

Installation Instructions

Software TestWorks

Version 3.1

For UNIX Workstations



SOFTWARE RESEARCH, INC.

This document property of:

Name: _____

Company: _____

Address: _____

Phone _____



SOFTWARE RESEARCH, INC.

625 Third Street
San Francisco, CA 94107-1997
Tel: (415) 957-1441
Toll Free: (800) 942-SOFT
Fax: (415) 957-0730
E-mail: support@soft.com
<http://www.soft.com>

ALL RIGHTS RESERVED. No part of this document may be reproduced, stored in a retrieval system or transmitted, in any form or by any means, photocopying, recording or otherwise without prior written consent of Software Research, Inc. While every precaution has been taken in the preparation of this document, Software Research, Inc. assumes no responsibility for errors or omissions. This publication and features described herein are subject to change without notice.

Documentation: Adam Heilbrun

TOOL TRADEMARKS: CAPBAK/MSW, CAPBAK/UNIX, CAPBAK/X, CBDIFF, EXDIFF, SMARTS, SMARTS/MSW, S-TCAT, STW/Advisor, STW/Coverage, STW/Coverage for Windows, STW/Regression, STW/Regression for Windows, STW/Web, TCAT, TCAT C/C++ for Windows, TCAT-PATH, TCAT for JAVA, TDGEN, TestWorks, T-SCOPE, Xdemo, Xflight, and Xvirtual are trademarks or registered trademarks of Software Research, Inc. Other trademarks are owned by their respective companies. METRIC is a trademark of SET Laboratories, Inc. and Software Research, Inc. and STATIC is a trademark of Software Research, Inc. and Gimpel Software.

Copyright © 1997 by Software Research, Inc
(Last Update June 27, 1997)
documentation/user-manuals/install.3.1

Table of Contents

TestWorks Installation Instructions

Preface	iii
Audience.....	iii
Contents of Chapters	iv
Typefaces used.....	vi
CHAPTER 1 TestWorks Products and Licenses	1
1.1 Floating Licenses	1
1.2 What You Need to Get Started	2
1.3 Creating a New TestWorks Directory	3
1.4 Installing TestWorks' Files	4
1.5 Running the Installation Script	6
1.5.1 All Platforms Except Sun SPARC SunOS and Solaris	6
1.5.2 Sun SPARC Running MIT X11 X Windows Under SunOS 4.1.3.....	10
1.5.3 Sun SPARC Running OpenWindows Under SunOS 4.1.3	15
1.5.4 Sun SPARC Solaris Running X Windows/OpenWindows Under Solaris 2.x.....	19
1.6 Installing and Setting Up License Access Files	24
1.6.1 Using the Supplied Script to Set Up License Access	25
1.6.2 Manually Setting Up License Access	28
1.7 Setting Up the User's License Environment	29
1.7.1 Using the Supplied Script to Set Up User's License Environment.....	29
1.7.2 Manually Setting Up the User's License Environment.....	32
1.8 Setting Up the User's TestWorks Environment	33
1.8.1 Using the Supplied Script.....	34
1.8.2 Modifying Manually.....	36
1.9 Verifying Installation	37
1.10 Removing TestWorks Products	39
1.11 Installing a New TestWorks Release	40

CHAPTER 2 Regression, CAPBAK/X: X and Y Offsets	41
2.1 Setting X and Y Offsets.....	41
2.1.1 Machine-Dependent Offsets (Optional)	43
2.1.2 Common Settings	45
CHAPTER 3 Regression, CAPBAK/X: OCR.	47
3.1 OCR System Requirements.....	47
3.2 Installing the OCR Server	47
3.2.1 Running install.stw.reg.ocr	49
3.2.2 Editing the rc.local or inittab File	56
3.2.3 Using a UNIX Command.....	57
CHAPTER 4 Regression, CAPBAK/X: X11 Virtual Display System .	59
4.1 Introduction.....	59
4.2 Linking Manually.....	59
4.3 Using the Supplied Script	60
CHAPTER 5 Troubleshooting	63
5.1 Common TestWorks Installation Questions.....	63
INDEX	67

Preface

Congratulations!

By choosing the TestWorks integrated suite of testing tools, you have taken the first step in bringing your application to the highest possible level of quality.

Software testing and quality assurance, while becoming more important in today's competitive marketplace, can dominate your resources and delay your product release. By automating the testing process, you can assure the quality of your product without needlessly depleting your resources.

Software Research believes strongly in automated software testing. It is our goal to bring your product as close to flawlessness as possible. Our leading-edge testing techniques and coverage assurance methods are designed to give you the greatest insight into your source code.

TestWorks is the most complete solution available, with full-featured regression testing, coverage analyzers, and metric tools.

Audience

This manual is intended for UNIX system administrators and software testers who are installing *TestWorks*.

Contents of Chapters

- | | |
|-----------|---|
| Chapter 1 | <i>INSTALLING TESTWORKS PRODUCTS AND LICENSES</i> explains how to install <i>TestWorks</i> products, set up environments, and licenses. |
| Chapter 2 | <i>INSTALLING REGRESSION, CAPBAK/X: X AND Y OFFSETS</i> explains how to install the <i>CAPBAK/X 5.1</i> and setting x and y offsets. |
| Chapter 3 | <i>INSTALLATION INSTRUCTIONS FOR OCR</i> explains how to install the Optical Character Recognition (OCR) utilities for the <i>CAPBAK/X™</i> (capture/play-back) product. |
| Chapter 4 | <i>INSTALLING REGRESSION, CAPBAK/X:X VIRTUAL DISPLAY SYSTEM</i> explains how to install the <i>X11 Virtual Display™</i> system that can be used with the <i>CAPBAK/X</i> product. |
| Chapter 5 | <i>TROUBLE SHOOTING</i> describes possible installation and licensing problems and provides explanations and solutions. |

Typefaces used in this manual

The following typographical conventions are used in this manual.

boldface Introduces or emphasizes a term that refers to **TestWorks**' window, its sub-menus and menu options.

italics Indicates the names of files, directories, pathnames, variables, and parameters. Italics is also used to specify manual titles and chapter titles.

“Double Quotation Marks”

Used when chapter titles and sections are referenced. Words with special meanings may also be set apart with double quotation marks the first time they are used.

`courier` Indicates system output, such as error messages, system hints, file output, and the contents of sample files.

**Boldface
Courier** Indicates any command or data input that you are directed to type, such as prompts and invocation commands. For instance, **stw** invokes TestWorks.



TestWorks Products and Licenses

This chapter explains the installation procedures for *TestWorks* products and upgrades.

1.1 Floating Licenses

Software Research provides **floating licenses** for the TestWorks tool suite. This means that *TestWorks* can run simultaneously on as many client workstations as there are valid number of user licenses.

The license server software runs as a daemon process on a workstation known as the **license server host**. The license server host stores and controls licenses for use on the host workstation or on any other client workstations on the network. Floating licenses are issued from or controlled by a **license server process**.

The license server is used for all licensed *TestWorks* products. This means that the license file is checked by each of our products running on the network. Licenses can be permanent or temporary.

Multiple license servers can exist in a network. Each license server manages TestWorks product features by its unique password, which ties the server to its host workstation and enables the number of floating licenses purchased.

1.2 What You Need to Get Started

- User documentation for the products purchased
- License data files that gives access to the *TestWorks* products purchased. Software Research supplies these to you either by e-mail or fax. Alternatively, at your request they are also available on diskette.
- Distribution tape cartridges for the *TestWorks* tools purchased

Distribution tapes consist of the following:

- **Automated regression tool set** (*STW/Regression*)
- **Coverage analyzer tool set** (*STW/Coverage*)
- **Advisor tool set** (*STW/Advisor*)

If only one component of a set is purchased (for instance, if you bought only *SMARTS* from the *STW/Regression* set), the entire set is sent to you along with license codes only for the tool you purchased.

Note: Before beginning the installation procedure:

1. Make sure that you have super-user access.
 2. Make sure that you are not running a windowing system, e.g., OpenWindows or X Windows.
 3. Make sure that you have a single disk partition with as many megabytes of available disk space as are specified in the PRODUCTION RECORDS in the OPEN THIS FIRST! envelope.
-

The tool sets and their components are listed below:

<i>STW/Regression</i>	<i>CAPBAK/X</i> , <i>CAPBAK/UNIX</i> , <i>SMARTS</i> and <i>EXDIFF</i>
<i>STW/Coverage/C</i>	<i>TCAT</i> [™] , <i>TCAT-PATH</i> [™] , and <i>T-SCOPE</i> [™]
<i>STW/Coverage/Ada</i>	<i>TCAT/Ada</i> , <i>S-TCAT/Ada</i> , and <i>TCAT-PATH/Ada</i>
<i>STW/Coverage/C++</i>	<i>TCAT/C++</i> and <i>TCAT-PATH/C++</i>
<i>STW/Coverage/F77</i>	<i>TCAT/F77</i> , <i>S-TCAT/F77</i> , and <i>TCAT-PATH/F77</i>
<i>STW/Advisor</i>	<i>METRIC</i> , <i>STATIC</i> , and <i>TDGEN</i>

1.3 Creating a New TestWorks Directory

You can install TestWorks in any directory, but it is recommended that you install it in a new directory.

1. Login as the super-user.
2. To install *TestWorks* in its own directory, make a new directory using the `mkdir` command. For example, type:

```
mkdir stw_dir
```

3. Type the command

```
cd stw_dir
```

Throughout these instructions, the installation directory is referred to as *install_dir*.

Note: If you received more than one tool set, tar off all *TestWorks*' files into a single *install_dir*.

1.4 Installing TestWorks' Files

1. Change to the installation directory:

```
cd install_dir
```

2. Insert the software tape (e.g., 1/4" QIC-150 cartridge tape, DAT tape, TK50, etc.) into your distribution media drive.
3. Where *device_name* is the name of your tape drive, type the following:

```
tar xvf /dev/device_name
```

The contents of the tape is copied to *install_dir*.

