases**. If the database is not listed, then you may need to install it again; but first check that the license information is correct.
7. Check the license information is correct. Did you enter all the license information *exactly* as it appears on the license?
8. Check that the license has not expired. To do this, display the license, and look at the expiry date.

Troubleshooting SilverLinker

The list below gives general advice on resolving problems with SilverLinker

Problem:	Possible Cause:	Solution:
There are no links in the results display.	The database searched is not SilverLinker-enabled.	Check the SilverLinker Web site for a current list of databases covered.
	The user has not included the SilverLinker FTXT field in the list of fields to display in WebSPIRS, WinSPIRS or MacSPIRS.	Add the FTXT field to the list of fields that are included in the results display.
	The SilverLinker database is not licensed for the current user.	Install the license for the SilverLinker database.
	The SilverLinker database is not mounted.	Mount the SilverLinker database.

Problem:	Possible Cause:	Solution:
	The SilverLinker database is not enabled.	Enable the SilverLinker database. See "Enabling and disabling databases" on page 4-12.
	There is no link available for those articles.	Check the SilverLinker Web site for a current list of Journals covered.
	This user may not be set up to see links.	Check the filter settings in WebAdmin.
Clicking a link displays a "Document not Found" message.	The document has moved on the publisher's site.	Try again later, with an updated SilverLinker database.
Users cannot log on to publisher's Web site.	Your organization is not registered with the publisher.	Contact the publisher.

(Sheet 2 of 2)

Checklist of main files you can edit

Activity	Action to Take	File/Directory to edit	Explained in detail at
When you install the ERL Server software			
Windows NT Server (When you install the software, you edit these files from within the installation program, not the individual files)	Enter drive letters for CD-ROM drives you want to make available to the ERL Server	\sroot\files\devices	"Installing the server software" on page 2-13
	Add any drives or directories where you want to copy database files when you install them.	\sroot\files\nodes	"Installing the server software" on page 2-13
	Add the IP addresses for machines you want to access the ERL server.	\sroot\cfiles\ipincl	"Installing the server software" on page 2-13

(Sheet 1 of 3)

Activity	Action to Take	File/Directory to edit	Explained in detail at
UNIX Server	Enter drive letters for CD-ROM drives you want to make available to the ERL Server.	/sproot/files/devices	“Preparing filesystems” on page 2-19
	Add any drives or directories where you want to copy database files when you install them.	/sproot/nodes	“Preparing filesystems” on page 2-19
	Add the IP addresses for machines you want to access the ERL server.	/sproot/cfiles/ipincl	“Entering IP addresses” on page 2-15
Solaris only	Prevent contention between Solaris CD manager program and ERL.	/etc/vold.conf	“Preparing filesystems” on page 2-19
	Ensure filesystems mount automatically when you boot the system.	/etc/vfstab	“Preparing filesystems” on page 2-19
Managing databases			
	Create or edit a menu of available databases.	/sproot/cfiles/dbmenu.cfg	“Creating a menu of database titles” on page 4-16
Setting IP address checking			
	Add the IP addresses for machines you want to access the ERL server.	/sproot/cfiles/ipincl	“Controlling access using IP addresses” on page 5-1
	Exclude specific IP addresses for machines you do not want to access the ERL server. (You must create this file if it does not already exist.)	/sproot/cfiles/ipexcl	“Controlling access using IP addresses” on page 5-1

Activity	Action to Take	File/Directory to edit	Explained in detail at
Logging IP addresses	Specify which type of IP addresses you want to see in the log file.	/sproot/bin/erlsrvr.cfg	“Setting up IP address logging” on page 5-4
Logging usage	Change the way the statistics logging works.	/sproot/bin/erlsrvr.cfg	“Configuring logging settings” on page 7-5
Setting up library holdings messages	Enable messages for specific databases.	/sproot/dbase/coretags.cfg	“Enabling Holdings messages for specific databases” on page 10-2
	Change the type and text of default messages.	/sproot/dbase/coretags.cfg	“Configuring default messages” on page 10-3

(Sheet 3 of 3)

Other Scripts & Functions

Note: This chapter applies only to ERL on UNIX platforms.

Use these scripts only when logged in as user *erl*.

CHANGESERVINFO

/sproot/scripts/changeservinfo is a script that allows you to change server information after installation. When you run the script, the current server information displays, with a recommendation about the maximum number of logins. You can then enter new values for the Server ID, Server name, Organisation ID, Organisation name, Site ID, Site name, and Max logins.

Note: On AIX, you must run this script as *root*.