The installation process creates the following directories and scripts:

<i>bin</i>	Directory that contains the <i>TestWorks</i> executables
<i>demos</i>	Directory that contains demos of the <i>TestWorks</i> products
<i>help</i>	Directory that contains the online help frames for the products
<i>lib</i>	Directory that contains the libraries
<i>license</i>	Directory that contains floating license utility tools See the end of this section and Section 1.6 on page 24 for further information on license access installation.
<i>ocr</i>	Directory that contains the files necessary to run <i>STW/Regression's</i> Optical Character Recognition (OCR) capabilities See Chapter 3. This directory is installed with the <i>STW/Regression</i> tape only.
<i>source</i>	Directory that contains the file necessary for <i>STW/Regression's X11 Virtual Display System</i> See Chapter 4.
<i>install.floating.license</i>	License script This script sets up the environment for the floating license window server, which points to the <i>TestWorks</i> license access information. See Section 1.6 on page 24.
<i>install.stw.reg.ocr</i>	Optical Character recognition script

	This script sets up the server for <i>STW/Regression's</i> OCR utilities.
	See Chapter 3. This script is installed with the <i>STW/Regression</i> tape only.
<i>install.stw.adv</i>	Installation script for <i>STW/Advisor</i>
	This script must be run after the <i>STW/Advisor</i> tape has been installed. See Section 1.5 on page 6.
<i>install.stw.cov.lang</i>	Installation script for <i>STW/Coverage</i> . lang can be c (for C), c++ (for C++), ada (for Ada), and f77 (for FORTRAN)
	This script must be run after the <i>STW/Coverage</i> tape has been installed. See Section 1.5 on page 6.
<i>install.stw.reg</i>	Installation script for <i>STW/Regression</i>
	This script must be run after the <i>STW/Regression</i> tape has been installed. See Section 1.5 on page 6.
<i>install.Xvirtual</i>	Virtual display script
	This script soft links the <i>install_dir/lib/X11R5</i> library to the <i>/usr/X11R5</i> library for the <i>X11 Virtual Display System</i> . See Chapter 4. This script is installed with the <i>STW/Regression</i> tape only.

4. If you did not request your license access codes via e-mail or fax, find the 3.5 diskette labeled "ACCESS CODES" in one of your "OPEN THIS FIRST" envelopes.

To extract the necessary license files off of the diskette:

- a. Go to *install_dir*.
- b. Type the following command:

```
tar xvf /dev/device_name
```

The files *license/license.server* and *license/license.tmp* are copied to *install_dir*.

Note: If you received the file *sr.access* and you copy it to *install_dir/license/* instead, demo codes will allow temporary access to Software Research's products for up to thirty days.

1.5 Running the Installation Script

Note: STW/Regression, CAPBAK/X requires the existence of *DEC-XTRAP* or *XTestExtension1* along with *XTEST* as a part of your X server's extended extensions.

1.5.1 All Platforms Except Sun SPARC SunOS and Solaris

After installing *TestWorks*' files, install the keyboard mapping file and the resource file to the appropriate directories. These files are *XKeysymDB* and *SR.stw.**. They are located in the *install_dir/lib* directory. *TestWorks*' tools require that these files be in specific directories in order to run properly.

The provided scripts, *install.stw.adv*, *install.stw.cov.lang* and *install.stw.reg*, copy the mapping file and each tool set's resource file to the appropriate locations.

- The *install.stw.adv* script must be run after each installation of *STW/Advisor*.
- The *install.stw.cov.lang* script must be run after each installation of *STW/Coverage*.
- The *install.stw.reg* script must be run after each installation of *STW/Regression*.

The scripts create an *SRuser.setup* script that sets up the user environment. (See Section 1.8 on page 33 for more details.)

Note: *lang* for *install.stw.cov.lang* can be *c* (for C), *c++* (for C++), *ada* (for Ada), and *f77* (for FORTAN); e.g. *install.stw.cov.c++*.

While running the installation script:

- Press **Ctrl-C** at any time to stop the installation.
- Answer every question with a **y** or **n**. (Questions cannot be answered by pressing enter.)

Note: Before beginning the installation procedure,

- ✓ Make sure that you have super-user access.
 - ✓ Make sure that you are not running a windowing system, e.g., OpenWindows or the X Windows.
 - ✓ Make sure that you have a single disk partition with as many megabytes of available disk space as are specified in the PRODUCTION RECORDS in the OPEN THIS FIRST! envelope.
-

To run the script:

1. Go to the *install_dir* directory.

For the tape that you tarred off, type the correct install script:

```
install.stw.adv
install.stw.cov.lang
install.stw.reg The following message appears:
```

```
****
****          Setup scripts for STW/product_suite
****
**** This script copies the XKeysymDB key mapping file and the
**** SR
**** resource file to the appropriate directories.
****
**** This script asks you questions during the installation,
**** please give the correct response to each question.
****
**** Press RETURN to continue, CTRL-C to abort
```

2. To continue installation, press **Enter**.

A prompt asks if you want the keyboard mapping file, *XKeysymDB*, appended to */usr/lib/X11* for the X Window System.

```
==> Copy XKeysymDB to /usr/lib/X11?
(Press y if your GUI system is installed in the standard
directory)
['y' or 'n']
```

3. To copy *XKeysymDB* to */usr/lib/X11*, type *y*.

The following message appears:

```
****
**** Copying XKeysymDB to /usr/lib/X11 ...
****
```

4. Type *n* if your window system is not installed in the standard directory (*/usr/lib/X11*).
5. The script prompts you to enter a different directory.

==> Type in the directory where you want XKeysymDB copied:

6. The script prompts you to append the graphical user interface (GUI) resource file *SR* to */usr/lib/X11/app-defaults* for the X Window System after *y* or *n* response.

These directories are used because they are the same default directories for the X Window System.

The *SR* file consists of the TestWorks' tool set's application resources for its X Window System GUI defaults.

```
==> Copy resource file SR to /usr/lib/X11/app-defaults?
      (press y if your GUI system is installed in the standard
      directory)
      ['y' or 'n']
```

7. The script prompts you to type *y* to copy the *SR* resource file to */usr/lib/X11/app-defaults*. This is indicated with the following message:

```
****
**** Copying resource file SR to /usr/lib/X11/app-defaults..
****
```

or

Type *n* if your window system is not installed in the standard directory (*/usr/lib/X11/app-defaults*).

8. The script prompts you to enter a different directory.

==> Type in the directory where you want SR copied.

If installation is successful, the following message appears:

```
*Installation Completed*
```


9. To complete the installation, press **Enter**.

XKeysymDB and *SR* are in the appropriate places, and the following message appears:

```
*-----*
*      Software Research, Inc.      *
*      625 Third Street            *
*      San Francisco, CA 94107-1997 *
*              USA                 *
*      Telephone: (415) 957-1441    *
*      Toll Free: (800) 942-SOFT    *
*              FAX: (415) 957-0730  *
*      E-Mail: support@soft.com     *
*-----*
```

A script named *SRuser.setup* is created in the *install_dir* directory.

10. If you have more than one tool set, re-run steps 1 thru 10.

Proceed to Section 1.6 , “Installing and Setting up License Access,” on page 24.

Note: If you received the file *sr.access* and you copy it to *install_dir/license/* instead, demo codes will allow temporary access to Software Research’s products for up to thirty days. With *sr.access*, you can skip Section 1.6 and Section 1.7 and proceed to Section 1.8 on page 33. As long as *sr.access* has readable and executable permissions, no further configuration steps are needed.

1.5.2 Sun SPARC Running MIT X11 X Windows Under SunOS 4.1.3

After installing TestWorks' files, install the keyboard mapping file and each tool set's resource file to the appropriate directories. These files are *XKeysymDB* and *SR.stw.**. They are located in the *install_dir/lib* directory. TestWorks' tools require that these files be in specific directories in order to run properly.

The provided scripts, *install.stw.adv*, *install.stw.cov.lang* and *install.stw.reg*, copy the mapping file and each tool set's resource file to the appropriate locations.

- The *install.stw.adv* script must be run after each installation of *STW/Advisor*.
- The *install.stw.cov.lang* script must be run after each installation of *STW/Coverage*.
- The *install.stw.reg* script must be run after each installation of *STW/Regression*.

The scripts create an *SRuser.setup* script that sets up the user environment. (See Section 1.8 on page 33 for more details.)

Note: *lang* for *install.stw.cov.lang* can be **c** (for C), **c++** (for C++), **ada** (for Ada), and **f77** (for FORTAN); e.g., *install.stw.cov.c++*

While running the installation script:

- Press **Ctrl-C** at any time to stop the installation.
- Answer every question with a **y** or **n**. (Questions cannot be answered by pressing **Enter**.)

Note: Before beginning the installation procedure,

- ✓ Make sure that you have super-user access.
 - ✓ Make sure that you are not running a windowing system, e.g., OpenWindows or the X Windows.
 - ✓ Make sure that you have a single disk partition with as many megabytes of available disk space as are specified in the PRODUCTION RECORDS in the OPEN THIS FIRST! envelope.
-

To run the script:

1. Go to the *install_dir* directory.
2. For the tape that you tarred off, type the correct install script:

```
install.stw.adv
install.stw.cov.lang
install.stw.reg  The following message
appears:
```

```
****
****          Setup scripts for STW/product_suite
****
**** This script copies the XKeysymDB key mapping file and the
**** SR
**** resource file to the appropriate directories.
****
**** This script asks you questions during the installation,
**** Please give the correct response to each question.
****
**** Press RETURN to continue, CTRL-C to abort
```

3. To continue installation, press **Enter**.

A prompt asks if you want the keyboard mapping file, *XKeysymDB*, appended to */usr/lib/X11* for the X Window System.

```
==> Copy XKeysymDB to /usr/lib/X11?    (Press y if your GUI sys-
tem is installed in the standard directory)
      ['y' or 'n']
```

4. To copy *XKeysymDB* to */usr/lib/X11*, type *y*.

The following message appears:

```
****
**** Copying XKeysymDB to /usr/lib/X11 ...
****
```

5. Type *n* if your window system is not installed in the standard directory (*/usr/lib/X11*).
6. The script prompts you to enter a different directory.

```
==> Type in the directory where you want XKeysymDB copied:
```

7. The script prompts you to append the graphical user interface (GUI) resource file *SR* to */usr/lib/X11/app-defaults* for the X Window System after *y* or *n* response.

These directories are used because they are the same default directories for the X Window System.

The *SR* file consists of the TestWorks' tool set's application resources for its X Window System GUI defaults.

```
==> Copy resource file SR to /usr/lib/X11/app-defaults?
      (press y if your GUI system is installed in the standard
      directory)
      ['y' or 'n']
```

8. The script prompts you to type *y* to copy the *SR* resource file to */usr/lib/X11/app-defaults*. This is indicated with the following message:

```
****
**** Copying resource file SR to /usr/lib/X11/app-defaults..
****
```

or

Type *n* if your window system is not installed in the standard directory (*/usr/lib/X11/app-defaults*).

9. A prompt asks you to enter a different directory.

```
==> Type in the directory where you want SR copied.
```

If installation is successful, the following message appears:

```
*Installation Completed*
```

10. To complete the installation, press **Enter**.

XKeysymDB and *SR* are in the appropriate places, and the following message appears:

```
*-----*
*      Software Research, Inc.      *
*      625 Third Street            *
*      San Francisco, CA 94107-1997 *
*              USA                 *
*      Telephone: (415) 957-1441    *
*      Toll Free: (800) 942-SOFT    *
*              FAX: (415) 957-0730 *
*      E-Mail: support@soft.com     *
*-----*
```

A script named *SRuser.setup* script is created in the *install_dir* directory.

11. If you have more than one tool set, re-run steps 1 thru 10.

It is necessary to install the XTRAP extended server if it is not already installed or if you don't have the XtestExtension1 server extension already existing. While inside the X Window system, you can confirm this by checking the number of extensions listed when issuing a query with the command `xdpyinfo`.

1. Exit from the X Window System.
2. Go to *install_dir*.
3. Type

```
cd lib/xtrap
```

4. Type

```
installXtrap
```

This command automatically runs the script that installs the XTRAP extension.

The following message appears on your screen:

```
Save /usr/bin/X11/X to /usr/bin/X11/X.orig ...
Copying X to /usr/bin/X11 ...
```

Your current server, which has the XTRAP extension, is located at */usr/bin/X11/X*. The old server is saved to */usr/bin/X11/X.orig*.

Note: If your X-server was installed in a nonstandard directory, create a file called *rgb.txt* in */usr/lib/X11* and softlink it to your *rgb.txt* file in the directory where your X-server was installed. You must also create a directory */usr/lib/X11/fonts* and softlink it to your fonts directory.

For example, if your X-server is installed in a directory */usr/nonstandard* and the directory */usr/lib/X11* does not exist, you need to do the following:

1. Create a */usr/lib/X11* directory.
2. Type

```
cd /usr/lib/X11.
```
3. Type

```
ln rgb.txt /usr/nonstandard/rgb.txt
```
4. Type

```
ln fonts /usr/nonstandard/fonts
```

Proceed to Section 1.6, Installing and Setting up License areas on page 24.

Note: If you received the file *sr.access* and you copy it to *install_dir/license/* instead, demo codes will allow temporary access to Software Research's products for up to thirty days. With *sr.access*, you can skip Section 1.6 and Section 1.7 and proceed to Section 1.8 on page 33. As long as *sr.access* has readable and executable permissions, no further configuration steps are needed.

1.5.3 Sun SPARC Running OpenWindows Under SunOS 4.1.3

After installing TestWorks' files, install the keyboard mapping file and each tool set's resource file to the appropriate directories. These files are *XKeysymDB* and *SR.stw.**. They are located in the *install_dir/lib* directory. TestWorks' tools require that these files be in specific directories in order to run properly.

The provided scripts, *install.stw.adv*, *install.stw.cov.lang* and *install.stw.reg*, copy the mapping file and each tool set's resource file to the appropriate locations.

- The *install.stw.adv* script must be run after each installation of *STW/Advisor*.
- The *install.stw.cov.lang* script must be run after each installation of *STW/Coverage*.
- The *install.stw.reg* script must be run after each installation of *STW/Regression*.

The scripts create an *SRuser.setup* script that sets up the user environment. (See Section 1.8 on page 33 for more details.)

Note: *lang* for *install.stw.cov.lang* can be **c** (for C), **c++** (for C++), **ada** (for Ada), and **f77** (for FORTAN); e.g., *install.stw.cov.c++*

While running the installation script:

- Press **Ctrl-C** at any time to stop the installation.
- Answer every question with a **y** or **n**. (Questions cannot be answered by pressing **Enter**.)

Note: Before beginning the installation procedure,

- ✓ Make sure that you have super-user access.
 - ✓ Make sure that you are not running a windowing system, e.g., OpenWindows or the X Windows.
 - ✓ Make sure that you have a single disk partition with as many megabytes of available disk space as are specified in the PRODUCTION RECORDS in the OPEN THIS FIRST! envelope.
-

To run the script:

1. Go to the *install_dir* directory.
2. For the tape that you tarred off, type the correct install script:

```
install.stw.adv
install.stw.cov.lang
install.stw.reg
```

The following message appears:

```
****
****          Setup scripts for STW/product_suite
****
**** This script copies the XKeysymDB key mapping file and the
**** SR
**** resource file to the appropriate directories.
****
**** This script asks you questions during the installation,
**** please give the correct response to each question.
****
**** Press RETURN to continue, CTRL-C to abort
```

3. To continue installation, press **Enter**.

A prompt asks if you want the keyboard mapping file, *XKeysymDB*, appended to */usr/openwin/lib* for OpenWindows 3.0.

```
==> Copy XKeysymDB to /usr/openwin/lib?
      (Press y if your GUI system is installed in the standard
      directory)
      ['y' or 'n']
```


4. To copy *XKeysymDB* to */usr/openwin/lib*, type *y*.

The following message appears:

```
****
**** Copying XKeysymDB to /usr/openwin/lib ...
****
```

5. Type *n* if your window system is not installed in the standard directory (*/usr/openwin/lib*).
6. The script prompts you to enter a different directory.

==> Type in the directory where you want *XKeysymDB* copied:

7. The script prompts you to append the graphical user interface (GUI) resource file *SR* to */usr/openwin/lib/app-defaults* for OpenWindows 3.0. after *y* or *n* response.

These directories are used because they are the same default directories for the and OpenWindows.

The *SR* file consists of the TestWorks' tool set's application resources for its X Window System GUI defaults.

```
==> Copy resource file SR to /usr/openwin/lib/app-defaults?
      (press y if your GUI system is installed in the standard
      directory)
      ['y' or 'n']The script prompts you to type y to copy the SR
      resource file to
      /usr/openwin/lib/app-defaults. This is indicated with the fol-
      lowing message:
```

```
****
**** Copying resource file SR to /usr/openwin/lib/app-defaults..
****
```

or

Type *n* if your window system is not installed in the standard directory (*/usr/openwin/lib/app-defaults*).

8. A prompt asks you to enter a different directory.

==> Type in the directory where you want *SR* copied.

If installation is successful, the following message appears:

```
*Installation Completed*
```

9. To complete the installation, press **Enter**.

XKeysymDB and *SR* are in the appropriate places, and the following message appears:

```
*-----*
*       Software Research, Inc.       *
*           625 Third Street           *
*       San Francisco, CA 94107-1997   *
*                               USA     *
*       Telephone: (415) 957-1441      *
*       Toll Free: (800) 942-SOFT      *
*           FAX: (415) 957-0730        *
*       E-Mail: support@soft.com       *
*-----*
```

A script named *SRuser.setup* script is created in the *install_dir* directory.

10. If you have more than one tool set, re-run steps 1 thru 10.

Note: It is necessary to comment out the following line in your *.xinitrc* file in your home directory (if one exists) or the system's default *\$OPENWINHOME/lib/Xinitrc* file (if one exists):

```
xmodmap -e 'keysym F1 = Help'
```

The reason for this is that *CAPBAK/X* uses the **F1** function key for another purpose other than help.

Proceed to Section 1.6 , "Installing and Setting up License Access," on page 24.

Note: If you received the file *sr.access* and you copy it to *install_dir/license/* instead, demo codes will allow temporary access to Software Research's products for up to thirty days. With *sr.access*, you can skip Section 1.6 and Section 1.7 and proceed to Section 1.8 on page 33. As long as *sr.access* has readable and executable permissions, no further configuration steps are needed.

1.5.4 Sun SPARC Solaris Running X Windows/OpenWindows Under Solaris 2.x

After installing TestWorks' files, install the keyboard mapping file and each tool set's resource file to the appropriate directories. These files are *XKeysymDB* and *SR.stw.**. They are located in the *install_dir/lib* directory. TestWorks' tools require that these files be in specific directories in order to run properly.

The provided scripts, *install.stw.adv*, *install.stw.cov.lang* and *install.stw.reg*, copy the mapping file and each tool set's resource file to the appropriate locations.

- The *install.stw.adv* script must be run after each installation of *STW/Advisor*.
- The *install.stw.cov.lang* script must be run after each installation of *STW/Coverage*.
- The *install.stw.reg* script must be run after each installation of *STW/Regression*.

The scripts create an *SRuser.setup* script that sets up the user environment. (See Section 1.8 on page 33 for more details.)

Note: *lang* for *install.stw.cov.lang* can be **c** (for C), **c++** (for C++), **ada** (for Ada), and **f77** (for FORTAN); e.g., *install.stw.cov.c++*

While running the installation script:

- Press **Ctrl-C** at any time to stop the installation.
- Answer every question with a **y** or **n**. (Questions cannot be answered by pressing **Enter**.)