SETPERMS

/sproot/scripts/setperms is a script run during installation. It changes the ownership of **/sproot** files so they are owned by the user *erl*. You can run this script at any time by running the following command:

```
setperms /sproot
```


Index

Symbols

.idx files 7-9

A

accounts 5-5–5-11
 authorizing access to databases 5-9–5-11
 authorizing with WebAdmin 5-9
 creating 5-6
 editing 5-6
 sending messages to 6-1
 statistics 7-1–7-8
 user-specific information 5-6
admin account 5-5
 administration tools
 task table 3-2
 see also WebAdmin

AIX

 creating an installation directory 2-23
 downloading ERL 2-11, 2-12
 hardware requirements 2-10
 preparing filesystems 2-25
 starting the ERL server 2-25
 swap partition 2-9
anonymous account 5-5
 anonymous ftp. *see* downloading SilverPlatter software
 Authorization Sheets 4-3
 see also licensing databases

B

backing up ERL
 AIX 2-6
 Solaris 2-6
 Windows NT 2-7
 Blat 2-14
 brladmin 1-2, 2-2, 3-1

C

CD-ROM drives. *see* devices file;
 installing databases
 changeservinfo 12-1
 child portfolios 5-8
 client requirements
 Z39.50 9-3
 clients
 see MacSPIRS; WebSPIRS;
 WinSPIRS
 connections 4-15
 conventions. *see* Manual conventions
 coretags.cfg 10-1, 10-3

D

daily statistics 7-7
 database integrity 4-15
 databases
 creating a database menu 4-16, 5-6
 displaying database information 4-15
 email message about expiry 2-11, 2-14
 enabling and disabling 4-12
 environment variable 4-9
 expiration dates 5-8
 installation types 4-11
 installing 4-7–4-11
 licensing 4-3–4-7
 maximum users 5-8
 menu of titles 4-16
 mounting and unmounting 4-12
 portfolios 5-7–5-11
 removing 4-14
 requiring authorized access 5-9–5-11
 sending messages to users 6-1
 SilverLinker 8-1
 statistics 7-1–7-8

- updating 4-13
 - verifying integrity 4-15
- DBIFITFILE 4-9
- dbmenu.cfg 4-18
- devices file 2-14
- disabling databases 4-12
- downloading SilverPlatter software
 - ERL 2-11
 - Z39.50 9-3
- E**
- enabling databases 4-12
- environment variable
 - setting 4-9
- ERL Administration Server 2-1
 - starting and stopping 2-21, 2-25
- ERL package 2-1
- ERL Server
 - components 1-1
 - directory system 2-28
 - installation steps 1-3
- ERL Server Menu 4-2
- erlsrvr.cfg 7-5–7-7, 9-3
- expiration dates 5-8
- Explain database 5-7, 9-2
- F**
- files
 - checklist of editable files 11-4
- ftp. *see* downloading SilverPlatter software
- G**
- guest administrator 8-4
- H**
- hardware requirements
 - ERL server 2-10
 - Z39.50 9-2
- Holdings Conversion Utility (HCU) 10-1–10-3
 - holdings files 10-1
- holdings messages
 - configuring default messages 10-3
 - enabling 10-2
- hourly statistics 7-7
- I**
- Inactivity Timeout 2-13, 2-19, 2-24
- installing databases 4-7–4-11, 4-15
 - installation types 4-7
- installing ERL 2-13–2-27
 - AIX 2-23–2-26
 - before you install 2-9
 - downloading the software 2-11
 - first time 2-2
 - hardware requirements 2-10
 - information you need 2-10
 - Linux 2-23–2-26
 - Solaris 2-17–2-22
 - starting the ERL server
 - AIX 2-25
 - Linux 2-25
 - Solaris 2-21
 - Windows NT 2-16
 - steps to take 1-3
 - stopping the ERL server
 - AIX 2-26
 - Linux 2-26
 - Solaris 2-22
 - troubleshooting problems 11-1
 - Windows NT 2-13–2-16
- IP address sets
 - user-specific 5-4, 5-7
 - WebAdmin 5-4
- IP addresses 5-1
 - checking 5-1, 9-2
 - logging 5-4
- ipincl file 2-11, 2-15, 2-21, 2-25
 - see also* IP address checking
- L**
- L-EZTA 5-7
- L-SAMPLE 5-7
- library holdings 5-6, 10-1–10-4