Note: Before beginning the installation procedure,

- ✓ Make sure that you have super-user access.
 - ✓ Make sure that you are not running a windowing system, e.g., OpenWindows or the X Windows.
 - ✓ Make sure that you have a single disk partition with as many megabytes of available disk space as are specified in the PRODUCTION RECORDS in the OPEN THIS FIRST! envelope.
-

To run the script:

1. Go to the *install_dir* directory.
2. For the tape that you tarred off, type the correct install script:

```
install.stw.adv
install.stw.cov.lang
install.stw.reg
```

The following message appears:

```
****
****          Setup scripts for STW/product_suite
****
**** This script copies the XKeysymDB key mapping file and the
**** SR
**** resource file to the appropriate directories.
****
**** This script asks you questions during the installation,
**** please give the correct response to each question.
****
**** Press RETURN to continue, CTRL-C to abort
```

3. To continue installation, press **Enter**.

A prompt asks if you want the keyboard mapping file, *XKeysymDB*, appended to */usr/lib/X11* for the X Window System and OpenWindows 2.0, or to */usr/openwin/lib* for OpenWindows 3.0.

```
==> Copy XKeysymDB to /usr/openwin/lib?
(Press y if your GUI system is installed in the standard
directory)
['y' or 'n']
```

4. To copy *XKeysymDB* to */usr/lib/X11* or to */usr/openwin/lib*, type **y**.

The following message appears:

```
****
**** Copying XKeysymDB to /usr/openwin/lib ...
****
```

5. Type **n** if your window system is not installed in the standard directory (*/usr/lib/X11* or */usr/openwin/lib*).
6. The script prompts you to enter a different directory.

==> Type in the directory where you want *XKeysymDB* copied:

7. The script prompts you to append the graphical user interface (GUI) resource file *SR* to */usr/lib/X11/app-defaults* for the X Window System and OpenWindows 2.0 or to */usr/openwin/lib/app-defaults* for OpenWindows 3.0. after **y** or **n** response.

These directories are used because they are the same default directories for the TestWorks' tool set's application resources for its X Window System and OpenWindows.

The *SR* file consists of the X Window or OpenWindow System GUI defaults.

```
==> Copy resource file SR to /usr/openwin/lib/app-defaults?
      (press y if your GUI system is installed in the standard
      directory)
      ['y' or 'n']
```

8. The script prompts you to type **y** to copy the *SR* resource file to */usr/lib/X11/app-defaults* or to */usr/openwin/lib/app-defaults*. This is indicated with the following message:

```
****
**** Copying resource file SR to /usr/openwin/lib/app-defaults..
****
```

or

Type **n** if your window system is not installed in the standard directory (*/usr/lib/X11/app-defaults* or */usr/openwin/lib/app-defaults*).

9. A prompt asks you to enter a different directory.

==> Type in the directory where you want *SR* copied.

If installation is successful, the following message appears:

```
*Installation Completed*
```

10. To complete the installation, press **Enter**.

XKeysymDB and *SR* are in the appropriate places, and the following message appears:

```
*-----*
*      Software Research, Inc.      *
*      625 Third Street             *
*      San Francisco, CA 94107-1997 *
*              USA                  *
*      Telephone: (415) 957-1441    *
*      Toll Free: (800) 942-SOFT    *
*              FAX: (415) 957-0730  *
*      E-Mail: support@soft.com     *
*-----*
```

A script named *SRuser.setup* script is created in the *install_dir* directory.

11. If you have more than one tool set, re-run steps 1 thru 10.

Note: The current version of *TestWorks* running OpenWindows using *olwm* (OpenLook Window Manager) has some compatibility issues with *TestWorks*' Motif applications. The server occasionally fails (or hangs) when the user presses or releases mouse buttons. It is recommended that you use **mwm** (Motif Window Manager).

It is necessary to install the XTRAP extended server if it is not already installed or if the *XtestExtension1* server is not installed. While inside the X Window system, you can confirm this by checking the number of extensions listed when issuing a query with the command `xdpinfo`.

1. Go to *install_dir*. Type
`cd lib/xtrap`
2. Type
`installXtrap`

This command automatically runs the script that installs the XTRAP extension library.

The following message appears on the screen:

```
****
**** Copying libxtrapext.so.1 to /usr/openwin/server/modules
****
```

Your current server now links in *libxtrapext.so.1*, which provides it with the necessary DEC-XTRAP extension.

The following message appears on the screen:

```
****
**** Appending Xtrap extension to file
****
**** /usr/openwin/server/etc/OWconfig.
****
**** installXtrap completed
****
```

Under Solaris OS, TestWorks' tool sets require Sun's SDK (Software Development Kit). Check with your systems administrator if this needs to be installed.

Upon invocation, the following message indicates missing motif libraries, which are usually located at */usr/dt/lib*.

```
ld.so.1:stw:fatal:libXm.so.3 can't open file: error=2
killed
```

To fix this problem, check that your environment's `LD_LIBRARY_PATH` is set to look in the following:

/usr/dt/lib

or type the following to establish a connection:

```
setenv LD_LIBRARY_PATH $LD_LIBRARY_PATH:/usr/dt/lib
```

(This is the syntax for C-Shell only; modify for other shells)

Proceed to Section 2.6, Installing and Setting up License areas on page 24.

Note: If you received the file *sr.access* and you copy it to *install_dir/license/* instead, demo codes will allow temporary access to Software Research's products for up to thirty days. With *sr.access*, you can skip Section 1.6 and Section 1.7 and proceed to Section 1.8 on page 33. As long as *sr.access* has readable and executable permissions, no further configuration steps are needed.

1.6 Installing and Setting Up License Access Files

After running the installation script, run the *install.floating.license* script. This script sets up the floating license window server's environment and creates another script named *SRlicense.setup* and a system-configured file named *license.dat*.

SRlicense.setup expands the user's path to include the floating license environment variable (as described in Section 1.7 on page 29).

To provide license access codes, *license.dat* combines the server license access information of *license.server* and the product license access information of *license.tmp* along with system configuration information.

When you tar off the diskette in step 4 of Section 1.4 on page 4, *license.server* and *license.tmp* are installed in *install_dir/license/*. When you have received access keys by e-mail or fax, follow the accompanying instructions ,

Complete one of the following methods to set up license access.

- 2.6.1 Using the Supplied Script to Set up License Access on Section 1.6.1 on page 25.
- 2.6.2 Manually Setting up License Access on Section 1.6.2 on page 28.

If you received your license access codes on a diskette, and you have installed files as directed in step 4 of Section 1.4 on page 4, go to step 4 of Section 1.6.1 on page 25.

1.6.1 Using the Supplied Script to Set Up License Access

1. Refer to the *access key* e-mail that was sent to you. (If you did not receive this information, call Technical Support at 415-957-1441 or e-mail a message to licenses@soft.com.

Note: When cutting and pasting versus saving of e-mail to a file followed by editing, make certain that no unwanted carriage returns are inserted. Each FEATURE should be a continuous wraparound and not separated by a carriage return where FEATURE lines are beyond 80 characters long.

2. Extract the contents under the “**license.server**” marker and put in a file named *install_dir/license/license.server*.
3. Extract the contents under the “**license.tmp**” marker and put in a file named *install_dir/license/license.tmp*.

Note: Before beginning the installation procedure,

- ✓ Make sure that you have super-user access.
- ✓ Make sure that you are not running a windowing system, e.g., OpenWindows or the X Windows.
- ✓ Make sure that you have a single disk partition with as many megabytes of available disk space as are specified in the PRODUCTION RECORDS in the OPEN THIS FIRST! envelope.

To run the *install.floating.license* script:

4. Go to the *install_dir* directory.
5. To initiate *install.floating.license*, type:
`install.floating.license`

The following message appears:

```
****      Setup scripts for TestWorks/*****floating license
****
**** This script sets up the environment for the floating
**** license manager to function properly.
****
**** This script asks you questions during the installation,
**** please give the correct response to each question.
****
**** Press RETURN to continue, CTRL-C to abort.
****
```

6. Press **Enter** to continue.

You are prompted to start the floating license server to activate the license access codes for *TestWorks*' products:

```
==> Do you want to start the TestWorks floating license manager
NOW?
    ['y' or 'n']
```

7. To start the floating license server, type **y**.

The following message confirms start-up:

```
****
**** Starting floating license manager...
****If you do not want to start the license server now, type n.
```

After a **y** or **n** response, *install.floating.license* prompts you to start the floating license server at boot time.

```
==> Do you want to start the floating license manager at system
boot time?
    ( Press y ONLY if you don't have a floating license manager
setup
    to start at system boot time AND you have the write per-
mission
    to file /etc/rc.local)
    ['y' or 'n']
```

8. To modify your */etc/rc.local* file and to copy the original file to */etc/rc.local.back*, type **y**.

When you answer the questions, *install.floating.license* confirms the license server's environment is set up with the following message:

```
****
****
**** Floating license information collected.
****
**** License setup script is SRlicense.setup.
****
**** Please run SRlicense.setup for every user who wants to use
**** TestWorks products.
****
****
```

9. To complete the script, press **Enter**.

The script closes with the following message:

```
*-----*
*      Software Research, Inc.      *
*      625 Third Street             *
*      San Francisco, CA 94107-1997 *
*              USA                  *
*      Telephone: (415) 957-1441    *
*      Toll Free: (800) 942-SOFT    *
*              FAX: (415) 957-0730 *
*      E-Mail: support@soft.com     *
*-----*
```

Note: This script does not include an option to modify your */etc/rc2.d* directory where */etc/rc.local* or */etc/inittab* is not found.

When *install.floating.license* is complete, a file named *license.dat* is modified or created in *install_dir/license*. A script named *SRlicense.setup* is also created. *license.dat* is automatically set up to handle the particular environment *install.floating.license* was run on, and *SRlicense.setup* adds an environment variable to the user's path when executed.

You are now ready to set up the user's license environment.

Proceed to Section 1.7, "Setting Up the User's License Environment, on page 29.

1.6.2 Manually Setting Up License Access

1. Refer to the *access key* e-mail or fax that was sent to you. (If you did not receive this information, call Technical Support at 415-957-1441 or e-mail a message to licenses@soft.com.)
2. Extract the contents under the “**license.dat**” marker and put in a file named *install_dir/license/license.dat*.

Note: When cutting and pasting versus saving of e-mail to a file followed by editing, make certain that no unwanted carriage returns are inserted. Each FEATURE should be a continuous wraparound and not separated by a carriage return where FEATURE lines are beyond 80 characters long.

3. Modify the DAEMON line so that it looks similar to the following:
DAEMON SR install_dir/license/SR install_dir/license/license.opt

Note: *install_dir* is the directory pointed to by *SSR*

4. If you are not already there, copy *license.dat* to directory *SSR/license*.
5. `cd $SR/license`
6. `SRLmgrd -c license.dat >& /tmp/SRLmgrd.log&`
(This is for C - Shell; change the syntax accordingly if you are using other shells.)
7. Check */tmp/SRLmgrd.log* for any error messages.
8. `setenv LM_LICENSE_FILE $SR/license/license.dat.`

(This is for C - Shell; change the syntax accordingly if you are using other shells.)

This procedure sets up the User’s License Environment. You are now ready to set up the User’s TestWorks Environment.

Proceed to Section 1.8 , “Setting up the user’s TestWorks Environment,” on page 33

1.7 Setting Up the User's License Environment

Note: Each new user of TestWorks' tools must complete this procedure when using these tools for the first time. This procedure sets up the environment for the user's access.

In order to access any TestWorks' product, the `$LM_LICENSE_FILE` environment variable must be defined. If you are not alternatively using demo codes located in `install_dir/license/sr.access`, access is denied.

1.7.1 Using the Supplied Script to Set Up User's License Environment

The `SRlicense.setup` script adds the `LM_LICENSE_FILE` environment variable to the user's configuration file. If you are running as root, this script updates the `~/.cshrc` and/or `~/.login` and `~/.profile` files. If you do not want to update these files, do not run this script.

Note: Not all systems contain the `~/.login` file. For these systems, the script modifies only the `~/.cshrc` file. Where both files exist, both are modified.

1. Make backup copies of `~/.cshrc`, and/or `~/.login`, and `~/.profile`.
2. Log in as "user."
3. Change to the `install_dir` directory (or you can copy `SRlicense.setup` to user's working directory).
4. Type

```
SRlicense.setup
```

The *SRlicense.setup* script is initiated, and the following message appears:

```
****
****   License setup scripts for TestWorks
****
**** This script expands the user path to setup the
**** LM_LICENSE_FILE
**** environment variable for the floating license manager.
**** It modifies the user's .profile, and either the .login or
**** .cshrc files if they exist. It will create a .cshrc file if
**** neither of the .cshrc and .login files exist.
**** The user has to do a 'source' on the file modified if in
**** C-Shell,
**** or login and logout again if in Bourne-Shell, in order for
**** these changes to take effect.
****
**** Press RETURN to continue, CTRL-C to abort.
****
```

5. At this point, you can terminate the session (type **Ctrl-C**) or continue (press **Enter**).

If you continue, the *~/cshrc* and/or *~/login* and */.profile* files are modified to include the *LM_LICENSE_FILE* environment variable information.

As the existing files are modified, the following message appears on the screen.

```
**** Updating /.profile file
**** Updating /.cshrc file
**** /.profile modified.
**** /.cshrc modified.
```

If the license environment is modified successfully, *SRlicense.setup* gives the following message:

```
*-----*
*      Software Research, Inc.      *
*      625 Third Street             *
*      San Francisco, CA 94107-1997 *
*              USA                  *
*      Telephone: (415) 957-1441    *
*      Toll Free: (800) 942-SOFT    *
*              FAX: (415) 957-0730  *
*      E-Mail: support@soft.com     *
*-----*
```

6. To end execution of the *SRlicense.setup*, press **Enter**.
7. If you are a Bourne-Shell user, log off and then log on again for the changes to take effect in the *~/.profile* file.
8. If you are a C-shell user, log off and then log on again or type the following for changes to take effect.

```
source ~/.cshrc OR
source ~/.login
```

The license environment variable is now set up properly. You can run the *SRuser.setup* script, as described in Section 1.8 on page 33.

1.7.2 Manually Setting Up the User's License Environment

Note: The following is necessary where *SRlicense.setup* is not used, and you are not accessing tools with an *sr.access* file containing demo codes.

When a TestWorks product is invoked, it looks at the environment variable `LM_LICENSE_FILE`. Each user must specify the path and filename for the *license.dat* license data file by using the environment variable `LM_LICENSE_FILE`.

To set up a user, execute a command similar to the following on the user's environment file:

For a *.cshrc* or *.login* file, type

```
setenv LM_LICENSE_FILE install_dir/license/license.dat
```

For a *.profile* file, type

```
LM_LICENSE_FILE = install_dir/license/license.dat
export LM_LICENSE_FILE
```


1.8 Setting Up the User's TestWorks Environment

Note: Each new user of *TestWorks* tools must complete this step when using these tools for the first time. This procedure sets up the environment for the user.

In order to use any *TestWorks* product, the *SSR* environment variable (*install_dir*) must be defined, and the user's path must be set to include *SSR/bin* (i.e., the path to the executables). When a user's environment is set up for *TestWorks*, *TestWorks* products can be invoked from any directory.

A user's environment can be modified either manually or by using the *SRuser.setup* script (whose creation is described in Section 1.5 on page 6).

1.8.1 Using the Supplied Script

The *SRuser.setup* script adds the user's TestWorks *bin* path and defines the environment variable *\$SR*. If you are running as root, this script updates the *~/.cshrc* and/or *~/.login* and *~/.profile* files, if they exist. If you do not want to update these files, do not run this script.

Note: Not all systems contain the *~/.login* file. For these systems the *~/.cshrc* file is modified. Where both files exist, both are modified.

1. Make backup copies of *~/.cshrc*, *~/.login*, and *~/.profile*, if they exist.
2. Login as **user**.
3. Change to the *install_dir* directory

or

Copy *SRuser.setup* to user's working directory.

4. Type

```
SRuser.setup
```

The following message appears:

```
****
****                               User setup scripts forTestWorks
****
**** This script expands the user path to include
**** 'install_dir/bin',
**** and sets up the SR environment variable. It will append to
**** the user's .profile , .login, and .cshrc files if they
**** exist.
**** The user has to do a 'source' for the file modified if in
**** C-Shell,
**** or login and logout again if in Bourne-Shell, in order for
**** these changes to take effect.
****
```

5. At this point, you can terminate the session (press **Ctrl-C**) or continue (press **Enter**).

If you continue, the `~/.cshrc`, `~/.login`, and `~/.profile` files are modified to include the `$SR` environment variable and the `$SR/bin` path information (assuming these files exist). You may want to refer to Section 1.8.2 on page 36 to see what is actually being changed.

As the existing files are modified, the following appears on your screen

```
**** Updating /.profile file
**** Updating /.login file
**** Updating /.cshrc file
**** /.profile modified.
**** /.login modified.
**** /.cshrc modified.
```

If the user's environments are modified successfully, the `SRuser.setup` gives the following message:

```
*-----*
*      Software Research, Inc.      *
*      625 Third Street             *
*      San Francisco, CA 94107-1997 *
*              USA                  *
*      Telephone: (415) 957-1441    *
*      Toll Free: (800) 942-SOFT    *
*              FAX: (415) 957-0730  *
*      E-Mail: support@soft.com     *
*-----*
```

6. To end the execution of the `SRuser.setup`, press **Enter**.
7. If you are a Bourne-shell user, log off and then log on again for changes to take effect in `~/.profile`.
8. If you are a C-shell user, log off and then log on again or type the following for changes to take effect.

```
source ~/.cshrc OR
source ~/.login
```

1.8.2 Modifying Manually

To set a user's environment without running the *SRuser.setup* script:

1. Edit the *~/.cshrc*, *~/.login*, or *~/.profile* files.

If you are a **Bourne-shell** user,

- a. Add the following line to the *~/.profile* file:

```
SR=install_dir;PATH=$SR/bin:$PATH;export SR PATH
```

- b. For the changes to take effect in the *~/.profile* file, log off and log on again.

If you are a **C-shell** user,

- a. Add the following line to the *~/.cshrc* or *~/.login* file:

```
setenv SR install_dir;set path=( $SR/bin $path )
```

- b. For changes to take effect, log off and log on again, or type

```
source ~/.cshrc OR  
source ~/.login
```

2. To make sure that *TestWorks*' users have execute permission in their home directories, type

```
chmod a+x ~
```

1.9 Verifying Installation

After *TestWorks* is installed, verify the installation. This step verifies the following:

- The user's environment is set up correctly.
- The user is licensed to use *TestWorks* and its components.
- The keyboard mapping file (*XKeysymDB*), if it is needed, is installed correctly.
- The application resource file (*SR*) is installed correctly.

The above verification can be done using the *TestWorks* GUI. To use the GUI, you must be running a windowing system (i.e., OpenWindows or X Windows).

- If you are only running OpenWindows, type `openwin` to start the windowing system.
- If you want to run *STW/Regression* under SunOS 4.1.x Open Windows, type `openwin -defeateventsecurity` to run *CAPBAK/X*.
- If you are running the X Window System, type `xinit` or its equivalent to start up the windowing system.

To verify installation:

1. Invoke *TestWorks* from any directory by typing:

```
stw
```

The **TestWorks** menu pops up at the upper left corner of the screen as shown in Figure 1 on page 38. Nonappearance of this menu probably means that your environment is not properly set up.

2. Click the **System** pull-down menu.
3. Select **License**.

The **License** window (see Figure 1 on page 38) pops up. It lists your customer information and the products (FEATURES) you are licensed to use on this host (workstation). You can use the scroll bars to move sideways or up and down.

The **This Host** option lists all licensed products for the current workstation, while the option **All Machines** lists all the licensing information in the *license.dat* access file.

If the **License** window indicates any erroneous information, call Software Research Technical Support at (415) 957-1441 or e-mail a message to *licences@soft.com* or *support@soft.com*.

4. When verification is complete, click the **Close** button.
5. To close the **TestWorks** menu, click the **File** pull-down menu.
6. Select **Exit**.