- user-specific 5-6
- license agreement 4-4
- license expiry
 - email notification 4-5
- licensing databases 4-3–4-7
 - displaying licenses 4-7
 - license portfolios 5-7–5-11
 - listing licenses 4-6
 - removing licenses 4-6
 - updating licenses 4-7
- Linux
 - creating an installation directory 2-23
 - downloading ERL 2-11, 2-12
 - hardware requirements 2-10
 - preparing filesystems 2-25
 - starting the ERL server 2-25
 - swap partition 2-9
- log files 7-2
- M**
- MacSPIRS 1-2
 - using with SilverLinker 8-2
- Manual conventions ii
- Maximum Logins 2-11, 2-13, 2-19, 2-24
- Message of the Day 5-6, 6-2
 - user-specific 5-6
- message to connected accounts 6-1
- monthly statistics 7-7
- motd. *see* Message of the Day
- mounting databases 4-12
 - listing mounted databases 4-15
- N**
- nodes file 2-11, 2-15
- O**
- Organization Name and ID 2-10, 2-13, 2-18, 2-23
- P**
- paging file size (Windows NT) 2-9
- per-session statistics 7-7
- portfolios 5-7–5-9
 - authorizing accounts 5-9–5-11
 - creating portfolios 5-8
 - deleting portfolios 5-9
 - editing portfolios 5-8
 - statistics 7-1–7-8
- problems with
 - databases 11-1
 - installing or configuring ERL 11-1
 - SilverLinker 11-3
- Q**
- Quikdata 4-2
- R**
- readmenu 4-16, 4-18
- reinstalling ERL
 - AIX 2-8
 - Solaris 2-8
 - Windows NT 2-8, 2-9
- removing databases 4-14
- RL 5-1
- S**
- security
 - authorizing accounts 5-9–5-11
 - changing administrative password 5-5
 - IP address checking 5-1
- sendmail 2-11
- Server Name and ID 2-10, 2-13, 2-18, 2-23
- setperms 12-1
- SilverLinker
 - clients 8-2
 - configuring in WebAdmin 8-4
 - configuring links 8-5
 - database 8-1
 - disabling 8-3
 - enabling 8-3
 - links in MacSPIRS 8-2
 - links in WebSPIRS 8-3
 - links in WinSPIRS 8-2

- SilverLinker-enabled databases 8-2
 - troubleshooting 11-3
 - SilverPlatter Information 1-4
 - Site Name and ID 2-11, 2-13, 2-18, 2-23
 - Solaris
 - /opt 2-10
 - creating an installation directory 2-17
 - downloading ERL 2-11, 2-12
 - hardware requirements 2-10
 - preparing filesystems 2-19
 - starting the server 2-21
 - swap partition 2-9
 - sp account 5-5
 - SPIRS 1-2
 - see also*
 - MacSPIRS;WebSPIRS;WinSPIRS
 - SPLHA 5-6
 - see also* library holdings
 - SPLHA files 10-4
 - starting the ERL administration server 2-21
 - statistics 4-15, 7-1–7-8
 - configuration settings 7-5
 - counting logins 7-4
 - creating reports 7-3
 - Database Group 7-4
 - files 7-2
 - logging 7-2
 - Portfolio 7-4
 - regenerating .idx files 7-3
 - WebAdmin 7-7
 - stopping the ERL administration server 2-21
 - stopping the server 2-21
 - stopping the servers 2-15
 - swap partition (Unix) 2-9
- T**
- tar
 - untarring databases on tape 4-8
- totaled statistics 7-7
 - troubleshooting
 - databases 11-1
 - files to edit 11-4
 - general 11-1
 - SilverLinker 11-3
- U**
- uninstalling ERL 2-16
 - AIX 2-6
 - Solaris 2-6
 - Windows NT 2-7
 - unmounting databases 4-12
 - updating databases 4-13
 - upgrading ERL 2-2
 - users. *see accounts*
 - user-specific
 - IP address sets 5-4
 - library holdings 5-6
 - message of the day 5-6
- V**
- verifying database integrity 4-15
 - virtual memory (Windows NT) 2-9
- W**
- WebAdmin 1-2, 3-1, 3-4
 - accessing 3-5
 - authorizing accounts 5-9–5-11
 - configuring SilverLinker 8-4
 - creating a database menu 4-16
 - creating a Message of the Day 6-2
 - creating accounts 5-6
 - creating portfolios 5-8
 - creating user-specific information 5-7
 - deleting portfolios 5-9
 - displaying database information 4-15
 - editing accounts 5-6
 - editing portfolios 5-8
 - features 3-4
 - installing 3-5
 - IP address checking 5-1

- statistics 7-7

- statistics reports 7-3

- uninstalling 3-4

WebSPIRS 1-2

- using with SilverLinker 8-2

Windows NT

- downloading ERL 2-11, 2-12

- hardware requirements 2-10

- installing ERL 2-13–2-16

- paging file size 2-9

- starting the ERL server 2-16

- starting the servers 2-15

- uninstalling ERL 2-16

- virtual memory 2-9

WinSPIRS 1-2

- using with SilverLinker 8-2

Z

Z39.50 5-7

- client requirements 9-3

- hardware requirements 9-2

- supported features 9-1