During verification of installation, your screen resembles Figure 1:

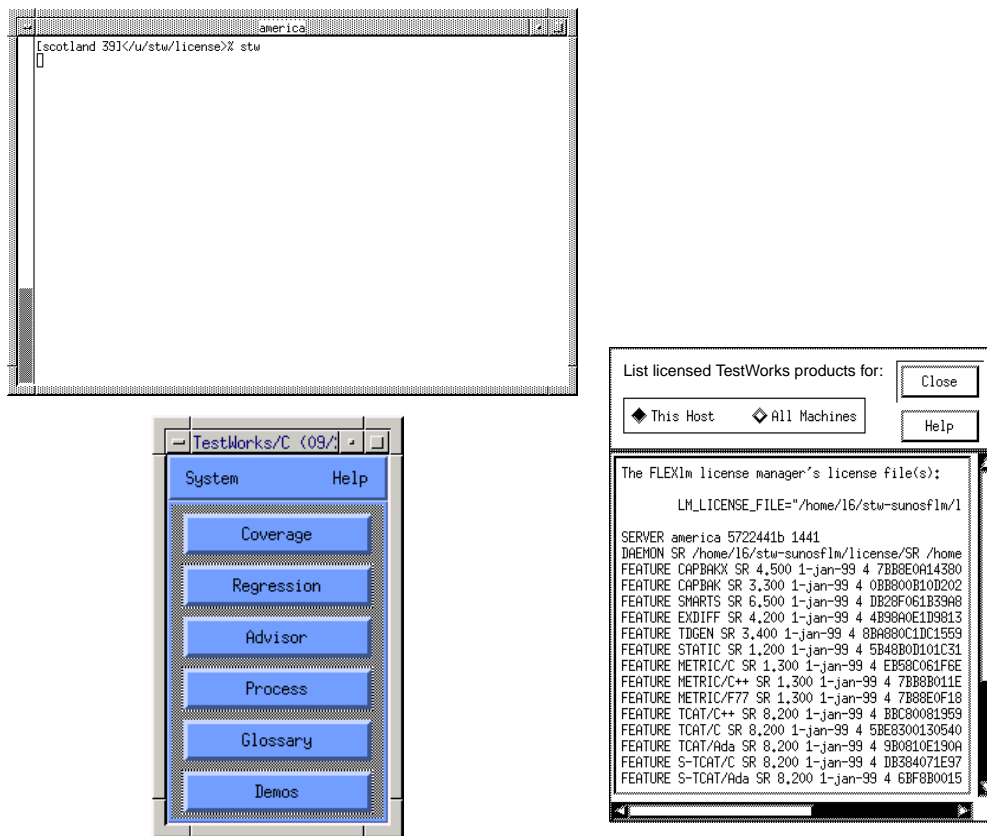


FIGURE 1 Verifying Installation

1.10 Removing TestWorks Products

If you want to remove all of the installed *TestWorks* products, do the following:

1. From the *install_dir* directory, type

```
cd $SR
```

2. To remove **EVERYTHING**, type

```
rm -r *
```

1.11 Installing a New TestWorks Release

If you upgrade a *TestWorks* product, you can either install the *TestWorks* upgrade in a new *install_dir* directory, or you can install it in the original directory.

If you do prefer a new directory, you must create a new *install_dir* directory and follow the installation instructions in Sections 1.4 to 1.9. When you use any *TestWorks* products, the new release is recognized, not the prior version.

If you would rather use the original directory, remove everything from *install_dir* (Section 1.10 on page 39) and follow the installation instructions in Sections 1.4 to 1.9. If you choose not to remove *install_dir*'s contents, everything in it is be overwritten by the new release.

Regression, CAPBAK/X: X and Y Offsets

This chapter explains the installation of CAPBAK/X 5.1 and setting X and Y offsets.

2.1 Setting X and Y Offsets

CAPBAK/X 5.1 provides a utility to determine your machine's display X and Y offsets if other than the defaulted (0,0). The X and Y offsets required can vary from display to display across platforms and window managers.

1. From CAPBAK/X 5.1 GUI, select **Utilities ==>Miscellaneous**.
2. Select **Get Offset Resource**.

An information box appears with your display's X and Y offset coordinates.

Note: The hyphen represents a separator then number and not a negative number. For example: Offset is (-8,-25).

3. Modify the following lines found within your TestWorks' resource file to reflect the correct settings. (This file is normally named *SR* located in the system's *app_defaults* directory, in a *\$HOME* directory's *.Xdefaults* file, or an *SR* file in your current working directory.

```
capbakX5*outputSyncXOffset: 0
capbakX5*option*outputSyncXOffset.value: 0
capbakX5*outputSyncYOffset: 0
capbakX5*option*outputSyncYOffset.value: 0
```

Note: The following command can cause side effects. If you are not familiar with its purpose, check with your systems administrator.

4. To update your X resources database, type
`xrdb -merge <location>/SR.`
5. Restart CAPBAK/X 5.1 GUI and try another record playback session to verify correctness of offsets (Section 2.9 on page 40).

The X and Y offsets required by *CAPBAK/X* can vary from display to display across platforms and window managers. The following section provides a manual method to determine the correct offsets for your system; or see Section 2.1.2 on page 45 for some common settings (typically required for earlier versions of *Xcapbak* without an offset utility).

2.1.1 Machine-Dependent Offsets (Optional)

1. Modify the offsets in the *SR* file as follows (this file is normally located in the *app-defaults* directory, *\$HOME* directory, or your current working directory):

```
capbakX*outputSyncXOffset: 0
capbakX*option*outputSyncXOffset.value: 0
capbakX*outputSyncYOffset: 0
capbakX*option*outputSyncYOffset.value: 0
```

Note: The following command can cause side effects. If you are not familiar with its purpose, check with your systems administrator.

2. To update your X resources database, type
`xrdb -merge <location>/SR.`
3. Press **Enter**.
4. Bring up `xcapbak`.
5. Set keysave filename to `srtest.ksv`.
6. Start a recording.
7. Bring up `xcalc`.
8. Use **F4** to select the `xcalc` window to sync on.
9. Stop the recording.
10. Close `xcalc`.
11. Play back the recording.

Synchronization can fail; disregard this.

Upon completion of playback, the `xcalc` appears on the screen.

12. From the working directory, type

```
CB.find srtest.s01.
```

13. Press **Enter**.

This step returns the X and Y values for the location of the `xcalc` window — note these values.

14. Using a text editor, search the file `srtest.ksv` for the line containing `srtest.s01`, and find the first two numbers.

These numbers give the coordinates where the `xcalc` window is expected.

15. Set the difference between the numbers recorded in steps 12 - 14 in the *SR* file.

16. Type

```
xrdb -merge <location>/SR.
```

17. Try another recording/playback session to verify correctness of offsets.

2.1.2 Common Settings

HPUX 9.05	OLWM (6, 35) HPVIEW (8, 24) MWM (8, 25)
Solaris 2.1	MWM (11, 28)
Solaris 2.3	MWM (8, 24) OLWM (8, 24)
Solaris 2.4 - 2.5	MWM (5, 25) OLWM (5, 25) or MWM (5, 24) OLWM (5, 24) or MWM (6, 25) OLWM (6, 25)
SUN/OS 4.1.x	MWM (0, 0) OLWM (1, 1)
AIX 3.x	MWM (6, 26)
IRIX 5.4	(8, 29)
UNIX SVR4 (NCR 3300)	(7, 24)

Regression, CAPBAK/X: OCR

This chapter explains the installation instructions for Optical Character Recognition (OCR) which is *STW/Regression*'s character recognition functions for the *CAPBAK/X* (capture/playback) tool.

3.1 OCR System Requirements

Through *CAPBAK/X*, OCR offers the user the capability to synchronize on character strings, capture values from screen fragments or windows, extract characters from either a saved image or from the current screen, and locate character strings either in a saved image file or the current screen.

When you installed the distribution tape for *STW/Regression*, an *install.stw.reg.ocr* script and a *ocr* directory was installed. In order for *CAPBAK/X* character recognition functions to work in *install_dir/ocr*, a separate OCR server must be started with the script.

To run the OCR software, you must have a SunSPARC or an HP-9000/7xx or RS6000 workstation with the following components:

- SunOS 4.1.*, Solaris 2.x, HP-UX 9.0x, or AIX 3.x
- A hard disk with at least 10 megabytes (Mb) of free disk
- At least 16 Mb of random access memory (RAM)
- At least 25 Mb of swap space

3.2 Installing the OCR Server

The OCR operates in an open computing environment, takes advantage of industry standard network protocols, and allows for distributed processing.

It is built on a client/server model, using the Open Network Computing (ONC) standard with Network File System (NFS) support. This allows you to run multiple clients off one OCR server daemon.

The OCR server software runs as a daemon process on a workstation known as the **OCR server host**. Each time a client application is started,

the OCR server daemon forks a server process that performs OCR requests for that client.

For OCR to work, the OCR server daemon must be active. You can do this one of three ways:

- Use the *install.stw.reg.ocr* script.
- Manually edit the */etc/rc.local* file if you are on the Sun or the */etc/inittab* file if you are on an HP.
- Use a UNIX command.

Each method is described in the following subsections.

3.2.1 Running `install.stw.reg.ocr`

To run the `install.stw.reg.ocr` script:

1. Go to the `install_dir` directory, if you are not already there.
2. To initiate `install.stw.reg.ocr.`, type
`install.stw.reg.ocr`

When `install.stw.reg.ocr` is initiated, the following message appears:

```
****
****   Installation Script for STW/OCR
****
**** This script installs the floating license server for the
**** Optical Character Recognition (OCR) functionality.
****
**** This script asks you questions during the installation,
**** please give the correct response to each question.
****
**** Press RETURN to continue, CTRL-C to abort.
****
```

3. Press **Enter** to continue.

The following message appears:

```
****
****           Installation Script for STW/ocr
****
**** This script installs the server for the Optical Character
**** Recognition (ocr) functionality and adds the appropriate
**** resources to the SR resource file.
****
**** This script asks you questions during the installation,
**** please give the correct response to each question.
****
**** Press RETURN to continue, CTRL-C to abort.
****

==> SR resource file is "/usr/openwin/lib/app-defaults/SR"
    [ 'y' or 'n' ]
```

4. If your response is not 'y' for `SR` resource file, change to the appropriate resource file.

5. A prompt asks for the OCR server host name:

```
****
**** Capbak/X must know on which machine the OCR server
**** is running. If it will run on the machine you are running
**** this installation script on, hit 'y' and <return>. If
**** it will run on another machine, type the name of that
**** machine and the hit <return>.
****
**** CAUTION: This installation script only sets up OCR SERVER
**** locally!
**** CAUTION: You will need to run this installation script on
**** the SELECTED another machine, in order to run correctly
```

Note: As the caution message indicates, if you are trying to set up a remote server, you'll also need to execute the script on that machine. Software Research's script does not do this automatically.

6. If you want the OCR server to run on the machine you are currently on, **y**.

Type **n** to identify another machine name.

A prompt appears with the following message:

```
****
**** By default, Capbak/X's can already recognize over 50 of the
**** fonts commonly used in X. Those fonts are listed in the
**** documentation. If there is a font "family" you also want
**** Capbak/X to recognize, type the "family" name in. You can
**** choose only one family. Possible choices are:
****
****   avant_garde      courier          lucida_typewriter
****   bembo            gill_sans       palatino
****   bookman          helvetica       rockwell
****   charter          lucida_bright   schoolbook
****   clean            lucida_sans     times
****
**** If you just want Capbak/X to recognize the "standard"
**** fonts, hit 'y' and <return>.
****
```

Note: If you are on an HP, the possible family choices consist of the following fonts:

charter	lucida_bright	schoolbook
clean	lucida_sans	standard

courier
helvetica

lucida_typewriter
prestige

swiss
times

7. If you want standard to be the default font family, type `y` .

If you are on the Sun, *standard* consists of the following fonts:

```
fixed
lucidasans
lucidasans-bold
fixed-medium-r*100*'
fixed-medium-r*120*'
fixed-medium-r*130*'
fixed-medium-r*140*'
fixed-bold-r*100*'
fixed-bold-r*120*'
fixed-bold-r*140*'
12x24
6x10
6x12
6x13
6x13bold
6x9
7x13
7x13bold
7x14
8x13
8x13bold
8x16
9x15
terminal
terminal-bold
fixed
lucidasans
lucidasans-bold
fixed-medium-r*100*'
fixed-medium-r*120*'
fixed-medium-r*130*'
fixed-medium-r*140*'
fixed-bold-r*100*'
fixed-bold-r*120*'
fixed-bold-r*140*'
a12biluc
a12bluci
a12iluci
a14
c12bluci
charb
charr
d12bluci
e12bluci
f12lucid
fixed
```

g12lucid
h12bluci

If you are on an HP, *standard* consists of the following fonts:

-bitstream-prestige-medium-r-normal--19-160-72-72-m-110-hp-roman8
-bitstream-swiss*742-medium-r-normal--19-140-85-85-p-110-hp-roman8
-bitstream-prestige-medium-r-normal--19-160-72-72-m-110-hp-roman8
-bitstream-prestige-medium-r-normal--19-160-72-72-m-110-hp-roman8
-bitstream-swiss*742-medium-r-normal--19-140-85-85-p-110-hp-roman8
-bitstream-prestige-medium-r-normal--19-160-72-72-m-110-hp-roman8
system17
system19
fixed
6x13
6x13bold
12x21bas
6x13
6x13b
7x13
7x13b
7x14
7x14b
8x13
8x13b
8x16
9x15
9x15b
9x16bas
9x21bas
a14
calc.12x16
clb8x14
clb8x16
clr8x14
clr8x16
clr9x15
cr.12x20
cr.12x20b
fcor-20
fg-13
fg-16
fg-18
fg-20
-fn fg-22
fgb-13
fgi-20
hp8.10x20

hp8.10x20b
hp8.12x15
ipa-s25
isol.15
isol.16
isol.16b
isol.20
isol.20b
met25
r14
r16
spc12x21e
spc12x21h
spc12x21hb
spc12x21v
spc16x14e
spc16x14v
spc16x16c
spc16x16cb
spc16x16e
spc16x16v
spc16x16v7
sub
subsub
sup
supsup
system14
system16
system19
system23
term14
termb14
user11x19
user12x23
user9x17
variable
vg-13
vg-20
vr-20
vtbold
vtsingle

- To identify another font family, type **n**.

A prompt asks to start the OCR server now — the OCR server activates access to the OCR functionality that should be installed in the *ocr* directory.

```
====> Do you want to start the OCR server NOW?  
      ['y' or 'n']
```

8. To start the OCR server, type **y**.

The following message appears confirming start-up:

```
****  
**** Starting OCR server...  
****
```

or

Type **n** not to start the OCR server now.

The following message appears:

```
****  
**** You have chosen NOT to start the OCR server NOW. If you do  
**** not already have the OCR server running, please refer to  
**** the installation instruction to start the OCR server  
**** manually.  
****
```

9. *install.stw.reg.ocr* prompts you to start the OCR license sever at boot time after a **y** or a **n** response:

```
====> Do you want to start the OCR server at system boot time?  
      ( Press y if you want the OCR server to start at system  
        boot time AND you have the write permission to file  
        /etc/rc.local )  
      ['y' or 'n']
```

- a. If you type **y**, the OCR server starts up at system boot time.

- The OCR server command for the Sun is:

```
install_dir  
/ocr/bin/icr_server.sun4 > /tmp/ocr.log &
```

It is automatically placed in the user's */etc/rc.local* file. This command automatically activates the OCR server daemon each time the license server host is booted.

- The OCR server command for the HP is:

`install_dir/ocr/bin/icr_server.hp9s700 &`

It is automatically placed in the user's `/etc/inittab` file. This command automatically activates the OCR server daemon each time the license server host is booted.

- b.** If you type **n**, the OCR server does not start up at system boot time.

10. To complete the script, press **Enter**.

The following message appears:

```
*-----*
*      Software Research, Inc.      *
*      625 Third Street             *
*      San Francisco, CA 94107-1997 *
*              USA                  *
*      Telephone: (415) 957-1441    *
*      Toll Free: (800) 942-SOFT    *
*              FAX: (415) 957-0730  *
*      E-Mail: support@soft.com     *
*-----*
```

As well as installing the OCR server, the `install.stw.reg.ocr` script also adds the following four lines to the `SR` file.

```
capbakX5*ocrServerName: brazil
capbakX5*option*ocrServerName.value: brazil
capbakX5*ocrFontType: standard
capbakX5*option*ocrFontType.value: standard
```

These lines establish `CAPBAK/X` defaults.

3.2.2 Editing the rc.local or inittab File

If you did not use *install.stw.reg.ocr*, you can add the OCR license command to a start-up file, such as */etc/rc.local* for the Sun or the */etc/inittab* for the HP, that gets executed in the background each time a system boots.

If you are on the Sun, the command is:

```
install_dir/ocr/bin/icr_server.sun4 > /tmp/ocr.log &
```

If you are on an HP, the command is:

```
icr::once:install_dir/ocr/bin/icr_server.hp9s700 > /tmp/  
ocr.log 2>&1
```

This command activates the OCR server daemon each time the license server host is booted.

Note: For Solaris 2.x, where */etc/rc.local* does not exist, edit the */etc/rc2.d* directory

3.2.3 Using a UNIX Command

If you did not use *install.stw.reg.ocr* or did not modify the */etc/rc.local* file or the */etc/inittab* file to include the OCR license command, you can start the OCR server and license daemon from the UNIX command line.

When you first install *STW/Regression's* OCR technology, it may be easier to start the OCR server and license daemon from the command line.

If you are on a Sun, the command is:

```
install_dir/ocr/bin/icr_server.sun4 >& /dev/null &
```

If you are on a HP, the command is:

```
install_dir/ocr/bin/icr_server.hp9s700 &
```

If you prefer, you can start the server in a window by itself and display any message there. However, once you are working in production mode, it is recommended that you start the OCR daemon at system boot time which is done with the *install.stw.reg.ocr* script or by manually modifying */etc/rc.local* or the */etc/inittab* file. See Section 3.2.1 on page 49 and Section 3.2.2 on page 56.

Regression, CAPBAK/X: X11 Virtual Display System

This chapter provides installation instructions for the XVirtual Display system used with CAPBAK/X.

4.1 Introduction

The *X11 Virtual Display System* uses a modified version of the X11R5 server called **X11virtual** that acts as a virtual screen server for the virtual display capability. In order for **X11virtual** to work, you must link the *SSR/lib/X11R5* library to your X11R5 library. Linking can be done either manually or with the supplied *install.Xvirtual* script.

Note: The *X11 Virtual Display System* is an optional component. You do not have to follow these instructions if you do not intend to use it.

4.2 Linking Manually

To manually soft link:

1. Type

```
ln -s $SR/lib/X11R5 /usr/X11R5
```

A soft link from the *SSR/lib/X11R5* library to */usr/X11R5* is created.

2. You can modify the path so *X11 Virtual Display System* can be invoked from any directory. Refer to Section 1.8 on page 33 for further information.

4.3 Using the Supplied Script

To run the *install.Xvirtual* script:

1. If you are not already there, change your platform's *SSR* directory.
2. To initiate *install.Xvirtual* type

```
install.Xvirtual
```

When *install.virtual* is initiated, the following message appears:

```
****
****      Installation script for X-Virtual server
****
**** This script installs the X11virtual server for creating
**** virtual
**** displays. It does this by creating a softlink from the
**** X11virtual server in the lib subdirectory to /usr/X11R5.
****
**** This script asks you questions during the installation.
**** Please give the correct response to each question.
****
**** Press RETURN to continue, CTRL-C to abort.
****
```

3. Press **RETURN** to continue or **CTRL-C** to abort.

A soft link from your platform's *SSR/lib/X11R5* library to */usr/X11R5* is created:

```
***** Creating softlink from
***** $SR/lib/X11R5 to /usr/X11R5...
*****

*****
***** The X11virtual server has been soft-linked to /usr/X11R5.
***** You can start using the virtual playback functionality on
***** your machine name.
*****
***** X11virtual server installation completed.
*****
```

If the */usr/X11R5* library already exists, the following message appears:

```
====> /usr/X11R5 already exists, overwrite?
      ['y' or 'n']
```

4. To overwrite the X11R5 library, type **y** .

The soft link is created.

```
*****
***** Creating softlink from
***** $SR/lib/X11R5 to /usr/X11R5...
*****

*****
***** The X11virtual server has been soft-linked to /usr/X11R5.
***** You can start using the virtual playback functionality on
***** your machine name.
*****
***** X11virtual server installation completed.
*****
```

or

To avoid overwriting the library, type **n**.

The soft link is not created and installation is terminated:

```
*****
***** You have chosen not to link the X11virtual server to
***** /usr/X11R5. X11 virtual display may fail if your /usr/
***** X11R5
***** cannot handle the virtual display functionality.
*****
```

5. If you created the soft link, press **Return** to complete the script.

The following message appears:

```
*-----*
*           Software Research, Inc.           *
*           625 Third Street                 *
*           San Francisco, CA 94107-1997     *
*           USA                             *
*           Telephone: (415) 957-1441        *
*           Tool Free: (800) 942-SOFT        *
*           FAX: (415) 957-0730             *
*           E-Mail: support@soft.com         *
*-----*
```

A script named *SRvirtual.setup* is automatically created. When executed, it modifies the *~/.profile* and *~/.cshrc* file to include *X11 Virtual Display System's* executable path.

Troubleshooting

This chapter discusses some general and platform dependent installation problems that you may encounter during the course of your installation and/or subsequent use of *TestWorks*.

5.1 Common TestWorks Installation Questions

1. *I enter stw and get a cannot access license file. Exiting... message.*

The **cannot access license file. Exiting...** message is displayed if the **stw** program is unable to find a valid access file. The file is named *sr.access*, and it must be located in the *SSR/license* directory.

If the normal installation procedure is followed, *license.dat* is placed into the *SSR/license* directory. This file contains access codes for the products purchased for the length of the license.

2. *I run the stw program, but the TestWorks menu doesn't pop up at the upper left corner of the screen..*

The **stw** program and other **TestWorks** graphical user interface (GUI) components read the application resource file (*SR*) at start-up. The **TestWorks** menu's geometry is set to pop up at location +0+0 (upper left corner).

If the **TestWorks** menu pops up elsewhere, it may mean that the *SR* resource file is not in the right location. It must be in */usr/lib/X11/app-defaults* for the X Window System or *\$OPENWINHOME/lib/app-defaults* for OpenWindows 3.0.

If the problem persists even when the *SR* file is placed correctly, type the following for the X Window System and OpenWindows 2.0:

```
xrdb -merge /usr/lib/X11/app-defaults/SR
```

For OpenWindows 3.0, type

```
xrdb -merge /usr/openwin/lib/app-defaults/SR
```

3. *When I type `stw`, I see the following warning messages on my invocation window:*

```
Warning: translation table syntax error: Unknown keysym name:
osfActivate
Warning: ... found while parsing '<Key>osfActivate:      Manager-
GadgetSelect()'
Warning: translation table syntax error: Unknown keysym name:
osfSelect
Warning: ... found while parsing '          <Key>osfSelect:
ManagerGadgetSelect()'
Warning: translation table syntax error: Unknown keysym name:
osfHelp
Warning: ... found while parsing '          <Key>osfHelp:
ManagerGadgetHelp()'
Warning: translation table syntax error: Unknown keysym name:
osfBeginLine
Warning: ... found while parsing '<Key>osfBeginLine:      Manager-
GadgetTraverseHome()'
Warning: translation table syntax error: Unknown keysym name:
osfUp
Warning: ... found while parsing '          <Key>osfUp:      Man-
agerGadgetTraverseUp()'
Warning: translation table syntax error: Unknown keysym name:
osfDown
Warning: ... found while parsing '          <Key>osfDown:      Man-
agerGadgetTraverseDown()'
Warning: translation table syntax error: Unknown keysym name:
osfLeft
Warning: ... found while parsing '          <Key>osfLeft:      Man-
agerGadgetTraverseLeft()'
```

The *XKeysymDB* (key mapping) file is not in the right location. *TestWorks* products expect *XKeysymDB* to be installed in the standard directory (*/usr/lib/X11* for the X Window System or */usr/openwin/lib* for OpenWindows 3.0), unless your window system is not installed in the standard directory.

You can use the *install.stw.reg* or the *install.stw.cov* or the *install.stw.adv* scripts to place it in the proper directory.

4. *My resources are set correctly, but they are not recognized.*

For X application resource entries within the *SR* resource file (especially boolean entries): only a tab forces recognition unlike the normal spaces(s)/tab combination.

```
capbakX5*option*outputSyncSwitch.set:      True
```

or

```
Mwm*clientAutoPlace:      False
```


5. *When I execute `install.stw.*` and I am not running Open Windows, I am prompted with messages referring to nonexistent directories.*

During execution of the installation script, the default environment is set by the `OPENWINHOME` variable. Under X environments, however, the user needs to unset the `OPENWINHOME` variable so that it picks up `/usr/bin/X11` as the correct place for installation of the x-related variables in `/usr/bin/X11`.

6. *I get a ...inconsistent encryption... message.*

This message usually means that there is some invalid field within your `$$SR/license.dat` file, which are described as follows:

- Unwanted carriage return where FEATURE line should wrap
- Incorrect hostid, system date, or typographical error

7. *When typing `stw` or any TestWorks binary executables, I get the following in courier font:*

```
ld.so.1:stw: fatal: libXm.so.3: can't openfile:error = 2
killed
```

- Your system does not have SUN's SDK (Software Development Kit) installed. (If this needs to be installed, check with your systems administrator.)

Confirm the existence/nonexistence of SDK by searching for the `/usr/dt/lib` directory.

- You need to include the necessary motif library path to an existing `LD_LIBRARY_PATH` environment variable or create it.

In csh, use the following:

```
setenv LD_LIBRARY_PATH /usr/dt/lib
```

In bsh/ksh, use the following:

```
LD_LIBRARY_PATH=/usr/dt/lib
```

```
export LD-LIBRARY_PATH
```

8. *I have exercised the required scripts so that my license manager (`SRImgrd`) and/or OCR engine (`icrserver*`) processes can restart upon system reboot, but they do not.*

You may need to make the entries required by your particular system to the `/etc/rc2.d` directory since our provided scripts currently recognize only `/etc/rc.local` and `/etc/inittab`.

9. *I have received extended licensing access keys via a new diskette, e-mail, or fax. What is the best update process?*
- Again, follow steps in Section 1.6 on page 30.
 - Replace your `$$SR/license/license.dat` file's FEATURE lines with your new FEATURE lines and issue the command `lmutil lmread/` from within the `$$SR/license` directory.

Note: If you are working with `$$SR/license/sr.access`, replace with a new one.

Index

Non-alphabetic

\$SR environment variable 33
\$SR/bin path 33
.cshrc file 34
.login file 34
.profile file 34
.xinitrc file 18

A

All Machines option 37

B

bin directory 4
button, Close 38

C

CAPBAK/X
 OCR 47
Close button 38
command
 cd 3
 install.Xvirtual 60
 ln 59
 mkdir 3
 tar 4

D

demos directory 4
directory
 bin 4
 demos 4
 help 4
 install_dir 3
 lib 4
 license 4
 ocr 4
 source 4

E

environment variable
 \$SR 33
Exit option 38

F

file
 .cshrc 34
 .login 34
 .profile 34, 62
 .xinitrc 18
 /.cshrc 62
 inittab 55, 56, 57
 license.dat 24
 rc.local 54, 56
 rgb.txt 14
 xinitrc 18
File pull-down menu 38

H

help directory 4

I

inittab file 55, 56
install.license script 4, 25
install.ocr script 4, 48, 49
install.stw.adv script 5, 7, 11, 16, 20, 64
install.stw.cov script 64
install.stw.cov.lang script 5, 7, 11, 16, 20
install.stw.reg script 5, 7, 11, 16, 20, 64
install.Xvirtual script 5, 60

L

lib directory 4
License option 37
License window 37
license.dat file 24
ln command 59

M**menu**

STW 63

TestWorks 37

mkdir command 3

Motif window manager 22

mwm window manager 22

N

Network File System 47

O

OCR 47

ocr directory 4

OCR font family 50

OCR server host 47

OCR server host name 50

ONC 47

Open Network Computing 47

Optical Character Recognition 47

option

All Machines 37

Exit 38

License 37

This Host 37

P**path**

\$SR/bin 33

pull-down menu

File 38

System 37

R

r rgb.txt file 14

rc.local file 26, 54, 56

removing STW 39

rgitxt file 14

S**script**

install.floating.license 25

install.license 4

install.ocr 4, 48, 49

install.stw.adv 5, 6, 10, 15, 19, 64

install.stw.cov 64

install.stw.cov.lang 5, 6, 10, 15, 19

install.stw.reg 5, 6, 10, 15, 19, 64

install.Xvirtual 5, 60

SRlicense.setup 24, 27

SRuser.setup 6, 10, 13, 15, 18, 19, 22, 33

SRvirtual.setup 62

server

XtestExtension1 13

XTRAP 13, 22

source directory 4

SRlicense.setup script 24, 27

SRuser.setup script 6, 10, 13, 15, 18, 19, 22, 34

SRvirtual.setup script 62

STW menu 63

System pull-down menu 37

T

tar command 4

TestWorks menu 37

text conventions

boldface vii

boldface courier vii

courier vii

double quotation marks vii

italics vii

This Host option 37

W**window**

License 37

X

xinitrc file 18

XtestExtension1 server 13, 22

XTRAP server 13, 22